



The Exontrol's ExGantt component is our approach to create timeline charts (also known as Gantt charts). Gantt chart is a time-phased graphic display of activity durations. Activities are listed with other tabular information on the left side with time intervals over the bars. Activity durations are shown in the form of horizontal bars. The ExGantt component lets the user changes its visual appearance using **skins**, each one providing an additional visual experience that enhances viewing pleasure. Skins are relatively easy to build and put on any part of the control.

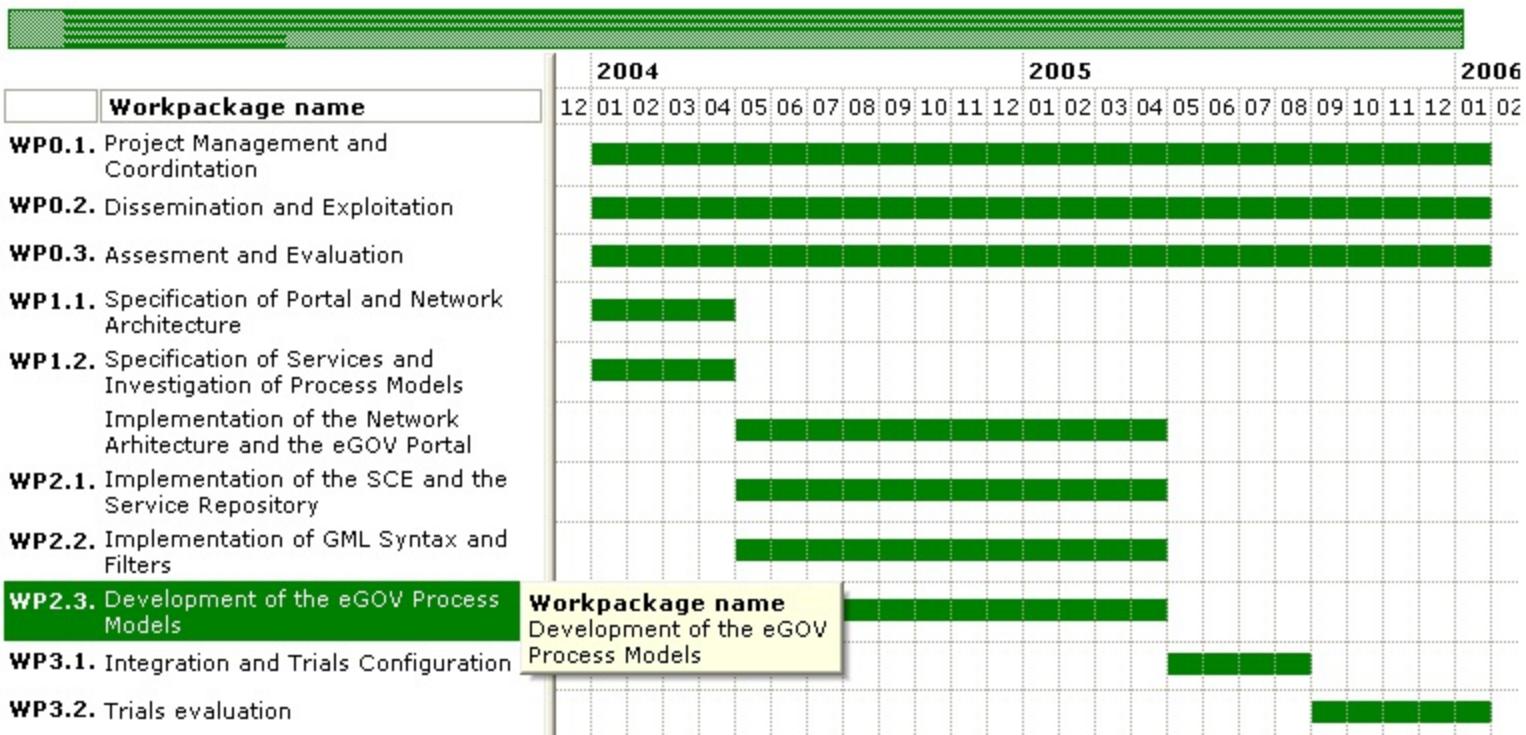
Features include:

- **Print** and Print Preview support
- ADO and DAO support for /COM version
- Ability to specify the control's DataSource/DataMember using DataSets for /NET version.
- **Skinnable Interface** support ( ability to apply a skin to any background part )
- Easy way to define the control's visual appearance in design mode, using XP-Theme elements or EBN objects
- **WYSWYG Template/Layout** Editor support
- Ability to save/load the control's data to/from **XML** documents
- Customizable **Drag and Drop** support:
  - Ability to change the column or row position without having to manually add the OLE drag and drop events
  - Ability to drag and drop the data as *text*, to your favorite Office applications, like Word, Excel, or any other OLE-Automation compliant
  - Ability to drag and drop the data as it *looks*, to your favorite Office applications, like Word, Excel, or any other OLE-Automation compliant
  - Ability to smoothly scroll the control's content moving the mouse cursor up or down, and more...

## Drag and Drop support

- **EMF Format** support ( Ability to save the control's content to Enhanced Metafile (EMF) file, and so to any BMP, JPG, GIF or PNG formats )
- **Hierarchical** view
- Ability to smooth scrolling the control's content while it displays items with different heights
- Ability to specify **multiple levels**, using custom built-in HTML format for each level
- Alternative HTML labels support for best fit in the level's time unit.
- Regional and Language Options support to display dates, times.
- Ability to insert **hyperlinks** anywhere in the cells, bars or links
- **Semi-Transparent** Bars support

- Zoom and Scale support ( including at run-time too )
- **Nonworking Days, Nonworking Hours** support
- Ability to assign multiple bars to a single item
- Predefined bars like task, milestone and so on
- Ability to define your own type of bars using custom shapes and patterns
- Ability to show the **current date-time** using EBN files.
- Ability to define the starting and ending corners from icons.
- **Overview Layout/Map** support.
- **Conditional Format** support.
- **Computed Fields** supports numbers, strings and dates expressions.
- Ability to **format** the cells based on several predefined functions and expressions such as currency, shortdate, longdate ...
- Multiple Locked/Fixed Columns support
- **FilterBar, SortBar** Support
- **Locked/Fixed/Dividers items** support
- **ActiveX hosting** (you can place any ActiveX component in any item of the chart)
- **Multi-lines items** support
- 'starts with' and 'contains' **incremental searching** support
- Merge or Split cells support
- Built-In HTML Tooltip support
- and much more



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## How to get support?

To keep your business applications running, you need support you can count on.

Here are few hints what to do when you're stuck on your programming:

- Check out the samples - they are here to provide some quick info on how things should be done
- Check out the how-to questions using the [eXHelper](#) tool
- Check out the help - includes documentation for each method, property or event
- Check out if you have the latest version, and if you don't have it send an update request [here](#).
- Submit your problem(question) [here](#).

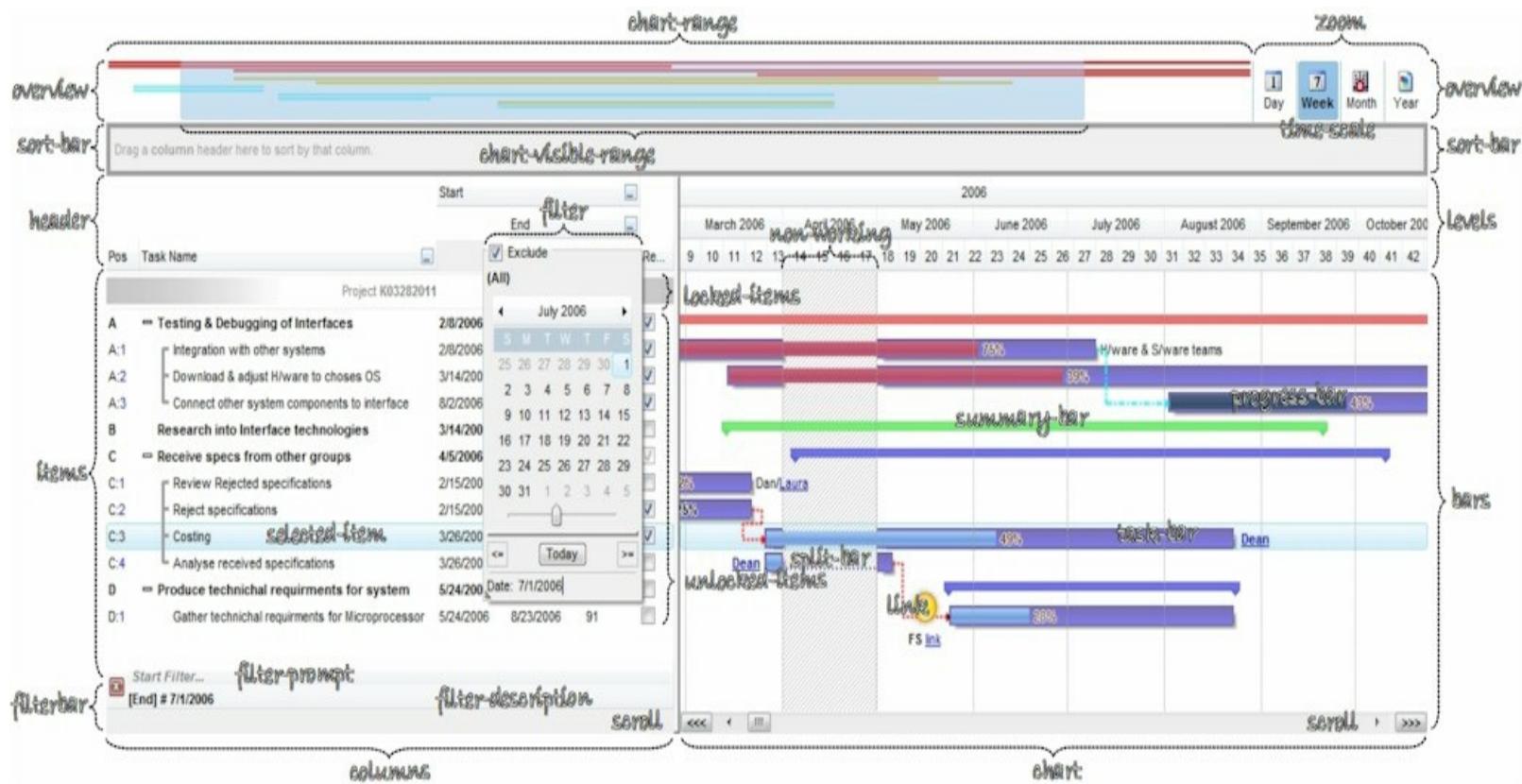
Don't forget that you can contact our development team if you have ideas or requests for new components, by sending us an e-mail at [support@exontrol.com](mailto:support@exontrol.com) ( please include the name of the product in the subject, ex: exgrid ) . We're sure our team of developers will try to find a way to make you happy - and us too, since we helped.

Regards,  
Exontrol Development Team

<https://www.exontrol.com>

# How to start?

The following screen shot, shows a general idea how parts and objects of the control are arranged:



The following steps shows you progressively how to start programming the Exontrol's ExGantt component:

- **Load / Save Data.** The control provides several ways to serialize your data, as listed:
  - [LoadXML](#) / [SaveXML](#) methods, to load / save data using XML format.
  - [DataSource](#) property, to load / update / save data from a table, query, dataset and so on.
  - [GetItems](#) / [PutItems](#) methods, to load / save data from a/to safe array of data.

For instance,

With Gantt1

```
.LoadXML "https://www.exontrol.net/testing.xml"
```

End With

loads control's data from specified URL.

- **Chart.** The control's chart displays tasks based on the time-unit scale, using a multiple-levels header.

- [UnitScale](#) property, determines the base time-unit scale to be displayed on the chart.
- [Label](#) property, indicates the predefined format of the level's label for a specified unit, to be shown on the chart.
- [LevelCount](#) property, specifies the number of levels to be shown on the chart's header.

For instance,

```
With Gantt1
  With .Chart
    .LevelCount = 2
    .UnitScale = exDay
  End With
End With
```

specifies that the chart's header should display two levels, and the base time-unit scale to be day.

- **Bars.** The chart's bars collection holds the types of the bars the chart can display. By default, it includes Task, Milestone, Summary, Project Summary, ...

- [Add](#) method, adds a new type of bar, including a combination of any of already predefined bars to display split or/and progress bars.
- [Copy](#) property, clones an already predefined bar.

For instance,

```
With Gantt1
  .Chart.Bars.Add("Task%Progress").Shortcut = "TProgress"
End With
```

defines a new task bar to display a progress bar inside. See **Item-Bars**, to see how you can add tasks/bars to the control's chart panel.

- **Links.** See **Item-Links**, to see how you can add links between tasks/bars to the

control's chart panel.

- **Columns**. The control supports multiple columns, so always you can add / remove / move / hide any column
  - [Add](#) method, adds a new column.
  - [ExpandColumns](#) property specifies the columns to be shown/hidden when the column is expanded or collapsed.

For instance,

```
With Gantt1
    With .Columns.Add("Check")
        .Position = 0
        .Def(exCellHasCheckBox) = True
    End With
End With
```

adds a new column that displays check-boxes, and that's the first visible column.

- **Items**. Any item can hold a collection of child items. Any item is divided in cells, once cell for each column in the control.
  - [AddItem](#) method, adds a new item.
  - [InsertItem](#) method, inserts a child item
  - [InsertControlItem](#) method, inserts a child item that hosts another control inside.

For instance,

```
With Gantt1
    With .Items
        .AddItem "new item"
    End With
End With
```

adds a new item.

- **Cells**. An item contains a collection of cells, one cell for each column in the control. Any cell can be split or merge with one or more neighbor cells.
  - [CellCaption](#) property, specifies the cell's caption.

For instance,

```
With Gantt1
```

```
    With .Items
```

```
        h = .InsertItem(.FocusItem,"","item 1.1")
        .CellCaption(h,1) = "item 1.2"
        .CellCaption(h,2) = "item 1.3"
        .ExpandItem(.FocusItem) = True
```

```
    End With
```

```
End With
```

adds a new child item of the focused item, and fills the cell's caption for the second and third column.

- **Item-Bars.** Any item can display one or more tasks/bars.

- [AddBar](#) method, adds a new bar of specified type, giving its time interval.
- [BarItem](#) property, updates properties of specified bar, like caption, effort, and so on

For instance,

```
With Gantt1
```

```
    With .Items
```

```
        .AddBar .FocusItem,"Task",#4/1/2006#,#4/14/2006#,"new"
```

```
    End With
```

```
End With
```

adds a new task to the focus item, with the key "new".

- **Item-Links.** Any two-bars of the chart, can be linked.

- [AddLink](#) method, links two bars.
- [Link](#) property, gets access to the link's properties

For instance,

```
With Gantt1
```

```
    With .Items
```

```
        .AddBar .FocusItem,"Task",#4/1/2006#,#4/14/2006#,"A"
        .AddBar .FocusItem,"Task",#4/18/2006#,#4/30/2006#,"B"
        .AddLink "AB",.FocusItem,"A",.FocusItem,"B"
```

```
    End With
```

[End With](#)

adds two linked bars A and B in the same item.

[Send comments on this topic.](#)

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## constants AlignmentEnum

The Column object uses the AlignmentEnum enumeration to align a column. See the [Alignment](#) property of the [Column](#) or any property related to alignments for more details.

Name	Value	Description
LeftAlignment	0	The source is left aligned.
CenterAlignment	1	The source is centered.
RightAlignment	2	The source is right aligned.
exHOutside	16	The caption is displayed outside of the source.

## constants AppearanceEnum

The AppearanceEnum enumeration is used to specify the appearance of the control's header bar. See also the [HeaderAppearance](#) property.

Name	Value	Description
None2	0	No border
Flat	1	Flat border
Sunken	2	Sunken border
Raised	3	Raised border
Etched	4	Etched border
Bump	5	Bump border

## constants AutoDragEnum

The AutoDragEnum type indicates what the control does when the user clicks and start dragging a row or an item. The [AutoDrag](#) property indicates the way the component supports the AutoDrag feature. The AutoDrag feature indicates what the control does when the user clicks an item and start dragging. For instance, using the AutoDrag feature you can automatically lets the user to drag and drop the data to OLE compliant applications like Microsoft Word, Excel and so on. The [SingleSel](#) property specifies whether the control supports single or multiple selection. The drag and drop operation starts once the user clicks and moves the cursor up or down, if the SingleSel property is True, and if SingleSel property is False, the drag and drop starts once the user clicks, and waits for a short period of time. If SingleSel property is False, moving up or down the cursor selects the items by drag and drop.

- The flag that ends on ...**OnShortTouch** indicates the action the control does when the user short touches the screen
- The flag that ends on ...**OnRight** indicates the action the control does when the user right clicks the control.
- The flag that ends on ...**OnLongTouch** indicates the action the control does when the user long touches the screen

The AutoDragEnum type supports the following values:

Name	Value Description
exAutoDragNone	0 AutoDrag is disabled. You can use the <a href="#">OLEDropMode</a> property to handle the OLE Drag and Drop event for your custom action.
exAutoDragPosition	1 The item can be dragged from a position to another, but not outside of its group. If your items are arranged as a flat list, no hierarchy, this option can be used to allow the user change the item's position at runtime by drag and drop. This option does not change the parent of any dragged item. The dragging items could be the focused item or a contiguously selection. Click the selection and moves the cursor up or down, so the position of the dragging items is changed. The draggable collection is a collection of sortable items between 2 non-sortable items ( <a href="#">SortableItem</a> property ). The drag and drop operation can not start on a non-sortable or non-selectable item ( <a href="#">SelectableItem</a> property ). In other words, you can specify a range where an item can be dragged using the SortableItem

property. Just set the SortableItem property on False, for margins, and so the items can be dragged between these items only.

exAutoDragPositionKeepIndent

The item can be dragged to any position or to any parent, while the dragging object keeps its indentation. This option can be used to allow the user change the item's position at runtime by drag and drop. In the same time, the parent's item could be changed but keeping the item's indentation. The dragging items could be the focused item or a contiguously selection. Click the selection and moves the cursor up or down, so the position or parent of the dragging items is changed. The drag and drop operation can not start on a non-sortable or non-selectable item ( [SelectableItem](#) property ). In other words, you can specify a range where an item can be dragged using the SortableItem property. Just set the SortableItem property on False, for margins, and so the items can be dragged between these items only.

exAutoDragPositionAny

3

The item can be dragged to any position or to any parent, with no restriction. The dragging items could be the focused item or a contiguously selection. The parent of the dragging items could change with no restrictions, based on the position of the dragging item. Click the selection and moves the cursor up or down, so the position or parent of the dragging items is changed. Click the selection and moves the cursor left or right, so the item's indentation is decreased or increased. The drag and drop operation can not start on a non-sortable or non-selectable item ( [SelectableItem](#) property ). In other words, you can specify a range where an item can be dragged using the SortableItem property. Just set the SortableItem property on False, for margins, and so the items can be dragged between these items only.

Click here  to watch a movie on how exAutoDragCopyText works.

Drag and drop the selected items to a target

exAutoDragCopy	8	application, and paste them as image or text. Pasting the data to the target application depends on the application. You can use the exAutoDragCopyText to specify that you want to paste as Text, or exAutoDragCopyImage as an image.
exAutoDragCopyText	9	Drag and drop the selected items to a target application, and paste them as text only. Ability to drag and drop the data as text, to your favorite Office applications, like Word, Excel, or any other OLE-Automation compliant. The drag and drop operation can start anywhere  Click here  to watch a movie on how exAutoDragCopyText works.
exAutoDragCopyImage	10	Drag and drop the selected items to a target application, and paste them as image only. Ability to drag and drop the data as it looks, to your favorite Office applications, like Word, Excel, or any other OLE-Automation compliant. The drag and drop operation can start anywhere  Click here  to watch a movie on how exAutoDragCopyImage works.
exAutoDragCopySnapShot	11	Drag and drop a snap shot of the current component. This option could be used to drag and drop the current snap shot of the control to your favorite Office applications, like Word, Excel, or any other OLE-Automation compliant.
exAutoDragScroll	16	The component is scrolled by clicking the item and dragging to a new position. This option can be used to allow user scroll the control's content with NO usage of the scroll bar, like on your IPhone. Ability to smoothly scroll the control's content. The feature is useful for touch screens or tables pc, so no need to click the scroll bar in order to scroll the control's content. Use the <a href="#">ScrollBySingleLine</a> property on False, to allow scrolling pixel by pixel when user clicks the up or down buttons on the vertical scroll bar.

Click here  to watch a movie on how exAutoDragScroll works.

exAutoDragPositionOnShortTo256	718	The object can be dragged from a position to another, but not outside of its group.
exAutoDragPositionKeepIndent502	502	The object can be dragged to any position or to any parent, while the dragging object keeps its indentation.
exAutoDragPositionAnyOnShortTouch718	718	The object can be dragged to any position or to any parent, with no restriction.
exAutoDragCopyOnShortTouch2048	2048	Drag and drop the selected objects to a target application, and paste them as image or text.
exAutoDragCopyTextOnShortTouch10304	10304	Drag and drop the selected objects to a target application, and paste them as text only.
exAutoDragCopyImageOnShortTouch2560ch	2560ch	Drag and drop the selected objects to a target application, and paste them as image only.
exAutoDragCopySnapShotOnShortTouch2816	2816	Drag and drop a snap shot of the current component.
exAutoDragScrollOnShortTouch4096	4096	The component is scrolled by clicking the object and dragging to a new position.
exAutoDragPositionOnRight 65536	65536	The object can be dragged from a position to another, but not outside of its group.
exAutoDragPositionKeepIndent101072	101072	The object can be dragged to any position or to any parent, while the dragging object keeps its indentation.
exAutoDragPositionAnyOnRight196608	196608	The object can be dragged to any position or to any parent, with no restriction.
exAutoDragCopyOnRight 524288	524288	Drag and drop the selected objects to a target application, and paste them as image or text.
exAutoDragCopyTextOnRight 589824	589824	Drag and drop the selected objects to a target application, and paste them as text only.
exAutoDragCopyImageOnRight655360	655360	Drag and drop the selected objects to a target application, and paste them as image only.
exAutoDragCopySnapShotOnRight20896	20896	Drag and drop a snap shot of the current component.
exAutoDragScrollOnRight 1048576	1048576	The component is scrolled by clicking the object and dragging to a new position.

exAutoDragPositionOnLongTouch	16777216	The object can be dragged from a position to another, but not outside of its group.
exAutoDragPositionKeepIndent	13554427	The object can be dragged to any position or to any parent, while the dragging object keeps its indentation.
exAutoDragPositionAnyOnLongTouch	570331648	The object can be dragged to any position or to any parent, with no restriction.
exAutoDragCopyOnLongTouch	134217728	Drag and drop the selected objects to a target application, and paste them as image or text.
exAutoDragCopyTextOnLongTouch	150994944	Drag and drop the selected objects to a target application, and paste them as text only.
exAutoDragCopyImageOnLongTouch	17772160	Drag and drop the selected objects to a target application, and paste them as image only.
exAutoDragCopySnapShotOnLongTouch	1845740160	Drag and drop a snap shot of the current component.
exAutoDragScrollOnLongTouch	268435456	The component is scrolled by clicking the object and dragging to a new position.

## constants AutoSearchEnum

Specifies the kind of searching while user types characters within a column. Use the [AutoSearch](#) property to allow 'start with' incremental search or 'contains' incremental search feature in the control.

Name	Value Description
exStartWith	0 Defines the 'starts with' incremental search within the column. If the user type characters within the column the control looks for items that start with the typed characters.
exContains	1 Defines the 'contains' incremental search within the column. If the user type characters within the column the control looks for items that contain the typed characters.

## constants BackgroundPartEnum

The BackgroundPartEnum type indicates parts in the control. Use the [Background](#) property to specify a background color or a visual appearance for specific parts in the control. A Color expression that indicates the background color for a specified part. The last 7 bits in the high significant byte of the color to indicates the identifier of the skin being used. Use the [Add](#) method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.

If you refer a part of the scroll bar please notice the following:

- All BackgroundPartEnum expressions that starts with **exVS** changes a part in a vertical scroll bar
- All BackgroundPartEnum expressions that starts with **exHS** changes a part in the horizontal scroll bar
- Any BackgroundPartEnum expression that ends with **P** ( and starts with exVS or exHS ) specifies a part of the scrollbar when it is pressed.
- Any BackgroundPartEnum expression that ends with **D** ( and starts with exVS or exHS ) specifies a part of the scrollbar when it is disabled.
- Any BackgroundPartEnum expression that ends with **H** ( and starts with exVS or exHS ) specifies a part of the scrollbar when the cursor hovers it.
- Any BackgroundPartEnum expression that ends with no **H**, **P** or **D** ( and starts with exVS or exHS ) specifies a part of the scrollbar on normal state.

Name	Value	Description
exHeaderFilterBarButton	0	Specifies the background color for the drop down filter bar button. Use the <a href="#">DisplayFilterButton</a> property to specify whether the drop down filter bar button is visible or hidden.
exFooterFilterBarButton	1	Specifies the background color for the closing button in the filter bar. Use the <a href="#">ClearFilter</a> method to remove the filter from the control.
exCellButtonUp	2	Specifies the background color for the cell's button, when it is up. Use the <a href="#">CellHasButton</a> property to assign a button to a cell.
exCellButtonDown	3	Specifies the background color for the cell's button, when it is down. Use the <a href="#">CellHasButton</a> property to assign a button to a cell.
exDateHeader	8	Specifies the visual appearance for the header in a calendar control.

exDateTodayUp	9	Specifies the visual appearance for the today button in a calendar control, when it is up.
exDateTodayDown	10	Specifies the visual appearance for the today button in a calendar control, when it is down.
exDateScrollThumb	11	Specifies the visual appearance for the scrolling thumb in a calendar control.
exDateScrollRange	12	Specifies the visual appearance for the scrolling range in a calendar control.
exDateSeparatorBar	13	Specifies the visual appearance for the separator bar in a calendar control.
exDateSelect	14	Specifies the visual appearance for the selected date in a calendar control.
exSplitBar	15	Specifies the visual appearance for control's split bar. The split bar splits the control and chart area.
exSelBackColorFilter	20	Specifies the visual appearance for the selection in the drop down filter window. The drop down filter window shows up when the user clicks the filter button in the column's header. Use the <a href="#">DisplayFilterButton</a> property to specify whether the drop down filter bar button is visible or hidden.
exSelForeColorFilter	21	Specifies the foreground color for the selection in the drop down filter window.
exBackColorFilter	26	Specifies the background color for the drop down filter window. If not specified, the <a href="#">BackColorHeader</a> property specifies the drop down filter's background color. Use the exSelBackColorFilter option to specify the selection background visual appearance in the drop down filter window.
exForeColorFilter	27	Specifies the foreground color for the drop down filter window. If not specified, the <a href="#">ForeColorHeader</a> property specifies the drop down filter's foreground color. Use the exSelForeColorFilter option to specify the selection foreground color in the drop down filter window.
exSortBarLinkColor	28	Indicates the color or the visual appearance of the links between columns in the control's sort bar.
		Specifies the visual appearance for the column when the cursor hovers the column. By default, the exCursorHoverColumn property is zero, and it has

exCursorHoverColumn	32	no effect, so the visual appearance for the column is not changed when the cursor hovers the header.
exDragDropBefore	33	Specifies the visual appearance for the drag and drop cursor before showing the items. This option can be used to apply a background to the dragging items, before painting the items.
exDragDropAfter	34	Specifies the visual appearance for the drag and drop cursor after showing the items. This option can be used to apply a semi-transparent/opaque background to the dragging items, after painting the items. If the exDragDropAfter option is set on white ( 0x00FFFFFF ), the image is not showing on OLE Drag and drop.
exDragDropListTop	35	<i>Specifies the graphic feedback of the item from the drag and drop cursor if the cursor is in the top half of the row. Please note, that if a visual effect is specified for exDragDropListOver AND exDragDropListBetween states, and a visual effect is specified for exDragDropListTop OR/AND exDragDropListBottom state(s), the exDragDropListTop visual effect is displayed ONLY if the cursor is over the first visible item, and the exDragDropListBottom visual effect is shown ONLY for the last visible item. Use the <a href="#">ItemFromPoint</a> property to retrieve the hit test code for the part from the cursor. This option can be changed during the OLEDragOver event to change the visual effect for the item from the cursor at runtime.</i>
exDragDropListBottom	36	<i>Specifies the graphic feedback of the item from the drag and drop cursor if the cursor is in the bottom half of the row. Please note, that if a visual effect is specified for exDragDropListOver AND exDragDropListBetween states, and a visual effect is specified for exDragDropListTop OR/AND exDragDropListBottom state(s), the exDragDropListTop visual effect is displayed ONLY if the cursor is over the first visible item, and the exDragDropListBottom visual effect is shown ONLY for the last visible item. Use the <a href="#">ItemFromPoint</a></i>

*property to retrieve the hit test code for the part from the cursor. This option can be changed during the OLEDragOver event to change the visual effect for the item from the cursor at runtime.*

exDragDropForeColor	37	Specifies the foreground color for the items being dragged. By default, the foreground color is black.
exDragDropListOver	38	<i>Specifies the graphic feedback of the item from the cursor if it is over the item. Please note, that if a visual effect is specified for exDragDropListOver AND exDragDropListBetween states, and a visual effect is specified for exDragDropListTop OR/AND exDragDropListBottom state(s), the exDragDropListTop visual effect is displayed ONLY if the cursor is over the first visible item, and the exDragDropListBottom visual effect is shown ONLY for the last visible item. Use the <a href="#">ItemFromPoint</a> property to retrieve the hit test code for the part from the cursor.</i>
exDragDropListBetween	39	<i>Specifies the graphic feedback of the item when the drag and drop cursor is between items. Please note, that if a visual effect is specified for exDragDropListOver AND exDragDropListBetween states, and a visual effect is specified for exDragDropListTop OR/AND exDragDropListBottom state(s), the exDragDropListTop visual effect is displayed ONLY if the cursor is over the first visible item, and the exDragDropListBottom visual effect is shown ONLY for the last visible item. Use the <a href="#">ItemFromPoint</a> property to retrieve the hit test code for the part from the cursor. This option can be changed during the OLEDragOver event to change the visual effect for the item from the cursor at runtime.</i>
		Specifies the alignment of the drag and drop image relative to the cursor. By default, the exDragDropAlign option is 0, which initially the drag and drop image is shown centered relative to the position of the cursor.

The valid values are listed as follows (hexa

representation):

exDragDropAlign	40	<ul style="list-style-type: none"><li>• 0x00000000, (default), the drag and drop image is shown centered relative to the cursor, and shows up.</li><li>• 0x01000000, (left), the drag and drop image is shown to the left of the cursor.</li><li>• 0x02000000, (right), the drag and drop image is shown to the right of the cursor.</li><li>• 0x04000000, (center-down), the drag and drop image is shown centered relative to the cursor, and shows down.</li><li>• 0xFF000000, (as-is), the drag and drop image is shown as it is clicked.</li></ul>
exHeaderFilterBarActive	41	exHeaderFilterBarActive. Specifies the visual appearance of the drop down filter bar button, while filter is applied to the column.
exToolTipAppearance	64	Indicates the visual appearance of the borders of the tooltips. Use the <a href="#">ToolTipPopDelay</a> property specifies the period in ms of time the ToolTip remains visible if the mouse pointer is stationary within a control. The <a href="#">ToolTipDelay</a> property specifies the time in ms that passes before the ToolTip appears. Use the <a href="#">CellToolTip</a> property to specify the cell's tooltip. Use the <a href="#">ToolTipWidth</a> property to specify the width of the tooltip window. Use the <a href="#">ItemBar(,exBarToolTip)</a> property to specify a tooltip for a bar. Use the <a href="#">Link(,exLinkToolTip)</a> property to specify the tooltip to be shown when the cursor hovers the link. Use the <a href="#">ShowToolTip</a> method to display a custom tooltip
exToolTipBackColor	65	Specifies the tooltip's background color.
exToolTipForeColor	66	Specifies the tooltip's foreground color.
exColumnsFloatBackColor	87	Specifies the background color for the Columns float bar.
exColumnsFloatScrollBackColor	88	Specifies the background color for the scroll bars in the Columns float bar.
exColumnsFloatScrollPressBackColor	89	Specifies the background color for the scroll bars in the Columns float bar, while the scroll part is pressed.

exColumnsFloatScrollUp	90	Specifies the visual appearance of the up scroll bar.
exColumnsFloatScrollDown	91	Specifies the visual appearance of the down scroll bar.
exColumnsFloatAppearance	92	Specifies the visual appearance for the frame/borders of the Column's float bar
exColumnsFloatCaptionBackColor	93	Specifies the visual appearance for caption, if the Background(exColumnsFloatAppearance) property is specified.
exColumnsFloatCaptionForeColor	94	Specifies the foreground color for the caption, if the Background(exColumnsFloatAppearance) property is specified.
exColumnsFloatCloseButton	95	Specifies the visual appearance for the closing button, if the Background(exColumnsFloatAppearance) property is specified.
exListOLEDropPosition	96	<p>By default, the exListOLEDropPosition is 0, which means no effect. Specifies the visual appearance of the dropping position over the list part of the control, when it is implied in a OLE Drag and Drop operation. The exListOLEDropPosition has effect only if different than 0, and the <a href="#">OLEDropMode</a> property is not exOLEDropNone. For instance, set the Background(exListOLEDropPosition) property on RGB(0,0,255), and a blue line is shown at the item where the cursor is hover the list part of the control, during an OLE Drag and Drop position. The <a href="#">OLEDragDrop</a> event notifies your application once an object is drop in the control.</p>
exChartOLEDropPosition	97	<p>By default, the exChartOLEDropPosition is 0, which means no effect. Specifies the visual appearance of the dropping position over the chart part of the control, when it is implied in a OLE Drag and Drop operation. The exChartOLEDropPosition has effect only if different than 0, and the <a href="#">OLEDropMode</a> property is not exOLEDropNone. For instance, set the Background(exChartOLEDropPosition) property on RGB(0,0,255), and a blue line is shown at the date-time position where the cursor is hover the chart part of the control, during an OLE Drag and Drop position. The <a href="#">OLEDragDrop</a> event notifies</p>

your application once an object is drop in the control.

exCursorHoverCellButton	157	Specifies the visual appearance for the cell's button when the cursor hovers it.
exSelBackColorHide	166	Specifies the selection's background color, when the control has no focus.
exSelForeColorHide	167	Specifies the selection's foreground color, when the control has no focus.
exTreeGlyphOpen	180	Specifies the visual appearance for the +/- buttons when it is collapsed.
exTreeGlyphClose	181	Specifies the visual appearance for the +/- buttons when it is expanded.
exColumnsPositionSign	182	Specifies the visual appearance for the position sign between columns, when the user changes the position of the column by drag an drop.
exTreeLinesColor	186	exTreeLinesColor. Specifies the color to show the tree-lines (connecting lines from the parent to the children)
exVSUp	256	The up button in normal state.
exVSUpP	257	The up button when it is pressed.
exVSUpD	258	The up button when it is disabled.
exVSUpH	259	The up button when the cursor hovers it.
exVSThumb	260	The thumb part (exThumbPart) in normal state.
exVSThumbP	261	The thumb part (exThumbPart) when it is pressed.
exVSThumbD	262	The thumb part (exThumbPart) when it is disabled.
exVSThumbH	263	The thumb part (exThumbPart) when cursor hovers it.
exVSDown	264	The down button in normal state.
exVSDownP	265	The down button when it is pressed.
exVSDownD	266	The down button when it is disabled.
exVSDownH	267	The down button when the cursor hovers it.
exVSLower	268	The lower part ( exLowerBackPart ) in normal state.
exVSLowerP	269	The lower part ( exLowerBackPart ) when it is

pressed.

exVSLowerD	270	The lower part ( exLowerBackPart ) when it is disabled.
exVSLowerH	271	The lower part ( exLowerBackPart ) when the cursor hovers it.
exVSUpper	272	The upper part ( exUpperBackPart ) in normal state.
exVSUpperP	273	The upper part ( exUpperBackPart ) when it is pressed.
exVSUpperD	274	The upper part ( exUpperBackPart ) when it is disabled.
exVSUpperH	275	The upper part ( exUpperBackPart ) when the cursor hovers it.
exVSBack	276	The background part ( exLowerBackPart and exUpperBackPart ) in normal state.
exVSBackP	277	The background part ( exLowerBackPart and exUpperBackPart ) when it is pressed.
exVSBackD	278	The background part ( exLowerBackPart and exUpperBackPart ) when it is disabled.
exVSBackH	279	The background part ( exLowerBackPart and exUpperBackPart ) when the cursor hovers it.
exHSLeft	384	The left button in normal state.
exHSLeftP	385	The left button when it is pressed.
exHSLeftD	386	The left button when it is disabled.
exHSLeftH	387	The left button when the cursor hovers it.
exHSThumb	388	The thumb part (exThumbPart) in normal state.
exHSThumbP	389	The thumb part (exThumbPart) when it is pressed.
exHSThumbD	390	The thumb part (exThumbPart) when it is disabled.
exHSThumbH	391	The thumb part (exThumbPart) when the cursor hovers it.
exHSRight	392	The right button in normal state.
exHSRightP	393	The right button when it is pressed.
exHSRightD	394	The right button when it is disabled.
exHSRightH	395	The right button when the cursor hovers it.

exHSLower	396	The lower part (exLowerBackPart) in normal state.
exHSLowerP	397	The lower part (exLowerBackPart) when it is pressed.
exHSLowerD	398	The lower part (exLowerBackPart) when it is disabled.
exHSLowerH	399	The lower part (exLowerBackPart) when the cursor hovers it.
exHSUpper	400	The upper part (exUpperBackPart) in normal state.
exHSUpperP	401	The upper part (exUpperBackPart) when it is pressed.
exHSUpperD	402	The upper part (exUpperBackPart) when it is disabled.
exHSUpperH	403	The upper part (exUpperBackPart) when the cursor hovers it.
exHSBack	404	The background part (exLowerBackPart and exUpperBackPart) in normal state.
exHSBackP	405	The background part (exLowerBackPart and exUpperBackPart) when it is pressed.
exHSBackD	406	The background part (exLowerBackPart and exUpperBackPart) when it is disabled.
exHSBackH	407	The background part (exLowerBackPart and exUpperBackPart) when the cursor hovers it.
exSBtn	324	All button parts ( L1-L5, LButton, exThumbPart, RButton, R1-R6 ), in normal state.
exSBtnP	325	All button parts ( L1-L5, LButton, exThumbPart, RButton, R1-R6 ), when it is pressed.
exSBtnD	326	All button parts ( L1-L5, LButton, exThumbPart, RButton, R1-R6 ), when it is disabled.
exSBtnH	327	All button parts ( L1-L5, LButton, exThumbPart, RButton, R1-R6 ), when the cursor hovers it .
exScrollHoverAll	500	Enables or disables the hover-all feature. By default (Background(exScrollHoverAll) = 0), the left/top, right/bottom and thumb parts of the control's scrollbars are displayed in hover state while the cursor hovers any part of the scroll bar (hover-all feature). The hover-all feature is available on Windows 11 or greater, if only left/top, right/bottom,

thumb, lower and upper-background parts of the scrollbar are visible, no custom visual-appearance is applied to any visible part. The hover-all feature is always on If `Background(exScrollHoverAll) = -1`. The `Background(exScrollHoverAll) = 1` disables the hover-all feature.

exVSThumbExt	503	exVSThumbExt. The thumb-extension part in normal state.
exVSThumbExtP	504	exVSThumbExtP. The thumb-extension part when it is pressed.
exVSThumbExtD	505	exVSThumbExtD. The thumb-extension part when it is disabled.
exVSThumbExtH	506	exVSThumbExtH. The thumb-extension when the cursor hovers it.
exHSThumbExt	507	exHSThumbExt. The thumb-extension in normal state.
exHSThumbExtP	508	exHSThumbExtP. The thumb-extension when it is pressed.
exHSThumbExtD	509	exHSThumbExtD. The thumb-extension when it is disabled.
exHSThumbExtH	510	exHSThumbExtH. The thumb-extension when the cursor hovers it.
exScrollSizeGrip	511	Specifies the visual appearance of the control's size grip when both scrollbars are shown.

## constants BackModeEnum

Specifies how the control displays the selection.

Name	Value	Description
exOpaque	0	The selection is opaque.
exTransparent	1	The selection is transparent.
exGrid	2	The control paints a grid selection.

## constants CaptionFormatEnum

The CaptionFormatEnum type defines how the cell's caption is painted.

Name	Value Description
exText	<p>0      No HTML tags are painted.</p> <p>The control uses built-in HTML tags to display the caption using HTML format. The control supports the following HTML tags:</p> <ul style="list-style-type: none"><li>• <b>&lt;b&gt; ... &lt;/b&gt;</b> displays the text in <b>bold</b></li><li>• <i>&lt;i&gt; ... &lt;/i&gt;</i> displays the text in <i>italics</i></li><li>• <u>&lt;u&gt; ... &lt;/u&gt;</u> <u>underlines</u> the text</li><li>• <del>&lt;s&gt; ... &lt;/s&gt;</del> Strike-through text</li><li>• <b>&lt;a id;options&gt; ... &lt;/a&gt;</b> displays an <a href="#">anchor</a> element that can be clicked. An anchor is a piece of text or some other object (for example an image) which marks the beginning and/or the end of a hypertext link. The <a href="#">element</a> is used to mark that piece of text (or inline image), and to give its hypertextual relationship to other documents. The control fires the <i>AnchorClick(AnchorID, Options)</i> event when the user clicks the anchor element. The <i>FormatAnchor</i> property customizes the visual effect for anchor elements.</li></ul> <p>The control supports expandable HTML captions feature which allows you to expand(show)/collapse(hide) different information using <a href="#">;exp=&gt;</a> or <a href="#">;e64=&gt;</a> anchor tags. The exp/e64 field of the anchor stores the HTML line/lines to show once the user clicks/collapses/expands the caption.</p> <ul style="list-style-type: none"><li>◦ exp, stores the plain text to be shown once the user clicks the anchor, such as "<a href="#">;exp=show lines&gt;</a>"</li><li>◦ e64, encodes in BASE64 the HTML text to be shown once the user clicks the anchor, such as "<a href="#">;e64=gA8ABmABnABjABvABshIAQAEAA&lt;/a&gt;</a>" that displays show lines- in gray</li></ul>

when the user clicks the + anchor. The "gA8ABmABnABjABvABshIAQAEAAHAA" string encodes the "<fgcolor>808080>show lines<a>-</a></fgcolor>" The Decode64Text/Encode64Text methods of the eXPrint can be used to decode/encode e64 fields.

Any ex-HTML caption can be transformed to an expandable-caption, by inserting the anchor ex-HTML tag. For instance, "<solidline><b>Header</b></solidline><br>Line1<r><a ;exp=show lines>+</a><br>Line2<br>Line3" shows the Header in underlined and bold on the first line and Line1, Line2, Line3 on the rest. The "show lines" is shown instead of Line1, Line2, Line3 once the user clicks the + sign.

- **<font face;size> ... </font>** displays portions of text with a different font and/or different size. For instance, the "<font Tahoma;12>bit</font>" draws the bit text using the Tahoma font, on size 12 pt. If the name of the font is missing, and instead size is present, the current font is used with a different size. For instance, "<font ;12>bit</font>" displays the bit text using the current font, but with a different size.
- **<fgcolor rrggb> ... </fgcolor>** or **<fgcolor=rrggbb> ... </fgcolor>** displays text with a specified **foreground** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<bgcolor rrggb> ... </bgcolor>** or **<bgcolor=rrggbb> ... </bgcolor>** displays text with a specified **background** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<solidline rrggb> ... </solidline>** or **<solidline=rrggbb> ... </solidline>** draws a solid-line on the bottom side of the current text-line, of specified RGB color. The <solidline> ... </solidline> draws a black solid-line on the

- bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<dotline rrggbb> ... </dotline>** or **<dotline=rrggbb> ... </dotline>** draws a dot-line on the bottom side of the current text-line, of specified RGB color. The **<dotline> ... </dotline>** draws a black dot-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
  - **<upline> ... </upline>** draws the line on the top side of the current text-line (requires **<solidline>** or **<dotline>**).
  - **<r>** right aligns the text
  - **<c>** centers the text
  - **<br>** forces a line-break
  - **<img>number[:width]</img>** inserts an icon inside the text. The number indicates the index of the icon being inserted. Use the **Images** method to assign a list of icons to your chart. The last 7 bits in the high significant byte of the number expression indicates the identifier of the skin being used to paint the object. Use the [Add](#) method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part. The width is optional and indicates the width of the icon being inserted. Using the width option you can overwrite multiple icons getting a nice effect. By default, if the width field is missing, the width is 18 pixels.
  - **<img>key[:width]</img>** inserts a custom size picture into the text being previously loaded using the **HTMLPicture** property. The Key parameter indicates the key of the picture being displayed. The Width parameter indicates a custom size, if you require to stretch the picture, else the original size of the picture is used.
  - & glyph characters as **&amp;** ( & ), **&lt;** ( < ),

&gt; ( > ), &qout; ( " ) and &#number; ( the character with specified code ), For instance, the &#8364; displays the EUR character. The & ampersand is only recognized as markup when it is followed by a known letter or a #character and a digit. For instance if you want to display <b>bold</b> in HTML caption you can use &lt;b&gt;bold&lt;/b&gt;

- **<off offset> ... </off>** defines the vertical offset to display the text/element. The offset parameter defines the offset to display the element. This tag is inheritable, so the offset is keep while the associated </off> tag is found. You can use the <off offset> HTML tag in combination with the <font face;size> to define a smaller or a larger font to be displayed. For instance: "Text with <font ;7><off 6>subscript" displays the text such as: Text with subscript The "Text with <font ;7><off -6>superscript" displays the text such as: Text with superscript
- **<gra rggbb;mode;blend> ... </gra>** defines a gradient text. The text color or <fgcolor> defines the starting gradient color, while the rr/gg/bb represents the red/green/blue values of the ending color, 808080 if missing as gray. The mode is a value between 0 and 4, 1 if missing, and blend could be 0 or 1, 0 if missing. The <font> HTML tag can be used to define the height of the font. Any of the rggbb, mode or blend field may not be specified. The <gra> with no fields, shows a vertical gradient color from the current text color to gray (808080). For instance the "<font ;18><gra FFFFFF;1;1>gradient-center</gra></font>" generates the following picture:



- **<out rggbb;width> ... </out>** shows the text with outlined characters, where rr/gg/bb represents the red/green/blue values of the outline color, 808080 if missing as gray, width indicates the size of the outline, 1 if missing.

The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><out 000000><fgcolor=FFFFFF>outlined</fgcolor></out></font>" generates the following picture:

The word "outlined" is displayed in a bold, black, sans-serif font. It has a subtle shadow effect, appearing slightly darker and more blurred at the edges, giving it a three-dimensional appearance.

- <sha rrggbb;width;offset> ... </sha> define a text with a shadow, where rr/gg/bb represents the red/green/blue values of the shadow color, 808080 if missing as gray, width indicates the size of shadow, 4 if missing, and offset indicates the offset from the origin to display the text's shadow, 2 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><sha>shadow</sha></font>" generates the following picture:

The word "shadow" is displayed in a bold, black, sans-serif font. It has a subtle shadow effect, appearing slightly darker and more blurred at the edges, giving it a three-dimensional appearance.

or "<font ;31><sha 404040;5;0><fgcolor=FFFFFF>outline anti-aliasing</fgcolor></sha></font>" gets:

The words "outline anti-aliasing" are displayed in a bold, black, sans-serif font. They have a subtle shadow effect, appearing slightly darker and more blurred at the edges, giving them a three-dimensional appearance.

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exComputedField

2

Indicates a computed field. The [CellCaption](#) or the [ComputedField](#) property indicates the formula to compute the field.

## constants CellSingleLineEnum

The CellSingleLineEnum type defines whether the cell's caption is displayed on a single or multiple lines. The [CellSingleLine](#) property retrieves or sets a value indicating whether the cell is displayed using one line, or more than one line. The [Def\(exCellSingleLine\)](#) property specifies that all cells in the column display their content using multiple lines. The CellSingleLineEnum type supports the following values:

Name	Value Description
exCaptionSingleLine	-1 Indicates that the cell's caption is displayed on a single line. In this case any <code>\r\n</code> or <code>&lt;br&gt;</code> HTML tags is ignored. For instance the "This is the first line.\r\nThis is the second line.\r\nThis is the third line." shows as:  <div style="border: 1px solid black; padding: 5px; display: inline-block;">This is the fir...</div>
exCaptionWordWrap	0 Specifies that the cell's caption is displayed on multiple lines, by wrapping the words. Any <code>\r\n</code> or <code>&lt;br&gt;</code> HTML tag breaks the line. For instance the "This is the first line.\r\nThis is the second line.\r\nThis is the third line." shows as:  <div style="border: 1px solid black; padding: 5px; display: inline-block;">This is the first line. This is the second line. This is the third line.</div>
exCaptionBreakWrap	1 Specifies that the cell's caption is displayed on multiple lines, by wrapping the breaks only. Only The <code>\r\n</code> or <code>&lt;br&gt;</code> HTML tag breaks the line. For instance the "This is the first line.\r\nThis is the second line.\r\nThis is the third line." shows as:  <div style="border: 1px solid black; padding: 5px; display: inline-block;">This is the fir... This is the se... This is the thi...</div>

## constants CheckStateEnum

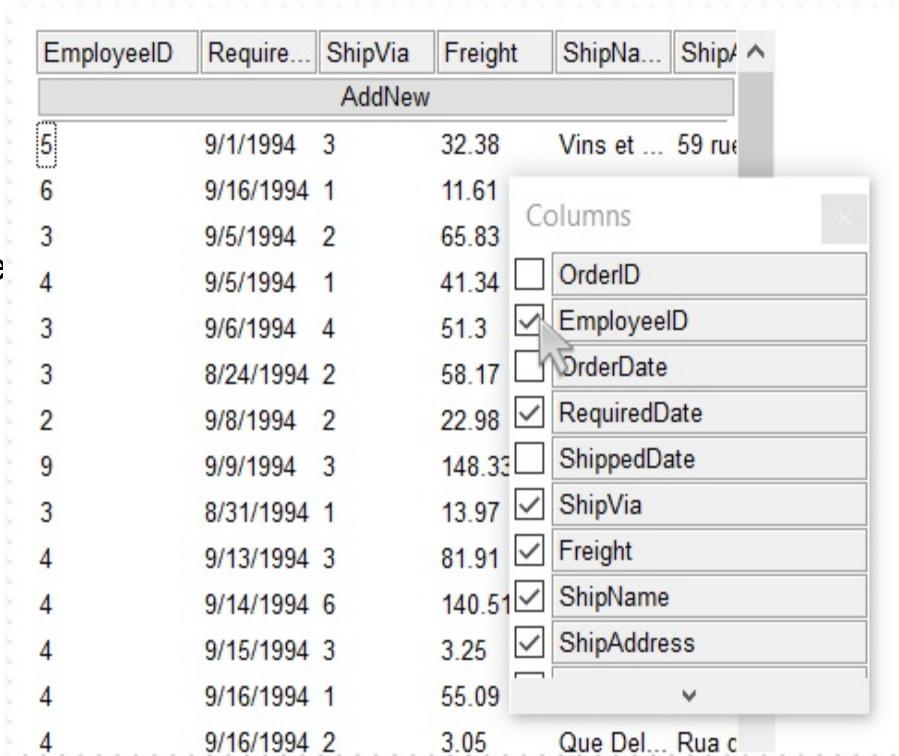
Specifies the states for a checkbox in the control.

Name	Value	Description
Unchecked	0	Specifies whether the cell is unchecked.
Checked	1	Specifies whether the cell is checked.
PartialChecked	2	Specifies whether the cell is partial-checked..

## **constants ColumnsFloatBarVisibleEnum**

The `ColumnsFloatBarVisibleEnum` type specifies whether the control's `Columns` float-bar is visible or hidden. The `ColumnsFloatBarVisibleEnum` type supports the following values:

Name	Value Description
exColumnsFloatBarHidden	0 Indicates that the control's Columns float-panel is not visible (hidden)
exColumnsFloatBarVisibleIncludeHiddenColumns	Specifies that the control's Columns float-panel shows only hidden-columns (dragable-columns only). The <a href="#">Visible</a> property specifies whether the column is visible or hidden.
exColumnsFloatBarVisibleVisibleAndHidden	Indicates that the control's Columns float-panel shows visible and hidden columns with a check-box associated (dragable-columns only), The <a href="#">Visible</a> property specifies whether the column is visible or hidden.



## constants DefColumnEnum

The [Def](#) property retrieves or sets a value that indicates the default value of given properties for all cells in the same column.

Name	Value Description
exCellHasCheckBox	Assigns check boxes to all cells in the column, if it is True. Similar with the <a href="#">CellHasCheckBox</a> property. By default, the exCellHasCheckBox property is False (0).  <i>(Boolean expression)</i>
exCellHasRadioButton	Assigns radio buttons to all cells in the column, if it is True. Similar with the <a href="#">CellHasRadioButton</a> property. By default, the exCellHasRadioButton property is False (0).  <i>(Boolean expression)</i>
exCellHasButton	Specifies that all cells in the column are buttons, if it is True. Similar with the <a href="#">CellHasButton</a> property. By default, the exCellHasButton property is False (0).  <i>(Boolean expression)</i>
exCellButtonAutoWidth	Similar with the <a href="#">CellButtonAutoWidth</a> property. By default, the exCellButtonAutoWidth property is False (0). The exCellButtonAutoWidth has effect only if the exCellHasButton option is True.  <i>(Boolean expression)</i>
exCellBackColor	Specifies the background color for all cells in the column. Use the <a href="#">CellBackColor</a> property to assign a background color for a specific cell. The property has effect only if the property is different than zero (default value).  <i>(Color expression)</i>
	Specifies the foreground color for all cells in the

		column. Use the <a href="#">CellForeColor</a> property to assign a foreground color for a specific cell. The property has effect only if the property is different than zero (default value).
exCellForeColor	5	( <i>Color expression</i> )
exCellVAlignment	6	Specifies the column's vertical alignment. By default, the Def(exCellVAlignment) property is exMiddle. Use the <a href="#">CellVAlignment</a> property to specify the vertical alignment for a particular cell. By default, the exCellVAlignment property is MiddleAlignment (1).
		( <a href="#">VAlignmentEnum</a> expression)
exHeaderBackColor	7	Specifies the column's header background color. Use this option to change the background color for a column in the header area. The exHeaderBackColor option supports skinning, so the last 7 bits in the high significant byte of the color to indicates the identifier of the skin being used. Use the <a href="#">Add</a> method to add new skins to the control. The property has effect only if the property is different than zero (default value).
		( <i>Color expression</i> )
exHeaderForeColor	8	Specifies the column's header background color. The property has effect only if the property is different than zero (default value).
		( <i>Color expression</i> )
exCellSingleLine	16	Specifies that all cells in the column displays its content into single or multiple lines. Similar with the <a href="#">CellSingleLine</a> property. If using the <a href="#">CellSingleLine</a> / Def(exCellSingleLine) property, we recommend to set the <a href="#">ScrollBySingleLine</a> property on True so all items can be scrolled.
		( <a href="#">CellSingleLineEnum</a> type, previously Boolean expression )

exCellCaptionFormat	17	<p>The exCellCaptionFormat indicates that format to display all cells in the column such as text or HTML text. The <a href="#">CellCaptionFormat</a> property specifies whether a particular cells displays text or HTML text. By default, the exCellCaptionFormat property is exText (0).</p>
	34	<p>Specifies the order of the drawing parts for the entire column. By default, this option is "check,icon,icons,picture,caption", which means that the cell displays its parts in the following order: check box/ radio buttons ( <a href="#">CellHasCheckBox</a>/<a href="#">CellRadioButton</a> ), single icon ( <a href="#">CellImage</a> ), multiple icons ( <a href="#">CellImages</a> ), custom size picture ( <a href="#">CellPicture</a> ), and the cell's caption.</p> <p>Use the exCellDrawPartsOrder option to specify a new order for the drawing parts in the cells of the column. The <a href="#">RightToLeft</a> property automatically flips the order of the columns. By default, the exCellDrawPartsOrder property is "check,icon,icons,picture,caption".</p>
	48	<p>The padding defines the space between the element border and the element content. Gets or sets the left padding (space) of the cells within the column. This option applies a padding to all cells in the column. Use the exHeaderPaddingLeft option to apply the padding to the column's caption in the control's header. The padding does not affect the element's background color. By default, the exCellPaddingLeft property is 0.</p>
		<p>Gets or sets the right padding (space) of the cells within the column. This option applies a padding to all cells in the column. Use the exHeaderPaddingRight option to apply the padding</p>

exCellPaddingRight	49	<p>to the column's caption in the control's header. The padding does not affect the element's background color. By default, the exCellPaddingRight property is 0.</p> <p><i>(Long expression)</i></p>
exCellPaddingTop	50	<p>Gets or sets the top padding (space) of the cells within the column. This option applies a padding to all cells in the column. Use the exHeaderPaddingTop option to apply the padding to the column's caption in the control's header. The padding does not affect the element's background color. By default, the exCellPaddingTop property is 0.</p> <p><i>(Long expression)</i></p>
exCellPaddingBottom	51	<p>Gets or sets the bottom padding (space) of the cells within the column. This option applies a padding to all cells in the column. Use the exHeaderPaddingBottom option to apply the padding to the column's caption in the control's header. The padding does not affect the element's background color. By default, the exCellPaddingBottom property is 0.</p> <p><i>(Long expression)</i></p>
exHeaderPaddingLeft	52	<p>Gets or sets the left padding (space) of the column's header. This option applies the padding to the column's caption in the control's header. Use the exCellPaddingLeft option to apply the padding to all cells in the column. The padding does not affect the element's background color. By default, the exHeaderPaddingLeft property is 0.</p> <p><i>(Long expression)</i></p>
		<p>Gets or sets the right padding (space) of the column's header. This option applies the padding to the column's caption in the control's header. Use the exCellPaddingRight option to apply the padding to all cells in the column. The padding does not affect</p>

exHeaderPaddingRight	53	the element's background color. By default, the exHeaderPaddingRight property is 0.  <i>(Long expression)</i>
exHeaderPaddingTop	54	Gets or sets the top padding (space) of the column's header. This option applies the padding to the column's caption in the control's header. Use the exCellPaddingTop option to apply the padding to all cells in the column. The padding does not affect the element's background color. By default, the exHeaderPaddingTop property is 0.  <i>(Long expression)</i>
exHeaderPaddingBottom	55	Gets or sets the bottom padding (space) of the column's header. This option applies the padding to the column's caption in the control's header. Use the exCellPaddingBottom option to apply the padding to all cells in the column. The padding does not affect the element's background color. By default, the exHeaderPaddingBottom property is 0.  <i>(Long expression)</i>
exColumnResizeContiguously	64	exColumnResizeContiguously. Gets or sets a value that indicates whether the control's content is updated while the user is resizing the column.

## constants DescriptionTypeEnum

The control's [Description](#) property defines descriptions for few control parts.

Name	Value Description
exFilterBarAll	0 Defines the caption of (All) in the filter bar window. If the Description(exFilterBarAll) property is empty, the (All) predefined item is not shown in the drop down filter window.
exFilterBarBlanks	1 Defines the caption of (Blanks) in the filter bar window. If the Description(exFilterBarBlanks) property is empty, the (Blanks) predefined item is not shown in the drop down filter window.
exFilterBarNonBlanks	2 Defines the caption of (NonBlanks) in the filter bar window. If the Description(exFilterBarNonBlanks) property is empty, the (NonBlanks) predefined item is not shown in the drop down filter window.
exFilterBarFilterForCaption	3 Defines the caption of "Filter For:" in the filter bar window.
exFilterBarFilterTitle	4 Defines the title for the filter tooltip.
exFilterBarPatternFilterTitle	5 Defines the title for the filter pattern tooltip.
exFilterBarTooltip	6 Defines the tooltip for filter window.
exFilterBarPatternTooltip	7 Defines the tooltip for filter pattern window
exFilterBarFilterForTooltip	8 Defines the tooltip for "Filter For:" window
exFilterBarIsBlank	9 Defines the caption of the function 'IsBlank' in the control's filter bar.
exFilterBarIsNonBlank	10 Defines the caption of the function 'not IsBlank' in the control's filter bar.
exFilterBarAnd	11 Customizes the ' and ' text in the control's filter bar when multiple columns are used to filter the items in the control.
exFilterBarDate	12 Specifies the "Date:" caption being displayed in the drop down filter window when <a href="#">DisplayFilterPattern</a> property is True, and <a href="#">DisplayFilterDate</a> property is True.
	Specifies the "to" sequence being used to split the from date and to date in the Date field of the drop down filter window. For instance, the "to

exFilterBarDateTo	13	"12/13/2004" specifies the items before 12/13/2004, "12/23/2004 to 12/24/2004" filters the items between 12/23/2004 and 12/24/2004, or "Feb 12 2004 to" specifies all items after a date.
exFilterBarDateTooltip	14	Describes the tooltip that shows up when cursor is over the Date field. "You can filter the items into a given interval of dates. For instance, you can filter all items dated before a specified date ( <b>to 2/13/2004</b> ), or all items dated after a date ( <b>Feb 13 2004 to</b> ) or all items that are in a given interval ( <b>2/13/2004 to 2/13/2005</b> )."
exFilterBarDateTitle	15	Describes the title of the tooltip that shows up when the cursor is over the Date field. By default, the exFilterBarDateTitle is "Date".
exFilterBarDateTodayCaption	16	Specifies the caption for the 'Today' button in a date filter window. By default, the exFilterBarDateTodayCaption property is "Today".
exFilterBarDateMonths	17	Specifies the name for months to be displayed in a date filter window. The list of months should be delimited by space characters. By default, the exFilterBarDateMonths is "January February March April May June July August September October November December".
exFilterBarDateWeekDays	18	Specifies the shortcut for the weekdays to be displayed in a date filter window. The list of shortcut for the weekdays should be separated by space characters. By default, the exFilterBarDateWeekDays is "S M T W T F S". The first shortcut in the list indicates the shortcut for the Sunday, the second shortcut indicates the shortcut for Monday, and so on.
exFilterBarChecked	19	Defines the caption of (Checked) in the filter bar window. The exFilterBarChecked option is displayed only if the <a href="#">FilterType</a> property is exCheck. If the Description(exFilterBarChecked) property is empty, the (Checked) predefined item is not shown in the drop down filter window. If the user selects the (Checked) item the control filter checked items. The <a href="#">CellState</a> property indicates the state of the cell's checkbox.

exFilterBarUnchecked	20	Defines the caption of (Unchecked) in the filter bar window. The exFilterBarUnchecked option is displayed only if the <a href="#">FilterType</a> property is exCheck. If the Description(exFilterBarUnchecked) property is empty, the (Unchecked) predefined item is not shown in the drop down filter window. If the user selects the (Unchecked) item the control filter unchecked items. The <a href="#">CellState</a> property indicates the state of the cell's checkbox.
exFilterBarIsChecked	21	Defines the caption of the 'IsChecked' function in the control's filter bar. The 'IsChecked' function may appear only if the user selects (Checked) item in the drop down filter window, when the <a href="#">FilterType</a> property is exCheck.
exFilterBarIsUnchecked	22	Defines the caption of the 'not IsChecked' function in the control's filter bar. The 'not IsChecked' function may appear only if the user selects (Unchecked) item in the drop down filter window, when the <a href="#">FilterType</a> property is exCheck.
exFilterBarOr	23	Customizes the 'or' operator in the control's filter bar when multiple columns are used to filter the items in the control.
exFilterBarNot	24	Customizes the 'not' operator in the control's filter bar.
exFilterBarExclude	25	Specifies the 'Exclude' caption being displayed in the drop down filter. The Exclude option is displayed in the drop down filter window only if the <a href="#">FilterList</a> property includes the exShowExclude flag.
exColumnsFloatBar	26	Specifies the caption to be shown on control's Columns float bar.

## constants DividerAlignmentEnum

Defines the alignment for a divider line into a divider item. Use the [ItemDividerLineAlignment](#) property to align the line in a divider item. Use the [ItemDivider](#) property to add a divider item

Name	Value	Description
DividerBottom	0	The divider line is displayed on bottom side of the item.
DividerCenter	1	The divider line is displayed on center of the item.
DividerTop	2	The divider line is displayed at the top of the item.
DividerBoth	3	The divider line is displayed at the top and bottom of the item.

## constants DividerLineEnum

Defines the type of divider line. The [ItemDividerLine](#) property uses the DividerLineEnum type.

Name	Value	Description
EmptyLine	0	No line.
SingleLine	1	Single line
DoubleLine	2	Double line
DotLine	3	Dotted line
DoubleDotLine	4	DoubleDotted line
ThinLine	5	Thin line
DoubleThinLine	6	Double thin line

## constants exClipboardFormatEnum

Defines the clipboard format constants. Use [GetFormat](#) property to check whether the clipboard data is of given type

Name	Value	Description
exCFText	1	Null-terminated, plain ANSI text in a global memory bloc.
exCFBitmap	2	A bitmap compatible with Windows 2.x.
exCFMetafile	3	A Windows metafile with some additional information about how the metafile should be displayed.
exCFDIB	8	A global memory block containing a Windows device-independent bitmap (DIB).
exCFPalette	9	A color-palette handle.
exCFEMetafile	14	A Windows enhanced metafile.
exCFFiles	15	A collection of files. Use <a href="#">Files</a> property to get or set the collection of files.
exCFRTF	-16639	A RTF document.

## constants exOLEDragOverEnum

State transition constants for the OLEDragOver event

Name	Value	Description
exOLEDragEnter	0	Source component is being dragged within the range of a target.
exOLEDragLeave	1	Source component is being dragged out of the range of a target.
exOLEDragOver	2	Source component has moved from one position in the target to another.

## constants exOLEDropEffectEnum

Drop effect constants for OLE drag and drop events.

Name	Value	Description
exOLEDropEffectNone	0	Drop target cannot accept the data, or the drop operation was cancelled.
exOLEDropEffectCopy	1	Drop results in a copy of data from the source to the target. The original data is unaltered by the drag operation.
exOLEDropEffectMove	2	Drop results in data being moved from drag source to drop source. The drag source should remove the data from itself after the move.
exOLEDropEffectScroll	-2147483564	The value -2147483564 is not implemented.

## constants exOLEDropModeEnum

Constants for the OLEDropMode property, that defines how the control accepts OLE drag and drop operations. Use the [OLEDropMode](#) property to set how the component handles drop operations.

Name	Value	Description
exOLEDropNone	0	The control is not used OLE drag and drop functionality.
exOLEDropManual	1	The control triggers the OLE drop events, allowing the programmer to handle the OLE drop operation in code.

Here's the list of events related to OLE drag and drop: [OLECompleteDrag](#), [OLEDragDrop](#), [OLEDragOver](#), [OLEGiveFeedback](#), [OLESetData](#), [OLEStartDrag](#).

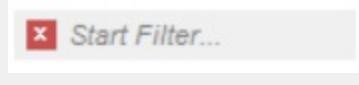
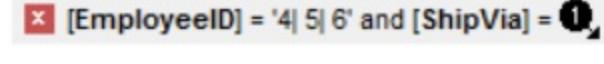
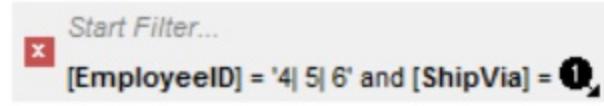
## constants ExpandButtonEnum

Defines how the control displays the expanding/collapsing buttons.

Name	Value	Description
exNoButtons	0	The control displays no expand buttons.
exPlus	-1	A plus sign is displayed for collapsed items, and a minus sign for expanded items.(   )
exArrow	1	The control uses icons to display the expand buttons.(   )
exCircle	2	The control uses icons to display the expand buttons. (   )
exWPlus	3	The control uses icons to display the expand buttons. (   )
exCustom	4	The <a href="#">HasButtonsCustom</a> property specifies the index of icons being used for +/- signs on parent items.

## constants FilterBarVisibleEnum

The FilterBarVisibleEnum type defines the flags you can use on [FilterBarPromptVisible](#) property. The [FilterBarCaption](#) property defines the caption to be displayed on the control's filter bar. The FilterBarPromptVisible property , specifies how the control's filter bar is displayed and behave. The FilterBarVisibleEnum type includes several flags that can be combined together, as described bellow:

Name	Value Description
exFilterBarHidden	0 No filter bar is shown while there is no filter applied. The control's filter bar is automatically displayed as soon a a filter is applied.
exFilterBarPromptVisible	1 The exFilterBarPromptVisible flag specifies that the control's filter bar displays the filter prompt. The exFilterBarPromptVisible, exFilterBarVisible, exFilterBarCaptionVisible flag , forces the control's filter-prompt, filter bar or filter bar description ( even empty ) to be shown. If missing, no filter prompt is displayed. The <a href="#">FilterBarPrompt</a> property to specify the HTML caption being displayed in the filter bar when the filter pattern is missing. 
exFilterBarVisible	2 The exFilterBarVisible flag forces the control's filter bar to be shown, no matter if any filter is applied. If missing, no filter bar is displayed while the control has no filter applied. 
exFilterBarCaptionVisible	4 or combined with exFilterBarPromptVisible 
	The exFilterBarVisible flag forces the control's filter bar to display the <a href="#">FilterBarCaption</a> property. 

		The exFilterBarVisible flag specifies that the caption on the control's filter bar is displayed on a single line. The exFilterBarSingleLine flag , specifies that the filter bar's caption is shown on a single line, so   HTML tag or \r\n are not handled. By default, the control's filter description applies word wrapping. Can be combined to exFilterBarCompact to display a single-line filter bar. If missing, the caption on the control's filter bar is displayed on multiple lines. You can change the height of the control's filter bar using the <a href="#">FilterBarHeight</a> property.
exFilterBarToggle	256	The exFilterBarToggle flag specifies that the user can close the control's filter bar ( removes the control's filter ) by clicking the close button of the filter bar or by pressing the CTRL + F, while the control's filter bar is visible. If no filter bar is displayed, the user can display the control's filter bar by pressing the CTRL + F key. While the control's filter bar is visible the user can navigate though the list or control's filter bar using the ALT + Up/Down keys. If missing, the control's filter bar is always shown if any of the following flags is present exFilterBarPromptVisible, exFilterBarVisible, exFilterBarCaptionVisible.
exFilterBarShowCloseIfRequired	512	The exFilterBarShowCloseIfRequired flag indicates that the close button of the control's filter bar is displayed only if the control has any currently filter applied. The <a href="#">Background(exFooterFilterBarButton)</a> property on -1 hides permanently the close button of the control's filter bar.
exFilterBarShowCloseOnRight	1024	The exFilterBarShowCloseOnRight flag specifies that the close button of the control's filter bar should be displayed on the right side. If the control's <a href="#">RightToLeft</a> property is True, the close button of the control's filter bar would be automatically displayed on the left side.

**exFilterBarCompact**

2048

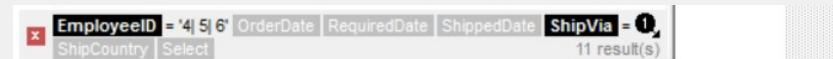
The exFilterBarCompact flag compacts the control's filter bar, so the filter-prompt will be displayed to the left, while the control's filter bar caption will be displayed to the right. This flag has effect only if combined with the exFilterBarPromptVisible. This flag can be combined with the exFilterBarSingleLine flag, so all filter bar will be displayed compact and on a single line.



**exFilterBarShort**

4096

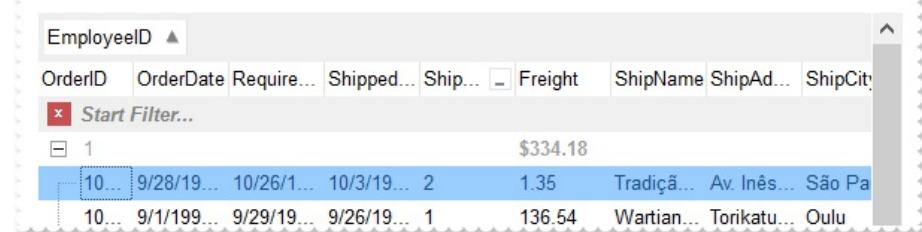
The exFilterBarShort flag specifies that the control's filter bar should be displayed on the items panel only. If missing, the control's filter bar covers the items and the chart section as well.



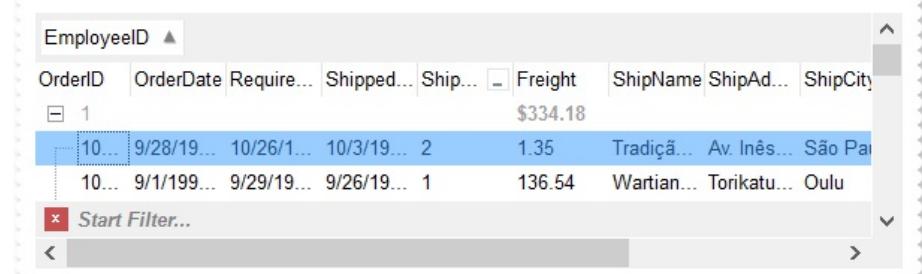
**exFilterBarTop**

8192

The exFilterBarTop flag displays the filter-bar on top (between control's header and items section as shown:



By default, the filter-bar is shown aligned to the bottom (between items and horizontal-scroll bar) as shown:



## constants FilterIncludeEnum

The FilterIncludeEnum type defines the items to include when control's filter is applied. The [FilterInclude](#) property specifies the items being included, when the list is filtered. The FilterIncludeEnum type supports the following values:

Name	Value	Description
exItemsWithoutChilds	0	Items (and parent-items) that match the filter are shown (no child-items are included)
exItemsWithChilds	1	Items (parent and child-items) that match the filter are shown
exRootsWithoutChilds	2	Only root-items (excludes child-items) that match the filter are displayed
exRootsWithChilds	3	Root-items (and child-items) that match the filter are displayed
exMatchingItemsOnly	4	Shows only the items that matches the filter (no parent or child-items are included)
exMatchIncludeParent	240	Specifies that the item matches the filter if any of its parent-item matches the filter. The exMatchIncludeParent flag can be combined with any other value.

## constants FilterListEnum

The FilterListEnum type specifies the type of items being included in the column's drop down list filter. The [FilterList](#) property specifies the items being included to the column's drop down filter-list, including other options for filtering. Use the [DisplayFilterPattern](#) and/or [DisplayFilterDate](#) property to display the pattern field, a date pattern or a calendar control inside the drop down filter window.

The FilterList can be a bit-combination of exAllItems, exVisibleItems or exNoItems with any other flags being described below:

Name	Value	Description
exAllItems	0	The filter's list includes all items in the column.
exVisibleItems	1	The filter's list includes only visible (filtered) items from the column. The visible items include child items of collapsed items.
exNoItems	2	The filter's list does not include any item from the column. Use this option if the drop down filter displays a calendar control for instance.
exLeafItems	3	The filter's list includes the leaf items only. A leaf item is an item with no child items.
exRootItems	4	The filter's list includes the root items only.
exSortItemsDesc	16	If the exSortItemsDesc flag is set the values in the drop down filter's list gets listed descending. If none of the exSortItemsAsc or exSortItemsDesc is present, the list is built as the items are displayed in the control.
exSortItemsAsc	32	If the exSortItemsAsc flag is set the values in the drop down filter's list gets listed ascending. If none of the exSortItemsAsc or exSortItemsDesc is present, the list is built as the items are displayed in the control.
exIncludeInnerCells	64	The exIncludeInnerCells flag specifies whether the inner cells values are included in the drop down filter's list. The <a href="#">SplitCell</a> method adds an inner cell, or in other words splits a cell.
exSingleSel	128	If this flag is present, the filter's list supports single selection. By default, (If missing), the user can select multiple items using the CTRL key. Use the exSingleSel property to prevent multiple items

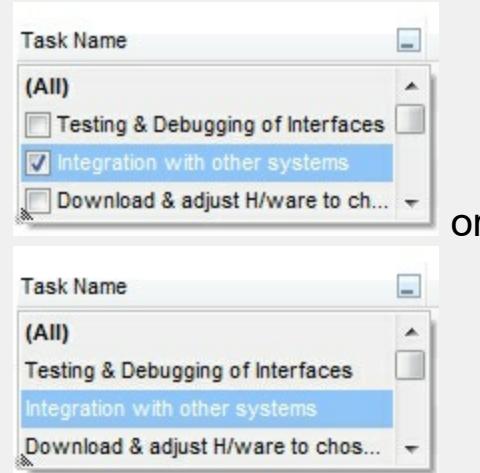
selection in the drop down filter list.

The filter's list displays a check box for each included item. Clicking the checkbox, makes the item to be include din the filter. If this flag is present, the filter is closed once the user presses ENTER or clicks outside of the drop down filter window. By default, ( this flag is missing ), clicking an item closes the drop down filter, if the CTRL key is not pressed. This flag can be combined with exHideCheckSelect.

exShowCheckBox

256

The following screen shot shows the drop down filter **with** or **with no** exShowCheckBox flag:

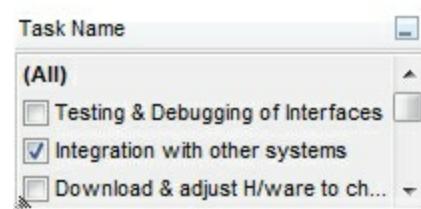


The selection background is not shown for checked items in the filter's list. This flag can be combined with exShowCheckBox.

exHideCheckSelect

512

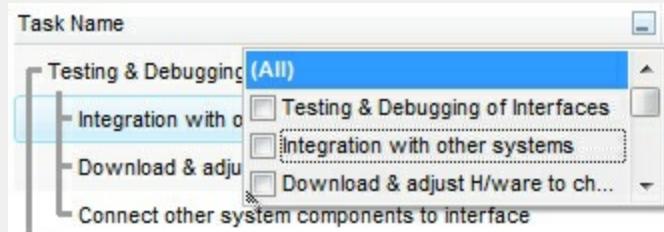
The following screen shot shows no selection background for the checked items:



This flag allows highlighting the focus cell value in the filter's list. The focus cell value is the cell's content at the moment the drop down filter window is shown. For instance, click an item so a new item is selected, and click the drop down filter button. A

item being focused in the drop down filter list is the one you have in the control's selection. This flag has effect also, if displaying a calendar control in the drop down filter list.

exShowFocusItem	1024	The following screen shot shows the focused item in the filter's list ( The Integration ... item in the background is the focused item, and the same is in the filter's list ) :
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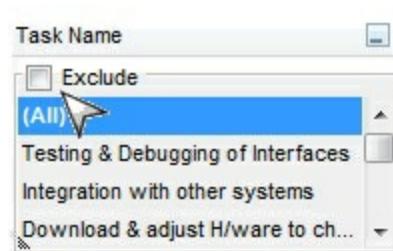


exShowPrevSelectOpaque	2048	By default, the previously selection in the drop down filter's list is shown using a semi-transparent color. Use this flag to show the previously selection using an opaque color. The exSelFilterForeColor and exSelFilterBackColor options defines the filter's list selection foreground and background colors.
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exEnableToolTip	4096	This flag indicates whether the filter's tooltip is shown. The <a href="#">Description(exFilterBarTooltip, exFilterBarPatternTool...)</a> properties defines the filter's tooltips.
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exShowExclude	8192	This flag indicates whether the Exclude option is shown in the drop down filter window. This option has effect also if the drop down filter window shows a calendar control.
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The following screen shot shows the Exclude field in the drop down filter window:



exShowBlanks	16384	This flag indicates whether the (Blanks) and (NonBlanks) items are shown in the filter's list
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## constants FilterPromptEnum

The FilterPromptEnum type specifies the type of prompt filtering. Use the [FilterBarPromptType](#) property to specify the type of filtering when using the prompt. The [FilterBarPromptColumns](#) specifies the list of columns to be used when filtering. The [FilterBarPromptPattern](#) property specifies the pattern for filtering. The pattern may contain one or more words being delimited by space characters.

The filter prompt feature supports the following values:

Name	Value Description
exFilterPromptContainsAll	1 The list includes the items that contains all specified sequences in the filter. Can be combined with exFilterPromptCaseSensitive, exFilterPromptStartWords, exFilterPromptEndWords or exFilterPromptWords
exFilterPromptContainsAny	2 The list includes the items that contains any of specified sequences in the filter. Can be combined with exFilterPromptCaseSensitive, exFilterPromptStartWords, exFilterPromptEndWords or exFilterPromptWords
exFilterPromptStartWith	3 The list includes the items that starts with any specified sequences in the filter. Can be combined with exFilterPromptCaseSensitive, exFilterPromptStartWords, exFilterPromptEndWords or exFilterPromptWords
exFilterPromptEndWith	4 The list includes the items that ends with any specified sequences in the filter. Can be combined with exFilterPromptCaseSensitive, exFilterPromptStartWords, exFilterPromptEndWords or exFilterPromptWords
exFilterPromptPattern	16 The filter indicates a pattern that may include wild characters to be used to filter the items in the list. Can be combined with exFilterPromptCaseSensitive. The <a href="#">FilterBarPromptPattern</a> property may include wild characters as follows: <ul style="list-style-type: none"><li>• '?' for any single character</li><li>• '*' for zero or more occurrences of any character</li><li>• '#' for any digit character</li></ul>

- '' space delimits the patterns inside the filter

exFilterPromptCaseSensitive	256	Filtering the list is case sensitive. Can be combined with exFilterPromptContainsAll, exFilterPromptContainsAny, exFilterPromptStartWith, exFilterPromptEndWith or exFilterPromptPattern.
exFilterPromptStartWords	4608	The list includes the items that starts with specified words, in any position. Can be combined with exFilterPromptContainsAll, exFilterPromptContainsAny, exFilterPromptStartWith or exFilterPromptEndWith.
exFilterPromptEndWords	8704	The list includes the items that ends with specified words, in any position. Can be combined with exFilterPromptContainsAll, exFilterPromptContainsAny, exFilterPromptStartWith or exFilterPromptEndWith.
exFilterPromptWords	12800	The filter indicates a list of words. Can be combined with exFilterPromptContainsAll, exFilterPromptContainsAny, exFilterPromptStartWith or exFilterPromptEndWith.

## constants FilterTypeEnum

Defines the type of filter applies to a column. Use the [FilterType](#) property of the [Column](#) object to specify the type of filter being used. Use the [Filter](#) property of Column object to specify the filter being used. The value for Filter property depends on the FilterType property.

Name	Value	Description
exAll	0	No filter applied
exBlanks	1	Only blank items are included
exNonBlanks	2	Only non blanks items are included
exPattern	3	Only items that match the pattern are included. The Filter property defines the pattern. A pattern may contain the wild card characters '?' for any single character, '*' for zero or more occurrences of any character, '#' for any digit character. If any of the *, ?, # or   characters are preceded by a \ ( escape character ) it masks the character itself.
exDate	4	Use the exDate type to filter items into a given interval. The Filter property of the Column object defines the interval of dates being used to filter items. The interval of dates should be as [dateFrom] to [dateTo]. Use the <a href="#">Description</a> property to changes the "to" conjunction used to split the dates in the interval. If the dateFrom value is missing, the control includes only the items before the dateTo date, if the dateTo value is missing, the control includes the items after the dateFrom date. If both dates ( dateFrom and dateTo ) are present, the control includes the items between this interval of dates. For instance, the "2/13/2004 to" includes all items after 2/13/2004 inclusive, or "2/13/2004 to Feb 14 2005" includes all items between 2/13/2004 and 2/14/2004.
exNumeric	5	If the FilterType property is exNumeric, the Filter property may include operators like <, <=, =, >, >= or > and numbers to define rules to include numbers in the control's list. For instance, the "> 10 < 100" filter indicates all numbers greater than 10 and less than 100. If the FilterType property is exNumeric, the drop down filter window doesn't

display the filter list that includes items "(All)", "(Blanks)", ... and so on.

Only checked or unchecked items are included. The [CellState](#) property indicates the state of the cell's checkbox. The control filters for checked items, if the [Filter](#) property is "1". The control filters for unchecked items, if the [Filter](#) property is "0". A checked item has the the CellState property different than zero. An unchecked item has the CellState property on zero.

exCheck

6

exImage

10

Filters items by icons. The [CellImage](#) property indicates the cell's icon

exFilter

240

Only the items that are in the Filter property are included.

exFilterDoCaseSensitive

256

If this flag is present, the filtering on the column is case-sensitive. If this flag is missing, the filtering is case-insensitive ( by default ). You can use the exFilterDoCaseSensitive flag to perform case-sensitive filtering within the column. This flag is not applied to filter prompt feature.

## constants FormatApplyToEnum

The FormatApplyToEnum expression indicates whether a format is applied to an item or to a column. Any value that's greater than 0 indicates that the conditional format is applied to the column with the value as index. A value less than zero indicates that the conditional format object is applied to items. Use the [ApplyTo](#) property to specify whether the conditional format is applied to items or to columns.

Name	Value	Description
exFormatToItems	-1	Specifies whether the condition is applied to items.
exFormatToColumns	0	Specifies whether the condition is applied to columns. The 0 value indicates that the conditional format is applied to the first column. The 1 value indicates the conditional format is applied to the second column. The 2 value indicates the conditional format is applied to the third column, and so on.

## constants GridLinesEnum

Defines how the control paints the grid lines.

Name	Value	Description
exNoLines	0	The control displays no grid lines.
exAllLines	-1	The control displays vertical and horizontal grid lines.
exRowLines	-2	The control paints grid lines only for current rows.
exHLines	1	Only horizontal grid lines are shown.
exVLines	2	Only vertical grid lines are shown.

## constants GridLinesStyleEnum

The GridLinesStyle type specifies the style to show the control's grid lines. The [GridLineStyle](#) property indicates the style of the gridlines being displayed in the view if the [DrawGridLines](#) property is not zero. The GridLinesStyle enumeration specifies the style for horizontal or/and vertical gridlines in the control. The [DrawGridLines](#) property of the Chart object specifies whether the grid lines are shown in the chart part of the control.

Name	Value	Description
exGridLinesDot	0	The control's gridlines are shown as dotted.
exGridLinesHDot4	1	The horizontal control's gridlines are shown as dotted.
exGridLinesVDot4	2	The vertical control's gridlines are shown as dotted.
exGridLinesDot4	3	The control's gridlines are shown as solid.
exGridLinesHDash	4	The horizontal control's gridlines are shown as dashed.
exGridLinesVDash	8	The vertical control's gridlines are shown as dashed.
exGridLinesDash	12	The control's gridlines are shown as dashed.
exGridLinesHSolid	16	The horizontal control's gridlines are shown as solid.
exGridLinesVSolid	32	The vertical control's gridlines are shown as solid.
exGridLinesSolid	48	The control's gridlines are shown as solid.
exGridLinesBehind	256	The control's vertical gridlines are shown behind bars. This option has effect for the chart area only, so it has to be used by <a href="#">Chart.GridLineStyle</a> property. For instance, Chart.GridLineStyle = GridLinesStyleEnum.exGridLinesHSolid Or GridLinesStyleEnum.exGridLinesBehind shows horizontal gridlines as solid, and the vertical gridlines shows behind the bars.
exGridLinesGeometric	512	The control's gridlines are drawn using a geometric pen. The exGridLinesGeometric flag can be combined with any other flag. A geometric pen can have any width and can have any of the attributes of a brush, such as dithers and patterns. A cosmetic pen can only be a single pixel wide and must be a solid color, but cosmetic pens are generally faster than geometric pens. The width of

a geometric pen is always specified in world units.  
The width of a cosmetic pen is always 1.

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## constants HierarchyLineEnum

Defines how the control paints the hierarchy lines. Use the [TreeColumnIndex](#) property to define the index of the column that displays the hierarchy. Use the [LinesAtRoot](#) property to connect root items. Use the [HasLines](#) property to connect a child items to their correspondent parent item.

Name	Value	Description
exNoLine	0	The control displays no lines when painting the hierarchy.
exDotLine	-1	The control uses a dotted line to paint the hierarchy.
exSolidLine	1	The control uses a solid line to paint the hierarchy.
exThinLine	2	The control uses a thin line to paint the hierarchy.

## constants HitTestInfoEnum

The HitTestInfoEnum expression defines the hit area within a cell. Use the [ItemFromPoint](#) property to determine the hit test code within the cell.

Name	Value	Description
exHTCell	0	In the cell's client area.
exHTExpandButton	1	In the +/- button associated with a cell. The <a href="#">HasButtons</a> property specifies whether the cell displays a +/- sign to let user expands the item.
exHTCellIndent	2	In the indentation associated with a cell. The <a href="#">Indent</a> property retrieves or sets the amount, in pixels, that child items are indented relative to their parent items.
exHTCellInside	4	On the icon, picture, check or caption associated with a cell.
exHTCellCaption	20	(HEXA 14) In the caption associated with a cell. The <a href="#">CellCaption</a> property specifies the cell's value.
exHTCellCheck	36	(HEXA 24) In the check/radio button associated with a cell. The <a href="#">CellHasCheckBox</a> or <a href="#">CellHasRadioButton</a> property specifies whether the cell displays a checkbox or a radio button.
exHTCellIcon	68	(HEXA 44) In first icon associated with a cell. The <a href="#">CellImage</a> or <a href="#">CellImages</a> property specifies the cell's icon displayed next to the cell's caption.
exHTCellPicture	132	(HEXA 84). In a picture associated to a cell.
exHTCellCaptionIcon	1044	(HEXA 414) In the icon's area inside the cell's caption. The <img> tag inserts an icon inside the cell's caption. The <img> tag is valid only if the <a href="#">CellCaptionFormat</a> property exHTML.
exHTBottomHalf	2048	(HEXA 800) The cursor is in the bottom half of the row. If this flag is not set, the cursor is in the top half of the row. This is an OR combination with the rest of predefined values. For instance, you can check if the cursor is in the bottom half of the row using HitTestCode AND 0x800
exHTBetween	4096	(HEXA 1000) The cursor is between two rows. This is an OR combination with the rest of predefined values. For instance, you can check if the cursor is

exHTItemChart

256 (HEXA 100) In the chart's area over an item.

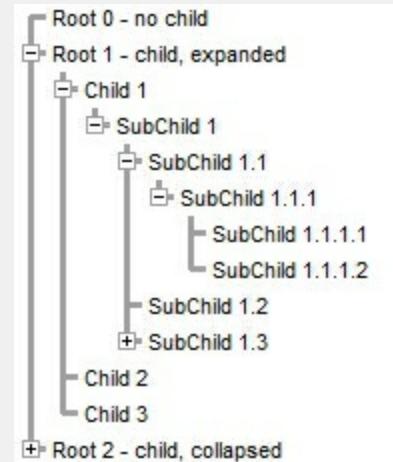
## constants LinesAtRootEnum

Defines how the control displays the lines at root. The LinesAtRoot property defines the way the tree lines are shown. The HasLines property defines the type of the line to be shown. The HasButtons property defines the expand/collapse buttons for parent items.

The LinesAtRootEnum type support the following values:

Name	Value Description
	No lines at root items.
exNoLinesAtRoot	<p>0</p> <p>Root 0 - no child Root 1 - child, expanded Child 1 SubChild 1 SubChild 1.1 SubChild 1.1.1 SubChild 1.1.1.1 SubChild 1.1.1.2 SubChild 1.1.2 SubChild 1.1.3 Child 2 Child 3 Root 2 - child, collapsed</p>
exLinesAtRoot	<p>-1</p> <p>Root 0 - no child Root 1 - child, expanded Child 1 SubChild 1 SubChild 1.1 SubChild 1.1.1 SubChild 1.1.1.1 SubChild 1.1.1.2 SubChild 1.1.2 SubChild 1.1.3 Child 2 Child 3 Root 2 - child, collapsed</p>

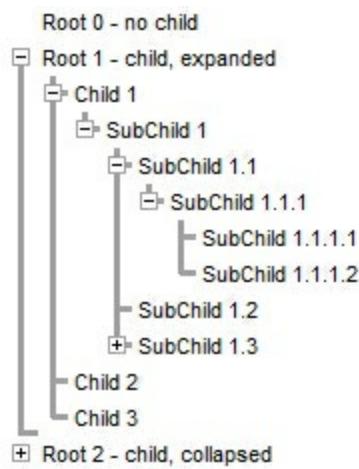
The control links the root items.



The control shows no links between roots, and divides them as being in the same group.

## exGroupLinesAtRoot

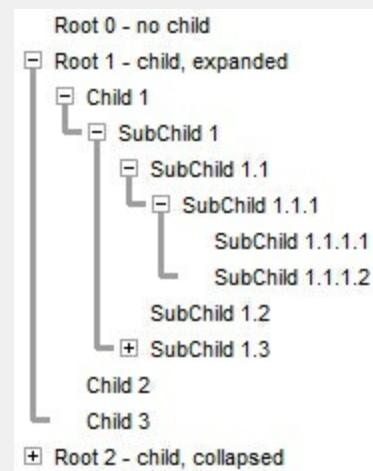
1



The lines between root items are no shown, and the links show the items being included in the group.

## exGroupLines

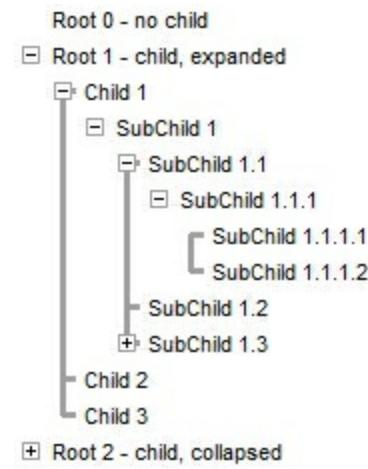
2



The lines between root items are no shown, and the links are shown between child only.

## exGroupLinesInside

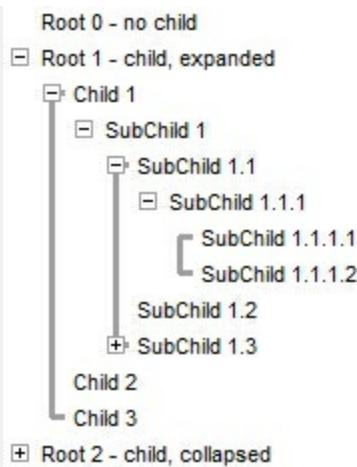
3



The lines between root items are no shown, and the links are shown for first and last visible child item.

exGroupLinesInsideLeaf

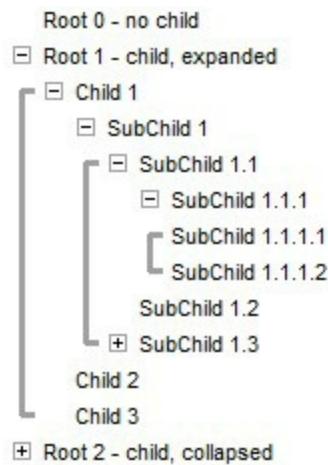
4



The lines between root items are not shown, and the links are shown for first and last visible child item. A parent item that contains flat child items only, does not indent the child part. By a flat child we mean an item that does not contain any child item.

exGroupLinesOutside

5



## constants LinkPropertyEnum

Use the [Link](#) property to access a specified link. The Link property supports the following options:

Name	Value Description
exLinkStartItem	0 Retrieves or sets a value that indicates the handle of the item where the link start. A HITEM expression ( long ), that indicates the handle of the item where the link starts.
exLinkStartBar	1 Retrieves or sets a value that indicates the key of the bar where the link starts. A String expression that indicates the key of the bar where the link starts.
exLinkEndItem	2 Retrieves or sets a value that indicates the handle of the item where the link ends. A HITEM expression ( long ), that indicates the handle of the item where the link ends.
exLinkEndBar	3 Retrieves or sets a value that indicates the key of the bar where the link ends. A String expression that indicates the key of the bar where the link ends.
exLinkVisible	4 Specifies whether the link is visible or hidden. A Boolean expression that indicates whether the link is visible or hidden. Use the <a href="#">ShowLinks</a> property to hide all links in the control. By default, the exLinkVisible property is True.
exLinkUserData	5 Specifies an extra data associated with the link. Use the exLinkUserData option to associate an extra data to your link.
exLinkStartPos	6 Specifies the position where the link starts in the source item. An <a href="#">AlignmentEnum</a> expression that indicates the position where the link starts. By default, the exLinkStartPos property is RightAlignment.
exLinkEndPos	7 Specifies the position where the link ends in the target item. An <a href="#">AlignmentEnum</a> expression that indicates the position where the link ends. By default, the exLinkEndPos property is LeftAlignment.

exLinkColor	8	Specifies the color to paint the link. By default, the exLinkColor property is -1. If the exLinkColor property is -1, the control uses the <a href="#">LinksColor</a> property to draw the link. If the exLinkColor property is not -1, it indicates the color to draw the link.
exLinkStyle	9	Specifies the style to paint the link. A <a href="#">LinkStyleEnum</a> expression that indicates the style of the link between two bars. By default, the exLinkStyle property is -1. If the exLinkStyle property is -1, the <a href="#">LinksStyle</a> property specifies the style of the link.
exLinkWidth	10	Specifies the width in pixels of the link. A long expression that indicates the width of the pen, in pixels, to draw the link between two bars. By default, the exLinkWidth property is -1. If the exLinkWidth property is -1, the <a href="#">LinksWidth</a> property indicates the width of the link.
exLinkShowDir	11	Specifies whether the link shows the direction. A Boolean expression that indicates whether the arrow in the link that specifies the direction, is visible or hidden. By default, the exLinkShowDir property is True.
exLinkText	12	Specifies the HTML text being displayed on the link. Use the <img> tag to display an icon or a custom size picture on the link. By default, the exLinkText property is empty, and so the link displays no text or picture. Use the <a href="#">HTMLPicture</a> property to include custom size picture to HTML captions
exLinkToolTip	13	Specifies the HTML text being shown when the cursor hovers the link. Use the <font> element to specify a different font or size for the tooltip, or use the <a href="#">ToolTipFont</a> property to specify a different font or size for all tooltips in the control.
exLinksCount	512	Counts the number of the links within the chart.

## constants LinkStyleEnum

Use the [LinksStyle](#) property to specify the style of the pen to draw all links in the chart. Use the [Link\(exLinkStyle\)](#) property to change the style for a specific link.

Name	Value	Description
exLinkSolid	0	The link is solid.
exLinkDash	1	The link is dashed. This style is valid only when the exLinkWidth is 1.
exLinkDot	2	The link is dotted. This style is valid only when the exLinkWidth is 1.
exLinkDashDot	3	The link has alternating dashes and dots. This style is valid only when the exLinkWidth is 1.
exLinkDashDotDot	4	The link has alternating dashes and double dots. This style is valid only when the exLinkWidth is 1.
exLinkTDot	255	Default. The link is dotted. This style is valid only when the exLinkWidth is 1.

## constants OnResizeControlEnum

The OnResizeControlEnum type specifies the parts of the controls being resized when the control itself gets resized. Use the [OnControlResize](#) property to specify which part list or chart of the control is getting resized once the control itself is resized.

Name	Value	Description
exResizeList	0	Resizes the list part of the control.
exResizeChart	1	Resizes the chart part of the control.
exDisableSplitter	128	Disables the splitter.

## constants OverviewVisibleEnum

The OverviewVisibleEnum type specifies the way items are represented in the overview area. Use the [OverviewVisible](#) property to specify whether the control's overview visible is hidden or shown. The OverviewVisibleEnum expression includes the following values:

Name	Value	Description
exOverviewHidden	0	The control's overview is not visible.
exOverviewShowAll	-1	The control's overview shows the bars from the visible items using the range for all bars in the chart.
exOverviewShowOnlyVisible	1	The control's overview shows the bars from the visible items using the range of bars in the visible items only.
exOverviewShowAllVisible	2	The control's overview shows the bars from the visible items using the range for all bars in the chart.
exOverviewAllowVerticalScroll256		Indicates whether the user can vertically scroll the chart while navigating up or down the overview part of the control.

## constants OverviewZoomEnum

The OverviewZoomEnum type specifies when the zooming scale is displayed. Use the [AllowOverviewZoom](#) property to specify whether the zooming zoom is shown or hidden.

Name	Value	Description
exDisableZoom	0	Zooming the chart at runtime is disabled.
exAlwaysZoom	1	The zooming scale is displayed on the overview area.
exZoomOnRClick	-1	The zooming scale is displayed only if the user right clicks the overview area.

## constants PatternEnum

The PatternEnum expression indicates the type of brush. Use the [NonworkingDaysPattern](#) property to specify the pattern to fill non-working days. Use the [Pattern](#) property to specify the brush to fill the bar. The [Color](#) property specifies the pattern's color or an EBN object to define the skin to be applied on the bar. The Color property is applied to all bars of the same type, while the [ItemBar\(exBarColor\)](#) property specifies a different color/skin for a particular bar. You can use the [ItemBar\(exBarPattern\)](#) property to specify a different pattern for a particular bar.

Name	Value	Description
exPatternEmpty	0	The pattern/bar is not visible.
exPatternSolid	1	
exPatternDot	2	
exPatternShadow	3	
exPatternNDot	4	
exPatternFDiagonal	5	
exPatternBDiagonal	6	
exPatternDiagCross	7	
exPatternVertical	8	
exPatternHorizontal	9	
exPatternCross	10	
exPatternBrick	11	
exPatternYard	12	

The [Color](#) property specifies the color for the border, while the [StartColor](#) and [EndColor](#) properties defines the start and ending color to show a linear-horizontal gradient bar. The liner gradient is shown if the StartColor or EndColor is not zero, and have different values. If the StartColor and EndColor are different that zero and have the same the same value the exPatternBox bar shows solid fill with a solid border being defined by the [Color](#) property. This option can be combined with any predefined pattern, exPatternGradientVBox, exPatternGradient3Colors, exPatternThickBox or exPatternFrameShadow. This option can not be

applied to EBN bars.

The following pictures where generated if the bar's Pattern is exPatternBox

exPatternBox

32

- StartColor and EndColor properties are not used ( 0 ).
- StartColor is RGB(0,255,0) [green] and EndColor is RGB(255,255,0) [yellow].
- StartColor is RGB(0,255,0) [green], EndColor is RGB(255,255,0) [yellow] and Color is RGB(255,0,0) [red].

The following pictures where generated if the bar's Pattern is exPatternBox + exPatternDot

- StartColor and EndColor properties are not used ( 0 ).
- StartColor is RGB(0,255,0) [green] and EndColor is RGB(255,255,0) [yellow].
- StartColor is RGB(0,255,0) [green], EndColor is RGB(255,255,0) [yellow] and Color is RGB(255,0,0) [red].

The [Color](#) property specifies the color for the border, while the [StartColor](#) and [EndColor](#) properties defines the start and ending color to show a linear-vertical gradient bar. The liner gradient is shown if the StartColor or EndColor is not zero, and have different values. If the StartColor and EndColor are different that zero and have the same the same value the exPatternBox bar shows solid fill with a solid border being defined by the [Color](#) property. This option must be combined with exPatternBox, and can be combined with any predefined pattern, exPatternGradient3Colors, exPatternThickBox or exPatternFrameShadow. This option can not be applied to EBN bars.

The following pictures where generated if the bar's Pattern is exPatternBox + exPatternGradientVBox

exPatternGradientVBox

64

-  StartColor and EndColor properties are not used ( 0 ).
-  StartColor is RGB(0,255,0) [green] and EndColor is RGB(255,255,0) [yellow].
-  StartColor is RGB(0,255,0) [green], EndColor is RGB(255,255,0) [yellow] and Color is RGB(255,0,0) [red].

The following pictures where generated if the bar's Pattern is exPatternBox + exPatternGradientVBox + exPatternDot

-  StartColor and EndColor properties are not used ( 0 ).
-  StartColor is RGB(0,255,0) [green] and EndColor is RGB(255,255,0) [yellow].
-  StartColor is RGB(0,255,0) [green], EndColor is RGB(255,255,0) [yellow] and Color is RGB(255,0,0) [red].

This option defines the gradient from 3 colors defined by [StartColor](#), [Color](#) and [EndColor](#). The gradient starts with StartColor, continue to Color and ends on EndColor color. This option must be combined with exPatternBox and can be combined with any predefined pattern, exPatternGradientVBox, exPatternThickBox or exPatternFrameShadow. This option can not be applied to EBN bars.

The following pictures where generated if the bar's Pattern is exPatternBox + exPatternGradient3Colors

exPatternGradient3Colors

128

-  StartColor and EndColor properties are not used ( 0 ).
-  StartColor is RGB(0,255,0) [green] and EndColor is RGB(255,255,0) [yellow].
-  StartColor is RGB(0,255,0) [green], EndColor is RGB(255,255,0) [yellow] and Color is RGB(255,0,0) [red].

The following pictures where generated if the bar's Pattern is exPatternBox + exPatternGradientVBox + exPatternGradient3Colors

-  StartColor and EndColor properties are not used ( 0 ).
-  StartColor is RGB(0,255,0) [green] and EndColor is RGB(255,255,0) [yellow].
-  StartColor is RGB(0,255,0) [green], EndColor is RGB(255,255,0) [yellow] and Color is RGB(255,0,0) [red].

Use this option to specify a thicker border for bars. This option can be combined with any predefined pattern, exPatternBox, exPatternGradientVBox, exPatternGradient3Colors or exPatternFrameShadow. This option can not be applied to EBN bars too.

#### exPatternThickBox

4096 The following pictures where generated based on the exPatternThickBox flag:

-  exPatternThickBox flag is not set ( Pattern = exPatternBDiagonal ).
-  exPatternThickBox flag is set ( Pattern = exPatternBDiagonal + exPatternThickBox )

This option can be used to display a shadow for the bars. This option can be combined with any predefined pattern, exPatternBox, exPatternGradientVBox, exPatternGradient3Colors or exPatternThickBox. This option can be applied to EBN bars too.

The following pictures where generated based on the exPatternThickBox flag:

#### exPatternFrameShadow

8192

-  exPatternFrameShadow flag is not set ( Pattern = exPatternShadow ).
-  exPatternFrameShadow flag is set ( Pattern = exPatternShadow + exPatternFrameShadow )

- exPatternFrameShadow flag is set ( Pattern = exPatternShadow + exPatternFrameShadow + exPatternBox + exPatternGradientVBox )

## constants PictureDisplayEnum

Specifies how the picture is displayed on the control's background. Use the PictureDisplay property to specify how the control displays its picture.

Name	Value	Description
UpperLeft	0	Aligns the picture to the upper left corner.
UpperCenter	1	Centers the picture on the upper edge.
UpperRight	2	Aligns the picture to the upper right corner.
MiddleLeft	16	Aligns horizontally the picture on the left side, and centers the picture vertically.
MiddleCenter	17	Puts the picture on the center of the source.
MiddleRight	18	Aligns horizontally the picture on the right side, and centers the picture vertically.
LowerLeft	32	Aligns the picture to the lower left corner.
LowerCenter	33	Centers the picture on the lower edge.
LowerRight	34	Aligns the picture to the lower right corner.
Tile	48	Tiles the picture on the source.
Stretch	49	The picture is resized to fit the source.

## constants ScrollBarEnum

The ScrollBarEnum type specifies the vertical or horizontal scroll bar in the control. Use the [ScrollBars](#) property to specify whether the vertical or horizontal scroll bar is visible or hidden. Use the [ScrollPartVisible](#) property to specify the visible parts in the control's scroll bars.

Name	Value	Description
exVScroll	0	Indicates the vertical scroll bar.
exHScroll	1	Indicates the horizontal scroll bar.
exHChartScroll	2	Indicates the horizontal scroll bar in the chart area.

## constants ScrollBarsEnum

Specifies which scroll bars will be visible on a control. Use the [ScrollBars](#) property to specify which scrollbars are visible or hidden.

Name	Value	Description
exNoScroll	0	No scroll bars are shown
exHorizontal	1	Only horizontal scroll bars are shown.
exVertical	2	Only vertical scroll bars are shown.
exBoth	3	Both horizontal and vertical scroll bars are shown.
exDisableNoHorizontal	5	The horizontal scroll bar is always shown, it is disabled if it is unnecessary.
exDisableNoVertical	10	The vertical scroll bar is always shown, it is disabled if it is unnecessary.
exDisableBoth	15	Both horizontal and vertical scroll bars are always shown, disabled if they are unnecessary.

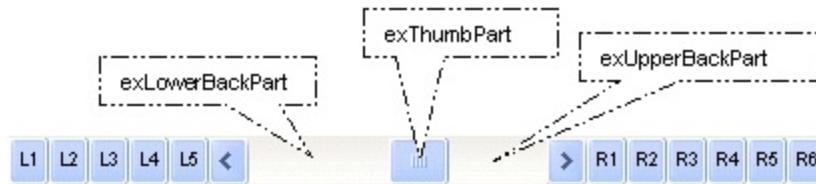
## constants ScrollEnum

The ScrollEnum expression indicates the type of scroll that control supports. Use the [Scroll](#) method to scroll the control's content by code.

Name	Value	Description
exScrollUp	0	Scrolls up the control by a single line.
exScrollDown	1	Scrolls down the control by a single line.
exScrollVTo	2	Scrolls vertically the control to a specified position.
exScrollLeft	3	Scrolls the control to the left by a single pixel, or by a single column if the <a href="#">ContinueColumnScroll</a> property is True.
exScrollRight	4	Scrolls the control to the right by a single pixel, or by a single column if the <a href="#">ContinueColumnScroll</a> property is True.
exScrollHTo	5	Scrolls horizontally the control to a specified position.

## constants ScrollPartEnum

The ScrollPartEnum type defines the parts in the control's scrollbar. Use the [ScrollPartVisible](#) property to specify the visible parts in the control's scroll bar. Use the [ScrollPartCaption](#) property to specify the caption being displayed in any part of the control's scrollbar. The control fires the [ScrollButtonClick](#) event when the user clicks any button in the control's scrollbar.



Name	Value	Description
exExtentThumbPart	65536	The thumb-extension part.
exLeftB1Part	32768	(L1) The first additional button, in the left or top area. By default, this button is hidden.
exLeftB2Part	16384	(L2) The second additional button, in the left or top area. By default, this button is hidden.
exLeftB3Part	8192	(L3) The third additional button, in the left or top area. By default, this button is hidden.
exLeftB4Part	4096	(L4) The forth additional button, in the left or top area. By default, this button is hidden.
exLeftB5Part	2048	(L5) The fifth additional button, in the left or top area. By default, this button is hidden.
exLeftBPart	1024	(<) The left or top button. By default, this button is visible.
exLowerBackPart	512	The area between the left/top button and the thumb. By default, this part is visible.
exThumbPart	256	The thumb part or the scroll box region. By default, the thumb is visible.
exUpperBackPart	128	The area between the thumb and the right/bottom button. By default, this part is visible.
exBackgroundPart	640	The union between the exLowerBackPart and the exUpperBackPart parts. By default, this part is visible.
exRightBPart	64	(>) The right or down button. By default, this button is visible.

exRightB1Part	32	(R1) The first additional button in the right or down side. By default, this button is hidden.
exRightB2Part	16	(R2) The second additional button in the right or down side. By default, this button is hidden.
exRightB3Part	8	(R3) The third additional button in the right or down side. By default, this button is hidden.
exRightB4Part	4	(R4) The forth additional button in the right or down side. By default, this button is hidden
exRightB5Part	2	(R5) The fifth additional button in the right or down side. By default, this button is hidden.
exRightB6Part	1	(R6) The sixth additional button in the right or down side. By default, this button is hidden.
exPartNone	0	No part.

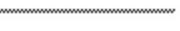
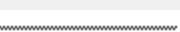
## constants ScrollRangeEnum

The ScrollRangeEnum type specifies the positions being accessed by the [ScrollRange](#) property. The ScrollRange method specifies that the chart to be scrolled within a range of dates. The ScrollRangeEnum type supports the following values.

Name	Value	Description
exStartDate	0	Indicates that the starting date or time of the scrolling range is accessed or requested.
exEndDate	1	Indicates that the ending date or time of the scrolling range is accessed or requested.

## constants ShapeBarEnum

The ShapeBarEnum type indicates the height and the alignment of the bar. Use the [Shape](#) property to specify the height and the vertical alignment of the bar.

Name	Value	Description
exShapeEmpty	0	The shape is empty.
exShapeSolid	1	
exShapeSolidUp	2	
exShapeSolidCenter	3	
exShapeSolidDown	4	
exShapeSolidFrameless	17	
exShapeThinUp	18	
exShapeThinCenter	19	
exShapeThinDown	20	

## constants ShapeCornerEnum

The ShapeCornerEnum expression defines the shape of the start and end part of the bar. Use the [StartShape](#) and [EndShape](#) properties to define the start and end parts of the bar using custom shapes. Use the [AddShapeCorner](#) method to define a corner from an icon. Use the [Images](#) or [ReplaceIcon](#) method to update the list of control's icons.

Name	Value	Description
exShapeIconEmpty	0	No corner.
exShapeIconUp1	1	
exShapeIconDown1	2	
exShapeIconRhombus	3	
exShapeIconCircleDot	4	
exShapeIconUp2	5	
exShapeIconDown2	6	
exShapeIconLeft	7	
exShapeIconRight	8	
exShapeIconCircleUp1	9	
exShapeIconCircleDown1	10	
exShapeIconUp3	11	
exShapeIconDown3	12	
exShapeIconCircleUp2	13	
exShapeIconCircleDown2	14	
exShapeIconUp4	15	
exShapeIconDown4	16	
exShapeIconVBar	17	
exShapeIconSquare	18	
exShapeIconCircle	19	
exShapeIconStar	20	
exShapeIconFrameUp1	61441	
exShapeIconFrameDown1	61442	
exShapeIconFrameRhombus	61443	
exShapeIconFrameCircleDot	61444	

exShapeIconFrameUp2	61445 ▲
exShapeIconFrameDown2	61446 ▽
exShapeIconFrameLeft	61447 ◁
exShapeIconFrameRight	61448 ▷
exShapeIconFrameCircleUp1	61449 ⓧ
exShapeIconFrameCircleDown1	61450 ⓨ
exShapeIconFrameUp3	61451 ⏹
exShapeIconFrameDown3	61452 ⏸
exShapeIconFrameCircleUp2	61453 ⓧ
exShapeIconFrameCircleDown2	61454 ⓨ
exShapeIconFrameUp4	61455 △
exShapeIconFrameDown4	61456 ▽
exShapeIconFrameVBar	61457 □
exShapeIconFrameSquare	61458 □
exShapeIconFrameCircle	61459 ○
exShapeIconFrameStar	61460 ☆

## constants SortOnClickEnum

Specifies the action that control takes when user clicks the column's header. The [SortOnClick](#) Property specifies whether the control sorts a column when its caption is clicked.

Name	Value	Description
exNoSort	0	The column is not sorted when the user clicks the column's header.
exDefaultSort	-1	The control sorts the column when user clicks the column's header.
exUserSort	1	The control displays the sort icons, but it doesn't sort the column. The user is responsible with listing the items as being sorted. Use the <a href="#">ItemByPosition</a> property to access the sorted column in their order.

## constants SortOrderEnum

Specifies the column's sort order. Use the [SortOrder](#) property to specify the column's sort order.

Name	Value Description
SortNone	0 The column is not sorted. ( if the control supports sorting by multiple columns, the column is removed from the sorting columns collection )
SortAscending	1 The column is sorted ascending. ( if the control supports sorting by multiple columns, the column is added to the sorting columns collection )
SortDescending	2 The column is sorted descending. ( if the control supports sorting by multiple columns, the column is added to the sorting columns collection )

## constants SortTypeEnum

The SortTypeEnum enumeration defines the ways how the control can sort the columns. Use the [SortType](#) property to specify how the column gets sorted. The [CellCaption](#) property indicates the values being sorted.

Name	Value	Description
SortString	0	(Default) Values are sorted as strings.
SortNumeric	1	Values are sorted as numbers. Any non-numeric value is evaluated as 0.
SortDate	2	Values are sorted as dates. Group ranges are one day.
SortDateTime	3	Values are sorted as dates and times. Group ranges are one second.
SortTime	4	Values are sorted using the time part of a date and discarding the date. Group ranges are one second.
SortUserData	5	The <a href="#">CellData</a> property indicates the values being sorted. Values are sorted as numbers.
SortUserDataString	6	The <a href="#">CellData</a> property indicates the values being sorted. Values are sorted as strings.
exSortByValue	16	The column gets sorted by cell's value rather than cell's caption.
exSortByState	32	The column gets sorted by cell's state rather than cell's caption.
exSortByImage	48	The column gets sorted by cell's image rather than cell's caption.

## constants ItemBarPropertyEnum

The ItemBarPropertyEnum type specifies a property related to a bar inside an item. Use the [ItemBar](#) property to retrieve or sets a value for bars in the item. The ItemBarPropertyEnum type supports the following values:

Name	Value Description
exBarName	0 Retrieves or sets a value that indicates the name of the bar. Use the <a href="#">Add</a> method to add new type of bars to your chart. String expression.
exBarStart	1 Retrieves or sets a value that indicates the start of the bar. Use the exBarStart property to changes the starting point of the bar. DATE expression. Use the <a href="#">ShowEmptyBars</a> property to show the bars, even if the start and end dates are identical. Use the exBarMove or exBarDuration to move or resize programmatically the bar.
exBarEnd	2 Retrieves or sets a value that indicates the end of the bar. Use the exBarStart property to changes the ending point of the bar. DATE expression. Use the <a href="#">ShowEmptyBars</a> property to show the bars, even if the start and end dates are identical. Use the exBarMove or exBarDuration to move or resize programmatically the bar.
exBarCaption	3 Retrieves or sets a value that indicates the caption being assigned to the bar. String expression.
exBarHAlignCaption	4 Retrieves or sets a value that indicates the horizontal alignment of the caption inside the bar. Use the exBarHAlignCaption property to align horizontally the caption being displayed between exBarStart and exBarEnd. <ul style="list-style-type: none"><li>• If the exBarHAlignCaption property is 0,1 or 2 the caption is <b>not</b> clipped and it is aligned to the left, center or right side of the bar.</li><li>• If the exBarHAlignCaption property is 3, 4 or 5 the caption of the bar gets clipped to the bar area, else the caption is aligned to the left, center or right side of the bar.</li><li>• If the exBarHAlignCaption property includes the AlignmentEnum.exHOutside the caption is</li></ul>

displayed outside of the bar to the left or to the right. For instance, if the exBarHAlignCaption property is AlignmentEnum.LeftAlignment OR AlignmentEnum. exHOutside, the caption is displayed outside of the bar in the left side of the bar. If the exBarHAlignCaption property is AlignmentEnum.RightAlignment OR AlignmentEnum. exHOutside, the caption is displayed outside of the bar in the right side of the bar.

By default, the exBarHAlignCaption is CenterAlignment. [AlignmentEnum](#) expression

exBarVAlignCaption	5	Retrieves or sets a value that indicates the vertical alignment of the caption inside the bar. Use the exBarHAlignCaption property to align vertically the caption being displayed between exBarStart and exBarEnd. If the exBarVAlignCaption property includes the VAlignmentEnum.exVOutside the caption is displayed outside of the bar at the top or bottom side of the bar. For instance, if the exBarVAlignCaption property is VAlignmentEnum.exTop OR VAlignmentEnum.exVOutside, the caption is displayed outside of the bar in the top side of the bar. If the exBarVAlignCaption property is VAlignmentEnum.exBottom OR VAlignmentEnum.exVOutside, the caption is displayed outside of the bar in the bottom side of the bar. exBarVAlignCaption is MiddleAlignment. <a href="#">VAlignmentEnum</a> expression.
exBarToolTip	6	Retrieves or sets a value that indicates the tooltip being shown when the cursor hovers the bar. Use the exBarToolTip property to assign a tooltip to a bar or to a text in the chart's area. String expression.

exBarBackColor	7	indicates the identifier of the skin being used. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.
exBarForeColor	8	Retrieves or sets a value that indicates the foreground color for the caption of the bar. Color expression. This option has effect only if the exBarBackColor property is not zero.
exBarKey	9	Specifies key of the bar.
exBarPercent	10	 Specifies the percent from the original bar where the progress bar is displayed. This float value should be between 0 and 1 ( 1 means 100% ). Use the <a href="#">Add("A%B")</a> to add a combination of two bars, so the exBarPercent value specifies the percent from the bar A to be displayed as bar B. For instance, the <a href="#">Add("Task%Progress")</a> adds a combination of Task and Progress bars, so the Task shape is displayed on the full bar, and the Progress shape is displayed only on the portion determined by the exBarPercent value. When you resize the original bar (A), the inside bar (B) is shown proportionally. Use the exBarShowPercentCaption option to show the percent value as caption on the bar. Use the exBarPercentCaptionFormat property to define the format of the percent value being displayed as text. Use the exBarAlignmentPercentCaption property to specify the alignment of the percent on the bar.
exBarPercentCaptionFormat	11	Specifies the HTML format to be displayed as percent. The percent is displayed on the bar only if the exBarShowPercentCaption option is True. By default, the exBarPercentCaptionFormat property is "<b>%p%</b>" where the %p is the value of the percent ( exBarPercent property ), and it displays the percent as <b>15%</b> , where exBarPercent is 0.15. The <b> indicates that the text is bolded. (String expression)
		Specifies whether the percent is displayed as caption on the bar. By default, the

		exBarShowPercentCaption property is False, which means that the percent value is not shown. Use the exBarPercent property to specify the value of the percent. Use the exBarPercentCaptionFormat property to define the format of the percent being displayed on the bar. Use the exBarAlignPercentCaption property to indicates the alignment of the percent in the bar. Boolean expression.
exBarAlignPercentCaption	13	Specifies the alignment of the percent caption on the bar. By default, the exBarAlignmentPercentCaption property is RightAlignment, that indicates that the percent value is displayed to the right. <a href="#">AlignmentEnum</a> expression.
exBarData	14	Associates an extra data to a bar. Use this property to assign your extra data to any bar in the item.
exBarOffset	15	 Specifies the vertical offset where the bar is shown. By default, this property is 0 and the bar is shown in the center. Use this property to show up or down the bar. (long expression)
exBarTransparent	16	 Specifies the percent of the transparency to display the bar. By default, this property is 0, which means that the bar is opaque. If the property is 50, the bar is shown semi-transparent. Use the <a href="#">ShowTransparentBars</a> property to draw all bars using a semi-transparent color. ( long expression between 0 and 100 ).
exBarPattern	17	By default the exBarPattern option is empty. If the exBarPattern property is empty, the option is ignored. Use the exBarPattern to specify a different pattern to be displayed on the bar in the chart area. The <a href="#">Pattern</a> property of the Bar specifies the pattern to be applied for all bars of the same type. For instance, includes the exPatternFrameShadow in the bar's pattern to show a shadow around the bar. ( <a href="#">PatternEnum</a> expression)
exBarsCount	256	Retrieves a value that indicates the number of bars in the item. The exBarsCount property counts the bars being displayed in the item. Use the <a href="#">AddBar</a> property to add new bars to the item.

		Use the <a href="#">AddNonworkingDate</a> property to add custom non-working days. Use the <a href="#">NonworkingHours</a> property to specify the non-working hours. Use the exBarWorkingCount property to specify the number of working days for a specified bar. For instance, if your chart displays days, and the NonworkingDays is set, the exBarWorkingCount property sets or gets the count of working days in the bar. If the chart displays hours, and the NonworkingHours property is set, the exBarWorkingCount property sets or gets the count of working hours in the bar.
exBarWorkingCount	257	Specifies the count of non-working units in the bar. The <a href="#">NonworkingDays</a> property specifies the non-working days. Use the <a href="#">AddNonworkingDate</a> property to add custom non-working days. Use the <a href="#">NonworkingHours</a> property to specify the non-working hours. For instance, if your chart displays days, and the NonworkingDays is set, the exBarNonWorkingCount property gets the count of non-working days in the bar. If the chart displays hours, and the NonworkingHours property is set, the exBarNonWorkingCount property gets the count of non-working hours in the bar.
exBarNonWorkingCount	258	Specifies the color for the bar. If used, it replaces the bar's type color. By default, the exBarColor is 0, which means that the default bar's color is used. The <a href="#">Color</a> property defines the default's bar color. The <a href="#">Color</a> property defines the color for all bars of the same type. Use the exBarColor to change the color for particular bars. As usual, this option may indicates a skin object to display the bar. ( Color expression ).
exBarColor	513	Specifies the duration of the bar in days. Gets the difference between exBarEnd and exBarStart as a double expression. If calling the set property, it changes the bar's duration. If negative the start date is baed on the end - duration, since if it is positive, the end date is start + duration. The round part indicates the number of days. Use the exBarMove property to move programmatically a bar by specified time ( double expression )
exBarDuration	514	

exBarMove

515

Moves the bar inside the same item by specified amount of time. The exBarParent changes the bar's parent. Use the exBarCanMoveToAnother option to specify whether the user can move a bar from one item to another by drag and drop. ( double expression )

## constants ItemsAllowSizingEnum

The ItemsAllowSizingEnum type specifies whether the user can resize items individuals or all items at once, at runtime. Use the [ItemsAllowSizing](#) property to specify whether the user can resize items individuals or all items at once, at runtime. Currently, the ItemsAllowSizingEnum type supports the following values:

Name	Value	Description
exNoSizing	0	The user can't resize the items at runtime.
exResizeItem	-1	Specifies whether the user resizes the item from the cursor.
exResizeAllItems	1	Specifies whether the user resizes all items at runtime.

## constants UIVisualThemeEnum

The UIVisualThemeEnum expression specifies the UI parts that the control can show using the current visual theme. The [UseVisualTheme](#) property specifies whether the UI parts of the control are displayed using the current visual theme.

Name	Value	Description
exNoVisualTheme	0	exNoVisualTheme
exDefaultVisualTheme	16777215	exDefaultVisualTheme
exHeaderVisualTheme	1	exHeaderVisualTheme
exFilterBarVisualTheme	2	exFilterBarVisualTheme
exButtonsVisualTheme	4	exButtonsVisualTheme
exCalendarVisualTheme	8	exCalendarVisualTheme
exCheckBoxVisualTheme	64	exCheckBoxVisualTheme

## constants UnitEnum

The UnitEnum type specifies the time units supported. Use the [UnitScale](#) property to specify the time scale. Use the [Unit](#) property to specify the time unit in the level. The UnitEnum type includes the following time units:

Name	Value	Description
exYear	0	Indicates the year. Values: ..., 2001, 2002, 2003, ...
exHalfYear	1	A date between January 1st and June 31 indicates the first half of the year, and from July 1 to December 31, indicates the second half of the year. Values: 1 and 2
exQuarterYear	2	A date between January 1st and March 31 indicates the first quarter of the year, a date between April 1st and June 30 indicates the second quarter of the year, a date between July 1st and September 30 indicates the third quarter of the year, and if a date between October 1st and December 31 indicates the forth quarter of the year. Values: 1, 2, 3 and 4
exMonth	16	Indicates the month. Values: 1 ( January ), 2 ( February ), ..., and 12 ( December ). Use the <a href="#">MonthNames</a> property to specify the name of the months.
exThirdMonth	17	The first ten days in a month indicates the first third of the month, the next 10 days indicates the second third of the month, and the last 10 days in the month indicates the last third of the month. Values: 1, 2 and 3.
exWeek	256	Indicates the week in the year. Values: 1,2,...,53. Use the <a href="#">WeekDays</a> property to specify the name of the days in the week.
exDay	4096	Indicates the day of the date. Values: 1,2,..,31
exHour	65536	Indicates the hour.
exMinute	1048576	Indicates the minute.
exSecond	16777216	Indicates the second.

## constants VAlignmentEnum

Specifies how the cell's caption is vertically aligned. Use the [CellVAlignment](#) property to align vertically the cell's caption.

Name	Value	Description
TopAlignment	0	The caption is aligned to top of the cell
MiddleAlignment	1	The cell's caption is vertically centered
BottomAlignment	2	The caption is aligned to bottom of the cell
exVOutside	16	The object is displayed outside of the source

## constants WeekDayEnum

The WeekDayEnum type indicates the days in the week. The [WeekDays](#) property indicates the name of the days in the week. The WeekDayEnum type includes the following values.

Name	Value	Description
exSunday	0	Sunday
exMonday	1	Monday
exTuesday	2	Tuesday
exWednesday	3	Wednesday
exThursday	4	Thursday
exFriday	5	Friday
exSaturday	6	Saturday

## constants WeekNumberAsEnum

The WeekNumberAsEnum type specifies the ways the control displays the week number for dates. The [WeekNumberAs](#) property specifies the way the control displays the week number. The [FirstWeekDay](#) property specifies the first day of the week where the week begins. The WeekNumberAsEnum type supports the following values:

Name	Value	Description
exISO8601WeekNumber	0	Indicates that the week number is displayed according to the ISO8601 standard, which specifies that the first week of the year is the one that includes the January the 4th
exSimpleWeekNumber	1	The first week starts on January 1st of a given year, week n+1 starts 7 days after week n ( default )

## Apearance object

The component lets the user changes its visual appearance using **skins**, each one providing an additional visual experience that enhances viewing pleasure. Skins are relatively easy to build and put on any part of the control. The Appearance object holds a collection of skins. The Appearance object supports the following properties and methods:

Name	Description
<a href="#"><u>Add</u></a>	Adds or replaces a skin object to the control.
<a href="#"><u>Clear</u></a>	Removes all skins in the control.
<a href="#"><u>Remove</u></a>	Removes a specific skin from the control.
<a href="#"><u>RenderType</u></a>	Specifies the way colored EBN objects are displayed on the component.

## method Appearance.Add (ID as Long, Skin as Variant)

Adds or replaces a skin object to the control.

Type	Description
ID as Long	A Long expression that indicates the index of the skin being added or replaced. The value must be between 1 and 126, so Appearance collection should holds no more than 126 elements.
	The Skin parameter of the Add method can a STRING as explained bellow, a BYTE[] / safe arrays of VT_I1 or VT_UI1 expression that indicates the content of the <a href="#">EBN</a> file. You can use the BYTE[] / safe arrays of VT_I1 or VT_UI1 option when using the EBN file directly in the resources of the project. For instance, the VB6 provides the LoadResData to get the safe array o bytes for specified resource, while in VB/.NET or C# the internal class Resources provides definitions for all files being inserted. ( ResourceManager.GetObject("ebn", resourceCulture) )

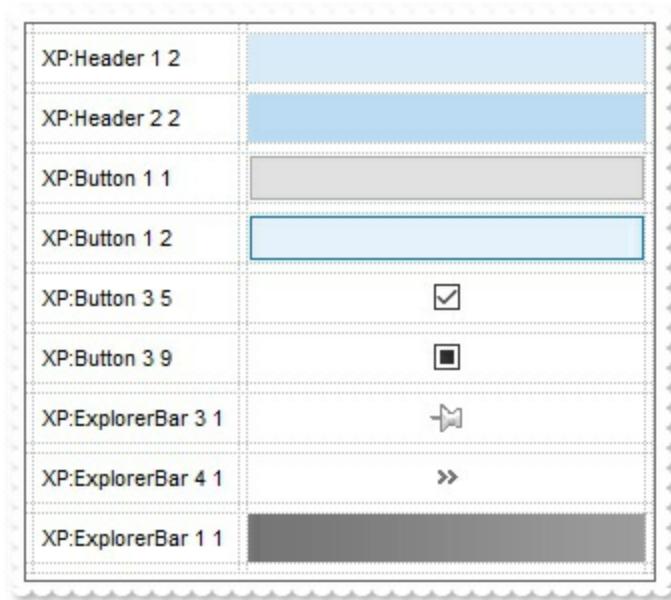
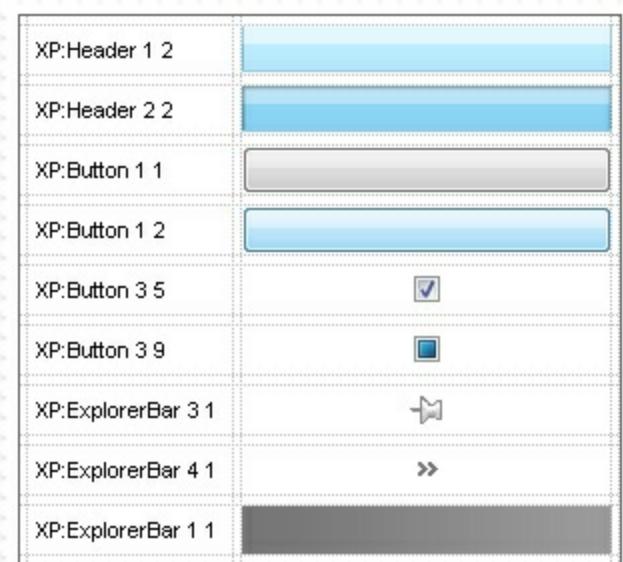
If the Skin parameter points to a string expression, it can be one of the following:

- A path to the skin file ( \*.[EBN](#) ). The [ExButton](#) component or [ExEBN](#) tool can be used to create, view or edit EBN files. For instance, "C:\Program Files\Exontrol\ExButton\Sample\EBN\MSOffice-Ribbon\msor\_frameh.ebn"
- A BASE64 encoded string that holds the skin file ( \*.[EBN](#) ). Use the [ExImages](#) tool to build BASE 64 encoded strings of the skin file ( \*.[EBN](#) ). The BASE64 encoded string starts with "gBFLBCJw..."
- An Windows XP theme part, if the Skin parameter starts with "XP:". Use this option, to display any UI element of the Current Windows XP Theme, on any part of the control. In this case, the syntax of the Skin parameter is: "XP:ClassName Part State" where the ClassName defines the window/control class name in the Windows XP Theme, the Part indicates a long expression that defines the part, and the State indicates the state of the part to be shown. All known values for window/class, part and start are defined at

the end of this document. For instance the "XP:Header 1 2" indicates the part 1 of the Header class in the state 2, in the current Windows XP theme.

The following screen shots show a few Windows XP Theme Elements, running on Windows Vista and Windows 10:

## Skin as Variant



- A copy of another skin with different coordinates ( position, size ), if the Skin parameter starts with "**CP:**". Use this option, to display the EBN, using different coordinates ( position, size ). By default, the EBN skin object is rendered on the part's client area. Using this option, you can display the same EBN, on a different position / size. In this case, the syntax of the Skin parameter is: "**CP:ID Left Top Right Bottom**"

where the ID is the identifier of the EBN to be used ( it is a number that specifies the ID parameter of the Add method ), Left, Top, Right and Bottom parameters/numbers specifies the relative position to the part's client area, where the EBN should be rendered. The Left, Top, Right and Bottom parameters are numbers ( negative, zero or positive values, with no decimal ), that can be followed by the D character which indicates the value according to the current DPI settings. For instance, "CP:1 -2 -2 2 2", uses the EBN with the identifier 1, and displays it on a 2-pixels wider rectangle no matter of the DPI settings, while "CP:1 -2D -2D 2D 2D" displays it on a 2-pixels wider rectangle if DPI settings is 100%, and on on a 3-pixels wider rectangle if DPI settings is 150%.

The following screen shot shows the same EBN being displayed, using different CP: options:



## Return

## Description

Boolean

A Boolean expression that indicates whether the new skin was added or replaced.

Use the Add method to add or replace skins to the control. The skin method, in it's simplest form, uses a single graphic file (\*.ebn) assigned to a part of the control. By using a collection of objects laid over the graphic, it is possible to define which sections of the graphic will be used as borders, corners and other possible elements, fixing them to their proper position regardless of the size of the part. Use the [Remove](#) method to remove a specific skin from the control. Use the [Clear](#) method to remove all skins in the control. Use the [BeginUpdate](#) and [EndUpdate](#) methods to maintain performance while init the control. Use the [Refresh](#) method to refresh the control.



The identifier you choose for the skin is very important to be used in the background properties like explained below. Shortly, the color properties uses 4 bytes ( DWORD, double WORD, and so on ) to hold a RGB value. More than that, the first byte ( most significant byte in the color ) is used only to specify system color. If the first bit in the byte is 1, the rest of bits indicates the index of the system color being used. So, we use the last 7 bits in the high significant byte of the color to indicate the identifier of the skin being used. So, since the 7 bits can cover 127 values, excluding 0, we have 126 possibilities to store an identifier in that byte. This way, a DWORD expression indicates the background color stored in RRGGBB format and the index of the skin ( ID parameter ) in the last 7 bits in the high significant byte of the color. For instance, the BackColor = BackColor Or &H2000000 indicates that we apply the skin with the index 2 using the old color, to the object that BackColor is applied.

The skin method may change the visual appearance for the following parts in the control:

- control's border, [Appearance](#) property
- **levels** on the chart area, [BackColor](#) property, [BackColorLevelHeader](#) property
- bar's background, [ItemBar\(exBarBackColor\)](#) property
- control's **header bar**, [BackColorHeader](#) property
- control's **filter bar**, [FilterBarBackColor](#) property
- control's **sort bar**, [BackColorSort](#) property
- the caption of the control's sort bar, [BackColorSortCaption](#) property
- **selected item** or cell, [SelBackColor](#) property
- **item**, [ItemBackColor](#) property
- **cell**, [CellBackColor](#) property
- cell's **button**, "drop down" filter bar button, "close" filter bar button, tooltip, and so on, [Background](#) property
- [CellImage](#), [CellImages](#), [HeaderImage](#), [CheckImage](#) or [RadioImage](#), [HasButtonsCustom](#) property

For instance, the following VB sample changes the visual appearance for the selected item. The [SelBackColor](#) property indicates the selection background color. Shortly, we need to add a skin to the Appearance object using the Add method, and we need to set the last 7 bits in the SelBackColor property to indicate the index of the skin that we want to use. The

sample applies the "█" to the selected item(s):

With Gantt1

```
With .VisualAppearance
    .Add &H23, App.Path + "\selected.ebn"
End With
.SelForeColor = RGB(0, 0, 0)
.SelBackColor = &H23000000
End With
```

The sample adds the skin with the index 35 ( Hexa 23 ), and applies to the selected item using the SelBackColor property.

The following C++ sample applies a [new appearance](#) to the selected item(s):

```
#include "Appearance.h"
m_gantt.GetVisualAppearance().Add( 0x23,
COleVariant(_T("D:\\Temp\\ExGantt_Help\\selected.ebn")));
m_gantt.SetSelBackColor( 0x23000000 );
m_gantt.SetSelForeColor( 0 );
```

The following VB.NET sample applies a [new appearance](#) to the selected item(s):

With AxGantt1

```
With .VisualAppearance
    .Add(&H23, "D:\\Temp\\ExGantt_Help\\selected.ebn")
End With
.SelForeColor = Color.Black
.Template = "SelBackColor = 587202560"
End With
```

The VB.NET sample uses the [Template](#) property to assign a new value to the SelBackColor property. The 587202560 value represents &23000000 in hexadecimal.

The following C# sample applies a [new appearance](#) to the selected item(s):

```
axGantt1.VisualAppearance.Add(0x23, "D:\\Temp\\ExGantt_Help\\selected.ebn");
axGantt1.Template = "SelBackColor = 587202560";
```

The following VFP sample applies a [new appearance](#) to the selected item(s):

```
With thisform.Gantt1
```

```
    With .VisualAppearance
```

```
        .Add(35, "D:\Temp\ExGantt_Help\selected.ebn")
```

```
    EndWith
```

```
    .SelForeColor = RGB(0, 0, 0)
```

```
    .SelBackColor = .587202560
```

```
EndWith
```

The 587202560 value represents &23000000 in hexadecimal. The 32 value represents &23 in hexadecimal

Starting with **Windows XP**, the following table shows how the common controls are broken into parts and states:

Control/ClassName	Part	States
BUTTON	BP_CHECKBOX = 3	CBS_UNCHECKED 1 CBS_UNCHECKED CBS_UNCHECKED = 3 CBS_UNCHECKED = 4 CBS_CHECKED 5 CBS_CHECKED CBS_CHECKEDPR CBS_CHECKEDDIS CBS_MIXEDNORMAL CBS_MIXEDHOT = CBS_MIXEDPRESS CBS_MIXEDDISAB GBS_NORMAL = 1 GBS_DISABLED = PBS_NORMAL = 1 = 2 PBS_PRESSED PBS_DISABLED = PBS_DEFAULTED : RBS_UNCHECKED 1 RBS_UNCHECKED RBS_UNCHECKED = 3 RBS_UNCHECKED = 4 RBS_CHECKED 5 RBS_CHECKEDPR
	BP_GROUPBOX = 4	
	BP_PUSHBUTTON = 1	
	BP_RADIOBUTTON = 2	

		RBS_CHECKEDPR RBS_CHECKEDDIS
<b>CLOCK</b>	BP_USERBUTTON = 5  CLP_TIME = 1	CLS_NORMAL = 1  CBXS_NORMAL = CBXS_HOT = 2 CBXS_PRESSED = CBXS_DISABLED =
<b>COMBOBOX</b>	CP_DROPDOWNBUTTON = 1	
<b>EDIT</b>	EP_CARET = 2   EP_EDITTEXT = 1	ETS_NORMAL = 1 2 ETS_SELECTED ETS_DISABLED = ETS_FOCUSED = ETS_READONLY = ETS_ASSIST = 7
<b>EXPLORERBAR</b>	EBP_HEADERBACKGROUND = 1  EBP_HEADERCLOSE = 2   EBP_HEADERPIN = 3	EBHC_NORMAL = EBHC_HOT = 2 EBHC_PRESSED = EBHP_NORMAL = EBHP_HOT = 2 EBHP_PRESSED = EBHP_SELECTED = 4 EBHP_SELECTED = EBHP_SELECTED = 6 EBM_NORMAL = 1 = 2 EBM_PRESSED
	EBP_IEBARMENU = 4  EBP_NORMALGROUPBACKGROUND = 5   EBP_NORMALGROUCCOLLAPSE = 6	EBNGC_NORMAL : EBNGC_HOT = 2 EBNGC_PRESSED : EBNGE_NORMAL : EBNGE_HOT = 2 EBNGE_PRESSED :
	EBP_NORMALGROUPEXPAND = 7   EBP_NORMALGROUPHEAD = 8 EBP_SPECIALGROUPBACKGROUND = 9	EBSGC_NORMAL : EBSGC_HOT = 2 EBSGC_PRESSED :
	EBP_SPECIALGROUCCOLLAPSE = 10	

	EBP_SPECIALGROUPEXPAND = 11	EBSGE_NORMAL : EBSGE_HOT = 2 EBSGE_PRESSED
<b>HEADER</b>	HP_HEADERITEM = 1  HP_HEADERITEMLEFT = 2  HP_HEADERITEMRIGHT = 3  HP_HEADERSORTARROW = 4	HIS_NORMAL = 1   2 HIS_PRESSED = HILS_NORMAL = 1 = 2 HILS_PRESSEI HIRS_NORMAL = 1 = 2 HIRS_PRESSE HSAS_SORTEDUP HSAS_SORTEDDC
<b>LISTVIEW</b>	LVP_EMPTYTEXT = 5  LVP_LISTDETAIL = 3  LVP_LISTGROUP = 2  LVP_LISTITEM = 1  LVP_LISTSORTEDDETAIL = 4	LIS_NORMAL = 1   2 LIS_SELECTED : LIS_DISABLED = 4 LIS_SELECTEDNO 5
<b>MENU</b>	MP_MENUBARDROPDOWN = 4  MP_MENUBARITEM = 3  MP_CHEVRON = 5  MP_MENUDROPDOWN = 2  MP_MENUITEM = 1  MP_SEPARATOR = 6	MS_NORMAL = 1 MS_SELECTED = 2 MS_DEMOTED = 3  MS_NORMAL = 1 MS_SELECTED = 2 MS_DEMOTED = 3  MDS_NORMAL = 1

<b>MENUBAND</b>	MDP_NEWWAPPBUTTON = 1	= 2 MDS_PRESSE MDS_DISABLED = MDS_CHECKED = MDS_HOTCHECKE
	MDP_SEPERATOR = 2	DNS_NORMAL = 1 = 2 DNS_PRESSE DNS_DISABLED =
<b>PAGE</b>	PGRP_DOWN = 2	DNHZS_NORMAL = DNHZS_HOT = 2 DNHZS_PRESSED DNHZS_DISABLED
	PGRP_DOWNHORZ = 4	UPS_NORMAL = 1 = 2 UPS_PRESSE UPS_DISABLED =
	PGRP_UP = 1	UPHZS_NORMAL = UPHZS_HOT = 2 UPHZS_PRESSED UPHZS_DISABLED
<b>PROGRESS</b>	PP_BAR = 1	CHEVS_NORMAL =
	PP_BARVERT = 2	CHEVS_HOT = 2 CHEVS_PRESSED
	PP_CHUNK = 3	
	PP_CHUNKVERT = 4	
<b>REBAR</b>	RP_BAND = 3	
	RP_CHEVRON = 4	
	RP_CHEVRONVERT = 5	
	RP_GRIPPER = 1	
	RP_GRIPPERVERT = 2	
<b>SCROLLBAR</b>	SBP_ARROWBTN = 1	ABS_DOWNDISAB ABS_DOWNHOT, ABS_DOWNNORM ABS_DOWNPRESS ABS_UPDISABLED ABS_UPHOT, ABS_UPNORMAL, ABS_UPPRESSED, ABS_LEFTDISABLI ABS_LEFTHOT,

		ABS_LEFTNORMA
		ABS_LEFTPRESSE
		ABS_RIGHTDISAB
		ABS_RIGHTHOT,
		ABS_RIGHTNORM
		ABS_RIGHTPRESS
	SBP_GRIPPERHORZ = 8	
	SBP_GRIPPERVERT = 9	
	SBP_LOWERTRACKHORZ = 4	SCRBS_NORMAL :
	SBP_LOWERTRACKVERT = 6	SCRBS_HOT = 2
	SBP_THUMBBTNHORZ = 2	SCRBS_PRESSED
	SBP_THUMBBTNVERT = 3	SCRBS_DISABLED
	SBP_UPPERTRACKHORZ = 5	SCRBS_NORMAL :
	SBP_UPPERTRACKVERT = 7	SCRBS_HOT = 2
	SBP_SIZEBOX = 10	SCRBS_PRESSED
	SPNP_DOWN = 2	SCRBS_DISABLED
<b>SPIN</b>	SPNP_DOWNHORZ = 4	SZB_RIGHTALIGN
		SZB_LEFTALIGN =
		DNS_NORMAL = 1
		= 2 DNS_PRESSED
		DNS_DISABLED =
		DNZS_NORMAL =
		DNZS_HOT = 2
		DNZS_PRESSED
		DNZS_DISABLED

	SPNP_UP = 1	UPS_NORMAL = 1 = 2 UPS_PRESSED UPS_DISABLED =
	SPNP_UPHORZ = 3	UPHZS_NORMAL = UPHZS_HOT = 2 UPHZS_PRESSED UPHZS_DISABLED
<b>STARTPANEL</b>	SPP_LOGOFF = 8	SPLS_NORMAL = SPLS_HOT = 2 SPLS_PRESSED =
	SPP_LOGOFFBUTTONS = 9	SPS_NORMAL = 1 = 2 SPS_PRESSED
	SPP_MOREPROGRAMS = 2	
	SPP_MOREPROGRAMSARROW = 3	
	SPP_PLACESLIST = 6	
	SPP_PLACESLISTSEPARATOR = 7	
	SPP_PREVIEW = 11	
	SPP_PROGLIST = 4	
	SPP_PROGLISTSEPARATOR = 5	
	SPP_USERPANE = 1	
	SPP_USERPICTURE = 10	
<b>STATUS</b>	SP_GRIPPER = 3	TIS_NORMAL = 1 = 2 TIS_SELECTED TIS_DISABLED = 4
	SP_PANE = 1	TIS_FOCUSED = 5
	SP_GRIPPERPANE = 2	TIBES_NORMAL = TIBES_HOT = 2
<b>TAB</b>	TABP_BODY = 10	TIBES_SELECTED TIBES_DISABLED TIBES_FOCUSED =
	TABP_PANE = 9	TILES_NORMAL = TILES_HOT = 2
	TABP_TABITEM = 1	TILES_SELECTED TILES_DISABLED
	TABP_TABITEMBOTEDGE = 4	
	TABP_TABITEMLEFTEDGE = 2	

	TILES_FOCUSED : TIRES_NORMAL = TIRES_HOT = 2 TIRES_SELECTED TIRES_DISABLED TIRES_FOCUSED
	TABP_TABITEMRIGHTEDGE = 3
	TABP_TOPTABITEM = 5
	TABP_TOPTABITEMBOTHEDGE = 8
	TABP_TOPTABITEMLEFTEDGE = 6
	TABP_TOPTABITEMRIGHTEDGE = 7
<b>TASKBAND</b>	TDP_GROUPCOUNT = 1 TDP_FLASHBUTTON = 2 TDP_FLASHBUTTONONGROUPMENU = 3
<b>TASKBAR</b>	TBP_BACKGROUNDBOTTOM = 1 TBP_BACKGROUNDLEFT = 4 TBP_BACKGROUNDRIGHT = 2 TBP_BACKGROUNDTOP = 3 TBP_SIZINGBARBOTTOM = 5 TBP_SIZINGBARBOTTOMLEFT = 8 TBP_SIZINGBARRIGHT = 6 TBP_SIZINGBARTOP = 7
<b>TOOLBAR</b>	TP_BUTTON = 1  TS_NORMAL = 1 T TS_PRESSED = 3 TS_DISABLED = 4 TS_CHECKED = 5



	TKP_THUMBBOTTOM = 4	TUBS_NORMAL = TUBS_HOT = 2 TUBS_PRESSED = TUBS_FOCUSED = TUBS_DISABLED =
	TKP_THUMBLEFT = 7	TUVLS_NORMAL = TUVLS_HOT = 2 TUVLS_PRESSED TUVLS_FOCUSED TUVLS_DISABLED
	TKP_THUMBRIGHT = 8	TUVRs_NORMAL = TUVRs_HOT = 2 TUVRs_PRESSED TUVRs_FOCUSED TUVRs_DISABLED
	TKP_THUMBTOP = 5	TUTS_NORMAL = TUTS_HOT = 2 TUTS_PRESSED = TUTS_FOCUSED = TUTS_DISABLED =
	TKP_THUMBVERT = 6	TUVS_NORMAL = TUVS_HOT = 2 TUVS_PRESSED = TUVS_FOCUSED = TUVS_DISABLED =
<b>TRAYNOTIFY</b>	TKP_TICS = 9	TSS_NORMAL = 1
	TKP_TICSVERT = 10	TSVS_NORMAL =
	TKP_TRACK = 1	TRS_NORMAL = 1
	TKP_TRACKVERT = 2	TRVS_NORMAL =
	TNP_ANIMBACKGROUND = 2	
<b>TREEVIEW</b>	TNP_BACKGROUND = 1	
	TVP_BRANCH = 3	
	TVP_GLYPH = 2	GLPS_CLOSED = GLPS_OPENED =
	TVP_TREEITEM = 1	TREIS_NORMAL = TREIS_HOT = 2 TREIS_SELECTED TREIS_DISABLED TREIS_SELECTED = 5

<b>WINDOW</b>	WP_CAPTION = 1	CS_ACTIVE = 1 CS = 2 CS_DISABLED
	WP_CAPTIONSIZINGTEMPLATE = 30	CBS_NORMAL = 1 = 2 CBS_PUSHED CBS_DISABLED =
	WP_CLOSEBUTTON = 18	
	WP_DIALOG = 29	
	WP_FRAMEBOTTOM = 9	FS_ACTIVE = 1 FS = 2
	WP_FRAMEBOTTOMSIZINGTEMPLATE = 36	
	WP_FRAMELEFT = 7	FS_ACTIVE = 1 FS = 2
	WP_FRAMELEFTSIZINGTEMPLATE = 32	
	WP_FRAMERIGHT = 8	FS_ACTIVE = 1 FS = 2
	WP_FRAMERIGHTSIZINGTEMPLATE = 34	
	WP_HELPBUTTON = 23	HBS_NORMAL = 1 = 2 HBS_PUSHED HBS_DISABLED =
	WP_HORZSCROLL = 25	HSS_NORMAL = 1 = 2 HSS_PUSHED HSS_DISABLED =
	WP_HORIZTHUMB = 26	HTS_NORMAL = 1 = 2 HTS_PUSHED HTS_DISABLED =
	WP_MAX_BUTTON	MAXBS_NORMAL = MAXBS_HOT = 2 MAXBS_PUSHED = MAXBS_DISABLED =
	WP_MAXCAPTION = 5	MXCS_ACTIVE = 1 MXCS_INACTIVE = MXCS_DISABLED =
	WP_MDICLOSEBUTTON = 20	CBS_NORMAL = 1 = 2 CBS_PUSHED CBS_DISABLED =
	WP_MDIHELPBUTTON = 24	HBS_NORMAL = 1 = 2 HBS_PUSHED HBS_DISABLED =
		MINBS_NORMAL = MINBS_HOT = 2

WP_MDIMINBUTTON = 16	MINBS_PUSHED = MINBS_DISABLED
WP_MDIRESTOREBUTTON = 22	RBS_NORMAL = 1 = 2 RBS_PUSHED RBS_DISABLED =
WP_MDISYSBUTTON = 14	SBS_NORMAL = 1 = 2 SBS_PUSHED SBS_DISABLED =
WP_MINBUTTON = 15	MINBS_NORMAL = MINBS_HOT = 2 MINBS_PUSHED = MINBS_DISABLED
WP_MINCAPTION = 3	MNCS_ACTIVE = 1 MNCS_INACTIVE = MNCS_DISABLED
WP_RESTOREBUTTON = 21	RBS_NORMAL = 1 = 2 RBS_PUSHED RBS_DISABLED =
WP_SMALLCAPTION = 2	CS_ACTIVE = 1 CS = 2 CS_DISABLED
WP_SMALLCAPTIONSIZINGTEMPLATE = 31	CBS_NORMAL = 1 = 2 CBS_PUSHED CBS_DISABLED =
WP_SMALLCLOSEBUTTON = 19	FS_ACTIVE = 1 FS = 2
WP_SMALLFRAMEBOTTOM = 12	FS_ACTIVE = 1 FS = 2
WP_SMALLFRAMEBOTTOMSIZINGTEMPLATE = 37	FS_ACTIVE = 1 FS = 2
WP_SMALLFRAMELEFT = 10	FS_ACTIVE = 1 FS = 2
WP_SMALLFRAMELEFTSIZINGTEMPLATE = 33	FS_ACTIVE = 1 FS = 2
WP_SMALLFRAMERIGHT = 11	FS_ACTIVE = 1 FS = 2
WP_SMALLFRAMERIGHTSIZINGTEMPLATE = 35	FS_ACTIVE = 1 FS = 2
WP_SMALLHELPBUTTON	HBS_NORMAL = 1 = 2 HBS_PUSHED HBS_DISABLED = MAXBS_NORMAL :

WP\_SMALLMAXBUTTON

MAXBS\_HOT = 2  
MAXBS\_PUSHED =  
MAXBS\_DISABLED =  
MXCS\_ACTIVE = 1  
MXCS\_INACTIVE =  
MXCS\_DISABLED =  
MNCS\_ACTIVE = 1  
MNCS\_INACTIVE =  
MNCS\_DISABLED =

WP\_SMALLMAXCAPTION = 6

WP\_SMALLMINCAPTION = 4

WP\_SMALLRESTOREBUTTON

WP\_SMALLSYSBUTTON

WP\_SYSBUTTON = 13

WP\_VERTSCROLL = 27

WP\_VERTTHUMB = 28

RBS\_NORMAL = 1  
= 2 RBS\_PUSHED  
RBS\_DISABLED =  
SBS\_NORMAL = 1  
= 2 SBS\_PUSHED  
SBS\_DISABLED =  
SBS\_NORMAL = 1  
= 2 SBS\_PUSHED  
SBS\_DISABLED =  
VSS\_NORMAL = 1  
= 2 VSS\_PUSHED  
VSS\_DISABLED =  
VTS\_NORMAL = 1  
2 VTS\_PUSHED =  
VTS\_DISABLED =

## method Appearance.Clear ()

Removes all skins in the control.

Type	Description
------	-------------

Use the Clear method to clear all skins from the control. Use the [Remove](#) method to remove a specific skin. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.

The skin method may change the visual appearance for the following parts in the control:

- control's border, [Appearance](#) property
- **levels** on the chart area, [BackColor](#) property, [BackColorLevelHeader](#) property
- bar's background, [ItemBar\(exBarBackColor\)](#) property
- control's **header bar**, [BackColorHeader](#) property
- control's **filter bar**, [FilterBarBackColor](#) property
- control's **sort bar**, [BackColorSort](#) property
- the caption of the control's sort bar, [BackColorSortCaption](#) property
- **selected item** or cell, [SelBackColor](#) property
- **item**, [ItemBackColor](#) property
- **cell**, [CellBackColor](#) property
- cell's **button**, "drop down" filter bar button, "close" filter bar button, tooltip, and so on, [Background](#) property
- [CellImage](#), [CellImages](#), [HeaderImage](#), [CheckImage](#) or [RadioImage](#), [HasButtonsCustom](#) property

## method Appearance.Remove (ID as Long)

Removes a specific skin from the control.

Type	Description
ID as Long	A Long expression that indicates the index of the skin being removed.

Use the Remove method to remove a specific skin. The identifier of the skin being removed should be the same as when the skin was added using the [Add](#) method. Use the [Clear](#) method to clear all skins from the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.

The skin method may change the visual appearance for the following parts in the control:

- control's border, [Appearance](#) property
- **levels** on the chart area, [BackColor](#) property, [BackColorLevelHeader](#) property
- bar's background, [ItemBar\(exBarBackColor\)](#) property
- control's **header bar**, [BackColorHeader](#) property
- control's **filter bar**, [FilterBarBackColor](#) property
- control's **sort bar**, [BackColorSort](#) property
- the caption of the control's sort bar, [BackColorSortCaption](#) property
- **selected item** or cell, [SelBackColor](#) property
- **item**, [ItemBackColor](#) property
- **cell**, [CellBackColor](#) property
- cell's **button**, "drop down" filter bar button, "close" filter bar button, tooltip, and so on, [Background](#) property
- [CellImage](#), [CellImages](#), [HeaderImage](#), [CheckImage](#) or [RadioImage](#), [HasButtonsCustom](#) property

## property Appearance.RenderType as Long

Specifies the way colored EBN objects are displayed on the component.

Type	Description
Long	A long expression that indicates how the EBN objects are shown in the control, like explained below.

By default, the RenderType property is 0, which indicates an A-color scheme. The RenderType property can be used to change the colors for the entire control, for parts of the controls that uses EBN objects. The RenderType property is not applied to the currently XP-theme if using.

The RenderType property is applied to all parts that displays an EBN object. The properties of color type may support the EBN object if the property's description includes "*A color expression that indicates the cell's background color. The last 7 bits in the high significant byte of the color to indicates the identifier of the skin being used. Use the [Add](#) method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.*" In other words, a property that supports EBN objects should be of format 0xIDRRGGBB, where the ID is the identifier of the EBN to be applied, while the BBGGRR is the (Red,Green,Blue, RGB-Color) color to be applied on the selected EBN. For instance, the 0x1000000 indicates displaying the EBN as it is, with no color applied, while the 0x1FF0000, applies the Blue color ( RGB(0x0,0x0,0xFF), RGB(0,0,255) on the EBN with the identifier 1. You can use the [EBNColor](#) tool to visualize applying EBN colors.

Click here  to watch a movie on how you can change the colors to be applied on EBN objects.

For instance, the following sample changes the control's header appearance, by using an EBN object:

With Control

```
.VisualAppearance.Add 1,"c:\exontrol\images\normal.ebn"  
.BackColorHeader = &H1000000
```

End With

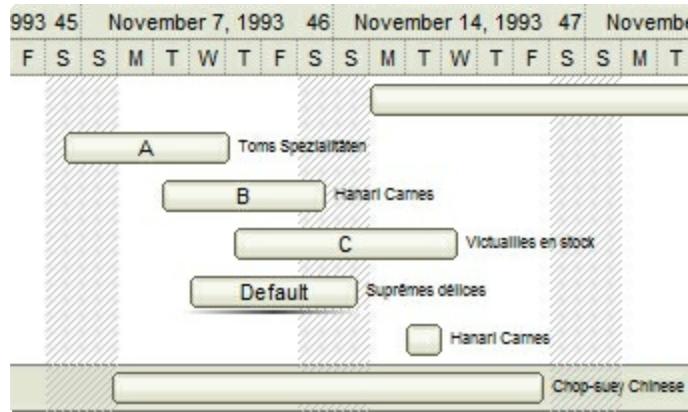
In the following screen shot the following objects displays the current EBN with a different color:

- "A" in Red ( RGB(255,0,0) ), for instance the bar's property exBarColor is 0x10000FF
- "B" in Green ( RGB(0,255,0) ), for instance the bar's property exBarColor is 0x100FF00

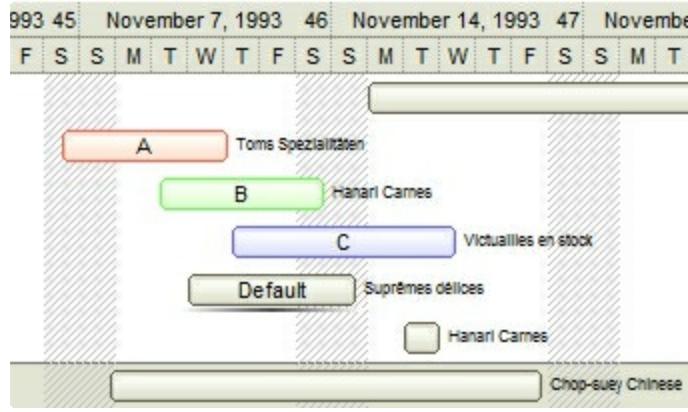
- "C" in Blue ( RGB(0,0,255) ), for instance the bar's property exBarColor is 0x1FF0000
- "Default", no color is specified, for instance the bar's property exBarColor is 0x1000000

The RenderType property could be one of the following:

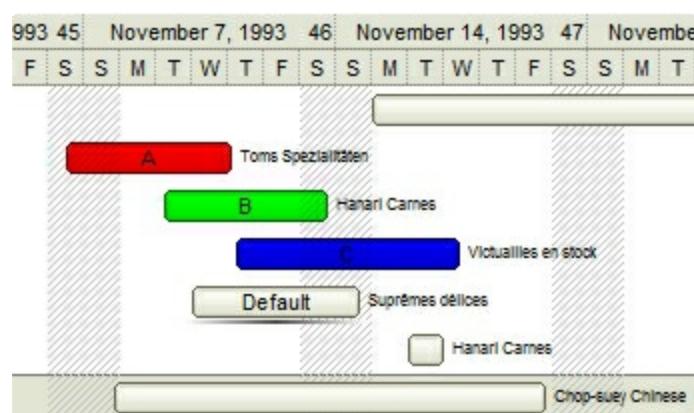
- **-3, no color is applied.** For instance, the BackColorHeader = &H1FF0000 is displayed as would be .BackColorHeader = &H1000000, so the 0xFF0000 color ( Blue color ) is ignored. You can use this option to allow the control displays the EBN colors or not.



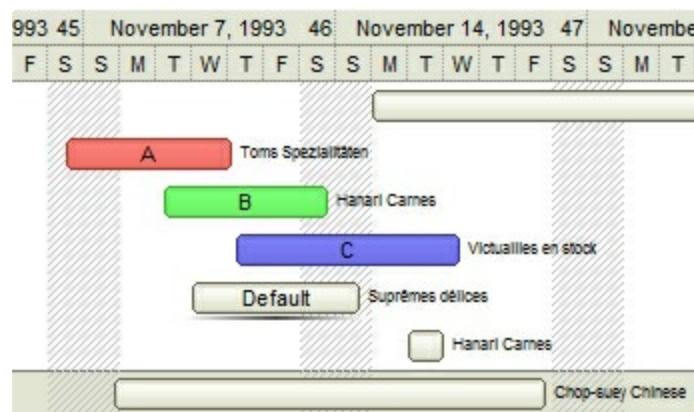
- **-2, OR-color scheme.** The color to be applied on the part of the control is a OR bit combination between the original EBN color and the specified color. For instance, the BackColorHeader = &H1FF0000, applies the OR bit for the entire Blue channel, or in other words, it applies a less Blue to the part of the control. This option should be used with solid colors (RGB(255,0,0), RGB(0,255,0), RGB(0,0,255), RGB(255,255,0), RGB(255,0,255), RGB(0,255,255),RGB(127,0,0),RGB(0,127,0), ... )



- **-1, AND-color scheme,** The color to be applied on the part of the control is an AND bit combination between the original EBN color and the specified color. For instance, the BackColorHeader = &H1FF0000, applies the AND bit for the entire Blue channel, or in other words, it applies a more Blue to the part of the control. This option should be used with solid colors (RGB(255,0,0), RGB(0,255,0), RGB(0,0,255), RGB(255,255,0), RGB(255,0,255), RGB(0,255,255),RGB(127,0,0),RGB(0,127,0), ... )

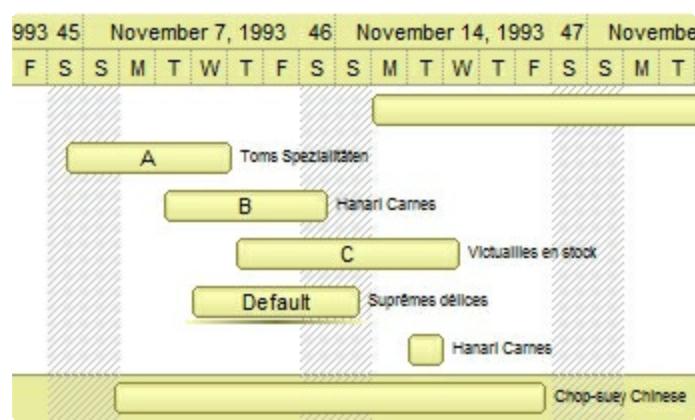


- **0, default**, the specified color is applied to the EBN. For instance, the BackColorHeader = &H1FF0000, applies a Blue color to the object. This option could be used to specify any color for the part of the components, that support EBN objects, not only solid colors.

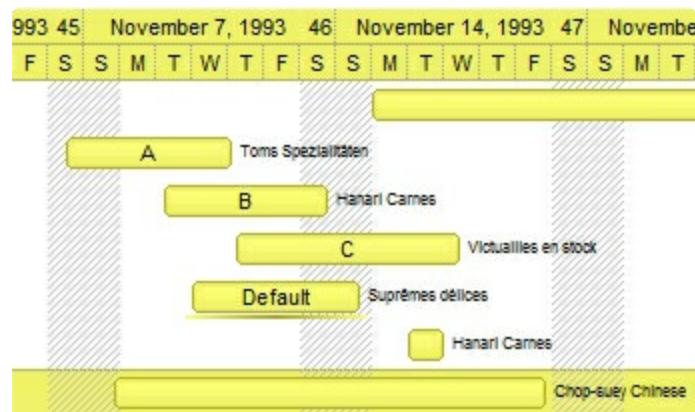


- **0xAABBGGRR**, where the AA a value between 0 to 255, which indicates the transparency, and RR, GG, BB the red, green and blue values. This option applies the same color to all parts that displays EBN objects, whit ignoring any specified color in the color property. For instance, the RenderType on 0x4000FFFF, indicates a 25% Yellow on EBN objects. The 0x40, or 64 in decimal, is a 25 % from in a 256 interal, and the 0x00FFFF, indicates the Yellow ( RGB(255,255,0) ). The same could be if the RenderType is 0x40000000 + vbYellow, or &H40000000 + RGB(255, 255, 0), and so, the RenderType could be the 0xAA000000 + Color, where the Color is the RGB format of the color.

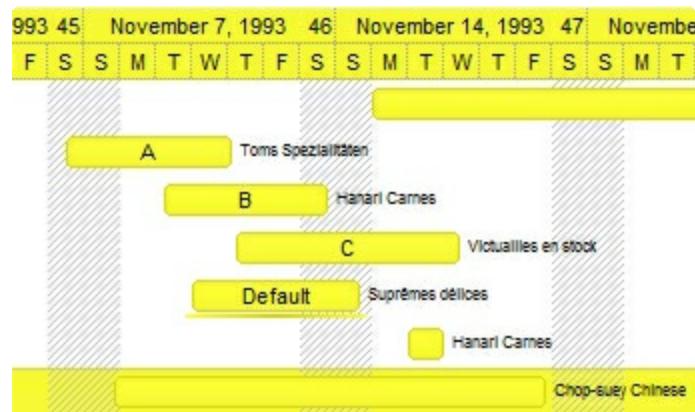
*The following picture shows the control with the RenderType property on 0x4000FFFF (25% Yellow, 0x40 or 64 in decimal is 25% from 256 ):*



The following picture shows the control with the `RenderType` property on `0x8000FFFF` (50% Yellow, `0x80` or `128` in decimal is 50% from `256` ):



The following picture shows the control with the `RenderType` property on `0xC000FFFF` (75% Yellow, `0xC0` or `192` in decimal is 75% from `256` ):



The following picture shows the control with the `RenderType` property on `0xFF00FFFF` (100% Yellow, `0xFF` or `255` in decimal is 100% from `255` ):

993	45	November 7, 1993	46	November 14, 1993	47	Novembe
F	S	S	M	T	W	T
F	S	S	M	T	W	T

A Toms Spezialitäten  
B Hanari Camees  
C Virtuallies en stock  
Default Suprêmes délices  
Hanari Camees  
Chop-suey Chinese

The chart displays a weekly schedule from November 7 to November 14, 1993. The days of the week are labeled at the top: F S S M T W T. The tasks are represented by yellow bars:

- Task A: Toms Spezialitäten (Saturday to Monday)
- Task B: Hanari Camees (Sunday to Tuesday)
- Task C: Virtuallies en stock (Monday to Wednesday)
- Task Default: Suprêmes délices (Tuesday to Thursday)
- Task Hanari Camees: (No bar, listed separately)
- Task Chop-suey Chinese: (No bar, listed separately)

## Bar object

The Bar object identifies a bar in the chart. A Bar object contains three parts: the start part and end part identifies the corners of the bar, and the middle part of the bar. The look and feel of the middle part of the bar are defined by the properties: Color, Pattern and Shape. The StartShape and StartColor properties defines the start part of the bar. The EndShape and EndColor properties defines the end part of the bar. Use the [Bars](#) property to access the Bars collection. Use the [Chart](#) object property to access the control's chart. Use the [AddBar](#) method to add a bar to an item. Use the [Add](#) and [Copy](#) methods to add new Bar objects. The Bar object supports the following properties and methods:

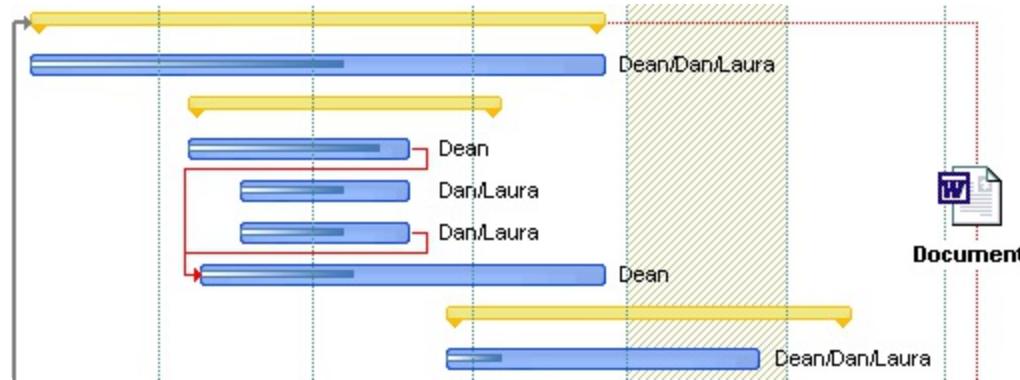
Name	Description
<a href="#">Color</a>	Specifies the color of the bar.
<a href="#">EndColor</a>	Returns or sets a value that indicates the color for the right side corner.
<a href="#">EndShape</a>	Retrieves or sets a value that indicates the shape of the right side corner.
<a href="#">Height</a>	Retrieves or sets a value that indicates the height in pixels of the bar.
<a href="#">Name</a>	Retrieves the name of the bar.
<a href="#">Pattern</a>	Retrieves or sets a value that indicates the pattern being used to fill the bar.
<a href="#">Shape</a>	Retrieves or sets a value that indicates the shape of the bar.
<a href="#">Shortcut</a>	Specifies a value that indicates a shortcut for the current bar.
<a href="#">StartColor</a>	Returns or sets a value that indicates the color for the left side corner.
<a href="#">StartShape</a>	Retrieves or sets a value that indicates the shape of the left side corner.

## property Bar.Color as Color

Specifies the color of the bar.

Type	Description
Color	A Color expression that indicates the color of the bar. The last 7 bits in the high significant byte of the color indicates the identifier of the skin being used to paint the bar. Use the <a href="#">Add</a> method to add new skins to the control. The skin object is used to draw the bar in the chart area.

Use the Color property to specify the color to fill the bar. The Color property specifies the color to paint all bars of the same type. Use the [ItemBar\(exBarColor\)](#) property to specify a different color/skin for a particular bar. Use the [Pattern](#) property to specify the brush being used to fill the bar. Use the [Shape](#) property to specify the height and the vertical alignment of the middle part of the bar. Use the [StartColor](#) property to specify the color for the beginning part of the bar, if the [StartShape](#) property is not exShapeIconEmpty. Use the [EndColor](#) property to specify the color for the ending part of the bar, if the [EndShape](#) property is not exShapeIconEmpty.



In VB.NET or C# you require the following functions until the .NET framework will provide:

You can use the following VB.NET function:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32
    Dim i As Long
    i = c.R
    i = i + 256 * c.G
    i = i + 256 * 256 * c.B
    ToUInt32 = Convert.ToInt32(i)
End Function
```

You can use the following C# function:

```
private UInt32 ToUInt32(Color c)
{
    long i;
    i = c.R;
    i = i + 256 * c.G;
    i = i + 256 * 256 * c.B;
    return Convert.ToInt32(i);
}
```

The following VB sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the color to fill the bar:

With Gantt1.Chart.Bars

```
With .Copy("Task", "Task2")
    .Color = RGB(255, 0, 0)
End With
End With
```

The following C++ sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the color to fill the bar:

```
CBars bars = m_gantt.GetChart().GetBars();
CBar bar = bars.Copy( "Task", "Task2" );
bar.SetColor( RGB(255,0,0) );
```

The following VB.NET sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the color to fill the bar:

With AxGantt1.Chart.Bars

```
With .Copy("Task", "Task2")
    .Color = ToUInt32(Color.Red)
End With
End With
```

The following C# sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the color to fill the bar:

```
EXGANTTLib.Bar bar = axGantt1.Chart.Bars.Copy("Task", "Task2");
bar.Color = ToUInt32(Color.Red);
```

The following VFP sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the color to fill the bar:

```
with thisform.Gantt1.Chart.Bars  
  with .Copy("Task", "Task2" )  
    .Color = RGB(255,0,0)  
  endwith  
endwith
```

## property Bar.EndColor as Color

Returns or sets a value that indicates the color for the right side corner.

Type	Description
Color	A Color expression that indicates the color for the ending part of the bar.

Use the EndColor property to specify the color to fill the end part of the bar, if the [EndShape](#) property is not exShapeIconEmpty. Use the [Color](#) property to specify the color to fill the middle part of the bar. Use the [StartColor](#) and [StartShape](#) properties to define the look and feel for the starting part of the bar. Use the [AddShapeCorner](#) property to add custom icons to the bars. In this case, the icon is processed before displaying based on the [StartColor](#)/ EndColor property. For instance, if you add an black and white icon, and the StartColor/EndColor is red, the icon will be painted in red. Instead, if the StartColor/EndColor property is -1 ( 0xFFFFFFFF, not white which is 0x00FFFFFF ), the icon is painted as it was added using the AddShapeCorner without any image processing. If the StartColor/EndColor property is not -1, it indicates the color being applied to the icon.

In VB.NET or C# you require the following functions until the .NET framework will provide:

You can use the following VB.NET function:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32
```

```
    Dim i As Long
```

```
    i = c.R
```

```
    i = i + 256 * c.G
```

```
    i = i + 256 * 256 * c.B
```

```
ToUInt32 = Convert.ToUInt32(i)
```

```
End Function
```

You can use the following C# function:

```
private UInt32 ToUInt32(Color c)
```

```
{
```

```
    long i;
```

```
    i = c.R;
```

```
    i = i + 256 * c.G;
```

```
    i = i + 256 * 256 * c.B;
```

```
    return Convert.ToUInt32(i);
```

```
}
```

The following VB sample defines a new bar that looks like this :

```
With Gantt1.Chart.Bars.Add("Task2")
    .Pattern = exPatternShadow
    .Color = RGB(0, 0, 255)
    .EndShape = exShapeIconCircleDot
    .EndColor = RGB(255, 0, 0)
End With
```

The following C++ sample defines a bar that looks like this above:

```
CBar bar = m_gantt.GetChart().GetBars().Add("Task2");
bar.SetPattern( 3 /*exPatternShadow*/ );
barSetColor( RGB(0, 0, 255) );
bar.SetEndShape( 4 /* exShapeIconCircleDot */ );
bar.SetEndColor( RGB(255, 0, 0) );
```

The following VB.NET sample defines a bar that looks like this above:

```
With AxGantt1.Chart.Bars.Add("Task2")
    .Pattern = EXGANTTLib.PatternEnum.exPatternShadow
    .Color = RGB(0, 0, 255)
    .EndShape = EXGANTTLib.ShapeCornerEnum.exShapeIconCircleDot
    .EndColor = RGB(255, 0, 0)
End With
```

The following C# sample defines a bar that looks like this above:

```
EXGANTTLib.Bar bar = axGantt1.Chart.Bars.Add("Task2");
bar.Pattern = EXGANTTLib.PatternEnum.exPatternShadow;
bar.Color = ToUInt32(Color.FromArgb(0, 0, 255));
bar.EndShape = EXGANTTLib.ShapeCornerEnum.exShapeIconCircleDot;
bar.EndColor = ToUInt32(Color.FromArgb(255, 0, 0));
```

The following VFP sample defines a bar that looks like this above:

```
with thisform.Gantt1.Chart.Bars.Add("Task2")
    .Pattern = 3 && exPatternShadow
    .Color = RGB(0, 0, 255)
```

```
.EndShape = 4 && exShapeIconCircleDot
```

```
.EndColor = RGB(255, 0, 0)
```

```
EndWith
```

## property Bar.EndShape as ShapeCornerEnum

Retrieves or sets a value that indicates the shape of the right side corner.

Type	Description
<a href="#">ShapeCornerEnum</a>	A ShapeCornerEnum expression that defines the shape of the icon being used to draw the corner.

By default, the EndShape property is exShapeIconEmpty. If the EndShape property is exShapeIconEmpty the bar has no ending part. Use the [Color](#) property to specify the color to fill the middle part of the bar. Use the [Pattern](#) property to specify the brush being used to fill the bar. Use the [Shape](#) property to specify the height and the vertical alignment of the middle part of the bar. Use the [AddShapeCorner](#) method to add a custom icon to be used as a starting or ending part of the bar. Use the [Images](#) or [ReplaceIcon](#) method to update the list of control's icons.

The following VB sample adds a custom shape  and defines a bar like this



With Gantt1.Chart.Bars

```
.AddShapeCorner 12345, 1
With .Add("Task2")
    .Pattern = exPatternDot
    .Shape = exShapeThinDown
    .EndShape = 12345
    .EndColor = RGB(255, 0, 0)
    .Color = .EndColor
End With
End With
```

The following C++ sample adds a custom shape and defines a bar like above:

```
CBars bars = m_gantt.GetChart().GetBars();
bars.AddShapeCorner( COleVariant( (long)12345 ), COleVariant( (long)1 ) );
CBar bar = bars.Add("Task2");
bar.SetPattern( 2 /*exPatternDot*/ );
bar.SetShape( 20 /*exShapeThinDown*/ );
bar.SetEndShape( 12345 );
bar.SetEndColor( RGB(255, 0, 0) );
barSetColor( bar.GetEndColor() );
```

The following VB.NET sample adds a custom shape and defines a bar like above:

```
With AxGantt1.Chart.Bars
    .AddShapeCorner(12345, 1)
    With .Add("Task2")
        .Pattern = EXGANTTLib.PatternEnum.exPatternDot
        .Shape = EXGANTTLib.ShapeBarEnum.exShapeThinDown
        .EndShape = 12345
        .EndColor = RGB(255, 0, 0)
        .Color = .EndColor
    End With
End With
```

The following C# sample adds a custom shape and defines a bar like above:

```
axGantt1.Chart.Bars.AddShapeCorner(12345, 1);
EXGANTTLib.Bar bar = axGantt1.Chart.Bars.Add("Task2");
bar.Pattern = EXGANTTLib.PatternEnum.exPatternDot;
bar.Shape = EXGANTTLib.ShapeBarEnum.exShapeThinDown;
bar.EndShape = (EXGANTTLib.ShapeCornerEnum)12345;
bar.EndColor = ToUInt32(Color.FromArgb(255, 0, 0));
bar.Color = bar.EndColor;
```

The following VFP sample adds a custom shape and defines a bar like above:

```
With thisform.Gantt1.Chart.Bars
    .AddShapeCorner(12345, 1)
    With .Add("Task2")
        .Pattern = 2 && exPatternDot
        .Shape = 20 && exShapeThinDown
        .EndShape = 12345
        .EndColor = RGB(255, 0, 0)
        .Color = .EndColor
    EndWith
EndWith
```

The following VB sample defines a new bar that looks like this :

```
With .Chart.Bars.Add("Task2")
    .Pattern = exPatternShadow
```

```
.Color = RGB(0, 0, 255)  
.EndShape = exShapeIconCircleDot  
.EndColor = RGB(255, 0, 0)
```

End With

The following C++ sample defines a bar that looks like this above:

```
CBar bar = m_gantt.GetChart().GetBars().Add("Task2");  
bar.SetPattern( 3 /*exPatternShadow*/ );  
barSetColor( RGB(0, 0, 255) );  
bar.SetEndShape( 4 /* exShapeIconCircleDot */ );  
bar.SetEndColor( RGB(255, 0, 0) );
```

The following VB.NET sample defines a bar that looks like this above:

```
With AxGantt1.Chart.Bars.Add("Task2")  
.Pattern = EXGANTTLib.PatternEnum.exPatternShadow  
.Color = RGB(0, 0, 255)  
.EndShape = EXGANTTLib.ShapeCornerEnum.exShapeIconCircleDot  
.EndColor = RGB(255, 0, 0)  
End With
```

The following C# sample defines a bar that looks like this above:

```
EXGANTTLib.Bar bar = axGantt1.Chart.Bars.Add("Task2");  
bar.Pattern = EXGANTTLib.PatternEnum.exPatternShadow;  
bar.Color = ToUInt32(Color.FromArgb(0, 0, 255));  
bar.EndShape = EXGANTTLib.ShapeCornerEnum.exShapeIconCircleDot;  
bar.EndColor = ToUInt32(Color.FromArgb(255, 0, 0));
```

The following VFP sample defines a bar that looks like this above:

```
with thisform.Gantt1.Chart.Bars.Add("Task2")  
.Pattern = 3 && exPatternShadow  
.Color = RGB(0, 0, 255)  
.EndShape = 4 && exShapeIconCircleDot  
.EndColor = RGB(255, 0, 0)  
EndWith
```

## property Bar.Height as Long

Retrieves or sets a value that indicates the height in pixels of the bar.

Type	Description
Long	A Long expression that indicates the height of the bar, in pixels.

Use the Height property to change the heights for your bars. If the Height property is 0, the bar is not displayed. If the Height property is negative, the height of the bar is specified by the height of the item that displays the bar. If the Height property is positive it indicates the height of the bar to be displayed, in pixels. Use the [DefaultItemHeight](#) property to specify the default height for all items in the control. Use the [ItemHeight](#) property to specify the height for a specified item. The [CellSingleLine](#) property specifies whether a cell displays its caption using multiple lines. If you require a single bar with a different height, you can use the [Copy](#) method to copy a new bar, and use the Height property to specify a different height.

The control provides several predefined bars as follows:

- "Deadline": 
- "Project Summary": 
- "Summary": 
- "Milestone": 
- "Progress": 
- "Split": 
- "Task": 

For instance, the following VB sample changes the height of the "Task" bar:

```
Gantt1.Chart.Bars("Task").Height = 18
```

The following VC++ sample changes the height of the "Task" bar:

```
m_gantt.GetChart().GetBars().GetItem( COleVariant( "Task" ) ).SetHeight( 18 );
```

The following VFP sample changes the height of the "Task" bar:

```
With thisform.Gantt1.Chart.Bars  
    .Item("Task").Height = 18  
Endwith
```

The following C# sample changes the height of the "Task" bar:

```
axGantt1.Chart.Bars["Task"].Height = 18;
```

The following VB.NET sample changes the height of the "Task" bar:

```
AxGantt1.Chart.Bars("Task").Height = 18
```

## property Bar.Name as String

Retrieves the name of the bar.

Type	Description
String	A String expression that indicates the name of the Bar.

The Name property indicates the name of the bar. The Name property is read-only. Use the [Add](#) or [Copy](#) method to add a new bar to the [Bars](#) collection, using a different name. Use the [AddBar](#) method to add new bars to an item. Use the [Shape](#), [Pattern](#) and [Color](#) properties to define the appearance for the middle part of the bar. Use the [StartShape](#) and [StartColor](#) properties to define the appearance for the starting part of the bar. Use the [EndShape](#) and [EndColor](#) properties to define the appearance for the ending part of the bar.

## property Bar.Pattern as PatternEnum

Retrieves or sets a value that indicates the pattern being used to fill the bar.

Type	Description
<a href="#">PatternEnum</a>	A PatternEnum expression that indicates the brush being used to fill the bar.

Use the Pattern property to specify the brush to fill the bar. By default, the Pattern property is exPatternSolid. Use the [Color](#) property to specify the color to fill the bar. Use the [Shape](#) property to specify the height and the vertical alignment of the middle part of the bar. Use the [StartColor](#) property to specify the color for the beginning part of the bar, if the [StartShape](#) property is not exShapeIconEmpty. Use the [EndColor](#) property to specify the color for the ending part of the bar, if the [EndShape](#) property is not exShapeIconEmpty.

The following VB sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the pattern to fill the bar:

With Gantt1.Chart.Bars

```
With .Copy("Task", "Task2")
    .Pattern = exPatternDot
End With
End With
```

The following C++ sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the pattern to fill the bar:

```
CBars bars = m_gantt.GetChart().GetBars();
CBar bar = bars.Copy( "Task", "Task2" );
bar.SetPattern( 2 /*exPatternDot*/ );
```

The following VB.NET sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the pattern to fill the bar:

With AxGantt1.Chart.Bars

```
With .Copy("Task", "Task2")
    .Pattern = EXGANTTLib.PatternEnum.exPatternDot
End With
End With
```

The following C# sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the pattern to fill the bar:

```
EXGANTTLib.Bar bar = axGantt1.Chart.Bars.Copy("Task", "Task2");
bar.Pattern = EXGANTTLib.PatternEnum.exPatternDot;
```

The following VFP sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the pattern to fill the bar:

```
with thisform.Gantt1.Chart.Bars
  with .Copy("Task", "Task2" )
    .Pattern = 2
  endwith
endwith
```

## property Bar.Shape as ShapeBarEnum

Retrieves or sets a value that indicates the shape of the bar.

Type	Description
<a href="#">ShapeBarEnum</a>	A ShapeBarEnum expression that indicates the height and the vertical alignment of the bar

Use the Shape property to specify the height and the vertical alignment of the middle part of the bar. By default, the Shape property is exShapeSolid. Use the [Pattern](#) property to specify the brush to fill the bar. Use the [Color](#) property to specify the color to fill the bar. Use the [StartColor](#) property to specify the color for the beginning part of the bar, if the [StartShape](#) property is not exShapeIconEmpty. Use the [EndColor](#) property to specify the color for the ending part of the bar, if the [EndShape](#) property is not exShapeIconEmpty.

The following VB sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the shape of the new bar bar:

With Gantt1.Chart.Bars

```
With .Copy("Task", "Task2")
    .Shape = exShapeSolidCenter
End With
End With
```

The following C++ sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the shape of the new bar bar:

```
CBars bars = m_gantt.GetChart().GetBars();
CBar bar = bars.Copy( "Task", "Task2" );
bar.SetShape( 3 /*exShapeSolidCenter*/ );
```

The following VB.NET sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the shape of the new bar bar:

With AxGantt1.Chart.Bars

```
With .Copy("Task", "Task2")
    .Shape = EXGANTTLib.ShapeBarEnum.exShapeSolidCenter
End With
End With
```

The following C# sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the shape of the new bar bar:

```
EXGANTTLib.Bar bar = axGantt1.Chart.Bars.Copy("Task", "Task2");
bar.Shape = EXGANTTLib.ShapeBarEnum.exShapeSolidCenter;
```

The following VFP sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the shape of the new bar bar:

```
with thisform.Gantt1.Chart.Bars
  with .Copy("Task", "Task2" )
    .Shape = 3
  endwith
endwith
```

## property Bar.Shortcut as String

Specifies a value that indicates a shortcut for the current bar.

Type	Description
String	A String expression that indicates the shortcut of the bar

The Shortcut property adds a shortcut to this bar. Use the [Add](#) method to add new type of bars to the chart. Use the Shortcut property to redefine a known bar. For instance, you can define the bar "Task%Progress:Split", and rename it to "Task", and so all Task bars will be divided by the nonworking area, and may display percent values, in other words, you redefined the Task bars

## property Bar.StartColor as Color

Returns or sets a value that indicates the color for the left side corner.

Type	Description
Color	A Color expression that indicates the color for the starting part of the bar.

Use the StartColor property to specify the color to fill the start part of the bar, if the [StartShape](#) property is not exShapeIconEmpty. Use the [Color](#) property to specify the color to fill the middle part of the bar. Use the [EndColor](#) and [EndShape](#) properties to define the appearance of the starting part of the bar. Use the [AddShapeCorner](#) property to add custom icons to the bars. In this case, the icon is processed before displaying based on the StartColor/ [EndColor](#) property. For instance, if you add an black and white icon, and the StartColor/EndColor is red, the icon will be painted in red. Instead, if the StartColor/EndColor property is -1 ( 0xFFFFFFFF, not white which is 0x00FFFFFF ), the icon is painted as it was added using the AddShapeCorner without any image processing.

In VB.NET or C# you require the following functions until the .NET framework will provide:

You can use the following VB.NET function:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32
    Dim i As Long
    i = c.R
    i = i + 256 * c.G
    i = i + 256 * 256 * c.B
    ToUInt32 = Convert.ToUInt32(i)
End Function
```

You can use the following C# function:

```
private UInt32 ToUInt32(Color c)
{
    long i;
    i = c.R;
    i = i + 256 * c.G;
    i = i + 256 * 256 * c.B;
    return Convert.ToUInt32(i);
}
```

The following VB sample defines a new bar that looks like this :

```
With Gantt1.Chart.Bars.Add("Task2")
    .Pattern = exPatternShadow
    .Color = RGB(0, 0, 255)
    .StartShape = exShapeIconCircleDot
    .StartColor = RGB(255, 0, 0)
End With
```

The following C++ sample defines a bar that looks like this above:

```
CBar bar = m_gantt.GetChart().GetBars().Add("Task2");
bar.SetPattern( 3 /*exPatternShadow*/ );
barSetColor( RGB(0, 0, 255) );
bar.SetStartShape( 4 /* exShapeIconCircleDot */ );
bar.SetStartColor( RGB(255, 0, 0) );
```

The following VB.NET sample defines a bar that looks like this above:

```
With AxGantt1.Chart.Bars.Add("Task2")
    .Pattern = EXGANTTLib.PatternEnum.exPatternShadow
    .Color = RGB(0, 0, 255)
    .StartShape = EXGANTTLib.ShapeCornerEnum.exShapeIconCircleDot
    .StartColor = RGB(255, 0, 0)
End With
```

The following C# sample defines a bar that looks like this above:

```
With AxGantt1.Chart.Bars.Add("Task2")
    .Pattern = EXGANTTLib.PatternEnum.exPatternShadow
    .Color = RGB(0, 0, 255)
    .StartShape = EXGANTTLib.ShapeCornerEnum.exShapeIconCircleDot
    .StartColor = RGB(255, 0, 0)
End With
```

The following VFP sample defines a bar that looks like this above:

```
with thisform.Gantt1.Chart.Bars.Add("Task2")
    .Pattern = 3 && exPatternShadow
```

```
.Color = RGB(0, 0, 255)  
.StartShape = 4 && exShapeIconCircleDot  
.StartColor = RGB(255, 0, 0)
```

```
EndWith
```

## property Bar.StartShape as ShapeCornerEnum

Retrieves or sets a value that indicates the shape of the left side corner.

Type	Description
<a href="#">ShapeCornerEnum</a>	A ShapeCornerEnum expression that defines the shape of the icon being used to draw the corner.

By default, the StartShape property is exShapeIconEmpty. If the StartShape property is exShapeIconEmpty the bar has no starting part. Use the [Color](#) property to specify the color to fill the middle part of the bar. Use the [Pattern](#) property to specify the brush being used to fill the bar. Use the [Shape](#) property to specify the height and the vertical alignment of the middle part of the bar. Use the [AddShapeCorner](#) method to add a custom icon to be used as a starting or ending part of the bar. Use the [Images](#) or [ReplaceIcon](#) method to update the list of control's icons.

The following VB sample adds a custom shape  and defines a bar like this :

With Gantt1.Chart.Bars

```
.AddShapeCorner 12345, 1  
With .Add("Task2")  
    .Pattern = exPatternDot  
    .Shape = exShapeThinDown  
    .StartShape = 12345  
    .StartColor = RGB(255, 0, 0)  
    .Color = .StartColor  
End With  
End With
```

The following C++ sample adds a custom shape and defines a bar like above:

```
CBars bars = m_gantt.GetChart().GetBars();  
bars.AddShapeCorner( COleVariant( (long)12345 ), COleVariant( (long)1 ) );  
CBar bar = bars.Add("Task2");  
bar.SetPattern( 2 /*exPatternDot*/ );  
bar.SetShape( 20 /*exShapeThinDown*/ );  
bar.SetStartShape( 12345 );  
bar.SetStartColor( RGB(255, 0, 0) );  
barSetColor( bar.GetStartColor() );
```

The following VB.NET sample adds a custom shape and defines a bar like above:

```
With AxGantt1.Chart.Bars
    .AddShapeCorner(12345, 1)
    With .Add("Task2")
        .Pattern = EXGANTTLib.PatternEnum.exPatternDot
        .Shape = EXGANTTLib.ShapeBarEnum.exShapeThinDown
        .StartShape = 12345
        .StartColor = RGB(255, 0, 0)
        .Color = .StartColor
    End With
End With
```

The following C# sample adds a custom shape and defines a bar like above:

```
axGantt1.Chart.Bars.AddShapeCorner(12345, 1);
EXGANTTLib.Bar bar = axGantt1.Chart.Bars.Add("Task2");
bar.Pattern = EXGANTTLib.PatternEnum.exPatternDot;
bar.Shape = EXGANTTLib.ShapeBarEnum.exShapeThinDown;
bar.StartShape = (EXGANTTLib.ShapeCornerEnum)12345;
bar.StartColor = ToUInt32(Color.FromArgb(255, 0, 0));
bar.Color = bar.StartColor;
```

The following VFP sample adds a custom shape and defines a bar like above:

```
With thisform.Gantt1.Chart.Bars
    .AddShapeCorner(12345, 1)
    With .Add("Task2")
        .Pattern = 2 && exPatternDot
        .Shape = 20 && exShapeThinDown
        .StartShape = 12345
        .StartColor = RGB(255, 0, 0)
        .Color = .StartColor
    EndWith
EndWith
```

The following VB sample defines a new bar that looks like this  :

```
With Gantt1.Chart.Bars.Add("Task2")
    .Pattern = exPatternShadow
```

```
.Color = RGB(0, 0, 255)  
.StartShape = exShapeIconCircleDot  
.StartColor = RGB(255, 0, 0)
```

End With

The following C++ sample defines a bar that looks like this above:

```
CBar bar = m_gantt.GetChart().GetBars().Add("Task2");  
bar.SetPattern( 3 /*exPatternShadow*/ );  
barSetColor( RGB(0, 0, 255) );  
bar.SetStartShape( 4 /* exShapeIconCircleDot */ );  
bar.SetStartColor( RGB(255, 0, 0) );
```

The following VB.NET sample defines a bar that looks like this above:

```
With AxGantt1.Chart.Bars.Add("Task2")  
.Pattern = EXGANTTLib.PatternEnum.exPatternShadow  
.Color = RGB(0, 0, 255)  
.StartShape = EXGANTTLib.ShapeCornerEnum.exShapeIconCircleDot  
.StartColor = RGB(255, 0, 0)  
End With
```

The following C# sample defines a bar that looks like this above:

```
With AxGantt1.Chart.Bars.Add("Task2")  
.Pattern = EXGANTTLib.PatternEnum.exPatternShadow  
.Color = RGB(0, 0, 255)  
.StartShape = EXGANTTLib.ShapeCornerEnum.exShapeIconCircleDot  
.StartColor = RGB(255, 0, 0)  
End With
```

The following VFP sample defines a bar that looks like this above:

```
with thisform.Gantt1.Chart.Bars.Add("Task2")  
.Pattern = 3 && exPatternShadow  
.Color = RGB(0, 0, 255)  
.StartShape = 4 && exShapeIconCircleDot  
.StartColor = RGB(255, 0, 0)  
EndWith
```

## Bars object

The Bars collection holds [Bar](#) objects. A Bar object defines the look and feel for bars in the chart's area. Use the [Bars](#) property to access the Bars collection. Use the [Chart](#) object property to access the control's chart. Use the [AddBar](#) method to add a bar to an item. The Bars object supports the following methods and properties:

Name	Description
<a href="#">Add</a>	Adds a Bar object to the collection and returns a reference to the newly created object.
<a href="#">AddShapeCorner</a>	Adds a custom shape corner.
<a href="#">Clear</a>	Removes all objects in a collection.
<a href="#">Copy</a>	Copies a Bar object and returns a reference to the newly created object.
<a href="#">Count</a>	Returns the number of objects in a collection.
<a href="#">Item</a>	Returns a specific Bar of the Bars collection.
<a href="#">Remove</a>	Removes a specific member from the Bars collection.
<a href="#">RemoveShapeCorner</a>	Removes a custom shape corner.

## method Bars.Add (Name as String)

Adds a Bar object to the collection and returns a reference to the newly created object.

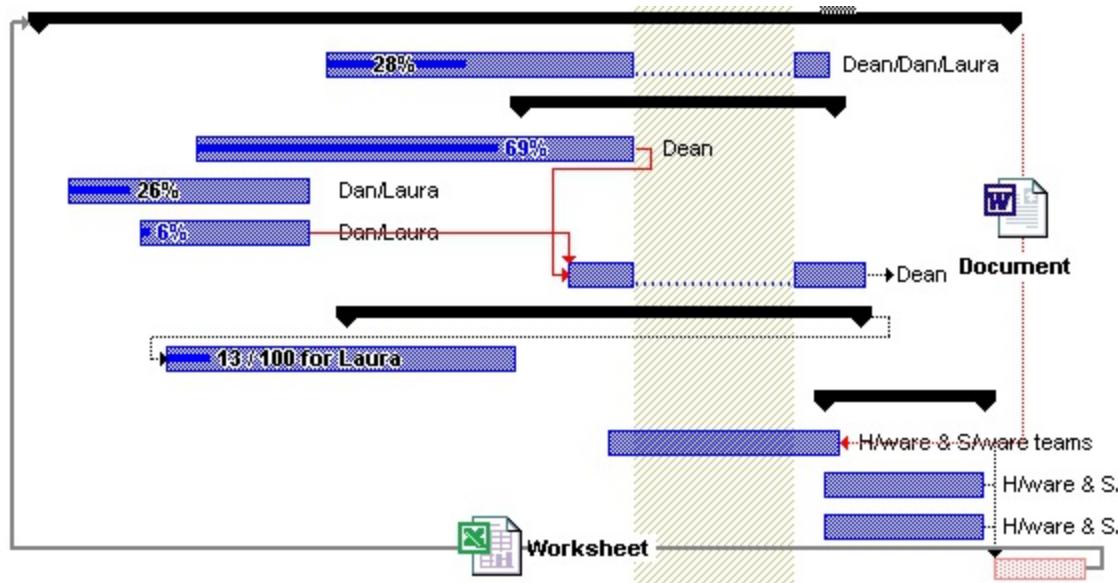
Type	Description
Name as String	A String expression that indicates the name of the bar being created. <i>If the Name parameter includes the ":" or "%" character, it has a special meaning described below.</i>
Return	Description
Bar	A <a href="#">Bar</a> object being inserted.

The Add method adds a new bar to the Bars collection. The look and feel for the newly created bar could depend on the Name parameter like follows:

1. **—————** If the Name parameter doesn't include a : or % character the Add method adds a regular bar.
2. **67%** **—————** If the Name parameter includes a % character, so the Name parameter is like A%**B**, the Add method adds a new bar that's a combination of two existing bars A and B so the first bar A is displayed on the full area of the bar, since the second bar B uses the [ItemBar\(,,exBarPercent\)](#) value to determine the percent of the area from the full bar to be painted. Use the [ItemBar\(,,exBarShowPercentCaption\)](#)/[ItemBar\(,,exBarPercentCaptionFormat\)](#) to show and format the percent value as text. For instance, the Add("Task%Progress") adds a combination of Task **—————** and Progress **—————** bars, so the Task shape is displayed on the full bar, and the Progress shape is displayed only on the portion determined by the [Items.ItemBar\(,,exBarPercent\)](#) value. The A and B could be any known bar at the adding time. For instance, if you have added bars like "MyTask" and "MySplit" you can define the bar "MyTask%MySplit", and so on. This option helps you to display proportionally the second shape when the user resizes or moves the bar.
3. **—————** If the Name parameter includes a : character, so the Name parameter is like **A:B**, the newly created bar indicates a combination of A and B bars, where A is displayed in the working areas, since the B bar is displayed in non-working areas. Use the [NonworkingDays](#) or [NonworkingHours](#) property to define non-working days or hours. Use the [AddNonworkingDate](#) method to add custom dates as being nonworking date. For instance, the Add("Task:Split") property adds a combination of **Task** **—————** and **Split** **.....** bars, so the Task bar is displayed in working area, and the Split bar is displayed in the non-working area. In other words you have a Task bar that's interrupted for each non-working unit. For instance, "Task:Progress" adds a new bar that displays the Task shape in working areas, and the Progress shape in non-working area. The A and B could be any known bar at the adding time. For instance, if you have added bars like "MyTask" and "MySplit" you

can define the bar "MyTask:MySplit", and so on.

4. If the Name parameter includes % and : characters, so it's like A%B:C it combines the cases 2 and 3.



The [Shortcut](#) property adds a shortcut for the bar, so you can use short names when using the AddBar method. Use the [AddBar](#) property to add a new bar to an item. Use the [Shape](#), [Pattern](#) and [Color](#) properties to define the appearance for the middle part of the bar. Use the [StartShape](#) and [StartColor](#) properties to define the appearance for the starting part of the bar. Use the [EndShape](#) and [EndColor](#) properties to define the appearance for the ending part of the bar. The [Name](#) property indicates the name of the bar. Use the [Copy](#) property to create a clone bar. Use the [Height](#) property to specify the height of the bars.

By default, the Bars collection includes the following predefined bars:

- "Deadline":
- "Project Summary":
- "Summary":
- "Milestone":
- "Progress":
- "Split":
- "Task":

The following VB sample adds a custom shape and defines a bar like this :

With Gantt1.Chart.Bars

```
.AddShapeCorner 12345, 1
```

```
With .Add("Task2")
```

```
    .Pattern = exPatternDot
```

```
    .Shape = exShapeThinDown
```

```
    .StartShape = 12345
```

```
.StartColor = RGB(255, 0, 0)
```

```
.Color = .StartColor
```

```
End With
```

```
End With
```

The following C++ sample adds a custom shape and defines a bar like above:

```
CBars bars = m_gantt.GetChart().GetBars();
bars.AddShapeCorner( COleVariant( (long)12345 ), COleVariant( (long)1 ) );
CBar bar = bars.Add("Task2");
bar.SetPattern( 2 /*exPatternDot*/ );
bar.SetShape( 20 /*exShapeThinDown*/ );
bar.SetStartShape( 12345 );
bar.SetStartColor( RGB(255, 0, 0) );
barSetColor( bar.GetStartColor() );
```

The following VB.NET sample adds a custom shape and defines a bar like above:

```
With AxGantt1.Chart.Bars
```

```
.AddShapeCorner(12345, 1)
```

```
With .Add("Task2")
```

```
.Pattern = EXGANTTLib.PatternEnum.exPatternDot
```

```
.Shape = EXGANTTLib.ShapeBarEnum.exShapeThinDown
```

```
.StartShape = 12345
```

```
.StartColor = RGB(255, 0, 0)
```

```
.Color = .StartColor
```

```
End With
```

```
End With
```

The following C# sample adds a custom shape and defines a bar like above:

```
axGantt1.Chart.Bars.AddShapeCorner(12345, 1);
EXGANTTLib.Bar bar = axGantt1.Chart.Bars.Add("Task2");
bar.Pattern = EXGANTTLib.PatternEnum.exPatternDot;
bar.Shape = EXGANTTLib.ShapeBarEnum.exShapeThinDown;
bar.StartShape = (EXGANTTLib.ShapeCornerEnum)12345;
bar.StartColor = ToUInt32(Color.FromArgb(255, 0, 0));
bar.Color = bar.StartColor;
```

The following VFP sample adds a custom shape and defines a bar like above:

```
With thisform.Gantt1.Chart.Bars  
    .AddShapeCorner(12345, 1)  
    With .Add("Task2")  
        .Pattern = 2 && exPatternDot  
        .Shape = 20 && exShapeThinDown  
        .StartShape = 12345  
        .StartColor = RGB(255, 0, 0)  
        .Color = .StartColor  
    EndWith  
EndWith
```

## method Bars.AddShapeCorner (Key as Variant, Icon as Variant)

Adds a custom shape corner.

Type	Description
Key as Variant	A Long expression that indicates the key of the new icon being added
Icon as Variant	A long expression that indicates the handle of the icon being inserted, or the index of the icon being added.

Use the AddShapeCorner method to define a corner from an icon. Use the [StartShape](#) and [EndShape](#) properties to define the start and end parts of the bar using custom shapes. Use the [Images](#) or [ReplaceIcon](#) method to update the list of control's icons. Use the [RemoveShapeCorner](#) method to remove a custom shape. The control includes a list of predefined shapes like shown in the [ShapeCornerEnum](#) type. **The icon is processed before displaying based on the StartColor/ EndColor property.** For instance, if you add an black and white icon, and the StartColor/EndColor is red, the icon will be painted in red. Instead, if the StartColor/EndColor property is -1 ( 0xFFFFFFFF, not white which is 0x00FFFFFF ), the icon is painted as it was added using the [AddShapeCorner](#) without any image processing. If the StartColor/EndColor property is not -1, it indicates the color being applied to the icon.

The following VB sample adds a custom shape  and defines a bar like this  :

With .Chart.Bars

```
.AddShapeCorner 12345, 1  
With .Add("Task2")  
    .Pattern = exPatternDot  
    .Shape = exShapeThinDown  
    .EndShape = 12345  
    .EndColor = RGB(255, 0, 0)  
    .Color = .EndColor  
End With  
End With
```

The following C++ sample adds a custom shape and defines a bar like above:

```
CBars bars = m_gantt.GetChart().GetBars();  
bars.AddShapeCorner( COleVariant( (long)12345 ), COleVariant( (long)1 ) );  
CBar bar = bars.Add("Task2");  
bar.SetPattern( 2 /*exPatternDot*/ );
```

```
bar.SetShape( 20 /*exShapeThinDown*/ );
bar.SetEndShape( 12345 );
bar.SetEndColor( RGB(255, 0, 0) );
barSetColor( bar.GetEndColor() );
```

The following VB.NET sample adds a custom shape and defines a bar like above:

With AxGantt1.Chart.Bars

```
.AddShapeCorner(12345, 1)
With .Add("Task2")
    .Pattern = EXGANTTLib.PatternEnum.exPatternDot
    .Shape = EXGANTTLib.ShapeBarEnum.exShapeThinDown
    .EndShape = 12345
    .EndColor = RGB(255, 0, 0)
    .Color = .EndColor
End With
End With
```

The following VB.NET sample adds a custom icon to the start of all Task bars:

With AxGantt1.Chart.Bars

```
.AddShapeCorner(12345, 1)
.Item("Task").StartShape = 12345
.Item("Task").StartColor = UInteger.MaxValue
End With
```

The following C# sample adds a custom shape and defines a bar like above:

```
axGantt1.Chart.Bars.AddShapeCorner(12345, 1);
EXGANTTLib.Bar bar = axGantt1.Chart.Bars.Add("Task2");
bar.Pattern = EXGANTTLib.PatternEnum.exPatternDot;
bar.Shape = EXGANTTLib.ShapeBarEnum.exShapeThinDown;
bar.EndShape = (EXGANTTLib.ShapeCornerEnum)12345;
bar.EndColor = ToUInt32(Color.FromArgb(255, 0, 0));
bar.Color = bar.EndColor;
```

The following C# sample adds a custom icon to the start of all Task bars:

```
EXGANTTLib.Bars bars = axGantt1.Chart.Bars;
```

```
bars.AddShapeCorner(12345, 1);
bars["Task"].StartShape = EXGANTTLib.ShapeCornerEnum.exShapeIconEmpty + 12345;
bars["Task"].StartColor = 0xFFFFFFFF;
```

The following VFP sample adds a custom shape and defines a bar like above:

```
With thisform.Gantt1.Chart.Bars
```

```
    .AddShapeCorner(12345, 1)
```

```
    With .Add("Task2")
```

```
        .Pattern = 2 && exPatternDot
```

```
        .Shape = 20 && exShapeThinDown
```

```
        .EndShape = 12345
```

```
        .EndColor = RGB(255, 0, 0)
```

```
        .Color = .EndColor
```

```
    EndWith
```

```
EndWith
```

## method Bars.Clear ()

Removes all objects in a collection.

Type	Description
Use the Clear method to clear the Bars collection. Use the <a href="#">Remove</a> method to remove a bar from the Bars collection. Use the <a href="#">Add</a> method to add new bars to the collection. Use the <a href="#">ClearBars</a> method to clear the bars from an item. Use the <a href="#">RemoveBar</a> method to remove a bar from an item. Use the <a href="#">Refresh</a> method to refresh the control.	

## method Bars.Copy (Name as String, NewName as String)

Copies a Bar object and returns a reference to the newly created object.

Type	Description
Name as String	A String expression that indicates the name of the bar being copied.
NewName as String	A String expression that indicates the name of the new bar.
Return	Description
Bar	A <a href="#">Bar</a> object being created.

Use the Copy property create a clone for a specified bar. Use the [Shape](#), [Pattern](#) and [Color](#) properties to define the appearance for the middle part of the bar. Use the [StartShape](#) and [StartColor](#) properties to define the appearance for the starting part of the bar. Use the [EndShape](#) and [EndColor](#) properties to define the appearance for the ending part of the bar.

The following VB sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the color to fill the bar:

```
With Gantt1.Chart.Bars
```

```
    With .Copy("Task", "Task2")  
        .Color = RGB(255, 0, 0)
```

```
    End With
```

```
End With
```

The following C++ sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the color to fill the bar:

```
CBars bars = m_gantt.GetChart().GetBars();  
CBar bar = bars.Copy( "Task", "Task2" );  
bar.SetColor( RGB(255,0,0) );
```

The following VB.NET sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the color to fill the bar:

```
With AxGantt1.Chart.Bars
```

```
    With .Copy("Task", "Task2")  
        .Color = ToUInt32(Color.Red)  
    End With
```

End With

The following C# sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the color to fill the bar:

```
EXGANTTLib.Bar bar = axGantt1.Chart.Bars.Copy("Task", "Task2");
bar.Color = ToUInt32(Color.Red);
```

The following VFP sample creates a new bar called "Task2", that's similar with the "Task" bar excepts that we change the color to fill the bar:

```
with thisform.Gantt1.Chart.Bars
  with .Copy("Task", "Task2" )
    .Color = RGB(255,0,0)
  endwith
endwith
```

In VB.NET or C# you require the following functions until the .NET framework will provide:

You can use the following VB.NET function:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32
  Dim i As Long
  i = c.R
  i = i + 256 * c.G
  i = i + 256 * 256 * c.B
  ToUInt32 = Convert.ToUInt32(i)
End Function
```

You can use the following C# function:

```
private UInt32 ToUInt32(Color c)
{
  long i;
  i = c.R;
  i = i + 256 * c.G;
  i = i + 256 * 256 * c.B;
  return Convert.ToUInt32(i);
}
```



## property Bars.Count as Long

Returns the number of objects in a collection.

Type	Description
Long	A long expression that indicates the number of <a href="#">Bar</a> objects in the <a href="#">Bars</a> collection.

The Count property counts the bars in the collection. Use the [Item](#) property to access a Bar object in the Bars collection. Use the [Remove](#) method to remove a bar from the Bars collection. Use the [Clear](#) method to clear the Bars collection. Use the [Name](#) property to retrieve the name of the bar. Use the [ItemBar\(exBarsCount\)](#) property to retrieve the number of bars in a specified item.

The following VB sample enumerates the Bar objects in the Bars collection ( the order of the elements is arbitrary ):

With Gantt1.Chart

```
Dim b As EXGANTTLibCtl.Bar  
For Each b In .Bars  
    Debug.Print b.Name  
Next  
End With
```

The following VB sample enumerates the Bar objects in the Bars collection ( the list is alphabetically sorted ):

With Gantt1.Chart.Bars

```
Dim i As Long  
For i = 0 To .Count - 1  
    Debug.Print .Item(i).Name  
Next  
End With
```

The following C++ sample enumerates the Bar objects in the Bars collection:

```
CBars bars = m_gantt.GetChart().GetBars();  
for ( long i = 0; i < bars.GetCount(); i++ )  
    OutputDebugString( bars.GetItem( COleVariant( i ) ).GetName() );
```

The following VB.NET sample enumerates the Bar objects in the Bars collection:

```
With AxGantt1.Chart
```

```
    Dim b As EXGANTTLib.Bar  
    For Each b In .Bars  
        Debug.WriteLine(b.Name)  
    Next  
End With
```

The following VB.NET sample enumerates the Bar objects in the Bars collection:

```
With AxGantt1.Chart.Bars
```

```
    Dim i As Integer  
    For i = 0 To .Count - 1  
        Debug.WriteLine(.Item(i).Name)  
    Next  
End With
```

The following C# sample enumerates the Bar objects in the Bars collection:

```
EXGANTTLib.Bars bars = axGantt1.Chart.Bars;  
for (int i = 0; i < bars.Count; i++)  
    System.Diagnostics.Debug.WriteLine(bars[i].Name);
```

The following VFP sample enumerates the Bar objects in the Bars collection:

```
local i
```

```
With thisform.Gantt1.Chart.Bars
```

```
    for i = 0 to .Count - 1  
        wait window nowait .Item(i).Name  
    next  
EndWith
```

## property Bars.Item (Name as Variant) as Bar

Returns a specific Column of the Columns collection.

Type	Description
Name as Variant	A string expression that indicates the name of the bar being removes, a long expression that indicates the index of the Bar being removed
Bar	A Bar object being accessed.

Use the Item property to access a Bar object in the Bars collection. The [Count](#) property counts the bars in the collection. Use the [Remove](#) method to remove a bar from the Bars collection. Use the [Clear](#) method to clear the Bars collection. Use the [Name](#) property to retrieve the name of the bar.

The following VB sample enumerates the Bar objects in the Bars collection ( the order of the elements is arbitrary ):

```
With Gantt1.Chart
```

```
    Dim b As EXGANTTLibCtl.Bar  
    For Each b In .Bars  
        Debug.Print b.Name  
    Next  
End With
```

The following VB sample enumerates the Bar objects in the Bars collection ( the list is alphabetically sorted ):

```
With Gantt1.Chart.Bars
```

```
    Dim i As Long  
    For i = 0 To .Count - 1  
        Debug.Print .Item(i).Name  
    Next  
End With
```

The following C++ sample enumerates the Bar objects in the Bars collection:

```
CBars bars = m_gantt.GetChart().GetBars();  
for ( long i = 0; i < bars.GetCount(); i++ )  
    OutputDebugString( bars.GetItem( COleVariant( i ) ).GetName() );
```

The following VB.NET sample enumerates the Bar objects in the Bars collection:

```
With AxGantt1.Chart
```

```
    Dim b As EXGANTTLib.Bar  
    For Each b In .Bars  
        Debug.WriteLine(b.Name)  
    Next  
End With
```

The following VB.NET sample enumerates the Bar objects in the Bars collection:

```
With AxGantt1.Chart.Bars
```

```
    Dim i As Integer  
    For i = 0 To .Count - 1  
        Debug.WriteLine(.Item(i).Name)  
    Next  
End With
```

The following C# sample enumerates the Bar objects in the Bars collection:

```
EXGANTTLib.Bars bars = axGantt1.Chart.Bars;  
for (int i = 0; i < bars.Count; i++)  
    System.Diagnostics.Debug.WriteLine(bars[i].Name);
```

The following VFP sample enumerates the Bar objects in the Bars collection:

```
local i
```

```
With thisform.Gantt1.Chart.Bars
```

```
    for i = 0 to .Count - 1  
        wait window nowait .Item(i).Name  
    next  
EndWith
```

## method Bars.Remove (Name as Variant)

Removes a specific member from the Bars collection.

Type	Description
Name as Variant	A string expression that indicates the name of the bar being removes, a long expression that indicates the index of the Bar being removed

Use the Remove method to remove a bar from the Bars collection. Use the [Add](#) method to add new bars to the collection. Use the [Clear](#) method to clear the bars collection. Use the [ClearBars](#) method to clear the bars from an item. Use the [RemoveBar](#) method to remove a bar from an item. Use the [Refresh](#) method to refresh the control.

## method Bars.RemoveShapeCorner (Key as Variant)

Removes a custom shape corner.

Type	Description
Key as Variant	A long expression that indicates the key of the shape being removed.

Use the RemoveShapeCorner property to remove a shape corner being added using the AddShapeCorner method. Use the [StartShape](#) and [EndShape](#) properties to define the start and end parts of the bar using custom shapes. Use the [Images](#) or [ReplaceIcon](#) method to update the list of control's icons. The control includes a list of predefined shapes like shown in the [ShapeCornerEnum](#) type.

## Chart object

The Chart object contains all properties and methods related to the Gantt chart area. Use the [Bars](#) property to access the control's Bars collection. Use the [PaneWidth](#) property to specify the width of the chart area. Use the [AddBar](#) property to add new bars to an item. Use the [LevelCount](#) property to specify the number of levels in the control's header. The Chart object supports the following properties and methods:

Name	Description
<a href="#">AddNonworkingDate</a>	Adds a nonworking date.
<a href="#">AllowOverviewZoom</a>	Gets or sets a value that indicates whether the user can zoom the chart at runtime.
<a href="#">AMPM</a>	Specifies the AM and PM indicators.
<a href="#">BackColor</a>	Retrieves or sets a value that indicates the chart's background color.
<a href="#">BackColorLevelHeader</a>	Specifies the background color for the chart's levels.
<a href="#">BarFromPoint</a>	Retrieves the bar from point.
<a href="#">Bars</a>	Retrieves the Bars collection.
<a href="#">ClearItemBackColor</a>	Clears the item's background color in the chart area.
<a href="#">ClearNonworkingDates</a>	Clears nonworking dates.
<a href="#">CountVisibleUnits</a>	Counts the number of units within the specified range.
<a href="#">DateFromPoint</a>	Retrieves the date from the cursor.
<a href="#">DrawDateTicker</a>	Retrieves or sets a value that indicates whether the control draws a ticker around the current date while cursor hovers the chart's client area.
<a href="#">DrawGridLines</a>	Retrieves or sets a value that indicates whether the grid lines are visible or hidden.
<a href="#">DrawLevelSeparator</a>	Retrieves or sets a value that indicates whether lines between levels are shown or hidden.
<a href="#">EndPrintDate</a>	Retrieves or sets a value that indicates the printing end date.
<a href="#">FirstVisibleDate</a>	Retrieves or sets a value that indicates the first visible date.
<a href="#">FirstWeekDay</a>	Specifies the first day of the week.
<a href="#">ForeColor</a>	Retrieves or sets a value that indicates the chart's foreground color.

<a href="#">ForeColorLevelHeader</a>	Specifies the foreground color for the chart's levels.
<a href="#">FormatDate</a>	Formats the date.
<a href="#">GridLineStyle</a>	Retrieves or sets a value that indicates style for the gridlines being shown in the chart area.
<a href="#">IsDateVisible</a>	Specifies whether the date fits the control's chart area.
<a href="#">IsNonworkingDate</a>	Specifies whether the date is a nonworking day.
<a href="#">ItemBackColor</a>	Retrieves or sets a background color for a specific item, in the chart area.
<a href="#">Label</a>	Retrieves or sets a value that indicates the predefined format of the level's label for a specified unit.
<a href="#">LabelToolTip</a>	Retrieves or sets a value that indicates the predefined format of the level's tooltip for a specified unit.
<a href="#">Level</a>	Retrieves the level based on its index.
<a href="#">LevelCount</a>	Specifies the number of levels in the control's header.
<a href="#">LevelFromPoint</a>	Retrieves the index of the level from the point.
<a href="#">LinkFromPoint</a>	Retrieves the link from the point.
<a href="#">LinksColor</a>	Specifies the color to draw the links between the bars.
<a href="#">LinksStyle</a>	Specifies the style to draw the links between the bars.
<a href="#">LinksWidth</a>	Specifies the width in pixels of the pen to draw the links between the bars.
<a href="#">LocAMPM</a>	Retrieves the time marker such as AM or PM using the current user regional and language settings.
<a href="#">LocFirstWeekDay</a>	Indicates the first day of the week, as specified in the regional settings.
<a href="#">LocMonthNames</a>	Retrieves the list of month names, as indicated in the regional settings, separated by space.
<a href="#">LocWeekDays</a>	Retrieves the list of names for each week day, as indicated in the regional settings, separated by space.
<a href="#">MarkNowColor</a>	Specifies the background color or the visual appearance of the object that indicates the current time in the chart.
<a href="#">MarkNowCount</a>	Specifies the number of time units to count while highlighting the current time.
<a href="#">MarkNowTransparent</a>	Specifies the percent of the transparency to display the object that marks the current time.
	Retrieves or sets a value that indicates the base time unit

## [MarkNowUnit](#)

while highlighting the current time.

### [MarkNowWidth](#)

Specifies the width in pixels of the object that shows the current time.

### [MarkSelectDateColor](#)

Retrieves or sets a value that indicates the color to mark the selected date in the chart.

### [MarkTodayColor](#)

Retrieves or sets a value that indicates the color to mark today in the chart.

### [MonthNames](#)

Retrieves or sets a value that indicates the list of month names, separated by space.

### [NextDate](#)

Gets the next date based on the unit.

### [NonworkingDays](#)

Retrieves or sets a value that indicates the non-working days, for each week day a bit.

### [NonworkingDaysColor](#)

Retrieves or sets a value that indicates the color to fill the non-working days.

### [NonworkingDaysPattern](#)

Retrieves or sets a value that indicates the pattern being used to fill non-working days.

### [NonworkingHours](#)

Retrieves or sets a value that indicates the non-working hours, for each hour in a day a bit.

### [NonworkingHoursColor](#)

Retrieves or sets a value that indicates the color to fill the non-working hours.

### [NonworkingHoursPattern](#)

Retrieves or sets a value that indicates the pattern being used to fill non-working hours.

### [OverviewBackColor](#)

Specifies the background color of the chart's overview.

### [OverviewHeight](#)

Indicates the height of the chart's overview.

### [OverviewLevelLines](#)

Indicates the index of the level that displays the grid line in the chart's overview.

### [OverviewSelBackColor](#)

Specifies the selection color of the chart's overview.

### [OverviewToolTip](#)

Retrieves or sets a value that indicates the format of the tooltip being shown while the cursor hovers the chart's overview area.

### [OverviewVisible](#)

Specifies whether the chart's overview layout is visible or hidden.

### [OverviewZoomCaption](#)

Specifies the captions for each zooming unit.

### [OverviewZoomUnit](#)

Indicates the width in pixels of the zooming unit in the overview.

<a href="#">PaneWidth</a>	Specifies the width for the left or side pane.
<a href="#">Picture</a>	Retrieves or sets a graphic to be displayed in the chart.
<a href="#">PictureDisplay</a>	Retrieves or sets a value that indicates the way how the graphic is displayed on the chart's background
<a href="#">RemoveNonworkingDate</a>	Removes a nonworking date.
<a href="#">ScrollBar</a>	Shows or hides the chart's horizontal scroll bar.
<a href="#">ScrollRange</a>	Specifies the range of dates to scroll within.
<a href="#">ScrollTo</a>	Scrolls the chart so the specified date is visible.
<a href="#">SelBackColor</a>	Retrieves or sets a value that indicates the selection background color.
<a href="#">SelectDate</a>	Selects or unselects a specific date in the chart.
<a href="#">SelectLevel</a>	Indicates the index of the level that highlights the selected dates.
<a href="#">SelForeColor</a>	Retrieves or sets a value that indicates the selection foreground color.
<a href="#">ShowEmptyBars</a>	Specifies whether empty bars are shown or hidden. An empty bar has the start and end dates identical.
<a href="#">ShowEmptyBarsUnit</a>	Specifies the unit to be added to the end date, so empty bars are shown.
<a href="#">ShowLinks</a>	Retrieves or sets a value that indicates whether the links between bars are visible or hidden.
<a href="#">ShowNonworkingDates</a>	Shows or hides nonworking dates.
<a href="#">ShowNonworkingUnits</a>	Retrieves or sets a value that indicates whether the non-working units are visible or hidden.
<a href="#">ShowTransparentBars</a>	Gets or sets a value that indicates percent of the transparency to display the bars.
<a href="#">StartPrintDate</a>	Retrieves or sets a value that indicates the printing start date.
<a href="#">ToolTip</a>	Retrieves or sets a value that indicates the format of the tooltip being shown while the user scrolls the chart.
<a href="#">UnitScale</a>	Retrieves or sets a value that indicates the base unit being displayed.
<a href="#">UnitWidth</a>	Specifies the width in pixels for the minimal unit.
<a href="#">UnselectDates</a>	Unselects all dates in the chart.

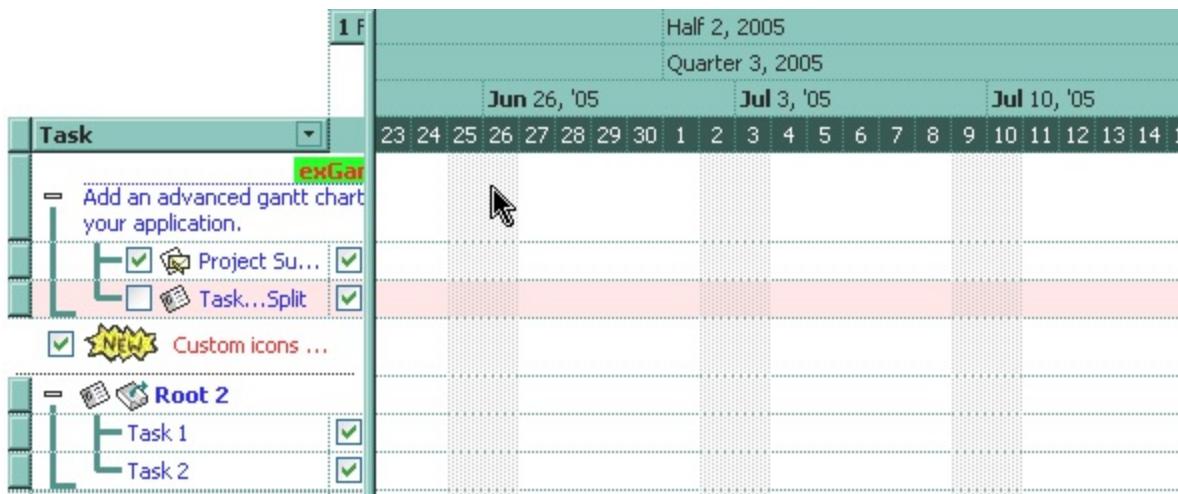
<a href="#"><u>WeekDays</u></a>	Retrieves or sets a value that indicates the list of names for each week day, separated by space.
<a href="#"><u>WeekNumberAs</u></a>	Specifies the way the control displays the week number.
<a href="#"><u>Zoom</u></a>	Sets or retrieves the magnification scale of the chart.

## method Chart.AddNonworkingDate (Date as Variant)

Adds a nonworking date.

Type	Description
Date as Variant	A Date expression that indicates the date being marked as nonworking day.

Use the AddNonworkingDate method to add custom dates as nonworking days. Use the [NonworkingDays](#) property to mark days in a week as being as nonworking. Use the [ShowNonworkingDates](#) property to show or hide the nonworking dates in the control's chart area. Use the [RemoveNonworkingDate](#) method to remove a specified date from the nonworking dates collection. The RemoveNonworkingDate method removes only a date previously added using the AddNonworkingDate method. Use the [ClearNonworkingDates](#) method to remove all nonworking dates. Use the [NonworkingDaysPattern](#) property to specify the pattern being used to fill non-working days. The [NonworkingDaysColor](#) property specifies the color being used to fill the non-working days. Use the [DateChange](#) event to notify whether the user browses a new date in the chart area. Use the [IsNonworkingDate](#) property to retrieve a value that indicates whether a date is marked as nonworking day. Use the [Add\("A:B"\)](#) to add a bar that displays the bar A in the working area, and B in non-working areas.



The following VB sample marks the 11th of each month as nonworking day ( the code enumerates the visible dates, and marks one by one, if case ):

```
Private Sub Gantt1_DateChange()
    With Gantt1
        .BeginUpdate
        With .Chart
            Dim d As Date
            d = .FirstVisibleDate
```

```

Do While .IsDateVisible(d)
    If Day(d) = 11 Then
        If Not (.IsNonworkingDate(d)) Then
            .AddNonworkingDate d
        End If
    End If
    d = .NextDate(d, exDay, 1)
Loop
End With
.EndUpdate
End With
End Sub

```

The following VB.NET sample marks the 11th of each month as nonworking day:

```

Private Sub AxGantt1_DateChange(ByVal sender As Object, ByVal e As System.EventArgs)
Handles AxGantt1.DateChange
    With AxGantt1
        .BeginUpdate()
        With .Chart
            Dim d As Date = .FirstVisibleDate
            Do While .IsDateVisible(d)
                If d.Day = 11 Then
                    If Not (.IsNonworkingDate(d)) Then
                        .AddNonworkingDate(d)
                    End If
                End If
                d = .NextDate(d, EXGANTTLib.UnitEnum.exDay, 1)
            Loop
        End With
        .EndUpdate()
    End With
End Sub

```

The following C# sample marks the 11th of each month as nonworking day:

```

private void axGantt1_DateChange(object sender, EventArgs e)
{

```

```

axGantt1.BeginUpdate();
EXGANTTLib.Chart chart = axGantt1.Chart;
DateTime d = Convert.ToDateTime(chart.FirstVisibleDate);
while ( chart.get_IsDateVisible(d) )
{
    if ( d.Day == 11 )
        if ( !chart.get_IsNonworkingDate( d ) )
            chart.AddNonworkingDate(d);
    d = chart.get_NextDate(d, EXGANTTLib.UnitEnum.exDay, 1);
}
axGantt1.EndUpdate();
}
}

```

The following VFP sample marks the 11th of each month as nonworking day ( DateChange event ):

#### \*\*\* ActiveX Control Event \*\*\*

With thisform.Gantt1

```

.BeginUpdate
With .Chart
    local d
    d = .FirstVisibleDate
    Do While .IsDateVisible(d)
        If Day(d) = 11 Then
            If Not (.IsNonworkingDate(d)) Then
                .AddNonworkingDate(d)
            EndIf
        EndIf
        d = .NextDate(d, 4096, 1)
    enddo
EndWith
.EndUpdate
EndWith

```

## property Chart.AllowOverviewZoom as OverviewZoomEnum

Gets or sets a value that indicates whether the user can zoom and scale the chart at runtime.

Type	Description
<a href="#">OverviewZoomEnum</a>	An OverviewZoomEnum expression that specifies when the control displays the zooming scale.

By default, the AllowOverviewZoom property is exZoomOnRClick. The zooming scale displays the list of visible units. **A visible unit is an unit whose [Label](#) property is not empty. So, the [Label](#) property indicates the zooming units in the zoom scale. If you plan to use zooming in your chart please review each [Label](#) and [LabelToolTip](#) properties.** Once the user selects a new time scale unit in the overview zoom area, the control fires the [OverviewZoom](#) event.

- If the AllowOverviewZoom property is exZoomOnRClick the zooming scale is shown only if the user right clicks the overview area. The zooming scale stays visible while the user keeps the right button down. Once the user releases the mouse over a new unit, the chart gets scaled by that unit. During this, ESC key cancels the zooming operation and restores the chart.
- If the AllowOverviewZoom property is exAlwaysZoom the zooming scale is displayed in the right side of the overview area. This way, the available ( visible ) units are always displayed on the right side of the overview area. Clicking any of these units makes the control to scale the chart to specified unit. The [OverviewZoomUnit](#) property indicates the width in pixels of the zooming unit.
- If the AllowOverviewZoom property is exDisableZoom the user can't zoom or scale the chart at runtime using the overview area.

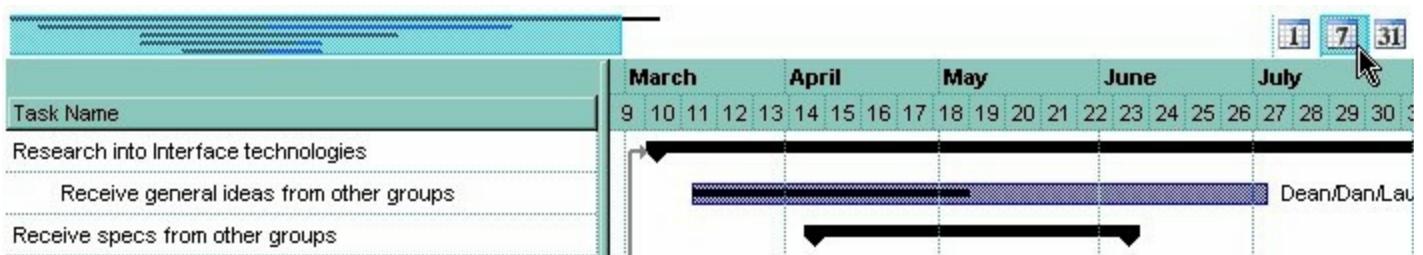
The zooming scale may be displayed on the overview area only if:

- AllowOverviewZoom property is not exDisableZoom
- OverviewVisible property is True
- [OverviewHeight](#) property is greater than 0
- there are at least two visible [units](#), that has the [Label](#) property not empty.

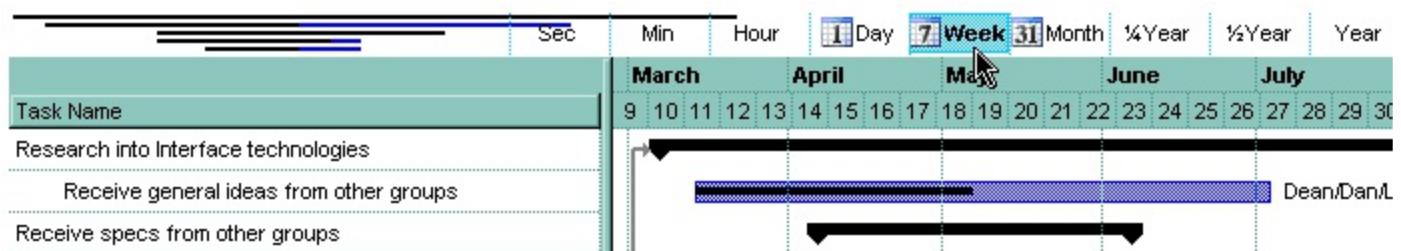
Use the [OverviewVisible](#) property to show or hide the control's overview area. The [OverviewZoomCaption](#) property indicates the caption being displayed in each zooming unit. The [OverviewZoomUnit](#) property indicates the width in pixels of the zooming unit. The [LabelToolTip](#) retrieves or sets a value that indicates the predefined format of the level's tooltip for a specified unit. Use the [Zoom](#) method to programmatically zoom and scale the chart. Use the [UnitScale](#) property to change the unit of the lowest level.

*The following picture shows the zooming scale on the overview area [exAlwaysZoom] (*

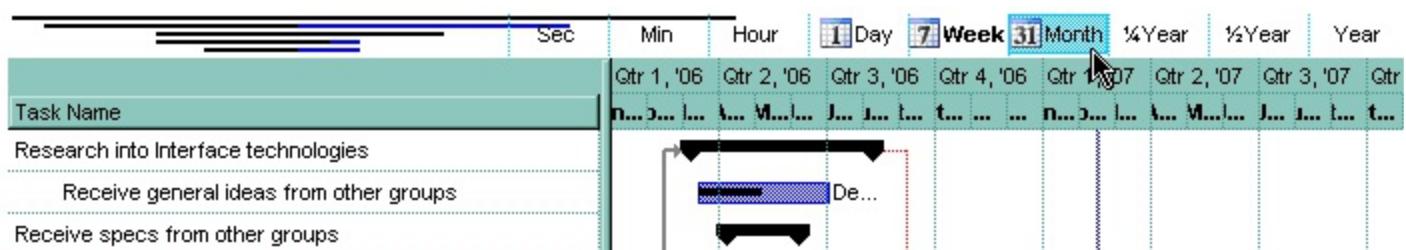
*you can click the 1, 7 or 31, and the chart is scaled to days, weeks or months ):*



*The following picture shows the control when the user **right** clicks the overview area ( as the chart displays weeks ) [exZoomOnRClick]:*



*The following picture shows the control while the user drags the cursor to the Month while keeping the **right** button ( as the chart displays months ):*

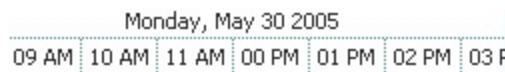


## property Chart.AMPM as String

Specifies the AM and PM indicators.

Type	Description
String	A String expression that indicates the AM PM indicators, separated by space.

By default, the AMPM property is "AM PM". The AMPM property specifies the indicators being displayed when the [Label](#) or [ToolTip](#) property includes the <%AM/PM%> tag. Use the [UnitScale](#) property to change the chart's time unit. Use the [MonthNames](#) property to specify the name of the months being displayed in the chart's header. Use the [WeekDays](#) property to specify the name for each day in a week. Use the [UnitWidth](#) property to specify the width of the time unit

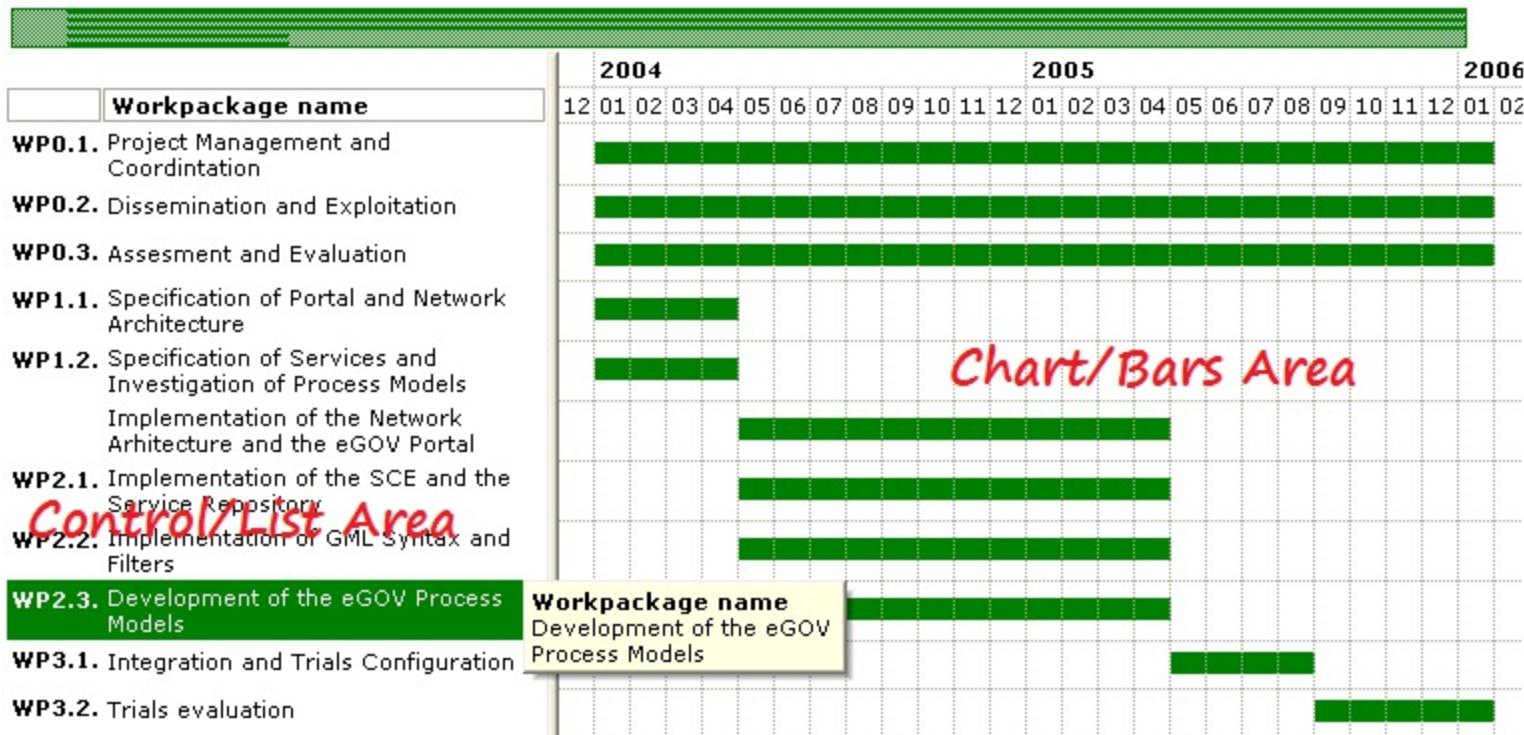


## property Chart.BackColor as Color

Retrieves or sets a value that indicates the chart's background color.

Type	Description
Color	A Color expression that indicates the chart's background color.

Use the BackColor property to specify the chart's background color. Use the [ForeColor](#) property to specify the chart's foreground color. Use the [BackColorLevelHeader](#) property to specify the background color of the chart's header. Use the [ForeColorLevelHeader](#) property to specify the foreground color of the chart's header. Use the [BackColor](#) property to specify the background color for a specified level. Use the [ForeColor](#) property to specify the foreground color for a specified level. Use the [ItemBackColor](#) property to change the item's background color. Use the [NonworkingDaysColor](#) property the color of the brush to fill the nonworking days area. Use the [Picture](#) property to specify the picture being displayed on the chart's area. Use the [SelBackColor](#) property to specify the background color for selected items in the chart area.



The following VB sample changes the chart's background color:

```
With Gantt1.Chart
    .BackColor = RGB(&H80, &H80, &H80)
End With
```

The following C++ sample changes the chart's background color:

```
m_gantt.GetChart().SetBackColor( RGB(0x80,0x80,0x80) );
```

The following VB.NET sample changes the chart's background color:

```
With AxGantt1.Chart
```

```
    .BackColor = ToUInt32(Color.FromArgb(&H80, &H80, &H80))
```

```
End With
```

where the ToUInt32 function converts a Color expression to an OLE\_COLOR type:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32
```

```
    Dim i As Long
```

```
    i = c.R
```

```
    i = i + 256 * c.G
```

```
    i = i + 256 * 256 * c.B
```

```
    ToUInt32 = Convert.ToInt32(i)
```

```
End Function
```

The following C# sample changes the chart's background color:

```
axGantt1.Chart.BackColor = ToUInt32(Color.FromArgb(0x80, 0x80, 0x80));
```

where the ToUInt32 function converts a Color expression to an OLE\_COLOR type:

```
private UInt32 ToUInt32(Color c)
```

```
{
```

```
    long i;
```

```
    i = c.R;
```

```
    i = i + 256 * c.G;
```

```
    i = i + 256 * 256 * c.B;
```

```
    return Convert.ToInt32(i);
```

```
}
```

The following VFP sample changes the chart's background color:

```
With thisform.Gantt1.Chart
```

```
    .BackColor = RGB(128, 128, 128)
```

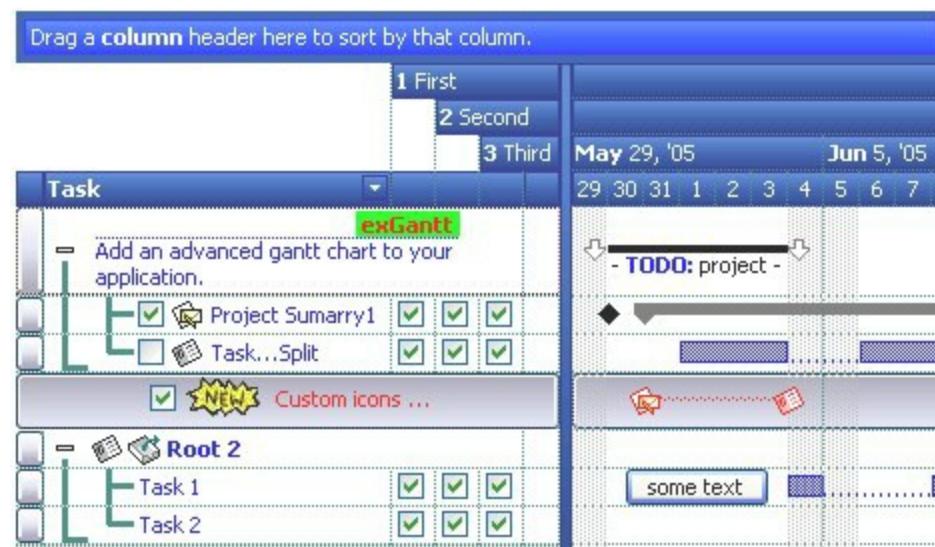
```
EndWith
```

## property Chart.BackColorLevelHeader as Color

Specifies the background color for the chart's levels.

Type	Description
Color	A Color expression that indicates the background color for the chart's header. The last 7 bits in the high significant byte of the color to indicates the identifier of the skin being used. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.

Use the BackColorLevelHeader property to specify the background color of the chart's header. Use the [ForeColorLevelHeader](#) property to specify the foreground color of the chart's header. Use the [LevelCount](#) property to specify the number of levels in the chart's header. Use the [Level](#) property to access a level. Use the [BackColor](#) property to specify the background color for a specified level. Use the [ForeColor](#) property to specify the foreground color for a specified level. Use the [BackColor](#) property to specify the chart's background color. Use the [ForeColor](#) property to specify the chart's foreground color. Use the [ItemBackColor](#) property to change the item's background color. Use the [NonworkingDaysColor](#) property the color of the brush to fill the nonworking days area. Use the [Picture](#) property to specify the picture being displayed on the chart's area.



The following VB sample changes the chart's header background color:

With Gantt1.Chart

```
.BackColorLevelHeader = RGB(&H80, &H80, &H80)
```

End With

The following C++ sample changes the chart's header background color:

```
m_gantt.GetChart().SetBackColorLevelHeader( RGB(0x80,0x80,0x80) );
```

The following VB.NET sample changes the chart's header background color:

```
With AxGantt1.Chart
```

```
    .BackColorLevelHeader = ToUInt32(Color.FromArgb(&H80, &H80, &H80))
```

```
End With
```

where the ToUInt32 function converts a Color expression to an OLE\_COLOR type:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32
```

```
    Dim i As Long
```

```
    i = c.R
```

```
    i = i + 256 * c.G
```

```
    i = i + 256 * 256 * c.B
```

```
    ToUInt32 = Convert.ToInt32(i)
```

```
End Function
```

The following C# sample changes the chart's header background color:

```
axGantt1.Chart.BackColorLevelHeader = ToUInt32(Color.FromArgb(0x80, 0x80, 0x80));
```

where the ToUInt32 function converts a Color expression to an OLE\_COLOR type:

```
private UInt32 ToUInt32(Color c)
```

```
{
```

```
    long i;
```

```
    i = c.R;
```

```
    i = i + 256 * c.G;
```

```
    i = i + 256 * 256 * c.B;
```

```
    return Convert.ToInt32(i);
```

```
}
```

The following VFP sample changes the chart's header background color:

```
With thisform.Gantt1.Chart
```

```
    .BackColorLevelHeader = RGB(128, 128, 128)
```

```
EndWith
```

## **property Chart.BarFromPoint (X as OLE\_XPOS\_PIXELS, Y as OLE\_YPOS\_PIXELS) as Variant**

Retrieves the bar from point.

Type	Description
X as OLE_XPOS_PIXELS	A single that specifies the current X location of the mouse pointer. The x values is always expressed in client coordinates.
Y as OLE_YPOS_PIXELS	A single that specifies the current Y location of the mouse pointer. The y values is always expressed in client coordinates.
Variant	A VARIANT expression that indicates the key of the bar from the cursor.

The BarFromPoint property gets the bar from point. **If the X parameter is -1 and Y parameter is -1 the BarFromPoint property determines the key of the bar from the cursor.** Use the [ItemBar](#) property to access properties of the bar from the point. The [DateFromPoint](#) property retrieves the date from the cursor, only if the cursor hovers the chart's area. Use the [ItemFromPoint](#) property to get the cell/item from the cursor. Use the [ColumnFromPoint](#) property to retrieve the column from cursor. Use the [FormatDate](#) property to format a date. Use the [DrawDateTicker](#) property to draw a ticker as cursor hovers the chart's area. Use the [LinkFromPoint](#) property to get the link from the point.

The following VB sample displays the key of the bar from the cursor:

```
Private Sub Gantt1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As Single)
    With Gantt1.Chart
        Debug.Print .BarFromPoint(-1, -1)
    End With
End Sub
```

The following VB sample displays the start data of the bar from the point:

```
Private Sub Gantt1_MouseDown(Button As Integer, Shift As Integer, X As Single, Y As Single)
    With Gantt1
        Dim h As HITEM, c As Long, hit As HitTestInfoEnum
        h = .ItemFromPoint(-1, -1, c, hit)
        If Not (h = 0) Then
```

```

Dim k As Variant
k = .Chart.BarFromPoint(-1, -1)
If Not IsEmpty(k) Then
    Debug.Print .Items.ItemBar(h, k, exBarStart)
End If
End If
End With
End Sub

```

The following C++ sample displays the start data of the bar from the point:

```

#include "Items.h"
#include "Chart.h"

CString V2Date( VARIANT* pvtValue )
{
    COleVariant vtDate;
    vtDate.ChangeType( VT_BSTR, pvtValue );
    return V_BSTR( &vtDate );
}

void OnMouseDownGantt1(short Button, short Shift, long X, long Y)
{
    long c = 0, hit = 0, h = m_gantt.GetItemFromPoint( -1, -1, &c, &hit );
    if ( h != 0 )
    {
        COleVariant vtKey = m_gantt.GetChart().GetBarFromPoint( -1, -1 );
        if ( V_VT( &vtKey ) != VT_EMPTY )
        {
            COleVariant vtStart = m_gantt.GetItems().GetItemBar( h, vtKey, 1 /*exBarStart*/ );
            OutputDebugString( V2Date( &vtStart ) );
        }
    }
}

```

The following VB.NET sample displays the start data of the bar from the point:

```

Private Sub AxGantt1_MouseDownEvent(ByVal sender As Object, ByVal e As

```

```

AxEXGANTTLib._IGanttEvents_MouseDownEvent) Handles AxGantt1.MouseDownEvent
With AxGantt1
    Dim c As Long, hit As EXGANTTLib.HitTestInfoEnum, h As Integer =
    .get_ItemFromPoint(-1, -1, c, hit)
    If Not (h = 0) Then
        Dim k As Object
        k = .Chart.BarFromPoint(-1, -1)
        If Not k Is Nothing Then
            System.Diagnostics.Debug.WriteLine(.Items.ItemBar(h, k,
EXGANTTLib.ItemBarPropertyEnum.exBarStart))
        End If
    End If
    End With
End Sub

```

The following C# sample displays the start data of the bar from the point:

```

private void axGantt1_MouseDownEvent(object sender,
AxEXGANTTLib._IGanttEvents_MouseDownEvent e)
{
    int c = 0;
    EXGANTTLib.HitTestInfoEnum hit = EXGANTTLib.HitTestInfoEnum.exHTCell;
    int h = axGantt1.get_ItemFromPoint(-1, -1, out c, out hit);
    if (h != 0)
    {
        object k = axGantt1.Chart.get_BarFromPoint(-1, -1);
        if (k != null)
            System.Diagnostics.Debug.WriteLine( axGantt1.Items.get_ItemBar( h, k,
EXGANTTLib.ItemBarPropertyEnum.exBarStart ) );
    }
}

```

The following VFP sample displays the start data of the bar from the point:

```

*** ActiveX Control Event ***
LPARAMETERS button, shift, x, y

```

With thisform.Gantt1

```
local h, c, hit
h = .ItemFromPoint(-1, -1, c, hit)
If (h # 0) Then
    local k
    k = .Chart.BarFromPoint(-1, -1)
    If !Empty(k) Then
        ? .Items.ItemBar(h, k, 1)
    EndIf
EndIf
EndWith
```

## property Chart.Bars as Bars

Retrieves the Bars collection.

Type	Description
Bars	A <a href="#">Bars</a> collection that holds <a href="#">Bar</a> objects.

Use the Bars property to access the control's Bars collection. Use the [Add](#) or [Copy](#) property to add new type of bars to the control. Use the [AddBar](#) method to add new bars to an item. Use the [Chart](#) property to access the Chart object.

By default, the Bars collection includes the following predefined bars:

- "Deadline":
- "Project Summary":
- "Summary":
- "Milestone":
- "Progress":
- "Split":
- "Task":

## method Chart.ClearItemBackColor (Item as HITEM)

Clears the item's background color in the chart area.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.

The ClearItemBackColor method clears the item's background color when [ItemBackColor](#) property is used ( chart part only ). The [ClearItemBackColor](#) method clears the item's background color when [ItemBackColor](#) property is used ( items/columns part only ).

## method Chart.ClearNonworkingDates ()

Clears nonworking dates.

Type	Description
Use the ClearNonworkingDates method to remove all nonworking dates. Use the <a href="#">ShowNonworkingDates</a> property to show or hide the nonworking dates. Use the <a href="#">RemoveNonworkingDate</a> method to unmark a specified nonworking date, being previously added using the <a href="#">AddNonworkingDate</a> method. Use the <a href="#">IsDateVisible</a> property to specify whether a date fits the chart's area. Use the <a href="#">IsNonworkingDate</a> property to check whether the date is already highlighted as nonworking day. The <a href="#">NonworkingDays</a> property specifies the days being marked as nonworking in a week. Use the <a href="#">NonworkingDaysPattern</a> property to specify the pattern being used to fill non-working days. The <a href="#">NonworkingDaysColor</a> property specifies the color being used to fill the non-working days.	

## property Chart.CountVisibleUnits ([Start as Variant], [End as Variant]) as Long

Counts the number of units within the specified range.

Type	Description
Start as Variant	A DATE expression that specifies the starting date, if missing, the <a href="#">StartPrintDate</a> value is used.
End as Variant	A DATE expression that specifies the ending date, if missing, the <a href="#">EndPrintDate</a> value is used.
Long	A long expression that specifies the number of units within the specified range.

Use the CountVisibleUnits property to count the number of units within the specified range. The [UnitScale](#) property indicates the time-unit scale being displayed by the chart's header. Use the CountVisibleUnits property to count the number of units so the entire chart is displayed on a specified size. Use the [UnitWidth](#) property specifies the width in pixels for the minimal time-unit. Use the CountVisibleUnits property and the ClientWidth property of the eXPrint component (Retrieves the width in pixels, of the drawing area of the printer page) to specify that you need to display the chart on a single page. The [StartPrintDate](#) and [EndPrintDate](#) property specifies range of dates within the chart is printed.

When computing the UnitWidth property for printing to a page ( as shown in the following sample ), you can still use the [Count](#) property of the Level object to display more units instead one.

The following VB sample changes the UnitWidth property so, the entire chart is printed to the page:

With Print1

  Dim I As Long

  With Gantt1.Chart

    I = .UnitWidth

    .UnitWidth = (Print1.ClientWidth - .PaneWidth(False)) / .CountVisibleUnits()

  End With

  Set .PrintExt = Gantt1.Object

  .Preview

  Gantt1.Chart.UnitWidth = I

End With

The ClientWidth property of the eXPrint specifies the number of pixels in the page, the

[PaneWidth](#) property specifies the width of the columns area. The sample restores the UnitWidth property once, the Preview method is called.

## **property Chart.DateFromPoint (X as OLE\_XPOS\_PIXELS, Y as OLE\_YPOS\_PIXELS) as Date**

Retrieves the date from the cursor.

Type	Description
X as OLE_XPOS_PIXELS	A single that specifies the current X location of the mouse pointer. The x values is always expressed in client coordinates.
Y as OLE_YPOS_PIXELS	A single that specifies the current Y location of the mouse pointer. The y values is always expressed in client coordinates.
Date	A Date expression that indicates the date from the cursor.

The DateFromPoint property gets the date from point. The DateFromPoint property retrieves the date from the cursor, only if the cursor hovers the chart's area. Use the [ItemFromPoint](#) property to get the cell/item from the cursor. Use the [ColumnFromPoint](#) property to retrieve the column from cursor. Use the [FormatDate](#) property to format a date. Use the [DrawDateTicker](#) property to draw a ticker as cursor hovers the chart's area. Use the [LevelFromPoint](#) property to retrieve the index of the level from the cursor.

The following VB sample displays the date from the cursor:

```
Private Sub Gantt1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As Single)
    With Gantt1.Chart
        Dim d As Date
        d = .DateFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY)
        Debug.Print .FormatDate(d, "<%m%>/<%d%>/<%yyyy%>")
    End With
End Sub
```

The following C++ sample displays the date from the point:

```
void OnMouseMoveGantt1(short Button, short Shift, long X, long Y)
{
    CChart chart = m_gantt.GetChart();
    DATE d = chart.GetDateFromPoint( X, Y );
    CString strFormat = chart.GetFormatDate( d, "<%m%>/<%d%>/<%yyyy%>" );
    OutputDebugString( strFormat );
```

```
}
```

The following VB.NET sample displays the date from the point:

```
Private Sub AxGantt1_MouseMoveEvent(ByVal sender As Object, ByVal e As AxEXGANTTLib._IGanttEvents_MouseMoveEvent) Handles AxGantt1.MouseMoveEvent
    With AxGantt1.Chart
        Dim d As Date
        d = .DateFromPoint(e.x, e.y)
        Debug.WriteLine(.FormatDate(d, "<%m%>/<%d%>/<%yyyy%>"))
    End With
End Sub
```

The following C# sample displays the date from the point:

```
private void axGantt1_MouseMoveEvent(object sender,
AxEXGANTTLib._IGanttEvents_MouseMoveEvent e)
{
    DateTime d = axGantt1.Chart.get_DateFromPoint(e.x, e.y);
    System.Diagnostics.Debug.WriteLine(axGantt1.Chart.get_FormatDate(d, "
<%m%>/<%d%>/<%yyyy%>"));
}
```

The following VFP sample displays the date from the point:

```
*** ActiveX Control Event ***
LPARAMETERS button, shift, x, y

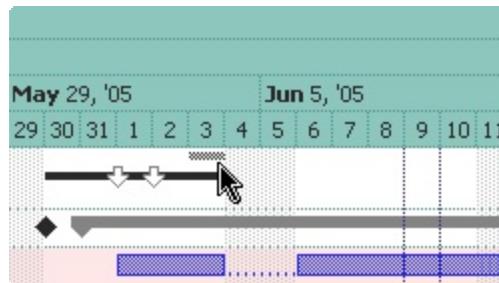
with thisform.Gantt1.Chart
    d = .DateFromPoint(x,y)
    wait window nowait .FormatDate(d, "<%m%>/<%d%>/<%yyyy%> ")
endwith
```

## property Chart.DrawDateTicker as Boolean

Retrieves or sets a value that indicates whether the control draws a ticker around the current date while cursor hovers the chart's client area.

Type	Description
Boolean	A Boolean expression that indicates whether the date ticker is visible or hidden.

Use the DrawDateTicker property to hide the ticker that shows up when the cursor hovers the chart's area. By default, the DrawDateTicker property is True. Use the [DateFromPoint](#) property to retrieve the date from the cursor. Use the [NonworkingDays](#) property to specify the nonworking days. Use the [MarkTodayColor](#) property to specify whether the today date is marked. Use the [DrawTickLines](#) property to specify whether the grid lines between time units in the level are visible or hidden.



## property Chart.DrawGridLines as GridLinesEnum

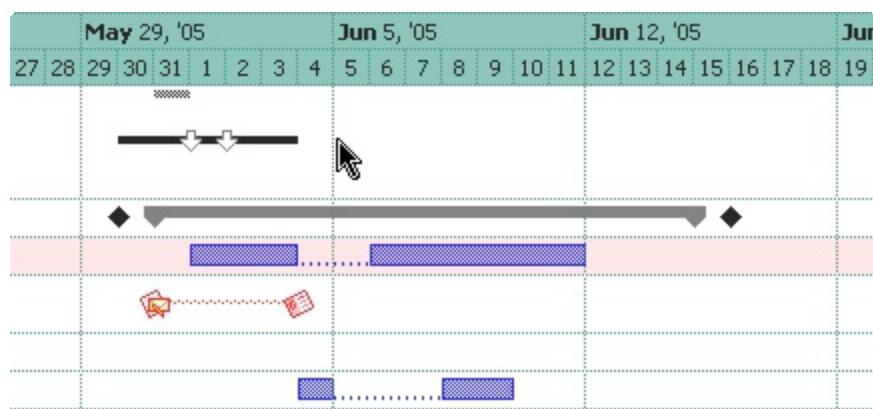
Retrieves or sets a value that indicates whether the grid lines are visible or hidden.

Type	Description
<a href="#">GridLinesEnum</a>	A GridLinesEnum expression that indicates whether the control draws the grid lines in the chart's area.

By default, the DrawGridLines property is exNoLines. Use the DrawGridLines property to specify whether the control draws the grid lines in the chart's area. The [GridLineStyle](#) property to specify the style for horizontal or/and vertical gridlines in the chart view. Use the [DrawGridLines](#) property of the Level object to show the vertical grid lines for the specified level. Use the [GridLineColor](#) property of the Level object to specify the color for vertical grid lines in the chart area. Use the [GridLineStyle](#) property of the Level object to specify the style for vertical grid lines in the chart area. Use the [GridLineColor](#) property to specify the color for grid lines. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the items area. Use the [DrawLevelSeperator](#) property to draw lines between levels inside the chart's header. Use the [DrawTickLines](#) property to specify whether the grid lines between time units in the level are visible or hidden. Use the [MarkTodayColor](#) property to specify the color to mark the today date. Use the [NonworkingDays](#) property to specify the nonworking days. Use the [NonworkingDaysPattern](#) property to specify the brush to fill the nonworking days area.

In conclusion, the following properties are related to the control's gridlines:

- [DrawGridLines](#) specifies whether the gridlines are shown in the column/list part of the control. The gridlines in the chart part of the control are handled by the Chart.DrawGridLines property.
- [GridLineColor](#) specifies the color to show the horizontal grid line, and vertical grid lines for the columns/list part of the control. The color for vertical grid lines in the chart view part is handled by the Level.GridLineColor property.
- [GridLineStyle](#) specifies the style for horizontal grid lines and vertical grid lines in the columns/list part of the control. The Level.GridLineStyle property specifies the style for vertical grid lines in the chart area.
- [Chart.DrawGridLines](#) (belongs to Chart object) indicates whether gridlines are shown in the chart view.
- [Level.DrawGridLines](#) (belongs to Level object) specifies whether the level shows vertical gridlines in the chart part of the control.
- [Level.GridLineColor](#) (belongs to Level object) indicates the color for vertical gridlines in the chart view.
- [Level.GridLineStyle](#) (belongs to Level object) specifies the style to show the vertical gridlines in the chart part area of the control.

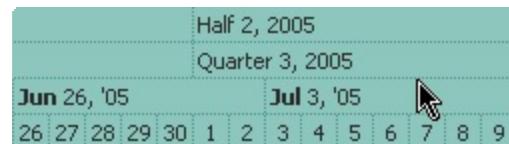


## property Chart.DrawLevelSeparator as Boolean

Retrieves or sets a value that indicates whether lines between levels are shown or hidden.

Type	Description
Boolean	A boolean expression that indicates whether grid lines between levels are visible or hidden.

By default, the DrawLevelSeparator property is True. Use the DrawLevelSeparator property to draw lines between levels inside the chart's header. Use the [DrawTickLines](#) property to specify whether the grid lines between time units in the level are visible or hidden. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the chart's area. Use the [GridLineColor](#) property to specify the color for grid lines. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the items area. Use the [DrawGridLines](#) property to draw grid lines for a specified level. Use the [NonworkingDays](#) property to specify the nonworking days. Use the [NonworkingDaysPattern](#) property to specify the brush to fill the nonworking days area. Use the [MarkTodayColor](#) property to specify the color to mark the today date.



## property Chart.EndPrintDate as Variant

Retrieves or sets a value that indicates the printing end date.

Type	Description
Variant	A DATE expression that specifies the ending date to print the chart. The get method always retrieves a DATE expression. When calling the set method of the EndPrintDate property, it can be a string, a DATE or any other expression that can be converted to a date.

The EndPrintDate property indicates the ending date to print the chart. By default, the EndPrintDate property computes the required end date so the entire chart is displayed, *if the EndPrintDate was not specified before*. For instance, if you set the EndPrintDate property on "Dec 31 2001", the EndPrintDate property retrieves the "Dec 31 2001" date and does not compute the required end date. If you have specified a value for the EndPrintDate but you still need to get the required end date being computed, set the EndPrintDate property on 0, and calling the next method get of EndPrintDate property computes the required end date to print the chart. The [StartPrintDate](#) property indicates the starting date to print the chart. Use the [CountVisibleUnits](#) property to count the number of units within the specified range.

## property Chart.FirstVisibleDate as Variant

Retrieves or sets a value that indicates the first visible date.

Type	Description
Variant	A Date expression that indicates the first visible date in the chart.

The FirstVisibleDate property indicates the first visible date in the chart. The control fires the [DateChange](#) event when the first visible date is changed. Use the [FormatDate](#) property to format a date to a specified format. Use the [NextDate](#) property to retrieve the next or previous date giving a specified time unit. Use the [ScrollTo](#) method to ensure that a specified date fits the chart's client area. Use the [AddBar](#) property to add new bars to an item. The [DateFromPoint](#) property gets the date from the cursor. Use the [FirstWeekDay](#) property to specify the first day in the week. Use the [Zoom](#) method to scale the chart to a specified interval of dates.

The following VB sample displays the first visible date when the user changes the first visible date:

```
Private Sub Gantt1_DateChange()
    With Gantt1.Chart
        Debug.Print FormatDateTime(.FirstVisibleDate)
    End With
End Sub
```

or you can use the FormatDate method like follows:

```
Private Sub Gantt1_DateChange()
    With Gantt1.Chart
        Debug.Print .FormatDate(.FirstVisibleDate, "<%yyyy%>-<%m%>-<%d%>")
    End With
End Sub
```

The following C++ sample displays the first visible date when the user changes the first visible date:

```
#include "Gantt.h"
#include "Chart.h"

static DATE V2D( VARIANT* pvtDate )
```

```

{
    COleVariant vtDate;
    vtDate.ChangeType( VT_DATE, pvtDate );
    return V_DATE( &vtDate );
}

void OnDateChangeGantt1()
{
    if ( m_gantt.GetControlUnknown() )
    {
        CChart chart = m_gantt.GetChart();
        TCHAR szDate[1024] = _T("");
        SYSTEMTIME stDate = {0};
        VariantTimeToSystemTime( V2D( &chart.GetFirstVisibleDate() ), &stDate );
        GetDateFormat( LOCALE_SYSTEM_DEFAULT, LOCALE_USE_CP_ACP, &stDate, NULL,
szDate, 1024 );
        OutputDebugString( szDate );
    }
}

```

The following VB.NET sample displays the first visible date when the user changes the first visible date:

```

Private Sub AxGantt1_DateChange(ByVal sender As Object, ByVal e As System.EventArgs)
Handles AxGantt1.DateChange
    Debug.WriteLine(AxGantt1.Chart.FirstVisibleDate.ToString())
End Sub

```

The following C# sample displays the first visible date when the user changes the first visible date:

```

private void axGantt1_DateChange(object sender, EventArgs e)
{
    System.Diagnostics.Debug.WriteLine(axGantt1.Chart.FirstVisibleDate.ToString());
}

```

The following VFP sample displays the first visible date when the user changes the first visible date:

\*\*\* ActiveX Control Event \*\*\*

with thisform.Gantt1.Chart

```
wait window nowait .FormatDate(.FirstVisibleDate, "<%yyyy%>-<%m%>-<%d%>")  
endwith
```

## property Chart.FirstWeekDay as WeekDayEnum

Specifies the first day of the week.

Type	Description
<a href="#">WeekDayEnum</a>	A WeekDayEnum expression that indicates the first day in the week.

By default, the FirstWeekDay property is exSunday. Use the FirstWeekDay property to specify the first day in the week. Use [WeekDays](#) property to specify the name of the days in the week. Use the [MonthNames](#) property to specify the name of the months in the year. Use the [AMPM](#) property to specify the name of the AM and PM indicators. The [FormatDate](#) property formats a date. The [NextDate](#) property computes the next date based on the time unit. Use the [FirstVisibleDate](#) property to specify the first visible date in the chart. Use the [MarkTodayColor](#) property to specify the color to mark the today date area.

## property Chart.ForeColor as Color

Retrieves or sets a value that indicates the chart's foreground color.

Type	Description
Color	A Color expression that indicates the chart's foreground color.

Use the ForeColor property to specify the chart's foreground color. Use the [BackColor](#) property to specify the chart's background color. Use the [BackColorLevelHeader](#) property to specify the background color of the chart's header. Use the [ForeColorLevelHeader](#) property to specify the foreground color of the chart's header. Use the [BackColor](#) property to specify the background color for a specified level. Use the [ForeColor](#) property to specify the foreground color for a specified level. Use the [ItemBackColor](#) property to change the item's background color. Use the [NonworkingDaysColor](#) property the color of the brush to fill the nonworking days area. Use the [Picture](#) property to specify the picture being displayed on the chart's area.

The following VB sample changes the chart's foreground color:

```
With Gantt1.Chart  
    .ForeColor = RGB(&H80, &H80, &H80)  
End With
```

The following C++ sample changes the chart's foreground color:

```
m_gantt.GetChart().SetForeColor( RGB(0x80,0x80,0x80) );
```

The following VB.NET sample changes the chart's foreground color:

```
With AxGantt1.Chart  
    .ForeColor = ToUInt32(Color.FromArgb(&H80, &H80, &H80))  
End With
```

where the ToUInt32 function converts a Color expression to an OLE\_COLOR type:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32  
    Dim i As Long  
    i = c.R  
    i = i + 256 * c.G  
    i = i + 256 * 256 * c.B  
    ToUInt32 = Convert.ToInt32(i)
```

End Function

The following C# sample changes the chart's foreground color:

```
axGantt1.Chart.ForeColor = ToUInt32(Color.FromArgb(0x80, 0x80, 0x80));
```

where the ToUInt32 function converts a Color expression to an OLE\_COLOR type:

```
private UInt32 ToUInt32(Color c)
{
    long i;
    i = c.R;
    i = i + 256 * c.G;
    i = i + 256 * 256 * c.B;
    return Convert.ToInt32(i);
}
```

The following VFP sample changes the chart's foreground color:

```
With thisform.Gantt1.Chart
    .ForeColor = RGB(128, 128, 128)
EndWith
```

## property Chart.ForeColorLevelHeader as Color

Specifies the foreground color for the chart's levels.

Type	Description
Color	A Color expression that indicates the background color for the chart's header.

Use the ForeColorLevelHeader property to specify the foreground color of the chart's header. Use the [BackColorLevelHeader](#) property to specify the background color of the chart's header. Use the [LevelCount](#) property to specify the number of levels in the chart's header. Use the [Level](#) property to access a level. Use the [BackColor](#) property to specify the background color for a specified level. Use the [ForeColor](#) property to specify the foreground color for a specified level. Use the [BackColor](#) property to specify the chart's background color. Use the [ForeColor](#) property to specify the chart's foreground color. Use the [ItemBackColor](#) property to change the item's background color. Use the [NonworkingDaysColor](#) property the color of the brush to fill the nonworking days area. Use the [Picture](#) property to specify the picture being displayed on the chart's area.

The following VB sample changes the chart's header foreground color:

```
With Gantt1.Chart  
    .ForeColorLevelHeader = RGB(&H80, &H80, &H80)  
End With
```

The following C++ sample changes the chart's header foreground color:

```
m_gantt.GetChart().SetForeColorLevelHeader( RGB(0x80,0x80,0x80) );
```

The following VB.NET sample changes the chart's header foreground color:

```
With AxGantt1.Chart  
    .ForeColorLevelHeader = ToUInt32(Color.FromArgb(&H80, &H80, &H80))  
End With
```

where the ToUInt32 function converts a Color expression to an OLE\_COLOR type:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32  
    Dim i As Long  
    i = c.R  
    i = i + 256 * c.G  
    i = i + 256 * 256 * c.B
```

```
ToUInt32 = Convert.ToInt32(i)
```

```
End Function
```

The following C# sample changes the chart's header foreground color:

```
axGantt1.Chart.ForeColorLevelHeader = ToUInt32(Color.FromArgb(0x80, 0x80, 0x80));
```

where the ToUInt32 function converts a Color expression to an OLE\_COLOR type:

```
private UInt32 ToUInt32(Color c)
{
    long i;
    i = c.R;
    i = i + 256 * c.G;
    i = i + 256 * 256 * c.B;
    return Convert.ToInt32(i);
}
```

The following VFP sample changes the chart's header foreground color:

```
With thisform.Gantt1.Chart
    .ForeColorLevelHeader = RGB(128, 128, 128)
EndWith
```

## property Chart.FormatDate (Date as Date, Format as String) as String

Formats the date.

Type	Description
Date as Date	A Date expression being formatted
Format as String	A String expression that indicates the format of date.
String	A String expression that indicates the formatted date.

Use the `FormatDate` property to format a date. Use the [NextDate](#) property to increase or decrease a date based on a time unit. Use the [FirstVisibleDate](#) property to retrieve the first visible date. The [DateFromPoint](#) property gets the date from the cursor. Use the [WeekDays](#) property to specify the name of the days in the week. Use the [MonthNames](#) property to specify the name of the months in the year. Use the [AMPM](#) property to specify the name of the AM and PM indicators.

The Format parameter may include the following built-in tags:

- `<%d%>` - Day of the month in one or two numeric digits, as needed (1 to 31).
- `<%dd%>` - Day of the month in two numeric digits (01 to 31).
- `<%d1%>` - First letter of the weekday (S to S). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- `<%d2%>` - First two letters of the weekday (Su to Sa). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- `<%d3%>` - First three letters of the weekday (Sun to Sat). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- `<%ddd%>` - First three letters of the weekday (Sun to Sat). ( Use the [WeekDays](#) property to specify the name of the days in the week ). You can use the `<%loc_ddd%>` that indicates the day of week as a three-letter abbreviation using the current user regional and language settings.
- `<%loc_ddd%>` - Indicates the day of week as a three-letter abbreviation using the current user regional and language settings.
- `<%dddd%>` - Full name of the weekday (Sunday to Saturday). ( Use the [WeekDays](#) property to specify the name of the days in the week ). You can use the `<%loc_dddd%>` that indicates day of week as its full name using the current user regional and language settings.
- `<%loc_dddd%>` - Indicates day of week as its full name using the current user regional and language settings.
- `<%i%>` - Displays the number instead the date. For instance, you can display numbers as 1000, 1001, 1002, 1003, instead dates. ( the valid range is from -647,434 to 2,958,465 )
- `<%w%>` - Day of the week (1 to 7).

- <%ww%> - Week of the year (1 to 53).
- <%m%> - Month of the year in one or two numeric digits, as needed (1 to 12).
- <%mr%> - Month of the year in Roman numerals, as needed (I to XII).
- <%mm%> - Month of the year in two numeric digits (01 to 12).
- <%m1%> - First letter of the month (J to D). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%m2%> - First two letters of the month (Ja to De). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%m3%> - First three letters of the month (Jan to Dec). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%mmm%> - First three letters of the month (Jan to Dec). ( Use the [MonthNames](#) property to specify the name of the months in the year ). You can use the <%loc\_mmm%> that indicates month as a three-letter abbreviation using the current user regional and language settings.
- <%loc\_mmm%> - Indicates month as a three-letter abbreviation using the current user regional and language settings.
- <%mmmm%> - Full name of the month (January to December). ( Use the [MonthNames](#) property to specify the name of the months in the year ). You can use the <%loc\_mmmm%> that indicates month as its full name using the current user regional and language settings.
- <%loc\_mmmm%> - Indicates month as its full name using the current user regional and language settings.
- <%q%> - Date displayed as the quarter of the year (1 to 4).
- <%y%> - Number of the day of the year (1 to 366).
- <%yy%> - Last two digits of the year (01 to 99).
- <%yyyy%> - Full year (0100 to 9999).
- <%hy%> - Date displayed as the half of the year (1 to 2).
- <%loc\_gg%> - Indicates period/era using the current user regional and language settings.
- <%loc\_sdate%> - Indicates the date in the short format using the current user regional and language settings.
- <%loc\_ldate%> - Indicates the date in the long format using the current user regional and language settings.
- <%loc\_dsep%> - Indicates the date separator using the current user regional and language settings (/).
- <%h%> - Hour in one or two digits, as needed (0 to 23).
- <%hh%> - Hour in two digits (00 to 23).
- <%n%> - Minute in one or two digits, as needed (0 to 59).
- <%nn%> - Minute in two digits (00 to 59).
- <%s%> - Second in one or two digits, as needed (0 to 59).
- <%ss%> - Second in two digits (00 to 59).
- <%AM/PM%> - Twelve-hour clock with the uppercase letters "AM" or "PM", as

appropriate. ( Use the [AMPM](#) property to specify the name of the AM and PM indicators ). You can use the `<%loc_AM/PM%>` that indicates the time marker such as AM or PM using the current user regional and language settings. You can use `<%loc_A/P%>` that indicates the one character time marker such as A or P using the current user regional and language settings

- `<%loc_AM/PM%>` - Indicates the time marker such as AM or PM using the current user regional and language settings.
- `<%loc_A/P%>` - Indicates the one character time marker such as A or P using the current user regional and language settings.
- `<%loc_time%>` - Indicates the time using the current user regional and language settings.
- `<%loc_time24%>` - Indicates the time in 24 hours format without a time marker using the current user regional and language settings.
- `<%loc_tsep%>` - indicates the time separator using the current user regional and language settings (:).

The following tags are displayed based on the user's Regional and Language Options:

- `<%loc_sdate%>` - Indicates the date in the short format using the current user settings.
- `<%loc_ldate%>` - Indicates the date in the long format using the current user settings.
- `<%loc_ddd%>` - Indicates day of week as a three-letter abbreviation using the current user settings.
- `<%loc_dddd%>` - Indicates day of week as its full name using the current user settings.
- `<%loc_mmm%>` - Indicates month as a three-letter abbreviation using the current user settings.
- `<%loc_mmmm%>` - Indicates month as its full name using the current user settings.
- `<%loc_gg%>` - Indicates period/era using the current user settings.
- `<%loc_dsep%>` - Indicates the date separator using the current user settings.
- `<%loc_time%>` - Indicates the time using the current user settings.
- `<%loc_time24%>` - Indicates the time in 24 hours format without a time marker using the current user settings.
- `<%loc_AM/PM%>` - Indicates the time marker such as AM or PM using the current user settings.
- `<%loc_A/P%>` - Indicates the one character time marker such as A or P using the current user settings.
- `<%loc_tsep%>` - Indicates the time separator using the current user settings.
- `<%loc_y%>` - Represents the Year only by the last digit, using current regional settings.
- `<%loc_yy%>` - Represents the Year only by the last two digits, using current regional settings. A leading zero is added for single-digit years.

- <%loc\_yyyy%> - Represents the Year by a full four or five digits, depending on the calendar used. Thai Buddhist and Korean calendars have five-digit years. The "yyyy" pattern shows five digits for these two calendars, and four digits for all other supported calendars. Calendars that have single-digit or two-digit years, such as for the Japanese Emperor era, are represented differently. A single-digit year is represented with a leading zero, for example, "03". A two-digit year is represented with two digits, for example, "13". No additional leading zeros are displayed.

The following VB sample displays the next day as "Tue, May 31, 2005":

With Gantt1.Chart

```
Debug.Print .FormatDate(.NextDate(.FirstVisibleDate, exDay, 2), "<%ddd%>,
<%mmmm%> <%d%>, <%yyyy%>")
End With
```

The following C++ sample displays the next day as "Tue, May 31, 2005":

```
CChart chart = m_gantt.GetChart();
DATE d = chart.GetNextDate( V2D( &chart.GetFirstVisibleDate() ), 4096, COleVariant(
(long)1 ) );
CString strFormat = chart.GetFormatDate( d, "<%ddd%>, <%mmmm%> <%d%>,
<%yyyy%>" );
OutputDebugString( strFormat );
```

where the V2D function converts a Variant expression to a DATE expression:

```
static DATE V2D( VARIANT* pvtDate )
{
    COleVariant vtDate;
    vtDate.ChangeType( VT_DATE, pvtDate );
    return V_DATE( &vtDate );
}
```

The following VB.NET sample displays the next day as "Tue, May 31, 2005":

With AxGantt1.Chart

```
Debug.WriteLine(.FormatDate(.NextDate(.FirstVisibleDate, EXGANTTLib.UnitEnum.exDay, 2),
"<%ddd%>, <%mmmm%> <%d%>, <%yyyy%>"))
End With
```

The following C# sample displays the next day as "Tue, May 31, 2005":

```
DateTime d = Convert.ToDateTime(axGantt1.Chart.get_NextDate(Convert.ToDateTime(axGantt1.Chart.FirstVisibleDate),  
EXGANTTLib.UnitEnum.exDay, 1));  
String strFormat = axGantt1.Chart.get_FormatDate(d, "<%ddd%>, <%mmmm%>  
<%d%>, <%yyyy%>");  
System.Diagnostics.Debug.WriteLine(strFormat);
```

The following VFP sample displays the next day as "Tue, May 31, 2005":

```
With thisform.Gantt1.Chart
```

```
  wait window nowait .FormatDate(.NextDate(.FirstVisibleDate, 4096, 2), "<%ddd%>,  
<%mmmm%> <%d%>, <%yyyy%>")
```

```
EndWith
```

## property Chart.GridLineStyle as GridLinesStyleEnum

Retrieves or sets a value that indicates style for the gridlines being shown in the chart area.

Type	Description
<a href="#">GridLinesStyleEnum</a>	A GridLinesStyleEnum expression that indicates the style to show the grid lines in the chart view part of the control.

By default, the GridLineStyle property is exGridLinesDot. The GridLineStyle property has effect only if the chart's [DrawGridLines](#) property is not zero. Use the [DrawGridLines](#) property of the Level object to show the vertical grid lines for the specified level. Use the [GridLineColor](#) property of the Level object to specify the color for vertical grid lines in the chart area. Use the [GridLineStyle](#) property of the Level object to specify the style for vertical grid lines in the chart area. Use the [GridLineColor](#) property to specify the color for grid lines. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the items area. Use the [DrawLevelSeperator](#) property to draw lines between levels inside the chart's header. Use the [DrawTickLines](#) property to specify whether the grid lines between time units in the level are visible or hidden. Use the [MarkTodayColor](#) property to specify the color to mark the today date.

## property Chart.IsDateVisible (Date as Variant) as Boolean

Specifies whether the date fits the control's chart area.

Type	Description
Date as Variant	A Date expression being queried
Boolean	A Boolean expression that indicates whether the date fits the chart's area.

The IsDateVisible property specifies whether a date is visible or hidden. Use the [FirstVisibleDate](#) property to specify the first visible date in the chart's area. The [DateChange](#) event notifies your application whether the chart changes it's first visible date, or whether the user browses a new area in the chart.

The following VB sample enumerates all visible dates:

```
With Gantt1
    .BeginUpdate
    With .Chart
        Dim d As Date
        d = .FirstVisibleDate
        Do While .IsDateVisible(d)
            If Day(d) = 11 Then
                If Not (.IsNonworkingDate(d)) Then
                    .AddNonworkingDate d
                End If
            End If
            d = .NextDate(d, exDay, 1)
        Loop
    End With
    .EndUpdate
End With
```

The following VB.NET sample enumerates all visible dates:

```
With AxGantt1
    .BeginUpdate()
    With .Chart
        Dim d As Date
        d = .FirstVisibleDate
```

```

Do While .IsDateVisible(d)
  If d.Day = 11 Then
    If Not (.IsNonworkingDate(d)) Then
      .AddNonworkingDate(d)
    End If
  End If
  d = .NextDate(d, EXGANTTLib.UnitEnum.exDay, 1)
Loop
End With
.EndUpdate()
End With

```

The following C# sample enumerates all visible dates:

```

axGantt1.BeginUpdate();
EXGANTTLib.Chart chart = axGantt1.Chart;
DateTime d = Convert.ToDateTime(chart.FirstVisibleDate);
while ( chart.get_IsDateVisible(d) )
{
  if ( d.Day == 11 )
    if ( !chart.get_IsNonworkingDate( d ) )
      chart.AddNonworkingDate(d);
  d = chart.get_NextDate(d, EXGANTTLib.UnitEnum.exDay, 1);
}
axGantt1.EndUpdate();

```

The following VFP sample enumerates all visible dates:

```

With thisform.Gantt1
.BeginUpdate
With .Chart
  local d
  d = .FirstVisibleDate
  Do While .IsDateVisible(d)
    If Day(d) = 11 Then
      If Not (.IsNonworkingDate(d)) Then
        .AddNonworkingDate(d)
      EndIf
    End If
  End While

```

```
EndIf  
d = .NextDate(d, 4096, 1)  
enddo  
EndWith  
.EndUpdate  
EndWith
```

## property Chart.IsNonworkingDate (Date as Variant) as Boolean

Specifies whether the date is a nonworking day.

Type	Description
Date as Variant	A Date expression that indicates the date being queried.
Boolean	A boolean expression that specifies whether the date is nonworking day.

Use the `IsNonworkingDate` property to check whether the date is already highlighted as nonworking day. The [NonworkingDays](#) property specifies the days being marked as nonworking in a week. Use the [AddNonworkingDate](#) method to add custom dates as being nonworking days. Use the [NonworkingDaysPattern](#) property to specify the pattern being used to fill non-working days. The [NonworkingDaysColor](#) property specifies the color being used to fill the non-working days. Use the [ClearNonworkingDates](#) method to remove all nonworking dates. Use the [IsDateVisible](#) property to specify whether a date fits the chart's area.

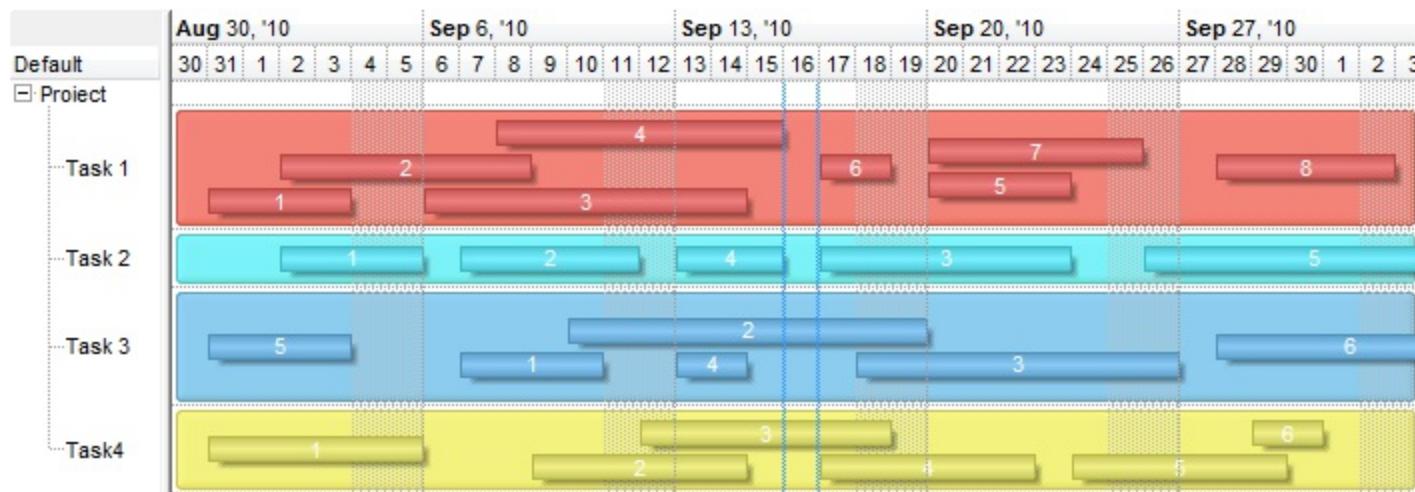
## property Chart.ItemBackColor(Item as HITEM) as Color

Retrieves or sets a background color for a specific item, in the chart area.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item.
Color	A color expression that indicates the item's background color. The last 7 bits in the high significant byte of the color to indicates the identifier of the skin being used. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the

By default, the ItemBackColor property is the same as Chart's [BackColor](#) property. The ItemBackColor property specifies the background or the visual appearance for the item's background on the chart area. The [ItemBackColor](#) property specifies the item's background color for the list area ( columns part of the control ). The [ClearItemBackColor](#) method clears the item's background on the chart part of the control.

The following screen shot shows the chart part when using the ItemBackColor property of the Chart object:



The following samples changes the background color for the item in the chart part only.

VBA (MS Access, Excell...)

With Gantt1

.Columns.Add "Default"

With .Items

h = .AddItem("Root")

hC = .InsertItem(h,0,"Child 1")

```
Gantt1.Chart.ItemBackColor(hC) = RGB(255,0,0)
.InsertItem h,0,"Child 2"
.ExpandItem(h) = True
End With
End With
```

## VB6

```
With Gantt1
.Columns.Add "Default"
With .Items
h = .AddItem("Root")
hC = .InsertItem(h,0,"Child 1")
Gantt1.Chart.ItemBackColor(hC) = RGB(255,0,0)
.InsertItem h,0,"Child 2"
.ExpandItem(h) = True
End With
End With
```

## VB.NET

```
Dim h,hC
With Exgantt1
.Columns.Add("Default")
With .Items
h = .AddItem("Root")
hC = .InsertItem(h,0,"Child 1")
Exgantt1.Chart.set_ItemBackColor(hC,Color.FromArgb(255,0,0))
.InsertItem(h,0,"Child 2")
.set_ExpandItem(h,True)
End With
End With
```

## VB.NET for /COM

```
Dim h,hC
With AxGantt1
.Columns.Add("Default")
With .Items
```

```
h = .AddItem("Root")
hC = .InsertItem(h,0,"Child 1")
AxGantt1.Chart.ItemBackColor(hC) = RGB(255,0,0)
.InsertItem(h,0,"Child 2")
.ExpandItem(h) = True
End With
End With
```

## C++

```
/*
```

Copy and paste the following directives to your header file as it defines the namespace 'EXGANTTLib' for the library: 'ExGantt 1.0 Control Library'

```
#import <ExGantt.dll>
using namespace EXGANTTLib;
*/
EXGANTTLib::IGanttPtr spGantt1 = GetDlgItem(IDC_GANTT1)->GetControlUnknown();
spGantt1->GetColumns()->Add(L"Default");
EXGANTTLib::IItemsPtr var_Items = spGantt1->GetItems();
long h = var_Items->AddItem("Root");
long hC = var_Items->InsertItem(h,long(0),"Child 1");
spGantt1->GetChart()->PutItemBackColor(hC,RGB(255,0,0));
var_Items->InsertItem(h,long(0),"Child 2");
var_Items->PutExpandItem(h,VARIANT_TRUE);
```

## C#

```
exgantt1.Columns.Add("Default");
exontrol.EXGANTTLib.Items var_Items = exgantt1.Items;
int h = var_Items.AddItem("Root");
int hC = var_Items.InsertItem(h,0,"Child 1");
exgantt1.Chart.set_ItemBackColor(hC,Color.FromArgb(255,0,0));
var_Items.InsertItem(h,0,"Child 2");
var_Items.set_ExpandItem(h,true);
```

## C# for /COM

```
axGantt1.Columns.Add("Default");
```

```
EXGANTTLib.Items var_Items = axGantt1.Items;
int h = var_Items.AddItem("Root");
int hC = var_Items.InsertItem(h,0,"Child 1");
axGantt1.Chart.set_ItemBackColor(hC,
(uint)ColorTranslator.ToWin32(Color.FromArgb(255,0,0)));
var_Items.InsertItem(h,0,"Child 2");
var_Items.set_ExpandItem(h,true);
```

## Delphi 8 (.NET only)

```
with AxGantt1 do
begin
  Columns.Add('Default');
  with Items do
    begin
      h := AddItem('Root');
      hC := InsertItem(h,TObject(0),'Child 1');
      AxGantt1.Chart.ItemBackColor[hC] := $ff;
      InsertItem(h,TObject(0),'Child 2');
      ExpandItem[h] := True;
    end;
end
```

## Delphi (standard)

```
with Gantt1 do
begin
  Columns.Add('Default');
  with Items do
    begin
      h := AddItem('Root');
      hC := InsertItem(h,OleVariant(0),'Child 1');
      Gantt1.Chart.ItemBackColor[hC] := $ff;
      InsertItem(h,OleVariant(0),'Child 2');
      ExpandItem[h] := True;
    end;
end
```

```
with thisform.Gantt1
    .Columns.Add("Default")
    with .Items
        h = .AddItem("Root")
        hC = .InsertItem(h,0,"Child 1")
        thisform.Gantt1.Chart.ItemBackColor(hC) = RGB(255,0,0)
        .InsertItem(h,0,"Child 2")
        .ExpandItem(h) = .T.
    endwith
endwith
```

## property Chart.Label(Unit as UnitEnum) as String

Retrieves or sets a value that indicates the predefined format of the level's label for a specified unit.

Type	Description
Unit as <a href="#">UnitEnum</a>	An UnitEnum expression that indicates the time unit
String	A String expression that includes the format of the label.

The Label property specifies a predefined label for a specified unit. Use the [UnitScale](#) property to change the scale unit. The UnitScale property changes the Label, [Unit](#) and the [ToolTip](#) for a level with predefined values defined by the [Label](#) and [LabelToolTip](#) properties. Use the [UnitWidth](#) property to specify the width of the time unit. Use the [Zoom](#) method to zoom the chart to a specified interval of dates. Use the [Label](#) property to assign a different label for a specified level. Use the [LabelToolTip](#) property to specify the predefined type of tooltip being displayed when the chart is zoomed. Use the [ToolTip](#) property to specify the tooltip that shows up when the cursor hovers the level. Use the [FormatDate](#) property to format a date. Use the [MonthNames](#) property to specify the name of the months in the year. The [WeekDays](#) property retrieves or sets a value that indicates the list of names for each week day, separated by space. If the Label property is empty, the unit is not displayed in the zooming scale, if the [AllowOverviewZoom](#) property is not exDisableZoom.

The Label property supports alternative HTML labels being separated by "<|>" and values for Count and Unit being separated by "<||>". By alternate HTML label we mean that you can define a list of HTML labels that may be displayed in the chart's header based on the space allocated for the time-unit. In other words, the control chooses automatically the alternate HTML label to be displayed for best fitting in the portion of the chart where the time-unit should be shown.

The Label property format is "**ALT1[<|>ALT2<|>...[<||>COUNT[<||>UNIT]]]**" where

- ALT defines a HTML label
- COUNT specifies the value for the Count property
- UNIT field indicates the value for the Unit property
- and the parts delimited by [] brackets may miss.

The **Label** property may change the [Unit](#) and the [Count](#) property. You can always use a different Unit or Count by setting the property after setting the Label property.

The Label property supports the following built-in tags:

- <%d%> - Day of the month in one or two numeric digits, as needed (1 to 31).
- <%dd%> - Day of the month in two numeric digits (01 to 31).
- <%d1%> - First letter of the weekday (S to S). ( Use the [WeekDays](#) property to

specify the name of the days in the week )

- <%d2%> - First two letters of the weekday (Su to Sa). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%d3%> - First three letters of the weekday (Sun to Sat). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%ddd%> - First three letters of the weekday (Sun to Sat). ( Use the [WeekDays](#) property to specify the name of the days in the week ). You can use the <%loc\_ddd%> that indicates the day of week as a three-letter abbreviation using the current user regional and language settings.
- <%loc\_ddd%> - Indicates the day of week as a three-letter abbreviation using the current user regional and language settings.
- <%dddd%> - Full name of the weekday (Sunday to Saturday). ( Use the [WeekDays](#) property to specify the name of the days in the week ). You can use the <%loc\_dddd%> that indicates day of week as its full name using the current user regional and language settings.
- <%loc\_dddd%> - Indicates day of week as its full name using the current user regional and language settings.
- <%i%> - Displays the number instead the date. For instance, you can display numbers as 1000, 1001, 1002, 1003, instead dates. ( the valid range is from -647,434 to 2,958,465 )
- <%w%> - Day of the week (1 to 7).
- <%ww%> - Week of the year (1 to 53).
- <%m%> - Month of the year in one or two numeric digits, as needed (1 to 12).
- <%mr%> - Month of the year in Roman numerals, as needed (I to XII).
- <%mm%> - Month of the year in two numeric digits (01 to 12).
- <%m1%> - First letter of the month (J to D). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%m2%> - First two letters of the month (Ja to De). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%m3%> - First three letters of the month (Jan to Dec). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%mmm%> - First three letters of the month (Jan to Dec). ( Use the [MonthNames](#) property to specify the name of the months in the year ). You can use the <%loc\_mmm%> that indicates month as a three-letter abbreviation using the current user regional and language settings.
- <%loc\_mmm%> - Indicates month as a three-letter abbreviation using the current user regional and language settings.
- <%mmmm%> - Full name of the month (January to December). ( Use the [MonthNames](#) property to specify the name of the months in the year ). You can use the <%loc\_mmmm%> that indicates month as its full name using the current user regional and language settings.
- <%loc\_mmmm%> - Indicates month as its full name using the current user regional

and language settings.

- <%q%> - Date displayed as the quarter of the year (1 to 4).
- <%y%> - Number of the day of the year (1 to 366).
- <%yy%> - Last two digits of the year (01 to 99).
- <%yyyy%> - Full year (0100 to 9999).
- <%hy%> - Date displayed as the half of the year (1 to 2).
- <%loc\_gg%> - Indicates period/era using the current user regional and language settings.
- <%loc\_sdate%> - Indicates the date in the short format using the current user regional and language settings.
- <%loc\_ldate%> - Indicates the date in the long format using the current user regional and language settings.
- <%loc\_dsep%> - Indicates the date separator using the current user regional and language settings (/).
- <%h%> - Hour in one or two digits, as needed (0 to 23).
- <%hh%> - Hour in two digits (00 to 23).
- <%n%> - Minute in one or two digits, as needed (0 to 59).
- <%nn%> - Minute in two digits (00 to 59).
- <%s%> - Second in one or two digits, as needed (0 to 59).
- <%ss%> - Second in two digits (00 to 59).
- <%AM/PM%> - Twelve-hour clock with the uppercase letters "AM" or "PM", as appropriate. ( Use the [AMPM](#) property to specify the name of the AM and PM indicators ). You can use the <%loc\_AM/PM%> that indicates the time marker such as AM or PM using the current user regional and language settings. You can use <%loc\_A/P%> that indicates the one character time marker such as A or P using the current user regional and language settings
- <%loc\_AM/PM%> - Indicates the time marker such as AM or PM using the current user regional and language settings.
- <%loc\_A/P%> - Indicates the one character time marker such as A or P using the current user regional and language settings.
- <%loc\_time%> - Indicates the time using the current user regional and language settings.
- <%loc\_time24%> - Indicates the time in 24 hours format without a time marker using the current user regional and language settings.
- <%loc\_tsep%> - indicates the time separator using the current user regional and language settings (:).

The following tags are displayed based on the user's Regional and Language Options:

- <%loc\_sdate%> - Indicates the date in the short format using the current user settings.
- <%loc\_ldate%> - Indicates the date in the long format using the current user settings.

- <%loc\_ddd%> - Indicates day of week as a three-letter abbreviation using the current user settings.
- <%loc\_dddd%> - Indicates day of week as its full name using the current user settings.
- <%loc\_mmm%> - Indicates month as a three-letter abbreviation using the current user settings.
- <%loc\_mmmm%> - Indicates month as its full name using the current user settings.
- <%loc\_gg%> - Indicates period/era using the current user settings.
- <%loc\_dsep%> - Indicates the date separator using the current user settings.
- <%loc\_time%> - Indicates the time using the current user settings.
- <%loc\_time24%> - Indicates the time in 24 hours format without a time marker using the current user settings.
- <%loc\_AM/PM%> - Indicates the time marker such as AM or PM using the current user settings.
- <%loc\_A/P%> - Indicates the one character time marker such as A or P using the current user settings.
- <%loc\_tsep%> - Indicates the time separator using the current user settings.
- <%loc\_y%> - Represents the Year only by the last digit, using current regional settings.
- <%loc\_yy%> - Represents the Year only by the last two digits, using current regional settings. A leading zero is added for single-digit years.
- <%loc\_yyyy%> - Represents the Year by a full four or five digits, depending on the calendar used. Thai Buddhist and Korean calendars have five-digit years. The "yyyy" pattern shows five digits for these two calendars, and four digits for all other supported calendars. Calendars that have single-digit or two-digit years, such as for the Japanese Emperor era, are represented differently. A single-digit year is represented with a leading zero, for example, "03". A two-digit year is represented with two digits, for example, "13". No additional leading zeros are displayed.

The Label property supports the following built-in HTML tags:

- <b> ... </b> displays the text in **bold**
- <i> ... </i> displays the text in *italics*
- <u> ... </u> underlines the text
- <s> ... </s> Strike-through text
- <a id;options> ... </a> displays an [anchor](#) element that can be clicked. An anchor is a piece of text or some other object (for example an image) which marks the beginning and/or the end of a hypertext link. The <a> element is used to mark that piece of text (or inline image), and to give its hypertextual relationship to other documents. The control fires the *AnchorClick(AnchorID, Options)* event when the user clicks the anchor element. The *FormatAnchor* property customizes the visual effect for anchor elements.

The control supports expandable HTML captions feature which allows you to

`expand(show)/collapse(hide)` different information using `<a ;exp=>` or `<a ;e64=>` anchor tags. The exp/e64 field of the anchor stores the HTML line/lines to show once the user clicks/collapses/expands the caption.

- exp, stores the plain text to be shown once the user clicks the anchor, such as "`<a ;exp=show lines>`"
- e64, encodes in BASE64 the HTML text to be shown once the user clicks the anchor, such as "`<a ;e64=gA8ABmABnABjABvABshIAOQAEAAHAAGESikWio+ABzABohp3iELABpABu</a>`" that displays `show lines-` in gray when the user clicks the + anchor. The "`gA8ABmABnABjABvABshIAOQAEAAHAAGESikWio+ABzABohp3iELABpABuABljY`" string encodes the "`<fgcolor 808080>show lines<a>-</a></fgcolor>`" The `Decode64Text/Encode64Text` methods of the `eXPrint` can be used to decode/encode e64 fields.

Any ex-HTML caption can be transformed to an expandable-caption, by inserting the anchor ex-HTML tag. For instance, "`<solidline><b>Header</b></solidline><br>Line1<r><a ;exp=show lines>+</a><br>Line2<br>Line3`" shows the Header in underlined and bold on the first line and Line1, Line2, Line3 on the rest. The "show lines" is shown instead of Line1, Line2, Line3 once the user clicks the + sign.

- **<font face;size> ... </font>** displays portions of text with a different font and/or different size. For instance, the "`<font Tahoma;12>bit</font>`" draws the bit text using the Tahoma font, on size 12 pt. If the name of the font is missing, and instead size is present, the current font is used with a different size. For instance, "`<font ;12>bit</font>`" displays the bit text using the current font, but with a different size.
- **<fgcolor rrggbb> ... </fgcolor>** or `<fgcolor=rrggbb> ... </fgcolor>` displays text with a specified **foreground** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<bgcolor rrggbb> ... </bgcolor>** or `<bgcolor=rrggbb> ... </bgcolor>` displays text with a specified **background** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<solidline rrggbb> ... </solidline>** or `<solidline=rrggbb> ... </solidline>` draws a solid-line on the bottom side of the current text-line, of specified RGB color. The `<solidline> ... </solidline>` draws a black solid-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<dotline rrggbb> ... </dotline>** or `<dotline=rrggbb> ... </dotline>` draws a dot-line on the bottom side of the current text-line, of specified RGB color. The `<dotline> ... </dotline>` draws a black dot-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<upline> ... </upline>** draws the line on the top side of the current text-line (requires `<solidline>` or `<dotline>`).
- **<r>** right aligns the text

- <c> centers the text
- <br> forces a line-break
- <img>number[:width]</img> inserts an icon inside the text. The number indicates the index of the icon being inserted. Use the Images method to assign a list of icons to your chart. The last 7 bits in the high significant byte of the number expression indicates the identifier of the skin being used to paint the object. Use the [Add](#) method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part. The width is optional and indicates the width of the icon being inserted. Using the width option you can overwrite multiple icons getting a nice effect. By default, if the width field is missing, the width is 18 pixels.
- <img>key[:width]</img> inserts a custom size picture into the text being previously loaded using the HTMLPicture property. The Key parameter indicates the key of the picture being displayed. The Width parameter indicates a custom size, if you require to stretch the picture, else the original size of the picture is used.
- & glyph characters as &#amp; ( & ), &lt; ( < ), &gt; ( > ), &quot; ( " ) and &#number; ( the character with specified code ), For instance, the &#8364; displays the EUR character. The & ampersand is only recognized as markup when it is followed by a known letter or a #character and a digit. For instance if you want to display <b>bold</b> in HTML caption you can use &lt;b&gt;bold&lt;/b&gt;
- <off offset> ... </off> defines the vertical offset to display the text/element. The offset parameter defines the offset to display the element. This tag is inheritable, so the offset is keep while the associated </off> tag is found. You can use the <off offset> HTML tag in combination with the <font face;size> to define a smaller or a larger font to be displayed. For instance: "Text with <font ;7><off 6>subscript" displays the text such as: Text with subscript The "Text with <font ;7><off -6>superscript" displays the text such as: Text with subscript
- <gra rrggbb;mode;blend> ... </gra> defines a gradient text. The text color or <fgcolor> defines the starting gradient color, while the rr/gg/bb represents the red/green/blue values of the ending color, 808080 if missing as gray. The mode is a value between 0 and 4, 1 if missing, and blend could be 0 or 1, 0 if missing. The <font> HTML tag can be used to define the height of the font. Any of the rrggbb, mode or blend field may not be specified. The <gra> with no fields, shows a vertical gradient color from the current text color to gray (808080). For instance the "<font ;18><gra FFFFFF;1;1>gradient-center</gra></font>" generates the following picture:

gradient-center

- <out rrggbb;width> ... </out> shows the text with outlined characters, where rr/gg/bb represents the red/green/blue values of the outline color, 808080 if missing as gray, width indicates the size of the outline, 1 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><out 000000>

<fgcolor=FFFFFF>outlined</fgcolor></out></font>" generates the following picture:

**outlined**

- <sha rggbb;width;offset> ... </sha> define a text with a shadow, where rr/gg/bb represents the red/green/blue values of the shadow color, 808080 if missing as gray, width indicates the size of shadow, 4 if missing, and offset indicates the offset from the origin to display the text's shadow, 2 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><sha>shadow</sha></font>" generates the following picture:

**shadow**

or "<font ;31><sha 404040;5;0><fgcolor=FFFFFF>outline anti-aliasing</fgcolor></sha></font>" gets:

**outline anti-aliasing**

The Label property may be a combination of any of these tags. For instance, the "<b><%mmm%></b> <%d%>, '<%yy%>" displays a date like: "**May** 29,'05".

By default, the Label property is:

- exYear: "<%yy%><|>'<%yy%><|><%yyyy%>"
- exHalfYear: ""
- exQuarterYear: ""
- exMonth: "<|><%m1%><|><%m2%><|><%m3%><|><%mmmm%><|><%m3%>'<%yy%><|><%mmmm%> <%yyyy%>"
- exThirdMonth: ""
- exWeek: "<|><%ww%><|><%m3%> <%d%>, '<%yy%><r><%ww%><|><%mmmm%> <%d%>, <%yyyy%><r><%ww%><|><%d%>256"
- exDay: "<|><%d1%><|><%d2%><|><%d3%><|><%ddd%><|><%d3%>, <%m3%><%d%>, '<%yy%><|><%ddd%>, <%mmmm%> <%d%>, <%yyyy%><|><%d%>4096"
- exHour: "<|><%hh%><|><%h%> <%AM/PM%><|><%d3%>, <%m3%> <%d%>, '<%yy%> <%h%> <%AM/PM%><|><%ddd%>, <%mmmm%> <%d%>, <%yyyy%><%h%> <%AM/PM%><|><%d%>65536"
- exMinute: "<|><%nn%><|><%h%>:<%nn%> <%AM/PM%><|><%d3%>, <%m3%><%d%>, '<%yy%> <%h%>:<%nn%> <%AM/PM%><|><%ddd%>, <%mmmm%><%d%>, <%yyyy%><%h%>:<%nn%> <%AM/PM%>"
- exSecond: "<|><%ss%><|><%nn%>:<%ss%><|><%h%>:<%nn%>:<%ss%><%AM/PM%><|><%d3%>, <%m3%> <%d%>, '<%yy%> <%h%>:<%nn%>:<%ss%><%AM/PM%><|><%ddd%>, <%mmmm%> <%d%>, <%yyyy%> <%h%>:<%nn%>:

<%ss%> <%AM/PM%>"

For instance the Label(exWeek) is "<|><%ww%><|><%m3%> <%d%>, '<%yy%><r><%ww%><|><%mmmm%> <%d%>, <%yyyy%><r><%ww%><||><||>256" which means that if a level's unit is set on exWeek it may display one of the following alternate labels:

- nothing, if the space is less than 6 pixels
- <%ww%> - week number
- <%m3%> <%d%>, '<%yy%><r><%ww%> - month, day, year in short format where the week begins, including the week number on the right
- <%mmmm%> <%d%>, <%yyyy%><r><%ww%> - month, day, year in long format where the week begins, including the week number on the right

So actually, the control will choose any of these formats based on the [UnitWidth](#), [Font](#) and the layout of the levels.

## property Chart.LabelToolTip(Unit as UnitEnum) as String

Retrieves or sets a value that indicates the predefined format of the level's tooltip for a specified unit.

Type	Description
Unit as <a href="#">UnitEnum</a>	An UnitEnum expression that indicates the time unit
String	A String expression that includes the format of the tooltip.

The LabelToolTip property specifies a predefined tooltip for a specified unit. Use the [ToolTip](#) property to specify the tooltip that shows up when the cursor hovers the level. The [ToolTip](#) property retrieves or sets a value that indicates the format of the tooltip being shown while the user scrolls the chart. Use the [FormatDate](#) property to format a date. Use the [MonthNames](#) property to specify the name of the months in the year. The [WeekDays](#) property retrieves or sets a value that indicates the list of names for each week day, separated by space. Use the [Zoom](#) method to zoom the chart to a specified interval of dates. Use the [AMPM](#) property to specify the name of the AM and PM indicators. The [Label](#) property specifies a predefined label for a specified unit.

The LabelToolTip property supports the following built-in tags:

- <%d%> - Day of the month in one or two numeric digits, as needed (1 to 31).
- <%dd%> - Day of the month in two numeric digits (01 to 31).
- <%d1%> - First letter of the weekday (S to S). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%d2%> - First two letters of the weekday (Su to Sa). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%d3%> - First three letters of the weekday (Sun to Sat). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%ddd%> - First three letters of the weekday (Sun to Sat). ( Use the [WeekDays](#) property to specify the name of the days in the week ). You can use the <%loc\_ddd%> that indicates the day of week as a three-letter abbreviation using the current user regional and language settings.
- <%loc\_ddd%> - Indicates the day of week as a three-letter abbreviation using the current user regional and language settings.
- <%dddd%> - Full name of the weekday (Sunday to Saturday). ( Use the [WeekDays](#) property to specify the name of the days in the week ). You can use the <%loc\_dddd%> that indicates day of week as its full name using the current user regional and language settings.
- <%loc\_dddd%> - Indicates day of week as its full name using the current user regional and language settings.
- <%i%> - Displays the number instead the date. For instance, you can display numbers as 1000, 1001, 1002, 1003, instead dates. ( the valid range is from -647,434 to 647,434 )

2,958,465 )

- <%w%> - Day of the week (1 to 7).
- <%ww%> - Week of the year (1 to 53).
- <%m%> - Month of the year in one or two numeric digits, as needed (1 to 12).
- <%mr%> - Month of the year in Roman numerals, as needed (I to XII).
- <%mm%> - Month of the year in two numeric digits (01 to 12).
- <%m1%> - First letter of the month (J to D). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%m2%> - First two letters of the month (Ja to De). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%m3%> - First three letters of the month (Jan to Dec). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%mmm%> - First three letters of the month (Jan to Dec). ( Use the [MonthNames](#) property to specify the name of the months in the year ). You can use the <%loc\_mmm%> that indicates month as a three-letter abbreviation using the current user regional and language settings.
- <%loc\_mmm%> - Indicates month as a three-letter abbreviation using the current user regional and language settings.
- <%mmmm%> - Full name of the month (January to December). ( Use the [MonthNames](#) property to specify the name of the months in the year ). You can use the <%loc\_mmmm%> that indicates month as its full name using the current user regional and language settings.
- <%loc\_mmmm%> - Indicates month as its full name using the current user regional and language settings.
- <%q%> - Date displayed as the quarter of the year (1 to 4).
- <%y%> - Number of the day of the year (1 to 366).
- <%yy%> - Last two digits of the year (01 to 99).
- <%yyyy%> - Full year (0100 to 9999).
- <%hy%> - Date displayed as the half of the year (1 to 2).
- <%loc\_gg%> - Indicates period/era using the current user regional and language settings.
- <%loc\_sdate%> - Indicates the date in the short format using the current user regional and language settings.
- <%loc\_ldate%> - Indicates the date in the long format using the current user regional and language settings.
- <%loc\_dsep%> - Indicates the date separator using the current user regional and language settings (/).
- <%h%> - Hour in one or two digits, as needed (0 to 23).
- <%hh%> - Hour in two digits (00 to 23).
- <%n%> - Minute in one or two digits, as needed (0 to 59).
- <%nn%> - Minute in two digits (00 to 59).
- <%s%> - Second in one or two digits, as needed (0 to 59).

- <%**ss**%> - Second in two digits (00 to 59).
- <%**AM/PM**%> - Twelve-hour clock with the uppercase letters "AM" or "PM", as appropriate. ( Use the [AMPM](#) property to specify the name of the AM and PM indicators ). You can use the <%**loc\_AM/PM**%> that indicates the time marker such as AM or PM using the current user regional and language settings. You can use <%**loc\_A/P**%> that indicates the one character time marker such as A or P using the current user regional and language settings
- <%**loc\_AM/PM**%> - Indicates the time marker such as AM or PM using the current user regional and language settings.
- <%**loc\_A/P**%> - Indicates the one character time marker such as A or P using the current user regional and language settings.
- <%**loc\_time**%> - Indicates the time using the current user regional and language settings.
- <%**loc\_time24**%> - Indicates the time in 24 hours format without a time marker using the current user regional and language settings.
- <%**loc\_tsep**%> - indicates the time separator using the current user regional and language settings (:).

The following tags are displayed based on the user's Regional and Language Options:

- <%**loc\_sdate**%> - Indicates the date in the short format using the current user settings.
- <%**loc\_ldate**%> - Indicates the date in the long format using the current user settings.
- <%**loc\_ddd**%> - Indicates day of week as a three-letter abbreviation using the current user settings.
- <%**loc\_dddd**%> - Indicates day of week as its full name using the current user settings.
- <%**loc\_mmm**%> - Indicates month as a three-letter abbreviation using the current user settings.
- <%**loc\_mmmm**%> - Indicates month as its full name using the current user settings.
- <%**loc\_gg**%> - Indicates period/era using the current user settings.
- <%**loc\_dsep**%> - Indicates the date separator using the current user settings.
- <%**loc\_time**%> - Indicates the time using the current user settings.
- <%**loc\_time24**%> - Indicates the time in 24 hours format without a time marker using the current user settings.
- <%**loc\_AM/PM**%> - Indicates the time marker such as AM or PM using the current user settings.
- <%**loc\_A/P**%> - Indicates the one character time marker such as A or P using the current user settings.
- <%**loc\_tsep**%> - Indicates the time separator using the current user settings.
- <%**loc\_y**%> - Represents the Year only by the last digit, using current regional settings.

- <%loc\_yy%> - Represents the Year only by the last two digits, using current regional settings. A leading zero is added for single-digit years.
- <%loc\_yyyy%> - Represents the Year by a full four or five digits, depending on the calendar used. Thai Buddhist and Korean calendars have five-digit years. The "yyyy" pattern shows five digits for these two calendars, and four digits for all other supported calendars. Calendars that have single-digit or two-digit years, such as for the Japanese Emperor era, are represented differently. A single-digit year is represented with a leading zero, for example, "03". A two-digit year is represented with two digits, for example, "13". No additional leading zeros are displayed.

The LabelToolTip property supports the following built-in HTML tags:

- <b> ... </b> displays the text in **bold**
- <i> ... </i> displays the text in *italics*
- <u> ... </u> underlines the text
- <s> ... </s> Strike-through text
- <a id;options> ... </a> displays an [anchor](#) element that can be clicked. An anchor is a piece of text or some other object (for example an image) which marks the beginning and/or the end of a hypertext link. The <a> element is used to mark that piece of text (or inline image), and to give its hypertextual relationship to other documents. The control fires the *AnchorClick(AnchorID, Options)* event when the user clicks the anchor element. The *FormatAnchor* property customizes the visual effect for anchor elements.

The control supports expandable HTML captions feature which allows you to expand(show)/collapse(hide) different information using <a ;exp=> or <a ;e64=> anchor tags. The exp/e64 field of the anchor stores the HTML line/lines to show once the user clicks/collapses/expands the caption.

- exp, stores the plain text to be shown once the user clicks the anchor, such as "<a ;exp=show lines>"
- e64, encodes in BASE64 the HTML text to be shown once the user clicks the anchor, such as "<a ;e64=gA8ABmABnABjABvABshIAOQAEAAHAAGESikWio+ABzABohp3iELABpABu</a>" that displays show lines- in gray when the user clicks the + anchor. The "gA8ABmABnABjABvABshIAOQAEAAHAAGESikWio+ABzABohp3iELABpABuABljY string encodes the "<fgcolor 808080>show lines<a>-</a></fgcolor>" The Decode64Text/Encode64Text methods of the eXPrint can be used to decode/encode e64 fields.

Any ex-HTML caption can be transformed to an expandable-caption, by inserting the anchor ex-HTML tag. For instance, "<solidline><b>Header</b></solidline> <br>Line1<r><a ;exp=show lines>+</a><br>Line2<br>Line3" shows the Header in underlined and bold on the first line and Line1, Line2, Line3 on the rest. The "show

"lines" is shown instead of Line1, Line2, Line3 once the user clicks the + sign.

- **<font face;size> ... </font>** displays portions of text with a different font and/or different size. For instance, the "<font Tahoma;12>bit</font>" draws the bit text using the Tahoma font, on size 12 pt. If the name of the font is missing, and instead size is present, the current font is used with a different size. For instance, "<font ;12>bit</font>" displays the bit text using the current font, but with a different size.
- **<fgcolor rrggbb> ... </fgcolor>** or **<fgcolor=rrggbb> ... </fgcolor>** displays text with a specified **foreground** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<bgcolor rrggbb> ... </bgcolor>** or **<bgcolor=rrggbb> ... </bgcolor>** displays text with a specified **background** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<solidline rrggbb> ... </solidline>** or **<solidline=rrggbb> ... </solidline>** draws a solid-line on the bottom side of the current text-line, of specified RGB color. The **<solidline> ... </solidline>** draws a black solid-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<dotline rrggbb> ... </dotline>** or **<dotline=rrggbb> ... </dotline>** draws a dot-line on the bottom side of the current text-line, of specified RGB color. The **<dotline> ... </dotline>** draws a black dot-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<upline> ... </upline>** draws the line on the top side of the current text-line (requires **<solidline>** or **<dotline>**).
- **<r>** right aligns the text
- **<c>** centers the text
- **<br>** forces a line-break
- **<img>number[:width]</img>** inserts an icon inside the text. The number indicates the index of the icon being inserted. Use the **Images** method to assign a list of icons to your chart. The last 7 bits in the high significant byte of the number expression indicates the identifier of the skin being used to paint the object. Use the **Add** method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part. The width is optional and indicates the width of the icon being inserted. Using the width option you can overwrite multiple icons getting a nice effect. By default, if the width field is missing, the width is 18 pixels.
- **<img>key[:width]</img>** inserts a custom size picture into the text being previously loaded using the **HTMLPicture** property. The Key parameter indicates the key of the picture being displayed. The Width parameter indicates a custom size, if you require to stretch the picture, else the original size of the picture is used.
- & glyph characters as **&amp;** ( & ), **&lt;** ( < ), **&gt;** ( > ), **&qout;** ( " ) and **&#number;** ( the character with specified code ), For instance, the &#8364; displays the EUR character. The & ampersand is only recognized as markup when it is followed by a

known letter or a #character and a digit. For instance if you want to display <b>bold</b> in HTML caption you can use &lt;b&gt;bold&lt;/b&gt;

- **<off offset> ... </off>** defines the vertical offset to display the text/element. The offset parameter defines the offset to display the element. This tag is inheritable, so the offset is keep while the associated </off> tag is found. You can use the <off offset> HTML tag in combination with the <font face;size> to define a smaller or a larger font to be displayed. For instance: "Text with <font ;7><off 6>subscript" displays the text such as: Text with subscript The "Text with <font ;7><off -6>superscript" displays the text such as: Text with superscript

- **<gra rrggbb;mode;blend> ... </gra>** defines a gradient text. The text color or <fgcolor> defines the starting gradient color, while the rr/gg/bb represents the red/green/blue values of the ending color, 808080 if missing as gray. The mode is a value between 0 and 4, 1 if missing, and blend could be 0 or 1, 0 if missing. The <font> HTML tag can be used to define the height of the font. Any of the rrggbb, mode or blend field may not be specified. The <gra> with no fields, shows a vertical gradient color from the current text color to gray (808080). For instance the "<font ;18><gra FFFFFF;1;1>gradient-center</gra></font>" generates the following picture:



gradient-center

- **<out rrggbb;width> ... </out>** shows the text with outlined characters, where rr/gg/bb represents the red/green/blue values of the outline color, 808080 if missing as gray, width indicates the size of the outline, 1 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><out 000000><fgcolor=FFFFFF>outlined</fgcolor></out></font>" generates the following picture:



outlined

- **<sha rrggbb;width;offset> ... </sha>** define a text with a shadow, where rr/gg/bb represents the red/green/blue values of the shadow color, 808080 if missing as gray, width indicates the size of shadow, 4 if missing, and offset indicates the offset from the origin to display the text's shadow, 2 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><sha>shadow</sha></font>" generates the following picture:



shadow

or "<font ;31><sha 404040;5;0><fgcolor=FFFFFF>outline anti-aliasing</fgcolor></sha></font>" gets:



outline anti-aliasing

By default, the LabelToolTip property is:

- exYear: "<%yyyy%>"
- exHalfYear: ""
- exQuarterYear: ""
- exMonth: "<%mmmm%>/ <%yyyy%>"
- exThirdMonth: ""
- exWeek: "<%mmmm%> <%d%>, <%yyyy%> <%ww%>"
- exDay: "<%dddd%>, <%mmmm%> <%d%>, <%yyyy%>"
- exHour: "<%dddd%>, <%mmmm%> <%d%>, <%yyyy%> <%h%> <%AM/PM%>"
- exMinute: "<%dddd%>, <%mmmm%> <%d%>, <%yyyy%> <%h%>:<%nn%> <%AM/PM%>"
- exSecond: "<%dddd%>, <%mmmm%> <%d%>, <%yyyy%> <%h%>:<%nn%>:<%ss%> <%AM/PM%>"

## property Chart.Level (Index as Long) as Level

Retrieves the level based on its index.

Type	Description
Index as Long	A long expression that indicates the index of the level being accessed.
Level	A Level object being accessed.

The Level property retrieves the Level based on its index. Use the [LevelCount](#) property to specify the number of levels being displayed in the chart's header. Use the [HeaderVisible](#) property to hide the control's header bar. The control's header bar displays the levels in the chart area too. If the control displays the header bar using multiple levels the [HeaderHeight](#) property gets the height in pixels of a single level in the header bar.

The following VB sample enumerates the levels in the chart:

```
With Gantt1.Chart
```

```
    Dim i As Long  
    For i = 0 To .LevelCount - 1  
        With .Level(i)  
            Debug.Print .Label  
        End With  
    Next  
End With
```

The following C++ sample enumerates the levels in the chart:

```
CChart chart = m_gantt.GetChart();  
for ( long i = 0; i < chart.GetLevelCount(); i++ )  
{  
    CLevel level = chart.GetLevel( i );  
    OutputDebugString( V2S( &level.GetLabel() ) );  
}
```

where the V2S function converts a Variant expression to a string expression:

```
static CString V2S( VARIANT* pvtDate )  
{  
    COleVariant vtDate;
```

```
    vtDate.ChangeType( VT_BSTR, pvtDate );
    return V_BSTR( &vtDate );
}
```

The following VB.NET sample enumerates the levels in the chart:

With AxGantt1.Chart

```
Dim i As Long
For i = 0 To .LevelCount - 1
    With .Level(i)
        Debug.WriteLine(.Label())
    End With
Next
End With
```

The following C# sample enumerates the levels in the chart:

```
for (int i = 0; i < axGantt1.Chart.LevelCount; i++)
{
    EXGANTTLib.Level level = axGantt1.Chart.get_Level(i);
    System.Diagnostics.Debug.WriteLine(level.Label());
}
```

The following VFP sample enumerates the levels in the chart:

With thisform.Gantt1.Chart

```
For i = 0 To .LevelCount - 1
    With .Level(i)
        wait window nowait .Label
    EndWith
Next
EndWith
```

## property Chart.LevelCount as Long

Specifies the number of levels in the control's header.

Type	Description
Long	A Long expression that indicates the number of levels being displayed in the control's header.

By default, the control displays a single level. Use the LevelCount property to specify the number of levels being displayed in the chart's header. Use the [Level](#) property to access the level in the chart area. Use the [Label](#) property to specify the level's HTML label. Use the [Unit](#) property to specify the time-scale unit for the chart's level. Use the [HeaderVisible](#) property to hide the control's header bar. The control's header bar displays the levels in the chart area too. Use the [Caption](#) property to specify the column's caption being displayed in the control's header bar. Use the [BackColorLevelHeader](#) property to specify the background color of the chart's header. Use the [ForeColorLevelHeader](#) property to specify the foreground color of the chart's header. If the control displays the header bar using multiple levels the [HeaderHeight](#) property gets the height in pixels of a single level in the header bar. Use the [LevelKey](#) property to specify the key of the column.

Newer versions support **Regional and Language Options** for tags such as:

- <%loc\_sdate%> - Indicates the date in the short format using the current user settings.
- <%loc\_ldate%> - Indicates the date in the long format using the current user settings.
- <%loc\_ddd%> - Indicates day of week as a three-letter abbreviation using the current user settings.
- <%loc\_dddd%> - Indicates day of week as its full name using the current user settings.
- <%loc\_mmm%> - Indicates month as a three-letter abbreviation using the current user settings.
- <%loc\_mmmm%> - Indicates month as its full name using the current user settings.
- <%loc\_gg%> - Indicates period/era using the current user settings.
- <%loc\_dsep%> - Indicates the date separator using the current user settings.
- <%loc\_time%> - Indicates the time using the current user settings.
- <%loc\_time24%> - Indicates the time in 24 hours format without a time marker using the current user settings.
- <%loc\_AM/PM%> - Indicates the time marker such as AM or PM using the current user settings.
- <%loc\_A/P%> - Indicates the one character time marker such as A or P using the current user settings.
- <%loc\_tsep%> - Indicates the time separator using the current user settings.

You can use these in methods as: Level.Label, Level.ToolTip, Chart.Label, Chart.LabelToolTip, Chart.FormatDate, Chart.OverviewToolTip, Chart.ToolTip, InsideZoomFormat.InsideLabel, InsideZoomFormat.OwnerLabel, Note.PartText and Note.Text ( where supported ).

The following screen shot shows the chart's header for **English (United States)** format:

		May 2010							May 2010							June 2010							
20		5/24/2010							21		5/31/2010							22		6/7/2010		23	
Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed					
22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9					

The following screen shot shows the chart's header for **Nepali (Nepal)** format:

		मेरि २०१०							मेरि २०१०							जून २०१०							
२०		५/२४/२०१०							२१		५/३१/२०१०							२२		६/७/२०१०		२३	
शनि	आइत	सोम	मङ्गल	बुध	बिही	शुक्र	शनि	आइत	सोम	मङ्गल	बुध	बिही	शुक्र	शनि	आइत	सोम	मङ्गल	बुध					
२२	२३	२४	२५	२६	२७	२८	२९	३०	३१	१	२	३	४	५	६	७	८	९					

The following screen shot shows the chart's header for **German (Germany)** format:

		Mai 2010							Mai 2010							Juni 2010							
20		24.05.2010							21		31.05.2010							22		07.06.2010		23	
Sa	So	Mo	Di	Mi	Do	Fr	Sa	So	Mo	Di	Mi	Do	Fr	Sa	So	Mo	Di	Mi					
22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9					

The following **VBA** sample shows how to specify the levels using the user's Regional and Language Options?

With Gantt1

```

.BeginUpdate
.Font.Name = "Arial Unicode MS"
.HeaderHeight = 36
With .Chart
    .FirstVisibleDate = #5/30/2010#
    .PaneWidth(False) = 0
    .FirstWeekDay = 1
    .UnitWidth = 36
    .LevelCount = 2
    With .Level(0)
        .Label = "<b><%loc_mmmm%></b> <%yyyy%><br><%loc_sdate%><r>
<%ww%> "
        .ToolTip = .Label
        .Unit = 256
    End With
End With

```

```
With .Level(1)
    .Label = "<%loc_ddd%><br><%d%>"
    .ToolTip = .Label
End With
.ToolTip = "<%loc_ldate%>"
End With
.EndUpdate
End With
```

The following **VB6** sample shows how to specify the levels using the user's Regional and Language Options?

```
With Gantt1
    .BeginUpdate
    .Font.Name = "Arial Unicode MS"
    .HeaderHeight = 36
    With .Chart
        .FirstVisibleDate = #5/30/2010#
        .PaneWidth(False) = 0
        .FirstWeekDay = exMonday
        .UnitWidth = 36
        .LevelCount = 2
        With .Level(0)
            .Label = "<b><%loc_mmmm%></b> <%yyyy%><br><%loc_sdate%><r>
<%ww%> "
            .ToolTip = .Label
            .Unit = exWeek
        End With
        With .Level(1)
            .Label = "<%loc_ddd%><br><%d%>"
            .ToolTip = .Label
        End With
        .ToolTip = "<%loc_ldate%>"
    End With
    .EndUpdate
End With
```

The following **VB.NET** sample shows how to specify the levels using the user's Regional

and Language Options?

With Exgantt1

```
.BeginUpdate()  
.Font.Name = "Arial Unicode MS"
```

```
.HeaderHeight = 36
```

With .Chart

```
.FirstVisibleDate = #5/30/2010#
```

```
.set_PaneWidth(False,0)
```

```
.FirstWeekDay = exontrol.EXGANTTLib.WeekDayEnum.exMonday
```

```
.UnitWidth = 36
```

```
.LevelCount = 2
```

With .get\_Level(0)

```
.Label = "<b><%loc_mmmm%></b> <%yyyy%><br><%loc_sdate%><r><%ww%> "
```

```
.ToolTip = .Label
```

```
.Unit = exontrol.EXGANTTLib.UnitEnum.exWeek
```

End With

With .get\_Level(1)

```
.Label = "<%loc_ddd%><br><%d%>"
```

```
.ToolTip = .Label
```

End With

```
.ToolTip = "<%loc_ldate%>"
```

End With

```
.EndUpdate()
```

End With

The following **VB.NET for /COM** sample shows how to specify the levels using the user's Regional and Language Options?

With AxGantt1

```
.BeginUpdate()
```

```
.Font.Name = "Arial Unicode MS"
```

```
.HeaderHeight = 36
```

With .Chart

```
.FirstVisibleDate = #5/30/2010#
```

```
.PaneWidth(False) = 0
```

```
.FirstWeekDay = EXGANTTLib.WeekDayEnum.exMonday
```

```

.UnitWidth = 36
.LevelCount = 2
With .Level(0)
    .Label = "<b><%loc_mmmm%></b> <%yyyy%><br><%loc_sdate%><r>
<%ww%> "
    .ToolTip = .Label
    .Unit = EXGANTTLib.UnitEnum.exWeek
End With
With .Level(1)
    .Label = "<%loc_ddd%><br><%d%>"
    .ToolTip = .Label
End With
    .ToolTip = "<%loc_ldate%>"
End With
.EndUpdate()
End With

```

The following **C++** sample shows how to specify the levels using the user's Regional and Language Options?

```

/*
Copy and paste the following directives to your header file as
it defines the namespace 'EXGANTTLib' for the library: 'ExGantt 1.0 Control Library'

#import <ExGantt.dll>
using namespace EXGANTTLib;
*/
EXGANTTLib::IGanttPtr spGantt1 = GetDlgItem(IDC_GANTT1)->GetControlUnknown();
spGantt1->BeginUpdate();
spGantt1->GetFont()->PutName(L"Arial Unicode MS");
spGantt1->PutHeaderHeight(36);
EXGANTTLib::IChartPtr var_Chart = spGantt1->GetChart();
var_Chart->PutFirstVisibleDate("5/30/2010");
var_Chart->PutPaneWidth(VARIANT_FALSE,0);
var_Chart->PutFirstWeekDay(EXGANTTLib::exMonday);
var_Chart->PutUnitWidth(36);
var_Chart->PutLevelCount(2);

```

```

EXGANTTLib::ILevelPtr var_Level = var_Chart->GetLevel(0);
var_Level->PutLabel("<b><%loc_mmmm%></b> <%yyyy%><br><%loc_sdate%>
<r> <%ww%> ");
var_Level->PutToolTip(var_Level->GetLabel());
var_Level->PutUnit(EXGANTTLib::exWeek);
EXGANTTLib::ILevelPtr var_Level1 = var_Chart->GetLevel(1);
var_Level1->PutLabel("<%loc_ddd%> <br><%d%>");
var_Level1->PutToolTip(var_Level1->GetLabel());
var_Chart->PutToolTip(L"<%loc_ldate%>");
spGantt1->EndUpdate();

```

The following **C#** sample shows how to specify the levels using the user's Regional and Language Options?

```

exgantt1.BeginUpdate();
exgantt1.Font.Name = "Arial Unicode MS";
exgantt1.HeaderHeight = 36;
exontrol.EXGANTTLib.Chart var_Chart = exgantt1.Chart;
var_Chart.FirstVisibleDate = Convert.ToDateTime("5/30/2010");
var_Chart.set_PaneWidth(false,0);
var_Chart.FirstWeekDay = exontrol.EXGANTTLib.WeekDayEnum.exMonday;
var_Chart.UnitWidth = 36;
var_Chart.LevelCount = 2;
exontrol.EXGANTTLib.Level var_Level = var_Chart.get_Level(0);
var_Level.Label = "<b><%loc_mmmm%></b> <%yyyy%><br><%loc_sdate%><r>
<%ww%> ";
var_Level.ToolTip = var_Level.Label;
var_Level.Unit = exontrol.EXGANTTLib.UnitEnum.exWeek;
exontrol.EXGANTTLib.Level var_Level1 = var_Chart.get_Level(1);
var_Level1.Label = "<%loc_ddd%> <br><%d%>";
var_Level1.ToolTip = var_Level1.Label;
var_Chart.ToolTip = "<%loc_ldate%>";
exgantt1.EndUpdate();

```

The following **C# for /COM** sample shows how to specify the levels using the user's Regional and Language Options?

```

axGantt1.BeginUpdate();

```

```

axGantt1.Font.Name = "Arial Unicode MS";
axGantt1.HeaderHeight = 36;
EXGANTTLib.Chart var_Chart = axGantt1.Chart;
var_Chart.FirstVisibleDate = Convert.ToDateTime("5/30/2010");
var_Chart.set_PaneWidth(false,0);
var_Chart.FirstWeekDay = EXGANTTLib.WeekDayEnum.exMonday;
var_Chart.UnitWidth = 36;
var_Chart.LevelCount = 2;
EXGANTTLib.Level var_Level = var_Chart.get_Level(0);
var_Level.Label = "<b><%loc_mmmm%></b> <%yyyy%><br><%loc_sdate%><r><%ww%>";
var_Level.ToolTip = var_Level.Label;
var_Level.Unit = EXGANTTLib.UnitEnum.exWeek;
EXGANTTLib.Level var_Level1 = var_Chart.get_Level(1);
var_Level1.Label = "<%loc_ddd%><br><%d%>";
var_Level1.ToolTip = var_Level1.Label;
var_Chart.ToolTip = "<%loc_ldate%>";
axGantt1.EndUpdate();

```

The following **VFP** sample shows how to specify the levels using the user's Regional and Language Options?

with thisform.Gantt1

```

.BeginUpdate
.Font.Name = "Arial Unicode MS"
.HeaderHeight = 36
with .Chart
    .FirstVisibleDate = {^2010-5-30}
    .PaneWidth(.F.) = 0
    .FirstWeekDay = 1
    .UnitWidth = 36
    .LevelCount = 2
    with .Level(0)
        .Label = "<b><%loc_mmmm%></b> <%yyyy%><br><%loc_sdate%><r><%ww%>"
        .ToolTip = .Label
        .Unit = 256
    endwith
endwith

```

```

endwith
with .Level(1)
  .Label = "<%loc_ddd%><br><%d%>"
  .ToolTip = .Label
endwith
.ToolTip = "<%loc_ldate%>"
endwith
.EndUpdate
endwith

```

The following **Delphi** sample shows how to specify the levels using the user's Regional and Language Options?

```

with AxGantt1 do
begin
  BeginUpdate();
  Font.Name := 'Arial Unicode MS';
  HeaderHeight := 36;
  with Chart do
    begin
      FirstVisibleDate := '5/30/2010';
      PaneWidth[False] := 0;
      FirstWeekDay := EXGANTTLib.WeekDayEnum.exMonday;
      UnitWidth := 36;
      LevelCount := 2;
      with Level[0] do
        begin
          Label := '<b><%loc_mmmm%></b> <%yyyy%><br><%loc_sdate%><r>
<%ww%> ';
          ToolTip := Label;
          Unit := EXGANTTLib.UnitEnum.exWeek;
        end;
      with Level[1] do
        begin
          Label := '<%loc_ddd%><br><%d%>';
          ToolTip := Label;
        end;
    end;
end;

```

```
    ToolTip := '<%loc_Idate%>';
end;
EndUpdate();
end
```

The following VB sample enumerates the levels in the chart:

With Gantt1.Chart

```
Dim i As Long
For i = 0 To .LevelCount - 1
    With .Level(i)
        Debug.Print .Label
    End With
Next
End With
```

The following C++ sample enumerates the levels in the chart:

```
CChart chart = m_gantt.GetChart();
for ( long i = 0; i < chart.GetLevelCount(); i++ )
{
    CLevel level = chart.GetLevel( i );
    OutputDebugString( V2S( &level.GetLabel() ) );
}
```

where the V2S function converts a Variant expression to a string expression:

```
static CString V2S( VARIANT* pvtDate )
{
    COleVariant vtDate;
    vtDate.ChangeType( VT_BSTR, pvtDate );
    return V_BSTR( &vtDate );
}
```

The following VB.NET sample enumerates the levels in the chart:

With AxGantt1.Chart

```
Dim i As Long
For i = 0 To .LevelCount - 1
```

```
With .Level(i)
```

```
    Debug.WriteLine(Label())
```

```
End With
```

```
Next
```

```
End With
```

The following C# sample enumerates the levels in the chart:

```
for (int i = 0; i < axGantt1.Chart.LevelCount; i++)
{
    EXGANTTLib.Level level = axGantt1.Chart.get_Level(i);
    System.Diagnostics.Debug.WriteLine(level.Label);
}
```

The following VFP sample enumerates the levels in the chart:

```
With thisform.Gantt1.Chart
```

```
For i = 0 To .LevelCount - 1
```

```
    With .Level(i)
```

```
        wait window nowait .Label
```

```
    EndWith
```

```
    Next
```

```
EndWith
```



The first level displays the month, the year and the number of the week in the year , the second level displays the name of the week day, and the third level displays the day of the month. The LevelCount property specifies the number of levels being displayed, in our case 3.

The following Template shows how to display your header using three levels as arranged in the picture above ( just copy and paste the following script to Template page ):

```
BeginUpdate()
```

```
Chart
```

```
{
```

```
    LevelCount = 3
```

```
    Level(0)
```

```

{
    Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%>"
    Unit = 256 'exWeek
}
Level(1).Label = "<%d1%>"
Level(2).Label = "<%d%>"
}
EndUpdate()

```

The following VB sample displays your header using 3 levels as shown above:

With Gantt1

```

.BeginUpdate
With .Chart
    .LevelCount = 3
    With .Level(0)
        .Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%>"
        .Unit = EXGANTTLibCtl.UnitEnum.exWeek
    End With
    .Level(1).Label = "<%d1%>"
    .Level(2).Label = "<%d%>"
End With
.EndUpdate
End With

```

The following VFP sample displays your header using 3 levels:

```

with thisform.gantt1
.BeginUpdate()
with .Chart
    .LevelCount = 3
    with .Level(0)
        .Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%>"
        .Unit = 256
    endwith
    .Level(1).Label = "<%d1%>"
    .Level(2).Label = "<%d%>"
endwith

```

```
.EndUpdate()  
endwith
```

The following VB.NET sample displays your header using 3 levels:

With AxGantt1

```
.BeginUpdate()  
With .Chart  
    .LevelCount = 3  
    With .Level(0)  
        .Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%>"  
        .Unit = EXGANTTLib.UnitEnum.exWeek  
    End With  
    .Level(1).Label = "<%d1%>"  
    .Level(2).Label = "<%d%>"  
End With  
.EndUpdate()  
End With
```

The following C# sample displays your header using 3 levels:

```
axGantt1.BeginUpdate();  
EXGANTTLib.Chart chart = axGantt1.Chart;  
chart.LevelCount = 3;  
chart.get_Level(0).Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%>";  
chart.get_Level(0).Unit = EXGANTTLib.UnitEnum.exWeek;  
chart.get_Level(1).Label = "<%d1%>";  
chart.get_Level(2).Label = "<%d%>";  
axGantt1.EndUpdate();
```

The following C++ sample displays your header using 3 levels:

```
m_gantt.BeginUpdate();  
CChart chart = m_gantt.GetChart();  
chart.SetLevelCount( 3 );  
chart.GetLevel(0).SetLabel(COleVariant( "<b><%mmm%>, <%yyyy%></b> <r>Week:  
<%ww%>" ));  
chart.GetLevel(0).SetUnit(256);  
chart.GetLevel(1).SetLabel(COleVariant( "<%d1%>" ));
```

```
chart.GetLevel(2).SetLabel(COleVariant( "<%d%>" ));  
m_gantt.EndUpdate();
```

## property Chart.LevelFromPoint (X as OLE\_XPOS\_PIXELS, Y as OLE\_YPOS\_PIXELS) as Long

Retrieves the index of the level from the point.

Type	Description
X as OLE_XPOS_PIXELS	A single that specifies the current X location of the mouse pointer. The x values is always expressed in client coordinates.
Y as OLE_YPOS_PIXELS	A single that specifies the current Y location of the mouse pointer. The y values is always expressed in client coordinates.
Long	A long expression that indicates the index of the level from the point, or -1 if the cursor is not in the chart's header.

The LevelFromPoint property gets the level from the point. Use the [Level](#) property to access a Level object. The [LevelCount](#) property counts the number of the levels in the chart's header. Use the [ItemFromPoint](#) property to get the cell/item from the cursor. Use the [ColumnFromPoint](#) property to retrieve the column from cursor. Use the [BarFromPoint](#) property to get the bar from the point. Use the [LinkFromPoint](#) property to get the link from the point. **If the X parameter is -1 and Y parameter is -1 the ItemFromPoint property determines the handle of the item from the cursor.**

The following VB sample displays the label of the level from the cursor:

```
Private Sub Gantt1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As Single)
    With Gantt1.Chart
        Dim d As Long
        d = .LevelFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY)
        If d >= 0 Then
            Debug.Print .Level(d).Label
        End If
    End With
End Sub
```

The following C++ sample displays the label of the level from the point:

```
void OnMouseMoveGantt1(short Button, short Shift, long X, long Y)
{
```

```
CChart chart = m_gantt.GetChart();
long d = chart.GetLevelFromPoint( X, Y );
if ( d >= 0 )
    OutputDebugString( V2S( &chart.GetLevel(d).GetLabel() ) );
}
```

The following VB.NET sample displays the label of the level from the point:

```
Private Sub AxGantt1_MouseMoveEvent(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_MouseMoveEvent) Handles AxGantt1.MouseMoveEvent
With AxGantt1.Chart
    Dim d As Integer = .LevelFromPoint(e.x, e.y)
    If (d >= 0) Then
        Debug.Write(.Level(d).Label)
    End If
End With
End Sub
```

The following C# sample displays the label of the level from the point:

```
private void axGantt1_MouseMoveEvent(object sender,
AxEXGANTTLib._IGanttEvents_MouseMoveEvent e)
{
    int d = axGantt1.Chart.get_LevelFromPoint(e.x, e.y);
    if ( d >=0 )
        System.Diagnostics.Debug.Write(axGantt1.Chart.get_Level(d).Label );
}
```

The following VFP sample displays the label of the level from the point:

```
*** ActiveX Control Event ***
*** ActiveX Control Event ***

LPARAMETERS button, shift, x, y

with thisform.Gantt1.Chart
    d = .LevelFromPoint(x,y)
    if ( d>=0 )
        wait window nowait .Level(d).Label
```

endif  
endwith

## **property Chart.LinkFromPoint (X as OLE\_XPOS\_PIXELS, Y as OLE\_YPOS\_PIXELS) as Variant**

Retrieves the link from the point.

Type	Description
X as OLE_XPOS_PIXELS	A single that specifies the current X location of the mouse pointer. The x values is always expressed in client coordinates.
Y as OLE_YPOS_PIXELS	A single that specifies the current Y location of the mouse pointer. The y values is always expressed in client coordinates.
Variant	A VARIANT expression that indicates the key of the link from the cursor, or empty if no link at cursor.

The LinkFromPoint property gets the link from point. **If the X parameter is -1 and Y parameter is -1 the LinkFromPoint property determines the key of the link from the cursor.** Use the [Link](#) property to access properties of the link. Use the [ItemFromPoint](#) property to get the cell/item from the cursor. Use the [ColumnFromPoint](#) property to retrieve the column from cursor. Use the [FormatDate](#) property to format a date. Use the [DrawDateTicker](#) property to draw a ticker as cursor hovers the chart's area. Use the [BarFromPoint](#) property to get the bar from the point.

The following VB sample displays the key of the link from the cursor:

```
Private Sub Gantt1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As Single)
    With Gantt1.Chart
        Debug.Print .LinkFromPoint(-1, -1)
    End With
End Sub
```

## property Chart.LinksColor as Color

Specifies the color to draw the links between the bars.

Type	Description
Color	A color expression that indicates the color to draw the links between bars.

Use the `LinksColor` property to change the color of the links between bars. Use the [AddLink](#) method to link two bars. Use the [AddBar](#) method to add a new bar to an item. Use the [AddItem](#) method to add a new item. Use the [Link\(exLinkColor\)](#) property to change the color for a specific link. Use the [ShowLinks](#) property to hide all links in the chart area. Use the [LinkStyle](#) property to specify the style of the link between bars. Use the [LinkWidth](#) property to specify the width in pixels, of the pen that draws the link.

## property Chart.LinksStyle as LinkStyleEnum

Specifies the style to draw the links between the bars.

Type	Description
<a href="#">LinkStyleEnum</a>	A LinkStyleEnum expression that indicates the style of the pen to draw the links between bars.

By default, the LinksStyle property is exLinkTDot. Use the [ShowLinks](#) property to hide all links in the chart area. Use the [LinksColor](#) property to change the color of the links between bars. Use the [AddLink](#) method to link two bars. Use the [AddBar](#) method to add a new bar to an item. Use the [AddItem](#) method to add a new item. Use the [Link\(exLinkStyle\)](#) property to change the style for a specific link. Use the [LinkWidth](#) property to specify the width in pixels, of the pen that draws the link.

## property Chart.LinksWidth as Long

Specifies the width in pixels of the pen to draw the links between the bars.

Type	Description
Long	A long expression that indicates the width of the pen to draw the links between bars.

By default, the LinksWidth property is 1 pixel. Use the [ShowLinks](#) property to hide all links in the chart area. Use the [LinksColor](#) property to change the color of the links between bars. Use the [AddLink](#) method to link two bars. Use the [AddBar](#) method to add a new bar to an item. Use the [AddItem](#) method to add a new item. Use the [Link\(exLinkWidth\)](#) property to change the width of the pen that draws a specific link. Use the [LinkStyle](#) property to specify the style of the pen that draws the link.

## property Chart.LocAMPM as String

Retrieves the time marker such as AM or PM using the current user regional and language settings.

Type	Description
String	A String expression that indicates the time marker such as AM or PM using the current user regional and language settings.

The LocAMPM property gets the locale AM/PM indicators as indicated by current regional settings. The <%AM/PM%> HTML tag indicates the twelve-hour clock with the uppercase letters "AM" or "PM", as appropriate set by the AMPM property. The <%loc\_AM/PM%> HTML tag indicates the time marker such as AM or PM using the current user regional and language settings (LocAMPM property). The [LocFirstWeekDay](#) property indicates the first day of the week, using the current user regional and language settings. The [LocMonthNames](#) property specifies the list of name of the months, using the current user regional and language settings. The [LocWeekDays](#) property specifies the name of the days in the week, using the current user regional and language settings.

## property Chart.LocFirstWeekDay as WeekDayEnum

Indicates the first day of the week, as specified in the regional settings.

Type	Description
<a href="#">WeekDayEnum</a>	A WeekDayEnum expression that specifies the first day of the week, as specified in the regional settings.

The LocFirstWeekDay property indicates the first day of the week, using the current user regional and language settings. The [LocMonthNames](#) property specifies the list of name of the months, using the current user regional and language settings. The [LocWeekDays](#) property specifies the name of the days in the week, using the current user regional and language settings. The [LocAMPM](#) property gets the locale AM/PM indicators as indicated by current regional settings.

## property Chart.LocMonthNames as String

Retrieves the list of month names, as indicated in the regional settings, separated by space.

Type	Description
String	A String expression that indicates the name of the months within the year, as indicated in the regional settings, separated by space.

Use the LocMonthNames property to get the name of the months as indicated by current regional settings. The <%m1%>, <%m2%>, <%m3%>, <%mmmm%> HTML tags indicate the name of the month, as appropriate set by the MonthNames property. The <%loc\_m1%>, <%loc\_m2%>, <%loc\_m3%>, <%loc\_mmmm%> HTML tags indicate the month using the current user regional and language settings (LocMonthNames property). The [LocFirstWeekDay](#) property indicates the first day of the week, as indicated in the regional settings. The [LocAMPM](#) property specifies specifies the AM and PM indicators, as indicated in the regional settings. The [LocWeekDays](#) property specifies the name of the days in the week, as indicated in the regional settings.

## property Chart.LocWeekDays as String

Retrieves the list of names for each week day, as indicated in the regional settings, separated by space.

Type	Description
String	A String expression that indicates the list of names for each week day, as indicated in the regional settings, separated by space.

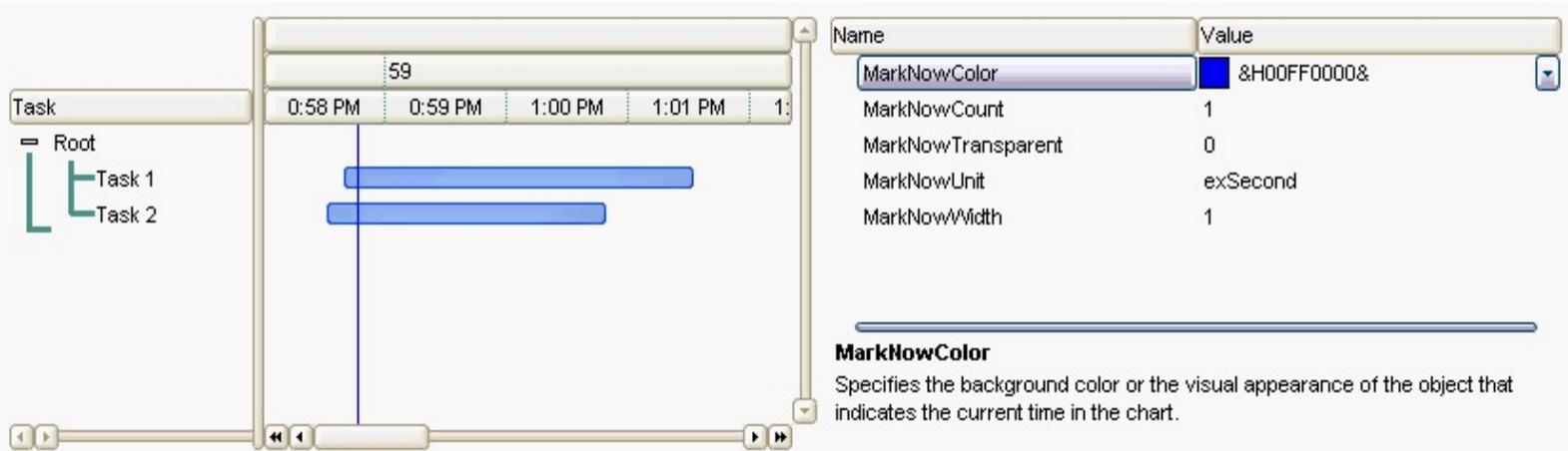
The LocWeekDays property gets the locale list of names for each week day as indicated by current regional settings. The <%d1%>, <%d2%>, <%d3%>, <%ddd%> or <%ddd%> HTML tags indicates the week day, as appropriate set by the WeekDays property. The <%loc\_d1%>, <%loc\_d2%>, <%loc\_d3%>, <%loc\_ddd%> or <%loc\_dddd%> HTML tags indicates the week day, as appropriate set by the WeekDays property, using the current user regional and language settings (LocAMPM property). The [LocFirstWeekDay](#) property indicates the first day of the week, using the current user regional and language settings. The [LocMonthNames](#) property specifies the list of name of the months, using the current user regional and language settings. The [LocAMPM](#) property specifies the AM/PM time indicators, using the current user regional and language settings.

## property Chart.MarkNowColor as Color

Specifies the background color or the visual appearance of the object that indicates the current time in the chart.

Type	Description
Color	A color expression that specifies the background color to show the position of the current date-time. The last 7 bits in the high significant byte of the color indicates the identifier of the skin being used. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.

By default, the MarkNowColor property is 0. The control's chart shows the position of the current date-time, only if the MarkNowColor property is not zero (0). Use the MarkNowColor properties to show the current date-time in the control's chart. The [MarkNowUnit](#) property specifies the unit of time to count for. For instance, you can show the current date-time from current second, to next second, from minute to next minute, and so on. Use the [MarkNowCount](#) property to specify the number of units of date-time to count from. For instance, you can show the current date-time from 5 seconds to 5 seconds, and so on. The [MarkNowWidth](#) property specifies the width in pixels of the vertical bar that shows the current date-time. The [MarkNowTransparent](#) property specifies the percent of transparency to show the vertical bar that indicates the current date-time. The [MarkTodayColor](#) property highlights the current day only. The control fires the [DateTimeChanged](#) event when the current date-time is changed.



This screen shot shows the vertical bar that indicates the current date-time. The bar is automatically updated each second, unless the MarkNowUnit property is not changed to exMinute, when the vertical bar is updated each minute.

## property Chart.MarkNowCount as Long

Specifies the number of time units to count while highlighting the current time.

Type	Description
Long	A long expression that specifies the width in pixels of the vertical bar that shows the current date-time in the control's chart.

By default, the MarkNowCount property is 1. The control's chart shows the position of the current date-time, only if the [MarkNowColor](#) property is not zero (0). Use the MarkNowCount property to specify the number of units of date-time to count from. For instance, you can show the current date-time from 5 seconds to 5 seconds, and so on. The [MarkNowWidth](#) property specifies the width in pixels of the vertical bar that shows the current date-time. The [MarkNowUnit](#) property specifies the unit of time to count for. For instance, you can show the current date-time from current second, to next second, from minute to next minute, and so on. The [MarkNowTransparent](#) property specifies the percent of transparency to show the vertical bar that indicates the current date-time. The [MarkTodayColor](#) property highlights the current day only. The control fires the [DateTimeChanged](#) event when the current date-time is changed.

## property Chart.MarkNowTransparent as Long

Specifies the percent of the transparency to display the object that marks the current time.

Type	Description
Long	A long expression that specifies the percent of transparency to show the vertical bar that indicates the current date-time in the control's chart. 0 means opaque, 50 means semi-transparent, and 100 means transparent.

By default, the **MarkNowTransparent** property is 0. The control's chart shows the position of the current date-time, only if the [MarkNowColor](#) property is not zero (0). The **MarkNowTransparent** property specifies the percent of transparency to show the vertical bar that indicates the current date-time. The [MarkNowUnit](#) property specifies the unit of time to count for. For instance, you can show the current date-time from current second, to next second, from minute to next minute, and so on. Use the [MarkNowCount](#) property to specify the number of units of date-time to count from. For instance, you can show the current date-time from 5 seconds to 5 seconds, and so on. The [MarkNowWidth](#) property specifies the width in pixels of the vertical bar that shows the current date-time. The [MarkTodayColor](#) property highlights the current day only. The control fires the [DateTimeChanged](#) event when the current date-time is changed.

## property Chart.MarkNowUnit as UnitEnum

Retrieves or sets a value that indicates the base time unit while highlighting the current time.

Type	Description
<a href="#">UnitEnum</a>	A UnitEnum expression that specifies the date-time unit to show the current date-time in the control's chart.

By default, the MarkNowUnit property is exSecond. The control's chart shows the position of the current date-time, only if the [MarkNowColor](#) property is not zero (0). Use the MarkNowColor properties to show the current date-time in the control's chart. Use the MarkNowUnit property to specify the unit of time to count for. For instance, you can show the current date-time from current second, to next second, from minute to next minute, and so on. Use the [MarkNowCount](#) property to specify the number of units of date-time to count from. For instance, you can show the current date-time from 5 seconds to 5 seconds, and so on. The [MarkNowWidth](#) property specifies the width in pixels of the vertical bar that shows the current date-time. The [MarkNowTransparent](#) property specifies the percent of transparency to show the vertical bar that indicates the current date-time. The [MarkTodayColor](#) property highlights the current day only. The control fires the [DateTimeChanged](#) event when the current date-time is changed.

## property Chart.MarkNowWidth as Long

Specifies the width in pixels of the object that shows the current time.

Type	Description
Long	A long expression that specifies the width in pixels of the vertical bar that shows the current date-time in the control's chart. If the MarkNowWidth property is 0 or negative, the control computes the required width so current date-time is shown based on the <a href="#">MarkNowUnit</a> and <a href="#">MarkNowCount</a> properties. For instance, in this case, if your chart displays seconds, and the MarkNowCount property is 2, the width of the vertical bar that shows the current date-time is <a href="#">UnitWidth</a> multiplied by 2 ( the space required in the control's chart to display 2 seconds ) .

By default, the MarkNowWidth property is 1. The control's chart shows the position of the current date-time, only if the [MarkNowColor](#) property is not zero (0). The MarkNowWidth property specifies the width in pixels of the vertical bar that shows the current date-time. The [MarkNowUnit](#) property specifies the unit of time to count for. For instance, you can show the current date-time from current second, to next second, from minute to next minute, and so on. Use the [MarkNowCount](#) property to specify the number of units of date-time to count from. For instance, you can show the current date-time from 5 seconds to 5 seconds, and so on. The [MarkNowTransparent](#) property specifies the percent of transparency to show the vertical bar that indicates the current date-time. The [MarkTodayColor](#) property highlights the current day only. The control fires the [DateTimeChanged](#) event when the current date-time is changed.

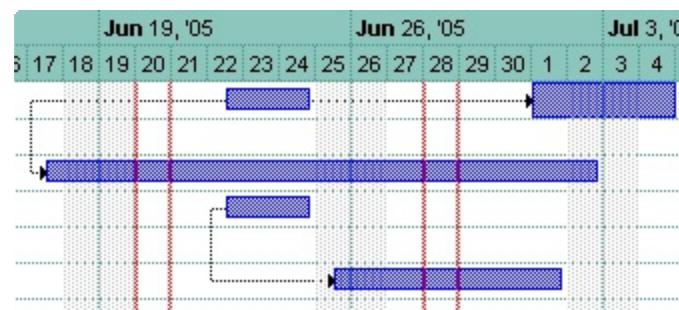
## property Chart.MarkSelectDateColor as Color

Retrieves or sets a value that indicates the color to mark the selected date in the chart.

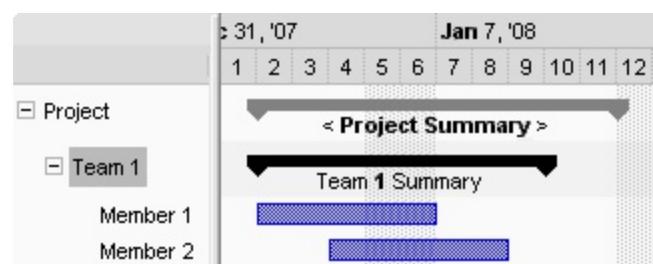
Type	Description
Color	A Color expression that indicates the color being used to highlight the selected dates.

The MarkSelectDateColor property specifies the color being used to highlight the selected dates. The user can select dates by clicking the chart's header. You can select multiple dates keeping the CTRL key and clicking a new date. Use the [SelectLevel](#) property to specify the area being highlighted when a date is selected. Use the [SelectDate](#) property to select dates programmatically. By default, the MarkSelectDateColor is blue ( as your control panel indicates the color for the selected items ). The selected dates are not marked if the MarkSelectDateColor property has the same value as [BackColor](#) property if the Chart object. The [MarkTodayColor](#) property specifies the color to mark the today date. Use the [LevelFromPoint](#) property to get the index of the level from the cursor. Use the [DateFromPoint](#) property to retrieve the date from the cursor.

In the following screen shot the red lines marks the selected dates ( June 20 and June 28 ):



The following screen show how a new date gets selected once the user clicks a date in the chart's header:

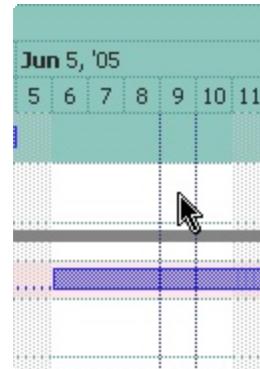


## property Chart.MarkTodayColor as Color

Retrieves or sets a value that indicates the color to mark today in the chart.

Type	Description
Color	A Color expression that indicates the color being used to mark the today date.

The MarkTodayColor property specifies the color to mark the today date. If the MarkTodayColor property is the same as the [BackColor](#) property, the today date is not marked. Use the [NonworkingDays](#) property to specify the nonworking days in a week. Use the [DrawTickLines](#) property to specify whether the grid lines between time units in the level are visible or hidden. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the chart's area. Use the [GridLineColor](#) property to specify the color for grid lines. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the items area. Use the [DrawGridLines](#) property to draw grid lines for a specified level. Use the [MarkSelectDateColor](#) property to highlight the selected dates. Use the [SelectDate](#) property to select a date by clicking the chart's header.



## property Chart.MonthNames as String

Retrieves or sets a value that indicates the list of month names, separated by space.

Type	Description
String	A String expression that indicates the name of the months in the year, separated by spaces.

By default, the MonthNames property is "January February March April May June July August September October November December". The order of months is January, February, and so on. Use the MonthNames property to specify the name of the months in the year. The [FormatDate](#) property formats a date. Use the [AMPM](#) property to specify the name of the AM and PM indicators. Use the [Label](#) property to specify the label being displayed in the level. Use the [Label](#) property to specify the predefined format for a level based on the unit time. Use the [ToolTip](#) property to specify the tool tip being displayed when the cursor hovers the level. Use the [FirstWeekDay](#) property to specify the first day in the week.

The MonthNames property specifies the name of the months in the year for the following built-in tags:

- <%m1%> - First letter of the month (J to D).
- <%m2%> - First two letters of the month (Ja to De).
- <%m3%> - First three letters of the month (Jan to Dec).
- <%mmm%> - First three letters of the month (Jan to Dec).
- <%mmmm%> - Full name of the month (January to December).

The following VB sample assigns Romanian name for months in the year:

With Gantt1.Chart

```
.MonthNames = "ianuarie Februarie Martie Aprilie Mai Iunie Iulie August Septembrie  
Octombrie Noiembrie Decembrie"
```

End With

The following C++ sample assigns Romanian name for months in the year:

```
m_gantt.GetChart().SetMonthNames( "ianuarie Februarie Martie Aprilie Mai Iunie Iulie  
August Septembrie Octombrie Noiembrie Decembrie" );
```

The following VB.NET sample assigns Romanian name for months in the year:

With AxGantt1.Chart

```
.MonthNames = "ianuarie Februarie Martie Aprilie Mai Iunie Iulie August Septembrie
```

Octombrie Noiembrie Decembrie"

End With

The following C# sample assigns Romanian name for months in the year:

```
axGantt1.Chart.MonthNames = "Ianuarie Februarie Martie Aprilie Mai Iunie Iulie August  
Septembrie Octombrie Noiembrie Decembrie";
```

The following VFP sample assigns Romanian name for months in the year:

With thisform.Gantt1.Chart

```
.MonthNames = "Ianuarie Februarie Martie Aprilie Mai Iunie Iulie August Septembrie  
Octombrie Noiembrie Decembrie"
```

EndWith

## property Chart.NextDate (Date as Date, Unit as UnitEnum, [Count as Variant]) as Date

Gets the next date based on the unit.

Type	Description
Date as Date	A Date expression that indicates the start date.
Unit as <a href="#">UnitEnum</a>	An UnitEnum expression that indicates the time unit to change the date.
Count as Variant	A long expression that indicates the number of time units
Date	A Date expression that indicates the result.

Use the NextDate property to retrieve the next or previous date giving a specified time unit. The [FirstVisibleDate](#) property indicates the first visible date in the chart. Use the [ScrollTo](#) method to ensure that a specified date fits the chart's client area. Use the [FormatDate](#) property to format a date to a specified format.

The following VB sample displays the next day as "Tue, May 31, 2005":

```
With Gantt1.Chart
```

```
    Debug.Print .FormatDate(.NextDate(.FirstVisibleDate, exDay, 2), "<%ddd%>," <%mmmm%> <%d%>, <%yyyy%>")
```

```
End With
```

The following C++ sample displays the next day as "Tue, May 31, 2005":

```
CChart chart = m_gantt.GetChart();
DATE d = chart.GetNextDate( V2D( &chart.GetFirstVisibleDate() ), 4096, COleVariant(
(long)1 ) );
CString strFormat = chart.GetFormatDate( d, "<%ddd%>,<%mmmm%><%d%>,<%yyyy%>" );
OutputDebugString( strFormat );
```

where the V2D function converts a Variant expression to a DATE expression:

```
static DATE V2D( VARIANT* pvtDate )
{
    COleVariant vtDate;
    vtDate.ChangeType( VT_DATE, pvtDate );
    return V_DATE( &vtDate );
```

```
}
```

The following VB.NET sample displays the next day as "Tue, May 31, 2005":

With AxGantt1.Chart

```
    Debug.WriteLine(FormatDate(.NextDate(.FirstVisibleDate, EXGANTTLib.UnitEnum.exDay, 2),  
    "<%ddd%>, <%mmmm%> <%d%>, <%yyyy%>"))  
End With
```

The following C# sample displays the next day as "Tue, May 31, 2005":

```
DateTime d = Convert.ToDateTime(  
axGantt1.Chart.get_NextDate(Convert.ToDateTime(axGantt1.Chart.FirstVisibleDate),  
EXGANTTLib.UnitEnum.exDay, 1));  
String strFormat = axGantt1.Chart.get_FormatDate(d, "<%ddd%>, <%mmmm%>  
<%d%>, <%yyyy%>");  
System.Diagnostics.Debug.WriteLine(strFormat);
```

The following VFP sample displays the next day as "Tue, May 31, 2005":

With thisform.Gantt1.Chart

```
    wait window nowait .FormatDate(.NextDate(.FirstVisibleDate, 4096, 2), "<%ddd%>,  
<%mmmm%> <%d%>, <%yyyy%>")  
EndWith
```

## property Chart.NonworkingDays as Long

Retrieves or sets a value that indicates the non-working days, for each week day a bit.

Type	Description
Long	A long expression that indicates the non-working days in a week.

By default, the NonworkingDays property is 65 ( Saturday(s) and Sunday(s) ). The non-working days are shown using the [NonworkingDaysPattern](#) and the [NonworkingDaysColor](#) which defines the pattern and the color, when the base level of the chart displays days, if the ShowNonworkingUnits property is True ( by default ). Use the [ShowNonworkingUnits](#) property to display or hide the non-working units as hours or days in your chart. Use the [NonworkingHours](#) property to indicate non-working hours in a day.

You can select the non-working week days in the following table ( In Internet Explorer, you have to allow running the script on this page ).

	Saturday	Friday	Thursday	Wednesday	Tuesday	Monday	Sunday
Value	64	32	16	8	4	2	1
Bit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					

Click the Bit row for non-working days and the value for property is: `[]`, `[](hexa)`, `[](octal)`, `[](binary)`

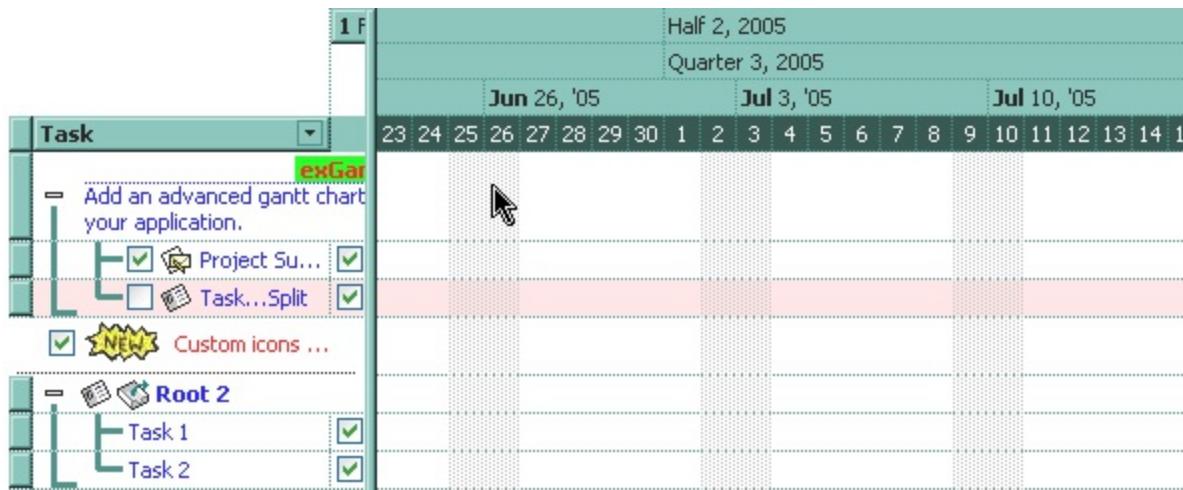
The last significant byte in the NonworkingDays expression has the following meaning:

-	Sa	Fr	Th	We	Tu	Mo	Su
0	X	X	X	X	X	X	X
128	64	32	16	8	4	2	1

where **X** could be 1 ( nonworking day ) or 0 ( working day ), **Sa** means Saturday, **Fr** means Friday, and so on. For instance, the 65 value means Saturday and Sunday are non-working days. Use the [AddNonworkingDate](#) method to add custom dates as being nonworking dates.

Use the [ShowNonworkingDates](#) property to show or hide the nonworking dates in the control's chart area. Use the [NonworkingDaysPattern](#) property to specify the pattern being used to fill non-working days. The [NonworkingDaysColor](#) property specifies the color being used to fill the non-working days. For instance, if the NonworkingDaysPattern is exPatternEmpty the non-working days are not highlighted. Use the [MarkTodayColor](#) property to specify the color to mark the today date. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the chart's area. Use the [GridLineColor](#)

property to specify the color for grid lines. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the items area. Use the [DrawGridLines](#) property to draw grid lines for a specified level. Use the [Add\("A:B"\)](#) to add a bar that displays the bar A in the working area, and B in non-working areas.



The following VB sample retrieves the value to indicate Sunday and Monday as being non-working days:

```
With Gantt1.Chart
```

```
    .NonworkingDays = 2 ^ (EXGANTTLibCtl.exSunday) Or 2 ^ (EXGANTTLibCtl.exMonday)
```

```
End With
```

The following C++ sample retrieves the value to indicate Sunday and Monday as being non-working days:

```
m_gantt.GetChart().SetNonworkingDays( 1 << ( EXGANTTLib::exSunday ) | 1 << ( EXGANTTLib::exMonday ) );
```

where the #import <exgantt.dll> must be called to insert definitions for types in the control's type library.

The following VB.NET sample retrieves the value to indicate Sunday and Monday as being non-working days:

```
With AxGantt1.Chart
```

```
    .NonworkingDays = 2 ^ (EXGANTTLib.WeekDayEnum.exSunday) Or 2 ^ (EXGANTTLib.WeekDayEnum.exMonday)
```

```
End With
```

The following C# sample retrieves the value to indicate Sunday and Monday as being non-working days:

```
axGantt1.Chart.NonworkingDays = 1 <<  
(Convert.ToInt32(EXGANTTLib.WeekDayEnum.exSunday) ) | 1 <<  
(Convert.ToInt32(EXGANTTLib.WeekDayEnum.exMonday));
```

The following VFP sample retrieves the value to indicate Sunday and Monday as being non-working days:

```
with thisform.Gantt1.Chart  
    .NonworkingDays = 2 ^ 0 + 2 ^ 1  
endwith
```

## property Chart.NonworkingDaysColor as Color

Retrieves or sets a value that indicates the color to fill the non-working days.

Type	Description
Color	A Color expression that indicates the color to fill the non-working days.

Use the NonworkingDaysColor property to specify the color being used by the NonworkingDaysPattern property. Use the [NonworkingDays](#) property to specify the nonworking days in a week. Use the [AddNonworkingDate](#) method to add custom dates as nonworking days. Use the [NonworkingDaysPattern](#) property to specify the pattern to fill the non-working days. Use the [ShowNonworkingDates](#) property to show or hide the nonworking dates in the control's chart area. For instance, if the NonworkingDaysPattern is exPatternEmpty the non-working days are not highlighted.

The following VB sample marks Sunday and Monday days on red:

With Gantt1.Chart

```
.NonworkingDays = 2 ^ (EXGANTTLibCtl.exSunday) Or 2 ^ (EXGANTTLibCtl.exMonday)  
.NonworkingDaysColor = RGB(255, 0, 0)
```

End With

The following C++ sample marks Sunday and Monday days on red:

```
m_gantt.GetChart().SetNonworkingDays( 1 << ( EXGANTTLib::exSunday ) | 1 << ( EXGANTTLib::exMonday ) );  
m_gantt.GetChart().SetNonworkingDaysColor( RGB(255,0,0,) );
```

where the #import <exgantt.dll> must be called to insert definitions for types in the control's type library.

The following VB.NET sample marks Sunday and Monday days on red:

With AxGantt1.Chart

```
.NonworkingDays = 2 ^ (EXGANTTLib.WeekDayEnum.exSunday) Or 2 ^ (EXGANTTLib.WeekDayEnum.exMonday)  
.NonworkingDaysColor = ToUInt32(Color.Red)
```

End With

where the ToUInt32 function converts a Color expression to a OLE\_DATE expression:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32
```

```
    Dim i As Long
```

```
    i = c.R
```

```
    i = i + 256 * c.G
```

```
    i = i + 256 * 256 * c.B
```

```
    ToUInt32 = Convert.ToUInt32(i)
```

```
End Function
```

The following C# sample marks Sunday and Monday days on red:

```
axGantt1.Chart.NonworkingDays = 1 <<  
(Convert.ToInt32(EXGANTTLib.WeekDayEnum.exSunday)) | 1 <<  
(Convert.ToInt32(EXGANTTLib.WeekDayEnum.exMonday));  
axGantt1.Chart.NonworkingDaysColor = ToUInt32( Color.Red );
```

where the ToUInt32 function converts a Color expression to a OLE\_DATE expression:

```
private UInt32 ToUInt32(Color c)  
{  
    long i;  
    i = c.R;  
    i = i + 256 * c.G;  
    i = i + 256 * 256 * c.B;  
    return Convert.ToUInt32(i);  
}
```

The following VFP sample marks Sunday and Monday days on red:

```
with thisform.Gantt1.Chart  
.NonworkingDays = 2 ^ 0 + 2 ^ 1  
.NonworkingDaysColor = RGB(255,0,0)  
endwith
```

## property Chart.NonworkingDaysPattern as PatternEnum

Retrieves or sets a value that indicates the pattern being used to fill non-working days.

Type	Description
<a href="#">PatternEnum</a>	A PatternEnum expression that indicates the pattern to fill non working days.

Use the NonworkingDaysPattern property to specify the brush to fill the nonworking days area. Use the [NonworkingDays](#) property to specify the nonworking days. Use the NonworkingDaysPattern property to specify the pattern to fill non-working days. By default, the NonworkingDaysPattern property is exPatternDot. If the NonworkingDaysPattern property is exPatternEmpty, the non-working days are not highlighted. The [NonworkingDaysColor](#) property specifies the color being used to fill the non-working days. Use the [MarkTodayColor](#) property to specify the color to mark the today date. Use the [DrawTickLines](#) property to specify whether the grid lines between time units in the level are visible or hidden. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the chart's area. Use the [GridLineColor](#) property to specify the color for grid lines. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the items area. Use the [DrawGridLines](#) property to draw grid lines for a specified level.



## property Chart.NonworkingHours as Long

Retrieves or sets a value that indicates the non-working hours, for each hour in a day a bit.

Type	Description
Long	A Long expression that indicates the non-working hours in a day.

By default, the NonworkingHours property is 0, that indicates all hours in a day are working hours. The non-working hours are shown using the [NonworkingHoursPattern](#) and the [NonworkingHoursColor](#) which defines the pattern and the color, when the base level of the chart displays hours, if the ShowNonworkingUnits property is True ( by default ). Use the [ShowNonworkingUnits](#) property to show or hide the non-working units as hours or days in your chart.

You can select the non-working hours in the following table ( In Internet Explorer, you have to allow running the script on this page ).

24 Hour	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4
AM/PM	11PM	10PM	9PM	8PM	7PM	6PM	5PM	4PM	3PM	2PM	1PM	12AM	11AM	10AM	9AM	8AM	7AM	6AM	5AM	4AM
Value	8388608	4194304	2097152	1048576	524288	262144	131072	65536	32768	16384	8192	4096	2048	1024	512	256	128	64	32	16
Bit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																

Click the Bit row for non-working hours and the value for property is:  (hexa),  (octal),  (binary)

Every bit from the less significant bit, in the NonworkingHours property specifies whether the hour is a not-working or working hour. For instance, if you want to highlight that only 9AM is a not-working hour, you should set the 10th bit in the property on 1 ( the hours starts from 0 to 23 ), and so the value for the NonworkingHours property is 512 ( which binary representation is 1000000000 ). The hours in the property starts from 0AM for the first less significant bit, 1AM for the second bit, like in the following table.

24 Hour	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
AM/PM	Hour	11PM	10PM	9PM	8PM	7PM	6PM	5PM	4PM	3PM	2PM	1PM	12AM	11AM	10AM	9AM	8AM	7AM	6AM	5AM	4AM	3AM	2AM	1AM	0AM
Bit	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Value	8388608	4194304	2097152	1048576	524288	262144	131072	65536	32768	16384	8192	4096	2048	1024	512	256	128	64	32	16	8	4	2	1	

For instance, if you need the representation of non-working hours from 6PM to 8AM, you need to set on 1 each representative bit in the NonworkingHours property, or to add corresponding values in the last row in the table for each non-working hours, so in this case the NonworkingHours property is 16253183 or in binary 11111000000000001111111. For instance, if the NonworkingHours property is 0 or NonworkingHoursPattern is exPatternEmpty the not-working hours are not highlighted. Use the [NonworkingDays](#) property to specify non-working days. Use the [Add\("A:B"\)](#) to add a bar that displays the bar A in the working area, and B in non-working areas.

## property Chart.NonworkingHoursColor as Color

Retrieves or sets a value that indicates the color to fill the non-working hours.

Type	Description
Color	A Color expression that indicates the color to fill the non-working hours.

Use the NonworkingHoursColor property to specify the color being used by the NonworkingHoursPattern property. Use the [NonworkingHours](#) property to specify the nonworking hours in a day. Use the [NonworkingHoursPattern](#) property to specify the pattern to fill the non-working hours. For instance, if the NonworkingHours property is 0 or NonworkingHoursPattern is exPatternEmpty the not-working hours are not highlighted.

## property Chart.NonworkingHoursPattern as PatternEnum

Retrieves or sets a value that indicates the pattern being used to fill non-working hours.

Type	Description
<a href="#">PatternEnum</a>	A PatternEnum expression that indicates the pattern to fill non working hours in a day.

Use the NonworkingHoursPattern property to specify the brush to fill the nonworking hours area. Use the [NonworkingHoursColor](#) property to specify the color being used by the NonworkingHoursPattern property. Use the [NonworkingHours](#) property to specify the nonworking hours in a day. For instance, if the NonworkingHours property is 0 or NonworkingHoursPattern is exPatternEmpty the not-working hours are not highlighted.

## property Chart.OverviewBackColor as Color

Specifies the background color of the chart's overview.

Type	Description
Color	A Color expression that indicates the background color of the chart's overview.

Use the OverviewBackColor property to change the background color of the overview's overview. The [OverviewVisible](#) property specifies whether the overview's overview layout is visible or hidden. Use the [BackColor](#) property to change the background color for the chart area. Use the [OverviewSelBackColor](#) property to change the visual appearance of the selection in the overview area.

The following VB sample changes the overview's background color:

```
With Gantt1.Chart  
    .OverviewBackColor = RGB(&H80, &H80, &H80)  
End With
```

The following C++ sample changes the overview's background color:

```
m_gantt.GetChart().SetOverviewBackColor( RGB(0x80,0x80,0x80) );
```

The following VB.NET sample changes the overview's background color:

```
With AxGantt1.Chart  
    .OverviewBackColor = ToUInt32(Color.FromArgb(&H80, &H80, &H80))  
End With
```

where the ToUInt32 function converts a Color expression to an OLE\_COLOR type:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32  
    Dim i As Long  
    i = c.R  
    i = i + 256 * c.G  
    i = i + 256 * 256 * c.B  
    ToUInt32 = Convert.ToInt32(i)  
End Function
```

The following C# sample changes the overview's background color:

```
axGantt1.Chart.OverviewBackColor = ToUInt32(Color.FromArgb(0x80, 0x80, 0x80));
```

where the ToUInt32 function converts a Color expression to an OLE\_COLOR type:

```
private UInt32 ToUInt32(Color c)
{
    long i;
    i = c.R;
    i = i + 256 * c.G;
    i = i + 256 * 256 * c.B;
    return Convert.ToInt32(i);
}
```

The following VFP sample changes the overview's background color:

```
With thisform.Gantt1.Chart
```

```
    .OverviewBackColor = RGB(128, 128, 128)
```

```
EndWith
```

## property Chart.OverviewHeight as Long

Indicates the height of the chart's overview.

Type	Description
Long	A long expression that indicates the height of the chart's overview area.

By default, the OverviewHeight property is 24 pixels. If the OverviewHeight property is 0, or the [OverviewVisible](#) property is False, the chart's overview area is hidden. The [OverviewBackColor](#) property specifies the background color for the overview area. Use the [OverviewSelBackColor](#) property to change the visual appearance of the selection in the overview area. The [OverviewToolTip](#) property specifies the format of the tooltip being displayed when the cursor hovers the overview area. The [OverviewLevelLines](#) property indicates the index of the level that displays the grid lines in the overview area.

## property Chart.OverviewLevelLines as Long

Indicates the index of the level that displays the grid line in the chart's overview.

Type	Description
Long	A long expression that indicates the index of the level that displays the grid lines in the chart's overview area.

By default, the OverviewLevelLines property is -1. If the OverviewLevelLines property is -1, or indicates a non-existent level, no grid lines are shown in the chart's overview area. Use the OverviewLevelLines property to show grid lines in the chart's overview area. The [OverviewVisible](#) property shows or hides the chart's overview area. Use the [Level](#) property to access a level using its index. The [LevelCount](#) property indicates the number of levels being displayed in the control's header. Use the [DrawGridLines](#) property to specify the color of the grid lines in the overview area.



## property Chart.OverviewSelBackColor as Color

Specifies the selection color of the chart's overview.

Type	Description
Color	A color expression that defines the selected items background color. The last 7 bits in the high significant byte of the color indicates the identifier of the skin being used. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.

Use the `OverviewSelBackColor` property specifies background color or the visual appearance for the selection in the chart's overview. The [OverviewBackColor](#) property specifies the background color for the overview area. The [OverviewVisible](#) property specifies whether the chart's overview layout is visible or hidden. Use the [OverviewHeight](#) property to specify the height in pixels, of the overview area. The [OverviewToolTip](#) property specifies the format of the tooltip being displayed when the cursor hovers the overview area. The [OverviewLevelLines](#) property indicates the index of the level that displays the grid lines in the overview area.



## property Chart.OverviewToolTip as String

Retrieves or sets a value that indicates the format of the tooltip being shown while the cursor hovers the chart's overview area.

Type	Description
String	A String expression that specifies the format of the tooltip being displayed when the cursor hovers the chart's overview area.

By default, the OverviewToolTip property is "<%ddd%> <%m%>/<%d%>/<%yyyy%> ". The [OverviewVisible](#) property specifies whether the chart's overview layout is visible or hidden. Use the [OverviewHeight](#) property to specify the height in pixels, of the overview area. Use the [ToolTip](#) property to specify the format of the tooltip being displayed when the user scrolls the chart's content.

The OverviewToolTip property supports the following built-in tags:

- <%d%> - Day of the month in one or two numeric digits, as needed (1 to 31).
- <%dd%> - Day of the month in two numeric digits (01 to 31).
- <%d1%> - First letter of the weekday (S to S). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%d2%> - First two letters of the weekday (Su to Sa). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%d3%> - First three letters of the weekday (Sun to Sat). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%ddd%> - First three letters of the weekday (Sun to Sat). ( Use the [WeekDays](#) property to specify the name of the days in the week ). You can use the <%loc\_ddd%> that indicates the day of week as a three-letter abbreviation using the current user regional and language settings.
- <%loc\_ddd%> - Indicates the day of week as a three-letter abbreviation using the current user regional and language settings.
- <%dddd%> - Full name of the weekday (Sunday to Saturday). ( Use the [WeekDays](#) property to specify the name of the days in the week ). You can use the <%loc\_dddd%> that indicates day of week as its full name using the current user regional and language settings.
- <%loc\_dddd%> - Indicates day of week as its full name using the current user regional and language settings.
- <%i%> - Displays the number instead the date. For instance, you can display numbers as 1000, 1001, 1002, 1003, instead dates. ( the valid range is from -647,434 to 2,958,465 )
- <%w%> - Day of the week (1 to 7).
- <%ww%> - Week of the year (1 to 53).

- <%m%> - Month of the year in one or two numeric digits, as needed (1 to 12).
- <%mr%> - Month of the year in Roman numerals, as needed (I to XII).
- <%mm%> - Month of the year in two numeric digits (01 to 12).
- <%m1%> - First letter of the month (J to D). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%m2%> - First two letters of the month (Ja to De). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%m3%> - First three letters of the month (Jan to Dec). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%mmm%> - First three letters of the month (Jan to Dec). ( Use the [MonthNames](#) property to specify the name of the months in the year ). You can use the <%loc\_mmm%> that indicates month as a three-letter abbreviation using the current user regional and language settings.
- <%loc\_mmm%> - Indicates month as a three-letter abbreviation using the current user regional and language settings.
- <%mmmm%> - Full name of the month (January to December). ( Use the [MonthNames](#) property to specify the name of the months in the year ). You can use the <%loc\_mmmm%> that indicates month as its full name using the current user regional and language settings.
- <%loc\_mmmm%> - Indicates month as its full name using the current user regional and language settings.
- <%q%> - Date displayed as the quarter of the year (1 to 4).
- <%y%> - Number of the day of the year (1 to 366).
- <%yy%> - Last two digits of the year (01 to 99).
- <%yyyy%> - Full year (0100 to 9999).
- <%hy%> - Date displayed as the half of the year (1 to 2).
- <%loc\_gg%> - Indicates period/era using the current user regional and language settings.
- <%loc\_sdate%> - Indicates the date in the short format using the current user regional and language settings.
- <%loc\_ldate%> - Indicates the date in the long format using the current user regional and language settings.
- <%loc\_dsep%> - Indicates the date separator using the current user regional and language settings (/).
- <%h%> - Hour in one or two digits, as needed (0 to 23).
- <%hh%> - Hour in two digits (00 to 23).
- <%n%> - Minute in one or two digits, as needed (0 to 59).
- <%nn%> - Minute in two digits (00 to 59).
- <%s%> - Second in one or two digits, as needed (0 to 59).
- <%ss%> - Second in two digits (00 to 59).
- <%AM/PM%> - Twelve-hour clock with the uppercase letters "AM" or "PM", as appropriate. ( Use the [AMPM](#) property to specify the name of the AM and PM

indicators ). You can use the <%loc\_AM/PM%> that indicates the time marker such as AM or PM using the current user regional and language settings. You can use <%loc\_A/P%> that indicates the one character time marker such as A or P using the current user regional and language settings

- <%loc\_AM/PM%> - Indicates the time marker such as AM or PM using the current user regional and language settings.
- <%loc\_A/P%> - Indicates the one character time marker such as A or P using the current user regional and language settings.
- <%loc\_time%> - Indicates the time using the current user regional and language settings.
- <%loc\_time24%> - Indicates the time in 24 hours format without a time marker using the current user regional and language settings.
- <%loc\_tsep%> - indicates the time separator using the current user regional and language settings (:).

The following tags are displayed based on the user's Regional and Language Options:

- <%loc\_sdate%> - Indicates the date in the short format using the current user settings.
- <%loc\_ldate%> - Indicates the date in the long format using the current user settings.
- <%loc\_ddd%> - Indicates day of week as a three-letter abbreviation using the current user settings.
- <%loc\_dddd%> - Indicates day of week as its full name using the current user settings.
- <%loc\_mmm%> - Indicates month as a three-letter abbreviation using the current user settings.
- <%loc\_mmmm%> - Indicates month as its full name using the current user settings.
- <%loc\_gg%> - Indicates period/era using the current user settings.
- <%loc\_dsep%> - Indicates the date separator using the current user settings.
- <%loc\_time%> - Indicates the time using the current user settings.
- <%loc\_time24%> - Indicates the time in 24 hours format without a time marker using the current user settings.
- <%loc\_AM/PM%> - Indicates the time marker such as AM or PM using the current user settings.
- <%loc\_A/P%> - Indicates the one character time marker such as A or P using the current user settings.
- <%loc\_tsep%> - Indicates the time separator using the current user settings.
- <%loc\_y%> - Represents the Year only by the last digit, using current regional settings.
- <%loc\_yy%> - Represents the Year only by the last two digits, using current regional settings. A leading zero is added for single-digit years.
- <%loc\_yyyy%> - Represents the Year by a full four or five digits, depending on the

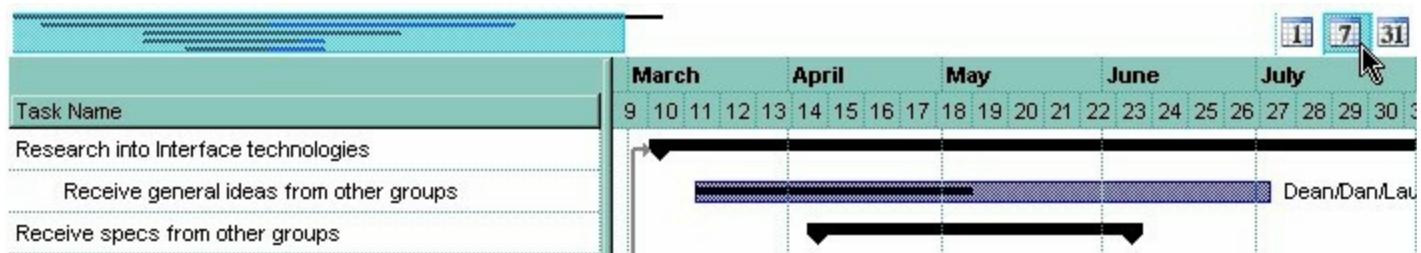
calendar used. Thai Buddhist and Korean calendars have five-digit years. The "yyyy" pattern shows five digits for these two calendars, and four digits for all other supported calendars. Calendars that have single-digit or two-digit years, such as for the Japanese Emperor era, are represented differently. A single-digit year is represented with a leading zero, for example, "03". A two-digit year is represented with two digits, for example, "13". No additional leading zeros are displayed.

## property Chart.OverviewVisible as OverviewVisibleEnum

Specifies whether the chart's overview layout is visible or hidden.

Type	Description
<a href="#">OverviewVisibleEnum</a>	An OverviewVisibleEnum expression that indicates whether the chart's overview area is visible or hidden.

By default, the OverviewVisible property is exOverviewHidden. The overview layout/map It is a view that is displayed at the top of the control and shows the whole timeline, with all objects within its view (a high-level view). It displays a 'select' box (the light blue box) that the user can drag to any location within the overview and then that area of the chart is shown at normal scale within the chart view. Use the [OverviewHeight](#) property to specify the height in pixels, of the overview area. The [OverviewBackColor](#) property specifies the background color for the overview area. Use the [OverviewSelBackColor](#) property to change the visual appearance of the selection in the overview area. The [OverviewToolTip](#) property specifies the format of the tooltip being displayed when the cursor hovers the overview area. The [OverviewLevelLines](#) property indicates the index of the level that displays the grid lines in the overview area. Use the [AllowOverviewZoom](#) property to specify whether the control displays the zooming scale on the overview area.



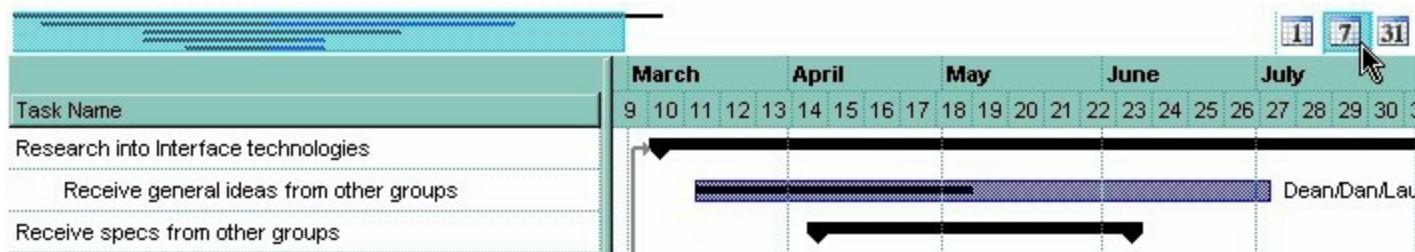
## property Chart.OverviewZoomCaption as String

Specifies the captions for each zooming unit.

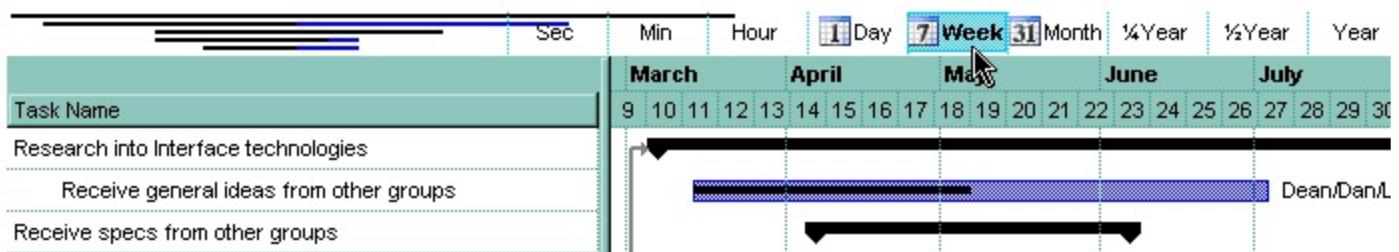
Type	Description
String	A string expression that defines a list of captions ( one for each unit ) being displayed in the zoom scale, separated by   character. The list should contain a caption for each <a href="#">unit</a> , from the exYear to exSecond. For instance, if you want to show nothing for exHalfYear zooming unit, the OverviewZoomCaption should be: "Year  ½Year...", and so on

By default, the OverviewZoomCaption property is "Year|`Year|`Year|Month|Third|Week|Day|Hour|Min|Sec". The OverviewZoomCaption property supports HTML tags, and so the zooming units may display icons or/and pictures using the [`<img>`](#) tag. The [OverviewZoomUnit](#) property indicates the width in pixels of the zooming unit. The zooming scale displays the list of visible units. A visible unit is an unit whose [Label](#) property is not empty. So, the Label property indicates the zooming units in the zoom scale. Use the [OverviewVisible](#) property to show or hide the control's overview area.

The following picture shows the zooming scale on the overview area [exAlwaysZoom] (you can click the 1, 7 or 31, and the chart is scaled to days, weeks or months):



The following picture shows the control when the user **right** clicks the overview area (as the chart displays weeks) [exZoomOnRClick]:



For instance, in the OverviewZoomCaption property is "Year|`Year|`Year|<img>3</img>Month|Third|<img>2</img>Week|<img>1</img>Day|Hour|Min|Sec". The

Day, Month and Week units displays an icon too. Use the [Images](#) method to load a list of icons to your control. Use the [HTMLPicture](#) property to use custom sized pictures to your HTML captions.

## property Chart.OverviewZoomUnit as Long

Indicates the width in pixels of the zooming unit in the overview.

Type	Description
Long	A long expression that indicates the width in pixels of the zooming unit.

By default, the OverviewZoomUnit property is 42 pixels. The OverviewZoomUnit property indicates the width in pixels of the zooming unit. Use the [OverviewVisible](#) property to show or hide the control's overview area. Use the [AllowOverviewZoom](#) property to show or hide the zooming scale on the overview area. The zooming scale displays the list of visible units. A visible unit is an unit whose [Label](#) property is not empty. So, the Label property indicates the zooming units in the zoom scale. The [OverviewZoomCaption](#) property indicates the caption being displayed in each zooming unit. The [LabelToolTip](#) retrieves or sets a value that indicates the predefined format of the level's tooltip for a specified unit.

The zooming scale may be displayed on the overview area only if:

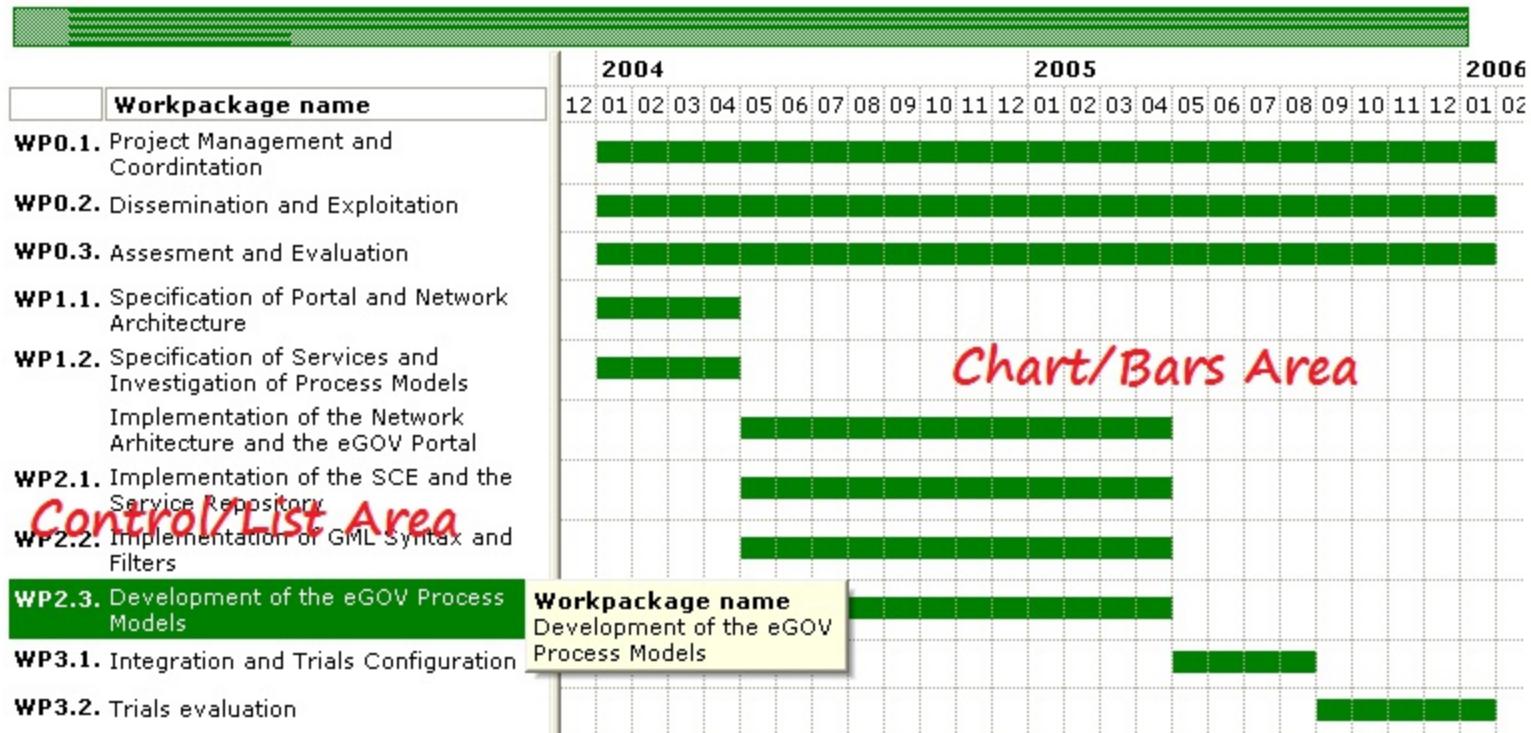
- AllowOverviewZoom property is not exDisableZoom
- OverviewVisible property is True
- [OverviewHeight](#) property is greater than 0
- there are at least two visible [units](#), that has the [Label](#) property not empty.

## property Chart.PaneWidth(Right as Boolean) as Long

Specifies the width for the left or side pane.

Type	Description
Right as Boolean	A Boolean expression that indicates whether the left ( items area ) or right ( chart area ) area is changed.
Long	A Long expression that indicates the width of the pane.

Use the PaneWidth property to specify the width of the control ( items area ) or chart area. Use the [AddBar](#) method to add bars to the item. The bars are always shown in the chart area. Use the [HeaderVisible](#) property to show or hide the control's header. Use the [SortBarVisible](#) property to specify whether the control's sort bar is visible or it is hidden. Use the [LevelCount](#) property to specify the number of levels being displayed in the chart's header. Use the [Level](#) property to access the level in the chart area. Use the [BackColor](#) property to specify the items's background color. Use the [ForeColor](#) property to specify the items's foreground color. Use the [BackColor](#) property to specify the chart's background color. Use the [ForeColor](#) property to specify the chart's foreground color.



The following VFP sample changes the width of the control's area:

```
with thisform.Gantt1.Chart  
    .PaneWidth(0) = 256  
endwith
```

The following VFP sample changes the width of the chart's area:

```
with thisform.Gantt1.Chart
```

```
    .PaneWidth(1) = 256
```

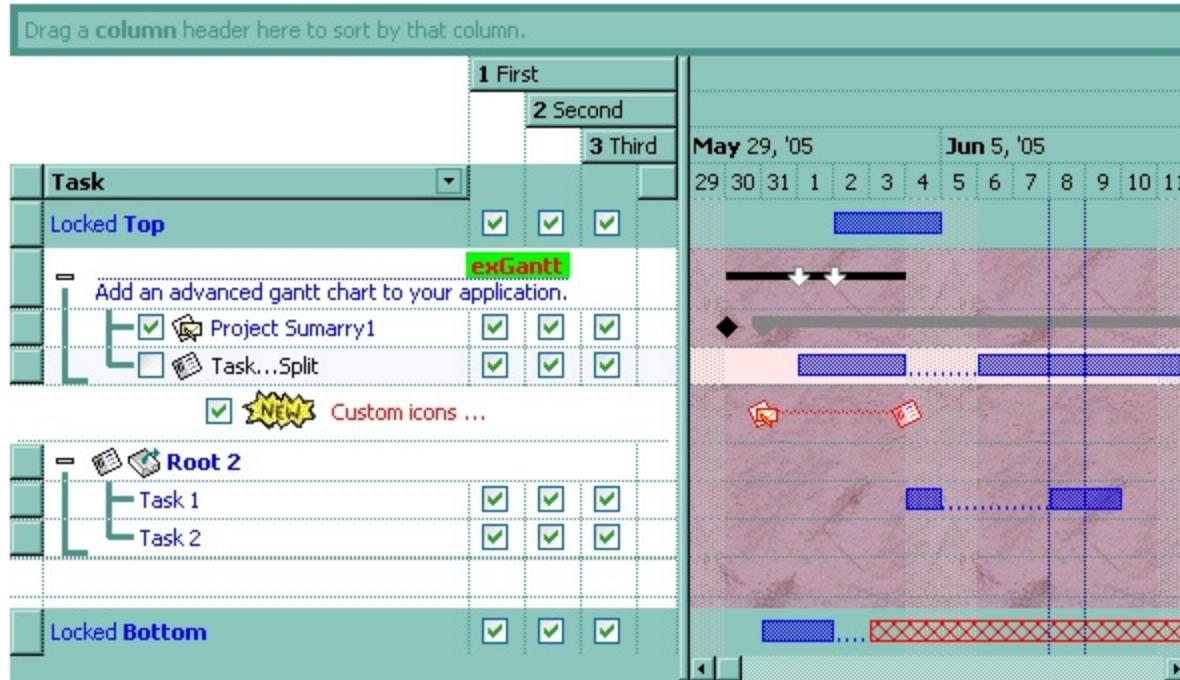
```
endwith
```

## property Chart.Picture as IPictureDisp

Retrieves or sets a graphic to be displayed in the chart.

Type	Description
IPictureDisp	A Picture object that's displayed on the control's background.

By default, the chart has no picture associated. The control uses the [PictureDisplay](#) property to determine how the picture is displayed on the chart's background. Use the [PictureLevelHeader](#) property to specify the picture on the control's levels header bar. Use the [CellPicture](#) property to assign a picture to a cell. Use the [BackColor](#) property to specify the control's background color. Use the [Picture](#) property to assign a picture on the control's background.



## property Chart.PictureDisplay as PictureDisplayEnum

Retrieves or sets a value that indicates the way how the graphic is displayed on the chart's background

Type	Description
<a href="#">PictureDisplayEnum</a>	A PictureDisplayEnum expression that indicates the way how the picture is displayed in the chart's area.

By default, the PictureDisplay property is exTile. The PictureDisplay property specifies how the [Picture](#) is displayed on the chart's background. If the chart has no picture associated the PictureDisplay property has no effect. Use the [CellPicture](#) property to assign a picture to a cell. Use the [BackColor](#) property to specify the control's background color. Use the [BackColor](#) property to specify the chart's background color.

## method Chart.RemoveNonworkingDate (Date as Variant)

Removes a nonworking date.

Type	Description
Date as Variant	A Date expression that indicates the date being unmarked as nonworking day.

Use the RemoveNonworkingDate method to unmark a specified nonworking date, being previously added using the [AddNonworkingDate](#) method. Use the [ClearNonworkingDates](#) method to remove all nonworking dates. Use the [IsDateVisible](#) property to specify whether a date fits the chart's area. Use the [IsNonworkingDate](#) property to check whether the date is already highlighted as nonworking day. The [NonworkingDays](#) property specifies the days being marked as nonworking in a week. Use the [NonworkingDaysPattern](#) property to specify the pattern being used to fill non-working days. The [NonworkingDaysColor](#) property specifies the color being used to fill the non-working days.

## property Chart.ScrollBar as Boolean

Shows or hides the chart's horizontal scroll bar.

Type	Description
Boolean	A Boolean expression that indicates whether the horizontal scroll bar is visible in the chart.

Use the ScrollBar property to show or hide the chart's scroll bar. The [FirstVisibleDate](#) property indicates the first visible date. The [ToolTip](#) property indicates the tooltip being shown when the user clicks the thumb of the chart's scrollbar. Use the FirstVisibleDate property to indicate the first visible date when the chart contains no scroll bar. Use the [ScrollTo](#) method to ensure that a date fits the chart's client area. Use the [Zoom](#) method to zoom the chart to an interval of dates. Use the ScrollBars property

## property Chart.ScrollRange(Pos as ScrollRangeEnum) as Variant

Specifies the range of dates to scroll within.

Type	Description
Pos as <a href="#">ScrollRangeEnum</a>	A ScrollrangeEnum expression that indicates whether the starting or ending position of the range is begin requested or changed.
Variant	A Variant expression that indicates the date or the time when the range begins or ends.

By default, the ScrollRange(exStartDate) and ScrollRange(exEndDate) are empty. The control scrolls the chart within specified range, only if the ScrollRange(exStartDate) and ScrollRange(exEndDate) are not empty and indicates a valid date-time value. If the ScrollRange(exStartDate) and ScrollRange(exEndDate) properties indicates the same valid value, the ScrollRange limits the view to specified unit. For instance, if both are set on #1/1/2001# the view is limited to full day, in case it is zoomed to hours, minutes or seconds. The ScrollRange property rearranges the [FirstVisibleDate](#) property, so it fits the range. The FirstVisibleDate indicates the first visible date or time in the chart. Use the [ScrollTo](#) method to scroll to a specified date. For instance, let's say that ScrollRange(exStartDate) is #5/1/2007#, ScrollRange(exEndDate) is #10/1/2007#, and the FirstVisibleDate is #7/1/2007#. This would move the first visible day to July 1st, but also move the horizontal scroll bar halfway across the chart. This way, it would be clear to users where they are in relation to the full schedule. The [DateChange](#) event notifies whether the first visible date is changed. Use the [ScrollPartEnum](#) property to disable specified parts in the chart's scroll bar.

The following VB sample disables the left and right scroll bar buttons, and specifies a range of date to scroll within:

With Gantt1

.Columns.Add "Task"

With .Chart

.LevelCount = 2

.PaneWidth(0) = 56

.ScrollRange(exStartDate) = "1/1/2001"

.ScrollRange(exEndDate) = "1/31/2001"

.FirstVisibleDate = "1/12/2001"

End With

With .Items

h = .AddItem("Task 1")

```
.AddBar h,"Task","1/15/2001","1/18/2001","K1"
h = .AddItem("Task 1")
.AddBar h,"Task","1/5/2001","1/11/2001","K1"
End With
End With
```

The following VB.NET sample disables the left and right scroll bar buttons, and specifies a range of date to scroll within:

```
Dim h
With AxGantt1
.Columns.Add "Task"
With .Chart
.LevelCount = 2
.PaneWidth(0) = 56
.ScrollRange(EXGANTTLib.ScrollRangeEnum.exStartDate) = "1/1/2001"
.ScrollRange(EXGANTTLib.ScrollRangeEnum.exEndDate) = "1/31/2001"
.FirstVisibleDate = "1/12/2001"
End With
With .Items
h = .AddItem("Task 1")
.AddBar h,"Task","1/15/2001","1/18/2001","K1"
h = .AddItem("Task 1")
.AddBar h,"Task","1/5/2001","1/11/2001","K1"
End With
End With
```

The following C# sample disables the left and right scroll bar buttons, and specifies a range of date to scroll within:

```
axGantt1.Columns.Add("Task");
EXGANTTLib.Chart var_Chart = axGantt1.Chart;
var_Chart.LevelCount = 2;
var_Chart.set_PaneWidth(0 != 0,56);
var_Chart.set_ScrollRange(EXGANTTLib.ScrollRangeEnum.exStartDate,"1/1/2001");
var_Chart.set_ScrollRange(EXGANTTLib.ScrollRangeEnum.exEndDate,"1/31/2001");
var_Chart.FirstVisibleDate = "1/12/2001";
EXGANTTLib.Items var_Items = axGantt1.Items;
```

```
int h = var_Items.AddItem("Task 1");
var_Items.AddBar(h,"Task","1/15/2001","1/18/2001","K1",null);
h = var_Items.AddItem("Task 1");
var_Items.AddBar(h,"Task","1/5/2001","1/11/2001","K1",null);
```

The following C++ sample disables the left and right scroll bar buttons, and specifies a range of date to scroll within:

```
/*
Copy and paste the following directives to your header file as
it defines the namespace 'EXGANTTLib' for the library: 'ExGantt 1.0 Control Library'

#import "D:\\Exontrol\\ExGantt\\project\\DemoU\\ExGantt.dll"
using namespace EXGANTTLib;

EXGANTTLib::IGanttPtr spGantt1 = GetDlgItem(IDC_GANTT1)->GetControlUnknown();
spGantt1->GetColumns()->Add(L"Task");
EXGANTTLib::IChartPtr var_Chart = spGantt1->GetChart();
var_Chart->PutLevelCount(2);
var_Chart->PutPaneWidth(0.56);
var_Chart->PutScrollRange(EXGANTTLib::exStartDate,"1/1/2001");
var_Chart->PutScrollRange(EXGANTTLib::exEndDate,"1/31/2001");
var_Chart->PutFirstVisibleDate("1/12/2001");

EXGANTTLib::IItemsPtr var_Items = spGantt1->GetItems();
long h = var_Items->AddItem("Task 1");
var_Items->AddBar(h,"Task","1/15/2001","1/18/2001","K1",vtMissing);
h = var_Items->AddItem("Task 1");
var_Items->AddBar(h,"Task","1/5/2001","1/11/2001","K1",vtMissing);
```

The following VFP sample disables the left and right scroll bar buttons, and specifies a range of date to scroll within:

```
with thisform.Gantt1
.Columns.Add("Task")
with .Chart
.LevelCount = 2
.PaneWidth(0) = 56
.ScrollRange(0) = "1/1/2001"
```

```
.ScrollRange(1) = "1/31/2001"
.FIRSTVisibleDate = "1/12/2001"
endwith
with .Items
    h = .AddItem("Task 1")
    .AddBar(h,"Task","1/15/2001","1/18/2001","K1")
    h = .AddItem("Task 1")
    .AddBar(h,"Task","1/5/2001","1/11/2001","K1")
endwith
endwith
```

## method Chart.ScrollTo (Date as Date, [Align as Variant])

Scrolls the chart so the specified date is visible.

Type	Description
Date as Date	A Date expression that indicates the date being ensured that's visible.
Align as Variant	An <a href="#">AlignmentEnum</a> expression that indicates where the date will be placed.

Use the ScrollTo method to ensure that specified date fits the chart's area. The [FirstVisibleDate](#) property specifies the first visible date. The ScrollTo method fires the [DateChange](#) event if the first visible date is changed. Use the [Zoom](#) method to zoom the chart to a specified interval of dates. Use the [PaneWidth](#) property to specify the width of the chart.

The following VB sample ensures that the "6/1/2005" is listed in the center of the chart:

```
With Gantt1.Chart
    .ScrollTo #6/1/2005#, AlignmentEnum.CenterAlignment
End With
```

The following C++ sample ensures that the "6/1/2005" is listed in the center of the chart:

```
COleDateTime date( 2005, 6, 1, 0, 0, 0 );
CChart chart = m_gantt.GetChart();
chart.ScrollTo( date.m_dt, COleVariant( (long)1 ) );
```

The following VB.NET sample ensures that the "6/1/2005" is listed in the center of the chart:

```
With AxGantt1.Chart
    .ScrollTo(DateTime.Parse("6/1/2005"), EXGANTTLib.AlignmentEnum.CenterAlignment)
End With
```

The following C# sample ensures that the "6/1/2005" is listed in the center of the chart:

```
axGantt1.Chart.ScrollTo(DateTime.Parse("6/1/2005"),
EXGANTTLib.AlignmentEnum.CenterAlignment);
```

The following VFP sample ensures that the "6/1/2005" is listed in the center of the chart:

```
With thisform.Gantt1.Chart
```

.ScrollTo( "6/2/2005", 1 )

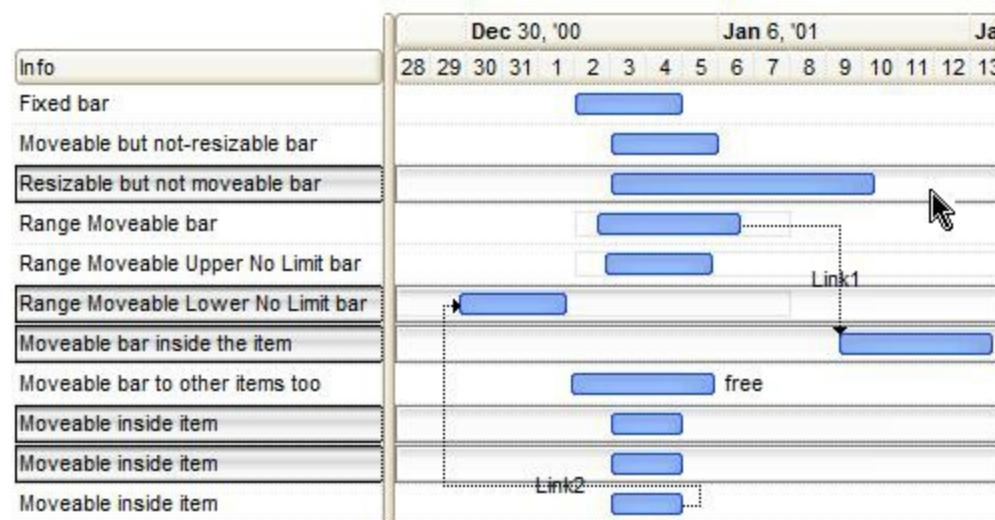
EndWith

## property Chart.SelBackColor as Color

Retrieves or sets a value that indicates the selection background color.

Type	Description
Color	A color expression that indicates the background color to display the selected items in the chart area. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.

By default, the SelBackColor property is the same as chart's background color that's specified by [BackColor](#) property of the Chart object. In other words, by default, the chart does not display a different background color for selected items in the chart area. The SelBackColor property of the Chart object changes the background for the selected items in the chart area. Use the [SelBackColor](#) property to change the selection background color in the list area. Use the [SelForeColor](#) property to change the foreground color of the selected items in the chart area. *The SelBackColor property is applied ONLY if the SelBackColor property is different than the BackColor property.*



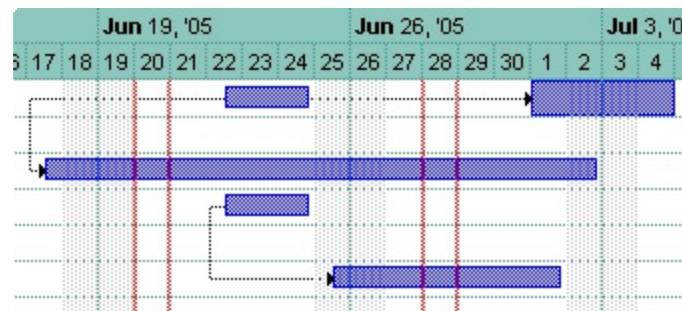
## property Chart.SelectDate(Date as Date) as Boolean

Selects or unselects a specific date in the chart.

Type	Description
Date as Date	A DATE expression that indicates the date to select.
Boolean	A Boolean expression that specifies whether the Date is selected or not.

Use the SelectDate property to select dates programmatically. Use the [UnSelectDates](#) method to unselect all dates in the chart. Use the SelectDate property to select or unselect a new date, or to find if a specified date is selected or it is not selected. The user can select dates by clicking the chart's header. Use the [SelectLevel](#) property to specify the area being highlighted when a date is selected. You can select multiple dates keeping the CTRL key and clicking a new date. The [MarkSelectDateColor](#) property specifies the color being used to highlight the selected dates. If the MarkSelectDateColor property is identical with the [BackColor](#) property of the [Chart](#) object, the selected dates are not shown.

In the following screen shot the red lines marks the selected dates ( June 20 and June 28 ):



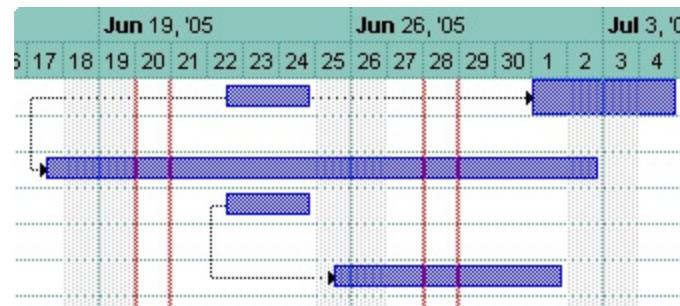
## property Chart.SelectLevel as Long

Indicates the index of the level that highlights the selected dates.

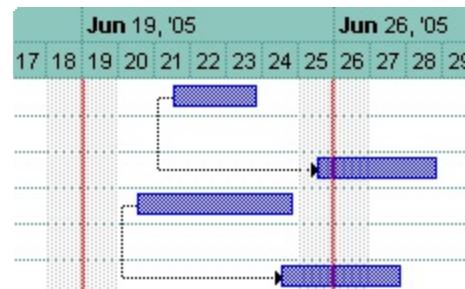
Type	Description
Long	A long expression that indicates the index of the level being selected.

Use the SelectLevel property to specify the area being highlighted when a date is selected. For instance, if you click a date in the first level ( in the chart's header ), the chart displays the selected date accordingly to the selected level. Use the [SelectDate](#) property to select or unselect a new date, or to find if a specified date is selected or not. Use the [LevelFromPoint](#) property to retrieve the index of the level from the cursor. You can select multiple dates keeping the CTRL key and clicking a new date. The [MarkSelectDateColor](#) property specifies the color being used to highlight the selected dates. If the MarkSelectDateColor property is identical with the [BackColor](#) property of the [Chart](#) object, the selected dates are not shown.

In the following screen shot the red lines marks the selected dates ( June 20 and June 28, as the user clicks the June 20, 28 dates in the second level ( index 1 ) where the days are displayed ):



In the following screen shot the red lines marks the selected week ( June 19 to June 26, as the user clicks the June 19, '05 week in the first level ( index 0 ) where weeks are displayed ):



## property Chart.SelForeColor as Color

Retrieves or sets a value that indicates the selection foreground color.

Type	Description
Color	A color expression that specifies the foreground color for selected items that's displayed on the chart area.

By default, the SelForeColor property is the same as chart's foreground color that's specified by [ForeColor](#) property of the Chart object. In other words, by default, the chart does not display a different foreground color for selected items in the chart area. The SelForeColor property of the Chart object changes the foreground for the selected items **in the chart area**. Use the [SelForeColor](#) property to change the selection foreground color in the list area. Use the [SelBackColor](#) property to change the foreground color of the selected items in the chart area. *The SelForeColor property is applied ONLY if the SelForeColor property is different than the ForeColor property.*

## property Chart.ShowEmptyBars as Long

Specifies whether empty bars are shown or hidden.

Type	Description
Long	A long expression that specifies the number of time units being added to the end of each bar. An empty bar has the start and end dates identical.

By default, the ShowEmptyBars property is 0. Use the ShowEmptyBars to show the bars, even if the Start and End date are identical. In other words, if this property is 1, the bars will be shown from the start date to end date plus 1 unit, where the time unit is indicated by the [ShowEmptyBarsUnit](#) property. For instance, if the ShowEmptyBars property is 1, a task bar from 1/1/2001 to 1/2/2001 shows two days, else if the ShowEmptyBars property is 0, the same task bar highlights only a single day. Use the [AddBar](#) method to assign a bar to an item. Use the [ItemBar\(exBarStart\)](#) and [ItemBar\(exBarEnd\)](#) properties to specify the start and end dates for a bar.

## property Chart.ShowEmptyBarsUnit as UnitEnum

Specifies the unit to be added to the end date, so empty bars are shown.

Type	Description
<a href="#">UnitEnum</a>	An UnitEnum expression that indicates the time unit being added to each bar, when the <a href="#">ShowEmptyBars</a> property is not zero.

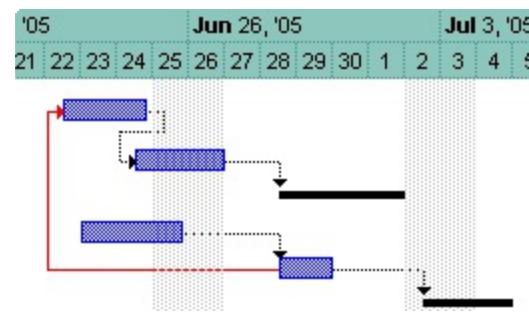
By default, the ShowEmptyBarsUnit property is exDay. This property has effect only, if the [ShowEmptyBars](#) property is not zero. For instance, if your chart displays seconds, the ShowEmptyBarsUnit property must be set on exSeconds, else else if the ShowEmptyBars property is 1, the ending date for each bar is not show correctly, as 1 day is added to a second. For instance, if the ShowEmptyBars property is 1 and ShowEmptyBarsUnit is exDay, a task bar from 1/1/2001 to 1/2/2001 shows two days, else if the ShowEmptyBars property is 0, the same task bar highlights only a single day. Use the [AddBar](#) method to assign a bar to an item. Use the [ItemBar\(exBarStart\)](#) and [ItemBar\(exBarEnd\)](#) properties to specify the start and end dates for a bar.

## property Chart.ShowLinks as Boolean

Retrieves or sets a value that indicates whether the links between bars are visible or hidden.

Type	Description
Boolean	A Boolean expression that indicates whether the chart shows the lines between bars.

By default, the ShowLinks property is True. Use the ShowLinks property to hide all links between bars. Use the [Link\(exLinkVisible\)](#) property to hide a specific link between two bars. Use the [LinkColor](#) property to specify the color for all links in the chart area. Use the [LinkStyle](#) property to specify the style for all links in the chart area. Use the [LinkWidth](#) property to specify the width of the pen, in pixels, to draw the links between bars. Use the [AddLink](#) method to link a bar with another. Use the [Link\(exLinkShowDir\)](#) property to hide the arrow that indicates the direction of the link. Use the [FirstLink](#) and [NextLink](#) properties to enumerate the links in the control.



## property Chart.ShowNonworkingDates as Boolean

Shows or hides nonworking dates.

Type	Description
Boolean	A boolean expression that indicates whether the chart marks the nonworking days.

Use the ShowNonworkingDates property to stop highlighting the nonworking dates. The [NonworkingDays](#) property specifies the days being marked as nonworking in a week. Use the [AddNonworkingDate](#) method to add custom dates as being nonworking days. Use the [IsNonworkingDate](#) property to specify whether the date is a nonworking day. Use the [NonworkingDaysPattern](#) property to specify the pattern being used to fill non-working days. The [NonworkingDaysColor](#) property specifies the color being used to fill the non-working days. Use the [ClearNonworkingDates](#) method to remove all nonworking dates.

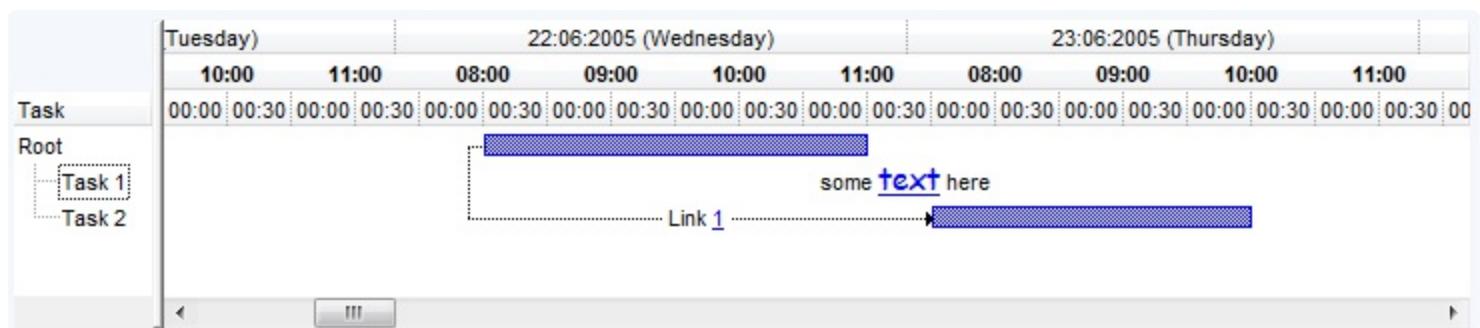
## property Chart.ShowNonworkingUnits as Boolean

Retrieves or sets a value that indicates whether the non-working units are visible or hidden.

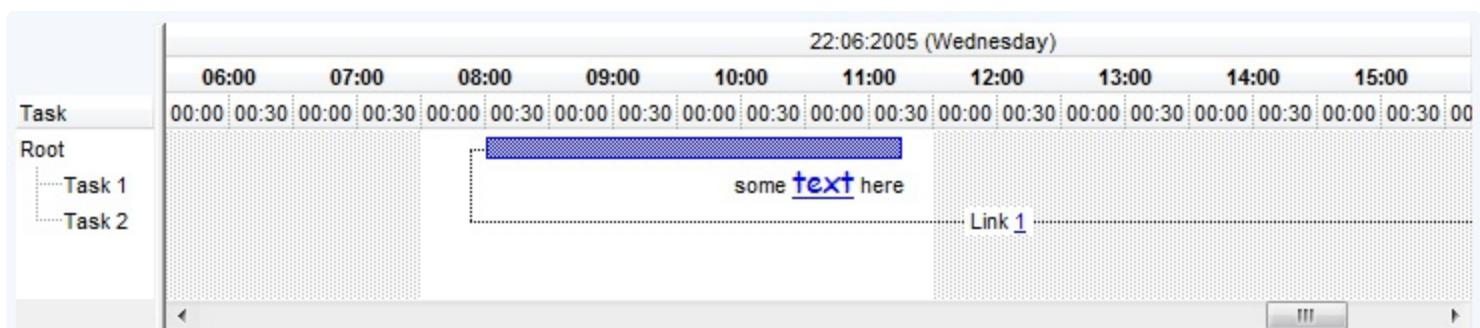
Type	Description
Boolean	A Boolean expression that specifies whether the non-working units ( hours or days ) are visible or hidden.

By default, the ShowNonworkingUnits property is True. In other words, by default the control displays the non-working units. Use the [NonworkingHours](#) property to specify the non-working hours in your chart. Use the [NonworkingDays](#) property to specify the non-working days. Use the ShowNonworkingUnits property to display ONLY working units. For instance, you can display for each day the hours from 08:00 AM to 04:00PM, as the other hours ( non working hours ) are not displayed in the chart.

The following screen shot shows ONLY working hours from 08:00 AM to 12:00 PM ( **ShowNonworkingUnits property is False** ) :



The following screen shot shows with a different pattern the non-working hours ( **ShowNonworkingUnits property is True** ) :



The ShowNonworkingUnits property has no effect if the NonworkingHours and NonWorkingsDays properties are 0.

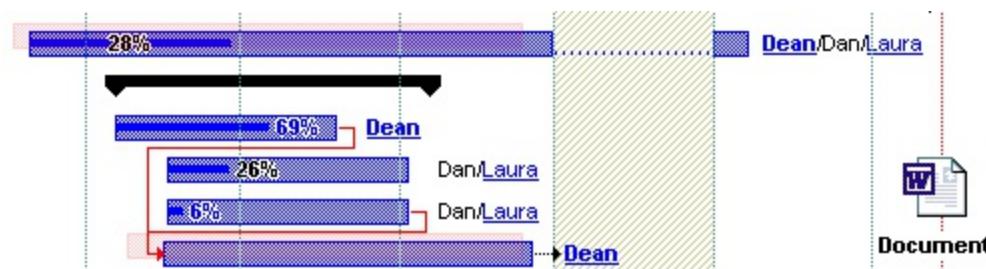
## property Chart.ShowTransparentBars as Long

Gets or sets a value that indicates percent of the transparency to display the bars.

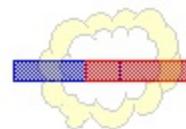
Type	Description
Long	A Long expression, from 0 to 100, that indicates the percent of transparency that's used to paint the bars. 0 means opaque, 100 means hidden, or 100% transparent. 50 means semi-transparent.

By default, the ShowTransparentBars property is 0, which means that the bars are opaque. Use the ShowTransparentBars property to draw all bars using a semi-transparent color. Use the ShowTransparentBars property to draw the intersection of bars using a semi-transparent color.

The following screen shot shows only few items that are shown using a semi-transparent color ( the bars in red ). Use the [ItemBar\(exBarTransparent\)](#) property to specify the percent of the transparency to display a specified bar. Use the [ItemBar\(exBarOffset\)](#) property to specify the the vertical offset to show the bar.



The following screen shot shows two bars when the ShowTransparentBars property is 0:



The following screen shot shows two bars when the ShowTransparentBars property is 60, which means 60% transparent:





## property Chart.StartPrintDate as Variant

Retrieves or sets a value that indicates the printing start date.

Type	Description
Variant	A DATE expression that specifies the ending date to print the chart. The get method always retrieves a DATE expression. When calling the set method of the StartPrintDate property, it can be a string, a DATE or any other expression that can be converted to a date.

The StartPrintDate property indicates the starting date to print the chart. By default, the StartPrintDate property computes the required start date so the entire chart is displayed, *if the StartPrintDate was not specified before*. For instance, if you set the StartPrintDate property on "Jan 1 2001", the StartPrintDate property retrieves the "Jan 1 2001" date and does not compute the required start date. If you have specified a value for the StartPrintDate but you still need to get the required start date being computed, set the StartPrintDate property on 0, and calling the next method get of StartPrintDate property computes the required start date to print the chart. Use the [EndPrintDate](#) property to specify the end date to print the chart. Use the [CountVisibleUnits](#) property to count the number of units within the specified range. Use the [FirstVisibleDate](#) property to specify the first visible date of the chart when displaying on the screen.

## property Chart.ToolTip as String

Retrieves or sets a value that indicates the format of the tooltip being shown while the user scrolls the chart.

Type	Description
String	A String expression that includes the format of the tooltip.

The ToolTip property specifies the tooltip that shows up when the user scrolls the chart. If the ToolTip property is empty, the control doesn't show up the tooltip when the user scrolls the chart by dragging the scroll's thumb to a new position. The [ToolTipDelay](#) property specifies the time in ms that passes before the ToolTip appears. The [ToolTipPopDelay](#) property specifies the period in ms of time the ToolTip remains visible if the mouse pointer is stationary within a control. Use the [ToolTipWidth](#) property to specify the width of the tooltip window. Use the [FormatDate](#) property to format a date. Use the [MonthNames](#) property to specify the name of the months in the year. The [WeekDays](#) property retrieves or sets a value that indicates the list of names for each week day, separated by space. Use the [Zoom](#) method to zoom the chart to a specified interval of dates. Use the [AMPM](#) property to specify the name of the AM and PM indicators. The [Label](#) property specifies a predefined label for a specified unit. Use the [ScrollBar](#) property to show or hide the chart's scroll bar. Use the [ItemBar](#)(exBarToolTip) property to assign a tooltip to a bar.



The ToolTip property supports the following built-in tags:

- <%d%> - Day of the month in one or two numeric digits, as needed (1 to 31).
- <%dd%> - Day of the month in two numeric digits (01 to 31).
- <%d1%> - First letter of the weekday (S to S). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%d2%> - First two letters of the weekday (Su to Sa). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%d3%> - First three letters of the weekday (Sun to Sat). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%ddd%> - First three letters of the weekday (Sun to Sat). ( Use the [WeekDays](#) property to specify the name of the days in the week ). You can use the <%loc\_ddd%> that indicates the day of week as a three-letter abbreviation using the current user regional and language settings.
- <%loc\_ddd%> - Indicates the day of week as a three-letter abbreviation using the current user regional and language settings.
- <%dddd%> - Full name of the weekday (Sunday to Saturday). ( Use the [WeekDays](#)

property to specify the name of the days in the week ). You can use the `<%loc_dddd%>` that indicates day of week as its full name using the current user regional and language settings.

- `<%loc_dddd%>` - Indicates day of week as its full name using the current user regional and language settings.
- `<%i%>` - Displays the number instead the date. For instance, you can display numbers as 1000, 1001, 1002, 1003, instead dates. ( the valid range is from -647,434 to 2,958,465 )
- `<%w%>` - Day of the week (1 to 7).
- `<%ww%>` - Week of the year (1 to 53).
- `<%m%>` - Month of the year in one or two numeric digits, as needed (1 to 12).
- `<%mr%>` - Month of the year in Roman numerals, as needed (I to XII).
- `<%mm%>` - Month of the year in two numeric digits (01 to 12).
- `<%m1%>` - First letter of the month (J to D). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- `<%m2%>` - First two letters of the month (Ja to De). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- `<%m3%>` - First three letters of the month (Jan to Dec). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- `<%mmm%>` - First three letters of the month (Jan to Dec). ( Use the [MonthNames](#) property to specify the name of the months in the year ). You can use the `<%loc_mmm%>` that indicates month as a three-letter abbreviation using the current user regional and language settings.
- `<%loc_mmm%>` - Indicates month as a three-letter abbreviation using the current user regional and language settings.
- `<%mmmm%>` - Full name of the month (January to December). ( Use the [MonthNames](#) property to specify the name of the months in the year ). You can use the `<%loc_mmmm%>` that indicates month as its full name using the current user regional and language settings.
- `<%loc_mmmm%>` - Indicates month as its full name using the current user regional and language settings.
- `<%q%>` - Date displayed as the quarter of the year (1 to 4).
- `<%y%>` - Number of the day of the year (1 to 366).
- `<%yy%>` - Last two digits of the year (01 to 99).
- `<%yyyy%>` - Full year (0100 to 9999).
- `<%hy%>` - Date displayed as the half of the year (1 to 2).
- `<%loc_gg%>` - Indicates period/era using the current user regional and language settings.
- `<%loc_sdate%>` - Indicates the date in the short format using the current user regional and language settings.
- `<%loc_ldate%>` - Indicates the date in the long format using the current user regional and language settings.

- <%loc\_dsep%> - Indicates the date separator using the current user regional and language settings (/).
- <%h%> - Hour in one or two digits, as needed (0 to 23).
- <%hh%> - Hour in two digits (00 to 23).
- <%n%> - Minute in one or two digits, as needed (0 to 59).
- <%nn%> - Minute in two digits (00 to 59).
- <%s%> - Second in one or two digits, as needed (0 to 59).
- <%ss%> - Second in two digits (00 to 59).
- <%AM/PM%> - Twelve-hour clock with the uppercase letters "AM" or "PM", as appropriate. ( Use the [AMPM](#) property to specify the name of the AM and PM indicators ). You can use the <%loc\_AM/PM%> that indicates the time marker such as AM or PM using the current user regional and language settings. You can use <%loc\_A/P%> that indicates the one character time marker such as A or P using the current user regional and language settings
- <%loc\_AM/PM%> - Indicates the time marker such as AM or PM using the current user regional and language settings.
- <%loc\_A/P%> - Indicates the one character time marker such as A or P using the current user regional and language settings.
- <%loc\_time%> - Indicates the time using the current user regional and language settings.
- <%loc\_time24%> - Indicates the time in 24 hours format without a time marker using the current user regional and language settings.
- <%loc\_tsep%> - indicates the time separator using the current user regional and language settings (:).
- <%loc\_y%> - Represents the Year only by the last digit, using current regional settings.
- <%loc\_yy%> - Represents the Year only by the last two digits, using current regional settings. A leading zero is added for single-digit years.
- <%loc\_yyyy%> - Represents the Year by a full four or five digits, depending on the calendar used. Thai Buddhist and Korean calendars have five-digit years. The "yyyy" pattern shows five digits for these two calendars, and four digits for all other supported calendars. Calendars that have single-digit or two-digit years, such as for the Japanese Emperor era, are represented differently. A single-digit year is represented with a leading zero, for example, "03". A two-digit year is represented with two digits, for example, "13". No additional leading zeros are displayed.

The following tags are displayed based on the user's Regional and Language Options:

- <%loc\_sdate%> - Indicates the date in the short format using the current user settings.
- <%loc\_ldate%> - Indicates the date in the long format using the current user settings.
- <%loc\_ddd%> - Indicates day of week as a three-letter abbreviation using the current

user settings.

- <%**loc\_dddd**%> - Indicates day of week as its full name using the current user settings.
- <%**loc\_mmm**%> - Indicates month as a three-letter abbreviation using the current user settings.
- <%**loc\_mmmm**%> - Indicates month as its full name using the current user settings.
- <%**loc\_gg**%> - Indicates period/era using the current user settings.
- <%**loc\_dsep**%> - Indicates the date separator using the current user settings.
- <%**loc\_time**%> - Indicates the time using the current user settings.
- <%**loc\_time24**%> - Indicates the time in 24 hours format without a time marker using the current user settings.
- <%**loc\_AM/PM**%> - Indicates the time marker such as AM or PM using the current user settings.
- <%**loc\_A/P**%> - Indicates the one character time marker such as A or P using the current user settings.
- <%**loc\_tsep**%> - Indicates the time separator using the current user settings.

## property Chart.UnitScale as UnitEnum

Retrieves or sets a value that indicates the base unit being displayed.

Type	Description
<a href="#">UnitEnum</a>	A UnitEnum expression that indicates the minimum time unit being displayed in the level.

Use the UnitScale property to change the scale unit. Use the [UnitWidth](#) property to specify the width of the time unit. The UnitScale property changes the [Label](#), [Unit](#) and the [ToolTip](#) for a level with predefined values defined by the [Label](#) and [LabelToolTip](#) properties. Use the [Label](#) property to specify predefined formats for time units. Use the [Label](#) property to assign a different label for a specified level. Use the [Unit](#) property to specify the time unit being displayed by the level. If the user changes the [Label](#) or [Unit](#) property for a level, it is possible that UnitScale property to be changed. Use the [Count](#) property to increase the number of units being displayed in the level. Use the [Alignment](#) property to align the label in the level. Use the [Zoom](#) method to zoom the chart to a specified interval of dates. Use the [LevelCount](#) property to specify the number of levels being displayed in the control's header. Use the [NextDate](#) property to get the next date. Use the [AllowOverviewZoom](#) property to specify whether the control displays the zooming scale on the overview area. Once the user selects a new time scale unit in the overview zoom area, the control fires the [OverviewZoom](#) event.

## property Chart.UnitWidth as Long

Specifies the width in pixels for the minimal unit.

Type	Description
Long	A Long expression that indicates the width of the time unit, in pixels.

Use the `UnitWidth` property to specify the width of the time unit. Use the [UnitScale](#) property to change the scale unit. Use the [PaneWidth](#) property to specify the width of the chart area. Use the [Label](#) property to specify the label being displayed in the level. Use the [Zoom](#) method to zoom the chart to a specified interval of dates. Use the [FirstVisibleDate](#) property to specify the first visible date in the chart. Use the [ScrollTo](#) property to ensure that a specified date fits the chart's client area. Use the [Alignment](#) property to align the label in the level. Use the [Count](#) property to increase the number of units being displayed in the level.

## method Chart.UnselectDates ()

Unselects all dates in the chart.

Type	Description
Use the UnselectDates method to unselect all dates in the chart. Use the <a href="#">SelectDate</a> property to select or unselect a new date, or to find if a specified date is selected or it is not selected. Use the <a href="#">SelectLevel</a> property to specify the area being highlighted when a date is selected. The user can select dates by clicking the chart's header. You can select multiple dates keeping the CTRL key and clicking a new date. The <a href="#">MarkSelectDateColor</a> property specifies the color being used to highlight the selected dates. If the <a href="#">MarkSelectDateColor</a> property is identical with the <a href="#">BackColor</a> property of the <a href="#">Chart</a> object, the selected dates are not shown.	

## property Chart.WeekDays as String

Retrieves or sets a value that indicates the list of names for each week day, separated by space.

Type	Description
String	A String expression that indicates the name of the days in the week, separated by spaces.

By default, the WeekDays property is "Sunday Monday Tuesday Wednesday Thursday Friday Saturday". The order of week days is Sunday, Monday, and so on. The [FormatDate](#) property formats a date. Use the [MonthNames](#) property to specify the name of the months in the year. Use the [AMPM](#) property to specify the name of the AM and PM indicators. Use the [Label](#) property to specify the label being displayed in the level. Use the [Label](#) property to specify the predefined format for a level based on the unit time. Use the [ToolTip](#) property to specify the tool tip being displayed when the cursor hovers the level. Use the [FirstWeekDay](#) property to specify the first day in the week.

The WeekDays property specifies the name of the days in the week for the following built-in tags:

- <%d1%> - First letter of the weekday (S to S).
- <%d2%> - First two letters of the weekday (Su to Sa).
- <%d3%> - First three letters of the weekday (Sun to Sat).
- <%ddd%> - First three letters of the weekday (Sun to Sat).
- <%dddd%> - Full name of the weekday (Sunday to Saturday).

The following VB sample assigns Romanian name for days in the week:

With Gantt1.Chart

```
.WeekDays = "Duminica Luni Marti Miercuri Joi Vineri Simbata"
```

End With

The following C++ sample assigns Romanian name for days in the week:

```
m_gantt.GetChart().SetWeekDays( "Duminica Luni Marti Miercuri Joi Vineri Simbata" );
```

The following VB.NET sample assigns Romanian name for days in the week:

With AxGantt1.Chart

```
.WeekDays = "Duminica Luni Marti Miercuri Joi Vineri Simbata"
```

End With

The following C# sample assigns Romanian name for days in the week:

```
axGantt1.Chart.WeekDays = "Duminica Luni Marti Miercuri Joi Vineri Simbata";
```

The following VFP sample assigns Romanian name for days in the week:

```
With thisform.Gantt1.Chart  
    .WeekDays = "Duminica Luni Marti Miercuri Joi Vineri Simbata"  
EndWith
```

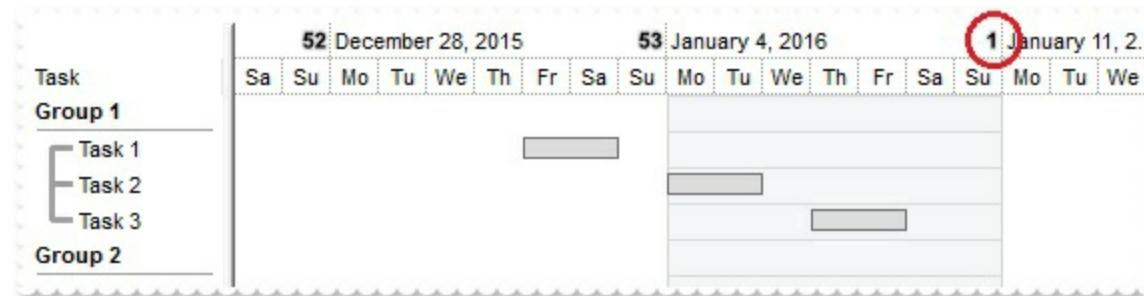
## property Chart.WeekNumberAs as WeekNumberAsEnum

Specifies the way the control displays the week number.

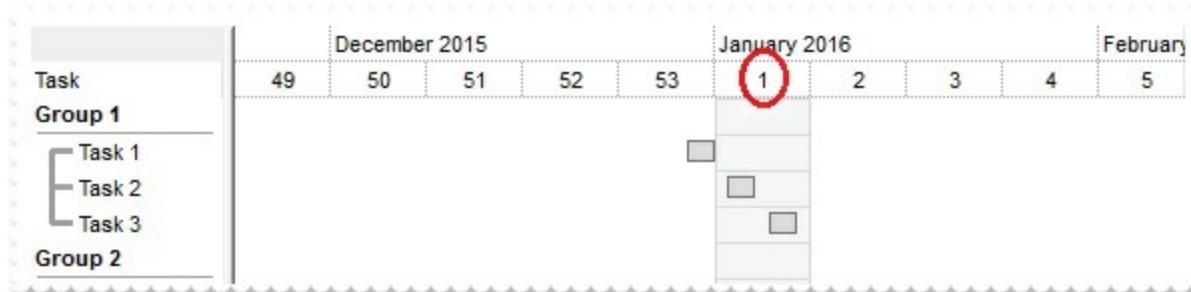
Type	Description
<a href="#">WeekNumberAsEnum</a>	A WeekNumberAsEnum expression that specifies the way the control displays the week number.

By default, the WeekNumberAs property is exSimpleWeekNumber, which indicates the first week starts on January 1st of a given year, week n+1 starts 7 days after week n. The [FirstWeekDay](#) property specifies the first day of the week where the week begins. Use [WeekDays](#) property to specify the name of the days in the week. Use the [MonthNames](#) property to specify the name of the months in the year. Use the [AMPM](#) property to specify the name of the AM and PM indicators. The [FormatDate](#) property formats a date. The [NextDate](#) property computes the next date based on the time unit. Use the [FirstVisibleDate](#) property to specify the first visible date in the chart.

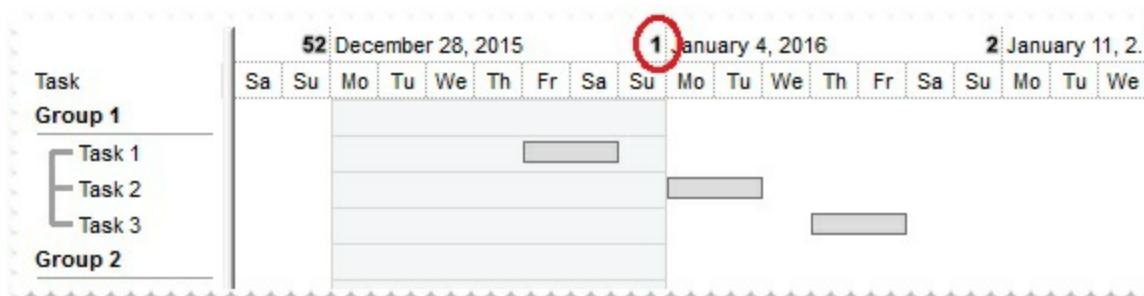
The following screen shot shows the weeks as exISO8601WeekNumber ( exDay scale ):



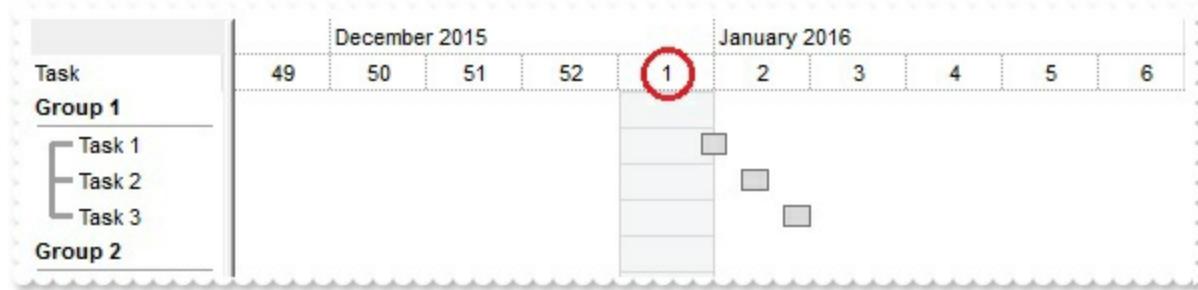
The following screen shot shows the weeks as exISO8601WeekNumber ( exWeek scale ):



The following screen shot shows the weeks as exSimpleWeekNumber ( exDay scale ):



The following screen shot shows the weeks as exSimpleWeekNumber ( exWeek scale ):



## method Chart.Zoom (StartDate as Date, EndDate as Date, [ChangeUnitWidth as Variant])

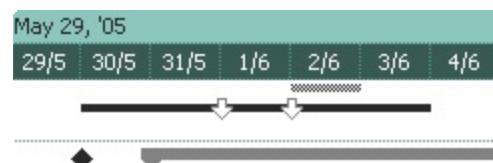
Sets or retrieves the magnification scale of the chart.

Type	Description
StartDate as Date	A Date expression that indicates the start date.
EndDate as Date	A Date expression that indicates the end date.
ChangeUnitWidth as Variant	A Boolean expression that indicates whether the Zoom method may change the <a href="#">UnitWidth</a> property., If missing, the ChangeUnitWidth parameter is True.

The Zoom method zooms the chart to ensure that interval StartDate and EndDate fits the chart's area. The Zoom method may change the [Label](#), [Unit](#), [Count](#) and the [ToolTip](#) properties for all levels in the chart. If the ChangeUnitWidth parameter is True, the Zoom method changes the UnitWidth property as necessary. Use the [LevelCount](#) property to specify the number of levels in the chart. Use the [Level](#) property to access the level in the chart area. Use the [NextDate](#) property to compute the next date based on a given unit. Use the [NonworkingDaysPattern](#) property on hide the nonworking days.

When zooming

- the [Label](#) property takes a predefined value that's specified by the [Label](#) property of the [Chart](#) object. This way you can use the [Label](#) property of the [Chart](#) object to define the predefined formats for specified units. If the [Label](#) property for a specified [unit](#) is empty, the unit is ignored when zooming.
- the [Unit](#) property is changed accordingly with the [Label](#) property. For instance, if the Label property is set to "<%d%>", the Unit property is automatically put on exDay.
- the [Count](#) property is changed based on the available units ( the [Label](#) property is not empty ) and how large the interval is.
- the [ToolTip](#) property is set on a predefined value that's specified by the [LabelToolTip](#) property, accordingly with the [Unit](#) property
- If the ChangeUnitWidth parameter is True, the [UnitWidth](#) property is changed if required. For instance, if we need to display a single week, that means that the [PaneWidth](#) property is divided in 7 pieces, and so the UnitWidth property is the [PaneWidth](#) / 7.



The following VB sample zooms the chart to display one week:

```
With Gantt1.Chart
```

```
    .Label(exThirdMonth) = ""
```

```
    .Label(exDay) = "<%d%>/<%m%>"
```

```
    .Zoom .FirstVisibleDate, .NextDate(.FirstVisibleDate, exWeek), True
```

```
End With
```

The following C++ sample zooms the chart to display one week:

```
CChart chart = m_gantt.GetChart();
chart.SetLabel(17 /*exThirdMonth*/, "" );
chart.SetLabel(4096 /*exDay*/, "<%d%>/<%m%> " );
chart.Zoom( V2D( &chart.GetFirstVisibleDate() ), chart.GetNextDate( V2D(
&chart.GetFirstVisibleDate() ), 256, COleVariant( (long)1 ) ), COleVariant( (long)TRUE ) );
```

The following VB.NET sample zooms the chart to display one week:

```
With AxGantt1.Chart
```

```
    .Label(EXGANTTLib.UnitEnum.exThirdMonth) = ""
```

```
    .Label(EXGANTTLib.UnitEnum.exDay) = "<%d%>/<%m%>"
```

```
    .Zoom(.FirstVisibleDate, .NextDate(.FirstVisibleDate, EXGANTTLib.UnitEnum.exWeek),
True)
```

```
End With
```

The following C# sample zooms the chart to display one week:

```
EXGANTTLib.Chart chart = axGantt1.Chart;
chart.set_Label(EXGANTTLib.UnitEnum.exThirdMonth, "");
chart.set_Label(EXGANTTLib.UnitEnum.exDay, "<%d%>/<%m%> ");
chart.Zoom(Convert.ToDateTime( chart.FirstVisibleDate ),
chart.get_NextDate(Convert.ToDateTime(chart.FirstVisibleDate),
EXGANTTLib.UnitEnum.exWeek, 1), true);
```

The following VFP sample zooms the chart to display one week:

```
With thisform.Gantt1.Chart
```

```
    .Label(17) = "" && exThirdMonth
```

```
    .Label(4096) = "<%d%>/<%m%>" && exDay
```

```
    .Zoom(.FirstVisibleDate, .NextDate(.FirstVisibleDate, 256), .t.) && exWeek
```

```
EndWith
```



## Column object

The ExGantt component supports multiple columns. The Columns object contains a collection of Column objects. By default, the control doesn't add any default column, so the user has to add at least one column, before inserting any new items. The Column object holds information about a control's column like: Alignment, Caption, Position and so on. The Column object supports the following properties and methods:

Name	Description
<a href="#">Alignment</a>	Retrieves or sets the alignment of the caption into the column's header.
<a href="#">AllowDragging</a>	Retrieves or sets a value indicating whether the user will be able to drag the column.
<a href="#">AllowSizing</a>	Retrieves or sets a value indicating whether the user will be able to change the width of the visible columns by dragging.
<a href="#">AllowSort</a>	Returns or sets a value that indicates whether the user can sort the column by clicking the column's header.
<a href="#">AutoSearch</a>	Specifies the kind of searching while user types characters within the columns.
<a href="#">AutoWidth</a>	Computes the column's width required to fit the entire column's content.
<a href="#">Caption</a>	Retrieves or sets the text displayed to the column's header.
<a href="#">ComputedField</a>	Retrieves or sets a value that indicates the formula of the computed column.
<a href="#">CustomFilter</a>	Retrieves or sets a value that indicates the list of custom filters.
<a href="#">Data</a>	Associates an extra data to the column.
<a href="#">Def</a>	Retrieves or sets a value that indicates the default value of given properties for all cells in the same column.
<a href="#">DefaultSortOrder</a>	Specifies whether the default sort order is ascending or descending.
<a href="#">DisplayExpandButton</a>	Shows or hides the expanding/collapsing button in the column's header.
<a href="#">DisplayFilterButton</a>	Specifies whether the column's header displays the filter button.
	Specifies whether the drop down filter window displays a

<a href="#">DisplayFilterDate</a>	date selector to specify the interval dates to filter for.
<a href="#">DisplayFilterPattern</a>	Specifies whether the dropdown filter bar contains a textbox for editing the filter as pattern.
<a href="#">DisplaySortIcon</a>	Retrieves or sets a value indicating whether the sort icon is visible on column's header, while the column is sorted.
<a href="#">Enabled</a>	Returns or sets a value that determines whether a column's header can respond to user-generated events.
<a href="#">ExpandColumns</a>	Specifies the list of columns to be shown when the current column is expanded.
<a href="#">Expanded</a>	Expands or collapses the column.
<a href="#">Filter</a>	Specifies the column's filter when filter type is exFilter, exPattern or exDate.
<a href="#">FilterBarDropDownWidth</a>	Specifies the width of the drop down filter window proportionally with the width of the column.
<a href="#">FilterList</a>	Specifies whether the drop down filter list includes visible or all items.
<a href="#">FilterOnType</a>	Filters the column as user types characters in the drop down filter window.
<a href="#">FilterType</a>	Specifies the column's filter type.
<a href="#">FireFormatColumn</a>	Retrieves or sets a value that indicates whether the control fires FormatColumn to format the caption of a cell hosted by column.
<a href="#">FormatColumn</a>	Specifies the format to display the cells in the column.
<a href="#">HeaderAlignment</a>	Specifies the alignment of the column's caption.
<a href="#">HeaderBold</a>	Retrieves or sets a value that indicates whether the column's caption should appear in bold.
<a href="#">HeaderImage</a>	Retrieves or sets a value indicating the index of an Image in the Images collection, which is displayed to the column's header.
<a href="#">HeaderImageAlignment</a>	Retrieves or sets the alignment of the image into the column's header.
<a href="#">HeaderItalic</a>	Retrieves or sets a value that indicates whether the column's caption should appear in italic.
<a href="#">HeaderStrikeOut</a>	Retrieves or sets a value that indicates whether the column's caption should appear in strikeout.
	Retrieves or sets a value that indicates whether the

[HeaderUnderline](#)

column's caption should appear in underline..

[HTMLCaption](#)

Retrieves or sets the text in HTML format displayed in the column's header.

[Index](#)

Returns a value that represents the index of an object in a collection.

[Key](#)

Retrieves or sets the column's key.

[LevelKey](#)

Retrieves or sets a value that indicates the key of the column's level.

[MaxWidthAutoResize](#)

Retrieves or sets a value that indicates the maximum column's width when the WidthAutoResize is True.

[MinWidthAutoResize](#)

Retrieves or sets a value that indicates the minimum column's width when the WidthAutoResize is True.

[PartialCheck](#)

Specifies whether the column supports partial check feature.

[Position](#)

Retrieves or sets a value that indicates the position of the column in the header bar area.

[ShowFilter](#)

Shows the column's filter window.

[SortOrder](#)

Specifies the column's sort order.

[SortPosition](#)

Returns or sets a value that indicates the position of the column in the sorting columns collection.

[SortType](#)

Returns or sets a value that indicates the way a control sorts the values for a column.

[ToolTip](#)

Specifies the column's tooltip description.

[Visible](#)

Retrieves or sets a value indicating whether the column is visible or hidden.

[Width](#)

Retrieves or sets the column's width.

[WidthAutoResize](#)

Retrieves or sets a value that indicates whether the column is automatically resized according to the width of the contents within the column.

## property Column.Alignment as AlignmentEnum

Retrieves or sets the alignment of the caption into the column's header.

Type	Description
<a href="#">AlignmentEnum</a>	An AlignmentEnum expression that indicates the alignment of the cells inside the column.

Use the Alignment property to change the column's alignment. Use the [HeaderAlignment](#) property to align the column's caption inside the column's header. By default, all columns are aligned to left. If the column displays the hierarchy lines, and if the Alignment property is RightAlignment the hierarchy lines are painted from right to left side. Use the [HasLines](#) property to display the control's hierarchy lines. Use the [CellHAlignment](#) property to align a particular cell.

## property Column.AllowDragging as Boolean

Retrieves or sets a value indicating whether the user will be able to drag the column.

Type	Description
Boolean	A boolean expression indicating whether the user will be able to drag the column.

Use the AllowDragging property to forbid user to change the column's position by dragging. If the AllowDragging is false, the column's position cannot be changed by dragging it to another position. Use the [AllowSort](#) property to avoid sorting a column when the user clicks the column's header. Use the [AllowSizing](#) property to allow user resizes a column at runtime.

## property Column.AllowSizing as Boolean

Retrieves or sets a value indicating whether the user will be able to change the width of the visible columns by dragging.

Type	Description
Boolean	A boolean expression indicating whether the user will be able to change the width of the visible columns by dragging.

Use the AllowSizing property to fix the column's width. Use the [ColumnAutoResize](#) property of the control to fit the columns to the control's client area. Use the [AllowSort](#) property to avoid sorting a column when the user clicks the column's header. Use the [AllowDragging](#) property to forbid user to change the column's position by dragging. Use the [Width](#) property to specify the column's width.

## property Column.AllowSort as Boolean

Returns or sets a value that indicates whether the user can sort the column by clicking the column's header.

Type	Description
Boolean	A boolean expression that indicates whether the column gets sorted when the user clicks the column's header.

Sorting by a single column in the control is a simple matter of clicking on the column head. Sorting by multiple columns, however, is not so obvious. But it's actually quite easy. First, sort by the first criterion, by clicking on the column head. Then hold the Shift key down as you click on a second heading. Another option is dragging the column's header to the control's sort bar. The [SortBarVisible](#) property shows the control's sort bar. Use the AllowSort property to avoid sorting a column when the user clicks the column's header. Use the [SortOnClick](#) property to specify the action that control executes when the user clicks the column's head. The control fires the [Sort](#) event when the control sorts a column ( the user clicks the column's head ) or when the sorting position is changed in the control's sort bar. Use the [AllowDragging](#) property to specify whether the column's header can be dragged. Use the [DefaultSortOrder](#) property to specify the column's default sort order, when the user first clicks the column's header.

## property Column.AutoSearch as AutoSearchEnum

Specifies the kind of searching while user types characters within the columns.

Type	Description
<a href="#">AutoSearchEnum</a>	An AutoSearchEnum expression that defines the type of incremental searching.

By default, the AutoSearch property is exStartWith. The AutoSearch property has effect only if the [AutoSearch](#) property of the control is True. Use the AutoSearch property to define a 'contains' incremental search. If the AutoSearch property is exContains, the control searches for items that contains the typed characters. The searching column is defined by the [SearchColumnIndex](#) property. Use the [ExpandOnSearch](#) property to expand items while user types characters in the control.

## property Column.AutoWidth as Long

Computes the column's width required to fit the entire column's content.

Type	Description
Long	A long expression that indicates the width of the column to fit the entire column's content.

Use the AutoWidth property to arrange the columns to fit the entire control's content. The AutoWidth property doesn't change the column's width. Use [Width](#) property to change the column's width at runtime. Use the [ColumnAutoResize](#) property to specify whether the control resizes all visible columns to fit the control's client area.

The following VB function resizes all columns:

```
Private Sub autoSize(ByVal t As EXGANTTLibCtl.Gantt)
    t.BeginUpdate
    Dim c As Column
    For Each c In t.Columns
        c.Width = c.AutoWidth
    Next
    t.EndUpdate
    t.Refresh
End Sub
```

The following C++ sample resizes all visible columns:

```
#include "Columns.h"
#include "Column.h"
void autoSize( CGantt& gantt )
{
    gantt.BeginUpdate();
    CColumns columns = gantt.GetColumns();
    for ( long i = 0;i < columns.GetCount(); i++ )
    {
        CColumn column = columns.GetItem( COleVariant( i ) );
        if ( column.GetVisible() )
            column.SetWidth( column.GetAutoWidth() );
    }
    gantt.EndUpdate();
```

```
}
```

The following VB.NET sample resizes all visible columns:

```
Private Sub autoSize(ByRef gantt As AxEXGANTTLib.AxGantt)
    gantt.BeginUpdate()
    Dim i As Integer
    With gantt.Columns
        For i = 0 To .Count - 1
            If .Item(i).Visible Then
                .Item(i).Width = .Item(i).AutoWidth
            End If
        Next
    End With
    gantt.EndUpdate()
End Sub
```

The following C# sample resizes all visible columns:

```
private void autoSize( ref AxEXGANTTLib.AxGantt gantt )
{
    gantt.BeginUpdate();
    for ( int i = 0; i < gantt.Columns.Count - 1; i++ )
        if ( gantt.Columns[i].Visible )
            gantt.Columns[i].Width = gantt.Columns[i].AutoWidth;
    gantt.EndUpdate();
}
```

The following VFP sample resizes all visible columns:

```
with thisform.Gantt1
    .BeginUpdate()
    for i = 0 to .Columns.Count - 1
        if ( .Columns(i).Visible )
            .Columns(i).Width = .Columns(i).AutoWidth
        endif
    next
    .EndUpdate()
endwith
```



## property Column.Caption as String

Retrieves or sets the text displayed to the column's header.

Type	Description
String	A string expression that indicates the column's caption.

Each property of Items object that has an argument CollIndex can use the column's caption to identify a column. Adding two columns with the same caption is accepted and these are differentiated by their indexes. Use the [HTLMCaption](#) property to display the column's caption using HTML tags. To hide a column use the [Visible](#) property of the Column object. The column's caption is displayed using the following font attributes: [HeaderBold](#), [HeaderItalic](#), [HeaderUnderline](#), [HeaderStrikeout](#). Use the [Add](#) method to add new columns and to specify their captions.

## property Column.ComputedField as String

Retrieves or sets a value that indicates the formula of the computed column.

Type	Description
String	A String expression that indicates the formula to compute the field/cell. The formula is applied to all cells in the column with the <a href="#">CellCaptionFormat</a> property on exText (the exText value is by default ).

A computed field or cell displays the result of an arithmetic formula that may include operators, variables and constants. By default, the ComputedField property is empty. If the ComputedField property is empty, the property have no effect. If the ComputedField property is not empty, all cells in the column, that have the [CellCaptionFormat](#) property on exText, uses the same formula to display their content. For instance, you can use the CellCaptionFormat property on exHTML, for cells in the column, that need to display other things than column's formula, or you can use the CellCaptionFormat property on exComputedField, to change the formula for a particular cell. Use the [FormatColumn](#) property to format the column. Use the CellCaptionFormat property to change the type for a particular cell. Use the [CellCaption](#) property to specify the cell's content. For instance, if the CellCaptionFormat property is exComputedField, the Caption property indicates the formula to compute the cell's content. The [Def\(exCellCaptionFormat\)](#) property is changed to exComputedField, each time the ComputeField property is changed to a not empty value. If the ComputedField property is set to an empty string, the [Def\(exCellCaptionFormat\)](#) property is set to exText. Call the [Refresh](#) method to force refreshing the control.

The expression supports cell's identifiers as follows:

- *%0, %1, %2, ... specifies the value of the cell in the column with the index 0, 1 2, ... The [CellCaption](#) property specifies the cell's value. For instance, "%0 format `'" formats the value on the cell with the index 0, using current regional setting, while "int(%1)" converts the value of the column with the index 1, to integer.*

This property/method supports predefined constants and operators/functions as described [here](#).

Samples:

1. "1", the cell displays 1
2. "%0 + %1", the cell displays the sum between cells in the first and second columns.
3. "%0 + %1 - %2", the cell displays the sum between cells in the first and second columns minus the third column.
4. "(%0 + %1)\*0.19", the cell displays the sum between cells in the first and second columns multiplied with 0.19.

5. "%0 + %1 + %2)/3", the cell displays the arithmetic average for the first three columns.
6. "%0 + %1 < %2 + %3", displays 1 if the sum between cells in the first two columns is less than the sum of third and forth columns.
7. "proper(%0)" formats the cells by capitalizing first letter in each word
8. "currency(%1)" displays the second column as currency using the format in the control panel for money
9. "len(%0) ? currency(dbl(%0)) : "" displays the currency only for not empty/blank cells.
10. "int(date(%1)-date(%2)) + 'D ' + round(24\*(date(%1)-date(%2)) - floor(date(%1)-date(%2)))) + 'H'" displays interval between two dates in days and hours, as xD yH
11. "2:=((1:=int(0:= date(%1)-date(%0))) = 0 ? " : str(:1) + ' day(s)' + ( 3:=round(24\*(=:0-floor(:0))) ? (len(:2) ? ' and ' : "") + :=3 + ' hour(s)' : " )" displays the interval between two dates, as x day(s) [and y hour(s)], where the x indicates the number of days, and y the number of hours. The hour part is missing, if 0 hours is displayed, or nothing is displayed if dates are identical.

## property Column.CustomFilter as String

Retrieves or sets a value that indicates the list of custom filters.

Type	Description
String	A String expression that defines the list of custom filters.

By default, the CustomFilter property is empty. The CustomFilter property has effect only if it is not empty, and the [FilterType](#) property is not exImage, exCheck or exNumeric. Use the DisplayFilterPattern property to hide the text box to edit the pattern, in the drop down filter window. The All predefined item and the list of custom filter is displayed in the drop down filter window, if the CustomFilter property is not empty. The Blanks and NonBlanks predefined items are not defined, when custom filter is displayed. Use the [Description\(exFilterBarAll\)](#) property on empty string to hide the All predefined item, in the drop down filter window. Use the [DisplayFilterButton](#) property to show the button on the column's header to drop down the filter window. Use the [Background](#) property to define the visual appearance for the drop down button.

The CustomFilter property defines the list of custom filters as pairs of (caption,pattern) where the caption is displayed in the drop down filter window, and the pattern is get selected when the user clicks the item in the drop down filter window ( the FilterType property is set on exPattern, and the [Filter](#) property defines the custom pattern being selected ). The caption and the pattern are separated by a "||" string ( two vertical bars, character 124 ). The pattern expression may contains multiple patterns separated by a single "|" character ( vertical bar, character 124 ). A pattern may contain the wild card characters '?' for any single character, '\*' for zero or more occurrences of any character, '#' for any digit character. If any of the \*, ?, # or | characters are preceded by a \ ( escape character ) it masks the character itself. If the pattern is not present in the (caption,pattern) pair, the caption is considered as being the pattern too. The pairs in the list of custom patterns are separated by "||| " string ( three vertical bars, character 124 ). So, the syntax of the CustomFilter property should be of: CAPTION [ || PATTERN [ | PATTERN ] ] [ ||| CAPTION [ || PATTERN [ | PATTERN ] ] ].

For example, you may have a list of documents and instead of listing the name of each document in the filter drop down list for the names column you may want to list the following:

Excel Spreadsheets

Word Documents

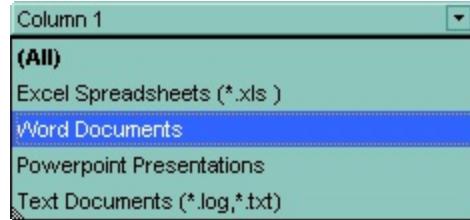
Powerpoint Presentations

Text Documents

And define the filter patterns for each line above as follows:

\*.xls  
\*.doc  
\*.pps  
\*.txt, \*.log

and so the CustomFilter property should be "**Excel Spreadsheets (\*.xls )||\*.xls||Word Documents||\*.doc||Powerpoint Presentations||\*.pps||Text Documents (\*.log,\*.txt)||\*.txt|\*.log**". The following screen shot shows this custom filter format:



## property Column.Data as Variant

Associates an extra data to the column.

Type	Description
Variant	A Variant expression that indicates the column's extra data.

Use the Data property to assign any extra data to a column. Use the [CellData](#) property to assign an extra data to a cell. Use the [ItemData](#) property to assign an extra data to an item. Use the [SortUserData](#) or [SortUserDataString](#) type to sort the column based on the [CellData](#) value.

## property Column.Def(Property as DefColumnEnum) as Variant

Retrieves or sets a value that indicates the default value of given properties for all cells in the same column.

Type	Description
Property as <a href="#">DefColumnEnum</a>	A DefColumnEnum expression that indicates the property being changed.
Variant	A Variant value that specifies the newly value.

Use the Def property to specify a common value for given properties for all cells in the column. For instance, you can use the Def property to assign check boxes to all cells in the column, without enumerating them.

The following VB sample assigns checkboxes for all cells in the first column:

```
Gantt1.Columns(0).Def(exCellHasCheckBox) = True
```

The following VB sample changes the background color for all cells in the first column:

```
Gantt1.Columns(0).Def(exCellBackColor) = RGB(240, 240, 240)
```

The following C++ sample assigns checkboxes for all cells in the first column:

```
COleVariant vtCheckBox( VARIANT_TRUE );
m_gantt.GetColumns().GetItem( COleVariant( (long) 0 ) ).SetDef( /*exCellHasCheckBox*/ 0,
vtCheckBox );
```

The following C++ sample changes the background color for all cells in the first column:

```
COleVariant vtBackColor( (long)RGB(240, 240, 240) );
m_gantt.GetColumns().GetItem( COleVariant( (long) 0 ) ).SetDef( /*exCellBackColor*/ 4,
vtBackColor );
```

The following VB.NET sample assigns checkboxes for all cells in the first column:

```
With AxGantt1.Columns(0)
    .Def(EXGANTTLib.DefColumnEnum.exCellHasCheckBox) = True
End With
```

The following VB.NET sample changes the background color for all cells in the first column:

```
With AxGantt1.Columns(0)
    .Def(EXGANTTLib.DefColumnEnum.exCellBackColor) = ToUInt32(Color.WhiteSmoke)
End With
```

where the ToUInt32 function converts a Color expression to OLE\_COLOR,

Shared Function ToUInt32(ByVal c As Color) As UInt32

```
Dim i As Long
i = c.R
i = i + 256 * c.G
i = i + 256 * 256 * c.B
ToUInt32 = Convert.ToUInt32(i)
```

End Function

The following C# sample assigns checkboxes for all cells in the first column:

```
axGantt1.Columns[0].set_Def( EXGANTTLib.DefColumnEnum.exCellHasCheckBox, true );
```

The following C# sample changes the background color for all cells in the first column:

```
axGantt1.Columns[0].set_Def(EXGANTTLib.DefColumnEnum.exCellBackColor,
ToUInt32(Color.WhiteSmoke));
```

where the ToUInt32 function converts a Color expression to OLE\_COLOR,

```
private UInt32 ToUInt32(Color c)
{
    long i;
    i = c.R;
    i = i + 256 * c.G;
    i = i + 256 * 256 * c.B;
    return Convert.ToUInt32(i);
}
```

The following VFP sample assigns checkboxes for all cells in the first column:

```
with thisform.Gantt1.Columns(0)
    .Def( 0 ) = .t.
endwith
```

The following VFP sample changes the background color for all cells in the first column:

```
with thisform.Gantt1.Columns(0)
    .Def( 4 ) = RGB(240,240,240)
endwith
```

## property Column.DefaultSortOrder as Boolean

Specifies whether the default sort order is ascending or descending.

Type	Description
Boolean	A boolean expression that specifies whether the default sort order is ascending or descending. True means ascending, False means descending.

By default, the DefaultSortOrder property is False. Use the [SortOnClick](#) property to specify the operation that control should execute when the user clicks the column's header. Use the DefaultSortOrder to specify how the column is sorted at the first click on its header. Use the [SortOrder](#) property to sort a column. Use the [SingleSort](#) property to allow sorting by multiple columns.

## property Column.DisplayExpandButton as Boolean

Shows or hides the expanding/collapsing button in the column's header.

Type	Description
Boolean	A Boolean expression that specifies whether the +/- expanding/collapsing button is shown in the column's header.

By default, the DisplayExpandButton property is True. The DisplayExpandButton property indicates whether the +/- expanding/collapsing button is shown in the column's header. Use the [Expanded](#) property to programmatically expand/collapse the columns. For instance, the Expanded property on False, collapse the column, while the Expanded property on True, expands the columns indicated by the [ExpandColumns](#) property. The [ExpandColumns](#) property specifies the columns to be shown/hidden when a column is expanded or collapsed.

## property Column.DisplayFilterButton as Boolean

Shows or hides the column's filter bar button.

Type	Description
Boolean	A boolean expression that indicates whether the column's filter bar button is visible or hidden.

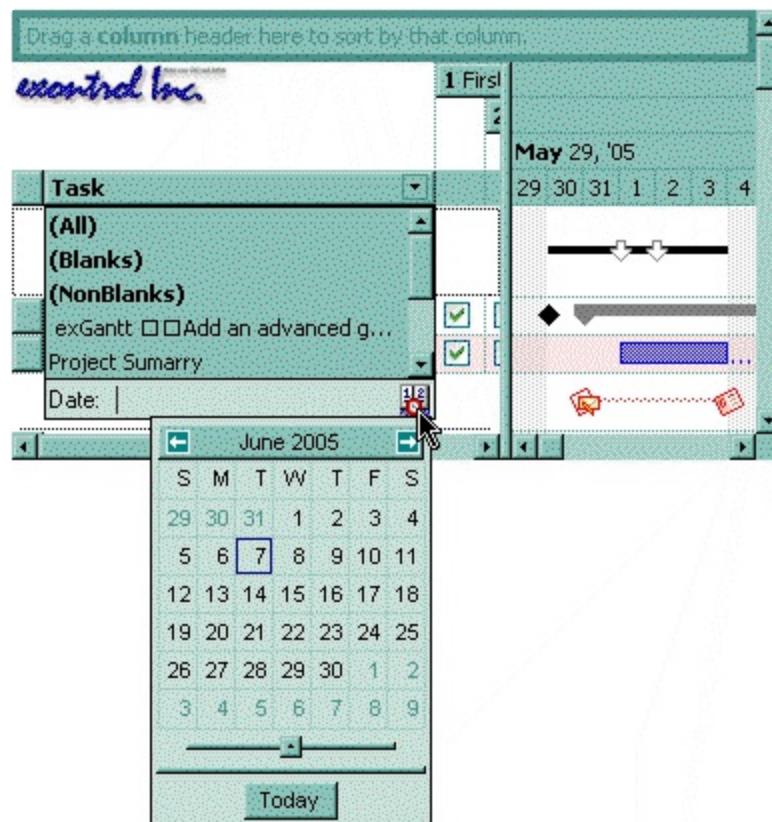
The column's filter button is displayed on the column's caption. The [DisplayFilterPattern](#) property determines whether the column's filter window includes the pattern field. Use the [DisplayFilterDate](#) property to include a date selector to the column's drop down filter window. Use the [FilterBarDropDownHeight](#) to specify the height of the drop down filter window. Use the [FilterBarDropDownWidth](#) property to specify the width of the drop down filter window. Use the [FilterBarHeight](#) property to specify the height of the filter bar header. Use the [FilterList](#) property to specify the list of items being included in the column's drop down filter list. Use the [FilterInclude](#) property to specify whether the child items should be included to the list when the user applies the filter. Use the [FilterCriteria](#) property to filter items using the AND, OR and NOT operators. Use the [CustomFilter](#) property to define your custom filters.

## property Column.DisplayFilterDate as Boolean

Specifies whether the drop down filter window displays a date selector to specify the interval dates to filter for.

Type	Description
Boolean	A boolean expression that indicates whether the drop down filter window displays a date selector to filter items into a given interval.

By default, the DisplayFilterDate property is False. Use the DisplayFilterDate property to filter items that match a given interval of dates. The DisplayFilterDate property includes a date button to the right of the Date field in the drop down filter window. The DisplayFilterDate property has effect only if the [DisplayFilterPattern](#) property is True. If the user clicks the filter's date selector the control displays a built-in calendar editor to help user to include a date to the date field of the drop down filter window. Use the [Description](#) property to customize the strings being displayed on the drop down filter window. If the Date field in the filter drop down window is not empty, the [FilterType](#) property of the [Column](#) object is set on exDate, and the [Filter](#) property of the Column object points to the interval of dates being used when filtering.



## property Column.DisplayFilterPattern as Boolean

Specifies whether the dropdown filter bar contains a textbox for editing the filter as pattern.

Type	Description
Boolean	A boolean expression that indicates whether the pattern field is visible or hidden.

Use the [DisplayFilterButton](#) property to show the column's filter button. If the DisplayFilterButton property is False the drop down filter window doesn't include the "Filter For" or "Date" field. Use the [DisplayFilterDate](#) property to filter items that match a given interval of dates.

The drop down filter window displays the "Filter For" field if the DisplayFilterPattern property is True, and the DisplayFilterDate property is False. If the drop down filter window displays "Filter For" field, and user types the filter inside, the [FilterType](#) property of the [Column](#) is set to exPattern, and [Filter](#) property of the Column object specifies the filter being typed. Use the [CustomFilter](#) property to define you custom filters.

## property Column.DisplaySortIcon as Boolean

Retrieves or sets a value indicating whether the sort icon is visible on column's header, while the column is sorted.

Type	Description
Boolean	A boolean expression indicating whether the sort icon is visible on column's header, while the column is sorted.

Use the `DisplaySortIcon` property to hide the sort icon. Use the [SortChildren](#) property of the `Items` object to sort a column. Use the [SortOrder](#) property to sort a column. Use the [SingleSort](#) property to allow multiple sort columns.

## property Column.Enabled as Boolean

Returns or sets a value that determines whether a column's header can respond to user-generated events.

Type	Description
Boolean	A boolean expression that determines whether a column's header can respond to user-generated events.

If the Enabled property is False, then all cells in the column are disabled, no matter if the [CellEnabled](#) property is True. Use the [Enabled](#) property to disable the control.

## property Column.ExpandColumns as String

Specifies the list of columns to be shown when the current column is expanded.

Type	Description
String	A String expression that specifies the columns to be expanded/collapsed by current column. The expression contains the index of the columns to be shown or hidden, separated by comma. The list can include the index of the current column, and so the column is always visible no matter if the column is expanded or collapsed.

By default, the ExpandColumns property is "". The ExpandColumns property specifies the columns to be shown/hidden when a column is expanded or collapsed. The ExpandColumns property can include the index of the current column, which indicates that the column is visible no matter if the column is expanded or collapsed. In other words, the Expanded/ExpandColumns properties provides expandable header. The [Index](#) property specifies the index of the column. The [Expanded](#) property specifies whether a column is expanded or collapsed. The [DisplayExpandButton](#) property indicates whether the +/- expanding/collapsing button is shown in the column's header. The [HasButtons](#) property specifies how the +/- buttons are shown.

The following screen shot shows the control's header when all columns are collapsed:

OrderID	EmployeeID	ShipCountry	OrderDate	Freight
10290	8	Brazil	9/27/1994	\$79.70
10291	6	Brazil	9/27/1994	\$6.40
10292	1	Brazil	9/28/1994	\$1.35

The following screen shot shows the control's header with columns expanded/collapsed :

OrderID	EmployeeID	ShipCountry	ShipCity	ShipAddress	ShipP...	ShipName	ShipRegion	OrderDate	Freight
10290	8	Brazil	São Paulo	Av. dos Lusiada...	05432-043	Comércio Mineiro	SP	9/27/1994	\$79.70
10291	6	Brazil	Rio de Janeiro	Rua da Panificad...	02389-673	Que Delícia	RJ	9/27/1994	\$6.40
10292	1	Brazil	São Paulo	Av. Inês de Castr...	05634-030	Tradição Hiperm...	SP	9/28/1994	\$1.35
10293	4	Brazil	São Paulo	Alameda das Flores	05634-030	Tradição Supermer...	SP	9/28/1994	\$24.40

## property Column.Expanded as Boolean

Expands or collapses the column.

Type	Description
Boolean	A Boolean expression that specifies whether the column is expanded / collapsed.

By default, the Expanded property is True. Use the Expanded property to programmatically expand/collapse the columns. For instance, the Expanded property on False, collapse the column, while the Expanded property on True, expands the columns indicated by the [ExpandColumns](#) property. The [ExpandColumns](#) property specifies the columns to be shown/hidden when a column is expanded or collapsed. The [DisplayExpandButton](#) property indicates whether the +/- expanding/collapsing button is shown in the column's header.

## property Column.Filter as String

Specifies the column's filter when the filter type is exFilter, exPattern, exDate, exNumeric, exCheck or exImage.

Type	Description
String	A string expression that specifies the column's filter.

- If the [FilterType](#) property is **exFilter** the Filter property indicates the list of values being included when filtering. The values are separated by '|' character. For instance if the Filter property is "CellA|CellB" the control includes only the items that have captions like: "CellA" or "CellB".
- If the FilterType is **exPattern** the Filter property defines the list of patterns used in filtering. The list of patterns is separated by the '|' character. A pattern filter may contain the wild card characters like '?' for any single character, '\*' for zero or more occurrences of any character, '#' for any digit character. The '|' character separates the options in the pattern. For instance: '1\*|2\*' specifies all items that start with '1' or '2'.
- If the FilterType property is **exDate**, the Filter property should be of "[dateFrom] to [dateTo]" format, and it indicates that only items between a specified range of dates will be included. If the dateFrom value is missing, the control includes only the items before the dateTo date, if the dateTo value is missing, the control includes the items after the dateFrom date. If both dates ( dateFrom and dateTo ) are present, the control includes the items between this interval of dates. For instance, the "2/13/2004 to" includes all items after 2/13/2004 inclusive, or "2/13/2004 to Feb 14 2005" includes all items between 2/13/2004 and 2/14/2004.
- If the FilterType property is **exNumeric**, the Filter property may include operators like <, <=, =, ><, >= or > and numbers to define rules to include numbers in the control's list. The Filter property should be of the following format "*operator number [operator number ...]*". For instance, the "> 10" indicates all numbers greater than 10. The "<> 10 <> 20" filter indicates all numbers except 10 and 20. The "> 10 < 100" filter indicates all numbers greater than 10 and less than 100. The ">= 10 <= 100 <> 50" filter includes all numbers from 10 to 100 excepts 50. The "10" filter includes only 10 in the list. The "=10 =20" includes no items in the list because after control filters only 10 items, the second rule specifies only 20, and so we have no items. The Filter property may include unlimited rules. A rule is composed by an operator and a number. The rules are separated by space characters.
- If the FilterType property is **exCheck** the Filter property may include "0" for unchecked items, and "1" for checked items. The [CellState](#) property specifies the state of the

cell's checkbox. If the Filter property is empty, the filter is not applied to the column, when [ApplyFilter](#) method is called.

- If the FilterType property is **exImage** the Filter property indicates the list of icons (index of the icon being displayed) being filtered. The values are separated by '|' character. The [CellImage](#) property indicates the index of the icon being displayed in the cell. For instance, the '1|2' indicates that the filter includes the cells that display first or the second icon ( with the index 1 or 2 ). The drop down filter window displays the (All) item and the list of icons being displayed in the column

The Filter property has no effect if the FilterType property is one of the followings: **exAll**, **exBlanks** and **exNonBlanks**

The [ApplyFilter](#) method should be called to update the control's content after changing the Filter or FilterType property. The [ClearFilter](#) method clears the Filter and the FilterType properties. Use the [FilterCriteria](#) property to filter items using the AND, OR and NOT operators. Use the [CustomFilter](#) property to define you custom filters. Use the [ShowFilter](#) method to show programmatically the column's drop down filter window.

## property Column.FilterBarDropDownWidth as Double

Specifies the width of the drop down filter window proportionally with the width of the column.

Type	Description
Double	A double expression that indicates the width of the drop down filter window proportionally with the width of the column. If the FilterBarDropDownWidth expression is negative, the absolute value indicates the width of the drop down filter window in pixels. Else, the value indicates how many times the width of the column is multiply to get the width of the drop down filter window.

By default, the FilterBarDropDownWidth property is 1, and so, the width of the drop down filter window coincides with the width of the column. Use the [Width](#) property to specify the width of the column. Use [FilterBarDropDownHeight](#) property to specify the height of the drop down filter window. Use the [FilterBarHeight](#) property to specify the height of the control's filter bar. Use the [DisplayFilterButton](#) property to display a filter button to the column's caption. Use the [Description](#) property to define predefined strings in the filter bar. Use the [FilterInclude](#) property to specify whether the child items should be included to the list when the user applies the filter. Use the [FilterCriteria](#) property to filter items using the AND, OR and NOT operators. Use the [ShowFilter](#) method to show programmatically the column's drop down filter window.

The following VB sample specifies that the width of the drop down filter window is double of the column's width:

```
With Gantt1.Columns(0)
    .FilterBarDropDownWidth = 2
End With
```

The following VB sample specifies that the width of the drop down filter window is 150 pixels:

```
With Gantt1.Columns(0)
    .FilterBarDropDownWidth = -150
End With
```





## property Column.FilterList as FilterListEnum

Specifies whether the drop down filter list includes visible or all items.

Type	Description
<a href="#">FilterListEnum</a>	A FilterListEnum expression that indicates the items being included in the drop down filter list.

By default, the FilterList property is exAllItems. Use the FilterList property to specify the items being included in the column's drop down filter list. Use the [DisplayFilterButton](#) property to display the column's filter bar button. The [DisplayFilterDate](#) property specifies whether the drop down filter window displays a date selector to specify the interval dates to filter for. Use the exSortItemsAsc flag to sort ascending the values in the drop down filter list. For instance, the **exAllItems OR exSortItemsAsc** specifies that the drop down filter window lists all items in ascending order. Add the exIncludeInnerCells flag if you require adding the inner cells value to the drop down filter window.

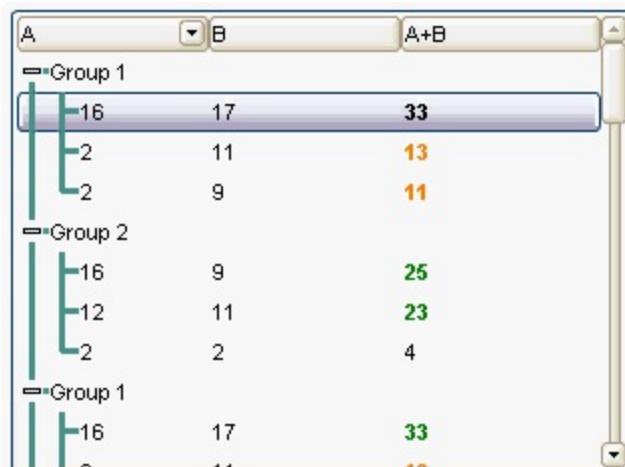
## property Column.FilterOnType as Boolean

Filters the column as user types characters in the drop down filter window.

Type	Description
Boolean	A Boolean expression that specifies whether the column gets filtered as the user types characters in the drop down filter window.

By default, the FilterOnType property is False. The Filter-On-Type feature allows you to filter the control's data based on the typed characters. Use the [DisplayFilterButton](#) property to add a drop down filter button to the column's header. The Filter-On-Type feature works like follows: User clicks the column's drop down filter button, so the drop down filter window is shown. Use starts type characters, and the control filters the column based on the typed characters as it includes all items that starts with typed characters, if the [AutoSearch](#) property is exStartWith, or include in the filter list only the items that contains the typed characters, if the AutoSearch property is exContains. Click the X button on the filterbar, and so the control removes the filter, and so all data is displayed. The control fires the [FilterChange](#) event to notify whether the control applies a new filter to control's data. Once, the FilterOnType property is set on True, the column's [FilterType](#) property is changed to exPattern, and the the [Filter](#) property indicates the typed string. Use the [FilterCriteria](#) property to specify the expression being used to filter the control's data when multiple columns are implied in the filter. Use the [Description](#) property to customize the text being displayed in the drop down filter window. Use the [FilterHeight](#) property to specify the height of the control's filterbar that's displayed on the bottom side of the control, once a filter is applied. The "Filter For" (pattern) field in the drop down filter window is always shown if the FilterOnType property is True, no matter of the [DisplayFilterPattern](#) property.

The following screen shot shows how the data gets filtered when the user types characters in the Filter-On-Type columns:



Steps:

- The user clicks the drop down filter window, in the column A
- The "Filter For:" field is shown, and it waits for the user to start type characters.
- As user types characters, the column gets filtered the items.

## property Column.FilterType as FilterTypeEnum

Specifies the column's filter type.

Type	Description
<a href="#">FilterTypeEnum</a>	A FilterTypeEnum expression that indicates the filter's type.

The FilterType property defines the filter's type. By default, the FilterType is exAll. No filter is applied if the FilterType is exAll. The [Filter](#) property defines the column's filter. Use the [DisplayFilterButton](#) property to display the column's filter button.

The [ApplyFilter](#) method should be called to update the control's content after changing the Filter or FilterType property. The [ClearFilter](#) method clears the Filter and the FilterType properties. Use the [FilterCriteria](#) property to filter items using the AND, OR and NOT operators.

## property Column.FireFormatColumn as Boolean

Retrieves or sets a value that indicates whether the control fires FormatColumn to format the caption of a cell hosted by column.

Type	Description
Boolean	A boolean expression that indicates whether the control fires the FireFormatColumn event for the cells in the column.

By default, the FireFormatColumn property is False. The [FormatColumn](#) event is fired only if the FireFormatColumn property of the Column object is True. The FormatColumn event lets the user to provide the cell's caption before it is displayed on the control's list. For instance, the FormatColumn event is useful when the column cells contains prices ( numbers ), and you want to display that column formatted as currency, like \$50 instead 50. Also, it is useful to use the FormatColumn event when displaying computed cells.

## property Column.FormatColumn as String

Specifies the format to display the cells in the column.

Type	Description
String	A string expression that defines the format to display the cell, including HTML formatting, if the cell supports it.

By default, the FormatColumn property is empty. The cells in the column use the provided format only if is valid ( not empty, and syntactically correct ), to display data in the column. The FormatColumn property provides a format to display all cells in the column using a predefined format. The expression may be a combination of variables, constants, strings, dates and operators, and value. The *value* operator gives the value to be formatted. A string is delimited by ", ` or ' characters, and inside they can have the starting character preceded by \ character, ie "\\"This is a quote\"". A date is delimited by # character, ie #1/31/2001 10:00# means the January 31th, 2001, 10:00 AM. The cell's HTML format is applied only if the [CellCaptionFormat](#) or [Def\(exCellCaptionFormat\)](#) is exHTML. If valid, the FormatColumn is applied to all cells for which the CellCaptionFormat property is not exComputedField. This way you can specify which cells use or not the FormatColumn property. The [ComputedField](#) property indicates the formula of the computed column.

For instance:

- the "*currency(value)*" displays the column using the current format for the currency ie, 1000 gets displayed as \$1,000.00
- the "*longdate(date(value))*" converts the value to a date and gets the long format to display the date in the column, ie #1/1/2001# displays instead Monday, January 01, 2001
- the "*'<b>' + ((0:=proper(value)) left 1) + '</b>' + (=0 mid 2)*" converts the name to proper, so the first letter is capitalized, bolds the first character, and let unchanged the rest, ie a "mihai filimon" gets displayed "**Mihai Filimon**".
- the "*len(value) ? ((0:=dbl(value)) < 10 ? '<fgcolor=808080><font ;7>' : '<b>') + currency(=0)*" displays the cells that contains not empty daya, the value in currency format, with a different font and color for values less than 10, and bolded for those that are greater than 10, as can see in the following screen shot in the column (A+B+C):

Name	A	B	C	A+B+C
Root				
Child 1	7	3 +	1 =	\$11.00
Child 2	2 +	5	42	\$19.00
Child 3	2 +	2 +	4 =	\$8.00
Child 4	2 +	9	4 =	\$15.00

The **value** keyword in the FormatColumn property indicates the value to be formatted.

The expression supports cell's identifiers as follows:

- **%0, %1, %2, ...** specifies the value of the cell in the column with the index 0, 1 2, ...  
The [CellCaption](#) property specifies the cell's value. For instance, "%0 format `"" formats the value on the cell with the index 0, using current regional setting, while "int(%1)" converts the value of the column with the index 1, to integer.

This property/method supports predefined constants and operators/functions as described [here](#).

The following **VB** sample shows how can I display the column using currency:

With Gantt1

```
.Columns.Add("Currency").FormatColumn = "currency(dbl(value))"
```

With .Items

```
.AddItem "1.23"  
.AddItem "2.34"  
.AddItem "0"  
.AddItem 5  
.AddItem "10000.99"
```

End With

End With

The following **VB.NET** sample shows how can I display the column using currency:

With AxGantt1

```
.Columns.Add("Currency").FormatColumn = "currency(dbl(value))"
```

With .Items

```
.AddItem "1.23"  
.AddItem "2.34"  
.AddItem "0"  
.AddItem 5  
.AddItem "10000.99"
```

End With

End With

The following **C++** sample shows how can I display the column using currency:

```
/*
```

Copy and paste the following directives to your header file as

it defines the namespace 'EXGANTTLib' for the library: 'ExGantt 1.0 Control Library'

```
#import "C:\\Windows\\System32\\ExGantt.dll"
using namespace EXGANTTLib;
*/
EXGANTTLib::IGanttPtr spGantt1 = GetDlgItem(IDC_GANTT1)->GetControlUnknown();
((EXGANTTLib::IColumnPtr)(spGantt1->GetColumns()->Add(L"Currency")))->PutFormatColumn(L"currency(dbl(value))");
EXGANTTLib::IItemsPtr var_Items = spGantt1->GetItems();
var_Items->AddItem("1.23");
var_Items->AddItem("2.34");
var_Items->AddItem("0");
var_Items->AddItem(long(5));
var_Items->AddItem("10000.99");
```

The following **C#** sample shows how can I display the column using currency:

```
(axGantt1.Columns.Add("Currency") as EXGANTTLib.Column).FormatColumn =
"currency(dbl(value))";
EXGANTTLib.Items var_Items = axGantt1.Items;
var_Items.AddItem("1.23");
var_Items.AddItem("2.34");
var_Items.AddItem("0");
var_Items.AddItem(5);
var_Items.AddItem("10000.99");
```

The following **VFP** sample shows how can I display the column using currency:

```
with thisform.Gantt1
.Columns.Add("Currency").FormatColumn = "currency(dbl(value))"
with .Items
.AddItem("1.23")
.AddItem("2.34")
.AddItem("0")
.AddItem(5)
.AddItem("10000.99")
endwith
endwith
```



## property Column.HeaderAlignment as AlignmentEnum

Specifies the alignment of the column's caption.

Type	Description
<a href="#">AlignmentEnum</a>	An AlignmentEnum expression that specifies the alignment of the column's caption.

Use the HeaderAlignment property to align the column's caption inside the column's header. Use the [Alignment](#) property to align the cells into a column. Use the [HeaderImageAlignment](#) property to align the column's icon inside the column's header. Use the [CellHAlignment](#) property to align a cell.

## property Column.HeaderBold as Boolean

Retrieves or sets a value that indicates whether the column's caption should appear in bold.

Type	Description
Boolean	A boolean expression that indicates whether the column's caption should appear in bold.

The HeaderBold property specifies whether the column's caption should appear in bold. Use the [CellBold](#) or [ItemBold](#) properties to specify whether the cell or item should appear in bold. Use the [HTMLCaption](#) property to specify portions of the caption using different colors, fonts. Use the [HeaderItalic](#), [HeaderUnderline](#) or [HeaderStrikeOut](#) property to specify different font attributes when displaying the column's caption.

## property Column.HeaderImage as Long

Retrieves or sets a value indicating the index of an Image in the Images collection, which is displayed to the column's header.

Type	Description
Long	A long expression that indicates the index of image in the column's header. The last 7 bits in the high significant byte of the long expression indicates the identifier of the skin being used to paint the object. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part.

Use the HeaderImage property to assign an icon to the column's header. Use the [HeaderImageAlignment](#) property to align the column's icon inside the column's header.

## property Column.HeaderImageAlignment as AlignmentEnum

Retrieves or sets the alignment of the image into the column's header.

Type	Description
<a href="#">AlignmentEnum</a>	An AlignmentEnum expression that indicates the alignment of the image in the column's header.

By default, the image is left aligned. Use the HeaderImageAlignment property to aligns the icon in the column's header. Use the [HeaderImage](#) property to attach an icon to the column's header.

## property Column.HeaderItalic as Boolean

Retrieves or sets the Italic property of the Font object that it is used to paint the column's caption.

Type	Description
Boolean	A boolean expression that indicates whether the column's caption should appear in italic.

Use the HeaderItalic property to specify whether the column's caption should appear in italic. Use the [CellItalic](#) or [ItemItalic](#) properties to specify whether the the cell or the item should appear in italic. Use the [HeaderBold](#), [HeaderUnderline](#) or [HeaderStrikeOut](#) property to specify different font attributes when displaying the column's caption.

## property Column.HeaderStrikeOut as Boolean

Retrieves or sets a value that indicates whether the column's caption should appear in strikeout.

Type	Description
Boolean	A boolean expression that indicates whether the column's caption should appear in strikeout.

Use the HeaderStrikeOut property to specify whether the column's caption should appear in strikeout. Use the [CellStrikeOut](#) or [ItemStrikeOut](#) properties to specify whether the cell or the item should appear in strikeout. Use the [HeaderItalic](#), [HeaderUnderline](#) or [HeaderBold](#) property to specify different font attributes when displaying the column's caption.

## property Column.HeaderUnderline as Boolean

Retrieves or sets a value that indicates whether the column's caption should appear in underline.

Type	Description
Boolean	A boolean expression that indicates whether the column's caption should appear in underline.

Use the HeaderUnderline property to specify whether the column's caption should appear in underline. Use the [CellUnderline](#) or [ItemUnderline](#) properties to specify whether the cell or the item should appear in underline. Use the [HeaderItalic](#), [HeaderBold](#) or [HeaderStrikeOut](#) property to specify different font attributes when displaying the column's caption.

## property Column.HTMLCaption as String

Retrieves or sets the text in HTML format displayed in the column's header.

Type	Description
String	A string expression that indicates the column's caption using built-in HTML tags.

If the `HTMLCaption` property is empty, the [Caption](#) property is displayed in the column's header. If the `HTMLCaption` property is not empty, the control uses it when displaying the column's header. Use the [HeaderHeight](#) property to change the height of the control's header bar. The list of built-in HTML tags supported are [here](#).

## property Column.Index as Long

Returns a value that represents the index of an object in a collection.

Type	Description
Long	A long expression that represents the index of an object in a collection.

Use the [Position](#) property to change the column's position. The [Columns](#) collection is zero based, so the Index property starts at 0. The last added column has the Index set to Columns.Count - 1. When a column is removed from the collection, the control updates all indexes. Use the [Visible](#) property to hide a column. Use the [Columns](#) property to access column from it's index.

## property Column.Key as String

Retrieves or sets the column's key.

Type	Description
String	A string expression that defines the column's key

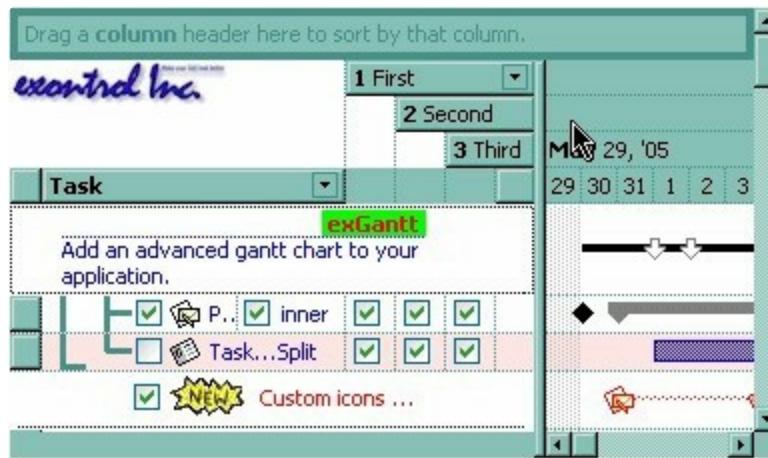
The column's key defines a column when using the [Item](#) property. Use the [Index](#) or the Key property to identify a column, when using the [Columns](#) property.

## property Column.LevelKey as Variant

Retrieves or sets a value that indicates the key of the column's level.

Type	Description
Variant	A Variant expression that indicates the key of the column's level.

By default, the LevelKey is empty. The control's header displays multiple levels if there are two or more neighbor columns with the same non empty level key. The [HeaderHeight](#) property specifies the height of one level when multiple levels header is on. Use the [BackColorLevelHeader](#) property to specify the control's level header area. Use the [PictureLevelHeader](#) property to assign a picture on the control's header. The [BackColorHeader](#) property specifies the background color for column's captions. Use the [LevelCount](#) property to specify the number of levels being displayed in the chart's header.



## property Column.MaxWidthAutoSize as Long

Retrieves or sets a value that indicates the maximum column's width when the WidthAutoSize is True.

Type	Description
Long	A long expression that indicates the maximum column's width when the WidthAutoSize is True.

Use the MaxWidthAutoSize property to set the maximum column's width while the [WidthAutoSize](#) property is True. If the MaxWidthAutoSize property is less than zero, there is no maximum value for the column's width. By default, the MaxWidthAutoSize property is -1. Use the [ColumnAutoSize](#) property to specify whether the control resizes the visible columns so they fit the control's client area.

## property Column.MinWidthAutoSize as Long

Retrieves or sets a value that indicates the minimum column's width when the WidthAutoSize is True.

Type	Description
Long	A long expression that indicates the minimum column's width when the WidthAutoSize is True.

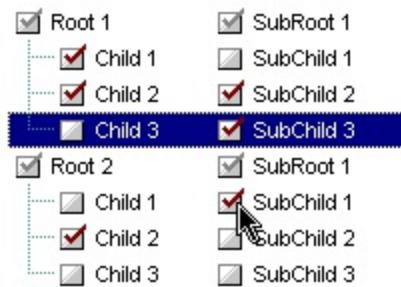
Use the MinWidthAutoSize property to set the minimum column's width while the [WidthAutoSize](#) property is True. Use the [Width](#) property to specify the column's width. Use the [ColumnAutoSize](#) property to specify whether the control resizes the visible columns so they fit the control's client area.

## property Column.PartialCheck as Boolean

Specifies whether the column supports partial check feature.

Type	Description
Boolean	A boolean expression that indicates whether the control supports the partial check feature,

The PartialCheck property specifies that the column supports partial check feature. By default, the PartialCheck property is False. Use the [CellHasCheckBox](#) property to associate a check box to a cell. Use the [Def](#) property to assign a cell box for the entire column. Use the [CellState](#) property to determine the cell's state. If the PartialCheck property is True, the CellState property has three states: 0 - Unchecked, 1 - Checked and 2 - Partial Checked. Use the [CheckImage](#) property to define the icons for each state. The control supports partial check feature for any column that your control contains. Use the [Add](#) method to add new columns to the control.



## property Column.Position as Long

Retrieves or sets a value that indicates the position of the column in the header bar area.

Type	Description
Long	A long expression that indicates the position of the column in the header bar area.

The column's index is not the same with the column's position. The [Index](#) property of Column cannot be changed by the user. Use the Position property to change the column's position. The [EnsureVisibleColumn](#) method ensures that a given column fits the control's client area. Use the [SortPosition](#) property to change the position of the column in the control's sort bar. Use the [Visible](#) property to hide a column. Use the [Width](#) property to specify the column's width.

## method Column.ShowFilter ([Options as Variant])

Shows the column's filter window.

Type	Description
Options as Variant	A string expression that indicates the position ( in screen coordinates ) and the size ( in pixels ) where the drop down filter window is shown. The Options parameter is composed like follows: <ul style="list-style-type: none"><li>• the first parameter indicates the X coordinate in screen coordinate, -1 if the current cursor position is used, or empty if the coordinate is ignored</li><li>• the second parameter indicates the Y coordinate in screen coordinate, -1 if the current cursor position is used, or empty if the coordinate is ignored</li><li>• the third parameter indicates the width in pixels of the drop down window, or empty if the width is ignored</li><li>• the forth parameter indicates the height in pixels of the drop down window, or empty if the height is ignored</li></ul>

By default, the drop down filter window is shown at its default position bellow the column's header.

Use the ShowFilter method to show the column's drop down filter programmatically. By default, the drop down filter window is shown only if the user clicks the filter button in the column's header, if the [DisplayFilterButton](#) property is True. The drop down filter window if the user selects a predefined filter, or enters a pattern to match. If the Options parameter is missing, or all parameters inside the Options are missing, the size of the drop down filter window is automatically computed based on the [FilterBarDropDownWidth](#) property and [FilterBarDropDownHeight](#) property. Use the [ColumnFromPoint](#) property to get the index of the column from the point.



For instance, the following VB sample displays the column's drop down filter window when

the user right clicks the control:

```
Private Sub Gantt1_MouseUp(Button As Integer, Shift As Integer, X As Single, Y As Single)
    If (Button = 2) Then
        With Gantt1.Columns
            With .Item(Gantt1.ColumnFromPoint(-1, -1))
                .ShowFilter "-1,-1,200,200"
            End With
        End With
    End If
End Sub
```

The following VB.NET sample displays the column's drop down filter window when the user right clicks the control:

```
Private Sub AxGantt1_MouseUpEvent(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_MouseUpEvent) Handles AxGantt1.MouseUpEvent
    If (e.button = 2) Then
        With AxGantt1.Columns
            With .Item(AxGantt1.get_ColumnFromPoint(-1, -1))
                .ShowFilter("-1,-1,200,200")
            End With
        End With
    End If
End Sub
```

The following C# sample displays the column's drop down filter window when the user right clicks the control:

```
private void axGantt1_MouseUpEvent(object sender,
AxEXGANTTLib._IGanttEvents_MouseUpEvent e)
{
    if (e.button == 2)
    {
        EXGANTTLib.Column c = axGantt1.Columns[axGantt1.get_ColumnFromPoint(-1, -1)];
        c.ShowFilter("-1,-1,200,200");
    }
}
```

The following C++ sample displays the column's drop down filter window when the user right clicks the control:

```
void OnMouseUpGantt1(short Button, short Shift, long X, long Y)
{
    m_gantt.GetColumns().GetItem( COleVariant( m_gantt.GetColumnFromPoint( -1, -1 ) )
).ShowFilter( COleVariant( "-1,-1,200,200" ) );
}
```

The following VFP sample displays the column's drop down filter window when the user right clicks the control:

```
*** ActiveX Control Event ***
LPARAMETERS button, shift, x, y

if ( button = 2 ) then
    With thisform.Gantt1.Columns
        With .Item(thisform.Gantt1.ColumnFromPoint(-1, -1))
            .ShowFilter("-1,-1,200,200")
        EndWith
    EndWith
endif
```

## property Column.SortOrder as SortOrderEnum

Specifies the column's sort order.

Type	Description
<a href="#">SortOrderEnum</a>	A SortOrderEnum expression that indicates the column's sort order.

The SortOrder property determines the column's sort order. By default, the SortOrder property is SortNone. Use the SortOrder property to sort a column at runtime. Use the [SortType](#) property to determine the way how the column is sorted. Use the [AllowSort](#) property to avoid sorting a column when the user clicks the column. Use the [SingleSort](#) property to specify whether the control supports sorting by single or multiple columns. If the control supports sorting by multiple columns, the SortOrder property adds or removes the column to the sorting columns collection. For instance, if the SortOrder property is set to SortAscending or SortDescending the column is added to the sorting columns collection. If the SortOrder property is set to SortNone the control removes the column from its sorting columns collection. The [Sort](#) event is fired when the user sorts a column. The [SortPosition](#) property changes the position of the column in the control's sort bar. Use the [DefaultSortOrder](#) property to specify the column's default sort order, when the user first clicks the column's header.

The control automatically sorts a column when the user clicks the column's header, if the [SortOnClick](#) property is exDefaultSort. If the SortOnClick property is exNoSort, the control disables sorting the items when the user clicks the column's header. There are two methods to get the items sorted like follows:

- Using the SortOrder property of the [Column](#) object::

```
Gantt1.Columns(CollIndex).SortOrder = SortAscending
```

The SortOrder property adds the sorting icon to the column's header, if the [DisplaySortIcon](#) property is True.

- Using the [SortChildren](#) method of the [Items](#) collection. The SortChildren sorts the items. The SortChildren method sorts the child items of the given parent item in the control. SortChildren will not recourse through the tree, only the immediate children of the item will be sorted. The following sample sort descending the list of root items on the "Column 1"( if your control displays a list, all items are considered being root items ).

```
Gantt1.Items.SortChildren 0, "Column 1", False
```

## property Column.SortPosition as Long

Returns or sets a value that indicates the position of the column in the sorting columns collection.

Type	Description
Long	A long expression that indicates the position of the column in the control's sort bar. The collection is 0 - based.

Use the SortPosition to change programmatically the position of the column in the control's sort bar. Use the [SingleSort](#) property to allow sorting by multiple columns. Use the [SortBarVisible](#) property to show the control's sort bar. Use the [SortOrder](#) property to add columns to the control's sort bar. The control fires the [Sort](#) event when the user sorts a column. Use the [ItemBySortPosition](#) property to get the columns being sorted in their order. Use the [AllowSort](#) property to avoid sorting a column when the user clicks the column.

## property Column.SortType as SortTypeEnum

Returns or sets a value that indicates the way a control sorts the values for a column.

Type	Description
<a href="#">SortTypeEnum</a>	A SortTypeEnum expression that indicates the way a control sorts the values for a column.

The SortType property specifies how the column gets sorted. By default, the column's SortType is String. The [CellCaption](#) property indicates the values being sorted. Use the SortType property to specifies how the control will sort the column. Use the [SortChildren](#) property of Items to do a sort based on a column. Use the [SingleSort](#) property to specify whether the control supports sorting by single or multiple columns. The [SortOrder](#) property determines the column's sort order. The [Sort](#) event is fired when the user sorts a column. The [SortPosition](#) property changes the position of the column in the sorting columns collection. The [CellData](#) property specifies the values being sorted, if the SortType property is SortUserData, SortUserDataString.

## property Column.ToolTip as String

Specifies the column's tooltip description.

Type	Description
String	A string expression that defines the column's tooltip. The column's tooltip supports built-in <a href="#">HTML</a> format

By default, the ToolTip property is "..." ( three dots ). Use the ToolTip property to assign a tooltip to a column. If the ToolTip property is "...", the control displays the column's caption if it doesn't fit the column's header. Use the [Caption](#) or [HTMLCaption](#) property to specify the caption of the column. The column's tooltip shows up when the cursor hovers the column's header. Use the [CellToolTip](#) property to assign a tooltip to a cell

## property Column.Visible as Boolean

Retrieves or sets a value indicating whether the column is visible or hidden.

Type	Description
Boolean	A boolean expression indicating whether the column is visible or hidden.

Use the [Visible](#) property to hide a column. Use the [Width](#) property to resize the column. The [ColumnAutoResize](#) property specifies whether the visible columns fit the control's client area. Use the [Position](#) property to specify the column's position. Use the [HeaderVisible](#) property to show or hide the control's header bar. Use the [ColumnFromPoint](#) property to get the column from point. Use the [Remove](#) method to remove a column.

## property Column.Width as Long

Retrieves or sets the column's width.

Type	Description
Long	A long expression that indicates the column's width in pixels.

The Width property specifies the column's width in pixels. Use the [Visible](#) property to hide a column. Use the [SortBarColumnWidth](#) property to specify the column's head in the control's sort bar. Use the [ColumnAutoResize](#) property to fit all visible columns in the control's client area. Use the [FilterBarDropDownWidth](#) property to specify the width of the drop down filter window.

The following VB sample shows how to set the width for all columns:

```
Private Sub Gantt1_AddColumn(ByVal Column As EXGANTTLibCtl.ICollection)
    Column.Width = 128
End Sub
```

The following VB.NET sample changes the column's width when a new column is added:

```
Private Sub AxGantt1_AddColumn(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_AddColumnEvent) Handles AxGantt1.AddColumn
    e.Column.Width = 128
End Sub
```

The following C# sample changes the column's width when a new column is added:

```
private void axGantt1_AddColumn(object sender,
AxEXGANTTLib._IGanttEvents_AddColumnEvent e)
{
    e.Column.Width = 128;
}
```

The following C++ sample changes the column's width when a new column is added:

```
#include "Column.h"
#include "Columns.h"
void OnAddColumnGantt1(LPDISPATCH Column)
{
```

```
CColumn column( Column );
column.setWidth( 128 );
}
```

The following VFP sample changes the column's width when a new column is added:

```
*** ActiveX Control Event ***
```

```
LPARAMETERS column
```

```
with column
```

```
    .Width = 128
```

```
endwith
```

## property Column.WidthAutoResize as Boolean

Retrieves or sets a value that indicates whether the column is automatically resized according to the width of the contents within the column.

Type	Description
Boolean	A boolean expression that indicates whether the column is automatically resized according to the width of the contents within the column.

If the WidthAutoResize property is True, the column's width is resized after user expands, or collapse the items. Also, the column's width is refreshed if the user adds new items to the control. If the WidthAutoResize property is True, the column's width is not larger than [MaxWidthAutoResize](#) value, and it is not less than [MinWidthAutoResize](#) value. You can use the [AutoWidth](#) property to computes the column's width to fit its content. For instance, if you have a control with one column, and this property True, you can simulate a simple tree, because the control will automatically add a horizontal scroll bar when required. Use the [ColumnAutoResize](#) property to specify whether the control resizes the visible columns so they fit the control's client area.

## Columns object

The ExGantt control supports multiple columns. The Columns object contains a collection of Column objects. Use the [Columns](#) property of the control to access the control columns. By default, the control's columns collection is empty. The Columns object supports the following method and properties:

Name	Description
<a href="#">Add</a>	Adds a Column object to the collection and returns a reference to the newly created object.
<a href="#">Clear</a>	Removes all objects in a collection.
<a href="#">Count</a>	Returns the number of objects in a collection.
<a href="#">Item</a>	Returns a specific Column of the Columns collection.
<a href="#">ItemBySortPosition</a>	Returns a Column object giving its sorting position.
<a href="#">Remove</a>	Removes a specific member from the Columns collection.

## method Columns.Add (ColumnCaption as String)

Adds a Column object to the collection and returns a reference to the newly created object.

Type	Description
ColumnCaption as String	A string expression that indicates the caption for the column being added
Return	Description
Variant	A <a href="#">Column</a> object that indicates the newly added column.

By default, the control contains no columns. Before adding new items, you need to add columns. Use the Add property to add new columns to the control. The control fires the [AddColumn](#) event is fired when a new columns has been added to Columns collection. Use the [Caption](#) property to change the column's caption. Use the [HTLMCaption](#) property to display the column's caption using HTML tags. To hide a column use the [Visible](#) property of the Column object. Use the [AddItem](#), [InsertItem](#), [InsertControlItem](#), [PutItems](#), [DataSource](#) properties to add new items to the control. Use the [BeginUpdate](#) and [EndUpdate](#) methods to maintain performance while adding new columns and items. Use the [LoadXML/SaveXML](#) methods to load/save the control's data from/to XML files.

The following VB sample adds columns from a record set:

```
Set rs = CreateObject("ADODB.Recordset")
rs.Open "Orders", "Provider=Microsoft.Jet.OLEDB.3.51;Data Source= D:\Program
Files\Microsoft Visual Studio\VB98\NWIND.MDB", 3 ' Opens the table using static mode
Gantt1.BeginUpdate
' Add the columns
With Gantt1.Columns
For Each f In rs.Fields
    .Add f.Name
Next
End With
Gantt1.PutItems rs.getRows()
Gantt1.EndUpdate
```

The following VC sample adds a column:

```
#include "Columns.h"
#include "Column.h"
CColumns columns = m_gantt.GetColumns();
```

```
CColumn column( V_DISPATCH( &columns.Add( "Column 1" ) ) );
column.SetHeaderBold( TRUE );
```

The following VB.NET sample adds a column:

```
With AxGantt1.Columns
```

```
    With .Add("Column 1")
        .HeaderBold = True
    End With
End With
```

The Add method returns a Column object in a VARIANT value, so you can use a code like follows:

```
With AxGantt1.Columns
```

```
    Dim c As EXGANTTLib.Column
    c = .Add("Column 1")
    With c
        .HeaderBold = True
    End With
End With
```

this way, you can have the properties of the column at design time when typing the '.' character.

The following C# sample adds a column:

```
EXGANTTLib.Column column = axGantt1.Columns.Add( "Column 1" ) as
EXGANTTLib.Column;
column.HeaderBold = true;
```

The following VFP sample adds a column:

```
with thisform.Gantt1.Columns.Add( "Column 1" )
    .HeaderBold = .t.
endwith
```

## method Columns.Clear ()

Removes all objects in a collection.

Type	Description
------	-------------

Use the [Remove](#) method when you need to remove only a column. Use the Clear method to remove all columns in the control. The Clear method removes all items, too. Use the [RemoveAllItems](#) method to remove all items in the control.

## property Columns.Count as Long

Returns the number of objects in a collection.

Type	Description
Long	Counts the Column object into the collection.

The Count property counts the columns in the collection. Use the [Columns](#) property to access the control's Columns collection. Use the [Item](#) property to access a column by its index or key. Use the [Add](#) method to add new columns to the control. Use the [Remove](#) method to remove a column. Use the [Clear](#) method to clear the columns collection.

The following VB sample enumerates the columns in the control:

```
For Each c In Gantt1.Columns  
    Debug.Print c.Caption  
Next
```

The following VB sample enumerates the columns in the control:

```
For i = 0 To Gantt1.Columns.Count - 1  
    Debug.Print Gantt1.Columns(i).Caption  
Next
```

The following VC sample enumerates the columns in the control:

```
#include "Columns.h"  
#include "Column.h"  
CColumns columns = m_gantt.GetColumns();  
for ( long i = 0; i < columns.GetCount(); i++ )  
{  
    CColumn column = columns.GetItem( COleVariant( i ) );  
    OutputDebugString( column.GetCaption() );  
}
```

The following VB.NET sample enumerates the columns in the control:

```
With AxGantt1.Columns  
    Dim i As Integer  
    For i = 0 To .Count - 1
```

```
Debug.WriteLine(.Item(i).Caption)
```

```
Next
```

```
End With
```

The following C# sample enumerates the columns in the control:

```
EXGANTTLib.Columns columns = axGantt1.Columns;
for ( int i = 0; i < columns.Count; i++ )
{
    EXGANTTLib.Column column = columns[i];
    System.Diagnostics.Debug.WriteLine( column.Caption );
}
```

The following VFP sample enumerates the columns in the control:

```
with thisform.Gantt1.Columns
    for i = 0 to .Count - 1
        wait window nowait .Item(i).Caption
    next
endwith
```

## property Columns.Item (Index as Variant) as Column

Returns a specific Column of the Columns collection.

Type	Description
Index as Variant	A long expression that indicates the column's index or a string expression that indicates the column's key or the column's caption.
<a href="#">Column</a>	A column object being returned.

Use the Item property to access to a specific column. The [Count](#) property counts the columns in the control. Use the [Columns](#) property to access the control's Columns collection.

The Item property is the default property of the Columns object so the following statements are equivalents:

```
Gantt1.Columns.Item ("Freight")
Gantt1.Columns ("Freight")
```

The following VB sample enumerates the columns in the control:

```
For i = 0 To Gantt1.Columns.Count - 1
    Debug.Print Gantt1.Columns(i).Caption
Next
```

The following VC sample enumerates the columns in the control:

```
#include "Columns.h"
#include "Column.h"
CColumns columns = m_gantt.GetColumns();
for ( long i = 0; i < columns.GetCount(); i++ )
{
    CColumn column = columns.GetItem( COleVariant( i ) );
    OutputDebugString( column.GetCaption() );
}
```

The following VB.NET sample enumerates the columns in the control:

```
With AxGantt1.Columns
    Dim i As Integer
```

```
For i = 0 To .Count - 1
    Debug.WriteLine(.Item(i).Caption)
Next
End With
```

The following C# sample enumerates the columns in the control:

```
EXGANTTLib.Columns columns = axGantt1.Columns;
for ( int i = 0; i < columns.Count; i++ )
{
    EXGANTTLib.Column column = columns[i];
    System.Diagnostics.Debug.WriteLine( column.Caption );
}
```

The following VFP sample enumerates the columns in the control:

```
with thisform.Gantt1.Columns
for i = 0 to .Count - 1
    wait window nowait .Item(i).Caption
next
endwith
```

## property Columns.ItemBySortPosition (Position as Variant) as Column

Returns a Column object giving its sorting position.

Type	Description
Position as Variant	A long expression that indicates the position of column being requested.
<a href="#">Column</a>	A Column object being accessed.

Use the ItemBySortPosition property to get the list of sorted columns in their order. Use the [SortPosition](#) property to specify the position of the column in the sorting columns collection. Use the [SingleSort](#) property to specify whether the control supports sorting by single or multiple columns. Use the [SortOrder](#) property to sort a column programmatically. The control fires the [Sort](#) event when the user sorts a column.

The following VB sample displays the list of columns being sorted:

```
Dim s As String, i As Long, c As Column  
i = 0  
With Gantt1.Columns  
    Set c = .ItemBySortPosition(i)  
    While (Not c Is Nothing)  
        s = s + "      " & c.Caption & " " & IIf(c.SortOrder = SortAscending, "A", "D") & " "  
        i = i + 1  
        Set c = .ItemBySortPosition(i)  
    Wend  
End With  
s = "Sort: " & s  
Debug.Print s
```

The following VC sample displays the list of columns being sorted:

```
CString strOutput;  
CColumns columns = m_gantt.GetColumns();  
long i = 0;  
CColumn column = columns.GetItemBySortPosition( COleVariant( i ) );  
while ( column.m_lpDispatch )  
{  
    strOutput += "\\" + column.GetCaption() + "\\ " + ( column.GetSortOrder() == 1 ? "A" :  
"D" ) + " ";
```

```
i++;
column = columns.GetItemBySortPosition( COleVariant( i ) );
}
OutputDebugString( strOutput );
```

The following VB.NET sample displays the list of columns being sorted:

With AxGantt1

```
Dim s As String, i As Integer, c As EXGANTTLib.Column
i = 0
With AxGantt1.Columns
    c = .ItemBySortPosition(i)
    While (Not c Is Nothing)
        s = s + "     " & c.Caption & "     " & IIf(c.SortOrder =
EXGANTTLib.SortOrderEnum.SortAscending, "A", "D") & " "
        i = i + 1
        c = .ItemBySortPosition(i)
    End While
End With
s = "Sort: " & s
Debug.WriteLine(s)
End With
```

The following C# sample displays the list of columns being sorted:

```
string strOutput = "";
int i = 0;
EXGANTTLib.Column column = axGantt1.Columns.get_ItemBySortPosition( i );
while ( column != null )
{
    strOutput += column.Caption + " " + ( column.SortOrder ==
EXGANTTLib.SortOrderEnum.SortAscending ? "A" : "D" ) + " ";
    column = axGantt1.Columns.get_ItemBySortPosition( ++i );
}
Debug.WriteLine( strOutput );
```

The following VFP sample displays the list of columns being sorted ( the code is listed in the Sort event ) :

```
local s, i, c
i = 0
s = ""
With thisform.Gantt1.Columns
    c = .ItemBySortPosition(i)
    do While (!isnull(c))
        with c
            s = s + """ + .Caption
            s = s + " " + IIf(.SortOrder = 1, "A", "D") + " "
            i = i + 1
        endwith
        c = .ItemBySortPosition(i)
    enddo
endwith
s = "Sort: " + s
wait window nowait s
```

## method Columns.Remove (Index as Variant)

Removes a specific member from the Columns collection.

Type	Description
Index as Variant	A long expression that indicates the column's index, or a string expression that indicates the column's caption or the column's key.

The Remove method removes a specific column in the Columns collection. Use [Clear](#) method to remove all Column objects. The [RemoveColumn](#) event is fired when a column is about to be removed. Use the [Visible](#) property to hide a column.

## ConditionalFormat object

The conditional formatting feature allows you to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula. Use the [Add](#) method to add new ConditionalFormat objects. Use the [Item](#) property to access a ConditionalFormat object. The ConditionalFormat object supports the following properties and method:

Name	Description
<a href="#">ApplyTo</a>	Specifies whether the format is applied to items or columns.
<a href="#">ApplyToBars</a>	Specifies the list of bars that the current format is applied to. The list includes the name of the bars separated by comma character.
<a href="#">BackColor</a>	Retrieves or sets the background color for objects that match the condition.
<a href="#">BarColor</a>	Specifies the color to be applied to bars if the conditional expression is accomplished.
<a href="#">BarOverviewColor</a>	Specifies the color to be applied to bars, in the overview portion of the control, if the conditional expression is accomplished.
<a href="#">Bold</a>	Bolds the objects that match the condition.
<a href="#">ClearBackColor</a>	Clears the background color.
<a href="#">ClearBarColor</a>	Clears the bar's color.
<a href="#">ClearBarOverviewColor</a>	Clears the bar's overview color.
<a href="#">ClearForeColor</a>	Clears the foreground color.
<a href="#">Enabled</a>	Specifies whether the condition is enabled or disabled.
<a href="#">Expression</a>	Indicates the expression being used in the conditional format.
<a href="#">Font</a>	Retrieves or sets the font for objects that match the criteria.
<a href="#">ForeColor</a>	Retrieves or sets the foreground color for objects that match the condition.
<a href="#">Italic</a>	Specifies whether the objects that match the condition should appear in italic.
<a href="#">Key</a>	Checks whether the expression is syntactically correct.
<a href="#">StrikeOut</a>	Specifies whether the objects that match the condition

should appear in strikeout.

[Underline](#)

Underlines the objects that match the condition.

[Valid](#)

Checks whether the expression is syntactically correct.

## property ConditionalFormat.ApplyTo as FormatApplyToEnum

Specifies whether the format is applied to items or columns.

Type	Description
<a href="#">FormatApplyToEnum</a>	A FormatApplyToEnum expression that indicates whether the format is applied to items or to columns. If the ApplyTo property is less than zero, the format is applied to the items.

By default, the format is applied to items. The ApplyTo property specifies whether the format is applied to the items or to the columns. If the ApplyTo property is greater or equal than zero the format is applied to the column with the index ApplyTo. For instance, if the ApplyTo property is 0, the format is applied to the cells in the first column. If the ApplyTo property is 1, the format is applied to the cells in the second column, if the ApplyTo property is 2, the format is applied to the cells in the third column, and so on. If the ApplyTo property is -1, the format is applied to items. Use the [ApplyToBars](#) property to specify the list of bars that the current format is applied to.

The following VB sample bolds the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
With Gantt1.ConditionalFormats.Add("%1+%2<%0")
    .ApplyTo = 1
    .Bold = True
End With
```

The following C++ sample bolds the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
COleVariant vtEmpty;
CConditionalFormat cf = m_gantt.GetConditionalFormats().Add( "%1+%2<%0", vtEmpty );
cf.SetBold( TRUE );
cf.SetApplyTo( 1 );
```

The following VB.NET sample bolds the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
With AxGantt1.ConditionalFormats.Add("%1+%2<%0")
    .ApplyTo = 1
    .Bold = True
```

The following C# sample bolds the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
EXGANTTLib.ConditionalFormat cf =  
axGantt1.ConditionalFormats.Add("%1+%2<%0",null);  
cf.Bold = true;  
cf.ApplyTo = (EXGANTTLib.FormatApplyToEnum)1;
```

The following VFP sample bolds the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
with thisform.Gantt1.ConditionalFormats.Add("%1+%2<%0")  
.Bold = .t.  
.ApplyTo = 1  
endwith
```

## property ConditionalFormat.ApplyToBars as String

Specifies the list of bars that the current format is applied to. The list includes the name of the bars separated by comma character.

Type	Description
String	A String expression that indicates the list of bars that the current format is applied to.

By default, the ApplyToBars property is empty, which means that the current format is not applied to any bar. The list includes the name of the bars separated by comma character. The [Name](#) property indicates the name of the bar. The [ApplyTo](#) property specifies whether the format is applied to item or cell/column. For instance, if the ApplyToBars property is "Task,Milestone", it indicates that the current format is applied to Task and Milestone bars being displayed in the chart. The following properties of the ConditionalFormat object are applied while the ApplyToBars property contains existing bars:

- The [BarColor](#) property specifies the color to be applied to bars if the conditional expression is accomplished.
- The [BarOverviewColor](#) property specifies the color to be applied to bars, in the overview portion of the control, if the conditional expression is accomplished.

The following screen shot shows different colors applied to different items, using the ConditionalFormat feature:





## property ConditionalFormat.BackColor as Color

Retrieves or sets the background color for objects that match the condition.

Type	Description
Color	A color expression that indicates the background color for the object that match the criteria. The last 7 bits in the high significant byte of the color to indicates the identifier of the skin being used. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.

Use the BackColor property to change the background color for items or cells in the column when a certain condition is met. Use the [ForeColor](#) property to specify the foreground color for objects that match the criteria. Use the [ClearBackColor](#) method to remove the background color being set using previously the BackColor property. If the BackColor property is not set, it retrieves 0. The [ApplyTo](#) property specifies whether the ConditionalFormat object is applied to items or to cells in the column.

## property ConditionalFormat.BarColor as Color

Specifies the color to be applied to bars if the conditional expression is accomplished.

Type	Description
Color	A color expression that indicates the color to show the bar that matches the criteria. The last 7 bits in the high significant byte of the color to indicates the identifier of the skin being used. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.

By default, the BarColor property is 0. The BarColor property has effect, if the [ApplyToBars](#) property points to valid bars. The [ApplyToBars](#) property specifies the list of bars that the current format is applied to. Use the [ClearBarColor](#) method to remove the color being set using previously the BarColor property. If the BarColor property is not set, it retrieves 0. The [ItemBar\(exBarColor\)](#) property specifies the color to show a particular bar. The [BarOverviewColor](#) property specifies the color to be applied to bars, in the overview portion of the control, if the conditional expression is accomplished. Use the [BackColor](#) property to change the background color for items or cells in the column when a certain condition is met. Use the [ForeColor](#) property to specify the foreground color for objects that match the criteria.

## property ConditionalFormat.BarOverviewColor as Color

Specifies the color to be applied to bars, in the overview portion of the control, if the conditional expression is accomplished.

Type	Description
Color	A Color expression that specifies the color to be applied to bars, in the overview portion of the control, if the conditional expression is accomplished.

By default, the BarOverviewColor property is 0. The BarOverviewColor property has effect, if the [ApplyToBars](#) property points to valid bars. The [ApplyToBars](#) property specifies the list of bars that the current format is applied to. The [OverviewVisible](#) property shows or hides the control's overview map. Use the [ClearBarOverviewColor](#) method to remove the color being set using previously the BarOverviewColor property. If the BarColor property is not set, it retrieves 0. The [ItemBar\(exBarOverviewColor\)](#) property specifies the color to show a different color in the overview part of the control, for a particular bar.

## property ConditionalFormat.Bold as Boolean

Bolds the objects that match the condition.

Type	Description
Boolean	A boolean expression that indicates whether the objects should appear in bold.

The [ApplyTo](#) property specifies whether the ConditionalFormat object is applied to items or to cells in the column. The following VB sample bolds all cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
With Gantt1.ConditionalFormats.Add("%1+%2<%0")
```

```
    .ApplyTo = 1
```

```
    .Bold = True
```

```
End With
```

The following C++ sample bolds all cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
COleVariant vtEmpty;
```

```
CCConditionalFormat cf = m_gantt.GetConditionalFormats().Add( "%1+%2<%0", vtEmpty );
```

```
cf.SetBold( TRUE );
```

```
cf.SetApplyTo( 1 );
```

The following VB.NET sample bolds all cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
With AxGantt1.ConditionalFormats.Add("%1+%2<%0")
```

```
    .ApplyTo = 1
```

```
    .Bold = True
```

```
End With
```

The following C# sample bolds all cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
EXGANTTLib.ConditionalFormat cf =
```

```
axGantt1.ConditionalFormats.Add("%1+%2<%0",null);
```

```
cf.Bold = true;
```

```
cf.ApplyTo = (EXGANTTLib.FormatApplyToEnum)1;
```

The following VFP sample bolds all cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
with thisform.Gantt1.ConditionalFormats.Add("%1+%2<%0")
```

```
    .Bold = .t.
```

```
    .ApplyTo = 1
```

```
endwith
```

## method ConditionalFormat.ClearBackColor ()

Clears the background color.

Type	Description
------	-------------

Use the ClearBackColor method to remove the background color being set using previously the BackColor property. If the [BackColor](#) property is not set, it retrieves 0.

## method ConditionalFormat.ClearBarColor ()

Clears the bar's color.

Type	Description
------	-------------

Use the ClearBarColor method to remove the color being set using previously the BarColor property. If the [BarColor](#) property is not set, it retrieves 0.

## method ConditionalFormat.ClearBarOverviewColor ()

Clears the bar's overview color.

Type	Description
------	-------------

Use the ClearBarOverviewColor method to remove the color being set using previously the BarOverviewColor property. If the [BarOverviewColor](#) property is not set, it retrieves 0.

## method ConditionalFormat.ClearForeColor ()

Clears the foreground color.

Type	Description
------	-------------

Use the ClearBackColor method to remove the foreground color being set using previously the [ForeColor](#) property. If the ForeColor property is not set, it retrieves 0.

## property ConditionalFormat.Enabled as Boolean

Specifies whether the condition is enabled or disabled.

Type	Description
Boolean	A boolean expression that indicates whether the expression is enabled or disabled.

By default, all expressions are enabled. A format is applied only if the expression is valid and enabled. Use the [Expression](#) property to specify the format's formula. The [Valid](#) property checks whether the formula is valid or not valid. Use the Enabled property to disable applying the format for the moment. Use the [Remove](#) method to remove an expression from ConditionalFormats collection.

## property ConditionalFormat.Expression as String

Indicates the expression being used in the conditional format.

Type	Description
String	A formal expression that indicates the formula being used in formatting. For instance, "%0+%1>%2", highlights the cells or the items, when the sum between first two columns is greater than the value in the third column

The conditional formatting feature allows you to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula. The Expression property specifies a formula that indicates the criteria to format the items or the columns. Use the [ApplyTo](#) property to specify when the items or the columns are formatted. Use the [Add](#) method to specify the expression at adding time. The Expression property may include variables, constants, operators or ( ) parenthesis. A variable is defined as %n, where n is the index of the column ( zero based ). For instance, the %0 indicates the first column, the %1, indicates the second column, and so on. A constant is a float expression ( for instance, 23.45 ). Use the [Valid](#) property checks whether the expression is syntactically correct, and can be evaluated. If the expression contains a variable that is not known, 0 value is used instead. For instance, if your control has 2 columns, and the expression looks like "%2 +%1 ", the %2 does not exist, 0 is used instead. When the control contains two columns the known variables are %0 and %1.

*The expression supports cell's identifiers as follows:*

- **%0, %1, %2, ...** specifies the value of the cell in the column with the index 0, 1 2, ... The [CellCaption](#) property specifies the cell's value. For instance, "%0 format ``" formats the value on the cell with the index 0, using current regional setting, while "int(%1)" converts the value of the column with the index 1, to integer.

This property/method supports predefined constants and operators/functions as described [here](#).

*Samples:*

1. "%1", highlights all cells or items. Use this form, when you need to highlight all cells or items in the column or control.
2. "%0 >= 0", highlights the cells or items, when the cells in the first column have the value greater or equal with zero
3. "%0 = 1 and %1 = 0", highlights the cells or items, when the cells in the first column have the value equal with 0, and the cells in the second column have the value equal with 0
4. "%0+%1>%2", highlights the cells or the items, when the sum between first two

columns is greater than the value in the third column

5. "%0+%1 > %2+%3", highlights the cells or items, when the sum between first two columns is greater than the sum between third and forth column.
6. "%0+%1 >= 0 and (%2+%3)/2 < %4-5", highlights the cells or the items, when the sum between first two columns is greater than 0 and the half of the sum between third and forth columns is less than fifth column minus 5.
7. "%0 startwith 'A'" specifies the cells that starts with A
8. "%0 endwith 'Bc'" specifies the cells that ends with Bc
9. "%0 contains 'aBc'" specifies the cells that contains the aBc string
10. "lower(%0) contains 'abc'" specifies the cells that contains the abc, AbC, ABC, and so on
11. "upper(%0)" retrieves the uppercase string
12. "len(%0)>0" specifies the not blanks cells
13. "len %0 = 0" specifies the blanks cells

The conditional format feature may change the cells and items as follows:

- [Bold](#) property. Bolds the cell or items
- [Italic](#) property. Indicates whether the cells or items should appear in italic.
- [StrikeOut](#) property. Indicates whether the cells or items should appear in strikeout.
- [Underline](#) property. Underlines the cells or items
- [Font](#) property. Changes the font for cells or items.
- [BackColor](#) property. Changes the background color for cells or items, supports skins as well.
- [ForeColor](#) property. Changes the foreground color for cells or items.

The following VB samples bolds all items when the sum between first two columns is greater than 0:

```
Gantt1.ConditionalFormats.Add("%0+%1>0").Bold = True
```

The following C++ sample bolds all items when the sum between first two columns is greater than 0:

```
COleVariant vtEmpty;  
m_tree.GetConditionalFormats().Add( "%0+%1>0", vtEmpty ).SetBold( TRUE );
```

The following VB.NET sample bolds all items when the sum between first two columns is greater than 0:

```
AxGantt1.ConditionalFormats.Add("%0+%1>0").Bold = True
```

The following C# sample bolds all items when the sum between first two columns is greater

than 0:

```
axGantt1.ConditionalFormats.Add("%0+%1>0", null).Bold = true
```

The following VFP sample bolds all items when the sum between first two columns is greater than 0:

```
thisform.Gantt1.ConditionalFormats.Add("%0+%1>0").Bold = .t.
```

## property ConditionalFormat.Font as IFontDisp

Retrieves or sets the font for objects that match the criteria.

Type	Description
IFontDisp	A Font object that's applied to items or columns.

Use the Font property to change the font for items or columns that match the criteria. Use the Font property only, if you need to change to a different font.

You can change directly the font attributes, like follows:

- [Bold](#) property. Bolds the cell or items
- [Italic](#) property. Indicates whether the cells or items should appear in italic.
- [StrikeOut](#) property. Indicates whether the cells or items should appear in strikeout.
- [Underline](#) property. Underlines the cells or items

The following VB sample changes the font for ALL cells in the first column:

```
With Gantt1.ConditionalFormats.Add("1")
```

```
    .ApplyTo = 0
```

```
    Set .Font = New StdFont
```

```
    With .Font
```

```
        .Name = "Comic Sans MS"
```

```
    End With
```

```
End With
```

## property ConditionalFormat.ForeColor as Color

Retrieves or sets the foreground color for objects that match the condition.

Type	Description
Color	A color expression that indicates the foreground color for the object that match the criteria.

Use the ForeColor property to specify the foreground color for objects that match the criteria. Use the [BackColor](#) property to change the background color for items or cells in the column when a certain condition is met. Use the [ClearForeColor](#) method to remove the foreground color being set using previously the ForeColor property. If the ForeColor property is not set, it retrieves 0. The [ApplyTo](#) property specifies whether the ConditionalFormat object is applied to items or to cells in the column.

## property ConditionalFormat.Italic as Boolean

Specifies whether the objects that match the condition should appear in italic.

Type	Description
Boolean	A boolean expression that indicates whether the objects should look in italic.

The [ApplyTo](#) property specifies whether the ConditionalFormat object is applied to items or to cells in the column. The following VB sample makes italic the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
With Gantt1.ConditionalFormats.Add("%1+%2<%0")
    .ApplyTo = 1
    .Italic = True
End With
```

The following C++ sample makes italic the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
COleVariant vtEmpty;
CConditionalFormat cf = m_gantt.GetConditionalFormats().Add( "%1+%2<%0", vtEmpty );
cf.SetItalic( TRUE );
cf.SetApplyTo( 1 );
```

The following VB.NET sample makes italic the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
With AxGantt1.ConditionalFormats.Add("%1+%2<%0")
    .ApplyTo = 1
    .Italic = True
End With
```

The following C# sample makes italic the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
EXGANTTLib.ConditionalFormat cf =
axGantt1.ConditionalFormats.Add("%1+%2<%0",null);
cf.Italic = true;
```

```
cf.ApplyTo = (EXGANTTLib.FormatApplyToEnum)1;
```

The following VFP sample makes italic the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
with thisform.Gantt1.ConditionalFormats.Add("%1+%2<%0")
    .Italic = .t.
    .ApplyTo = 1
endwith
```

## property ConditionalFormat.Key as Variant

Checks whether the expression is syntactically correct.

Type	Description
Variant	A String expression that indicates the key of the element

The Key property indicates the key of the element. Use the [Add](#) method to specify a key at adding time. Use the [Remove](#) method to remove a formula giving its key.

## property ConditionalFormat.StrikeOut as Boolean

Specifies whether the objects that match the condition should appear in strikeout.

Type	Description
Boolean	A Boolean expression that indicates whether the objects should appear in strikeout.

The [ApplyTo](#) property specifies whether the ConditionalFormat object is applied to items or to cells in the column. The following VB sample applies strikeout font attribute to cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
With Gantt1.ConditionalFormats.Add("%1+%2<%0")
    .ApplyTo = 1
    .Bold = True
End With
```

The following C++ sample applies strikeout font attribute to cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
COleVariant vtEmpty;
CConditionalFormat cf = m_gantt.GetConditionalFormats().Add( "%1+%2<%0", vtEmpty );
cf.SetBold( TRUE );
cf.SetApplyTo( 1 );
```

The following VB.NET sample applies strikeout font attribute to cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
With AxGantt1.ConditionalFormats.Add("%1+%2<%0")
    .ApplyTo = 1
    .Bold = True
End With
```

The following C# sample applies strikeout font attribute to cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
EXGANTTLib.ConditionalFormat cf =  
axGantt1.ConditionalFormats.Add("%1+%2<%0",null);  
cf.Bold = true;  
cf.ApplyTo = (EXGANTTLib.FormatApplyToEnum)1;
```

The following VFP sample applies strikeout font attribute to cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
with thisform.Gantt1.ConditionalFormats.Add("%1+%2<%0")  
.Bold = .t.  
.ApplyTo = 1  
endwith
```

## property ConditionalFormat.Underline as Boolean

Underlines the objects that match the condition.

Type	Description
Boolean	A boolean expression that indicates whether the objects are underlined.

The [ApplyTo](#) property specifies whether the ConditionalFormat object is applied to items or to cells in the column. The following VB sample underlines the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
With Gantt1.ConditionalFormats.Add("%1+%2<%0")
    .ApplyTo = 1
    .Underline = True
End With
```

The following C++ sample underlines the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
COleVariant vtEmpty;
CConditionalFormat cf = m_gantt.GetConditionalFormats().Add( "%1+%2<%0", vtEmpty );
cf.SetUnderline( TRUE );
cf.SetApplyTo( 1 );
```

The following VB.NET sample underlines the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
With AxGantt1.ConditionalFormats.Add("%1+%2<%0")
    .ApplyTo = 1
    .Underline = True
End With
```

The following C# sample underlines the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
EXGANTTLib.ConditionalFormat cf =
axGantt1.ConditionalFormats.Add("%1+%2<%0",null);
cf.Underline = true;
```

```
cf.ApplyTo = (EXGANTTLib.FormatApplyToEnum)1;
```

The following VFP sample underlines the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
with thisform.Gantt1.ConditionalFormats.Add("%1+%2<%0")
    .Underline = .t.
    .ApplyTo = 1
endwith
```

## property ConditionalFormat.Valid as Boolean

Checks whether the expression is syntactically correct.

Type	Description
Boolean	A boolean expression that indicates whether the <a href="#">Expression</a> property is valid.

Use the Valid property to check whether the [Expression](#) formula is valid. The conditional format is not applied to objects if expression is not valid, or the [Enabled](#) property is false. An empty expression is not valid. Use the Enabled property to disable applying the format to columns or items. Use the [Remove](#) method to remove an expression from ConditionalFormats collection.

## ConditionalFormats object

The conditional formatting feature allows you to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula. The ConditionalFormats collection holds a collection of ConditionalFormat objects. Use the [ConditionalFormats](#) property to access the control's ConditionalFormats collection. The ConditionalFormats collection supports the following properties and methods:

Name	Description
<a href="#">Add</a>	Adds a new expression to the collection and returns a reference to the newly created object.
<a href="#">Clear</a>	Removes all expressions in a collection.
<a href="#">Count</a>	Returns the number of objects in a collection.
<a href="#">Item</a>	Returns a specific expression.
<a href="#">Remove</a>	Removes a specific member from the collection.

## method ConditionalFormats.Add (Expression as String, [Key as Variant])

Adds a new expression to the collection and returns a reference to the newly created object.

Type	Description
Expression as String	A formal expression that indicates the formula being used when the format is applied. Please check the <a href="#">Expression</a> property that shows the syntax of the expression that may be used. For instance, the " <b>%0 &gt;= 10 and %1 &gt; 67.23</b> " means all cells in the first column with the value less or equal than 10, and all cells in the second column with a value greater than 67.23
Key as Variant	A string or long expression that indicates the key of the expression being added. If the Key parameter is missing, by default, the current index in the ConditionalFormats collection is used.
Return	Description
<a href="#">ConditionalFormat</a>	A ConditionalFormat object that indicates the newly format being added.

The conditional formatting feature allows you to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula. Use the Add method to format cells or items based on values. Use the Add method to add new ConditionalFormat objects to the [ConditionalFormats](#) collection. By default, the ConditionalFormats collection is empty. A ConditionalFormat object indicates a formula and a format to apply to cells or items. The [ApplyTo](#) property specifies whether the ConditionalFormat object is applied to items or to cells in the column. Use the Expression property to retrieve or set the formula. Use the [Key](#) property to retrieve the key of the object. Use the [Refresh](#) method to update the changes on the control's content.

The conditional format feature may change the cells and items as follows:

- [Bold](#) property. Bolds the cell or items
- [Italic](#) property. Indicates whether the cells or items should appear in italic.
- [StrikeOut](#) property. Indicates whether the cells or items should appear in strikeout.
- [Underline](#) property. Underlines the cells or items
- [Font](#) property. Changes the font for cells or items.
- [BackColor](#) property. Changes the background color for cells or items, supports skins as well.
- [ForeColor](#) property. Changes the foreground color for cells or items.

The following VB sample bolds all items when the sum between first two columns is greater than 0:

```
Gantt1.ConditionalFormats.Add("%0+%1>0").Bold = True
```

The following VB sample bolds the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
With Gantt1.ConditionalFormats.Add("%1+%2<%0")
```

```
    .ApplyTo = 1
```

```
    .Bold = True
```

```
End With
```

The following C++ sample bolds all items when the sum between first two columns is greater than 0:

```
COleVariant vtEmpty;
```

```
m_gantt.GetConditionalFormats().Add( "%0+%1>0", vtEmpty ).SetBold( TRUE );
```

The following C++ sample bolds the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
COleVariant vtEmpty;
```

```
CCconditionalFormat cf = m_gantt.GetConditionalFormats().Add( "%1+%2<%0", vtEmpty )
```

```
);
```

```
cf.SetBold( TRUE );
```

```
cf.SetApplyTo( 1 );
```

The following VB.NET sample bolds all items when the sum between first two columns is greater than 0:

```
AxGantt1.ConditionalFormats.Add("%0+%1>0").Bold = True
```

The following VB.NET sample bolds the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
With AxGantt1.ConditionalFormats.Add("%1+%2<%0")
```

```
    .ApplyTo = 1
```

```
    .Bold = True
```

```
End With
```

The following C# sample bolds all items when the sum between first two columns is greater than 0:

```
axGantt1.ConditionalFormats.Add("%0+%1>0", null).Bold = true
```

The following C# sample bolds the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
EXGANTTLib.ConditionalFormat cf =
axGantt1.ConditionalFormats.Add("%1+%2<%0",null);
cf.Bold = true;
cf.ApplyTo = (EXGANTTLib.FormatApplyToEnum)1;
```

The following VFP sample bolds all items when the sum between first two columns is greater than 0:

```
thisform.Gantt1.ConditionalFormats.Add("%0+%1>0").Bold = .t.
```

The following VFP sample bolds the cells in the second column ( 1 ), if the sum between second and third column ( 2 ) is less than the value in the first column ( 0 ):

```
with thisform.Gantt1.ConditionalFormats.Add("%1+%2<%0")
.Bold = .t.
.ApplyTo = 1
endwith
```

## method ConditionalFormats.Clear ()

Removes all expressions in a collection.

Type	Description
------	-------------

Use the `Clear` method to remove all objects in the collection. Use the [Remove](#) method to remove a particular object from the collection. Use the [Enabled](#) property to disable a conditional format.

## property ConditionalFormats.Count as Long

Returns the number of objects in a collection.

Type	Description
Long	A long expression that counts the number of elements in the collection.

Use the [Item](#) and Count property to enumerate the elements in the collection. Use the [Expression](#) property to get the expression of the format.

The following VB sample enumerates all elements in the ConditionalFormats collection:

```
Dim c As ConditionalFormat  
For Each c In Gantt1.ConditionalFormats  
    Debug.Print c.Expression  
Next
```

The following VB sample enumerates all elements in the ConditionalFormats collection:

```
Dim i As Integer  
With Gantt1.ConditionalFormats  
    For i = 0 To .Count - 1  
        Debug.Print .Item(i).Expression  
    Next  
End With
```

The following C++ sample enumerates all elements in the ConditionalFormats collection:

```
for ( long i = 0; i < m_gantt.GetConditionalFormats().GetCount(); i++ )  
{  
    CConditionalFormat cf = m_gantt.GetConditionalFormats().GetItem( COleVariant( i ) );  
    OutputDebugString( cf.GetExpression() );  
}
```

The following VB.NET sample enumerates all elements in the ConditionalFormats collection:

```
Dim c As EXGANTTLib.ConditionalFormat  
For Each c In AxGantt1.ConditionalFormats  
    System.Diagnostics.Debug.WriteLine(c.Expression)  
Next
```

The following VB.NET sample enumerates all elements in the ConditionalFormats collection:

```
Dim i As Integer  
With AxGantt1.ConditionalFormats  
    For i = 0 To .Count - 1  
        System.Diagnostics.Debug.WriteLine(.Item(i).Expression)  
    Next  
End With
```

The following C# sample enumerates all elements in the ConditionalFormats collection:

```
foreach (EXGANTTLib.ConditionalFormat c in axGantt1.ConditionalFormats)  
    System.Diagnostics.Debug.WriteLine(c.Expression);
```

The following C# sample enumerates all elements in the ConditionalFormats collection:

```
for (int i = 0; i < axGantt1.ConditionalFormats.Count; i++)  
    System.Diagnostics.Debug.WriteLine(axGantt1.ConditionalFormats[i].Expression);
```

The following VFP sample enumerates all elements in the ConditionalFormats collection:

```
with thisform.Gantt1.ConditionalFormats  
    for i = 0 to .Count - 1  
        wait .Item(i).Expression  
    next  
endwith
```

## property ConditionalFormats.Item (Key as Variant) as ConditionalFormat

Returns a specific expression.

Type	Description
Key as Variant	A long expression that indicates the index of the element being accessed, or a string expression that indicates the key of the element being accessed.
<a href="#">ConditionalFormat</a>	A ConditionalFormat object being returned.

Use the [Item](#) and Count property to enumerate the elements in the collection. Use the [Expression](#) property to get the expression of the format. Use the [Key](#) property to get the key of the format.

The following VB sample enumerates all elements in the ConditionalFormats collection:

```
Dim c As ConditionalFormat  
For Each c In Gantt1.ConditionalFormats  
    Debug.Print c.Expression  
Next
```

The following VB sample enumerates all elements in the ConditionalFormats collection:

```
Dim i As Integer  
With Gantt1.ConditionalFormats  
    For i = 0 To .Count - 1  
        Debug.Print .Item(i).Expression  
    Next  
End With
```

The following C++ sample enumerates all elements in the ConditionalFormats collection:

```
for ( long i = 0; i < m_gantt.GetConditionalFormats().GetCount(); i++ )  
{  
    CConditionalFormat cf = m_gantt.GetConditionalFormats().GetItem( COleVariant( i ) );  
    OutputDebugString( cf.GetExpression() );  
}
```

The following VB.NET sample enumerates all elements in the ConditionalFormats collection:

```
Dim c As EXGANTTLib.ConditionalFormat
```

```
For Each c In AxGantt1.ConditionalFormats  
    System.Diagnostics.Debug.WriteLine(c.Expression)  
Next
```

The following VB.NET sample enumerates all elements in the ConditionalFormats collection:

```
Dim i As Integer  
With AxGantt1.ConditionalFormats  
    For i = 0 To .Count - 1  
        System.Diagnostics.Debug.WriteLine(.Item(i).Expression)  
    Next  
End With
```

The following C# sample enumerates all elements in the ConditionalFormats collection:

```
foreach (EXGANTTLib.ConditionalFormat c in axGantt1.ConditionalFormats)  
    System.Diagnostics.Debug.WriteLine(c.Expression);
```

The following C# sample enumerates all elements in the ConditionalFormats collection:

```
for (int i = 0; i < axGantt1.ConditionalFormats.Count; i++)  
    System.Diagnostics.Debug.WriteLine(axGantt1.ConditionalFormats[i].Expression);
```

The following VFP sample enumerates all elements in the ConditionalFormats collection:

```
with thisform.Gantt1.ConditionalFormats  
    for i = 0 to .Count - 1  
        wait .Item(i).Expression  
    next  
endwith
```

## method ConditionalFormats.Remove (Key as Variant)

Removes a specific member from the collection.

Type	Description
Key as Variant	A Long or String expression that indicates the key of the element to be removed.

Use the Remove method to remove a particular object from the collection. Use the [Enabled](#) property to disable a conditional format. Use the [Clear](#) method to remove all objects in the collection.

## ExDataObject object

The [OleDragDrop](#) event notifies your application that the user drags some data on the control. Defines the object that contains OLE drag and drop information. The ExDataObject object supports the following method and properties:

Name	Description
<a href="#">Clear</a>	Deletes the contents of the ExDataObject object.
<a href="#">Files</a>	Returns an ExDataObjectFiles collection, which in turn contains a list of all filenames used by an ExDataObject object.
<a href="#">GetData</a>	Returns data from an ExDataObject object in the form of a variant.
<a href="#">GetFormat</a>	Returns a value indicating whether an item in the ExDataObject object matches a specified format.
<a href="#">SetData</a>	Inserts data into an ExDataObject object using the specified data format.

## method ExDataObject.Clear ()

Deletes the contents of the DataObject object.

Type	Description
------	-------------

The Clear method can be called only for drag sources. The [OleDragDrop](#) event notifies your application that the user drags some data on the control.

## property ExDataObject.Files as ExDataObjectFiles

Returns a DataObjectFiles collection, which in turn contains a list of all filenames used by a DataObject object.

Type	Description
<a href="#">ExDataObjectFiles</a>	An ExDataObjectFiles object that contains a list of filenames used in OLE drag and drop operations.

The Files property is valid only if the format of the clipboard data is exCFFiles. The [OleDragDrop](#) event notifies your application that the user drags some data on the control.

## method ExDataObject.GetData (Format as Integer)

Returns data from a DataObject object in the form of a variant.

Type	Description
Format as Integer	An <a href="#">exClipboardFormatEnum</a> expression that defines the data's format
Return	Description
Variant	A Variant value that contains the ExDataObject's data in the given format

Use GetData property to retrieve the clipboard's data that has been dragged to the control. It's possible for the GetData and [SetData](#) methods to use data formats other than [exClipboardFormatEnum](#), including user-defined formats registered with Windows via the RegisterClipboardFormat() API function. The GetData method always returns data in a byte array when it is in a format that it is not recognized. Use the [Files](#) property to retrieves the filenames if the format of data is exCFFiles

## method ExDataObject.GetFormat (Format as Integer)

Returns a value indicating whether the ExDataObject's data is of specified format.

Type	Description
Format as Integer	A constant or value that specifies a clipboard data format like described in <a href="#">exClipboardFormatEnum</a> enum.
Return	Description
Boolean	A boolean value that indicates whether the ExDataObject's data is of specified format.

Use the GetFormat property to verify if the ExDataObject's data is of a specified clipboard format. The GetFormat property retrieves True, if the ExDataObject's data format matches the given data format.

## method ExDataObject.SetData ([Value as Variant], [Format as Variant])

Inserts data into a ExDataObject object using the specified data format.

Type	Description
Value as Variant	A data that is going to be inserted to ExDataObject object.
Format as Variant	A constant or value that specifies the data format, as described in <a href="#">exClipboardFormatEnum</a> enum

Use SetData property to insert data for OLE drag and drop operations. Use the [Files](#) property if you are going to add new files to the clipboard data. The [OleDragDrop](#) event notifies your application that the user drags some data on the control.

## ExDataObjectFiles object

The ExDataObjectFiles contains a collection of filenames. The ExDataObjectFiles object is used in OLE Drag and drop events. In order to get the list of files used in drag and drop operations you have to use the [Files](#) property. The [OleDragDrop](#) event notifies your application that the user drags some data on the control. The ExDataObjectFiles object supports the following properties and methods:

Name	Description
<a href="#">Add</a>	Adds a filename to the Files collection
<a href="#">Clear</a>	Removes all file names in the collection.
<a href="#">Count</a>	Returns the number of file names in the collection.
<a href="#">Item</a>	Returns an specific file name.
<a href="#">Remove</a>	Removes an specific file name.

## method ExDataObjectFiles.Add (FileName as String)

Adds a filename to the Files collection

Type	Description
FileName as String	A string expression that indicates a filename.

Use Add method to add your files to ExDataObject object. The [OleStartDrag](#) event notifies your application that the user starts dragging items.

## **method ExDataObjectFiles.Clear ()**

Removes all file names in the collection.

Type	Description
------	-------------

Use the Clear method to remove all filenames from the collection.

## **property ExDataObjectFiles.Count as Long**

Returns the number of file names in the collection.

Type	Description
Long	A long value that indicates the count of elements into collection.

You can use "for each" statements if you are going to enumerate the elements into ExDataObjectFiles collection.

## **property ExDataObjectFiles.Item (Index as Long) as String**

Returns a specific file name given its index.

Type	Description
Index as Long	A long expression that indicates the filename's index.
String	A string value that indicates the filename.

## **method ExDataObjectFiles.Remove (Index as Long)**

Removes a specific file name given its index into collection.

Type	Description
Index as Long	A long expression that indicates the index of filename into collection.

Use [Clear](#) method to remove all filenames.,.

# Gantt object

**Tip** The /COM object can be placed on a HTML page (with usage of the HTML object tag: <object classid="clsid:...>) using the class identifier: {09C0C400-3A0F-4CD3-8B93-8D42FCE66726}. The object's program identifier is: "Exontrol.Gantt". The /COM object module is: "ExGantt.dll"

The Exontrol's ExGantt component is our approach to create timeline charts (also known as Gantt charts). Gantt chart is a time-phased graphic display of activity durations. Activities are listed with other tabular information on the left side with time intervals over the bars. Activity durations are shown in the form of horizontal bars. The Gantt object supports the following properties and methods:

Name	Description
<a href="#">AllowChartScrollHeader</a>	Specifies whether the user can scroll the chart by clicking the chart's header and move the cursor to a new position.
<a href="#">AllowChartScrollPage</a>	Specifies whether the chart's horizontal scroll bar includes buttons to scroll the chart page by page.
<a href="#">AllowEdit</a>	Retrieves or sets a value that indicates whether the editing tree is allowed or disabled.
<a href="#">AllowSelectNothing</a>	Specifies whether the current selection is erased, once the user clicks outside of the items section.
<a href="#">AnchorFromPoint</a>	Retrieves the identifier of the anchor from point.
<a href="#">Appearance</a>	Retrieves or sets the control's appearance.
<a href="#">ApplyFilter</a>	Applies the filter.
<a href="#">ASCIILower</a>	Specifies the set of lower characters.
<a href="#">ASCIIUpper</a>	Specifies the set of upper characters.
<a href="#">AttachTemplate</a>	Attaches a script to the current object, including the events, from a string, file, a safe array of bytes.
<a href="#">AutoDrag</a>	Gets or sets a value that indicates the way the component supports the AutoDrag feature.
<a href="#">AutoSearch</a>	Enables or disables the auto search feature.
<a href="#">BackColor</a>	Retrieves or sets a value that indicates the control's background color.
<a href="#">BackColorAlternate</a>	Specifies the background color used to display alternate items in the control.
<a href="#">BackColorHeader</a>	Specifies the header's background color.
<a href="#">BackColorLevelHeader</a>	Specifies the multiple levels header's background color.
	Retrieves or sets a value that indicates the control's

## [BackColorLock](#)

background color for the locked area.

## [BackColorSortBar](#)

Retrieves or sets a value that indicates the sort bar's background color.

## [BackColorSortBarCaption](#)

Returns or sets a value that indicates the caption's background color in the control's sort bar.

## [Background](#)

Returns or sets a value that indicates the background color for parts in the control.

## [BeginUpdate](#)

Maintains performance when items are added to the control one at a time. This method prevents the control from painting until the EndUpdate method is called.

## [BorderStyle](#)

Retrieves or sets the border style of the control.

## [Chart](#)

Gets the chart object.

## [ChartOnLeft](#)

Specifies whether the chart area is displayed on the left or right side of the component.

## [CheckImage](#)

Retrieves or sets a value that indicates the image used by cells of checkbox type.

## [ClearFilter](#)

Clears the filter.

## [ColumnAutoResize](#)

Returns or sets a value indicating whether the control will automatically size its visible columns to fit on the control's client width.

## [ColumnFromPoint](#)

Retrieves the column from point.

## [Columns](#)

Retrieves the control's column collection.

## [ColumnsAllowSizing](#)

Retrieves or sets a value that indicates whether a user can resize columns at run-time.

## [ColumnsFloatBarSortOrder](#)

Specifies the sorting order for the columns being shown in the control's columns floating panel.

## [ColumnsFloatBarVisible](#)

Retrieves or sets a value that indicates whether the the columns float bar is visible or hidden.

## [ConditionalFormats](#)

Retrieves the conditional formatting collection.

## [ContinueColumnScroll](#)

Retrieves or sets a value indicating whether the control will automatically scroll the visible columns by pixel or by column width.

## [Copy](#)

Copies the control's content to the clipboard, in the EMF format.

## [CopyTo](#)

Exports the control's view to an EMF file.

<a href="#">CountLockedColumns</a>	Retrieves or sets a value indicating the number of locked columns. A locked column is not scrollable.
<a href="#">DataSource</a>	Retrieves or sets a value that indicates the data source for object.
<a href="#">DefaultItemHeight</a>	Retrieves or sets a value that indicates the default item height.
<a href="#">Description</a>	Changes descriptions for control objects.
<a href="#">DetectAddNew</a>	Specifies whether the control detects when a new record is added to the bounded recordset.
<a href="#">DrawGridLines</a>	Retrieves or sets a value that indicates whether the grid lines are visible or hidden.
<a href="#">Enabled</a>	Enables or disables the control.
<a href="#">EndUpdate</a>	Resumes painting the control after painting is suspended by the BeginUpdate method.
<a href="#">EnsureOnSort</a>	Specifies whether the control ensures that the focused item fits the control's client area, when the user sorts the items.
<a href="#">EnsureVisibleColumn</a>	Scrolls the control's content to ensure that the column fits the client area.
<a href="#">EventParam</a>	Retrieves or sets a value that indicates the current's event parameter.
<a href="#">ExecuteTemplate</a>	Executes a template and returns the result.
<a href="#">ExpandOnDblClick</a>	Specifies whether the item is expanded or collapsed if the user dbl clicks the item.
<a href="#">ExpandOnKeys</a>	Specifies a value that indicates whether the control expands or collapses a node when user presses arrow keys.
<a href="#">ExpandOnSearch</a>	Expands items automatically while user types characters to search for a specific item.
<a href="#">Export</a>	Exports the control's data to a CSV format.
<a href="#">FilterBarBackColor</a>	Specifies the background color of the control's filter bar.
<a href="#">FilterBarCaption</a>	Specifies the filter bar's caption.
<a href="#">FilterBarDropDownHeight</a>	Specifies the height of the drop down filter window proportionally with the height of the control's list.
<a href="#">FilterBarFont</a>	Retrieves or sets the font for control's filter bar.
<a href="#">FilterBarForeColor</a>	Specifies the foreground color of the control's filter bar.

<a href="#">FilterBarHeight</a>	Specifies the height of the control's filter bar. If the value is less than 0, the filter bar is automatically resized to fit its description.
<a href="#">FilterBarPrompt</a>	Specifies the caption to be displayed when the filter pattern is missing.
<a href="#">FilterBarPromptColumns</a>	Specifies the list of columns to be used when filtering using the prompt.
<a href="#">FilterBarPromptPattern</a>	Specifies the pattern for the filter prompt.
<a href="#">FilterBarPromptType</a>	Specifies the type of the filter prompt.
<a href="#">FilterBarPromptVisible</a>	Shows or hides the filter prompt.
<a href="#">FilterCriteria</a>	Retrieves or sets the filter criteria.
<a href="#">FilterInclude</a>	Specifies the items being included after the user applies the filter.
<a href="#">Font</a>	Retrieves or sets the control's font.
<a href="#">ForeColor</a>	Retrieves or sets a value that indicates the control's foreground color.
<a href="#">ForeColorHeader</a>	Specifies the header's foreground color.
<a href="#">ForeColorLock</a>	Retrieves or sets a value that indicates the control's foreground color for the locked area.
<a href="#">ForeColorSortBar</a>	Retrieves or sets a value that indicates the sort bar's foreground color.
<a href="#">FormatABC</a>	Formats the A,B,C values based on the giving expression and returns the result.
<a href="#">FormatAnchor</a>	Specifies the visual effect for anchor elements in HTML captions.
<a href="#">FreezeEvents</a>	Prevents the control to fire any event.
<a href="#">FullRowSelect</a>	Enables full-row selection in the control.
<a href="#">GetItems</a>	Gets the collection of items into a safe array,
<a href="#">GridLineColor</a>	Specifies the grid line color.
<a href="#">GridLineStyle</a>	Specifies the style for gridlines in the list part of the control.
<a href="#">HasButtons</a>	Adds a button to the left side of each parent item. The user can click the button to expand or collapse the child items as an alternative to double-clicking the parent item.
	Specifies the index of icons for +/- signs when the

## [HasButtonsCustom](#)

HasButtons property is exCustom.

## [HasLines](#)

Enhances the graphic representation of a tree control's hierarchy by drawing lines that link child items to their corresponding parent item.

## [HeaderAppearance](#)

Retrieves or sets a value that indicates the header's appearance.

## [HeaderHeight](#)

Retrieves or sets a value indicating the control's header height.

## [HeaderSingleLine](#)

Specifies whether the control resizes the columns header and wraps the captions in single or multiple lines.

## [HeaderVisible](#)

Retrieves or sets a value that indicates whether the tree's header is visible or hidden.

## [HideSelection](#)

Returns a value that determines whether selected item appears highlighted when a control loses the focus.

## [HotBackColor](#)

Retrieves or sets a value that indicates the hot-tracking background color.

## [HotForeColor](#)

Retrieves or sets a value that indicates the hot-tracking foreground color.

## [HTMLPicture](#)

Adds or replaces a picture in HTML captions.

## [hWnd](#)

Retrieves the control's window handle.

## [HyperLinkColor](#)

Specifies the hyperlink color.

## [Images](#)

Sets at runtime the control's image list. The Handle should be a handle to an Image List Control.

## [ImageSize](#)

Retrieves or sets the size of icons the control displays.

## [Indent](#)

Retrieves or sets the amount, in pixels, that child items are indented relative to their parent items.

## [ItemFromPoint](#)

Retrieves the item from point.

## [Items](#)

Retrieves the control's item collection.

## [ItemsAllowSizing](#)

Retrieves or sets a value that indicates whether a user can resize items at run-time.

## [Layout](#)

Saves or loads the control's layout, such as positions of the columns, scroll position, filtering values.

## [LinesAtRoot](#)

Link items at the root of the hierarchy.

## [LoadXML](#)

Loads an XML document from the specified location, using MSXML parser.

<a href="#">MarkSearchColumn</a>	Retrieves or sets a value that indicates whether the searching column is marked or unmarked
<a href="#">OLEDrag</a>	Causes a component to initiate an OLE drag/drop operation.
<a href="#">OLEDropMode</a>	Returns or sets how a target component handles drop operations
<a href="#">OnResizeControl</a>	Specifies whether the list or the chart part is resized once the control is resized.
<a href="#">Picture</a>	Retrieves or sets a graphic to be displayed in the control.
<a href="#">PictureDisplay</a>	Retrieves or sets a value that indicates the way how the graphic is displayed on the control's background
<a href="#">PictureDisplayLevelHeader</a>	Retrieves or sets a value that indicates the way how the graphic is displayed on the control's header background.
<a href="#">PictureLevelHeader</a>	Retrieves or sets a graphic to be displayed in the control's header when multiple levels is on.
<a href="#">PutItems</a>	Adds an array of integer, long, date, string, double, float, or variant arrays to the control.
<a href="#">RadiolImage</a>	Retrieves or sets a value that indicates the image used by cells of radio type.
<a href="#">RClickSelect</a>	Retrieves or sets a value that indicates whether an item is selected using right mouse button.
<a href="#">Refresh</a>	Refreshes the control's content.
<a href="#">RemoveSelection</a>	Removes the selected items (including the descendants)
<a href="#">ReplaceIcon</a>	Adds a new icon, replaces an icon or clears the control's image list.
<a href="#">RightToLeft</a>	Indicates whether the component should draw right-to-left for RTL languages.
<a href="#">SaveXML</a>	Saves the control's content as XML document to the specified location, using the MSXML parser.
<a href="#">Scroll</a>	Scrolls the control's content.
<a href="#">ScrollBars</a>	Returns or sets a value that determines whether the control has horizontal and/or vertical scroll bars.
<a href="#">ScrollBarHeight</a>	Specifies the height of the button in the vertical scrollbar.
<a href="#">ScrollBarWidth</a>	Specifies the width of the button in the horizontal scrollbar.
	Retrieves or sets a value that indicates whether the

<a href="#">ScrollBySingleLine</a>	control scrolls the lines to the end. If you have at least a cell that has SingleLine false, you have to check the ScrollBySingleLine property..
<a href="#">ScrollFont</a>	Retrieves or sets the scrollbar's font.
<a href="#">ScrollHeight</a>	Specifies the height of the horizontal scrollbar.
<a href="#">ScrollOrderParts</a>	Specifies the order of the buttons in the scroll bar.
<a href="#">ScrollPartCaption</a>	Specifies the caption being displayed on the specified scroll part.
<a href="#">ScrollPartCaptionAlignment</a>	Specifies the alignment of the caption in the part of the scroll bar.
<a href="#">ScrollPartEnable</a>	Indicates whether the specified scroll part is enabled or disabled.
<a href="#">ScrollPartVisible</a>	Indicates whether the specified scroll part is visible or hidden.
<a href="#">ScrollPos</a>	Specifies the vertical/horizontal scroll position.
<a href="#">ScrollThumbSize</a>	Specifies the size of the thumb in the scrollbar.
<a href="#">ScrollToolTip</a>	Specifies the tooltip being shown when the user moves the scroll box.
<a href="#">ScrollWidth</a>	Specifies the width of the vertical scrollbar.
<a href="#">SearchColumnIndex</a>	Retrieves or sets a value indicating the column's index that is used for auto search feature.
<a href="#">SelBackColor</a>	Retrieves or sets a value that indicates the selection background color.
<a href="#">SelBackMode</a>	Retrieves or sets a value that indicates whether the selection is transparent or opaque.
<a href="#">SelectColumn</a>	Specifies whether the user selects cells only in SelectColumnIndex column, while FullRowSelect property is False.
<a href="#">SelectColumnIndex</a>	Retrieves or sets a value that indicates control column's index where the user is able to select an item. It has effect only for FullRowSelect = false.
<a href="#">SelectColumnInner</a>	Retrieves or sets a value that indicates the index of the inner cell that's selected.
<a href="#">SelectOnRelease</a>	Indicates whether the selection occurs when the user releases the mouse button.
	Retrieves or sets a value that indicates the selection

## [SelForeColor](#)

foreground color.

## [SelLength](#)

Returns or sets the number of characters selected.

## [SelStart](#)

Returns or sets the starting point of text selected; indicates the position of the insertion point if no text is selected.

## [ShowFocusRect](#)

Retrieves or sets a value indicating whether the control draws a thin rectangle around the focused item.

## [ShowImageList](#)

Specifies whether the control's image list window is visible or hidden.

## [ShowLockedItems](#)

Retrieves or sets a value that indicates whether the control displays the locked items.

## [ShowToolTip](#)

Shows the specified tooltip at given position.

## [SingleSel](#)

Retrieves or sets a value that indicates whether the control supports single or multiple selection.

## [SingleSort](#)

Returns or sets a value that indicates whether the control supports sorting by single or multiple columns.

## [SortBarCaption](#)

Specifies the caption being displayed on the control's sort bar when the sort bar contains no columns.

## [SortBarColumnWidth](#)

Specifies the maximum width a column can be in the control's sort bar.

## [SortBarHeight](#)

Retrieves or sets a value that indicates the height of the control's sort bar.

## [SortBarVisible](#)

Retrieves or sets a value that indicates whether control's sort bar is visible or hidden.

## [SortOnClick](#)

Retrieves or sets a value that indicates whether the control sorts automatically the data when the user click on column's caption.

## [Statistics](#)

Gives statistics data of objects being hold by the control.

## [Template](#)

Specifies the control's template.

## [TemplateDef](#)

Defines inside variables for the next Template/ExecuteTemplate call.

## [TemplatePut](#)

Defines inside variables for the next Template/ExecuteTemplate call.

## [ToolTipDelay](#)

Specifies the time in ms that passes before the ToolTip appears.

[ToolTipFont](#)

Retrieves or sets the tooltip's font.

[ToolTipPopDelay](#)

Specifies the period in ms of time the ToolTip remains visible if the mouse pointer is stationary within a control.

[ToolTipWidth](#)

Specifies a value that indicates the width of the tooltip window, in pixels.

[TreeColumnIndex](#)

Retrieves or sets a value indicating the column's index where the hierarchy will be displayed.

[UseTabKey](#)

Specifies whether the TAB key is used to change the searching column.

[UseVisualTheme](#)

Specifies whether the control uses the current visual theme to display certain UI parts.

[Version](#)

Retrieves the control's version.

[VisualAppearance](#)

Retrieves the control's appearance.

[VisualDesign](#)

Invokes the control's VisualAppearance designer.

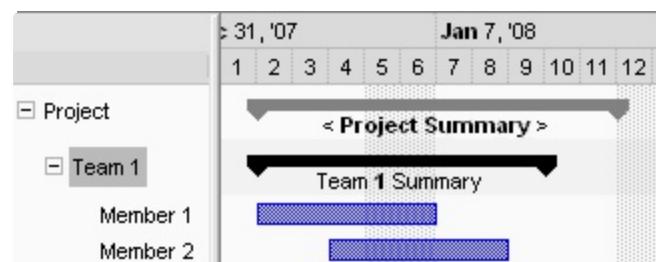
## property Gantt.AllowChartScrollHeader as Boolean

Specifies whether the user can scroll the chart by clicking the chart's header and move the cursor to a new position.

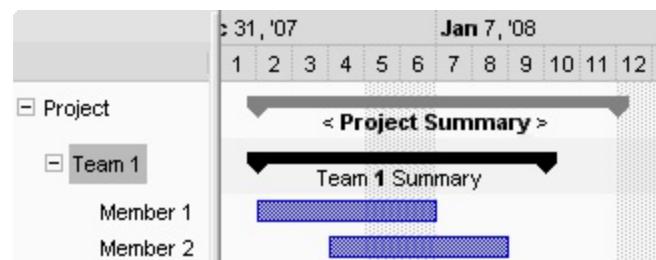
Type	Description
Boolean	A boolean expression that specifies whether the user can click and scroll the chart's header.

By default, the AllowChartScrollHeader property is True. In this case, if the user clicks the chart's header and drag the mouse to a new position the chart gets scrolled. While scrolling the hand cursor is being displayed. You are still able to scroll the control's chart using the horizontal scroll bar in the chart area. Use the [FirstVisibleDate](#) property to display a different date in the chart. If the user clicks and releases the mouse in the chart's header a date gets selected so it gets marked using the [MarkSelectDateColor](#) property.

The following screen show how the charts gets scrolled once the user clicks and drags the mouse on the chart's header ( AllowChartScrollHeader property is True ) :



The following screen show how a new date gets selected once the user clicks a date in the chart's header:



## property Gantt.AllowChartScrollPage as Boolean

Specifies whether the chart's horizontal scroll bar includes buttons to scroll the chart page by page.

Type	Description
Boolean	A Boolean expression that specifies whether the control includes the <a href="#">exLeftB5Part</a> and <a href="#">exRightB1Part</a> buttons to the chart's horizontal scroll bar.

By default AllowChartScrollPage property is False. Use the AllowChartScrollPage property to add fast scroll to the chart's page. If the AllowChartScrollPage property is True, the control automatically adds the exLeftB5Part and exRightB1Part buttons to the chart's horizontal scroll bar. Once that the user clicks any of these buttons the chart is scrolled page by page. Use the [ScrollPartCaption](#) property to specify the caption being displayed in any part of the control's scrollbar. Use the <img> HTML tag to include icons or custom size pictures to your scroll buttons.

## property Gantt.AllowEdit as Boolean

Retrieves or sets a value that indicates whether the editing tree is allowed or disabled.

Type	Description
Boolean	A boolean expression that indicates whether the editing tree is allowed or disabled.

By default, the AllowEdit property is False. If the AllowEdit property is False, the events [BeforeCellEdit](#) and [AfterCellEdit](#) are not fired.

## property Gantt.AllowSelectNothing as Boolean

Specifies whether the current selection is erased, once the user clicks outside of the items section.

Type	Description
Boolean	A Boolean expression that specifies whether the current selection is erased, once the user clicks outside of the items section.

By default, the AllowSelectNothing property is False. The AllowSelectNothing property specifies whether the current selection is erased, once the user clicks outside of the items section. For instance, if the control's [SingleSel](#) property is True, and AllowSelectNothing property is True, you can un-select the single-selected item if pressing the CTRL + Space, or by CTRL + click.

## **property Gantt.AnchorFromPoint (X as OLE\_XPOS\_PIXELS, Y as OLE\_YPOS\_PIXELS) as String**

Retrieves the identifier of the anchor from point.

Type	Description
X as OLE_XPOS_PIXELS	A single that specifies the current X location of the mouse pointer. The x values is always expressed in client coordinates.
Y as OLE_YPOS_PIXELS	A single that specifies the current Y location of the mouse pointer. The y values is always expressed in client coordinates.
String	A String expression that specifies the identifier (id) of the anchor element from the point, or empty string if there is no anchor element at the cursor

Use the AnchorFromPoint property to determine the identifier of the anchor from the point. Use the [<a id=options>](#) anchor elements to add hyperlinks to cell's caption. The control fires the [AnchorClick](#) event when the user clicks an anchor element. Use the [ShowToolTip](#) method to show the specified tooltip at given or cursor coordinates. The [MouseMove](#) event is generated continually as the mouse pointer moves across the control.

The following VB sample displays ( as tooltip ) the identifier of the anchor element from the cursor:

```
Private Sub Gantt1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As Single)
    With Gantt1
        .ShowToolTip .AnchorFromPoint(-1, -1)
    End With
End Sub
```

The following VB.NET sample displays ( as tooltip ) the identifier of the anchor element from the cursor:

```
Private Sub AxGantt1_MouseMoveEvent(ByVal sender As System.Object, ByVal e As AxEXGANTTLib._IGanttEvents_MouseMoveEvent) Handles AxGantt1.MouseMoveEvent
    With AxGantt1
        .ShowToolTip(.get_AnchorFromPoint(-1, -1))
    End With
End Sub
```

The following C# sample displays ( as tooltip ) the identifier of the anchor element from the cursor:

```
private void axGantt1_MouseMoveEvent(object sender,  
AxEXGANTTLib._IGanttEvents_MouseMoveEvent e)  
{  
    axGantt1.ShowToolTip(axGantt1.get_AnchorFromPoint(-1, -1));  
}
```

The following C++ sample displays ( as tooltip ) the identifier of the anchor element from the cursor:

```
void OnMouseMoveGantt1(short Button, short Shift, long X, long Y)  
{  
    COleVariant vtEmpty; V_VT( &vtEmpty ) = VT_ERROR;  
    m_gantt.ShowToolTip( m_gantt.GetAnchorFromPoint( -1, -1 ), vtEmpty, vtEmpty,  
    vtEmpty );  
}
```

The following VFP sample displays ( as tooltip ) the identifier of the anchor element from the cursor:

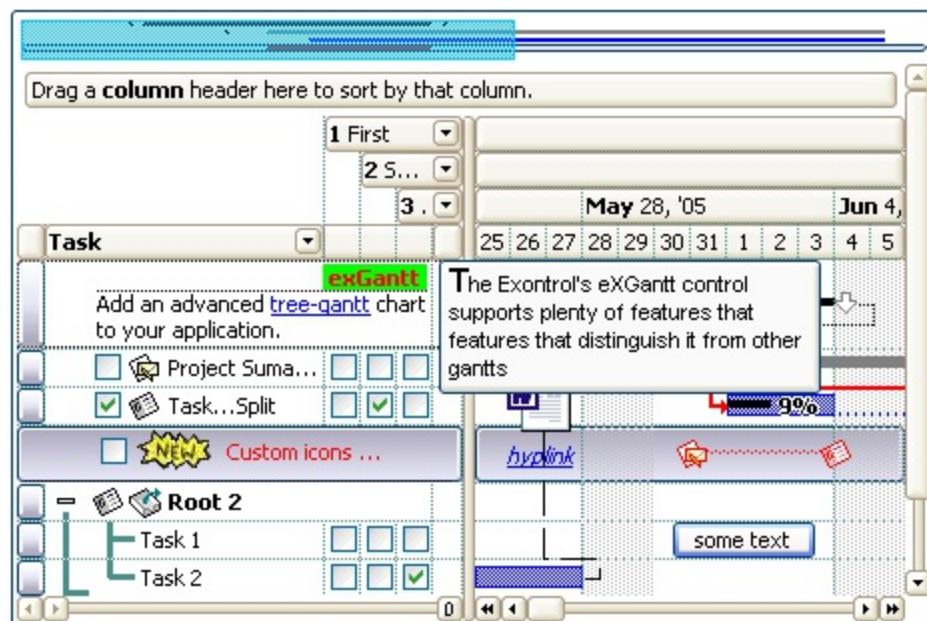
```
*** ActiveX Control Event ***  
LPARAMETERS button, shift, x, y  
  
with thisform  
    With .Gantt1  
        .ShowToolTip(.AnchorFromPoint(-1, -1))  
    EndWith  
endwith
```

## property Gantt.Appearance as AppearanceEnum

Retrieves or sets the control's appearance.

Type	Description
<a href="#">AppearanceEnum</a>	An AppearanceEnum expression that indicates the control's appearance, or a color expression whose last 7 bits in the high significant byte of the value indicates the index of the skin in the <a href="#">Appearance</a> collection, being displayed as control's borders. For instance, if the Appearance = 0x1000000, indicates that the first skin object in the Appearance collection defines the control's border. <b><i>The Client object in the skin, defines the client area of the control. The list/hierarchy/chart, scrollbars are always shown in the control's client area. The skin may contain transparent objects, and so you can define round corners. The <a href="#">normal.ebn</a> file contains such of objects. Use the <a href="#">eXButton</a>'s Skin builder to view or change this file</i></b>

Use the Appearance property to specify the control's border. Use the [HeaderAppearance](#) property to change the control's header bar appearance. Use the [Add](#) method to add new skins to the control. Use the [BackColor](#) property to specify the control's background color. Use the [Background\(exToolTipAppearance\)](#) property indicates the visual appearance of the borders of the tooltips.



The following VB sample changes the visual aspect of the borders of the control ( please check the above picture for round corners ):

```
With Gantt1
```

```
    .BeginUpdate
```

```
        .VisualAppearance.Add &H16, "c:\temp\normal.ebn"
```

```
        .Appearance = &H16000000
```

```
        .BackColor = RGB(250, 250, 250)
```

```
    .EndUpdate
```

```
End With
```

The following VB.NET sample changes the visual aspect of the borders of the control:

```
With AxGantt1
```

```
    .BeginUpdate()
```

```
        .VisualAppearance.Add(&H16, "c:\temp\normal.ebn")
```

```
        .Appearance = &H16000000
```

```
        .BackColor = Color.FromArgb(250, 250, 250)
```

```
    .EndUpdate()
```

```
End With
```

The following C# sample changes the visual aspect of the borders of the control:

```
axGantt1.BeginUpdate();
axGantt1.VisualAppearance.Add(0x16, "c:\\temp\\\\normal.ebn");
axGantt1.Appearance = (EXGANTTLib.AppearanceEnum)0x16000000;
axGantt1.BackColor = Color.FromArgb(250, 250, 250);
axGantt1.EndUpdate();
```

The following C++ sample changes the visual aspect of the borders of the control:

```
m_gantt.BeginUpdate();
m_gantt.GetVisualAppearance().Add( 0x16, COleVariant( "c:\\temp\\\\normal.ebn" ) );
m_gantt.SetAppearance( 0x16000000 );
m_gantt.SetBackColor( RGB(250,250,250) );
m_gantt.EndUpdate();
```

The following VFP sample changes the visual aspect of the borders of the control:

```
with thisform.Gantt1
```

```
    .BeginUpdate
```

```
        .VisualAppearance.Add(0x16, "c:\temp\normal.ebn")
```

```
.Appearance = 0x16000000  
.BackColor = RGB(250, 250, 250)
```

```
.EndUpdate
```

```
endwith
```

## method Gantt.ApplyFilter ()

Applies the filter.

Type	Description
------	-------------

The ApplyFilter method updates the control's content once that user sets the filter using the [Filter](#) and [FilterType](#) properties. Use the [ClearFilter](#) method to clear the control's filter. Use the [DisplayFilterButton](#) property to show the filter drop down button in the column's caption. Use the [FilterInclude](#) property to specify whether the child items should be included to the list when the user applies the filter. Use the [FilterCriteria](#) property to filter items using the AND, OR and NOT operators. Use the [ShowFilter](#) method to show programmatically the column's drop down filter window. The [VisibleItemCount](#) property specifies the number of visible items in the list. The control fires the [FilterChanging](#) event just before applying the filter, and [FilterChange](#) once the list gets filtered.

## property Gantt.ASCIILower as String

Specifies the set of lower characters.

Type	Description
String	A string expression that indicates the set of lower characters used by auto search feature.

The ASCIILower and [ASCIIUpper](#) properties helps you to specify the set of characters that are used by the auto search feature ( incremental search ). If you want to make the auto search feature case sensitive you have to use ASCIIUpper = "" . By default, the ASCIILower property is = "abcdefghijklmnopqrstuvwxyz" שבסמך תספחים ? מילפצעת רכטן זהה יגהה

**property Gantt.ASCIIUpper as String**

Specifies the set of upper characters.

Type	Description
String	A string expression that indicates the set of upper characters used by auto search feature.

The [ASCIILower](#) and [ASCIIUpper](#) properties helps you to specify the set of characters that are used by the auto search ( incremental search ) feature. If you want to make the auto search feature case sensitive you have to use `ASCIIUpper = ""` . By default, the `ASCIIUpper` property is =

## method Gantt.AttachTemplate (Template as Variant)

Attaches a script to the current object, including the events, from a string, file, a safe array of bytes.

Type	Description
Template as Variant	A string expression that specifies the Template to execute.

The AttachTemplate/x-script code is a simple way of calling control/object's properties, methods/events using strings. The AttachTemplate features allows you to attach a x-script code to the component. The AttachTemplate method executes x-script code ( including events ), from a string, file or a safe array of bytes. This feature allows you to run any x-script code for any configuration of the component /COM, /NET or /WPF. Exontrol owns the x-script implementation in its easiest form and it does not require any VB engine or whatever to get executed. The x-script code can be converted to several programming languages using the eXHelper tool.

The following sample opens the Windows Internet Explorer once the user clicks the control ( /COM version ):

```
AttachTemplate("handle Click(){ CreateObject(`internetexplorer.application`){ Visible = True; Navigate(`https://www.exontrol.com` ) } } ")
```

This script is equivalent with the following VB code:

```
Private Sub Gantt1_Click()
    With CreateObject("internetexplorer.application")
        .Visible = True
        .Navigate ("https://www.exontrol.com")
    End With
End Sub
```

The AttachTemplate/x-script syntax in BNF notation is defined like follows:

```
<x-script> := <lines>
<lines> := <line>[<eol> <lines>] | <block>
<block> := <call> [<eol>] { [<eol>] <lines> [<eol>] } [<eol>]
<eol> := ";" | "\r\n"
<line> := <dim> | <createobject> | <call> | <set> | <comment> | <handle>[<eol>]{[<eol>]
<lines>[<eol>]}[<eol>]
<dim> := "DIM" <variables>
<variables> := <variable> [, <variables>]
```

```

<variable> := "ME" | <identifier>
<createobject> := "CREATEOBJECT(`"<type>"`)"
<call> := <variable> | <property> | <variable>."<property>" | <createobject>."<property>
<property> := [<property>].""]<identifier>["("<parameters>")"]
<set> := <call> "=" <value>
<property> := <identifier> | <identifier>"(["<parameters>"])"
<parameters> := <value> [","<parameters>]
<value> := <boolean> | <number> | <color> | <date> | <string> | <createobject> | <call>
<boolean> := "TRUE" | "FALSE"
<number> := "0X"<hexa> | ["-"]<integer>[".",<integer>]
<digit10> := 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9
<digit16> := <digit10> | A | B | C | D | E | F
<integer> := <digit10>[<integer>]
<hexa> := <digit16>[<hexa>]
<color> := "RGB("<integer>,"<integer>","<integer>)"
<date> := "#<integer>"/<integer>"/<integer>" "[<integer>":"<integer>":"<integer>"]#"
<string> := ""<text>"" | """<text>"""
<comment> := """<text>
<handle> := "handle " <event>
<event> := <identifier>"(["<eparameters>"])"
<eparameters> := <eparameter> [","<eparameters>]
<parameters> := <identifier>

```

where:

<identifier> indicates an identifier of the variable, property, method or event, and should start with a letter.  
 <type> indicates the type the CreateObject function creates, as a progID for /COM version or the assembly-qualified name of the type to create for /NET or /WPF version  
 <text> any string of characters

The Template or x-script is composed by lines of instructions. Instructions are separated by "\n\r" ( newline characters ) or ";" character.

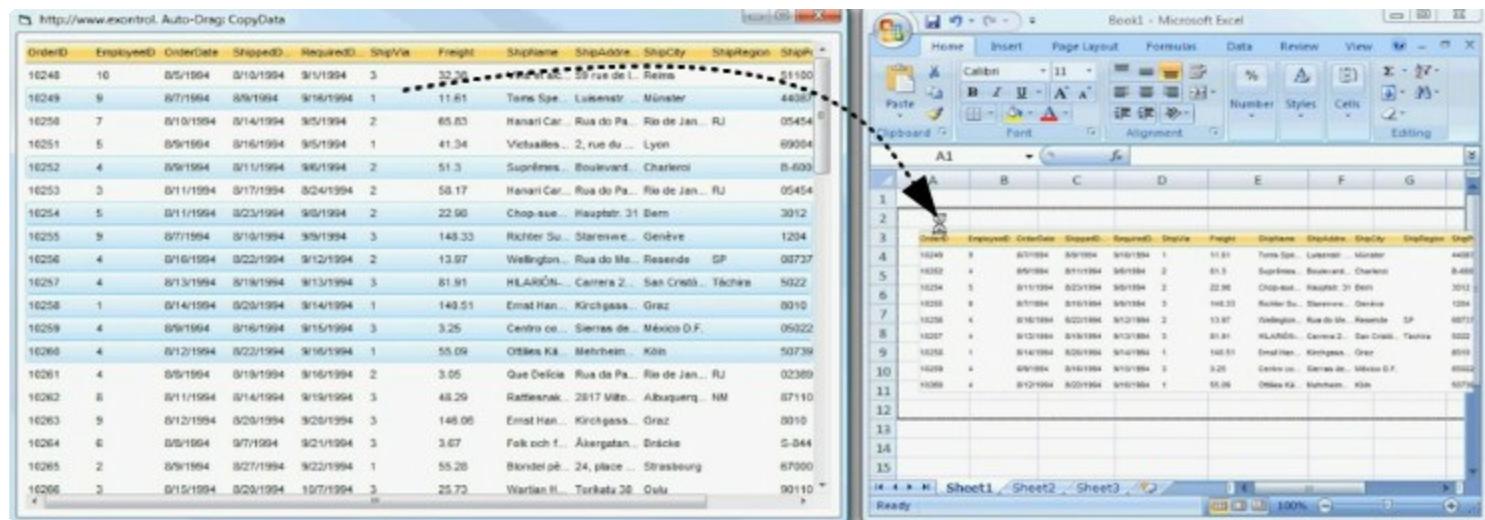
The advantage of the AttachTemplate relative to [Template](#) / [ExecuteTemplate](#) is that the AttachTemplate can add handlers to the control events.

## property Gantt.AutoDrag as AutoDragEnum

Gets or sets a value that indicates the way the component supports the AutoDrag feature.

Type	Description
<a href="#">AutoDragEnum</a>	An AutoDragEnum expression that specifies what the control does once the user clicks and start dragging an item.

By default, the AutoDrag property is exAutoDragNone(0). The AutoDrag feature indicates what the control does when the user clicks an item and starts dragging it. For instance, using the AutoDrag feature you can automatically let the user to drag and drop the data to OLE compliant applications like Microsoft Word, Excel and so on. The [SingleSel](#) property specifies whether the control supports single or multiple selection. The AutoDrag feature adds automatically Drag and Drop, but you can still use the [OLEDropMode](#) property to handle the OLE Drag and Drop event for your custom action. If you need moving a bar from an item to another, you should use the Items.[ItemBar\(exBarCanMoveToAnother\)](#) property on True.



The drag and drop operation starts:

- once the user clicks and moves the cursor up or down, if the SingleSel property is True.
- once the user clicks, and waits for a short period of time, if SingleSel property is False (multiple items in selection is allowed). In this case, you can drag and drop any item that is not selected, or a contiguously selection

Once the drag and drop operation starts the mouse pointer is changed to MOVE cursor if the operation is possible, else if the Drag and Drop operation fails or if it is not possible, the mouse pointer is changed to NO cursor.

If using the AutoDrag property on:

- exAutoDragPosition
- exAutoDragPositionKeepIndent
- exAutoDragPositionAny

the Drag and Drop starts only:

- item from cursor is a selectable ( [SelectableItem](#) property on True, default ) and sortable item ( [SortableItem](#) property on True, default ).
- if multiple items are selected, the selection is contiguously.

Use the AutoDrag property to allow Drag and Drop operations like follows:

- Ability to  [change](#) the column or row position without having to manually add the OLE drag and drop events
- Ability to  [drag and drop](#) the data as *text*, to your favorite Office applications, like Word, Excel, or any other OLE-Automation compliant
- Ability to  [drag and drop](#) the data as it *looks*, to your favorite Office applications, like Word, Excel, or any other OLE-Automation compliant
- Ability to  [smoothly scroll](#) the control's content moving the mouse cursor up or down
- and more ...

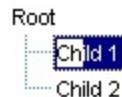
## property Gantt.AutoSearch as Boolean

Enables or disables the auto search feature.

Type	Description
Boolean	A boolean expression that indicates whether the auto search feature is enabled or disabled.

By default, the AutoSearch property is True. The auto-search feature is commonly known as incremental search. An incremental search begins searching as soon as you type the first character of the search string. As you type in the search string, the control selects the item (and highlight the portion of the string that match where the string (as you have typed it so far) would be found. The control supports 'starts with' or 'contains' incremental search as described in the [AutoSearch](#) property of the [Column](#) object. Use the [ExpandOnSearch](#) property to expand items while user types characters in the control. Use the [MarkSearchColumn](#) property to specify whether the control draws a rectangle around the searching column.

The control highlights the characters as the user types them:



## property Gantt.BackColor as Color

Retrieves or sets a value that indicates the control's background color.

Type	Description
Color	A color expression that indicates the control's background color.

The ExGantt ActiveX Control can group the columns into two categories: locked and unlocked. The Locked category contains all the columns that are fixed to the left area of the client area. These columns cannot be scrolled horizontally. Use the [CountLockedColumns](#) to specify the number of locked columns. The unlocked are contains the columns that can be scrolled horizontally. To change the background color of the control's locked area use [BackColorLock](#) property. Use the [SelBackColor](#) property to specify the background color for selected items. Use the [CellBackColor](#) property to assign a different background color for a specified cell. Use the [ItemBackColor](#) property to specify the item's background color. Use the [BackColorAlternate](#) property to specify the background color used to display alternate items in the control. Use the [Picture](#) property to assign a picture to the control's background. Use the [BackColor](#) property to specify the chart's background color.

## property Gantt.BackColorAlternate as Color

Specifies the background color used to display alternate items in the control.

Type	Description
Color	A color expression that indicates the alternate background color.

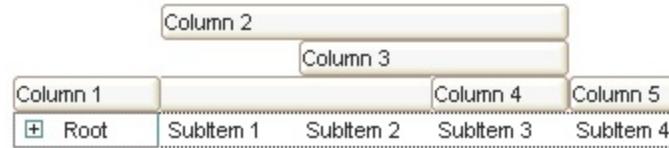
By default, the control's BackColorAlternate property is zero. The control ignores the BackColorAlternate property if it is 0 ( zero ). Use the [BackColor](#) property to specify the control's background color. Use the [SelBackColor](#) property to specify the selection background color.

## property Gantt.BackColorHeader as Color

Specifies the header's background color.

Type	Description
Color	A color expression that indicates the background color for the control's header.

Use the BackColorHeader and [ForeColorHeader](#) properties to customize the control's header. Use the [Def\(exHeaderBackColor\)](#) property to change the background color or the visual appearance for a particular column, in the header area. If the [Def\(exHeaderForeColor\)](#) property is not zero, it defines the foreground color to paint the column's caption in the header area. Use the [HeaderVisible](#) property to hide the control's header. Use the [BackColor](#) property to specify the control's background color. Use the [BackColorLevelHeader](#) property to specify the background color of the header when it displays multiple levels. Use the [BackColorSortBar](#) property to specify the background color of the control's sort bar.



The following VB sample changes the visual appearance for the control's header. Shortly, we need to add a skin to the Appearance object using the [Add](#) method, and we need to set the last 7 bits in the BackColorHeader property to indicates the index of the skin that we want to use. The sample applies the "█" to the control's header bar:

With Gantt1

With .VisualAppearance

.Add &H24, App.Path + "\header.ebn"

End With

.BackColorLevelHeader = RGB(255, 255, 255)

.BackColorHeader = &H24000000

End With

The following C++ sample changes the visual aspect of the control's header bar:

```
#include "Appearance.h"
m_gantt.GetVisualAppearance().Add( 0x24,
COleVariant(_T("D:\\Temp\\\\ExGantt.Help\\\\header.ebn")) );
m_gantt.SetBackColorHeader( 0x24000000 );
```

The following VB.NET sample changes the visual aspect of the control' header bar:

```
With AxGantt1
    With .VisualAppearance
        .Add(&H24, "D:\Temp\ExGantt.Help\header.ebn")
    End With
    .Template = "BackColorHeader = 603979776"
End With
```

The 603979776 value indicates the &H24000000 in hexadecimal.

The following C# sample changes the visual aspect of the control' header bar:

```
axGantt1.VisualAppearance.Add(0x24, "D:\\Temp\\ExGantt.Help\\header.ebn");
axGantt1.Template = "BackColorHeader = 603979776";
```

The 603979776 value indicates the 0x24000000 in hexadecimal.

The following VFP sample changes the visual aspect of the control' header bar:

```
With thisform.Gantt1
    With .VisualAppearance
        .Add(36, "D:\Temp\ExGantt.Help\header.ebn")
    EndWith
    .BackColorHeader = 603979776
EndWith
```

## property Gantt.BackColorLevelHeader as Color

Specifies the multiple levels header's background color.

Type	Description
Color	A color expression that indicates the background color of the control's header bar.

Use the BackColorHeader and [ForeColorHeader](#) properties to define colors used to paint the control's header bar. Use the BackColorLevelHeader property to specify the background color of the control's header bar when multiple levels are displayed. Use the [LevelKey](#) property to display the control's header bar using multiple levels. If the control displays the header bar using multiple levels the [HeaderHeight](#) property gets the height in pixels of a single level in the header bar. The control's header displays multiple levels if there are two or more neighbor columns with the same non empty level key.

## property Gantt.BackColorLock as Color

Retrieves or sets a value that indicates the control's background color for the locked area.

Type	Description
Color	A boolean expression that indicates the control's background color for the locked area.

The ExGantt ActiveX Control can group the columns into two categories: locked and unlocked. The Locked category contains all the columns that are fixed to the left area of the client area. These columns cannot be scrolled horizontally. Use the [CountLockedColumns](#) to specify the number of locked columns. The unlocked are contains the columns that can be scrolled horizontally. To change the background color of the control's unlocked area use [BackColor](#) property

## property Gantt.BackColorSortBar as Color

Retrieves or sets a value that indicates the sort bar's background color.

Type	Description
Color	A color expression that indicates the background color of the sort bar.

Use the BackColorSortBar property to specify the background color of the control's sort bar. Use the [SortBarVisible](#) property to show the control's sort bar. Use the [BackColorSortBarCaption](#) property to specify the background color of the caption of the sort bar. The caption of the sort bar is visible, if there are no columns in the sort bar. Use the [SortBarCaption](#) property to specify the caption of the sort bar. Use the [ForeColorSortBar](#) property to specify the foreground color of the control's sort bar. Use the [BackColor](#) property to specify the control's background color. Use the [BackColorHeader](#) property to specify the background color of the control's header bar. Use the [BackColorLevelHeader](#) property to specify the background color of the control's header bar when multiple levels are displayed.

## property Gantt.BackColorSortBarCaption as Color

Returns or sets a value that indicates the caption's background color in the control's sort bar.

Type	Description
Color	A color expression that indicates the caption's background color in the control's sort bar.

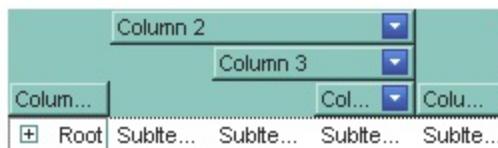
Use the [SortBarCaption](#) property to specify the caption of the sort bar, when the control's sort bar contains no columns. Use the [BackColorSortBar](#) property to specify the background color of the control's sort bar. Use the [ForeColorSortBar](#) property to specify the foreground color of the caption in the control's sort bar.

## property Gantt.Background(Part as BackgroundPartEnum) as Color

Returns or sets a value that indicates the background color for parts in the control.

Type	Description
Part as <a href="#">BackgroundPartEnum</a>	A BackgroundPartEnum expression that indicates a part in the control.
Color	A Color expression that indicates the background color for a specified part. The last 7 bits in the high significant byte of the color to indicates the identifier of the skin being used. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.

The Background property specifies a background color or a visual appearance for specific parts in the control. If the Background property is 0, the control draws the part as default. Use the [Add](#) method to add new skins to the control. Use the [Remove](#) method to remove a specific skin from the control. Use the [Clear](#) method to remove all skins in the control. Use the [BeginUpdate](#) and [EndUpdate](#) methods to maintain performance while init the control. Use the [Refresh](#) method to refresh the control.



The following VB sample changes the visual appearance for the "drop down" filter button. The sample applies the skin "▼" to the "drop down" filter buttons:

With Gantt1

With .VisualAppearance

.Add &H1, App.Path + "\fbardd.ebn"

End With

.Background(exHeaderFilterBarButton) = &H1000000

End With

The following C++ sample changes the visual appearance for the "drop down" filter button:

```
#include "Appearance.h"
m_gantt.GetVisualAppearance().Add( 0x01,
COleVariant(_T("D:\\Temp\\ExGantt.Help\\fbardd.ebn")) );
```

```
m_gantt.SetBackground( 0 /*exHeaderFilterBarButton*/, 0x1000000 );
```

The following VB.NET sample changes the visual appearance for the "drop down" filter button:

With AxGantt1

  With .VisualAppearance

    .Add(&H1, "D:\Temp\ExGantt.Help\fbardd.ebn")

  End With

  .set\_Background(EXGANTTLib.BackgroundPartEnum.exHeaderFilterBarButton,  
&H1000000)

End With

The following C# sample changes the visual appearance for the "drop down" filter button:

```
axGantt1.VisualAppearance.Add(0x1, "D:\\Temp\\\\ExGantt.Help\\\\fbardd.ebn");  
axGantt1.set_Background(EXGANTTLib.BackgroundPartEnum.exHeaderFilterBarButton,  
0x1000000);
```

The following VFP sample changes the visual appearance for the "drop down" filter button:

With thisform.Gantt1

  With .VisualAppearance

    .Add(1, "D:\Temp\ExGantt.Help\fbardd.ebn")

  EndWith

  .Object.Background(0) = 16777216

EndWith

The 16777216 value is the 0x1000000 value in hexadecimal.

## method Gantt.BeginUpdate ()

Maintains performance when items are added to the control one at a time.

Type	Description
------	-------------

This method prevents the control from painting until the EndUpdate method is called. The BeginUpdate and [EndUpdate](#) methods increases the speed of loading your items, by preventing painting the control when it suffers any change. Once that BeginUpdate method was called, you have to make sure that EndUpdate method will be called too.

The following VB sample prevents painting the control while adding data from a database:

```
Set rs = CreateObject("ADODB.Recordset")
rs.Open "Orders", "Provider=Microsoft.Jet.OLEDB.3.51;Data Source= D:\Program
Files\Microsoft Visual Studio\VB98\NWIND.MDB", 3 ' Opens the table using static mode
```

```
Gantt1.BeginUpdate
For Each f In rs.Fields
    Gantt1.Columns.Add f.Name
Next
Gantt1.PutItems rs.GetRows()
Gantt1.EndUpdate
```

The following C++ sample prevents refreshing the control while adding columns and items from an ADODB recordset:

```
#include "Items.h"
#include "Columns.h"
#include "Column.h"

#pragma warning( disable : 4146 )
#import <msado15.dll> rename ( "EOF", "adoEOF" )
using namespace ADODB;

_RecordsetPtr spRecordset;
if ( SUCCEEDED( spRecordset.CreateInstance( "ADODB.Recordset" ) ) )
{
    // Builds the connection string.
    CString strTableName = "Employees", strConnection =
```

```
"Provider=Microsoft.Jet.OLEDB.4.0;Data Source=";
CString strPath = "D:\\Program Files\\Microsoft Visual Studio\\VB98\\NWIND.MDB";
strConnection += strPath;
try
{
    // Loads the table
    if ( SUCCEEDED( spRecordset->Open(_variant_t( (LPCTSTR)strTableName ),
    _variant_t((LPCTSTR)strConnection), adOpenStatic, adLockPessimistic, NULL ) ) )
    {
        m_gantt.BeginUpdate();
        m_gantt.SetColumnAutoResize( FALSE );
        CColumns columns = m_gantt.GetColumns();
        long nCount = spRecordset->Fields->Count;
        if ( nCount > 0 )
        {
            // Adds the columns
            for ( long i = 0 ; i < nCount; i++ )
                columns.Add( spRecordset->Fields->Item[ i ]->Name );
            CItems items = m_gantt.GetItems();
            // Adds the items
            while ( !spRecordset->adoEOF )
            {
                long j = 0;
                _variant_t vtl( items.AddItem( spRecordset->Fields->Item[ j ]->Value ) );
                for ( ++j ; j < nCount; j++ )
                    items.SetCellCaption( vtl, _variant_t(j), spRecordset->Fields->Item[ j ]-
>Value );
                spRecordset->MoveNext();
            }
        }
        m_gantt.EndUpdate();
    }
}
catch ( _com_error& e )
{
    AfxMessageBox( e.Description() );
}
```

}

The sample adds a column for each field in the recordset, and add a new items for each record. You can use the [DataSource](#) property to bind a recordset to the control. The #import statement imports definitions for ADODB type library, that's used to fill the control.

The following VB.NET sample prevents refreshing the control while adding columns and items:

With AxGantt1

.BeginUpdate()

With .Columns

.Add("Column 1")

.Add("Column 2")

End With

With .Items

Dim iNewItem As Integer

iNewItem = .AddItem("Item 1")

.CellCaption(iNewItem, 1) = "SubItem 1"

iNewItem = .AddItem("Item 2")

.CellCaption(iNewItem, 1) = "SubItem 2"

End With

.EndUpdate()

End With

The following C# sample prevents refreshing the control while adding columns and items:

```
axGantt1.BeginUpdate();
EXGANTTLib.Columns columns = axGantt1.Columns;
columns.Add("Column 1");
columns.Add("Column 2");
EXGANTTLib.Items items = axGantt1.Items;
int iNewItem = items.AddItem( "Item 1" );
items.set_CellCaption( iNewItem, 1, "SubItem 1" );
items.InsertItem( iNewItem, "", "Child 1" );
iNewItem = items.AddItem( "Item 2" );
items.set_CellCaption( iNewItem, 1, "SubItem 2" );
axGantt1.EndUpdate();
```

The following VFP sample prevents refreshing the control while adding new columns and items:

```
thisform.Gantt1.BeginUpdate()
with thisform.Gantt1.Columns
    .Add("Column 1")
    .Add("Column 2")
endwith

with thisform.Gantt1.Items
    .DefaultItem = .AddItem("Item 1")
    .CellCaption(0, 1) = "SubItem 1"
    .DefaultItem = .InsertItem(.DefaultItem,"","Child 1")
    .CellCaption(0, 1) = "SubChild 1"
endwith
thisform.Gantt1.EndUpdate()
```

## **property Gantt.BorderStyle as Long**

Retrieves or sets the border style of the control.

Type	Description
Long	A long expression that indicates the border style of the control.

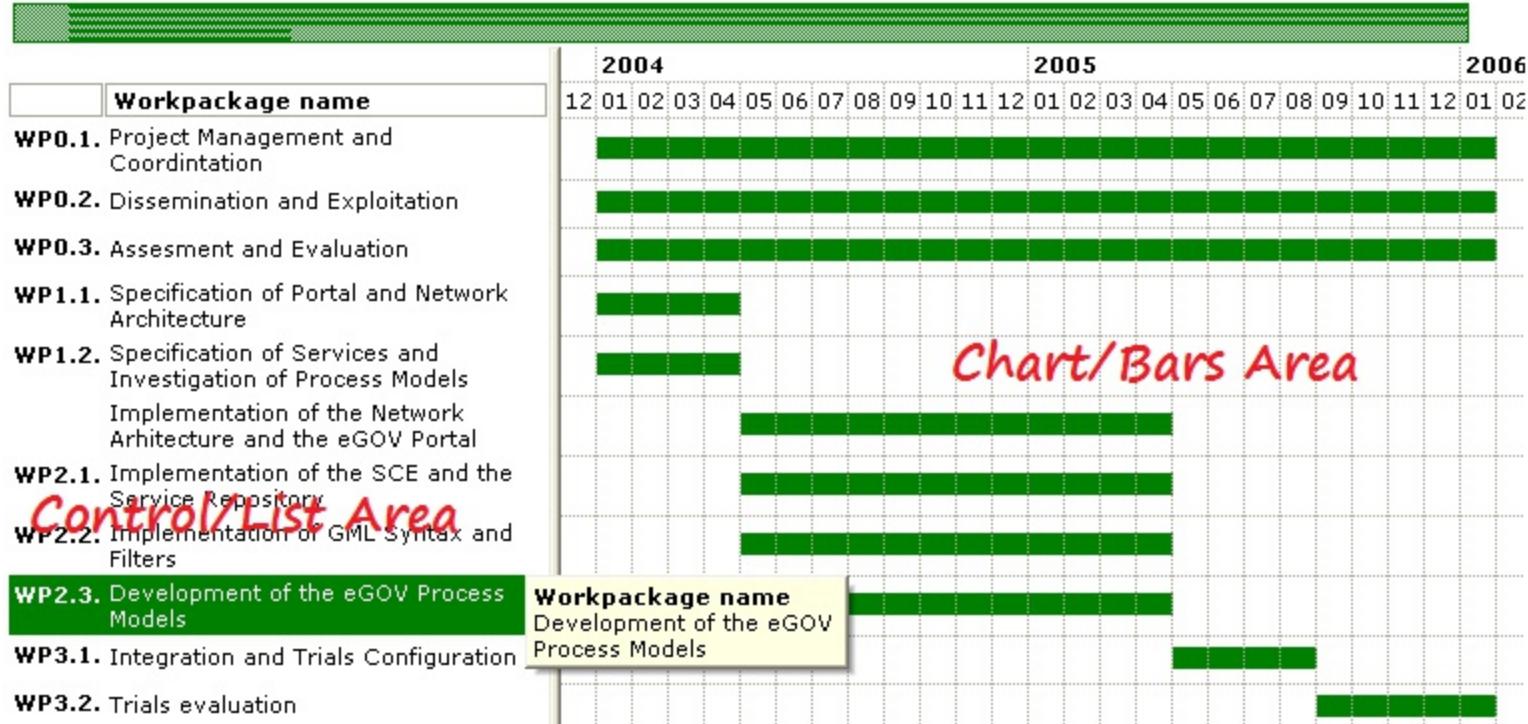
Use the BorderStyle property to hide the control's border.

# property Gantt.Chart as Chart

Gets the chart object.

Type	Description
<a href="#">Chart</a>	A Chart object that indicates the control's chart area.

Use the Chart object to access all properties and methods related to the Gantt chart. Use the [Items](#) property to access the items in the control. Use the [Columns](#) property to access the control's Columns collection. Use the [AddBar](#) method to assign a bar to an item. Use the [LevelCount](#) property to specify the number of levels being displayed in the chart's header. Use the [Level](#) property to access the level in the chart area. Use the [Bars](#) property to access the collection of control's bars. Use the [HeaderVisible](#) property to show or hide the control's header. Use the [SortBarVisible](#) property to specify whether the control's sort bar is visible or it is hidden. Use the [PaneWidth](#) property to specify the width of the control's area or chart's area.



## property Gantt.ChartOnLeft as Boolean

Specifies whether the chart area is displayed on the left or right side of the component.

Type	Description
Boolean	A boolean expression that specifies whether the chart is displayed on left or right side of the control.

By default, the ChartOnLeft property is False, so the chart area is displayed on the right side of the control. The [RightToLeft](#) property flips the order of the control's elements from right to left. Use the [PaneWidth](#) property to specify the width of the panels. The [OnResizeControl](#) property specifies which panel is getting resized when the control is resized. Use the [Chart](#) property to access the chart's properties and methods.

## property Gantt.CheckImage(State as CheckStateEnum) as Long

Retrieves or sets a value that indicates the image used by cells of checkbox type.

Type	Description
State as <a href="#">CheckStateEnum</a>	A CheckStateEnum expression that indicates the check's state: 0 means unchecked, 1 means checked, and 2 means partial checked.
Long	A long expression that indicates the index of image used to paint the cells of check box types. The last 7 bits in the high significant byte of the long expression indicates the identifier of the skin being used to paint the object. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part.

Use CheckImage and [Radiolmage](#) properties to define icons for radio and check box cells. The CheckImage property defines the index of the icon being used by check boxes. Use the [CellHasCheckBox](#) property to assign a checkbox to a cell. Use the [CellHasRadioButton](#) property to assign a radio button to a cell. Use the [CellImage](#) or [CellImages](#) property to assign one or multiple icons to a cell. Use the [CellPicture](#) property to assign a picture to a cell. Use the [CellStateChanged](#) event to notify your application when the cell's state is changed. Use the [PartialCheck](#) property to allow partial check feature within the column. The [ImageSize](#) property defines the size (width/height) of the icons within the control's Images collection.

## method Gantt.ClearFilter ()

Clears the filter.

Type	Description
------	-------------

The method clears the [Filter](#) and [FilterType](#) properties for all columns in the control, excepts for exNumeric and exCheck values where only the Filter property is set on empty. The [ApplyFilter](#) method is automatically called when ClearFilter method is invoked. Use the [FilterBarHeight](#) property to hide the control's filter bar. Use the [FilterBarCaption](#) property to specify the caption in the control's filter bar. Use the Description property to change predefined strings in the control's filter bar. Use the [FilterCriteria](#) property to filter items using the AND, OR and NOT operators. Use the [ShowFilter](#) method to show programmatically the column's drop down filter window.

## property Gantt.ColumnAutoSize as Boolean

Returns or sets a value indicating whether the control will automatically size its visible columns to fit on the control's client width.

Type	Description
Boolean	A boolean expression indicating whether the control will automatically size its visible columns to fit on the control's client width.

Use the ColumnAutoSize property to fit all your columns in the client area. Use the [Width](#) property to specify the column's width. Use the [SortBarColumnWidth](#) property to specify the column's head in the control's sort bar. By default, the ColumnAutoSize property is True.

## property Gantt.ColumnFromPoint (X as OLE\_XPOS\_PIXELS, Y as OLE\_YPOS\_PIXELS) as Long

Retrieves the column from point.

Type	Description
X as OLE_XPOS_PIXELS	A single that specifies the current X location of the mouse pointer. The x values is always expressed in client coordinates.
Y as OLE_YPOS_PIXELS	A single that specifies the current X location of the mouse pointer. The x values is always expressed in client coordinates.
Long	A long expression that indicates the column's index, or -1 if there is no column at the point. The property gets a negative value less or equal with 256, if the point is in the area between columns where the user can resize the column.

Use the ColumnFromPoint property to access the column from the point specified by the {X,Y} coordinates. The ColumnFromPoint property gets the index of the column when the cursor hovers the control's header bar. The X and Y coordinates are expressed in client coordinates, so a conversion must be done in case your coordinates are relative to the screen or to other window. **If the X parameter is -1 and Y parameter is -1 the ItemFromPoint property determines the index of the column from the cursor.** Use the [ItemFromPoint](#) property to retrieve the item from cursor. Use the [DateFromPoint](#) property to specify the date from the cursor. The control fires the [ColumnClick](#) event when user clicks a column. Use the [SortOnClick](#) property to specify the operation that control does when user clicks the control's header. Use the [LevelFromPoint](#) property to retrieve the index of the level from the cursor.

The following VB sample prints the caption of the column from the point:

```
Private Sub Gantt1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As Single)
    With Gantt1
        Dim c As Long
        c = .ColumnFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY)
        If (c >= 0) Then
            With .Columns(c)
                Debug.Print .Caption
            End With
        End If
    End With
End Sub
```

```
End If  
End With  
End Sub
```

The following C++ sample prints the caption of the column from the point:

```
#include "Columns.h"  
#include "Column.h"  
void OnMouseMoveGantt1(short Button, short Shift, long X, long Y)  
{  
    long nCollIndex = m_gantt.GetColumnFromPoint( X, Y );  
    if ( nCollIndex >= 0 )  
    {  
        CColumn column = m_gantt.GetColumns().GetItem( COleVariant( nCollIndex ) );  
        OutputDebugString( column.GetCaption() );  
    }  
}
```

The following VB.NET sample prints the caption of the column from the point:

```
Private Sub AxGantt1_MouseMoveEvent(ByVal sender As Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_MouseMoveEvent) Handles AxGantt1.MouseMoveEvent  
    With AxGantt1  
        Dim i As Integer = .get_ColumnFromPoint(e.x, e.y)  
        If (i >= 0) Then  
            With .Columns(i)  
                Debug.WriteLine(.Caption)  
            End With  
        End If  
    End With  
End Sub
```

The following C# sample prints the caption of the column from the point:

```
private void axGantt1_MouseMoveEvent(object sender,  
AxEXGANTTLib._IGanttEvents_MouseMoveEvent e)  
{  
    int i = axGantt1.get_ColumnFromPoint( e.x,e.y );  
    if ( i >= 0 )
```

```
System.Diagnostics.Debug.WriteLine( axGantt1.Columns[i].Caption );
```

```
}
```

The following VFP sample prints the caption of the column from the point:

```
*** ActiveX Control Event ***
LPARAMETERS button, shift, x, y
with thisform.Gantt1
  i = .ColumnFromPoint( x, y )
  if ( i >= 0 )
    wait window nowait .Columns(i).Caption
  endif
endwith
```

## property Gantt.Columns as Columns

Retrieves the control's column collection.

Type	Description
<a href="#">Columns</a>	A Columns object that holds the control's columns collection.

Use the [Columns](#) property to access the Columns collection. Use the Columns collection to add, remove or change columns. Use the [Add](#) method to add a new column to the control. Use the [Items](#) property to access the control's items collection. Use the [AddItem](#), [InsertItem](#), [InsertControlItem](#) or [PutItems](#) method to add new items to the control. Use the [DataSource](#) property to add new columns and items to the control. Adding new items fails if the control has no columns. Use the [Chart](#) object to access all properties and methods related to the Gantt chart. Use the [AddBar](#) method to add bars to the item. Use the [PaneWidth](#) property to specify the width of the chart. Use the [LevelCount](#) property to specify the number of levels being displayed in the chart's header. Use the [Level](#) property to access the level in the chart area.

## property Gantt.ColumnsAllowSizing as Boolean

Retrieves or sets a value that indicates whether a user can resize columns at run-time.

Type	Description
Boolean	A Boolean expression that indicates whether a user can resize columns at run-time.

By default, the ColumnsAllowSizing property is False. A column can be resized only if the [AllowSizing](#) property is True. Use the [DrawGridLines](#) property to show or hide the control's Gantt lines. Use the [HeaderVisible](#) property to show or hide the control's header bar. The [HeaderAppearance](#) property specifies the appearance of the column in the control's header bar.

## property Gantt.ColumnsFloatBarSortOrder as SortOrderEnum

Specifies the sorting order for the columns being shown in the control's columns floating panel.

Type	Description
<a href="#">SortOrderEnum</a>	A SortOrderEnum expression that specifies how the columns in the columns floating panel are displayed.

By default, the ColumnsFloatBarSortOrder property is SortNone. Use the ColumnsFloatBarSortOrder property to sort the columns to be displayed in the columns floating panel. The [ColumnsFloatBarVisible](#) property shows or hides the columns floating panel.

## property Gantt.ColumnsFloatBarVisible as ColumnsFloatBarVisibleEnum

Retrieves or sets a value that indicates whether the the columns float bar is visible or hidden.

Type	Description
<a href="#">ColumnsFloatBarVisibleEnum</a>	A ColumnsFloatBarVisibleEnum expression that specifies whether the control's Columns float-bar is visible or hidden.

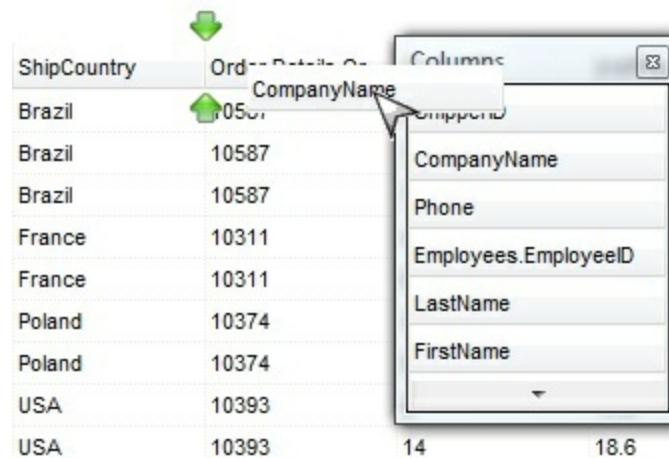
The ColumnsFloatBarVisible property indicates whether the control displays a floating panel that shows the hidden columns, so the user can drag and drop columns on order to show or hide the columns from the control. Use the [ColumnsFloatBarSortOrder](#) property to sort the columns to be displayed in the columns floating panel.

The floating panel displays the following columns:

- hidden columns, so the [Visible](#) property is False.
- drag able column, so the [AllowDragging](#) property is True.

In other words, the [AllowDragging](#) property may be used to choose if a hidden column is displayed in the floating bar. The control fires the [LayoutChanged](#) event as soon as a new column is drop on the control's header, sort or group-by bar. The [Description\(exColumnsFloatBar\)](#) property indicates the text to be displayed on the caption of the floating bar. The [Background\(exColumnsFloatAppearance\)](#) property specifies the visual appearance of the floating panel's frame.

The following screen shot shows the control's Columns float bar:



The following movies show how ColumnsFloatBarVisible works:

- The ColumnsFloatBarVisible property is used to show or hide columns by drag and

drop

-  The movie shows how you can customize the visual appearance of the control's Columns floating bar

## property Gantt.ConditionalFormats as ConditionalFormats

Retrieves the conditional formatting collection.

Type	Description
<a href="#">ConditionalFormats</a>	A ConditionalFormats object that indicates the control's ConditionalFormats collection.

The conditional formatting feature allows you to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula. Use the [Add](#) method to format cells or items based on a formula. Use the [Refresh](#) method to refresh the control, if a change occurs in the conditional format collection. Use the [CellCaption](#) property indicates the cell's caption or value.

The conditional format feature may change the cells and items as follows:

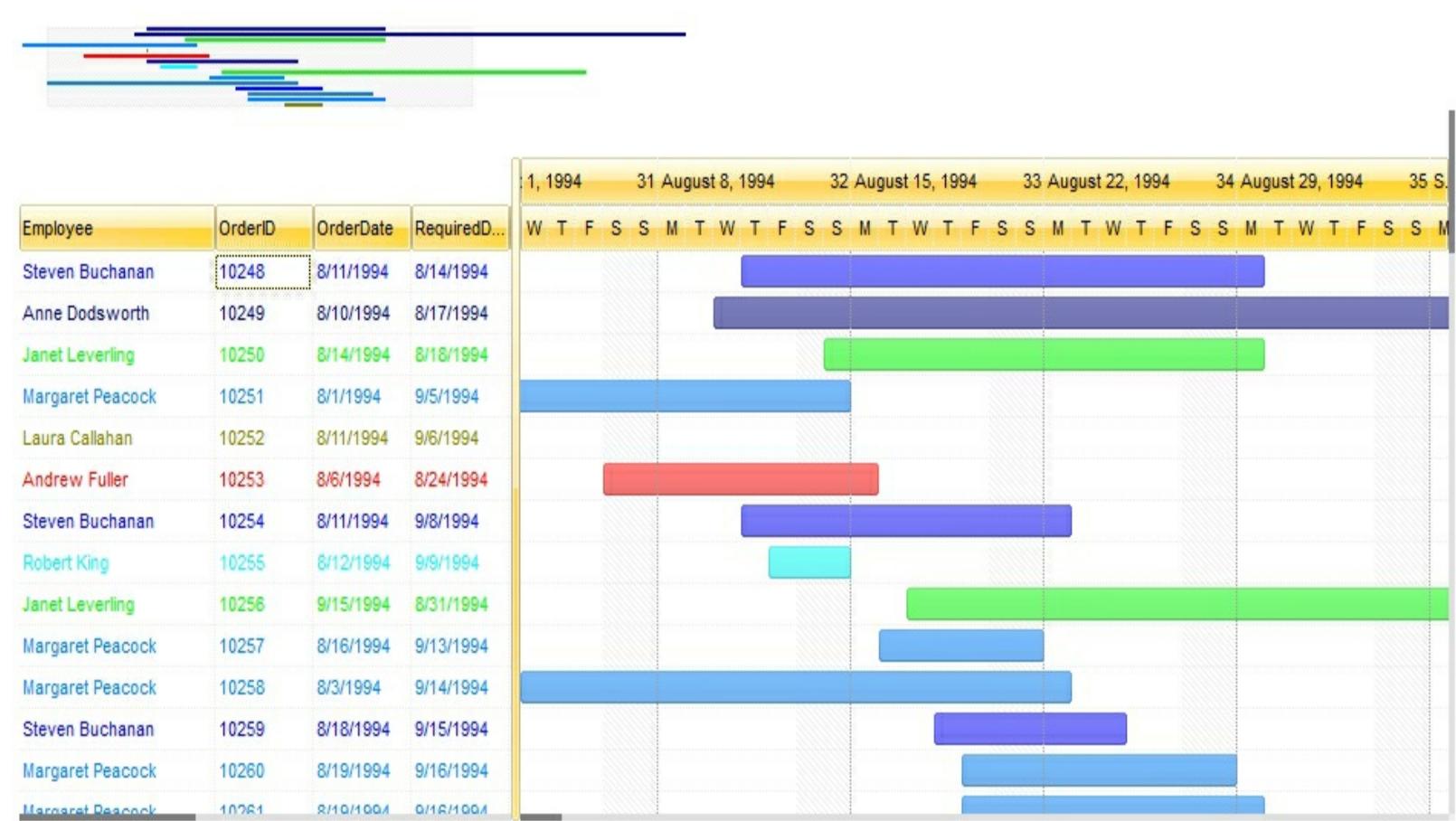
- [Bold](#) property. Bolds the cell or items
- [Italic](#) property. Indicates whether the cells or items should appear in italic.
- [StrikeOut](#) property. Indicates whether the cells or items should appear in strikeout.
- [Underline](#) property. Underlines the cells or items
- [Font](#) property. Changes the font for cells or items.
- [BackColor](#) property. Changes the background color for cells or items, supports skins as well.
- [ForeColor](#) property. Changes the foreground color for cells or items.

The conditional format feature may change the bars as follows:

- The [BarColor](#) property specifies the color to be applied to bars if the conditional expression is accomplished.
- The [BarOverviewColor](#) property specifies the color to be applied to bars, in the overview portion of the control, if the conditional expression is accomplished.

The [ApplyTo](#) property specifies whether the [ConditionalFormat](#) object is applied to items or to a column. Use the [ApplyToBars](#) property to specify the list of bars that the current format is applied to.

The following screen shot shows different colors applied to different items, using the ConditionalFormat feature:



## property Gantt.ContinueColumnScroll as Boolean

Retrieves or sets a value indicating whether the control will automatically scroll the visible columns by pixel or by column width.

Type	Description
Boolean	A boolean expression indicating whether the control will automatically scroll the visible columns by pixel or by column width.

By default, the columns are scrolled pixel by pixel. Use the ContinueColumnScroll to scroll horizontally the control column by column. Use the [EnsureVisibleColumn](#) property to ensure that a visible column fits the control's client area. Use the [Visible](#) property to hide a column. The [ScrollBySingleLine](#) property retrieves or sets a value that indicates whether the control scrolls the lines to the end, item by item. Use the [ScrollBars](#) property to hide the control's scroll bars. Use the [Scroll](#) method to programmatically scroll the control's content.

## method Gantt.Copy()

Copies the control's content to the clipboard, in the EMF format.

Type	Description
------	-------------

Use the Copy method to copy the control's content to the clipboard, in Enhanced Metafile (EMF) format. The Enhanced Metafile format is a 32-bit format that can contain both vector information and bitmap information. Use the [CopyTo](#) method to copy the control's content to EMF/BMP/GIF/PNG/JPEG or PDF files.

This format is an improvement over the Windows Metafile Format and contains extended features, such as the following:

Built-in scaling information

Built-in descriptions that are saved with the file

Improvements in color palettes and device independence

The EMF format is an extensible format, which means that a programmer can modify the original specification to add functionality or to meet specific needs. You can paste this format to Microsoft Word, Excel, Front Page, Microsoft Image Composer and any application that know to handle EMF formats.

The Copy method copies the control's header if it's visible, and all visible items. The items are not expanded, they are listed in the order as they are displayed on the screen. Use the [HeaderVisible](#) property to show or hide the control's header. Use the [ExpandItem](#) property to expand or collapse an item. The background of the copied control is transparent.

The following VB sample saves the control's content to a EMF file, when user presses the CTRL+C key:

```
Private Sub Gantt1_KeyDown(KeyCode As Integer, Shift As Integer)
    If (KeyCode = vbKeyC) And Shift = 2 Then
        Clipboard.Clear
        Gantt1.Copy
        SavePicture Clipboard.GetData(), App.Path & "\test.emf"
    End If
End Sub
```

Now, you can open your MS Windows Word application, and you can insert the file using the Insert\Picture\From File menu, or by pressing the CTRL+V key to paste the clipboard.

The following C++ function saves the clipboard's data ( EMF format ) to a picture file:

```
BOOL saveEMFtoFile( LPCTSTR szFileName )
{
    BOOL bResult = FALSE;
    if ( ::OpenClipboard( NULL ) )
    {
        CComPtr spPicture;
        PICTDESC pictDesc = {0};
        pictDesc.cbSizeofstruct = sizeof(pictDesc);
        pictDesc.emf.hemf = (HENHMETAFILE)GetClipboardData( CF_ENHMETAFILE );
        pictDesc.picType = PICTYPE_ENHMETAFILE;
        if ( SUCCEEDED( OleCreatePictureIndirect( &pictDesc, IID_IPicture, FALSE,
(LPVOID*)&spPicture; ) ) )
        {
            HGLOBAL hGlobal = NULL;
            CComPtr spStream;
            if ( SUCCEEDED( CreateStreamOnHGlobal( hGlobal = GlobalAlloc( GPTR, 0 ), TRUE,
&spStream; ) ) )
            {
                long dwSize = NULL;
                if ( SUCCEEDED( spPicture->SaveAsFile( spStream, TRUE, &dwSize; ) ) )
                {
                    USES_CONVERSION;
                    HANDLE hFile = CreateFile( szFileName, GENERIC_WRITE, NULL, NULL,
CREATE_ALWAYS, NULL, NULL );
                    if ( hFile != INVALID_HANDLE_VALUE )
                    {
                        LARGE_INTEGER l = {NULL};
                        spStream->Seek(l, STREAM_SEEK_SET, NULL);
                        long dwWritten = NULL;
                        while ( dwWritten < dwSize )
                        {
                            unsigned long dwRead = NULL;
                            BYTE b[10240] = {0};
                            spStream->Read( &b, 10240, &dwRead; );
                            DWORD dwBWritten = NULL;
                            WriteFile( hFile, b, dwRead, &dwBWritten, NULL );
                            dwWritten += dwBWritten;
                        }
                    }
                }
            }
        }
    }
}
```

```
        }
        CloseHandle( hFile );
        bResult = TRUE;
    }
}
}
}
CloseClipboard();
}
return bResult;
}
```

The following VB.NET sample copies the control's content to the clipboard ( open the mspaint application and paste the clipboard, after running the following code ):

```
Clipboard.Clear()
With AxGantt1
    .Copy()
End With
```

The following C# sample copies the control's content to a file ( open the mspaint application and paste the clipboard, after running the following code ):

```
Clipboard.Clear;
axGantt1.Copy();
```

## property Gantt.CopyTo (File as String) as Variant

Exports the control's view to an EMF file.

Type	Description
File as String	<p>A String expression that indicates the name of the file to be saved. If present, the CopyTo property retrieves True, if the operation succeeded, else False it is failed. If the File parameter is missing or empty, the CopyTo property retrieves an one dimension safe array of bytes that contains the EMF content.</p> <p>If the File parameter is not empty, the extension ( characters after last dot ) determines the graphical/format of the file to be saved as follows:</p> <ul style="list-style-type: none"><li>• <b>*.bmp * .dib * .rle</b>, saves the control's content in <b>BMP</b> format.</li><li>• <b>*.jpg * .jpe * .jpeg * .jfif</b>, saves the control's content in <b>JPEG</b> format.</li><li>• <b>*.gif</b>, , saves the control's content in <b>GIF</b> format.</li><li>• <b>*.tif * .tiff</b>, saves the control's content in <b>TIFF</b> format.</li><li>• <b>*.png</b>, saves the control's content in <b>PNG</b> format.</li><li>• <b>*.pdf</b>, saves the control's content to PDF format. The File argument may carry up to 4 parameters separated by the   character in the following order: <b>filename.pdf   paper size   margins   options</b>. In other words, you can specify the file name of the PDF document, the paper size, the margins and options to build the PDF document. By default, the paper size is 210 <b>mm</b> × 297 <b>mm</b> ( A4 format ) and the margins are 12.7 <b>mm</b> 12.7 <b>mm</b> 12.7 <b>mm</b> 12.7 <b>mm</b>. The units for the paper size and margins can be <b>pt</b> for PostScript Points, <b>mm</b> for Millimeters, <b>cm</b> for Centimeters, <b>in</b> for Inches and <b>px</b> for pixels. If PostScript Points are used if unit is missing. For instance, 8.27 in x 11.69 in, indicates the size of the paper in inches. Currently, the options can be <b>single</b>, which indicates that the control's content is exported to a single PDF page. For instance, the CopyTo("shot.pdf 33.11 in x 46.81 in 0 0 0 0 single") exports the control's content to an A0 single PDF page, with no margins.</li><li>• <b>*.emf</b> or any other extension determines the control to</li></ul>

save the control's content in **EMF** format.

For instance, the `CopyTo("c:\temp\snapshot.png")` property saves the control's content in PNG format to `snapshot.png` file.

---

#### Variant

A boolean expression that indicates whether the File was successful saved, or a one dimension safe array of bytes, if the File parameter is empty string.

The `CopyTo` method copies(exports) the control's view to BMP, PNG, JPG, GIF, TIFF, PDF or EMF graphical files, including no scroll bars. Use the [Copy](#) method to copy the control's content to the clipboard.

- The **BMP** file format, also known as bitmap image file or device independent bitmap (DIB) file format or simply a bitmap, is a raster graphics image file format used to store bitmap digital images, independently of the display device (such as a graphics adapter)
- The **JPEG** file format (seen most often with the .jpg extension) is a commonly used method of lossy compression for digital images, particularly for those images produced by digital photography.
- The **GIF** ( Graphics Interchange Format ) is a bitmap image format that was introduced by CompuServe in 1987 and has since come into widespread usage on the World Wide Web due to its wide support and portability.
- The **TIFF** ( Tagged Image File Format ) is a computer file format for storing raster graphics images, popular among graphic artists, the publishing industry, and both amateur and professional photographers in general.
- The **PNG** (Portable Network Graphics) is a raster graphics file format that supports lossless data compression. PNG was created as an improved, non-patented replacement for Graphics Interchange Format (GIF), and is the most used lossless image compression format on the Internet
- The **PDF** (Portable Document Format) is a file format used to present documents in a manner independent of application software, hardware, and operating systems. Each PDF file encapsulates a complete description of a fixed-layout flat document, including the text, fonts, graphics, and other information needed to display it.
- The **EMF** ( Enhanced Metafile Format ) is a 32-bit format that can contain both vector information and bitmap information. This format is an improvement over the Windows Metafile Format and contains extended features, such as the following

Built-in scaling information

Built-in descriptions that are saved with the file

Improvements in color palettes and device independence

The EMF format is an extensible format, which means that a programmer can modify the original specification to add functionality or to meet specific needs. You can paste this format to Microsoft Word, Excel, Front Page, Microsoft Image Composer and any application that know to handle EMF formats.

The following VB sample saves the control's content to a file:

```
If (Gantt1.CopyTo("c:\temp\test.emf")) Then  
    MsgBox "test.emf file created, open it using the mspaint editor."  
End If
```

The following VB sample prints the EMF content ( as bytes, File parameter is empty string ):

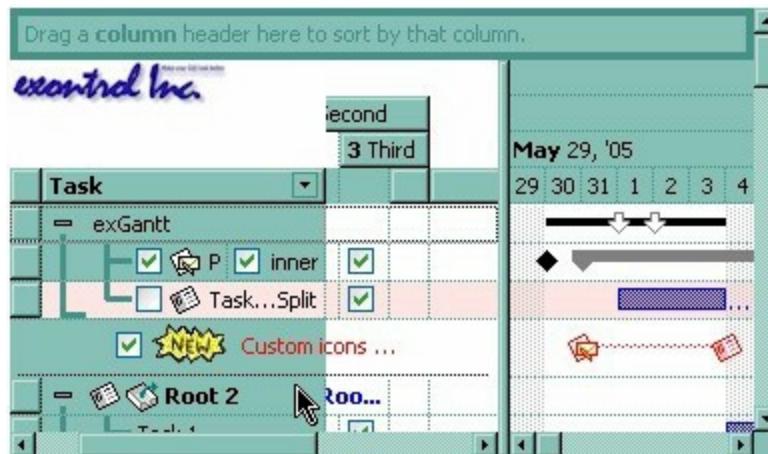
```
Dim i As Variant  
For Each i In Gantt1.CopyTo("")  
    Debug.Print i  
Next
```

## property Gantt.CountLockedColumns as Long

Retrieves or sets a value indicating the number of locked columns. A locked column is not scrollable.

Type	Description
Long	A long expression indicating the number of locked columns.

The ExGantt ActiveX Control can group the columns into two categories: locked and unlocked. The Locked category contains all the columns that are fixed to the left area of the client area. These columns cannot be scrolled horizontally. Use the CountLockedColumns to specify the number of locked columns. The unlocked are contains the columns that can be scrolled horizontally. Use the [BackColorLock](#) property to change the control's background color for the locked area. Use the [LockedItemCount](#) property to add or remove items locked ( fixed ) to the top or bottom side of the control.



## property Gantt.DataSource as Object

Retrieves or sets a value that indicates the data source for object.

Type	Description
Object	An ADO or DAO Recordset object used to fill data from.

The **/COM** version provides ADO, ADODB and DAO database support. The DataSource property takes a recordset and add a column for each field found, and add a new item for each record in the recordset. Use the [Visible](#) property to hide a column. Use the [CellCaption](#) property to retrieves the value of the cell. Use the [PutItems](#) to load an array to the control. Use the [DetectAddNew](#) property to allow adding new items to the control when the user adds new records to the table that's linked with the control. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula. Use the [DefaultItemHeight](#) property before setting a DataSource property to specify the

The **/NET** version provides the following methods for data binding:

- *DataSource*, gets or sets the data source that the control is displaying data for. By default, this property is empty object. The DataSource property can be: DataTable, DataView, DataSet, DataViewManager, any component that implements the IListSource interface, or any component that implements the IList interface.
- *DataMember*, indicates a sub-list of the DataSource to show in the control. By default, this property is "". For instance, if DataSource property is a DataSet, the DataMember should indicates the name of the table to be loaded.
- *DataTaskStart*, The *DataTaskStart* property gets or sets the specific field in the data source to indicate the starting point of each added task. If missing or empty, no tasks are loaded during binding. In other words, it indicates the field to use be used as the starting point for each task in any record. This member is automatically filled with the first DATE field from the DataSource, when it is set. This member is automatically filled with the first DATE field from the data source ( *DataSource/DataMember* ).
- *DataTaskEnd*, DataTaskEnd property gets or sets the specific field in the data source to indicate the ending point of each added task. If missing or empty, no tasks are loaded during binding. If the DataTaskEnd points to a DateTime object, it indicates the ending date of the newly bar, else, it indicates the duration of the task to be added. If the DataTaskEnd is equal with DataTaskBegin, a one-day task is added for each record found, during binding. This member is automatically filled with the second DATE field from the DataSource collection. *This member can be of DATE type, which indicates the exBarEnd property of any bar in the collection, or a DOUBLE, when it indicates the length/duration of the bar to be added.*

Click here  to watch a movie on how to assign a data source to the control, in design

mode, for /NET assembly.

The following VB sample binds an ADO recordset to the ExGantt control:

```
Set rs = CreateObject("ADODB.Recordset")
rs.Open "Orders", "Provider=Microsoft.Jet.OLEDB.3.51;Data Source= D:\Program
Files\Microsoft Visual Studio\VB98\NWIND.MDB", 3 ' Opens the table using static mode

Set Gantt1.DataSource = rs
```

The DataSource clears the columns collection, and load the recordset to the control. Use [SetParent](#) method to make your list a hierarchy.

The following C++ sample binds a table to the control:

```
#include "Items.h"
#include "Columns.h"
#include "Column.h"

#pragma warning( disable : 4146 )
#import <msado15.dll> rename ( "EOF", "adoEOF" )
using namespace ADODB;

_RecordsetPtr spRecordset;
if ( SUCCEEDED( spRecordset.CreateInstance( "ADODB.Recordset" ) ) )
{
    // Builds the connection string.
    CString strTableName = "Employees", strConnection =
"Provider=Microsoft.Jet.OLEDB.4.0;Data Source=";
    CString strPath = "D:\\Program Files\\Microsoft Visual Studio\\VB98\\NWIND.MDB";
    strConnection += strPath;
    try
    {
        // Loads the table
        if ( SUCCEEDED( spRecordset->Open(_variant_t( (LPCTSTR)strTableName ),
_variant_t((LPCTSTR)strConnection), adOpenStatic, adLockPessimistic, NULL ) ) )
        {
            m_gantt.BeginUpdate();
            m_gantt.SetColumnAutoResize( FALSE );
        }
    }
}
```

```
m_gantt.SetDataSource( spRecordset );
m_gantt.EndUpdate();
}
}
catch ( _com_error& e )
{
    AfxMessageBox( e.Description() );
}
}
```

The #import statement imports definitions for ADODB type library, that's used to fill the control.

## property Gantt.DefaultItemHeight as Long

Retrieves or sets a value that indicates the default item height.

Type	Description
Long	A long expression indicates the default item height.

The DefaultItemHeight property specifies the height of the items. Changing the property fails if the control contains already items. You can change the DefaultItemHeight property at design time, or at runtime, before adding any new items to the [Items](#) collection. Use the [ItemHeight](#) property to specify the height of a specified item. Use the [ScrollBySingleLine](#) property when using the items with different heights. Use the [CellSingleLine](#) property to specify whether the cell displays the caption using multiple lines. Use the [ItemAllowSizing](#) property to specify whether the user can resize the item at runtime. Use the [Height](#) property to specify the height of the bars.

## property Gantt.Description(Type as DescriptionTypeEnum) as String

Changes descriptions for control objects.

Type	Description
Type as <a href="#">DescriptionTypeEnum</a>	A DescriptionTypeEnum expression that indicates the part being changed.
String	A string value that indicates the part's description.

Use the Description property to customize the captions for control filter bar window. For instance, the Description(exFilterAll) = "(Include All)" changes the "(All)" item description in the filter bar window. Use the [Description](#) property to change the predefined strings in the filter bar window.

## property Gantt.DetectAddNew as Boolean

Specifies whether the control detects when a new record is added to the bounded record set.

Type	Description
Boolean	A boolean expression that indicates whether the control detects when a new record is added to the bounded recordset

The DetectAddNew property detects adding new records to a recordset. Use the [DataSource](#) property to bound the control to a table. If the DetectAddNew property is True, and user adds a new record to the bounded recordset, the control automatically adds a new item to the control. The DetectAddNew property has effect only if the control is bounded to an ADO, ADODB recordset, using the DataSource property.

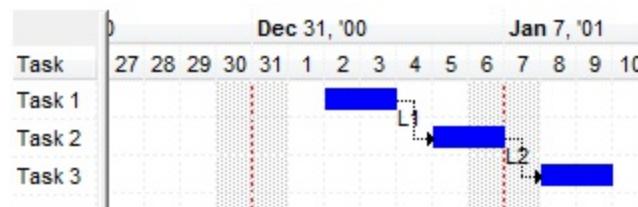
## property Gantt.DrawGridLines as GridLinesEnum

Retrieves or sets a value that indicates whether the grid lines are visible or hidden.

Type	Description
<a href="#">GridLinesEnum</a>	A GridLinesEnum expression that indicates whether the grid lines are visible or hidden.

Use the DrawGridLines property to add grid lines to the items list view. Use the [GridLineColor](#) property to specify the color for grid lines. The [GridLineStyle](#) property to specify the style for horizontal or/and vertical gridlines in the control. Use the [LinesAtRoot](#) property specifies whether the control links the root items of the control. Use the [HasLines](#) property to specify whether the control draws the link between child items to their corresponding parent item. Use the [DrawLevelSeperator](#) property to draw lines between levels inside the chart's header. Use the [DrawTickLines](#) property to specify whether the grid lines between time units in the level are visible or hidden. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the chart's area. Use the [ColumnsAllowSizing](#) property to allow resizing the columns, when the control's header bar is not visible.

The following screen shot shows the control using different style for gridlines:



In conclusion, the following properties are related to the control's gridlines:

- [DrawGridLines](#) specifies whether the gridlines are shown in the column/list part of the control. The gridlines in the chart part of the control are handled by the Chart.DrawGridLines property.
- [GridLineColor](#) specifies the color to show the horizontal grid line, and vertical grid lines for the columns/list part of the control. The color for vertical grid lines in the chart view part is handled by the Level.GridLineColor property.
- [GridLineStyle](#) specifies the style for horizontal grid lines and vertical grid lines in the columns/list part of the control. The Level.GridLineStyle property specifies the style for vertical grid lines in the chart area.
- [Chart.DrawGridLines](#) (belongs to Chart object) indicates whether gridlines are shown in the chart view.
- [Level.DrawGridLines](#) (belongs to Level object) specifies whether the level shows vertical gridlines in the chart part of the control.
- [Level.GridLineColor](#) (belongs to Level object) indicates the color for vertical gridlines in

the chart view.

- [Level.GridLineStyle](#) (belongs to Level object) specifies the style to show the vertical gridlines in the chart part area of the control.

## property Gantt.Enabled as Boolean

Enables or disables the control.

Type	Description
Boolean	A boolean expression that indicates whether the control is enabled or disabled.

Use the Enabled property to disable the control. Use the [ForeColor](#) property to change the control's foreground color. Use the [BackColor](#) property to change the control's background color. Use the [EnableItem](#) to disable an item. Use the [CellEnabled](#) property to disable a cell. Use the [Enabled](#) property to disable a column. Use the [SelectableItem](#) property to specify whether an user can select an item.

## method Gantt.EndUpdate ()

Resumes painting the control after painting is suspended by the BeginUpdate method.

Type	Description
------	-------------

The [BeginUpdate](#) and EndUpdate methods increases the speed of loading your items, by preventing painting the control when it suffers any change. Once that BeginUpdate method was called, you have to make sure that EndUpdate method will be called too.

The following VB sample prevents painting the control while adding data from a database:

```
Set rs = CreateObject("ADODB.Recordset")
rs.Open "Orders", "Provider=Microsoft.Jet.OLEDB.3.51;Data Source= D:\Program
Files\Microsoft Visual Studio\VB98\NWIND.MDB", 3 ' Opens the table using static mode
```

```
Gantt1.BeginUpdate
For Each f In rs.Fields
    Gantt1.Columns.Add f.Name
Next
Gantt1.PutItems rs.GetRows()
Gantt1.EndUpdate
```

The following VC sample prevents refreshing the control while adding columns and items from an ADODB recordset:

```
#include "Items.h"
#include "Columns.h"
#include "Column.h"

#pragma warning( disable : 4146 )
#import <msado15.dll> rename ( "EOF", "adoEOF" )
using namespace ADODB;

_RecordsetPtr spRecordset;
if ( SUCCEEDED( spRecordset.CreateInstance( "ADODB.Recordset" ) ) )
{
    // Builds the connection string.
    CString strTableName = "Employees", strConnection =
```

```
"Provider=Microsoft.Jet.OLEDB.4.0;Data Source=";
CString strPath = "D:\\Program Files\\Microsoft Visual Studio\\VB98\\NWIND.MDB";
strConnection += strPath;
try
{
    // Loads the table
    if ( SUCCEEDED( spRecordset->Open(_variant_t( (LPCTSTR)strTableName ),
    _variant_t((LPCTSTR)strConnection), adOpenStatic, adLockPessimistic, NULL ) ) )
    {
        m_gantt.BeginUpdate();
        m_gantt.SetColumnAutoResize( FALSE );
        CColumns columns = m_gantt.GetColumns();
        long nCount = spRecordset->Fields->Count;
        if ( nCount > 0 )
        {
            // Adds the columns
            for ( long i = 0 ; i < nCount; i++ )
                columns.Add( spRecordset->Fields->Item[ i ]->Name );
            CItems items = m_gantt.GetItems();
            // Adds the items
            while ( !spRecordset->adoEOF )
            {
                long j = 0;
                _variant_t vtl( items.AddItem( spRecordset->Fields->Item[ j ]->Value ) );
                for ( ++j ; j < nCount; j++ )
                    items.SetCellCaption( vtl, _variant_t(j), spRecordset->Fields->Item[ j ]-
                >Value );
                spRecordset->MoveNext();
            }
        }
        m_gantt.EndUpdate();
    }
}
catch ( _com_error& e )
{
    AfxMessageBox( e.Description() );
}
```

}

The sample adds a column for each field in the recordset, and add a new items for each record. You can use the [DataSource](#) property to bind a recordset to the control. The #import statement imports definitions for ADODB type library, that's used to fill the control.

The following VB.NET sample prevents refreshing the control while adding columns and items:

With AxGantt1

.BeginUpdate()

With .Columns

.Add("Column 1")

.Add("Column 2")

End With

With .Items

Dim iNewItem As Integer

iNewItem = .AddItem("Item 1")

.CellCaption(iNewItem, 1) = "SubItem 1"

iNewItem = .AddItem("Item 2")

.CellCaption(iNewItem, 1) = "SubItem 2"

End With

.EndUpdate()

End With

The following C# sample prevents refreshing the control while adding columns and items:

```
axGantt1.BeginUpdate();
EXGANTTLib.Columns columns = axGantt1.Columns;
columns.Add("Column 1");
columns.Add("Column 2");
EXGANTTLib.Items items = axGantt1.Items;
int iNewItem = items.AddItem( "Item 1" );
items.set_CellCaption( iNewItem, 1, "SubItem 1" );
items.InsertItem( iNewItem, "", "Child 1" );
iNewItem = items.AddItem( "Item 2" );
items.set_CellCaption( iNewItem, 1, "SubItem 2" );
axGantt1.EndUpdate();
```

The following VFP sample prevents refreshing the control while adding new columns and items:

```
thisform.Gantt1.BeginUpdate()
with thisform.Gantt1.Columns
    .Add("Column 1")
    .Add("Column 2")
endwith

with thisform.Gantt1.Items
    .DefaultItem = .AddItem("Item 1")
    .CellCaption(0, 1) = "SubItem 1"
    .DefaultItem = .InsertItem(.DefaultItem,"","Child 1")
    .CellCaption(0, 1) = "SubChild 1"
endwith
thisform.Gantt1.EndUpdate()
```

## property Gantt.EnsureOnSort as Boolean

Specifies whether the control ensures that the focused item fits the control's client area, when the user sorts the items.

Type	Description
Boolean	A boolean expression that indicates whether the control ensures that the focused item fits the control's client area after sorting the items.

By default, the EnsureOnSort property is True. If the EnsureOnSort property is True, the control calls the [EnsureVisibleItem](#) method to ensure that the focused item ( [FocusItem](#) property ) fits the control's client area, once items get sorted. Use the [SortOrder](#) property to sort a column. The [SortChildren](#) method sorts child items of an item. The EnsureOnSort property prevents scrolling of the control when child items are sorted.

## method Gantt.EnsureVisibleColumn (Column as Variant)

Scrolls the control's content to ensure that the column fits the client area.

Type	Description
Column as Variant	A long expression that indicates the index of the column, a string expression that indicates the column's caption or the column's key.

The EnsureVisibleColumn method ensures that the given column fits the control's client area. The EnsureVisibleColumn method has no effect if the column is hidden. Use the [Visible](#) property to show or hide a column. Use the [Position](#) property to change the column's position. Use the [EnsureVisibleItem](#) method to ensure that an item fits the control's client area. Use the [ScrollBars](#) property to hide the control's scroll bars. Use the [Scroll](#) method to programmatically scroll the control's content.

## property Gantt.EventParam(Parameter as Long) as Variant

Retrieves or sets a value that indicates the current's event parameter.

Type	Description
Parameter as Long	A long expression that indicates the index of the parameter being requested ie 0 means the first parameter, 1 means the second, and so on. If -1 is used the EventParam property retrieves the number of parameters. Accessing an not-existing parameter produces an OLE error, such as invalid pointer ( E_POINTER )
Variant	A VARIANT expression that specifies the parameter's value.

The EventParam method is provided to allow changing the event's parameters passed by reference, even if your environment does not support changing it ( uniPaas 1.5 (formerly known as eDeveloper), DBase, and so on ). For instance, Unipaas event-handling logic cannot update ActiveX control variables by updating the received arguments. The EventParam(0) retrieves the value of the first parameter of the event, while the EventParam(1) = 0, changes the value of the second parameter to 0 ( the operation is successfully, only if the parameter is passed by reference ). The EventParam(-1) retrieves the number of the parameters of the current event.

Let's take the event "event KeyDown (KeyCode as Integer, ByVal Shift as Integer)", where the KeyCode parameter is passed by reference. For instance, put the KeyCode parameter on 0, and the arrow keys are disabled while the control has the focus.

In most languages you will type something like:

```
Private Sub Control1_KeyDown(KeyCode As Integer, Shift As Integer)  
    KeyCode = 0  
End Sub
```

In case your environment does not support events with parameters by reference, you can use a code like follows:

```
Private Sub Control1_KeyDown(KeyCode As Integer, Shift As Integer)  
    Control1.EventParam(0) = 0  
End Sub
```

In other words, the EventParam property provides the parameters of the current event for reading or writing access, even if your environment does not allow changing parameters by

reference.

Calling the EventParam property outside of an event produces an OLE error, such as pointer invalid, as its scope was designed to be used only during events.

## method Gantt.ExecuteTemplate (Template as String)

Executes a template and returns the result.

Type	Description
Template as String	A Template string being executed
Return	Description
Variant	A Variant expression that indicates the result after executing the Template.

Use the ExecuteTemplate property to returns the result of executing a template file. Use the [Template](#) property to execute a template without returning any result. Use the ExecuteTemplate property to execute code by passing instructions as a string ( template string ).

For instance, the following sample retrieves the beginning date ( as string ) for the default bar in the first visible item:

```
Debug.Print Gantt1.ExecuteTemplate("Items.ItemBar(FirstVisibleItem(),``,1)")
```

Most of our UI components provide a Template page that's accessible in design mode. No matter what programming language you are using, you can have a quick view of the component's features using the WYSWYG Template editor.

- Place the control to your form or dialog.
- Locate the Properties item, in the control's context menu, in design mode. If your environment doesn't provide a Properties item in the control's context menu, please try to locate in the Properties browser.
- Click it, and locate the Template page.
- Click the Help button. In the left side, you will see the component, in the right side, you will see a x-script code that calls methods and properties of the control.

The control's Template page helps user to initialize the control's look and feel in design mode, using the x-script language that's easy and powerful. The Template page displays the control on the left side of the page. On the right side of the Template page, a simple editor is displayed where user writes the initialization code. The control's look and feel is automatically updated as soon as the user types new instructions. The Template script is saved to the container persistence ( when Apply button is pressed ), and it is executed when the control is initialized at runtime. Any component that provides a WYSWYG Template page, provides a Template property. The Template property executes code from a string ( template string ).

The Template or x-script is composed by lines of instructions. Instructions are separated by

"\n\r" ( newline characters ) or ";" character. The ; character may be available only for newer versions of the components.

An x-script instruction/line can be one of the following:

- **Dim** list of variables *Declares the variables. Multiple variables are separated by commas.* ( Sample: Dim h, h1, h2 )
- variable = property( list of arguments ) *Assigns the result of the property to a variable. The "variable" is the name of a declared variable. The "property" is the property name of the object in the context. The "list or arguments" may include variables or values separated by commas.* ( Sample: h = InsertItem(0,"New Child") )
- property( list of arguments ) = value *Changes the property. The value can be a variable, a string, a number, a boolean value or a RGB value.*
- method( list of arguments ) *Invokes the method. The "list or arguments" may include variables or values separated by commas.*
- { *Beginning the object's context. The properties or methods called between { and } are related to the last object returned by the property prior to { declaration.*
- } *Ending the object's context*
- object.property( list of arguments ).property( list of arguments ).... *The .(dot) character splits the object from its property. For instance, the Columns.Add("Column1").HeaderBackColor = RGB(255,0,0), adds a new column and changes the column's header back color.*

The x-script may uses constant expressions as follow:

- boolean expression with possible values as *True* or *False*
- numeric expression may starts with 0x which indicates a hexa decimal representation, else it should starts with digit, or +/- followed by a digit, and . is the decimal separator. *Sample: 13 indicates the integer 13, or 12.45 indicates the double expression 12,45*
- date expression is delimited by # character in the format #mm/dd/yyyy hh:mm:ss#. *Sample: #31/12/1971# indicates the December 31, 1971*
- string expression is delimited by " or ` characters. If using the ` character, please make sure that it is different than ' which allows adding comments inline. *Sample: "text" indicates the string text.*

Also , the template or x-script code may support general functions as follows:

- **Me** *property indicates the original object.*
- **RGB(R,G,B)** *property retrieves an RGB value, where the R, G, B are byte values that indicates the R G B values for the color being specified. For instance, the following code changes the control's background color to red: BackColor = RGB(255,0,0)*
- **LoadPicture(file)** *property loads a picture from a file or from BASE64 encoded strings, and returns a Picture object required by the picture properties.*

- **CreateObject**(progID) *property creates and retrieves a single uninitialized object of the class associated with a specified program identifier.*

## property Gantt.ExpandOnDblClick as Boolean

Specifies whether the item is expanded or collapsed if the user dbl clicks the item.

Type	Description
Boolean	A boolean expression that indicates whether an item is expanded on dbl click.

Use the `ExpandOnDblClick` property to disable expanding or collapsing items when user dbl clicks an item. By default, the `ExpandOnDblClick` property is `True`. Use the [ExpandOnKeys](#) property to specify whether the control expands or collapses a node when user presses arrow keys. The [ExpandOnSearch](#) property specifies whether the control expands nodes when incremental searching is on ( [AutoSearch](#) property is different than 0 ) and user types characters when the control has the focus. The control fires the [DblClick](#) event when user double clicks the control. Use the [ExpandItem](#) property to programmatically expand or collapse an item.

## property Gantt.ExpandOnKeys as Boolean

Specifies a value that indicates whether the control expands or collapses a node when user presses arrow keys.

Type	Description
Boolean	A boolean expression that indicates whether the control expands or collapses a node when user presses arrow keys.

Use the `ExpandOnKeys` property to specify whether the control expands or collapses a node when user presses arrow keys. By default, the `ExpandOnKeys` property is `True`. Use the [ExpandOnDoubleClick](#) property to specify whether the control expands or collapses a node when user dbl clicks a node. The [ExpandOnSearch](#) property specifies whether the control expands nodes when incremental searching is on ([AutoSearch](#) property is different than 0) and user types characters when the control has the focus. If the `ExpandOnKeys` property is `False`, the user can't expand or collapse the items using the + or - keys on the numeric keypad. Use the [ExpandItem](#) property to programmatically expand or collapse an item.

The following VB sample expands or collapses the focused item if the user presses the + or - keys on the numeric keypad, and `ExpandOnKeys` property is `False`:

```
Private Sub Gantt1_KeyDown(KeyCode As Integer, Shift As Integer)
    With Gantt1.Items
        If (KeyCode = vbKeyAdd) Then
            .ExpandItem(.FocusItem) = True
        End If
        If (KeyCode = vbKeySubtract) Then
            .ExpandItem(.FocusItem) = False
        End If
    End With
End Sub
```

The following C++ sample expands or collapses the focused item if the user presses the + or - keys on the numeric keypad, and `ExpandOnKeys` property is `False`:

```
#include "Items.h"
void OnKeyDownGantt1(short FAR* KeyCode, short Shift)
{
    CItems items = m_gantt.GetItems();
    switch (*KeyCode)
```

```

{
    case VK_ADD:
    case VK_SUBTRACT:
    {
        items.SetExpandItem( items.GetFocusItem(), *KeyCode == VK_ADD ? TRUE : FALSE );
        break;
    }
}
}

```

The following VB.NET sample expands or collapses the focused item if the user presses the + or - keys on the numeric keypad, and `ExpandOnKeys` property is False:

```

Private Sub AxGantt1_KeyDownEvent(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_KeyDownEvent) Handles AxGantt1.KeyDownEvent
Select Case (e.keyCode)
Case Keys.Add
    With AxGantt1.Items
        .ExpandItem(.FocusItem) = True
    End With
Case Keys.Subtract
    With AxGantt1.Items
        .ExpandItem(.FocusItem) = False
    End With
End Select
End Sub

```

The following C# sample expands or collapses the focused item if the user presses the + or - keys on the numeric keypad, and `ExpandOnKeys` property is False:

```

private void axGantt1_KeyDownEvent(object sender,
AxEXGANTTLib._IGanttEvents_KeyDownEvent e)
{
    if ( ( e.keyCode == Convert.ToInt16(Keys.Add) ) || (e.keyCode ==
Convert.ToInt16(Keys.Subtract) ) )
        axGantt1.Items.set_ExpandItem( axGantt1.Items.FocusItem, e.keyCode ==
Convert.ToInt16(Keys.Add) );
}

```

}

The following VFP sample expands or collapses the focused item if the user presses the + or - keys on the numeric keypad, and `ExpandOnKeys` property is False:

```
*** ActiveX Control Event ***
LPARAMETERS keycode, shift

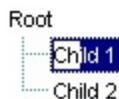
with thisform.Gantt1.Items
  if ( keycode = 107 )
    .DefaultItem = .FocusItem
    .ExpandItem(0) = .t.
  else
    if ( keycode = 109 )
      .ExpandItem(0) = .f.
    endif
  endif
endwith
```

## property Gantt.ExpandOnSearch as Boolean

Expands items automatically while user types characters to search for a specific item.

Type	Description
Boolean	A boolean expression that indicates whether the control expands items while user types characters to search for items.

Use the `ExpandOnSearch` property to expand items while user types characters to search for items using incremental search feature. Use the [AutoSearch](#) property to enable or disable incremental searching feature. Use the [AutoSearch](#) property of the [Column](#) object to specify the type of incremental searching being used within the column. The `ExpandOnSearch` property has no effect when the `AutoSearch` property is False. For instance, if the `ExpandOnSearch` property is True, the control fires the [BeforeExpandItem](#) event for items that have the [ItemHasChildren](#) property is True, when user types characters.



## method Gantt.Export ([Destination as Variant], [Options as Variant])

Exports the control's data to a CSV or HTML format.

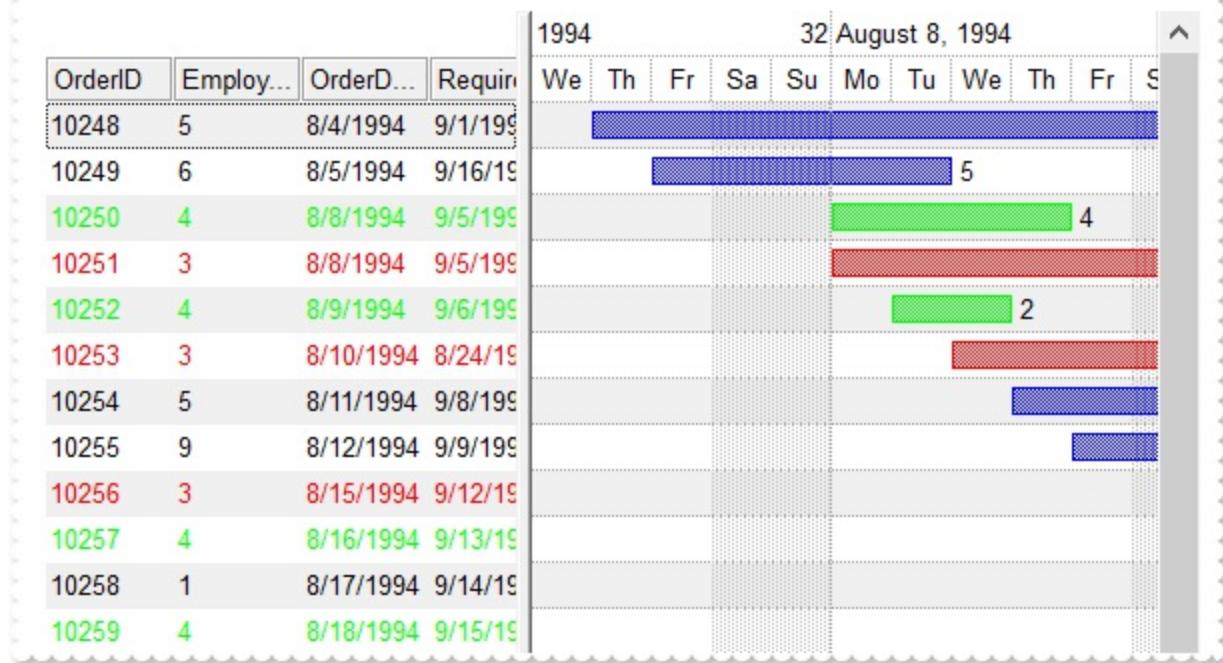
Type	Description
Destination as Variant	A String expression that specifies the file/format to be created. The Destination parameter indicates the format to be created as follows: <ul style="list-style-type: none"><li>• if "htm" or "html", the control returns the HTML format ( including CSS style )</li><li>• Any file-name that ends on ".htm" or ".html" creates the file with the HTML format inside</li><li>• missing, empty, or any other case the Export exports the control's data in CSV format.</li></ul> No error occurs, if the Export method can not create the file.
Options as Variant	A String expression that specifies the options to be used when exporting the control's data, as explained bellow.
Return	Description
Variant	A String expression that indicates the format being exported. It could be CSV or HTML format based on the Destination parameter.

The Export method can export the control's DATA to a CSV or HTML format. The Export method can export a collection of columns from selected, visible, check or all items. By default, the control export all items, unless there is no filter applied on the control, where only visible items are exported. No visual appearance is saved in CSV format, instead the HTML format includes the visual appearance in CSS style.

The following file samples, shows the format the Export method can export the control's DATA:

- CSV format
- [HTML](#) format

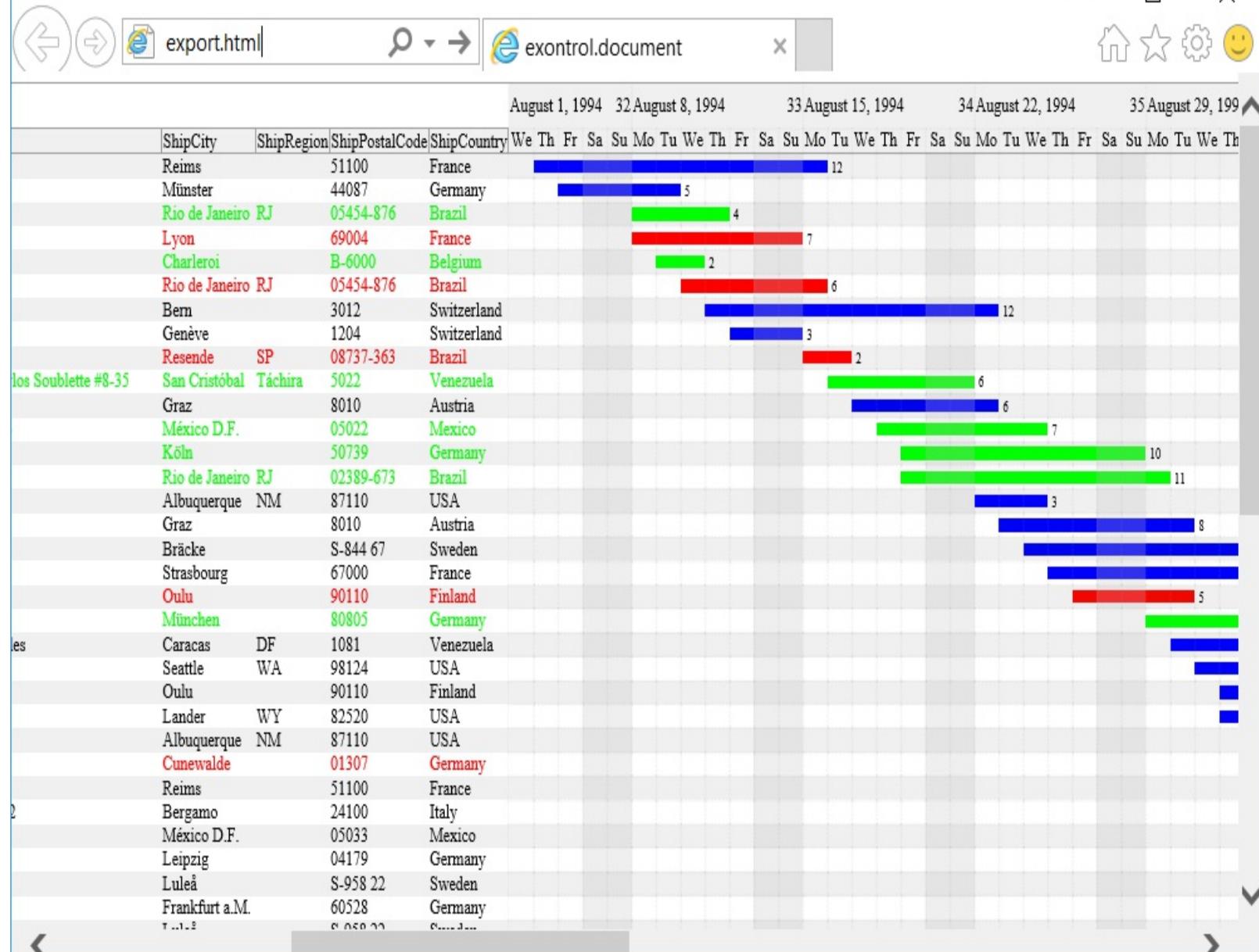
Let's say we have the following control's DATA:



The following screen shot shows the control's DATA in CSV format:

export.txt - Microsoft Excel											
FILE	HOME	INSERT	PAGE LAYOUT	FORMULAS	DATA	REVIEW	VIEW	ADD-INS	TEAM	Sign in	
A1		X	✓	f <sub>x</sub>	OrderID						
1	OrderID	EmployeeID	OrderDate	RequiredDate	ShippedDate	ShipVia	Freight	ShipName	ShipAddress	ShipCity	ShipRegion
2	10248	5	8/4/1994	9/1/1994	8/16/1994	3	32.38	Vins et alco	59 rue de la Reims		
3	10249	6	8/5/1994	9/16/1994	8/10/1994	1	11.61	Toms Spez Luisenstr.	Münster		
4	10250	4	8/8/1994	9/5/1994	8/12/1994	2	65.83	Hanari Car	Rua do Pa	Rio de Janeiro	RJ
5	10251	3	8/8/1994	9/5/1994	8/15/1994	1	41.34	Victuailles	2, rue du C	Lyon	
6	10252	4	8/9/1994	9/6/1994	8/11/1994	2	51.3	Suprêmes	Boulevard	Charleroi	
7	10253	3	8/10/1994	8/24/1994	8/16/1994	2	58.17	Hanari Car	Rua do Pa	Rio de Janeiro	RJ
8	10254	5	8/11/1994	9/8/1994	8/23/1994	2	22.98	Chop-suey	Hauptstr.	Bern	
9	10255	9	8/12/1994	9/9/1994	8/15/1994	3	148.33	Richter Sup	Starenweg	Genève	
10	10256	3	8/15/1994	9/12/1994	8/17/1994	2	13.97	Wellington	Rua do Me	Resende	SP
11	10257	4	8/16/1994	9/13/1994	8/22/1994	3	81.91	HILARIO	N Carrera 22	San Cristó	Táchira
12	10258	1	8/17/1994	9/14/1994	8/23/1994	1	140.51	Ernst Hand	Kirchgasse	Graz	
13	10259	4	8/18/1994	9/15/1994	8/25/1994	3	3.25	Centro cor	Sierras de	México D.F.	
14	10260	4	8/19/1994	9/16/1994	8/29/1994	1	55.09	Ottilies Kä	Mehrheim	Köln	
15	10261	4	8/19/1994	9/16/1994	8/30/1994	2	3.05	Que Delícias	Rua da Par	Rio de Janeiro	RJ
16	10262	8	8/22/1994	9/19/1994	8/25/1994	3	48.29	Rattlesnake	2817 Milt	Albuquerque	NM

The following screen shot shows the control's DATA in HTML format:



The Options parameter consists a list of fields separated by | character, in the following order:

1. The first field could be **all**, **vis**, **sel** or **chk**, to export all, just visible, selected or checked items. The **all** option is used, if the field is missing. The **all** option displays all items, including the hidden or collapsed items. The **vis** option includes the visible items only, not including the child items of a collapsed item, or not-visible items ( item's height is 0 ). The **sel** options lists the items being selected. The **chk** option lists all check and visible items. If **chk** option is used, the first column in the columns list should indicate the index of the column being queried for a check box state.
  2. the second field indicates the column to be exported. All visible columns are exported, if missing. The list of columns is separated by , character, and indicates the index of the column to be shown on the exported data. The first column in the list indicates the column being queried, if the option **chk** is used.
  3. the third field indicates the character to separate the fields inside each exported line

[tab character-if missing]. This field is valid, only when exporting to a CSV format

4. the forth field could be **ansi** or **unicode**, which indicates the character-set to save the control's content to Destination. For instance, Export( Destination,"|||unicode" ) saves the control's content to destination in UNICODE format (two-bytes per character ). By default, the Export method creates an ANSI file ( one-byte character )

The Destination parameter indicates the file to be created where exported date should be saved. For instance, Export( "c:\temp\export.html") exports the control's DATA to export.html file in HTML format, or Export( "", "sel|0,1|;") returns the cells from columns 0, 1 from the selected items, to a CSV format using the ; character as a field separator.

The "CSV" refers to any file that:

- CSV stands for Comma Separated Value
- is plain text using a character set such as ASCII, Unicode,
- consists of records (typically one record per line),
- with the records divided into fields separated by delimiters (typically a single reserved character such as tab, comma, or semicolon; sometimes the delimiter may include optional spaces),
- where every record has the same sequence of fields

The "HTML" refers to any file that:

- HTML stands for HyperText Markup Language.
- is plain text using a character set such as ASCII, Unicode
- It's the way web pages are encoded to handle things like bold, italics and even color text red.

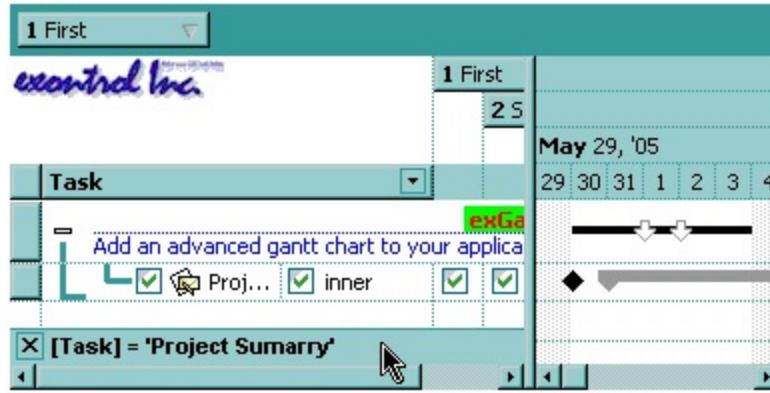
You can use the [Copy/CopyTo](#) to export the control's view to clipboard/EMF/BMP/JPG/PNG/GIF or PDF format.

## property Gantt.FilterBarBackColor as Color

Specifies the background color of the control's filter bar.

Type	Description
Color	A color expression that defines the background color for description of the control's filter.

Use the [FilterBarForeColor](#) and FilterBarBackColor properties to define the colors used to paint the description for control's filter. Use the [FilterBarHeight](#) property to hide the control's filter bar header. Use the [BackColor](#) property to specify the control's background color. Use the [BackColorLevelHeader](#) property to specify the background color of the header when it displays multiple levels. Use the [BackColorSortBar](#) property to specify the background color of the control's sort bar.

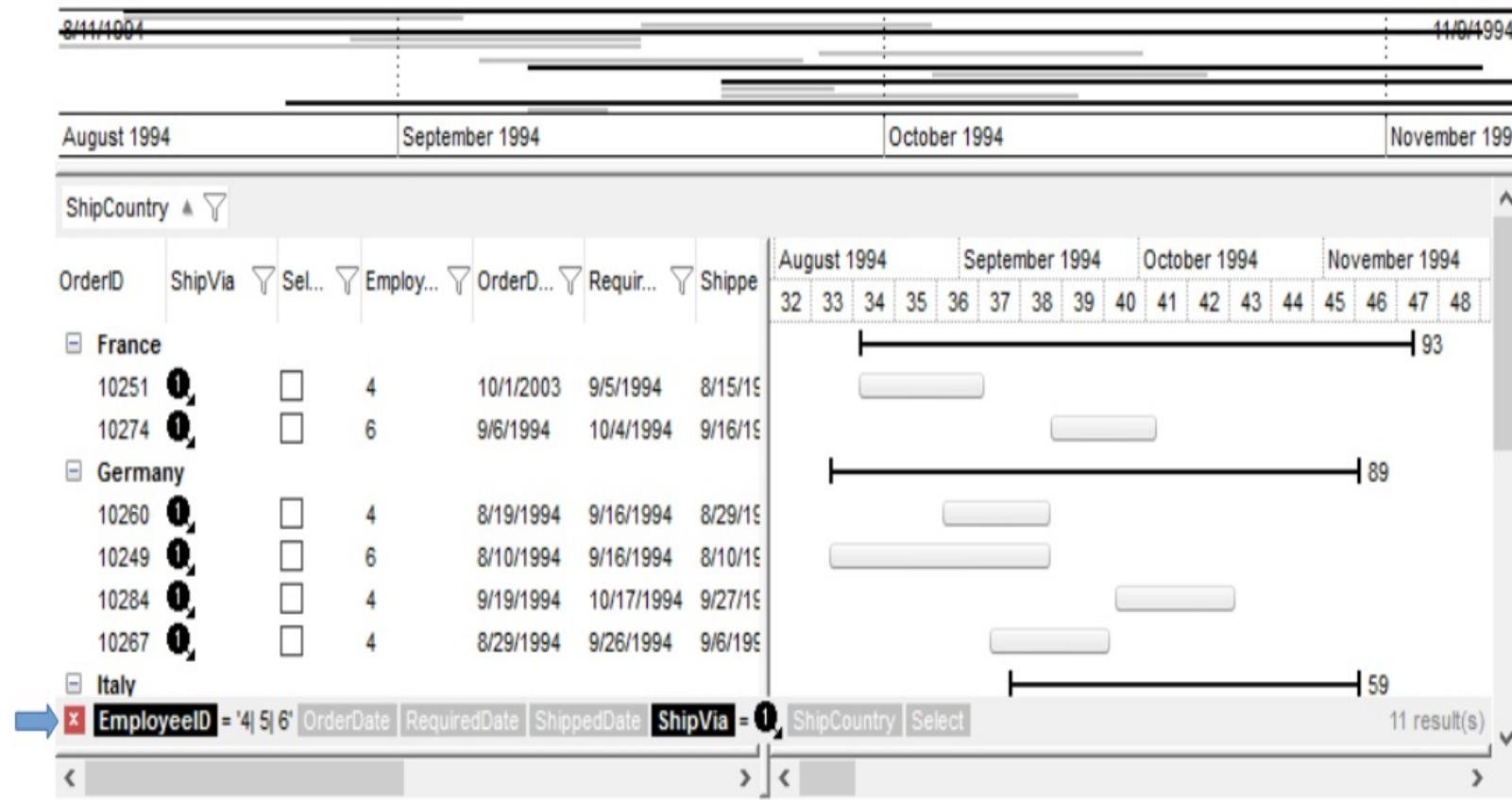


## property Gantt.FilterBarCaption as String

Specifies the filter bar's caption.

Type	Description
String	A string value that defines the expression to display the control's filter bar.

By default, the FilterBarCaption property is empty. You can use the FilterBarCaption property to define the way the filter bar's caption is being displayed. The FilterBarCaption is displayed on the bottom side of the control where the control's filter bar is shown. While the FilterBarCaption property is empty, the control automatically builds the caption to be displayed on the filter bar from all columns that participates in the filter using its name and values. For instance, if the control filters items based on the columns "EmployeeID" and "ShipVia", the control's filter bar caption would appear such as "[EmployeeID] = '...' and [ShipVia] = '...'" . The FilterBarCaption property supports expressions as explained bellow.



For instance:

- "no filter", shows no filter caption all the time
- "" displays no filter bar, if no filter is applied, else it displays the current filter

[EmployeeID] = '4| 5| 6' and [ShipVia] = 1

- "`<r>` + value`", displays the current filter caption aligned to the right. You can include the `exFilterBarShowCloseOnRight` flag into the [FilterBarPromptVisible](#) property to display the close button aligned to the right

[EmployeeID] = '4| 5| 6' and [ShipVia] = 1

- "value replace ` and ` with `<fgcolor=FF0000> and </fgcolor>`", replace the AND keyword with a different foreground color

[EmployeeID] = '4| 5| 6' and [ShipVia] = 1

- "value replace ` and ` with `<off 4> and </off>` replace `|` with `<off 4>or</off>` replace `` with ``", replaces the AND and | values

[EmployeeID] = '4 or 5 or 6' and [ShipVia] = 1

- "value replace `[` with `<bgcolor=000000><fgcolor=FFFFFF><b>` replace `]` with `</b></bgcolor></fgcolor>`", highlights the columns being filtered with a different background/foreground colors.

EmployeeID = '4| 5| 6' and ShipVia = 1

- "value + `` + available", displays the current filter, including all available columns to be filtered

[EmployeeID] = '4| 5| 6' and [ShipVia] = 1 [OrderDate] [RequiredDate] [ShippedDate] [ShipCountry] [Select]

- "allui" displays all available columns

[EmployeeID] = '4| 5| 6' [OrderDate] [RequiredDate] [ShippedDate] [ShipVia] = 1 [ShipCountry] [Select]

- "((allui + `<fgcolor=808080>` + ( matchItemCount < 0 ? ( ( len(allui) ? `` : `` ) + `<r>` + abs(matchItemCount + 1) + ` result(s)` ) : (`<r><fgcolor=808080>` + itemCount + ` item(s)` ) ) replace `<b>` with `<bgcolor=000000><fgcolor=FFFFFF><b>` replace `</b>` with `</b></bgcolor></fgcolor>` replace `<s>` with `<bgcolor=C0C0C0><fgcolor=FFFFFF>` replace `</s>` with `</bgcolor></fgcolor>` )" displays all available columns to be filtered with different background/foreground colors including the number of items/results

Use the [FilterBarForeColor](#) and [FilterBarBackColor](#) properties to define the colors used to paint the description for control's filter. Use the [FilterBarHeight](#) property to specify the height of the control's filter bar. Use the [FilterBarFont](#) property to specify the font for the control's filter bar. Use the [Description](#) property to define predefined strings in the filter bar caption. The [VisibleItemCount](#) property specifies the number of visible items in the list. The [MatchItemCount](#) property returns the number of matching items. The [FilterBarPromptVisible](#) property specifies whether how/where the control's filter/prompt is shown.

The FilterBarCaption method supports the following keywords, constants, operators and functions:

- **value** or **current** keyword returns the current filter as a string. At runtime the value may return a string such as "[**EmployeeID**] = '4| 5| 6'" and "[**ShipVia**] = <img>1</img>", so the control automatically applies HTML format, which you can change it. For instance, "upper(value)" displays the caption in uppercase or "value replace `<b>` with `<fgcolor=808080>` replace `</b>` with `</fgcolor>`" displays the column's name with a different foreground color.
- **itemcount** keyword returns the total number of items as indicated by [ItemCount](#) property. At runtime the itemcount is a positive integer that indicates the count of all items. For instance, "value + `<r><fgcolor=808080>Total: ` + itemcount" includes in the filter bar the number of items aligned to the right.
- **visibleItemCount** keyword returns the number of visible items as indicated by [VisibleItemCount](#) property. At runtime, the visibleItemCount is a positive integer if no filter is applied, and negative if a filter is applied. If positive, it indicates the number of visible items. The visible items does not include child items of a collapsed item. If negative, a filter is applied, and the absolute value minus one, indicates the number of visible items after filter is applied. 0 indicates no visible items, while -1 indicates that a filter is applied, but no item matches the filter criteria. For instance, "value + `<r><fgcolor=808080>` + ( visibleItemCount < 0 ? ( `Result: ` + ( abs(visibleItemCount) - 1 ) ) : ( `Visible: ` + visibleItemCount ) )" includes "Visible: " plus number of visible items, if no filter is applied or "Result: " plus number of visible items, if filter is applied, aligned to the right
- **matchItemCount** keyword returns the number of items that match the filter as indicated by [MatchItemCount](#) property. At runtime, the matchItemCount is a positive integer if no filter is applied, and negative if a filter is applied. If positive, it indicates the number of items within the control ([ItemCount](#) property). If negative, a filter is applied, and the absolute value minus one, indicates the number of matching items after filter is applied. A matching item includes its parent items, if the control's [FilterInclude](#) property allows including child items. 0 indicates no visible items, while -1 indicates that a filter is applied, but no item matches the filter criteria. For instance, "value + `<r><fgcolor=808080>` + ( matchItemCount < 0 ? ( `Result: ` + ( abs(matchItemCount) - 1 ) ) : ( `Visible: ` + matchItemCount ) )" includes "Visible: " plus number of matching items, if no filter is applied or "Result: " plus number of matching items, if filter is applied, aligned to the right

) : ( `Visible: ` + matchItemCount ) )" includes "Visible: " plus number of visible items, if no filter is applied or "Result: " plus number of matching items, if filter is applied, aligned to the right

- **leafItemCount** keyword returns the number of leaf items. A leaf item is an item with no child items. At runtime, the leafItemCount is a positive number that computes the number of leaf items ( expanded or collapsed ). For instance, the "value + `<r> <fgcolor=808080><font ;6>` + leafItemCount" displays the number of leaf items aligned to the right with a different font and foreground color.
- **promptpattern** returns the pattern in the filter bar's prompt, as a string. The [FilterBarPromptPattern](#) specifies the pattern for the filter prompt. The control's filter bar prompt is visible, if the exFilterBarPromptVisible flag is included in the [FilterBarPromptVisible](#) property.
- **available** keyword returns the list of columns that are not currently part of the control's filter, but are available to be filtered. A column is available to be filtered, if the [DisplayFilterButton](#) property of the Column object, is True. At runtime, the available keyword may return a string such as "<fgcolor=C0C0C0>[<s>OrderDate</s>] <fgcolor> </fgcolor> [<s>RequiredDate</s>] <fgcolor> </fgcolor> [<s>ShippedDate</s>] <fgcolor> </fgcolor> [<s>ShipCountry</s>] <fgcolor> </fgcolor> [<s>Select</s>] </fgcolor>", so the control automatically applies HTML format, which you can change it. For instance, "value + ` ` + available", displays the current filter, including all available columns to be filtered. For instance, the "value + `<r>` + available replace `C0C0C0` with `FF0000`" displays the available columns aligned to the right with a different foreground color.
- **allui** keyword returns the list of columns that are part of the current filter and available columns to be filtered. A column is available to be filtered, if the [DisplayFilterButton](#) property of the Column object, is True. At runtime, the allui keyword may return a string such as "[<b>EmployeeID</b>] = '4| 5| 6' <fgcolor> </fgcolor> <fgcolor=C0C0C0> [<s>OrderDate</s>] </fgcolor> <fgcolor> </fgcolor> <fgcolor=C0C0C0> [<s>RequiredDate</s>] </fgcolor> <fgcolor> </fgcolor> <fgcolor=C0C0C0> [<s>ShippedDate</s>] </fgcolor> <fgcolor> </fgcolor> [<b>ShipVia</b>] = <img>1</img> <fgcolor> </fgcolor> <fgcolor=C0C0C0> [<s>ShipCountry</s>] </fgcolor> <fgcolor> </fgcolor> <fgcolor=C0C0C0> [<s>Select</s>] </fgcolor>", so the control automatically applies HTML format, which you can change it. For instance, "allui", displays the current filter, including all available columns to be filtered. For instance, the "((allui + `<fgcolor=808080>` + ( matchItemCount < 0 ? ( ( len(allui) ? `` : `` ) + `<r>` + abs(matchItemCount + 1) + ` result(s)` ) : (`<r><fgcolor=808080>` + itemCount + ` item(s)` ) ) ) replace ` [<b>` with `<bgcolor=000000><fgcolor=FFFFFF><b>` replace ` </b>` with ` </b></bgcolor></fgcolor>` replace ` [<s>` with `<bgcolor=C0C0C0><fgcolor=FFFFFF>` replace ` </s>` with ` </bgcolor></fgcolor>` )" displays all available columns to be filtered with different background/foreground colors including the number of items/results
- **all** keyword returns the list of all columns ( visible or hidden ) no matter if the [DisplayFilterButton](#) property is True or False. At runtime, the all keyword may return a

string such as "<fgcolor=C0C0C0>[<s>OrderID</s>]</fgcolor><fgcolor> </fgcolor> [<b>EmployeeID</b>] = '4| 5| 6'<fgcolor> </fgcolor><fgcolor=C0C0C0> [<s>OrderDate</s>]</fgcolor><fgcolor> </fgcolor><fgcolor=C0C0C0> [<s>RequiredDate</s>]</fgcolor><fgcolor>", so the control automatically applies HTML format, which you can change it. For instance, "all", displays the current filter, including all other columns. For instance, the "((all + `<fgcolor=808080>` + (matchItemCount < 0 ? ( ( len(allui) ? `` : `` ) + `<r>` + abs(matchItemCount + 1) + `result(s)` ) : (`<r><fgcolor=808080>` + itemCount + ` item(s)` ) )) replace `['<b>' with `<bgcolor=000000><fgcolor=FFFFFF><b>` replace `']` with ` '</b></bgcolor></fgcolor>` replace `['<s>' with `<bgcolor=C0C0C0><fgcolor=FFFFFF>` replace `']` with ` </bgcolor></fgcolor>` )" displays all columns with different background/foreground colors including the number of items/results

Also, the FilterBarCaption property supports predefined constants and operators/functions as described [here](#).

Also, the FilterBarCaption property supports HTML format as described here:

- **<b> ... </b>** displays the text in **bold**
- **<i> ... </i>** displays the text in *italics*
- **<u> ... </u>** underlines the text
- **<s> ... </s>** Strike-through text
- **<a id;options> ... </a>** displays an [anchor](#) element that can be clicked. An anchor is a piece of text or some other object (for example an image) which marks the beginning and/or the end of a hypertext link. The  element is used to mark that piece of text (or inline image), and to give its hypertextual relationship to other documents. The control fires the *AnchorClick(AnchorID, Options)* event when the user clicks the anchor element. The *FormatAnchor* property customizes the visual effect for anchor elements.

The control supports expandable HTML captions feature which allows you to expand(show)/collapse(hide) different information using

- exp, stores the plain text to be shown once the user clicks the anchor, such as "<a ;exp=show lines>"
- e64, encodes in BASE64 the HTML text to be shown once the user clicks the anchor, such as "<a ;e64=gA8ABmABnABjABvABshIAOQAEAAHAAGESikWio+ABzABohp3iELABpABu </a>" that displays show lines- in gray when the user clicks the + anchor. The "gA8ABmABnABjABvABshIAOQAEAAHAAGESikWio+ABzABohp3iELABpABuABljY string encodes the "<fgcolor 808080>show lines<a>-</a></fgcolor>" The Decode64Text/Encode64Text methods of the eXPrint can be used to decode/encode e64 fields.

Any ex-HTML caption can be transformed to an expandable-caption, by inserting the anchor ex-HTML tag. For instance, "<solidline><b>Header</b></solidline><br>Line1<r><a ;exp=show lines>+</a><br>Line2<br>Line3" shows the Header in underlined and bold on the first line and Line1, Line2, Line3 on the rest. The "show lines" is shown instead of Line1, Line2, Line3 once the user clicks the + sign.

- **<font face;size> ... </font>** displays portions of text with a different font and/or different size. For instance, the "<font Tahoma;12>bit</font>" draws the bit text using the Tahoma font, on size 12 pt. If the name of the font is missing, and instead size is present, the current font is used with a different size. For instance, "<font ;12>bit</font>" displays the bit text using the current font, but with a different size.
- **<fgcolor rrggbb> ... </fgcolor>** or **<fgcolor=rrggbb> ... </fgcolor>** displays text with a specified **foreground** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<bgcolor rrggbb> ... </bgcolor>** or **<bgcolor=rrggbb> ... </bgcolor>** displays text with a specified **background** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<solidline rrggbb> ... </solidline>** or **<solidline=rrggbb> ... </solidline>** draws a solid-line on the bottom side of the current text-line, of specified RGB color. The <solidline> ... </solidline> draws a black solid-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<dotline rrggbb> ... </dotline>** or **<dotline=rrggbb> ... </dotline>** draws a dot-line on the bottom side of the current text-line, of specified RGB color. The <dotline> ... </dotline> draws a black dot-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<upline> ... </upline>** draws the line on the top side of the current text-line (requires <solidline> or <dotline>).
- **<r>** right aligns the text
- **<c>** centers the text
- **<br>** forces a line-break
- **<img>number[:width]</img>** inserts an icon inside the text. The number indicates the index of the icon being inserted. Use the **Images** method to assign a list of icons to your chart. The last 7 bits in the high significant byte of the number expression indicates the identifier of the skin being used to paint the object. Use the **Add** method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part. The width is optional and indicates the width of the icon being inserted. Using the width option you can overwrite multiple icons getting a nice effect. By default, if the width field is missing, the width is 18 pixels.
- **<img>key[:width]</img>** inserts a custom size picture into the text being previously loaded using the **HTMLPicture** property. The Key parameter indicates the key of the picture being displayed. The Width parameter indicates a custom size, if you require to stretch the picture, else the original size of the picture is used.

- & glyph characters as &#amp; ( & ), &lt; ( < ), &gt; ( > ), &qout; ( " ) and &#number; ( the character with specified code ), For instance, the &#8364; displays the EUR character. The & ampersand is only recognized as markup when it is followed by a known letter or a #character and a digit. For instance if you want to display <b>bold</b> in HTML caption you can use &lt;b&gt;bold&lt;/b&gt;
- <off offset> ... </off> defines the vertical offset to display the text/element. The offset parameter defines the offset to display the element. This tag is inheritable, so the offset is keep while the associated </off> tag is found. You can use the <off offset> HTML tag in combination with the <font face;size> to define a smaller or a larger font to be displayed. For instance: "Text with <font ;7><off 6>subscript" displays the text such as: Text with subscript The "Text with <font ;7><off -6>superscript" displays the text such as: Text with superscript
- <gra rrggbb;mode;blend> ... </gra> defines a gradient text. The text color or <fgcolor> defines the starting gradient color, while the rr/gg/bb represents the red/green/blue values of the ending color, 808080 if missing as gray. The mode is a value between 0 and 4, 1 if missing, and blend could be 0 or 1, 0 if missing. The <font> HTML tag can be used to define the height of the font. Any of the rrggbb, mode or blend field may not be specified. The <gra> with no fields, shows a vertical gradient color from the current text color to gray (808080). For instance the "<font ;18><gra FFFFFF;1;1>gradient-center</gra></font>" generates the following picture:

gradient-center

- <out rrggbb;width> ... </out> shows the text with outlined characters, where rr/gg/bb represents the red/green/blue values of the outline color, 808080 if missing as gray, width indicates the size of the outline, 1 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><out 000000><fgcolor=FFFFFF>outlined</fgcolor></out></font>" generates the following picture:

outlined

- <sha rrggbb;width;offset> ... </sha> define a text with a shadow, where rr/gg/bb represents the red/green/blue values of the shadow color, 808080 if missing as gray, width indicates the size of shadow, 4 if missing, and offset indicates the offset from the origin to display the text's shadow, 2 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><sha>shadow</sha></font>" generates the following picture:

shadow

or "<font ;31><sha 404040;5;0><fgcolor=FFFFFF>outline anti-aliasing</fgcolor></sha></font>" gets:

outline anti-aliasing

## property Gantt.FilterBarDropDownHeight as Double

Specifies the height of the drop down filter window proportionally with the height of the control's list.

Type	Description
Double	A double expression that indicates the height of the drop down filter window. The meaning of the value is explained bellow.

By default, the FilterBarDropDownHeight property is 0.5. It means, the height of the drop down filter window is half of the height of the control's list. Use the FilterBarDropDownHeight property to specify the height of the drop down window filter window. Use the [DisplayFilterButton](#) property to display a filter button to the column's caption. Use the [FilterBarDropDownWidth](#) property to specify the width of the drop down filter window. Use the [Description](#) property to define predefined strings in the filter bar. Use the [FilterInclude](#) property to specify whether the child items should be included to the list when the user applies the filter.

If the FilterBarDropDownHeight property is negative, the absolute value of the FilterBarDropDownHeight property indicates the height of the drop down filter window in pixels. In this case, the height of the drop down filter window is not proportionally with the height of the control's list area. For instance, the following sample specifies the height of the drop down filter window being 100 pixels:

```
With Gantt1
```

```
    .FilterBarDropDownHeight = -100
```

```
End With
```

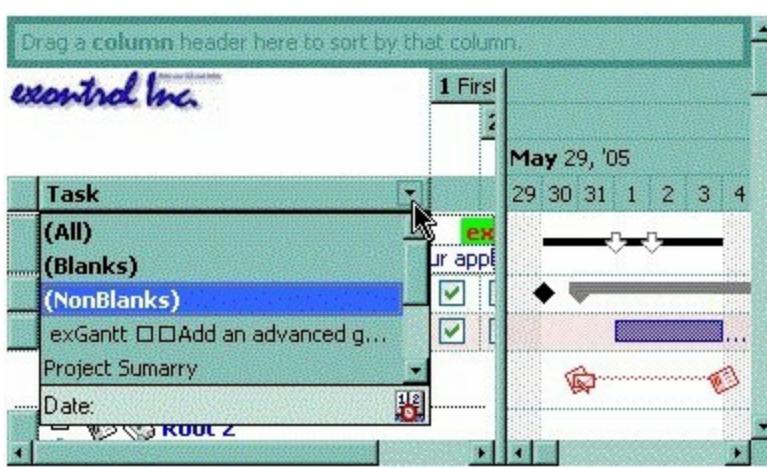
If the FilterBarDropDownHeight property is greater than 0, it indicates the height of the drop down filter window proportionally with the height of the control's height list. For instance, the following sample specifies the height of the drop down filter window being the same with the height of the control's list area:

```
With Gantt1
```

```
    .FilterBarDropDownHeight = 1
```

```
End With
```

The drop down filter window always include an item.



## property Gantt.FilterBarFont as IFontDisp

Retrieves or sets the font for control's filter bar.

Type	Description
IFontDisp	A font object that indicates the font used to paint the description for control's filter

Use the FilterBarFont property to specify the font for the control's filter bar object. Use the [Font](#) property to set the control's font. Use the [FilterBarHeight](#) property to specify the height of the filter bar. Use the [FilterBarCaption](#) property to define the control's filter bar caption. Use the [Refresh](#) method to refresh the control.

## property Gantt.FilterBarForeColor as Color

Specifies the foreground color of the control's filter bar.

Type	Description
Color	A color expression that defines the foreground color of the description of the control's filter.

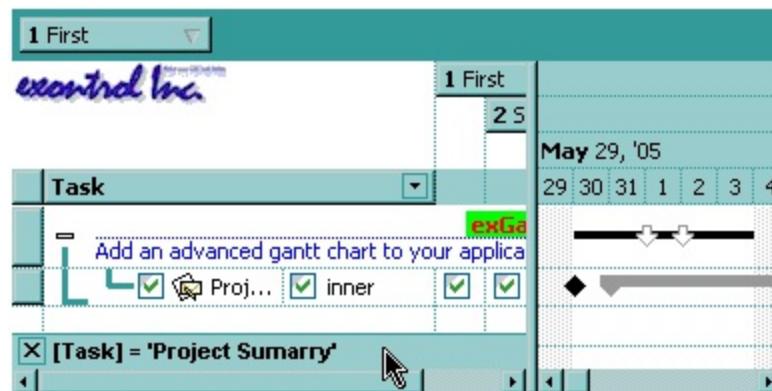
Use the FilterBarForeColor and [FilterBarBackColor](#) properties to define colors used to paint the description of the control's filter. Use the [FilterBarFont](#) property to specify the filter bar's font. Use the [FilterBarCaption](#) property to specify the caption of the control's filter bar.

## property Gantt.FilterBarHeight as Long

Specifies the height of the control's filter bar. If the value is less than 0, the filter bar is automatically resized to fit its description.

Type	Description
Long	A long expression that indicates the height of the filter bar status.

The filter bar status defines the control's filter description. If the FilterBarHeight property is less than 0 the control automatically updates the height of the filter's description to fit in the control's client area. If the FilterBarHeight property is zero the filter's description is hidden. If the FilterBarHeight property is greater than zero it defines the height in pixels of the filter's description. Use the [ClearFilter](#) method to clear the control's filter. Use the [FilterBarCaption](#) property to define the control's filter bar caption. Use the [FilterBarFont](#) property to specify the font for the control's filter bar. Use the [FilterBarDropDownWidth](#) property to specify the width of the drop down filter window. Use the [FilterBarDropDownHeight](#) to specify the height of the drop down filter window. Use the [ShowFilter](#) method to show programmatically the column's drop down filter window.



## property Gantt.FilterBarPrompt as String

Specifies the caption to be displayed when the filter pattern is missing.

Type	Description
String	A string expression that indicates the HTML caption being displayed in the filter bar, when filter prompt pattern is missing. The <a href="#">FilterBarPromptPattern</a> property specifies the pattern to filter the list using the filter prompt feature.

By default, the FilterBarPrompt property is "<i><fgcolor=808080>Start Filter...</fgcolor></i>". The [FilterBarPromptPattern](#) property specifies the pattern to filter the list using the filter prompt feature. Changing the FilterBarPrompt property won't change the current filter. The [FilterBarPromptColumns](#) property specifies the list of columns to be used when filtering by prompt. The [DisplayFilterButton](#) property specifies whether the column's header displays a filter button. The [VisibleItemCount](#) property retrieves the number of visible items in the list. The control fires the [FilterChanging](#) event just before applying the filter, and [FilterChange](#) once the list gets filtered. Use the [FilterBarCaption](#) property to change the caption in the filter bar once a new filter is applied. The [FilterBarFont](#) property specifies the font to be used in the filter bar. The [FilterBarBackColor](#) property specifies the background color or the visual aspect of the control's filter bar. The [FilterBarForeColor](#) property specifies the foreground color or the control's filter bar.

The FilterBarPrompt property supports HTML format as described here:

- <b> ... </b> displays the text in **bold**
- <i> ... </i> displays the text in *italics*
- <u> ... </u> underlines the text
- <s> ... </s> Strike-through text
- <a id=options> ... </a> displays an [anchor](#) element that can be clicked. An anchor is a piece of text or some other object (for example an image) which marks the beginning and/or the end of a hypertext link. The <a> element is used to mark that piece of text (or inline image), and to give its hypertextual relationship to other documents. The control fires the [AnchorClick\(AnchorID, Options\)](#) event when the user clicks the anchor element. The [FormatAnchor](#) property customizes the visual effect for anchor elements.

The control supports expandable HTML captions feature which allows you to expand(show)/collapse(hide) different information using <a ;exp=> or <a ;e64=> anchor tags. The exp/e64 field of the anchor stores the HTML line/lines to show once the user clicks/collapses/expands the caption.

- exp, stores the plain text to be shown once the user clicks the anchor, such as "<a ;exp=show lines>"
- e64, encodes in BASE64 the HTML text to be shown once the user clicks the

anchor, such as "<a ;e64=gA8ABmABnABjABvABshIAQAEAAHAAGESikWio+ABzABohp3iELABpABu</a>" that displays show lines- in gray when the user clicks the + anchor. The "gA8ABmABnABjABvABshIAQAEAAHAAGESikWio+ABzABohp3iELABpABuABljY string encodes the "<fgcolor 808080>show lines<a>-</a></fgcolor>" The Decode64Text/Encode64Text methods of the eXPrint can be used to decode/encode e64 fields.

Any ex-HTML caption can be transformed to an expandable-caption, by inserting the anchor ex-HTML tag. For instance, "<solidline><b>Header</b></solidline> <br>Line1<r><a ;exp=show lines>+</a><br>Line2<br>Line3" shows the Header in underlined and bold on the first line and Line1, Line2, Line3 on the rest. The "show lines" is shown instead of Line1, Line2, Line3 once the user clicks the + sign.

- **<font face;size> ... </font>** displays portions of text with a different font and/or different size. For instance, the "<font Tahoma;12>bit</font>" draws the bit text using the Tahoma font, on size 12 pt. If the name of the font is missing, and instead size is present, the current font is used with a different size. For instance, "<font ;12>bit</font>" displays the bit text using the current font, but with a different size.
- **<fgcolor rrggbb> ... </fgcolor>** or **<fgcolor=rrggbb> ... </fgcolor>** displays text with a specified **foreground** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<bgcolor rrggbb> ... </bgcolor>** or **<bgcolor=rrggbb> ... </bgcolor>** displays text with a specified **background** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<solidline rrggbb> ... </solidline>** or **<solidline=rrggbb> ... </solidline>** draws a solid-line on the bottom side of the current text-line, of specified RGB color. The <solidline> ... </solidline> draws a black solid-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<dotline rrggbb> ... </dotline>** or **<dotline=rrggbb> ... </dotline>** draws a dot-line on the bottom side of the current text-line, of specified RGB color. The <dotline> ... </dotline> draws a black dot-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<upline> ... </upline>** draws the line on the top side of the current text-line (requires <solidline> or <dotline>).
- **<r>** right aligns the text
- **<c>** centers the text
- **<br>** forces a line-break
- **<img>number[:width]</img>** inserts an icon inside the text. The number indicates the index of the icon being inserted. Use the Images method to assign a list of icons to your chart. The last 7 bits in the high significant byte of the number expression indicates the identifier of the skin being used to paint the object. Use the [Add](#) method to add new skins to the control. If you need to remove the skin appearance from a part

of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part. The width is optional and indicates the width of the icon being inserted. Using the width option you can overwrite multiple icons getting a nice effect. By default, if the width field is missing, the width is 18 pixels.

- <img>key[:width]</img> inserts a custom size picture into the text being previously loaded using the HTMLPicture property. The Key parameter indicates the key of the picture being displayed. The Width parameter indicates a custom size, if you require to stretch the picture, else the original size of the picture is used.
- & glyph characters as &#amp; ( & ), &lt; ( < ), &gt; ( > ), &quot; ( " ) and &#number; ( the character with specified code ), For instance, the &#8364; displays the EUR character. The & ampersand is only recognized as markup when it is followed by a known letter or a #character and a digit. For instance if you want to display <b>bold</b> in HTML caption you can use &lt;b&gt;bold&lt;/b&gt;
- <off offset> ... </off> defines the vertical offset to display the text/element. The offset parameter defines the offset to display the element. This tag is inheritable, so the offset is keep while the associated </off> tag is found. You can use the <off offset> HTML tag in combination with the <font face;size> to define a smaller or a larger font to be displayed. For instance: "Text with <font ;7><off 6>subscript" displays the text such as: Text with subscript The "Text with <font ;7><off -6>superscript" displays the text such as: Text with superscript
- <gra rrggbb;mode;blend> ... </gra> defines a gradient text. The text color or <fgcolor> defines the starting gradient color, while the rr/gg/bb represents the red/green/blue values of the ending color, 808080 if missing as gray. The mode is a value between 0 and 4, 1 if missing, and blend could be 0 or 1, 0 if missing. The <font> HTML tag can be used to define the height of the font. Any of the rrggbb, mode or blend field may not be specified. The <gra> with no fields, shows a vertical gradient color from the current text color to gray (808080). For instance the "<font ;18><gra FFFFFF;1;1>gradient-center</gra></font>" generates the following picture:

gradient-center

- <out rrggbb;width> ... </out> shows the text with outlined characters, where rr/gg/bb represents the red/green/blue values of the outline color, 808080 if missing as gray, width indicates the size of the outline, 1 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><out 000000><fgcolor=FFFFFF>outlined</fgcolor></out></font>" generates the following picture:

outlined

- <sha rrggbb;width;offset> ... </sha> define a text with a shadow, where rr/gg/bb represents the red/green/blue values of the shadow color, 808080 if missing as gray, width indicates the size of shadow, 4 if missing, and offset indicates the offset from the origin to display the text's shadow, 2 if missing. The text color or <fgcolor> defines the

color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><sha>shadow</sha></font>" generates the following picture:

**shadow**

or "<font ;31><sha 404040;5;0><fgcolor=FFFFFF>outline anti-aliasing</fgcolor></sha></font>" gets:

**outline anti-aliasing**

The FilterBarPrompt property has effect only if:

- [FilterBarPromptVisible](#) property is True
- [FilterBarPromptPattern](#) property is Empty.

## property Gantt.FilterBarPromptColumns as Variant

Specifies the list of columns to be used when filtering using the prompt.

Type	Description
Variant	A long expression that indicates the index of the column to apply the filter prompt, a string expression that specifies the list of columns (indexes) separated by comma to apply the filter prompt, or a safe array of long expression that specifies the indexes of the columns to apply the filter. The filter prompt feature allows you to filter the items as you type while the filter bar is visible on the bottom part of the list area.

By default, the FilterBarPromptColumns property is -1. If the FilterBarPromptColumns property is -1, the filter prompt is applied for all columns, visible or hidden. Use the FilterBarPromptColumns property to specify the list of columns to apply the filter prompt pattern. The [FilterBarPromptVisible](#) property specifies whether the filter prompt is visible or hidden. Use the [FilterBarPrompt](#) property to specify the HTML caption being displayed in the filter bar when the filter pattern is missing. The [FilterBarPromptPattern](#) property specifies the pattern to filter the list. Changing the [FilterBarPromptPattern](#) property does not require calling the [ApplyFilter](#) method to apply the new filter, only if filtering is required right a way. The [FilterBarPromptType](#) property specifies the type of filtering when the user edits the prompt in the filter bar.

## property Gantt.FilterBarPromptPattern as String

Specifies the pattern for the filter prompt.

Type	Description
String	A string expression that specifies the pattern to filter the list.

By default, the FilterBarPromptPattern property is empty. If the FilterBarPromptPattern property is empty, the filter bar displays the [FilterBarPrompt](#) property, if the [FilterBarPromptVisible](#) property is True. The FilterBarPromptPattern property indicates the pattern to filter the list. The pattern may include wild characters if the [FilterBarPromptType](#) property is exFilterPromptPattern. The [FilterBarPromptColumns](#) specifies the list of columns to be used when filtering. Changing the FilterBarPromptPattern property does not require calling the [ApplyFilter](#) method to apply the new filter, only if filtering is required right away.

The following samples shows the filter prompt, and filter for items that contains "london":

### Access

#### With Gantt1

```
.BeginUpdate  
.ColumnAutoResize = True  
.ContinueColumnScroll = 0  
.MarkSearchColumn = False  
.SearchColumnIndex = 1  
.FilterBarPromptVisible = True  
.FilterBarPromptPattern = "london"
```

#### With .Columns

```
.Add("Name").Width = 96  
.Add("Title").Width = 96  
.Add "City"
```

#### End With

#### With .Items

```
h0 = .AddItem("Nancy Davolio")  
.CellCaption(h0,1) = "Sales Representative"  
.CellCaption(h0,2) = "Seattle"  
h0 = .AddItem("Andrew Fuller")  
.CellCaption(h0,1) = "Vice President, Sales"  
.CellCaption(h0,2) = "Tacoma"
```

```
.SelectItem(h0) = 1
h0 = .AddItem("Janet Leverling")
.CellCaption(h0,1) = "Sales Representative"
.CellCaption(h0,2) = "Kirkland"
h0 = .AddItem("Margaret Peacock")
.CellCaption(h0,1) = "Sales Representative"
.CellCaption(h0,2) = "Redmond"
h0 = .AddItem("Steven Buchanan")
.CellCaption(h0,1) = "Sales Manager"
.CellCaption(h0,2) = "London"
h0 = .AddItem("Michael Suyama")
.CellCaption(h0,1) = "Sales Representative"
.CellCaption(h0,2) = "London"
h0 = .AddItem("Robert King")
.CellCaption(h0,1) = "Sales Representative"
.CellCaption(h0,2) = "London"
h0 = .AddItem("Laura Callahan")
.CellCaption(h0,1) = "Inside Sales Coordinator"
.CellCaption(h0,2) = "Seattle"
h0 = .AddItem("Anne Dodsworth")
.CellCaption(h0,1) = "Sales Representative"
.CellCaption(h0,2) = "London"
```

End With

.EndUpdate

End With

C++

```
/*
```

Copy and paste the following directives to your header file as  
it defines the namespace 'EXGANTTLib' for the library: 'ExGantt 1.0 Control Library'

```
#import <ExGantt.dll>
using namespace EXGANTTLib;
```

```
*/
```

```
EXGANTTLib::IGanttPtr spGantt1 = GetDlgItem(IDC_GANTT1)->GetControlUnknown();
spGantt1->BeginUpdate();
```

```
spGantt1->PutColumnAutoResize(VARIANT_TRUE);
spGantt1->PutContinueColumnScroll(VARIANT_FALSE);
spGantt1->PutMarkSearchColumn(VARIANT_FALSE);
spGantt1->PutSearchColumnIndex(1);
spGantt1->PutFilterBarPromptVisible(VARIANT_TRUE);
spGantt1->PutFilterBarPromptPattern(L"london");
EXGANTTLib::IColumnsPtr var_Columns = spGantt1->GetColumns();
    ((EXGANTTLib::IColumnPtr)(var_Columns->Add(L"Name")))->PutWidth(96);
    ((EXGANTTLib::IColumnPtr)(var_Columns->Add(L>Title")))->PutWidth(96);
    var_Columns->Add(L"City");
EXGANTTLib::IItemsPtr var_Items = spGantt1->GetItems();
long h0 = var_Items->AddItem("Nancy Davolio");
var_Items->PutCellCaption(h0,long(1),"Sales Representative");
var_Items->PutCellCaption(h0,long(2),"Seattle");
h0 = var_Items->AddItem("Andrew Fuller");
var_Items->PutCellCaption(h0,long(1),"Vice President, Sales");
var_Items->PutCellCaption(h0,long(2),"Tacoma");
var_Items->PutSelectItem(h0,VARIANT_TRUE);
h0 = var_Items->AddItem("Janet Leverling");
var_Items->PutCellCaption(h0,long(1),"Sales Representative");
var_Items->PutCellCaption(h0,long(2),"Kirkland");
h0 = var_Items->AddItem("Margaret Peacock");
var_Items->PutCellCaption(h0,long(1),"Sales Representative");
var_Items->PutCellCaption(h0,long(2),"Redmond");
h0 = var_Items->AddItem("Steven Buchanan");
var_Items->PutCellCaption(h0,long(1),"Sales Manager");
var_Items->PutCellCaption(h0,long(2),"London");
h0 = var_Items->AddItem("Michael Suyama");
var_Items->PutCellCaption(h0,long(1),"Sales Representative");
var_Items->PutCellCaption(h0,long(2),"London");
h0 = var_Items->AddItem("Robert King");
var_Items->PutCellCaption(h0,long(1),"Sales Representative");
var_Items->PutCellCaption(h0,long(2),"London");
h0 = var_Items->AddItem("Laura Callahan");
var_Items->PutCellCaption(h0,long(1),"Inside Sales Coordinator");
var_Items->PutCellCaption(h0,long(2),"Seattle");
h0 = var_Items->AddItem("Anne Dodsworth");
```

```
var_Items->PutCellCaption(h0,long(1),"Sales Representative");
var_Items->PutCellCaption(h0,long(2),"London");
spGantt1->EndUpdate();
```

C#

```
extree1.BeginUpdate();
extree1.ColumnAutoResize = true;
extree1.ContinueColumnScroll = false;
extree1.MarkSearchColumn = false;
extree1.SearchColumnIndex = 1;
extree1.FilterBarPromptVisible = true;
extree1.FilterBarPromptPattern = "London";
exontrol.EXGANTTLib.Columns var_Columns = extree1.Columns;
(var_Columns.Add("Name") as exontrol.EXGANTTLib.Column).Width = 96;
(var_Columns.Add("Title") as exontrol.EXGANTTLib.Column).Width = 96;
var_Columns.Add("City");
exontrol.EXGANTTLib.Items var_Items = extree1.Items;
int h0 = var_Items.AddItem("Nancy Davolio");
var_Items.set_CellCaption(h0,1,"Sales Representative");
var_Items.set_CellCaption(h0,2,"Seattle");
h0 = var_Items.AddItem("Andrew Fuller");
var_Items.set_CellCaption(h0,1,"Vice President, Sales");
var_Items.set_CellCaption(h0,2,"Tacoma");
var_Items.set_SelectItem(h0,1);
h0 = var_Items.AddItem("Janet Leverling");
var_Items.set_CellCaption(h0,1,"Sales Representative");
var_Items.set_CellCaption(h0,2,"Kirkland");
h0 = var_Items.AddItem("Margaret Peacock");
var_Items.set_CellCaption(h0,1,"Sales Representative");
var_Items.set_CellCaption(h0,2,"Redmond");
h0 = var_Items.AddItem("Steven Buchanan");
var_Items.set_CellCaption(h0,1,"Sales Manager");
var_Items.set_CellCaption(h0,2,"London");
h0 = var_Items.AddItem("Michael Suyama");
var_Items.set_CellCaption(h0,1,"Sales Representative");
var_Items.set_CellCaption(h0,2,"London");
```

```
h0 = var_Items.AddItem("Robert King");
var_Items.set_CellCaption(h0,1,"Sales Representative");
var_Items.set_CellCaption(h0,2,"London");
h0 = var_Items.AddItem("Laura Callahan");
var_Items.set_CellCaption(h0,1,"Inside Sales Coordinator");
var_Items.set_CellCaption(h0,2,"Seattle");
h0 = var_Items.AddItem("Anne Dodsworth");
var_Items.set_CellCaption(h0,1,"Sales Representative");
var_Items.set_CellCaption(h0,2,"London");
extree1.EndUpdate();
```

## C# for /COM

```
axGantt1.BeginUpdate();
axGantt1.ColumnAutoResize = true;
axGantt1.ContinueColumnScroll = false;
axGantt1.MarkSearchColumn = false;
axGantt1.SearchColumnIndex = 1;
axGantt1.FilterBarPromptVisible = true;
axGantt1.FilterBarPromptPattern = "london";
EXGANTTLib.Columns var_Columns = axGantt1.Columns;
(var_Columns.Add("Name") as EXGANTTLib.Column).Width = 96;
(var_Columns.Add("Title") as EXGANTTLib.Column).Width = 96;
var_Columns.Add("City");
EXGANTTLib.Items var_Items = axGantt1.Items;
int h0 = var_Items.AddItem("Nancy Davolio");
var_Items.set_CellCaption(h0,1,"Sales Representative");
var_Items.set_CellCaption(h0,2,"Seattle");
h0 = var_Items.AddItem("Andrew Fuller");
var_Items.set_CellCaption(h0,1,"Vice President, Sales");
var_Items.set_CellCaption(h0,2,"Tacoma");
var_Items.set_SelectItem(h0,true);
h0 = var_Items.AddItem("Janet Leverling");
var_Items.set_CellCaption(h0,1,"Sales Representative");
var_Items.set_CellCaption(h0,2,"Kirkland");
h0 = var_Items.AddItem("Margaret Peacock");
var_Items.set_CellCaption(h0,1,"Sales Representative");
```

```
var_Items.set_CellCaption(h0,2,"Redmond");
h0 = var_Items.AddItem("Steven Buchanan");
var_Items.set_CellCaption(h0,1,"Sales Manager");
var_Items.set_CellCaption(h0,2,"London");
h0 = var_Items.AddItem("Michael Suyama");
var_Items.set_CellCaption(h0,1,"Sales Representative");
var_Items.set_CellCaption(h0,2,"London");
h0 = var_Items.AddItem("Robert King");
var_Items.set_CellCaption(h0,1,"Sales Representative");
var_Items.set_CellCaption(h0,2,"London");
h0 = var_Items.AddItem("Laura Callahan");
var_Items.set_CellCaption(h0,1,"Inside Sales Coordinator");
var_Items.set_CellCaption(h0,2,"Seattle");
h0 = var_Items.AddItem("Anne Dodsworth");
var_Items.set_CellCaption(h0,1,"Sales Representative");
var_Items.set_CellCaption(h0,2,"London");
axGantt1.EndUpdate();
```

## Delphi

```
with AxGantt1 do
begin
  BeginUpdate();
  ColumnAutoSize := True;
  ContinueColumnScroll := False;
  MarkSearchColumn := False;
  SearchColumnIndex := 1;
  FilterBarPromptVisible := True;
  FilterBarPromptPattern := 'london';
  with Columns do
    begin
      (Add('Name') as EXGANTTLib.Column).Width := 96;
      (Add('Title') as EXGANTTLib.Column).Width := 96;
      Add('City');
    end;
  with Items do
    begin
```

```

h0 := AddItem('Nancy Davolio');
CellCaption[TObject(h0),TObject(1)] := 'Sales Representative';
CellCaption[TObject(h0),TObject(2)] := 'Seattle';
h0 := AddItem('Andrew Fuller');
CellCaption[TObject(h0),TObject(1)] := 'Vice President, Sales';
CellCaption[TObject(h0),TObject(2)] := 'Tacoma';
SelectItem[h0] := True;
h0 := AddItem('Janet Leverling');
CellCaption[TObject(h0),TObject(1)] := 'Sales Representative';
CellCaption[TObject(h0),TObject(2)] := 'Kirkland';
h0 := AddItem('Margaret Peacock');
CellCaption[TObject(h0),TObject(1)] := 'Sales Representative';
CellCaption[TObject(h0),TObject(2)] := 'Redmond';
h0 := AddItem('Steven Buchanan');
CellCaption[TObject(h0),TObject(1)] := 'Sales Manager';
CellCaption[TObject(h0),TObject(2)] := 'London';
h0 := AddItem('Michael Suyama');
CellCaption[TObject(h0),TObject(1)] := 'Sales Representative';
CellCaption[TObject(h0),TObject(2)] := 'London';
h0 := AddItem('Robert King');
CellCaption[TObject(h0),TObject(1)] := 'Sales Representative';
CellCaption[TObject(h0),TObject(2)] := 'London';
h0 := AddItem('Laura Callahan');
CellCaption[TObject(h0),TObject(1)] := 'Inside Sales Coordinator';
CellCaption[TObject(h0),TObject(2)] := 'Seattle';
h0 := AddItem('Anne Dodsworth');
CellCaption[TObject(h0),TObject(1)] := 'Sales Representative';
CellCaption[TObject(h0),TObject(2)] := 'London';
end;
EndUpdate();
end

```

VB

With Gantt1

```

.BeginUpdate
.ColumnAutoResize = True

```

```
.ContinueColumnScroll = 0
.MarkSearchColumn = False
.SearchColumnIndex = 1
.FilterBarPromptVisible = True
.FilterBarPromptPattern = "london"
With .Columns
    .Add("Name").Width = 96
    .Add("Title").Width = 96
    .Add "City"
End With
With .Items
    h0 = .AddItem("Nancy Davolio")
    .CellCaption(h0,1) = "Sales Representative"
    .CellCaption(h0,2) = "Seattle"
    h0 = .AddItem("Andrew Fuller")
    .CellCaption(h0,1) = "Vice President, Sales"
    .CellCaption(h0,2) = "Tacoma"
    .SelectItem(h0) = 1
    h0 = .AddItem("Janet Leverling")
    .CellCaption(h0,1) = "Sales Representative"
    .CellCaption(h0,2) = "Kirkland"
    h0 = .AddItem("Margaret Peacock")
    .CellCaption(h0,1) = "Sales Representative"
    .CellCaption(h0,2) = "Redmond"
    h0 = .AddItem("Steven Buchanan")
    .CellCaption(h0,1) = "Sales Manager"
    .CellCaption(h0,2) = "London"
    h0 = .AddItem("Michael Suyama")
    .CellCaption(h0,1) = "Sales Representative"
    .CellCaption(h0,2) = "London"
    h0 = .AddItem("Robert King")
    .CellCaption(h0,1) = "Sales Representative"
    .CellCaption(h0,2) = "London"
    h0 = .AddItem("Laura Callahan")
    .CellCaption(h0,1) = "Inside Sales Coordinator"
    .CellCaption(h0,2) = "Seattle"
    h0 = .AddItem("Anne Dodsworth")
```

```
.CellCaption(h0,1) = "Sales Representative"
```

```
.CellCaption(h0,2) = "London"
```

```
End With
```

```
.EndUpdate
```

```
End With
```

## VB.NET

```
Dim h0
```

```
With Extree1
```

```
    .BeginUpdate()
```

```
    .ColumnAutoResize = True
```

```
    .ContinueColumnScroll = False
```

```
    .MarkSearchColumn = False
```

```
    .SearchColumnIndex = 1
```

```
    .FilterBarPromptVisible = True
```

```
    .FilterBarPromptPattern = "london"
```

```
With .Columns
```

```
    .Add("Name").Width = 96
```

```
    .Add("Title").Width = 96
```

```
    .Add("City")
```

```
End With
```

```
With .Items
```

```
    h0 = .AddItem("Nancy Davolio")
```

```
    .set_CellCaption(h0,1,"Sales Representative")
```

```
    .set_CellCaption(h0,2,"Seattle")
```

```
    h0 = .AddItem("Andrew Fuller")
```

```
    .set_CellCaption(h0,1,"Vice President, Sales")
```

```
    .set_CellCaption(h0,2,"Tacoma")
```

```
    .set_SelectItem(h0,1)
```

```
    h0 = .AddItem("Janet Leverling")
```

```
    .set_CellCaption(h0,1,"Sales Representative")
```

```
    .set_CellCaption(h0,2,"Kirkland")
```

```
    h0 = .AddItem("Margaret Peacock")
```

```
    .set_CellCaption(h0,1,"Sales Representative")
```

```
    .set_CellCaption(h0,2,"Redmond")
```

```
    h0 = .AddItem("Steven Buchanan")
```

```
.set_CellCaption(h0,1,"Sales Manager")
.set_CellCaption(h0,2,"London")
h0 = .AddItem("Michael Suyama")
.set_CellCaption(h0,1,"Sales Representative")
.set_CellCaption(h0,2,"London")
h0 = .AddItem("Robert King")
.set_CellCaption(h0,1,"Sales Representative")
.set_CellCaption(h0,2,"London")
h0 = .AddItem("Laura Callahan")
.set_CellCaption(h0,1,"Inside Sales Coordinator")
.set_CellCaption(h0,2,"Seattle")
h0 = .AddItem("Anne Dodsworth")
.set_CellCaption(h0,1,"Sales Representative")
.set_CellCaption(h0,2,"London")
End With
.EndUpdate()
End With
```

## VB.NET for /COM

```
Dim h0
With AxGantt1
    .BeginUpdate()
    .ColumnAutoResize = True
    .ContinueColumnScroll = False
    .MarkSearchColumn = False
    .SearchColumnIndex = 1
    .FilterBarPromptVisible = True
    .FilterBarPromptPattern = "london"
    With .Columns
        .Add("Name").Width = 96
        .Add("Title").Width = 96
        .Add("City")
    End With
    With .Items
        h0 = .AddItem("Nancy Davolio")
        .CellCaption(h0,1) = "Sales Representative"
```

```
.CellCaption(h0,2) = "Seattle"
h0 = .AddItem("Andrew Fuller")
.CellCaption(h0,1) = "Vice President, Sales"
.CellCaption(h0,2) = "Tacoma"
.SelectItem(h0) = True
h0 = .AddItem("Janet Leverling")
.CellCaption(h0,1) = "Sales Representative"
.CellCaption(h0,2) = "Kirkland"
h0 = .AddItem("Margaret Peacock")
.CellCaption(h0,1) = "Sales Representative"
.CellCaption(h0,2) = "Redmond"
h0 = .AddItem("Steven Buchanan")
.CellCaption(h0,1) = "Sales Manager"
.CellCaption(h0,2) = "London"
h0 = .AddItem("Michael Suyama")
.CellCaption(h0,1) = "Sales Representative"
.CellCaption(h0,2) = "London"
h0 = .AddItem("Robert King")
.CellCaption(h0,1) = "Sales Representative"
.CellCaption(h0,2) = "London"
h0 = .AddItem("Laura Callahan")
.CellCaption(h0,1) = "Inside Sales Coordinator"
.CellCaption(h0,2) = "Seattle"
h0 = .AddItem("Anne Dodsworth")
.CellCaption(h0,1) = "Sales Representative"
.CellCaption(h0,2) = "London"
End With
.EndUpdate()
End With
```

VFP

```
with thisform.Gantt1
```

```
.BeginUpdate
.ColumnAutoResize = .T.
.ContinueColumnScroll = 0
.MarkSearchColumn = .F.
```

```
.SearchColumnIndex = 1
.FilterBarPromptVisible = .T.
.FilterBarPromptPattern = "london"
with .Columns
    .Add("Name").Width = 96
    .Add("Title").Width = 96
    .Add("City")
endwith
with .Items
    h0 = .AddItem("Nancy Davolio")
        .CellCaption(h0,1) = "Sales Representative"
        .CellCaption(h0,2) = "Seattle"
    h0 = .AddItem("Andrew Fuller")
        .CellCaption(h0,1) = "Vice President, Sales"
        .CellCaption(h0,2) = "Tacoma"
        .SelectItem(h0) = 1
    h0 = .AddItem("Janet Leverling")
        .CellCaption(h0,1) = "Sales Representative"
        .CellCaption(h0,2) = "Kirkland"
    h0 = .AddItem("Margaret Peacock")
        .CellCaption(h0,1) = "Sales Representative"
        .CellCaption(h0,2) = "Redmond"
    h0 = .AddItem("Steven Buchanan")
        .CellCaption(h0,1) = "Sales Manager"
        .CellCaption(h0,2) = "London"
    h0 = .AddItem("Michael Suyama")
        .CellCaption(h0,1) = "Sales Representative"
        .CellCaption(h0,2) = "London"
    h0 = .AddItem("Robert King")
        .CellCaption(h0,1) = "Sales Representative"
        .CellCaption(h0,2) = "London"
    h0 = .AddItem("Laura Callahan")
        .CellCaption(h0,1) = "Inside Sales Coordinator"
        .CellCaption(h0,2) = "Seattle"
    h0 = .AddItem("Anne Dodsworth")
        .CellCaption(h0,1) = "Sales Representative"
        .CellCaption(h0,2) = "London"
```

```
endwith
.EndUpdate
endwith
```

## property Gantt.FilterBarPromptType as FilterPromptEnum

Specifies the type of the filter prompt.

Type	Description
<a href="#">FilterPromptEnum</a>	A FilterPromptEnum expression that specifies how the items are being filtered.

By default, the FilterBarPromptType property is exFilterPromptContainsAll. The filter prompt feature allows you to filter the items as you type while the filter bar is visible on the bottom part of the list area. The Filter prompt feature allows at runtime filtering data on hidden columns too. Use the [FilterBarPromptVisible](#) property to show the filter prompt. Use the [FilterBarPrompt](#) property to specify the HTML caption being displayed in the filter bar when the filter pattern is missing. The [FilterBarPromptPattern](#) property specifies the pattern to filter the list. Changing the [FilterBarPromptPattern](#) property does not require calling the [ApplyFilter](#) method to apply the new filter, only if filtering is required right away. The [FilterBarPromptColumns](#) property specifies the list of columns to be used when filtering by prompt. The [DisplayFilterButton](#) property specifies whether the column's header displays a filter button. The [VisibleItemCount](#) property retrieves the number of visible items in the list. The control fires the [FilterChanging](#) event just before applying the filter, and [FilterChange](#) once the list gets filtered. Use the [FilterBarCaption](#) property to change the caption in the filter bar once a new filter is applied.

The FilterBarPromptType property supports the following values:

- **exFilterPromptContainsAll**, The list includes the items that contains all specified sequences in the filter ([FilterBarPromptPattern](#) property). Can be combined with exFilterPromptCaseSensitive, exFilterPromptStartWords, exFilterPromptEndWords or exFilterPromptWords
- **exFilterPromptContainsAny**, The list includes the items that contains any of specified sequences in the filter ([FilterBarPromptPattern](#) property). Can be combined with exFilterPromptCaseSensitive, exFilterPromptStartWords, exFilterPromptEndWords or exFilterPromptWords
- **exFilterPromptStartWith**, The list includes the items that starts with any specified sequences in the filter ([FilterBarPromptPattern](#) property). Can be combined with exFilterPromptCaseSensitive, exFilterPromptStartWords, exFilterPromptEndWords or exFilterPromptWords
- **exFilterPromptEndWith**, The list includes the items that ends with any specified sequences in the filter ([FilterBarPromptPattern](#) property). Can be combined with exFilterPromptCaseSensitive, exFilterPromptStartWords, exFilterPromptEndWords or exFilterPromptWords
- **exFilterPromptPattern**, The filter indicates a pattern that may include wild characters to be used to filter the items in the list. The [FilterBarPromptPattern](#) property may

include wild characters as follows:

- '?' for any single character
- '\*' for zero or more occurrences of any character
- '#' for any digit character
- ' ' space delimits the patterns inside the filter

## property Gantt.FilterBarPromptVisible as FilterBarVisibleEnum

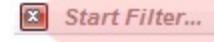
Shows or hides the control's filter bar including filter prompt.

Type	Description
<a href="#">FilterBarVisibleEnum</a>	A <a href="#">FilterBarVisibleEnum</a> expression that defines the way the control's filter bar is shown.

By default, The FilterBarPromptVisible property is exFilterBarHidden. The filter prompt feature allows you to filter the items as you type while the filter bar is visible on the bottom part of the list area. The Filter prompt feature allows at runtime filtering data on hidden columns too. Use the FilterBarPromptVisible property to show the filter prompt. Use the [FilterBarPrompt](#) property to specify the HTML caption being displayed in the filter bar when the filter pattern is missing. The [FilterBarPromptPattern](#) property specifies the pattern to filter the list. Changing the [FilterBarPromptPattern](#) property does not require calling the [ApplyFilter](#) method to apply the new filter, only if filtering is required right away. The [FilterBarCaption](#) property defines the caption to be displayed on the control's filter bar. The [FilterBarPromptType](#) property specifies the type of filtering when the user edits the prompt in the filter bar. The [FilterBarPromptColumns](#) property specifies the list of columns to be used when filtering by prompt. The [DisplayFilterButton](#) property specifies whether the column's header displays a filter button. The [VisibleItemCount](#) property retrieves the number of visible items in the list. The control fires the [FilterChanging](#) event just before applying the filter, and [FilterChange](#) once the list gets filtered.

The following screen shows the filter prompt:

Name	Title	City
Nancy Davolio	Sales Representative	Seattle
Andrew Fuller	Vice President, Sales	Tacoma
Janet Leverling	Sales Representative	Kirkland
Margaret Peacock	Sales Representative	Redmond
Steven Buchanan	Sales Manager	London
Michael Suyama	Sales Representative	London
Robert King	Sales Representative	London
Laura Callahan	Inside Sales Coordinator	Seattle
Anne Dodsworth	Sales Representative	London

 Start Filter...

The following screen shows the list once the user types "london":

Name	Title	City
Steven Buchanan	Sales Manager	London
Michael Suyama	Sales Representative	London
Robert King	Sales Representative	London
Anne Dodsworth	Sales Representative	London



london



## property Gantt.FilterCriteria as String

Retrieves or sets the filter criteria.

Type	Description
String	A string expression that indicates the filter criteria.

By default, the FilterCriteria property is empty. Use the FilterCriteria property to specify whether you need to filter items using OR, NOT operators between columns. If the FilterCriteria property is empty, or not valid, the filter uses the AND operator between columns. Use the FilterCriteria property to specify how the items are filtered.

The FilterCriteria property supports the following operators:

- **not** operator ( unary operator )
- **and** operator ( binary operator )
- **or** operator ( binary operator )

Use the ( and ) parenthesis to define the order execution in the clause, if case. The operators are gantted in their priority order. The % character precedes the index of the column ( zero based ), and indicates the column. For instance, **%0 or %1** means that OR operator is used when both columns are used, and that means that you can filter for values that are in a column or for values that are in the second columns. If a column is not gantted in the FilterCriteria property, and the user filters values by that column, the AND operator is used by default. For instance, let's say that we have three columns, and FilterCriteria property is "%0 or %1". If the user filter for all columns, the filter clause is equivalent with ( %0 or %1 ) and %2, and it means all that match the third column, and is in the first or the second column.

Use the [Filter](#) and [FilterType](#) properties to define a filter for a column. The [ApplyFilter](#) method should be called to update the control's content after changing the Filter or FilterType property, in code! Use the [DisplayFilterButton](#) property to display a drop down button to filter by a column.

## property Gantt.FilterInclude as FilterIncludeEnum

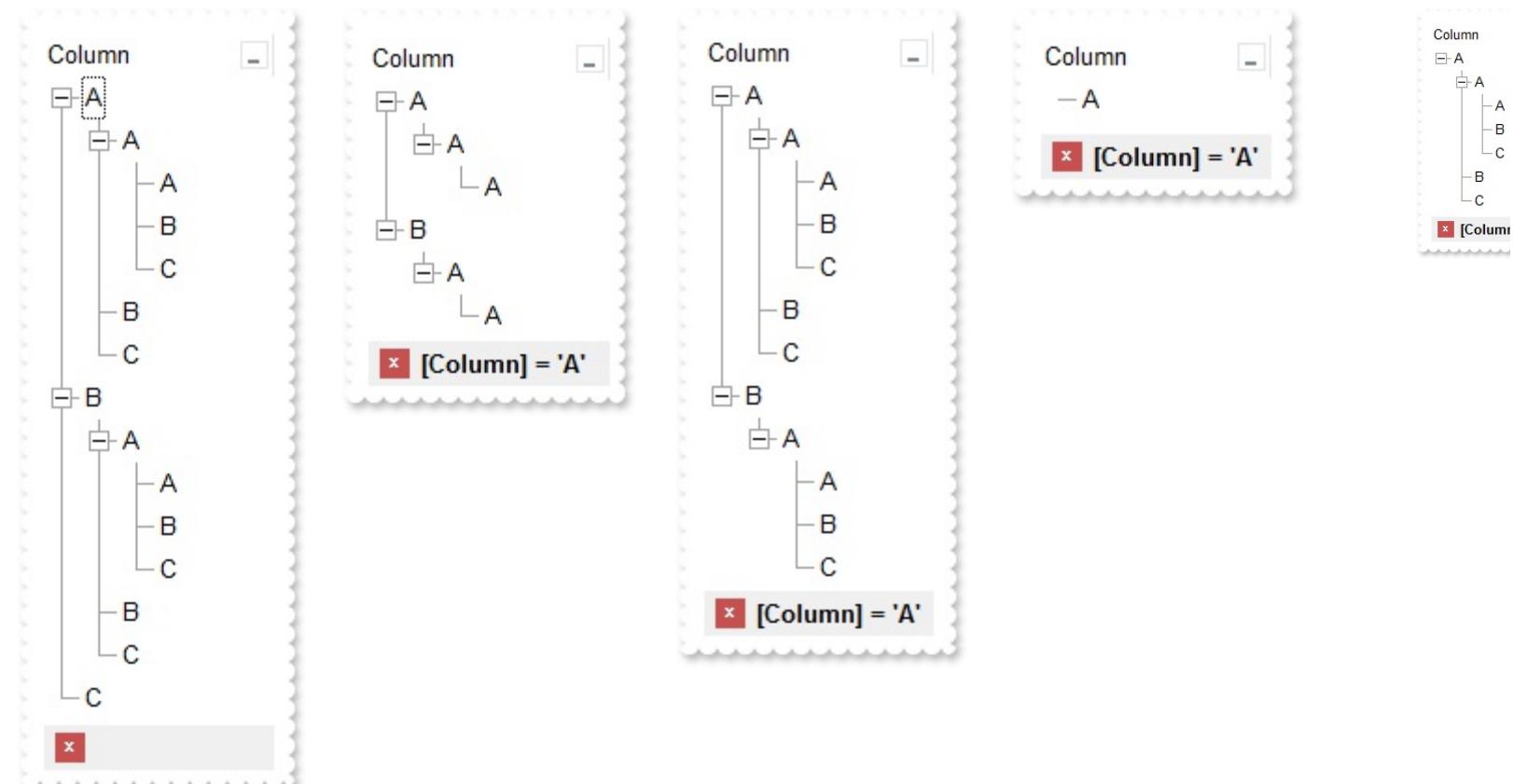
Specifies the items being included after the user applies the filter.

Type	Description
<a href="#">FilterIncludeEnum</a>	A FilterIncludeEnum expression that indicates the items being included when the filter is applied.

By default, the FilterInclude property is exItemsWithoutChilds, which specifies that only items (and parent-items) that match the filter are being displayed. Use the FilterInclude property to specify whether the child-items should be displayed when the user applies the filter. Use the [Filter](#) property and [FilterType](#) property to specify the column's filter. Use the [ApplyFilter](#) to apply the filter at runtime. Use the [ClearFilter](#) method to clear the control's filter. Use the [FilterCriteria](#) property to filter items using the AND, OR and NOT operators. Use the [FilterBarPromptVisible](#) property to show the control's filter-prompt, that allows you to filter items as you type.

The following table shows items to display, when filter for "A" items, using different values for FilterInclude property:

no filter	exItemsWithoutChilds	exItemsWithChilds	exRootsWithoutChilds	exRootsWithChilds
	0	1	2	3



## property Gantt.Font as IFontDisp

Retrieves or sets the control's font.

Type	Description
IFontDisp	A Font object used to paint the items.

Use the `Font` property to change the control's font . Use the [FilterBarFont](#) property to assign a different font for the control's filter bar. Use the [Refresh](#) method to refresh the control. Use the [BeginUpdate](#) and [EndUpdate](#) method to maintain performance while adding new columns or items.

The following VB sample assigns by code a new font to the control:

```
With Gantt1
    With .Font
        .Name = "Tahoma"
    End With
    .Refresh
End With
```

The following C++ sample assigns by code a new font to the control:

```
COleFont font = m_gantt.GetFont();
font.SetName( "Tahoma" );
m_gantt.Refresh();
```

the C++ sample requires definition of COleFont class ( `#include "Font.h"` )

The following VB.NET sample assigns by code a new font to the control:

```
With AxGantt1
    Dim font As System.Drawing.Font = New System.Drawing.Font("Tahoma", 10,
FontStyle.Regular, GraphicsUnit.Point)
    .Font = font
    .CtlRefresh()
End With
```

The following C# sample assigns by code a new font to the control:

```
System.Drawing.Font font = new System.Drawing.Font("Tahoma", 10, FontStyle.Regular);
```

```
axGantt1.Font = font;  
axGantt1.CtlRefresh();
```

The following VFP sample assigns by code a new font to the control:

```
with thisform.Gantt1.Object  
.Font.Name = "Tahoma"  
.Refresh()  
endwith
```

The following Template sample assigns by code a new font to the control:

```
Font  
{  
    Name = "Tahoma"  
}
```

## property Gantt.ForeColor as Color

Retrieves or sets a value that indicates the control's foreground color.

Type	Description
Color	A color expression that indicates the control's foreground color.

The ForeColor property changes the foreground color of the control's scrolled area. The ExGantt control can group the columns into two categories: locked and unlocked. The Locked category contains all the columns that are fixed to the left area of the client area. These columns cannot be scrolled horizontally. Use the [CountLockedColumns](#) to specify the number of locked columns. The unlocked are contains the columns that can be scrolled horizontally. To change the background color of the control's locked area use [BackColorLock](#) property. Use the [CellForeColor](#) property to specify the cell's foreground color. Use the [ItemForeColor](#) property to specify the item's foreground color.

## property Gantt.ForeColorHeader as Color

Specifies the header's foreground color.

Type	Description
Color	A color expression that indicates the foreground color for control's header.

Use the [BackColorHeader](#) and ForeColorHeader properties to customize the control's header. If the [Def\(exHeaderForeColor\)](#) property is not zero, it defines the foreground color to paint the column's caption in the header area. Use the [Font](#) property to change the control's font. Use the Add method to add new columns to the control. Use the [HeaderVisible](#) property to hide the control's header bar.

## property Gantt.ForeColorLock as Color

Retrieves or sets a value that indicates the control's foreground color for the locked area.

Type	Description
Color	A color expression that indicates the control's foreground color for the locked area.

The ExGantt control can group the control columns into two categories: locked and unlocked. The Locked category contains all the columns that are fixed to the left area of the client area. These columns cannot be scrolled horizontally. Use the [CountLockedColumns](#) to specify the number of locked columns. The unlocked are contains the columns that can be scrolled horizontally. To change the background color of the control's locked area use [BackColorLock](#) property.

## property Gantt.ForeColorSortBar as Color

Retrieves or sets a value that indicates the sort bar's foreground color.

Type	Description
Color	A color expression that indicates the foreground color of the control's sort bar.

Use the ForeColorSortBar property to specify the foreground color of the caption in the control's sort bar. Use the [SortBarVisible](#) property to show the control's sort bar. Use the [SortBarCaption](#) property to specify the caption of the sort bar, when the control's sort bar contains no columns. Use the [BackColorSortBar](#) property to specify the background color of the control's sort bar. Use the [BackColorSortBarCaption](#) property to specify the caption's background color in the control's sort bar. Use the [ForeColor](#) property to specify the control's foreground color. Use the [ForeColorHeader](#) property to specify the background color of the control's header bar.

## method Gantt.FormatABC (Expression as String, [A as Variant], [B as Variant], [C as Variant])

Formats the A,B,C values based on the giving expression and returns the result.

Type	Description
Expression as String	A String that defines the expression to be evaluated.
A as Variant	A VARIANT expression that indicates the value of the A keyword.
B as Variant	A VARIANT expression that indicates the value of the B keyword.
C as Variant	A VARIANT expression that indicates the value of the C keyword.
Return	Description
Variant	A VARIANT expression that indicates the result of the evaluation the Gantt.

The FormatABC method formats the A,B,C values based on the giving expression and returns the result.

For instance:

- "A + B + C", adds / concatenates the values of the A, B and C
- "value MIN 0 MAX 99", limits the value between 0 and 99
- "value format ``", formats the value with two decimals, according to the control's panel setting
- "date(`now`)" returns the current time as double

The FormatABC method supports the following keywords, constants, operators and functions:

- **A or value** keyword, indicates a variable A whose value is giving by the A parameter
- **B** keyword, indicates a variable B whose value is giving by the B parameter
- **C** keyword, indicates a variable C whose value is giving by the C parameter

This property/method supports predefined constants and operators/functions as described [here](#).

## property Gantt.FormatAnchor(New as Boolean) as String

Specifies the visual effect for anchor elements in HTML captions.

Type	Description
New as Boolean	Boolean expression that indicates whether to specify the anchors never clicked or anchors being clicked.
String	A String expression that indicates the HTMLformat to apply to anchor elements.

By default, the FormatAnchor(**True**) property is "<u><fgcolor=0000FF>#" that indicates that the anchor elements ( that were never clicked ) are underlined and shown in light blue. Also, the FormatAnchor(**False**) property is "<u><fgcolor=000080>#" that indicates that the anchor elements are underlined and shown in dark blue. *You can use the <a> anchor elements to insert hyperlinks to cells, bars or links. Use the [CellCaption](#) property to specify the cell's caption. Use the [ItemBar\(,,exBarCaption\)](#) property to specify the bar's caption. Use the [Link\(,exLinkText\)](#) property to specify a caption to be displayed on the link.*

The visual effect is applied to the anchor elements, if the FormatAnchor property is not empty. For instance, if you want to do not show with a new effect the clicked anchor elements, you can use the FormatAnchor(**False**) = "", that means that the clicked or not-clicked anchors are shown with the same effect that's specified by FormatAnchor(**True**). An anchor is a piece of text or some other object (for example an image) which marks the beginning and/or the end of a hypertext link. The [\*\*<a>\*\*](#) element is used to mark that piece of text (or inline image), and to give its hypertextual relationship to other documents. The control fires the [AnchorClick](#) event to notify that the user clicks an anchor element. This event is fired only if prior clicking the control it shows the hand cursor. The AnchorClick event carries the identifier of the anchor, as well as application options that you can specify in the anchor element. The hand cursor is shown when the user hovers the mouse on the anchor elements.

## method Gantt.FreezeEvents (Freeze as Boolean)

Prevents the control to fire any event.

Type	Description
Freeze as Boolean	A Boolean expression that specifies whether the control's events are froze or unfroze

The FreezeEvents(True) method freezes the control's events until the FreezeEvents(False) method is called. You can use the FreezeEvents method to improve performance of the control while loading data into it.

## property Gantt.FullRowSelect as Boolean

Enables full-row selection in the control.

Type	Description
Boolean	A boolean expression that indicates whether the control support full-row selection.

The FullRowSelect property specifies whether the selection spans the entire width of the control. The column pointed by the [SelectColumnIndex](#) specifies the column where the selected cell is marked. Use the [SelectItem](#) property to select programmatically an item. Use the [SingleSel](#) property to allow multiple items selection.

## method Gantt.GetItems (Options as Variant)

Gets the collection of items into a safe array.

Type	Description
	<p>Specifies a long expression as follows:</p> <ul style="list-style-type: none"><li>• if <b>0</b>, the result is a two-dimensional array with cell's captions. The list includes the <i>collapsed</i> items, and the items are included as they are displayed ( sorted, filtered ). This option exports the captions of cells. This option exports the captions of the cells ( <a href="#">CellCaption</a> property )</li><li>• if <b>1</b>, the result the one-dimensional array of handles of items in the control as they are displayed ( sorted, filtered ). The list <i>does not include the collapsed items</i>. For instance, the first element in the array indicates the handle of the first item in the control, which can be different than <a href="#">FirstVisibleItem</a> result, even if the control is vertically scrolled. This option exports the handles of the items. For instance, you can use the <a href="#">ItemToIndex</a> property to get the index of the item based on its handle.</li><li>• <b>else if other, and the number of columns is 1</b>, the result is a one-dimensional array that includes the items and its child items as they are displayed ( sorted, filtered ). In this case, the array may contains other arrays that specifies the child items. The list includes the <i>collapsed</i> items, and the items are included as they are displayed ( sorted, filtered ). This option exports the captions of the cells ( <a href="#">CellCaption</a> property )</li></ul>
Options as Variant	<p>If missing, the Options parameter is 0. If the control displays no items, the result is an empty object (VT_EMPTY).</p>
Return	Description
Variant	A safe array that holds the items in the control. If the control has a single column, the GetItems returns a single dimension array (object[]), else The safe array being returned has two dimensions (object[,]). The first

dimension holds the collection of columns, and the second holds the cells.

The GetItems method to get a safe array that holds the items in the control. The GetItems method gets the items as they are displayed, sorted and filtered. If the Options parameter is 0, the GetItems method collect the child items as well, no matter if the parent item is collapsed or expanded. Use the [PutItems](#) method to load an array to the control. The method returns nothing if the control has no columns or items. Use the [Items](#) property to access the items collection. You can use the GetItems(1) method to get the list of handles for the items as they are displayed, sorted and filtered. The GetItems method returns an empty expression ( VT\_EMPTY ), if there is no items in the result.

## /NET Assembly:

The following C# sample converts the returned value to a object[] when the control contains a single column:

```
object[] Items = (object[])exgantt1.GetItems()
```

or when the control contains multiple columns, the syntax is as follows:

```
object[,] Items = (object[,])exgantt1.GetItems()
```

The following VB.NET sample converts the returned value to a Object() when the control contains a single column:

```
Dim Items As Object() = Exgantt1.GetItems()
```

or when the control contains multiple columns, the syntax is as follows:

```
Dim Items As Object(,) = Exgantt1.GetItems()
```

## /COM version:

The following VB sample gets the items from a control and put them to the second one:

```
With Gantt2
    .BeginUpdate
    .Columns.Clear
    Dim c As EXGANTTLibCtl.Column
    For Each c In Gantt1.Columns
        .Columns.Add c.Caption
    Next
    .PutItems Gantt1.GetItems
```

```
.EndUpdate
```

```
End With
```

The following C++ sample gets the items from a control and put to the second one:

```
#include "Items.h"
#include "Columns.h"
#include "Column.h"
m_gantt2.BeginUpdate();
CColumns columns = m_gantt.GetColumns(), columns2 = m_gantt2.GetColumns();
for ( long i = 0; i < columns.GetCount(); i++ )
    columns2.Add( columns.GetItem( COleVariant( i ) ).GetCaption() );
COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;
COleVariant vtItems = m_gantt.GetItems( vtMissing );
m_gantt2.PutItems( &vtItems, vtMissing );
m_gantt2.EndUpdate();
```

The following C# sample gets the items from a control and put them to a second one:

```
axGantt2.BeginUpdate();
for (int i = 0; i < axGantt1.Columns.Count; i++)
    axGantt2.Columns.Add(axGantt1.Columns[i].Caption);
object vtItems = axGantt1.GetItems("");
axGantt2.PutItems(ref vtItems);
axGantt2.EndUpdate();
```

The following VB.NET sample gets the items from a control and put them to a second one:

With AxGantt2

```
.BeginUpdate()
Dim j As Integer
For j = 0 To AxGantt1.Columns.Count - 1
    .Columns.Add(AxGantt1.Columns(j).Caption)
Next
Dim vtItems As Object
vtItems = AxGantt1.GetItems("")
.PutItems(vtItems)
.EndUpdate()
End With
```

The following VFP sample gets the items from a control and put them to a second one:

```
local i
with thisform.Gantt2
    .BeginUpdate()
    for i = 0 to thisform.Gantt1.Columns.Count - 1
        .Columns.Add( thisform.Gantt1.Columns(i).Caption )
    next
    local array vtlItems[1]
    vtlItems = thisform.Gantt1.GetItems(" ")
    .PutItems( @vtlItems )
    .EndUpdate()
endwith
```

## property Gantt.GridLineColor as Color

Specifies the grid line color.

Type	Description
Color	A color expression that indicates the color of the grid lines.

Use the GridLineColor property to specify the color for grid lines. Use the [DrawGridLines](#) property to show the grid lines in the items area. The [GridLineStyle](#) property to specify the style for horizontal or/and vertical gridlines in the control. Use the [DrawLevelSeparator](#) property to draw lines between levels inside the chart's header. Use the [DrawTickLines](#) property to specify whether the grid lines between time units in the level are visible or hidden. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the chart's area. Use the [LinesAtRoot](#) property specifies whether the control links the root items of the control. Use the [HasLines](#) property to specify whether the control draws the link between child items to their corresponding parent item.

## property Gantt.GridLineStyle as GridLinesStyleEnum

Specifies the style for gridlines in the list part of the control.

Type	Description
<a href="#">GridLinesStyleEnum</a>	A GridLinesStyleEnum expression that specifies the style to show the control's horizontal or vertical lines.

By default, the GridLineStyle property is exGridLinesDot. The GridLineStyle property has effect only if the [DrawGridLines](#) property is not zero. The GridLineStyle property can be used to specify the style for horizontal or/and vertical grid lines. Use the [GridLineColor](#) property to specify the color for grid lines. Use the [LinesAtRoot](#) property specifies whether the control links the root items of the control. Use the [HasLines](#) property to specify whether the control draws the link between child items to their corresponding parent item. The grid lines are shown only in the columns part of the controls, if you require the grid lines in the chart view use the [DrawGridLines](#) property of the [Chart](#) object.

The following VB sample shows dash style for horizontal gridlines, and solid style for vertical grid lines:

```
GridLineStyle = GridLinesStyleEnum.exGridLinesHDash Or  
GridLinesStyleEnum.exGridLinesVSolid
```

The following VB/.NET sample shows dash style for horizontal gridlines, and solid style for vertical grid lines:

```
GridLineStyle = exontrol.EXGANTTLib.GridLinesStyleEnum.exGridLinesHDash Or  
exontrol.EXGANTTLib.GridLinesStyleEnum.exGridLinesVSolid
```

The following C# sample shows dash style for horizontal gridlines, and solid style for vertical grid lines:

```
GridLineStyle = exontrol.EXGANTTLib.GridLinesStyleEnum.exGridLinesHDash |  
exontrol.EXGANTTLib.GridLinesStyleEnum.exGridLinesVSolid;
```

The following Delphi sample shows dash style for horizontal gridlines, and solid style for vertical grid lines:

```
GridLineStyle := Integer(EXGANTTLib.GridLinesStyleEnum.exGridLinesHDash) Or  
Integer(EXGANTTLib.GridLinesStyleEnum.exGridLinesVSolid);
```

The following VFP sample shows dash style for horizontal gridlines, and solid style for vertical grid lines:

GridLineStyle = 36

The following screen shot shows the control using different grid lines for columns and chart area:

## property Gantt.HasButtons as ExpandButtonEnum

Adds a button to the left side of each parent item.

Type	Description
<a href="#">ExpandButtonEnum</a>	An ExpandButtonEnum expression that indicates whether the left side button of each parent item is visible or hidden.

The HasButtons property has effect only if the data is displayed as a tree. Use the [InsertItem](#) method to insert child items. The control displays a +/- button to parent items, if the HasButtons property is not zero, the [ItemChild](#) property is not empty, or the [ItemHasChildren](#) property is True. The user can click the +/- button to expand or collapse the child items as an alternative to double-clicking the parent item, in case the [ExpandOnDoubleClick](#) property is True. Use the [ExpandItem](#) property of [Items](#) object to programmatically expand/collapse an item. The [HasButtonsCustom](#) property specifies the index of icons being used for +/- signs on parent items, when HasButtons property is exCustom.

The following VB sample changes the +/- button appearance:

With Gantt1

```
.HasButtons = ExpandButtonEnum.exWPlus
```

End With

The following C++ sample changes the +/- button appearance:

```
m_gantt.SetHasButtons( 3 /*exWPlus*/ );
```

The following VB.NET sample changes the +/- button appearance:

With AxGantt1

```
.HasButtons = EXGANTTLib.ExpandButtonEnum.exWPlus
```

End With

The following C# sample changes the +/- button appearance:

```
axGantt1.HasButtons = EXGANTTLib.ExpandButtonEnum.exWPlus;
```

The following VFP sample changes the +/- button appearance:

```
with thisform.Gantt1
```

```
.HasButtons = 3 && exWPlus
```

endwith

## property Gantt.HasButtonsCustom(Expanded as Boolean) as Long

Specifies the index of icons for +/- signs when the HasButtons property is exCustom.

Type	Description
Expanded as Boolean	A boolean expression that indicates the sign being changed.
Long	A long expression that indicates the icon being used for +/- signs on the parent items. The last 7 bits in the high significant byte of the long expression indicates the identifier of the skin being used to paint the object. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part.

Use the HasButtonsCustom property to assign custom icons to the +/- signs on the parent items. The HasButtonsCustom property has effect only if the [HasButtons](#) property is exCustom. Use the [Images](#), [ReplaceIcon](#) methods to add new icons to the control, at runtime.

The following VB sample specifies different ( as in the screen shot ) +/- signs for the control:

With Gantt1

.BeginUpdate

.Images

"gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEalEaEEaAIAkcbk0oIUrlktl0vmExn

.LinesAtRoot = exLinesAtRoot

.HeaderVisible = False

.HasButtons = exCustom

.HasButtonsCustom(False) = 1

.HasButtonsCustom(True) = 2

.Columns.Add "Column 1"

With .Items

Dim h As HITEM

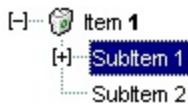
h = .AddItem("Item 1")

.InsertItem h, , "SubItem 1"

```

.InsertItem h, , "SubItem 2"
End With
.EndUpdate
End With

```



The following C++ sample specifies different ( as in the screen shot ) +/- signs for the control:

```

#include "Items.h"
#include "Columns.h"
#include "Column.h"
m_gantt.BeginUpdate();
m_gantt.Images( COleVariant(
"gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEalEaEEaAIAkcbk0oIUrIkltl0vmExn
) );
m_gantt.SetLinesAtRoot( -1 );
m_gantt.SetHeaderVisible( FALSE );
m_gantt.SetHasButtons( 4 /*exCustom*/ );
m_gantt.SetHasButtonsCustom( FALSE, 1 );
m_gantt.SetHasButtonsCustom( TRUE, 2 );
m_gantt.GetColumns().Add( "Column 1" );
COleVariant vtMissing; V_VT( &vtMissing; ) = VT_ERROR;
CItems items = m_gantt.GetItems();
long h = items.AddItem( COleVariant( "Item 1" ) );
items.InsertItem( h, vtMissing, COleVariant( "SubItem 1" ) );
items.InsertItem( h, vtMissing, COleVariant( "SubItem 2" ) );
m_gantt.EndUpdate();

```

The following VB.NET sample specifies different ( as in the screen shot ) +/- signs for the control:

```

With AxGantt1
    .BeginUpdate()
        .Images("gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEalEaEEaAIAkcbk0oIUrIkltl0vmExn

```

```

.LinesAtRoot = EXGANTTLib.LinesAtRootEnum.exLinesAtRoot
.HeaderVisible = False
.HasButtons = EXGANTTLib.ExpandButtonEnum.exCustom
.set_HasButtonsCustom(False, 1)
.set_HasButtonsCustom(True, 2)
.Columns.Add("Column 1")
With .Items
    Dim h As Long
    h = .AddItem("Item 1")
    .InsertItem(h, , "SubItem 1")
    .InsertItem(h, , "SubItem 2")
End With
.EndUpdate()
End With

```

The following C# sample specifies different ( as in the screen shot ) +/- signs for the control:

```

axGantt1.BeginUpdate();
axGantt1.Images("gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEalEaEEaAIAkcbI

axGantt1.LinesAtRoot = EXGANTTLib.LinesAtRootEnum.exLinesAtRoot;
axGantt1.HeaderVisible = false;
axGantt1.HasButtons = EXGANTTLib.ExpandButtonEnum.exCustom;
axGantt1.set_HasButtonsCustom(false, 1);
axGantt1.set_HasButtonsCustom(true, 2);
axGantt1.Columns.Add("Column 1");
int h = axGantt1.Items.AddItem("Item 1");
axGantt1.Items.InsertItem(h, "", "SubItem 1");
axGantt1.Items.InsertItem(h, "", "SubItem 2");
axGantt1.EndUpdate();

```

The following VFP sample specifies different ( as in the screen shot ) +/- signs for the control:

```

with thisform.Gantt1
.BeginUpdate()
local s

```

s =

"gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEalEaEEaAIAkcbk0oIUrlktl0vmExn

s = s +

"1ntFptVrtltt1vuFxuVzul1u13vF5vV7vl9v1/wGBwWDwmFw2HxGJxWLxmNx2PyGRyWTymV

.Images(s)

.LinesAtRoot = -1

.HeaderVisible = .f.

.HasButtons = 4 &&exCustom;

local sT, sCR

sCR = chr(13) + chr(10)

sT = "HasButtonsCustom(True) = 2"+ sCR

sT = sT + "HasButtonsCustom(False) = 1"+ sCR

.Template = sT

.Columns.Add("Column 1")

With .Items

local h

h = .AddItem("Item 1")

.InsertItem(h, , "SubItem 1")

.InsertItem(h, , "SubItem 2")

EndWith

.EndUpdate()

endwith

## property Gantt.HasLines as HierarchyLineEnum

Enhances the graphic representation of a tree control's hierarchy by drawing lines that link child items to their corresponding parent item.

Type	Description
<a href="#">HierarchyLineEnum</a>	An HierarchyLinesEnum expression that indicates whether the control uses the lines to link the items of the hierarchy.

Use the HasLines property to hide the hierarchy lines. Use the [LinesAtRoot](#) property to allow control displays a line that links that root items of the control. Use the [InsertItem](#) method to insert new items to the control. Use [HasButtons](#) property to hide the buttons displayed at the left of each parent item. Use the [DrawGridLines](#) property to display grid lines. Use the [InsertControlItem](#) property to insert an ActiveX item.

## property Gantt.HeaderAppearance as AppearanceEnum

Retrieves or sets a value that indicates the header's appearance.

Type	Description
<a href="#">AppearanceEnum</a>	An AppearanceEnum expression that indicates the header's appearance.

Use the HeaderAppearance property to change the appearance of the control's header bar. Use the [HeaderVisible](#) property to hide the control's header bar. Use the [Appearance](#) property to specify the control's appearance. Use the [ColumnsAllowSizing](#) property to allow resizing the columns, when the control's header bar is not visible.

## property Gantt.HeaderHeight as Long

Retrieves or sets a value indicating the control's header height.

Type	Description
Long	A long expression that indicates the height of the control's header bar.

By default, the HeaderHeight property is 18 pixels. Use the HeaderHeight property to change the height of the control's header bar. Use the [HeaderVisible](#) property to hide the control's header bar. Use the [LevelKey](#) property to display the control's header bar using multiple levels. If the control displays the header bar using multiple levels the HeaderHeight property gets the height in pixels of a single level in the header bar. The control's header displays multiple levels if there are two or more neighbor columns with the same non empty level key. Use the [HTMLCaption](#) property to display multiple lines in the column's caption. Use the [Add](#) method to add new columns to the control. Use the [LevelKey](#) property to specify columns on the same level. Use the [LevelCount](#) property to specify the number of levels being displayed in the chart's header. *If the [HeaderSingleLine](#) property is False, the HeaderHeight property specifies the maximum height of the control's header when the user resizes the columns.*

The following VB sample displays a header bar using multiple lines:

With Gantt1

```
.BeginUpdate  
.HeaderHeight = 32  
With .Columns.Add("Column 1")  
    .HTMLCaption = "Line1<br>Line2"  
End With  
With .Columns.Add("Column 2")  
    .HTMLCaption = "Line1<br>Line2"  
End With  
.EndUpdate  
End With
```

The following C++ sample displays a header bar using multiple lines:

```
#include "Columns.h"  
#include "Column.h"  
m_gantt.BeginUpdate();  
m_gantt.SetHeaderHeight( 32 );
```

```
m_gantt.SetHeaderVisible( TRUE );
CColumn column1( V_DISPATCH( &m_gantt.GetColumns().Add( "Column 1" ) ) );
    column1.SetHTMLCaption( "Line1<br>Line2" );
CColumn column2( V_DISPATCH( &m_gantt.GetColumns().Add( "Column 2" ) ) );
    column2.SetHTMLCaption( "Line1<br>Line2" );
m_gantt.EndUpdate();
```

The following VB.NET sample displays a header bar using multiple lines:

With AxGantt1

```
.BeginUpdate()
.HeaderVisible = True
.HeaderHeight = 32
With .Columns.Add("Column 1")
    .HTMLCaption = "Line1<br>Line2"
End With
With .Columns.Add("Column 2")
    .HTMLCaption = "Line1<br>Line2"
End With
.EndUpdate()
End With
```

The following C# sample displays a header bar using multiple lines:

```
axGantt1.BeginUpdate();
axGantt1.HeaderVisible = true;
axGantt1.HeaderHeight = 32;
EXGANTTLib.Column column1 = axGantt1.Columns.Add("Column 1") as
EXGANTTLib.Column ;
column1.HTMLCaption = "Line1<br>Line2";
EXGANTTLib.Column column2 = axGantt1.Columns.Add("Column 2") as
EXGANTTLib.Column;
column2.HTMLCaption = "Line1<br>Line2";
axGantt1.EndUpdate();
```

The following VFP sample displays a header bar using multiple lines:

```
with thisform.Gantt1
.BeginUpdate()
```

```
.HeaderVisible = .t.  
.HeaderHeight = 32  
with .Columns.Add("Column 1")  
    .HTMLCaption = "Line1<br>Line2"  
endwith  
with .Columns.Add("Column 2")  
    .HTMLCaption = "Line1<br>Line2"  
endwith  
.EndUpdate()  
endwith
```

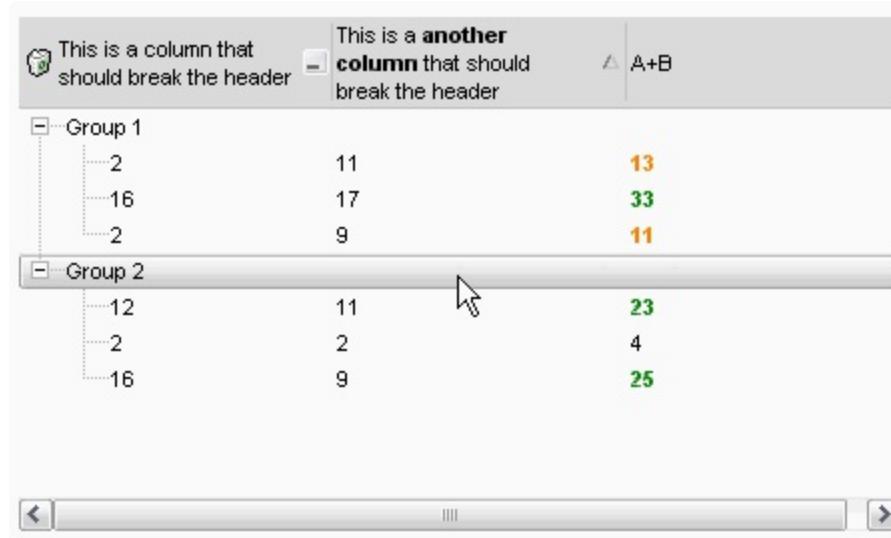
## property Gantt.HeaderSingleLine as Boolean

Specifies whether the control resizes the columns header and wraps the captions in single or multiple lines.

Type	Description
Boolean	A boolean expression that specifies whether the header displays single or multiple lines.

By default, the HeaderSingleLine property is True. If the HeaderSingleLine property is False the control breaks the column's caption as soon as the user resizes the column. **In this case the [HeaderHeight](#) property specifies the maximum height of the control's header.** The initial height is computed based on the control's [Font](#) property. The [Caption](#) property specifies the caption of the column being displayed in the control's header. The [HTMLCaption](#) property specifies the HTML caption of the column being displayed in the column's header. Use the [LevelKey](#) property to display the control's header on multiple levels.

The following screen shot shows the control's header while it displays a multiple lines ( HeaderSingleLine = False ):



The following screen shot shows the control's header on multiple levels using the [LevelKey](#) property:

Level 1		
Level 2		
Level 3		
This is a column that s...	This is a another column ..	A+B
- Group 1		
2	11	13
16	17	33
2	9	11
- Group 2		
12	11	23
2	2	4
16	9	25

The following screen show shows the control's header while it displays a single line ( HeaderSingleLine = True ):

This is a column that s...			This is a another column ..	A+B
- Group 1				
2	11	13		
16	17	33		
2	9	11		
- Group 2			↔	
12	11	23		
2	2	4		
16	9	25		

## property Gantt.HeaderVisible as Boolean

Retrieves or sets a value that indicates whether the control's header is visible or hidden.

Type	Description
Boolean	A boolean expression that indicates whether the the control's header is visible or hidden.

By default, the HeaderVisible property is True. Use the HeaderVisible property to hide the control's header bar. The control's header bar displays the levels in the chart area too. Use the [LevelCount](#) property to specify the number of levels being displayed in the chart's header. Use the [Level](#) property to access the level in the chart area. Use the [Caption](#) property to specify the column's caption being displayed in the control's header bar. Use the [HeaderAppearance](#) property to change the header bar's appearance. Use the [BackColorHeader](#) and [ForeColorHeader](#) properties to customize the control's header. Use the [BackColorLevelHeader](#) property to specify the background color of the header when it displays multiple levels. Use the [HeaderHeight](#) property to specify the height of the control's header bar. Use the [SortBarVisible](#) property to specify whether the control's sort bar is visible or it is hidden. Use the [ColumnsAllowSizing](#) property to allow resizing the columns, when the control's header bar is not visible.

## property Gantt.HideSelection as Boolean

Returns a value that determines whether selected item appears highlighted when a control loses the focus.

Type	Description
Boolean	A boolean expression that indicates whether the selected item appears highlighted when a control loses the focus.

By default, the HideSelection property is False. You can use this property to indicate which item is highlighted while another form or a dialog box has the focus. Use the [SelForeColor](#) and [SelBackColor](#) property to customize the colors for the selected items in the control. Use the [SelectItem](#) property to programmatically select an item. Use the [SelectedItem](#) and [SelectCount](#) property to retrieve the list of selected items. Use the [SelectableItem](#) property to specify whether an items can be selected.

## property Gantt.HotBackColor as Color

Retrieves or sets a value that indicates the hot-tracking background color.

Type	Description
Color	A color expression that indicates the background color for item from the cursor ( hovering the item ). Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.

By default, the HotBackColor property is 0, which means that the HotBackColor property has no effect. Use the HotBackColor property on a non-zero value to highlight the item from the cursor. The [HotForeColor](#) property specifies the foreground color to highlight the item from the cursor. The [ItemFromPoint](#) property gets the item from the cursor. The [SelBackColor](#) property specifies the selection background color. The [SelBackMode](#) property specifies the way the selected items are shown in the control.

The following sample displays a different background color mouse passes over an item.

## VBA

With Gantt1

```
.BeginUpdate  
.Columns.Add "Def"  
.HotBackColor = RGB(0,0,128)  
.HotForeColor = RGB(255,255,255)
```

With .Items

```
.AddItem "Item A"  
.AddItem "Item B"  
.AddItem "Item C"
```

End With

```
.EndUpdate
```

End With

## VB6

With Gantt1

```
.BeginUpdate  
.Columns.Add "Def"
```

```
.HotBackColor = RGB(0,0,128)
.HotForeColor = RGB(255,255,255)
With .Items
    .AddItem "Item A"
    .AddItem "Item B"
    .AddItem "Item C"
End With
.EndUpdate
End With
```

## VB.NET

```
With Exgantt1
    .BeginUpdate()
    .Columns.Add("Def")
    .HotBackColor = Color.FromArgb(0,0,128)
    .HotForeColor = Color.FromArgb(255,255,255)
With .Items
    .AddItem("Item A")
    .AddItem("Item B")
    .AddItem("Item C")
End With
    .EndUpdate()
End With
```

## VB.NET for /COM

```
With AxGantt1
    .BeginUpdate()
    .Columns.Add("Def")
    .HotBackColor = RGB(0,0,128)
    .HotForeColor = RGB(255,255,255)
With .Items
    .AddItem("Item A")
    .AddItem("Item B")
    .AddItem("Item C")
End With
    .EndUpdate()
```

**C++**

/\*

Copy and paste the following directives to your header file as it defines the namespace 'EXGANTTLib' for the library: 'ExGantt 1.0 Control Library'

```
#import <ExGantt.dll>
using namespace EXGANTTLib;
```

\*/

```
EXGANTTLib::IGanttPtr spGantt1 = GetDlgItem(IDC_GANTT1)->GetControlUnknown();
spGantt1->BeginUpdate();
spGantt1->GetColumns()->Add(L"Def");
spGantt1->PutHotBackColor(RGB(0,0,128));
spGantt1->PutHotForeColor(RGB(255,255,255));
EXGANTTLib::IItemsPtr var_Items = spGantt1->GetItems();
    var_Items->AddItem("Item A");
    var_Items->AddItem("Item B");
    var_Items->AddItem("Item C");
spGantt1->EndUpdate();
```

**C++ Builder**

```
Gantt1->BeginUpdate();
Gantt1->Columns->Add(L"Def");
Gantt1->HotBackColor = RGB(0,0,128);
Gantt1->HotForeColor = RGB(255,255,255);
Exganttlib_tlb::IItemsPtr var_Items = Gantt1->Items;
    var_Items->AddItem(TVariant("Item A"));
    var_Items->AddItem(TVariant("Item B"));
    var_Items->AddItem(TVariant("Item C"));
Gantt1->EndUpdate();
```

**C#**

```
exgantt1.BeginUpdate();
exgantt1.Columns.Add("Def");
```

```
exgantt1.HotBackColor = Color.FromArgb(0,0,128);
exgantt1.HotForeColor = Color.FromArgb(255,255,255);
exontrol.EXGANTTLib.Items var_Items = exgantt1.Items;
    var_Items.AddItem("Item A");
    var_Items.AddItem("Item B");
    var_Items.AddItem("Item C");
exgantt1.EndUpdate();
```

## JavaScript

```
<OBJECT classid="clsid:CD481F4D-2D25-4759-803F-752C568F53B7" id="Gantt1">
</OBJECT>

<SCRIPT LANGUAGE="JScript">
    Gantt1.BeginUpdate()

    Gantt1.Columns.Add("Def")

    Gantt1.HotBackColor = 8388608

    Gantt1.HotForeColor = 16777215

    var var_Items = Gantt1.Items

    var_Items.AddItem("Item A")

    var_Items.AddItem("Item B")

    var_Items.AddItem("Item C")

    Gantt1.EndUpdate()

</SCRIPT>
```

## C# for /COM

```
axGantt1.BeginUpdate();
axGantt1.Columns.Add("Def");
```

```
axGantt1.HotBackColor = Color.FromArgb(0,0,128);
axGantt1.HotForeColor = Color.FromArgb(255,255,255);
EXGANTTLib.Items var_Items = axGantt1.Items;
var_Items.AddItem("Item A");
var_Items.AddItem("Item B");
var_Items.AddItem("Item C");
axGantt1.EndUpdate();
```

## X++ (Dynamics Ax 2009)

```
public void init()
{
    COM com_Items

    anytype var_Items

    super()

    exgantt1.BeginUpdate()

    exgantt1.Columns().Add("Def")

    exgantt1.HotBackColor(WinApi::RGB2int(0,0,128))

    exgantt1.HotForeColor(WinApi::RGB2int(255,255,255))

    var_Items = exgantt1.Items()
    com_Items = var_Items

    com_Items.AddItem("Item A")

    com_Items.AddItem("Item B")
```

```
com_Items.AddItem("Item C")
```

```
exgantt1.EndUpdate()
```

```
}
```

## VFP

```
with thisform.Gantt1
```

```
    .BeginUpdate
```

```
    .Columns.Add("Def")
```

```
    .HotBackColor = RGB(0,0,128)
```

```
    .HotForeColor = RGB(255,255,255)
```

```
    with .Items
```

```
        .AddItem("Item A")
```

```
        .AddItem("Item B")
```

```
        .AddItem("Item C")
```

```
    endwith
```

```
    .EndUpdate
```

```
endwith
```

## dBASE Plus

```
local oGantt,var_Items
```

```
oGantt = form.Activex1.nativeObject
```

```
oGantt.BeginUpdate()
```

```
oGantt.Columns.Add("Def")
```

```
oGantt.HotBackColor = 0x800000
```

```
oGantt.HotForeColor = 0xfffffff
```

```
var_Items = oGantt.Items
```

```
    var_Items.AddItem("Item A")
```

```
    var_Items.AddItem("Item B")
```

```
    var_Items.AddItem("Item C")
```

```
oGantt.EndUpdate()
```

## XBasic (Alpha Five)

```
Dim oGantt as P
```

```
Dim var_Items as P
```

```
oGantt = topparent:CONTROL_ACTIVEX1.activex
oGantt.BeginUpdate()
oGantt.Columns.Add("Def")
oGantt.HotBackColor = 8388608
oGantt.HotForeColor = 16777215
var_Items = oGantt.Items
    var_Items.AddItem("Item A")
    var_Items.AddItem("Item B")
    var_Items.AddItem("Item C")
oGantt.EndUpdate()
```

## Delphi 8 (.NET only)

```
with AxGantt1 do
begin
    BeginUpdate();
    Columns.Add('Def');
    HotBackColor := Color.FromArgb(0,0,128);
    HotForeColor := Color.FromArgb(255,255,255);
    with Items do
        begin
            AddItem('Item A');
            AddItem('Item B');
            AddItem('Item C');
        end;
    EndUpdate();
end
```

## Delphi (standard)

```
with Gantt1 do
begin
    BeginUpdate();
    Columns.Add('Def');
    HotBackColor := RGB(0,0,128);
```

```
HotForeColor := RGB(255,255,255);
with Items do
begin
    AddItem('Item A');
    AddItem('Item B');
    AddItem('Item C');
end;
EndUpdate();
end
```

## Visual Objects

```
local var_Items as IItems

oDCOCX_Exontrol1:BeginUpdate()
oDCOCX_Exontrol1:Columns:Add("Def")
oDCOCX_Exontrol1:HotBackColor := RGB(0,0,128)
oDCOCX_Exontrol1:HotForeColor := RGB(255,255,255)
var_Items := oDCOCX_Exontrol1:Items
    var_Items:AddItem("Item A")
    var_Items:AddItem("Item B")
    var_Items:AddItem("Item C")
oDCOCX_Exontrol1:EndUpdate()
```

## PowerBuilder

```
OleObject oGantt,var_Items

oGantt = ole_1.Object
oGantt.BeginUpdate()
oGantt.Columns.Add("Def")
oGantt.HotBackColor = RGB(0,0,128)
oGantt.HotForeColor = RGB(255,255,255)
var_Items = oGantt.Items
    var_Items.AddItem("Item A")
    var_Items.AddItem("Item B")
    var_Items.AddItem("Item C")
oGantt.EndUpdate()
```

## property Gantt.HotForeColor as Color

Retrieves or sets a value that indicates the hot-tracking foreground color.

Type	Description
Color	A color expression that indicates the foreground color for item from the cursor ( hovering the item ).

By default, the HotForeColor property is 0, which means that the HotForeColor property has no effect. Use the HotForeColor property on a non-zero value to highlight the item from the cursor. The [HotBackColor](#) property specifies the background color to highlight the item from the cursor. The [ItemFromPoint](#) property gets the item from the cursor. The [SelForeColor](#) property specifies the selection foreground color.

The following sample displays a different background color mouse passes over an item.

## VBA

With Gantt1

```
.BeginUpdate  
.Columns.Add "Def"  
.HotBackColor = RGB(0,0,128)  
.HotForeColor = RGB(255,255,255)
```

With .Items

```
.AddItem "Item A"  
.AddItem "Item B"  
.AddItem "Item C"
```

End With

```
.EndUpdate
```

End With

## VB6

With Gantt1

```
.BeginUpdate  
.Columns.Add "Def"  
.HotBackColor = RGB(0,0,128)  
.HotForeColor = RGB(255,255,255)
```

With .Items

```
.AddItem "Item A"
```

```
.AddItem "Item B"  
.AddItem "Item C"  
End With  
.EndUpdate  
End With
```

## VB.NET

```
With Exgantt1  
.BeginUpdate()  
.Columns.Add("Def")  
.HotBackColor = Color.FromArgb(0,0,128)  
.HotForeColor = Color.FromArgb(255,255,255)  
With .Items  
.AddItem("Item A")  
.AddItem("Item B")  
.AddItem("Item C")  
End With  
.EndUpdate()  
End With
```

## VB.NET for /COM

```
With AxGantt1  
.BeginUpdate()  
.Columns.Add("Def")  
.HotBackColor = RGB(0,0,128)  
.HotForeColor = RGB(255,255,255)  
With .Items  
.AddItem("Item A")  
.AddItem("Item B")  
.AddItem("Item C")  
End With  
.EndUpdate()  
End With
```

## C++

```
/*
```

Copy and paste the following directives to your header file as it defines the namespace 'EXGANTTLib' for the library: 'ExGantt 1.0 Control Library'

```
#import <ExGantt.dll>
using namespace EXGANTTLib;
*/
EXGANTTLib::IGanttPtr spGantt1 = GetDlgItem(IDC_GANTT1)->GetControlUnknown();
spGantt1->BeginUpdate();
spGantt1->GetColumns()->Add(L"Def");
spGantt1->PutHotBackColor(RGB(0,0,128));
spGantt1->PutHotForeColor(RGB(255,255,255));
EXGANTTLib::IItemsPtr var_Items = spGantt1->GetItems();
    var_Items->AddItem("Item A");
    var_Items->AddItem("Item B");
    var_Items->AddItem("Item C");
spGantt1->EndUpdate();
```

## C++ Builder

```
Gantt1->BeginUpdate();
Gantt1->Columns->Add(L"Def");
Gantt1->HotBackColor = RGB(0,0,128);
Gantt1->HotForeColor = RGB(255,255,255);
Exgantlib_tlb::IItemsPtr var_Items = Gantt1->Items;
    var_Items->AddItem(TVariant("Item A"));
    var_Items->AddItem(TVariant("Item B"));
    var_Items->AddItem(TVariant("Item C"));
Gantt1->EndUpdate();
```

## C#

```
exgantt1.BeginUpdate();
exgantt1.Columns.Add("Def");
exgantt1.HotBackColor = Color.FromArgb(0,0,128);
exgantt1.HotForeColor = Color.FromArgb(255,255,255);
exontrol.EXGANTTLib.Items var_Items = exgantt1.Items;
    var_Items.AddItem("Item A");
```

```
var_Items.AddItem("Item B");
var_Items.AddItem("Item C");
exgantt1.EndUpdate();
```

## JavaScript

```
<OBJECT classid="clsid:CD481F4D-2D25-4759-803F-752C568F53B7" id="Gantt1">
</OBJECT>

<SCRIPT LANGUAGE="JScript">
Gantt1.BeginUpdate()

Gantt1.Columns.Add("Def")

Gantt1.HotBackColor = 8388608

Gantt1.HotForeColor = 16777215

var var_Items = Gantt1.Items

var_Items.AddItem("Item A")

var_Items.AddItem("Item B")

var_Items.AddItem("Item C")

Gantt1.EndUpdate()

</SCRIPT>
```

## C# for /COM

```
axGantt1.BeginUpdate();
axGantt1.Columns.Add("Def");
axGantt1.HotBackColor = Color.FromArgb(0,0,128);
axGantt1.HotForeColor = Color.FromArgb(255,255,255);
EXGANTTLib.Items var_Items = axGantt1.Items;
var_Items.AddItem("Item A");
```

```
var_Items.AddItem("Item B");
var_Items.AddItem("Item C");
axGantt1.EndUpdate();
```

## X++ (Dynamics Ax 2009)

```
public void init()
{
    COM com_Items

    anytype var_Items

    super()

    exgantt1.BeginUpdate()

    exgantt1.Columns().Add("Def")

    exgantt1.HotBackColor(WinApi::RGB2int(0,0,128))

    exgantt1.HotForeColor(WinApi::RGB2int(255,255,255))

    var_Items = exgantt1.Items()
    com_Items = var_Items

    com_Items.AddItem("Item A")

    com_Items.AddItem("Item B")

    com_Items.AddItem("Item C")

    exgantt1.EndUpdate()
```

```
}
```

## VFP

```
with thisform.Gantt1
    .BeginUpdate
    .Columns.Add("Def")
    .HotBackColor = RGB(0,0,128)
    .HotForeColor = RGB(255,255,255)
    with .Items
        .AddItem("Item A")
        .AddItem("Item B")
        .AddItem("Item C")
    endwith
    .EndUpdate
endwith
```

## dBASE Plus

```
local oGantt,var_Items

oGantt = form.ActiveX1.nativeObject
oGantt.BeginUpdate()
oGantt.Columns.Add("Def")
oGantt.HotBackColor = 0x800000
oGantt.HotForeColor = 0xfffffff
var_Items = oGantt.Items
    var_Items.AddItem("Item A")
    var_Items.AddItem("Item B")
    var_Items.AddItem("Item C")
oGantt.EndUpdate()
```

## XBasic (Alpha Five)

```
Dim oGantt as P
Dim var_Items as P

oGantt = toparent:CONTROL_ACTIVEX1.activex
```

```
oGantt.BeginUpdate()
oGantt.Columns.Add("Def")
oGantt.HotBackColor = 8388608
oGantt.HotForeColor = 16777215
var_Items = oGantt.Items
    var_Items.AddItem("Item A")
    var_Items.AddItem("Item B")
    var_Items.AddItem("Item C")
oGantt.EndUpdate()
```

## Delphi 8 (.NET only)

```
with AxGantt1 do
begin
    BeginUpdate();
    Columns.Add('Def');
    HotBackColor := Color.FromArgb(0,0,128);
    HotForeColor := Color.FromArgb(255,255,255);
    with Items do
        begin
            AddItem('Item A');
            AddItem('Item B');
            AddItem('Item C');
        end;
    EndUpdate();
end
```

## Delphi (standard)

```
with Gantt1 do
begin
    BeginUpdate();
    Columns.Add('Def');
    HotBackColor := RGB(0,0,128);
    HotForeColor := RGB(255,255,255);
    with Items do
        begin
            AddItem('Item A');
```

```
    AddItem('Item B');
    AddItem('Item C');
end;
EndUpdate();
end
```

## Visual Objects

```
local var_Items as IItems
```

```
oDCOCX_Exontrol1:BeginUpdate()
oDCOCX_Exontrol1:Columns:Add("Def")
oDCOCX_Exontrol1:HotBackColor := RGB(0,0,128)
oDCOCX_Exontrol1:HotForeColor := RGB(255,255,255)
var_Items := oDCOCX_Exontrol1:Items
    var_Items.AddItem("Item A")
    var_Items.AddItem("Item B")
    var_Items.AddItem("Item C")
oDCOCX_Exontrol1:EndUpdate()
```

## PowerBuilder

```
OleObject oGantt,var_Items
```

```
oGantt = ole_1.Object
oGantt.BeginUpdate()
oGantt.Columns.Add("Def")
oGantt.HotBackColor = RGB(0,0,128)
oGantt.HotForeColor = RGB(255,255,255)
var_Items = oGantt.Items
    var_Items.AddItem("Item A")
    var_Items.AddItem("Item B")
    var_Items.AddItem("Item C")
oGantt.EndUpdate()
```

## property Gantt.HTMLPicture(Key as String) as Variant

Adds or replaces a picture in HTML captions.

Type	Description
Key as String	A String expression that indicates the key of the picture being added or replaced. If the Key property is Empty string, the entire collection of pictures is cleared.
Variant	<p>The HTMLPicture specifies the picture being associated to a key. It can be one of the followings:</p> <ul style="list-style-type: none"><li>• a string expression that indicates the path to the picture file, being loaded.</li><li>• a string expression that indicates the base64 encoded string that holds a picture object, Use the <a href="#">eximages</a> tool to save your picture as base64 encoded format.</li><li>• A Picture object that indicates the picture being added or replaced. ( A Picture object implements IPicture interface ),</li></ul> <p>If empty, the picture being associated to a key is removed. If the key already exists the new picture is replaced. If the key is not empty, and it doesn't not exist a new picture is added</p>

The HTMLPicture property handles a collection of custom size picture being displayed in the HTML captions, using the <img> tags. By default, the HTMLPicture collection is empty. Use the HTMLPicture property to add new pictures to be used in HTML captions. For instance, the HTMLPicture("pic1") = "c:\winnt\zapotec.bmp", loads the zapotec picture and associates the pic1 key to it. Any "<img>pic1</img>" sequence in HTML captions, displays the pic1 picture. On return, the HTMLPicture property retrieves a Picture object ( this implements the IPictureDisp interface ).

The following sample shows how to put a custom size picture in the column's header:

```
<CONTROL>.HTMLPicture("pic1") = "c:/temp/editors.gif"
<CONTROL>.HTMLPicture("pic2") = "c:/temp/editpaste.gif"

<COLUMN1>.HTMLCaption = "A <img>pic1</img>"
<COLUMN2>.HTMLCaption = "B <img>pic2</img>"
<COLUMN3>.HTMLCaption = "A <img>pic1</img> + B <img>pic2</img>"
```



## property Gantt.hWnd as Long

Retrieves the control's window handle.

Type	Description
Long	A long expression that indicates the control's window handle.

Use the hWnd property to get the control's main window handle. Use the [ItemWindowHost](#) property to get the handle of the container window that host an item's ActiveX Control. The Microsoft Windows operating environment identifies each form and control in an application by assigning it a handle, or hWnd. The hWnd property is used with Windows API calls. Many Windows operating environment functions require the hWnd of the active window as an argument.

## property Gantt.HyperLinkColor as Color

Specifies the hyperlink color.

Type	Description
Color	A color expression that specifies the hyperlink color.

Use the HyperLinkColor property to specify the color used when the cursor is over the hyperlink cells. A hyperlink cell has the [CellHyperLink](#) property true. The control fires the [HyperLinkClick](#) property when user clicks a cell that has the CellHyperLink property on True.

## method Gantt.Images (Handle as Variant)

Sets the control's image list at runtime.

Type	Description
Handle as Variant	<p>The Handle parameter can be:</p> <ul style="list-style-type: none"><li>• A string expression that specifies the ICO file to add. The ICO file format is an image file format for computer icons in Microsoft Windows. ICO files contain one or more small images at multiple sizes and color depths, such that they may be scaled appropriately. For instance, <code>Images("c:\temp\copy.ico")</code> method adds the sync.ico file to the control's Images collection (<i>string, loads the icon using its path</i>)</li><li>• A string expression that indicates the BASE64 encoded string that holds the icons list. Use the Exontrol's <a href="#">ExlImages</a> tool to save/load your icons as BASE64 encoded format. In this case the string may begin with "gBJJ..." (<i>string, loads icons using base64 encoded string</i>)</li><li>• A reference to a Microsoft ImageList control (mscomctl.ocx, MSComctlLib.ImageList type) that holds the icons to add (<i>object, loads icons from a Microsoft ImageList control</i>)</li><li>• A reference to a Picture (IPictureDisp implementation) that holds the icon to add. For instance, the VB's <code>LoadPicture (Function LoadPicture([FileName], [Size], [ColorDepth], [X], [Y]) As IPictureDisp)</code> or <code>LoadResPicture (Function LoadResPicture(id, restype As Integer) As IPictureDisp)</code> returns a picture object (<i>object, loads icon from a Picture object</i>)</li><li>• A long expression that identifies a handle to an Image List Control (the Handle should be of HIMAGELIST type). On 64-bit platforms, the Handle parameter must be a Variant of LongLong / LONG_PTR data type (signed 64-bit (8-byte) integers), saved under lVal field, as VT_I8 type. The LONGLONG / LONG_PTR is __int64, a 64-bit integer. For instance, in C++ you can use as <code>Images( COleVariant( (LONG_PTR)hImageList) )</code> or <code>Images( COleVariant( (LONGLONG)hImageList) )</code>, where hImageList is of</li></ul>

HIMAGELIST type. The GetSafeHandle() method of the CImageList gets the HIMAGELIST handle (long, loads icon from HIMAGELIST type)

The user can add images at design time, by drag and drop files to combo's image holder. The [ImageSize](#) property defines the size (width/height) of the icons within the control's Images collection. Use the [ReplaceIcon](#) method to add, remove or clear icons in the control's images collection. Use the [CellImage](#), [CellImages](#) properties to assign icons to a cell. Use the [CellPicture](#) property to assign a custom size picture to a cell. Use the [CheckImage](#) or [RadioImage](#) property to specify a different look for checkboxes or radio buttons in the cells.

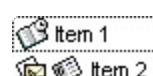
The following VB sample adds the control's icons list from a BASE64 encoded string:

```
Dim s As String
With Gantt1
    .BeginUpdate
    s =
    "gBJJgBAIDAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFElEaEEaAIAkcbk0oIUrIkI0vmExn

    s = s + "Poyf5xoojKAg"
    .Images s

    .Columns.Add "Column 1"
    With .Items
        Dim h As HITEM
        h = .AddItem("Item 1")
        .CellImage(h, 0) = 1
        h = .AddItem("Item 2")
        .CellImages(h, 0) = "2,3"
    End With
    .EndUpdate
End With
```

If you run the sample you get:



The following VB sample loads images from a Microsoft Image List control:

## Gantt1.Images ImageList1.hImageList

The following C++ sample loads icons from a BASE64 encoded string:

```
#include "Items.h"
#include "Columns.h"
#include "Column.h"
m_gantt.BeginUpdate();
CString s =
"gBJJgBAIDAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEalEaEEaAIAkcbk0oIUrlktl0vmExn

s +=
"/xoAw9ZiFdxbaAGVxM5yOTzkPy+MzGRpm dx2kl2epGY1WgxmZl+Yyery2yyGHyeirGoo+(

s +=
"NbDDLO2xz5PIBi3O8x0EsZD7zuG8T1vrCD5uZE7zxM+CXQNB78RKw8RRbF8Rwyu0UPS/U

s +=
"kSSAAkqUU2nE20gmp5oo6JwH+eZ31EjJwB+eBn1K/AHnBWIfvwAZwACYAHsMy9clMyFeE

m_gantt.Images( COleVariant( s ) );
m_gantt.GetColumns().Add( "Column 1" );
COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;
CItems items = m_gantt.GetItems();
long h = items.AddItem( COleVariant( "Item 1" ) );
items.SetCellImage( COleVariant( h ), COleVariant( (long) 0 ), 1 );
h = items.AddItem( COleVariant( "Item 2" ) );
items.SetCellImages( COleVariant( h ), COleVariant( (long) 0 ), COleVariant( "2,3" ) );
m_gantt.EndUpdate();
```

The following C++ sample loads icons from a HIMAGELIST type:

```
SHFILEINFO sfi; ZeroMemory( &sfi, sizeof(sfi) );
HIMAGELIST hSysImageList = (HIMAGELIST)SHGetFileInfo(_T("C:\\\"), 0, &sfi, sizeof
(SHFILEINFO), SHGFI_SMALLICON | SHGFI_SYSICONINDEX );
m_gantt.Images( _variant_t( (long)hSysImageList ) );
```

The following VB.NET sample loads icons from a BASE64 encoded string:

```

Dim s As String
With AxGantt1
    .BeginUpdate()
    s =
    "gBJJgBAIDAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEalEaEEaAIAkcbk0oIUrlktl0vmExn

    s = s + "Poyf5xoojKAg"
    .Images(s)

.Columns.Add("Column 1")
With .Items
    Dim h As Integer
    h = .AddItem("Item 1")
    .CellImage(h, 0) = 1
    h = .AddItem("Item 2")
    .CellImages(h, 0) = "2,3"
End With
.EndUpdate()
End With

```

The following C# sample loads icons from a BASE64 encoded string:

```

axGantt1.BeginUpdate();
string s =
"gBJJgBAIDAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEalEaEEaAIAkcbk0oIUrlktl0vmExn

s = s + "Poyf5xoojKAg";
axGantt1.Images(s);
axGantt1.Columns.Add("Column 1");
int h = axGantt1.Items.AddItem("Item 1");
axGantt1.Items.set_CellImage(h, 0, 1 );
h = axGantt1.Items.AddItem("Item 2");
axGantt1.Items.set_CellImages(h, 0,"2,3");
axGantt1.EndUpdate();

```

The following VFP sample loads icons from a BASE64 encoded string:

```
local s
```

```
With thisform.Gantt1
```

```
    .BeginUpdate()
```

```
    S =
```

```
"gBJJgBAIDAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEaIEaEEaAIAkcbk0oIUrIkI0vmExn
```

```
    S = S +
```

```
"dr1fsFhsVjslls1ntFptVrtltt1vuFxuVzul1u13vF5vV7vl9v1/wGBnqAQEZwmCxFhYGLib/xoAw9.
```

```
    S = S +
```

```
"Goo+03mM02Jzee029y2Ewum2+FnOTIGezHNx0b3/C3U258a4mP5HVvOw52s2fg2vH6ml
```

```
    S = S +
```

```
"kicAJnCbsNbDDLO2xz5PlBi3O8x0EsZD7zuG8T1vrCD5uZE7zxM+CXQNB78RKw8RRbF8Rwy
```

```
    S = S +
```

```
"wi/8iNPJMjSo0clvjMLuTHLkJTNCqVTSms2Tkq8jTzOcVP/BsePUocQLDQ9AJ3LtFUbR1Hqaiw
```

```
s = s + "Poyf5xoojKAg"
```

```
.Images(s)
```

```
.Columns.Add("Column 1")
```

```
With .Items
```

```
    .DefaultItem = .AddItem("Item 1")
```

```
    .CellImage(0, 0) = 1
```

```
    .DefaultItem = .AddItem("Item 2")
```

```
    .CellImages(0, 0) = "2,3"
```

```
EndWith
```

```
.EndUpdate()
```

```
EndWith
```

## property Gantt.ImageSize as Long

Retrieves or sets the size of control' icons/images/check-boxes/radio-buttons.

Type	Description
Long	A long expression that defines the size of icons the control displays.

By default, the ImageSize property is 16 (pixels). The ImageSize property specifies the size of icons being loaded using the [Images](#) method. The control's Images collection is cleared if the ImageSize property is changed, so it is recommended to set the ImageSize property before calling the Images method. The ImageSize property defines the size (width/height) of the icons within the control's Images collection. For instance, if the ICO file to load includes different types the one closest with the size specified by ImageSize property is loaded by Images method. The ImageSize property does NOT change the height for the control's font.

The ImageSize property defines the size to display the following UI elements:

- any icon that a cell or column displays ( <img>number</img> ex-html tag, [CellImage](#), [CellImages](#) )
- check-box or radio-buttons ( [CellHasCheckBox](#), [CellHasRadioButton](#) )
- expand/collapse glyphs ( [HasButtons](#), [HasButtonsCustom](#) )
- header's sorting or drop down-filter glyphs

## property Gantt.Indent as Long

Retrieves or sets the amount, in pixels, that child items are indented relative to their parent items.

Type	Description
Long	A long expression that indicates the amount, in pixels, that child items are indented relative to their parent items.

If the Indent property is 0, the child items are not indented relative to their parent item. Use [HasLines](#) and [LinesAtRoot](#) properties to show the hierarchy lines. Use the [HasButtons](#) property to define the +/- signs appearance. Use the [TreeColumnIndex](#) property to define the index of the column that displays the hierarchy. Use the [InsertItem](#) method to insert a child item. Use the [InsertControlItem](#) property to insert an ActiveX item.

**property Gantt.ItemFromPoint (X as OLE\_XPOS\_PIXELS, Y as OLE\_YPOS\_PIXELS, CollIndex as Long, HitTestInfo as HitTestInfoEnum) as HITEM**

Retrieves the item from the cursor.

Type	Description
X as OLE_XPOS_PIXELS	A single that specifies the current X location of the mouse pointer. The x values is always expressed in client coordinates.
Y as OLE_YPOS_PIXELS	A single that specifies the current Y location of the mouse pointer. The y values is always expressed in client coordinates.
CollIndex as Long	A long expression that indicates on return, the column where the point belongs. If the return value is zero, the CollIndex may indicate the handle of the cell ( inner cell ).
HitTestInfo as <a href="#">HitTestInfoEnum</a>	A HitTestInfoEnum expression that determines on return, the position of the cursor within the cell.
HITEM	A long expression that indicates the item's handle where the point is.

Use the ItemFromPoint property to get the item from the point specified by the {X,Y}. The X and Y coordinates are expressed in client coordinates, so a conversion must be done in case your coordinates are relative to the screen or to other window. **If the X parameter is -1 and Y parameter is -1 the ItemFromPoint property determines the handle of the item from the cursor.** Use the [ColumnFromPoint](#) property to retrieve the column from cursor. Use the [DateFromPoint](#) property to specify the date from the cursor. Use the [SelectableItem](#) property to specify the user can select an item. Use the [LevelFromPoint](#) property to retrieve the index of the level from the cursor.

The following VB sample prints the cell's caption from the cursor ( if the control contains no inner cells. Use the [SplitCell](#) property to insert inner cells ) :

```
Private Sub Gantt1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As Single)
    On Error Resume Next
    ' Converts the container coordinates to client coordinates
    X = X / Screen.TwipsPerPixelX
    Y = Y / Screen.TwipsPerPixelY
    Dim h As HITEM
```

```

Dim c As Long
Dim hit As EXGANTTLibCtl.HitTestInfoEnum
' Gets the item from (X,Y)
h = Gantt1.ItemFromPoint(X, Y, c, hit)
If Not (h = 0) Then
    Debug.Print Gantt1.Items.CellCaption(h, c) & " HT = " & hit
End If
End Sub

```

The following VB sample displays the cell's caption from the cursor ( if the control contains inner cells ):

```

Private Sub Gantt1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As
Single)
On Error Resume Next
' Converts the container coordinates to client coordinates
X = X / Screen.TwipsPerPixelX
Y = Y / Screen.TwipsPerPixelY
Dim h As HITEM
Dim c As Long
Dim hit As EXGANTTLibCtl.HitTestInfoEnum
' Gets the item from (X,Y)
h = Gantt1.ItemFromPoint(X, Y, c, hit)
If Not (h = 0) Or Not (c = 0) Then
    Debug.Print Gantt1.Items.CellCaption(h, c) & " HT = " & hit
End If
End Sub

```

The following VB sample displays the index of icon being clicked:

```

Private Sub Gantt1_MouseUp(Button As Integer, Shift As Integer, X As Single, Y As Single)
Dim i As HITEM, h As HitTestInfoEnum, c As Long
With Gantt1
    i = .ItemFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY, c, h)
End With
If (i <> 0) or (c <> 0) Then
    If exHTCellIcon = (h And exHTCellIcon) Then
        Debug.Print "The index of icon being clicked is: " & (h And &HFFFF0000) / 65536
    End If
End If
End Sub

```

```
End If
```

```
End If
```

```
End Sub
```

The following C# sample displays the caption of the cell being double clicked ( including the inner cells ):

```
EXGANTTLib.HitTestInfoEnum hit;
int c = 0, h = axGantt1.get_ItemFromPoint( e.x, e.y, out c, out hit );
if ( ( h != 0 ) || ( c != 0 ) )
    MessageBox.Show( axGantt1.Items.get_CellCaption( h, c ).ToString() );
```

The following VC sample displays the caption of the cell being clicked:

```
#include "Items.h"

static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return szDefault;

        COleVariant vt;
        vt.ChangeType( VT_BSTR, pv );
        return V_BSTR( &vt );
    }
    return szDefault;
}

void OnMouseDownGantt1(short Button, short Shift, long X, long Y)
{
    long c = 0, hit = 0, hItem = m_gantt.GetItemFromPoint( X, Y, &c, &hit );
    if ( ( hItem != 0 ) || ( c != 0 ) )
    {
        CItems items = m_gantt.GetItems();
        COleVariant vtItem( hItem ), vtColumn( c );
        CString strCaption = V2S( &items.GetCellCaption( vtItem, vtColumn ) ), strOutput;
```

```
        strOutput.Format( "Cell: '%s', Hit = %08X\n", strCaption, hit );
        OutputDebugString( strOutput );
    }
}
```

The following VB.NET sample displays the caption from the cell being clicked:

```
Private Sub AxGantt1_MouseDownEvent(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_MouseDownEvent) Handles AxGantt1.MouseDownEvent
    With AxGantt1
        Dim i As Integer, c As Integer, hit As EXGANTTLib.HitTestInfoEnum
        i = .get_ItemFromPoint(e.x, e.y, c, hit)
        If (Not (i = 0) Or Not (c = 0)) Then
            Debug.WriteLine("Cell: " & .Items.CellCaption(i, c) & " Hit: " & hit.ToString())
        End If
    End With
End Sub
```

The following C# sample displays the caption from the cell being clicked:

```
private void axGantt1_MouseDownEvent(object sender,
AxEXGANTTLib._IGanttEvents_MouseDownEvent e)
{
    int c = 0;
    EXGANTTLib.HitTestInfoEnum hit;
    int i = axGantt1.get_ItemFromPoint( e.x, e.y, out c,out hit );
    if ( ( i != 0 ) || ( c != 0 ) )
    {
        string s = axGantt1.Items.get_CellCaption( i,c ).ToString();
        s = "Cell: " + s + ", Hit: " + hit.ToString();
        System.Diagnostics.Debug.WriteLine( s );
    }
}
```

The following VFP sample displays the caption from the cell being clicked ( the code should be in the Gantt1.MouseDown event ):

```
*** ActiveX Control Event ***
LPARAMETERS button, shift, x, y
```

```
local c, hit
c = 0
hit = 0
with thisform.Gantt1
    .Items.DefaultItem = .ItemFromPoint( x, y, @c, @hit )
    if ( .Items.DefaultItem <> 0 ) or ( c <> 0 )
        wait window nowait .Items.CellCaption( 0, c ) + " " + Str( hit )
    endif
endwith
```

## property Gantt.Items as Items

Retrieves the control's item collection.

Type	Description
<a href="#">Items</a>	An Items object that holds the control's items collection.

Use the [Items](#) property to access the Items collection. Use the Items collection to add, remove or change the control items. Use the [GetItems](#) method to get the items collection into a safe array. Use the [PutItems](#) method to load items from a safe array. Use the [Columns](#) property to access the control's Columns collection. Use the [AddItem](#), [InsertItem](#) or [InsertControlItem](#) method to add new items to the control. Use the [DataSource](#) to add new columns and items to the control. Adding new items fails if the control has no columns. Use the [Chart](#) object to access all properties and methods related to the Gantt chart. Use the [AddBar](#) method to add bars to the item. The bars are always shown in the chart area. Use the [PaneWidth](#) property to specify the width of the chart.

## property Gantt.ItemsAllowSizing as ItemsAllowSizingEnum

Retrieves or sets a value that indicates whether a user can resize items at run-time.

Type	Description
ItemsAllowSizingEnum	An <a href="#">ItemsAllowSizingEnum</a> expression that specifies whether the user can resize a single item at runtime, or all items, at once.

By default, the ItemsAllowSizing property is exNoSizing. Use the ItemsAllowSizing property to specify whether all items are resizable. Use the [ItemAllowSizing](#) property of the [Items](#) object to specify only when few items are resizable or not. Use the [ItemHeight](#) property to specify the height of the item. The [CellSingleLine](#) property specifies whether a cell displays its caption using multiple lines. The [DefaultItemHeight](#) property specifies the default height of the items. The DefaultItemHeight property affects only items that are going to be added. It doesn't affect items already added.

## property Gantt.Layout as String

Saves or loads the control's layout, such as positions of the columns, scroll position, filtering values.

Type	Description
String	A String expression that specifies the control's layout.

You can use the Layout property to store the control's layout and to restore the layout later. For instance, you can save the control's Layout property to a file when the application is closing, and you can restore the control's layout when the application is loaded. The Layout property saves almost all of the control's properties that user can change at runtime ( like changing the column's position by drag and drop ). The Layout property does NOT save the control's data, so the Layout property should be called once you loaded the data from your database, xml or any other alternative. Once the data is loaded, you can call the Layout property to restore the View as it was saved. Before closing the application, you can call the Layout property and save the content to a file for reading next time the application is opened.

The Layout property saves/loads the following information:

- chart's [FirstVisibleDate](#) property, that indicates the first visible date in the chart section
- panels width, through the [PaneWidth](#) property
- columns size and position
- current selection
- scrolling position and size
- expanded/collapsed items, if any
- sorting columns
- filtering options
- [SearchColumnIndex](#) property, indicates the focusing column, or the column where the user can use the control's incremental searching.
- [TreeColumnIndex](#) property, which indicates the index of the column that displays the hierarchy lines.

These properties are serialized to a string and encoded in BASE64 format.

The following movies show how Layout works:

- The Layout property is used to save and restore the control's view.

Generally, the Layout property can be used to save / load the control's layout ( or as it is displayed ). Thought, you can benefit of this property to sort the control using one or more columns as follows:

- multiplesort="" ; singlesort="" , removes any previously sorting
- multiplesort="C3:1" , sorts ascending the column with the index 3 ( and add it to the sort bar if visible )
- singlesort="C4:2" , sorts descending the column with the index 4 ( it is not added to sort bar panel )
- multiplesort="C3:1";singlesort="C4:2" , sorts ascending the column with the index 3 ( and add it to the sort bar if visible ), and sorts descending the column with the index 4. In other words, it re-sort the control by columns 3 and 4.
- multiplesort="C3:1 C5:2";singlesort="C4:2" , sorts ascending the column with the index 3 ( and add it to the sort bar if visible ), sorts descending the column with the index 5 ( and add it to the sort bar if visible ), and sorts descending the column with the index 4. In other words, it re-sort the control by columns 3, 5 and 4.

The format of the Layout in non-encoded form is like follows:

```
c0.filtertype=0
c0.position=0
c0.select=0
c0.visible=1
c0.width=96
...
columns=13
collapse="0-3 5-63 80-81 83"
filterprompt=""
focus=8
focuscolumnindex=0
hasfilter=1
hscroll=0
multiplesort="C12:1 C2:2"
searchcolumnindex=3
select="39 2 13 8"
selectcolumnindex=0
singlesort="C5:2"
treecolumnindex=0
vscroll=12
vscrolloffset=0
```

## property Gantt.LinesAtRoot as LinesAtRootEnum

Link items at the root of the hierarchy.

Type	Description
<a href="#">LinesAtRootEnum</a>	A LinesAtRootEnum expression that indicates whether the control link items at the root of the hierarchy.

The control paints the hierarchy lines to the right if the Column's [Alignment](#) property is RightAlignment. The [TreeColumnIndex](#) property specifies the index of column where the hierarchy lines are painted. Use the [Indent](#) property to increase or decrease the amount, in pixels, that child items are indented relative to their parent items. Use the [HasLines](#) property to enhance the graphic representation of a tree control's hierarchy by drawing lines that link child items to their corresponding parent item. Use the [InsertItem](#) method to insert a child item. Use the [InsertControlItem](#) property to insert an ActiveX item.

## method Gantt.LoadXML (Source as Variant)

Loads an XML document from the specified location, using MSXML parser.

Type	Description
Source as Variant	An indicator of the object that specifies the source for the XML document. The object can represent a file name, a URL, an IStream, a SAFEARRAY, or an IXMLDOMDocument.
Return	Description
Boolean	A boolean expression that specifies whether the XML document is loaded without errors. If an error occurs, the method retrieves a description of the error occurred.

The LoadXML method uses the MSXML ( MSXML.DOMDocument, XML DOM Document ) parser to load XML documents, previously saved using the [SaveXML](#) method. The control is emptied when the LoadXML method is called, and so the columns and items collection are emptied before loading the XML document. The LoadXML method adds a new column for each **<column>** tag found in the **<columns>** collection. Properties like [Caption](#), [HTMLCaption](#), [Image](#), [Visible](#), [LevelKey](#), [DisplayFilterButton](#), [DisplayFilterPattern](#), [FilterType](#), [Width](#) and [Position](#) are fetched for each column found in the XML document. The control fires the [AddColumn](#) event for each found column. The **<items>** xml element contains a collection of **<item>** objects. Each **<item>** object holds information about an item in the control, including its cells, child items or bars. Each item contains a collection of **<cell>** objects that defines the cell for each column. The **<bars>** element contains a collection of **<bar>** each one is associated with the bars in the item. The Expanded attribute specifies whether an item is expanded or collapsed, and it carries the value of the [ExpandItem](#) property. The **<chart>** element contains data related to the chart data of the control. For instance, it includes the collection of levels being displayed in the chart, the first visible date, links and groups of bars. The **<levels>** element holds a collection of **<level>** objects each one being associated with an level in the chart area. The **<links>** element holds a collection of **<link>** objects each one indicating a link between two bars in the chart. The **<groups>** element holds a collection of **<group>** objects that indicates the bars that are grouped in the chart.

The [XML format](#) looks like follows:

- <Content Author Component Version ...>
- <Chart FirstVisibleDate ...>
- <Levels>
  - <Level Label Unit Count />

```
<Level Label Unit Count />
...
</Levels>
- <Links>
  <Link Key StartItem StartBar EndItem EndBar Visible StartPos EndPos Color Style
Width ShowDir Text ... />
  <Link Key StartItem StartBar EndItem EndBar Visible StartPos EndPos Color Style
Width ShowDir Text ... />
  ...
</Links>
</Chart>
- <Columns>
  <Column Caption Position Width HTMLCaption LevelKey DisplayFilterButton
DisplayFilterPatter FilterType ... />
  <Column Caption Position Width HTMLCaption LevelKey DisplayFilterButton
DisplayFilterPatter FilterType ... />
  ...
</Columns>
- <Items>
  - <Item Expanded ...>
    <Cell Value ValueFormat Images Image ... />
    <Cell Value ValueFormat Images Image ... />
    ...
  - <Bars>
    <Bar Name Start End Caption HAlignCaption VAlignCaption Key ... />
    <Bar Name Start End Caption HAlignCaption VAlignCaption Key ... />
    ...
  </Bars>
  - <Items>
    - <Item Expanded ...>
    - <Item Expanded ...>
    ...
  </Items>
</Item>
</Items>
</Content>
```



## property Gantt.MarkSearchColumn as Boolean

Retrieves or sets a value that indicates whether the searching column is marked or unmarked

Type	Description
Boolean	A boolean expression that indicates whether the searching column is marked or unmarked.

The control supports incremental search feature. The `MarkSearchColumn` property specifies whether the control highlights the searching column. Use the [SearchColumnIndex](#) property to specify the index of the searching column. The user can change the searching column by pressing the TAB or Shift + TAB key. Use the [AutoSearch](#) property to specify whether the control enables the incremental searching feature. Use the [AutoSearch](#) property to specify the type of incremental searching the control supports within the column. Use the [UseTabKey](#) property to specify whether the control uses the TAB key.

## **method Gantt.OLEDrag ()**

Causes a component to initiate an OLE drag/drop operation.

Type	Description
------	-------------

Only for internal use.

## property Gantt.OLEDropMode as exOLEDropModeEnum

Returns or sets how a target component handles drop operations

Type	Description
<a href="#">exOLEDropModeEnum</a>	An exOLEDropModeEnum expression that indicates the OLE Drag and Drop mode.

*In the /NET Assembly, you have to use the AllowDrop property as explained here:*

- <https://www.exontrol.com/sg.jsp?content=support/faq/net/#dragdrop>

By default, the OLEDropMode property is exOLEDropNone. Currently, the ExGantt control supports only manual OLE Drag and Drop operation. Use the [Background\(exDragDropBefore\)](#) property to specify the visual appearance for the dragging items, before painting the items. Use the [Background\(exDragDropAfter\)](#) property to specify the visual appearance for the dragging items, after painting the items. Use the [Background\(exDragDropList\)](#) property to specify the graphic feedback for the item from the cursor, while the OLE drag and drop operation is running. See the [OLEStartDrag](#) and [OLEDragDrop](#) events for more details about implementing drag and drop operations into the ExGantt control.

## property Gantt.OnResizeControl as OnResizeControlEnum

Specifies whether the list or the chart part is resized once the control is resized.

Type	Description
<a href="#">OnResizeControlEnum</a>	An OnResizeControlEnum expression that specifies whether the list or the chart part of the control is resized, when the entire control is resized.

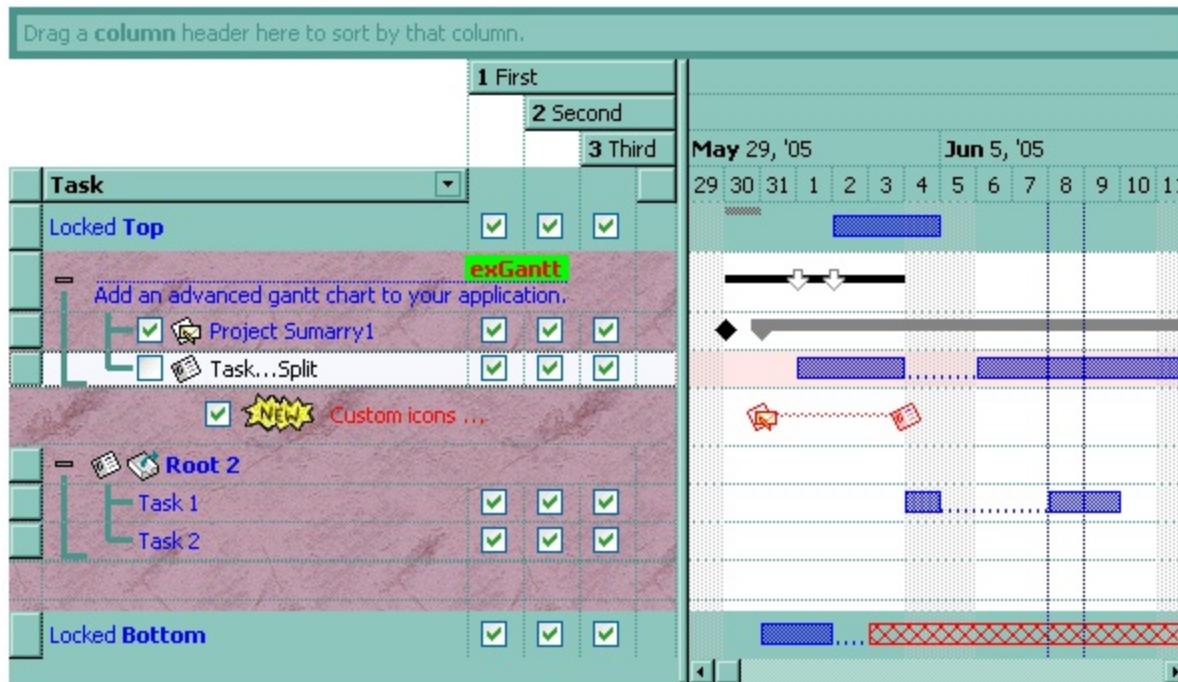
By default, the OnResizeControl property is exResizeList. In other words, the list part of the control ( the part that lists the columns ) gets resized, and the chart are stay fixed. Use the OnResizeControl to specify whether the chart area should be resized when the user resizes the control ( whenever the chart is anchored to a form ). Use the [PaneWidth](#) property to specify the width of the list or chart part of the control.

## property Gantt.Picture as IPictureDisp

Retrieves or sets a graphic to be displayed in the control.

Type	Description
IPictureDisp	A Picture object that's displayed on the control's background.

By default, the control has no picture associated. The control uses the [PictureDisplay](#) property to determine how the picture is displayed on the control's background. Use the [PictureLevelHeader](#) property to specify the picture on the control's levels header bar. Use the [CellPicture](#) property to assign a picture to a cell. Use the [BackColor](#) property to specify the control's background color. Use the [Picture](#) property to assign a picture to the chart area.



## property Gantt.PictureDisplay as PictureDisplayEnum

Retrieves or sets a value that indicates the way how the graphic is displayed on the control's background

Type	Description
<a href="#">PictureDisplayEnum</a>	A PictureDisplayEnum expression that indicates the way how the picture is displayed.

By default, the PictureDisplay property is exTile. The PictureDisplay property specifies how the [Picture](#) is displayed on the control's background. If the control has no picture associated the PictureDisplay property has no effect. Use the [CellPicture](#) property to assign a picture to a cell. Use the [BackColor](#) property to specify the control's background color.

## **property Gantt.PictureDisplayLevelHeader as PictureDisplayEnum**

Retrieves or sets a value that indicates the way how the graphic is displayed on the control's header background.

Type	Description
<a href="#">PictureDisplayEnum</a>	A PictureDisplayEnum expression that indicates the way how the picture is displayed on the control's header.

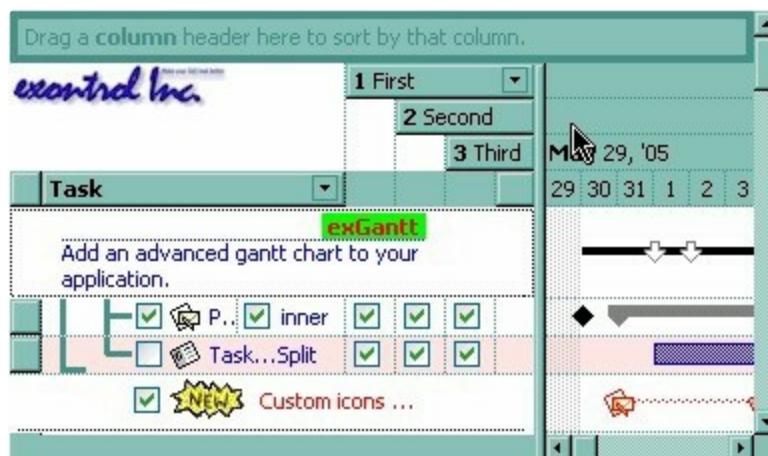
Use the PictureDisplayLevelHeader property to arrange the picture on the control's multiple levels header bar. Use the [PictureLevelHeader](#) property to load a picture on the control's header bar when it displays multiple levels. The control's header bar displays multiple levels if there are two or more neighbor columns with the same non empty level key. Use the [LevelKey](#) property to specify the control's level key.

## property Gantt.PictureLevelHeader as IPictureDisp

Retrieves or sets a graphic to be displayed in the control's header when multiple levels is on.

Type	Description
IPictureDisp	A Picture object being displayed on the control's header bar when multiple levels is on.

Use the PictureLevelHeader property to display a picture on the control's header bar when it displays the columns using multiple levels. Use the [PictureDisplayLevelHeader](#) property to arrange the picture on the control's multiple levels header bar. The control's header bar displays multiple levels if there are two or more neighbor columns with the same non empty level key. Use the [LevelKey](#) property to specify the control's level key. Use the [Picture](#) property to display a picture on the control's list area. Use the [BackColorLevelHeader](#) property to specify the background color for parts of the control's header bar that are not occupied by column's headers.



## method Gantt.PutItems (Items as Variant, [Parent as Variant])

Adds an array of integer, long, date, string, double, float, or variant arrays to the control

Type	Description
Items as Variant	An array that control uses to fill with. The array can be one or two-dimensional. If the array is one-dimensional, the control requires one column being added before calling the PutItems method. If the Items parameter indicates a two-dimensional array, the first dimension defines the columns, while the second defines the number of items to be loaded. For instance, a(2,100) means 2 columns and 100 items.
Parent as Variant	A long expression that specifies the handle of the item where the array is being inserted, or 0 if missing.

The PutItems method loads items from a safe array. The Parent parameter of the PutItems method specifies the handle of the item where the array is being inserted as child items. Use the [GetItems](#) method to get a safe array with the items in the control. Use the [Items](#) property to access the items collection. Use the [AddItem](#) method to add items one by one. Use the [DataSource](#) property to bind the control to an ADO or DAO recordset. Use the [ColumnAutoResize](#) property to specify whether the visible columns should fit the control's client area. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula.

The following VB 6 sample loads a flat array to a single column control (and shows as in the following picture):

With Gantt1

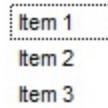
```
.BeginUpdate  
.Columns.Add "Column 1"  
.PutItems Array("Item 1", "Item 2", "Item 3")  
.EndUpdate  
End With
```

or similar for /NET Assembly version:

With Exgantt1

```
.BeginUpdate()  
.Columns.Add("Column 1")
```

```
.PutItems(New String() {"Item 1", "Item 2", "Item 3"})
.EndUpdate()
End With
```



The following VB 6 sample loads a hierarchy to a single column control (and shows as in the following picture ):

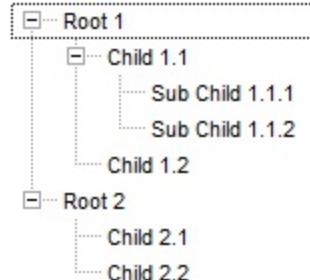
With Gantt1

```
.BeginUpdate()
.LinesAtRoot = exLinesAtRoot
.Columns.Add ""
.PutItems Array("Root 1", Array("Child 1.1", Array("Sub Child 1.1.1", "Sub Child 1.1.2"),
"Child 1.2"), "Root 2", Array("Child 2.1", "Child 2.2"))
.EndUpdate()
End With
```

or similar for /NET Assembly version:

With Exgantt1

```
.BeginUpdate()
.LinesAtRoot = exontrol.EXGANTTLib.LinesAtRootEnum.exLinesAtRoot
.Columns.Add("")
.PutItems(New Object() {"Root 1", New Object() {"Child 1.1", New String() {"Sub Child
1.1.1", "Sub Child 1.1.2"}, "Child 1.2"}, "Root 2", New String() {"Child 2.1", "Child 2.2"}})
.EndUpdate()
End With
```



The following VB 6 sample loads a list of items, in a three columns control ( as shown in the following picture ):

```
Dim v(2, 2) As String
```

```
v(0, 0) = "One"
```

```
v(0, 1) = "Two"
```

```
v(0, 2) = "Three"
```

```
v(1, 0) = "One"
```

```
v(1, 1) = "Two"
```

```
v(1, 2) = "Three"
```

```
v(2, 0) = "One"
```

```
v(2, 1) = "Two"
```

```
v(2, 2) = "Three"
```

With Gantt1

```
.BeginUpdate
```

```
.Columns.Add "Column 1"
```

```
.Columns.Add "Column 2"
```

```
.Columns.Add "Column 3"
```

```
.PutItems v
```

```
.EndUpdate
```

End With

Column 1	Column 2	Column 3
One	One	One
Two	Two	Two
Three	Three	Three

The following VB 6 sample loads a list of items, in a three columns control ( as shown in the following picture ):

```
Dim v(2, 2) As String
```

```
v(0, 0) = "One"
```

```
v(0, 1) = "Two"
```

```
v(0, 2) = "Three"
```

```
v(1, 0) = "One"
```

```
v(1, 1) = "Two"
```

```
v(1, 2) = "Three"
```

```
v(2, 0) = "One"
```

```
v(2, 1) = "Two"
```

```
v(2, 2) = "Three"
```

With Gantt1

```
.BeginUpdate  
.Columns.Add "Column 1"  
.Columns.Add "Column 2"  
.Columns.Add "Column 3"  
  
.Items.AddItem "Root"  
  
.PutItems v, .Items.FirstVisibleItem  
.EndUpdate
```

End With

Column 1	Column 2	Column 3
Root		
One	One	One
Two	Two	Two
Three	Three	Three

The following VB sample loads an ADO recordset using PutItems method:

```
Set rs = CreateObject("ADODB.Recordset")  
rs.Open "Orders", "Provider=Microsoft.Jet.OLEDB.3.51;Data Source= D:\Program  
Files\Microsoft Visual Studio\VB98\NWIND.MDB", 3 ' Opens the table using static mode
```

Gantt1.BeginUpdate

For Each f In rs.Fields

```
    Gantt1.Columns.Add f.Name
```

Next

```
Gantt1.PutItems rs.GetRows()
```

Gantt1.EndUpdate

The following C++ sample loads records from an ADO recordset, using the PutItems method:

```
#include "Items.h"  
 #include "Columns.h"  
 #include "Column.h"
```

```

#pragma warning( disable : 4146 )
#import <msado15.dll> rename ( "EOF", "adoEOF" )
using namespace ADODB;

_RecordsetPtr spRecordset;
if ( SUCCEEDED( spRecordset.CreateInstance( "ADODB.Recordset" ) ) )
{
    // Builds the connection string.
    CString strTableName = "Employees", strConnection =
"Provider=Microsoft.Jet.OLEDB.4.0;Data Source=";
    CString strPath = "D:\\Program Files\\Microsoft Visual Studio\\VB98\\NWIND.MDB";
    strConnection += strPath;
    try
    {
        // Loads the table
        if ( SUCCEEDED( spRecordset->Open(_variant_t( (LPCTSTR)strTableName ),
_variant_t((LPCTSTR)strConnection), adOpenStatic, adLockPessimistic, NULL ) ) )
        {
            m_gantt.BeginUpdate();
            m_gantt.SetColumnAutoResize( FALSE );
            CColumns columns = m_gantt.GetColumns();
            for ( long i = 0; i < spRecordset->Fields->Count; i++ )
                columns.Add( spRecordset->Fields->GetItem(i)->Name );
            COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;
            m_gantt.PutItems( &spRecordset->GetRows(-1), vtMissing );
            m_gantt.EndUpdate();
        }
    }
    catch ( _com_error& e )
    {
        AfxMessageBox( e.Description() );
    }
}

```

The sample uses the #import statement to import ADODB recordset's type library. The sample enumerates the fields in the recordset and adds a new column for each field found.

Also, the sample uses the GetRows method of the ADODB recordset to retrieves multiple records of a Recordset object into a safe array. Please consult the ADODB documentation for the GetRows property specification.

## property Gantt.RadiolImage(Checked as Boolean) as Long

Retrieves or sets a value that indicates the image used by cells of radio type.

Type	Description
Checked as Boolean	A boolean expression that indicates the radio's state. True means checked, and False means unchecked.
Long	A long expression that indicates the index of image used to paint the radio button. The last 7 bits in the high significant byte of the long expression indicates the identifier of the skin being used to paint the object. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part.

Use RadiolImage and [CheckImage](#) properties to define the icons used for radio and check box cells. The RadiolImage property defines the index of the icon being used by radio buttons. Use the [CellHasRadioButton](#) property to assign a radio button to a cell. Use the [CellHasCheckBox](#) property to assign a checkbox to a cell. Use the [CellImage](#) or [CellImages](#) property to assign one or multiple icons to a cell. Use the [CellPicture](#) property to assign a picture to a cell. Use the [CellStateChanged](#) event to notify your application when the cell's state is changed. Use the [PartialCheck](#) property to allow partial check feature within the column. Use the [Images](#) method to insert icons at runtime. The following samples require a control with icons, else nothing will be changed. The [ImageSize](#) property defines the size (width/height) of the icons within the control's Images collection.

The following VB sample changes the default icon for the cells of radio type:

```
Gantt1.RadiolImage(True) = 1      ' Sets the icon for cells of radio type that are checked  
Gantt1.RadiolImage(False) = 2      ' Sets the icon for cells of radio type that are unchecke
```

The Gantt1.RadiolImage(True) = 0 makes the control to use the default icon for painting cells of radio type that are checked.

The following C++ sample changes the default icon for the cells of radio type:

```
m_gantt.SetRadiolImage( TRUE, 1 );  
m_gantt.SetRadiolImage( FALSE, 2 );
```

The following VB.NET sample changes the default icon for the cells of radio type:

With AxGantt1

```
.set_RadiolImage(True, 1)  
.set_RadiolImage(False, 2)
```

End With

The following C# sample changes the default icon for the cells of radio type:

```
axGantt1.set_RadiolImage(true, 1);  
axGantt1.set_RadiolImage(false, 2);
```

The following VFP sample changes the default icon for the cells of radio type:

```
with thisform.Gantt1
```

```
local sT, sCR  
sCR = chr(13) + chr(10)  
sT = "RadiolImage(True) = 1"+ sCR  
sT = sT + "RadiolImage(False) = 2"+ sCR  
.Template = sT
```

```
endwith
```

The VFP considers the RadiolImage call as being a call for an array, so an error occurs if the method is called directly, so we built a template string that we pass to the [Template](#) property.

## property Gantt.RClickSelect as Boolean

Retrieves or sets a value that indicates whether an item is selected using right mouse button.

Type	Description
Boolean	A boolean expression that indicates whether an item is selected using the right mouse button.

Use the RClickSelect property to allow users select items using the right click. By default, the RClickSelect property is False. The control fires the [SelectionChanged](#) event when user selects an item. Use the [SelectItem](#) property to select programmatically select an item. Use the [SelectCount](#) property to get the number of selected items. Use the [SelectedItem](#) property to get the selected item. Use the [FocusItem](#) property to get the focused item. Use the [ItemFromPoint](#) property to retrieve an item from the point.

## method Gantt.Refresh ()

Refreshes the control's content.

Type	Description
------	-------------

The Refresh method forces repainting the control. Use the [BeginUpdate](#) and [EndUpdate](#) methods to maintain the control's performance while adding multiple items or columns. Use the [hWnd](#) property to get the handle of the control's window.

The following VB sample calls the Refresh method:

```
Gantt1.Refresh
```

The following C++ sample calls the Refresh method:

```
m_gantt.Refresh();
```

The following VB.NET sample calls the Refresh method:

```
AxGantt1.CtlRefresh()
```

In VB.NET the System.Windows.Forms.Control class has already a Refresh method, so the CtlRefresh method should be called.

The following C# sample calls the Refresh method:

```
axGantt1.CtlRefresh();
```

In C# the System.Windows.Forms.Control class has already a Refresh method, so the CtlRefresh method should be called.

The following VFP sample calls the Refresh method:

```
thisform.Gantt1.Object.Refresh()
```

## method Gantt.RemoveSelection ()

Removes the selected items (including the descendants)

Type	Description
------	-------------

The RemoveSelection method removes the selected items (including the descendants). The [RemoveItem](#) method removes an item (if the item has no descendants). The [UnselectAll](#) method unselects all items in the list.

## method Gantt.ReplaceIcon ([Icon as Variant], [Index as Variant])

Adds a new icon, replaces an icon or clears the control's image list.

Type	Description
Icon as Variant	A long expression that indicates the icon's handle.
Index as Variant	A long expression that indicates the index where icon is inserted.
Return	Description
Long	A long expression that indicates the index of the icon in the images collection

Use the ReplaceIcon property to add, remove or replace an icon in the control's images collection. Also, the ReplaceIcon property can clear the images collection. Use the [Images](#) method to attach a image list to the control.

The following VB sample adds a new icon to control's images list:

```
i = ExGantt1.ReplaceIcon( LoadPicture("d:\icons\help.ico").Handle), i specifies the index where the icon is added
```

The following VB sample replaces an icon into control's images list::

```
i = ExGantt1.ReplaceIcon( LoadPicture("d:\icons\help.ico").Handle, 0), i is zero, so the first icon is replaced.
```

The following VB sample removes an icon from control's images list:

```
ExGantt1.ReplaceIcon 0, i, i specifies the index of icon removed.
```

The following VB clears the control's icons collection:

```
ExGantt1.ReplaceIcon 0, -1
```

## property Gantt.RightToLeft as Boolean

Indicates whether the component should draw right-to-left for RTL languages.

Type	Description
Boolean	A boolean expression that specifies whether the control is drawn from right to left or from left to right.

By default, the RightToLeft property is False. The RightToLeft gets or sets a value indicating whether control's elements are aligned to right or left. The RightToLeft property affects all columns, and future columns being added.

Changing the RightToLeft property on True does the following:

- flips the panels, so the chart panel is displayed on the left side ([ChartOnLeft](#) property )
- displays the vertical scroll bar on the left side of the control ([Scrollbars](#) property )
- flips the order of the columns ([Position](#) property )
- change the column's alignment to right, if the column is not centered ([Alignment](#) property, [HeaderAlignment](#) property, [HeaderImageAlignment](#) property )
- reverse the order of the drawing parts in the cells ([Def\(exCellDrawPartsOrder\)](#) property to "caption,picture,icons,icon,check" )
- aligns the locked columns to the right ([CountLockedColumns](#) property )
- aligns the control's group-by bar / sort bar to the right ([SortBarVisible](#) property )
- the control's filter bar/prompt/close is aligned to the right ([FilterBarPromptVisible](#) property )

(By default) Changing the RightToLeft property on False does the following:

- flips the panels, so the chart panel is displayed on the right side ([ChartOnLeft](#) property )
- displays the vertical scroll bar on the right side of the control ([Scrollbars](#) property )
- flips the order of the columns ([Position](#) property )
- change the column's alignment to left, if the column is not centered ([Alignment](#) property, [HeaderAlignment](#) property, [HeaderImageAlignment](#) property )
- reverse the order of the drawing parts in the cells ([Def\(exCellDrawPartsOrder\)](#) property to "check,icon,icons,picture,caption" )
- aligns the locked columns to the left ([CountLockedColumns](#) property )
- aligns the control's group-by bar / sort bar to the left ([SortBarVisible](#) property )
- the control's filter bar/prompt/close is aligned to the left ([FilterBarPromptVisible](#) property )

## method Gantt.SaveXML (Destination as Variant)

Saves the control's content as XML document to the specified location, using the MSXML parser.

Type	Description
	<p>This object can represent a file name, an XML document object, or a custom object that supports persistence as follows:</p> <ul style="list-style-type: none"><li>• String - Specifies the file name. Note that this must be a file name, rather than a URL. The file is created if necessary and the contents are entirely replaced with the contents of the saved document. For example:</li></ul> <pre>Ganttl.SaveXML("sample.xml")</pre> <ul style="list-style-type: none"><li>• XML Document Object. For example:</li></ul> <pre>Dim xmldoc as Object Set xmldoc = CreateObject("MSXML.DOMDocument") Ganttl.SaveXML(xmldoc)</pre> <ul style="list-style-type: none"><li>• Custom object supporting persistence - Any other custom COM object that supports <b>QueryInterface</b> for <b>IStream</b>, <b>IPersistStream</b>, or <b>IPersistStreamInit</b> can also be provided here and the document will be saved accordingly. In the <b>IStream</b> case, the <b>IStream::Write</b> method will be called as it saves the document; in the <b>IPersistStream</b> case, <b>IPersistStream::Load</b> will be called with an <b>IStream</b> that supports the <b>Read</b>, <b>Seek</b>, and <b>Stat</b> methods.</li></ul>
Destination as Variant	

Return	Description
Boolean	A Boolean expression that specifies whether saving the XML document was ok.

The SaveXML method uses the MSXML ( MSXML.DOMDocument, XML DOM Document ) parser to save the control's data in XML documents. The [LoadXML](#) method loads XML documents being created with SaveXML method. The SaveXML method saves each column in **<column>** elements under the **<columns>** collection. Properties like [Caption](#), [HTMLCaption](#), [Image](#), [Visible](#), [LevelKey](#), [DisplayFilterButton](#), [DisplayFilterPattern](#), [FilterType](#), [Width](#) and [Position](#) are saved for each column in the control. The **<items>** xml element saves a collection of **<item>** objects. Each **<item>** object holds information about

an item in the control, including its cells, child items or bars. Each item saves a collection of **<cell>** objects that defines the cell for each column. The **<bars>** element saves a collection of **<bar>** each one is associated with the bars in the item. The Expanded attribute specifies whether an item is expanded or collapsed, and it carries the value of the [ExpandItem](#) property. The **<chart>** element saves data related to the chart data of the control. For instance, it includes the collection of levels being displayed in the chart, the first visible date, links and groups of bars. The **<levels>** element holds a collection of **<level>** objects each one being associated with an level in the chart area. The **<links>** element holds a collection of **<link>** objects each one indicating a link between two bars in the chart. The **<groups>** element holds a collection of **<group>** objects that indicates the bars that are grouped in the chart.

The control saves the control's data in [XML format](#) like follows:

```
- <Content Author Component Version ...>
  - <Chart FirstVisibleDate ...>
    - <Levels>
      <Level Label Unit Count />
      <Level Label Unit Count />
      ...
    </Levels>
    - <Links>
      <Link Key StartItem StartBar EndItem EndBar Visible StartPos EndPos Color Style
Width ShowDir Text ... />
      <Link Key StartItem StartBar EndItem EndBar Visible StartPos EndPos Color Style
Width ShowDir Text ... />
      ...
    </Links>
  </Chart>
  - <Columns>
    <Column Caption Position Width HTMLCaption LevelKey DisplayFilterButton
DisplayFilterPatter FilterType ... />
    <Column Caption Position Width HTMLCaption LevelKey DisplayFilterButton
DisplayFilterPatter FilterType ... />
    ...
  </Columns>
  - <Items>
    - <Item Expanded ...>
      <Cell Value ValueFormat Images Image ... />
```

```
<Cell Value ValueFormat Images Image ... />  
...  
- <Bars>  
  <Bar Name Start End Caption HAlignCaption VAlignCaption Key ... />  
  <Bar Name Start End Caption HAlignCaption VAlignCaption Key ... />  
  ...  
</Bars>  
- <Items>  
  - <Item Expanded ...>  
  - <Item Expanded ...>  
  ....  
</Items>  
</Item>  
</Items>  
</Content>
```

## method Gantt.Scroll (Type as ScrollEnum, [ScrollTo as Variant])

Scrolls the control's content.

Type	Description
Type as <a href="#">ScrollEnum</a>	A ScrollEnum expression that indicates type of scrolling being performed.
ScrollTo as Variant	A long expression that indicates the position where the control is scrolled when Type is exScrollVTo or exScrollHTo. If the ScrollTo parameter is missing, 0 value is used.

Use the Scroll method to scroll the control's content by code. Use the [EnsureVisibleItem](#) method to ensure that a specified item fits the control's client area. Use the [ScrollPos](#) property to get the control's scroll position. Use the [EnsureVisibleColumn](#) method to ensure that a specified column fits the control's client area. If the Type parameter is exScrollLeft, exScrollRight or exScrollHTo the Scroll method scrolls horizontally the control's content pixel by pixel, if the [ContinueColumnScroll](#) property is False, else the Scroll method scrolls horizontally the control's content column by column.

The following VB sample scrolls the control's content to the first item ( scrolls to the top ):

```
Gantt1.Scroll exScrollVTo, 0
```

The following C++ sample scrolls the control's content to the top:

```
m_gantt.Scroll( 2 /*exScrollVTo*/, COleVariant( (long)0 ) );
```

The following C# sample scrolls the control's content to the top:

```
axGantt1.Scroll(EXGANTTLib.ScrollEnum.exScrollVTo, 0);
```

The following VB.NET sample scrolls the control's content to the top:

```
AxGantt1.Scroll(EXGANTTLib.ScrollEnum.exScrollVTo, 0)
```

The following VFP sample scrolls the control's content to the top:

```
with thisform.Gantt1
    .Scroll( 2, 0 ) && exScrollVTo
endwith
```



## property Gantt.ScrollBars as ScrollBarsEnum

Returns or sets a value that determines whether the control has horizontal and/or vertical scroll bars.

Type	Description
<a href="#">ScrollBarsEnum</a>	A ScrollBarsEnum expression that identifies which scroll bars are visible.

Use the ScrollBars property to disable the control's scroll bars. By default, the ScrollBars property is exBoth, so both scroll bars are used if necessarily. For instance, if the ScrollBars property is exNone the control displays no scroll bars. Use the [ScrollBySingleLine](#) property on False, if you are displaying items of different heights. Use the [ScrollPos](#) property to get the control's scroll position. Use the [EnsureVisibleItem](#) method to ensure that an item fits the control's client area. Use the [EnsureVisibleColumn](#) method to ensure that a specified column fits the control's client area. Use the [Scroll](#) method to scroll programmatically the control. Use the [ScrollOrderParts](#) property to customize the order of the buttons in the scroll bar.

## property Gantt.ScrollButtonHeight as Long

Specifies the height of the button in the vertical scrollbar.

Type	Description
Long	A long expression that defines the height of the button in the vertical scroll bar.

By default, the ScrollButtonHeight property is -1. If the ScrollButtonHeight property is -1, the control uses the default height ( from the system ) for the buttons in the vertical scroll bar. Use the [ScrollButtonWidth](#) property to specify the width of the buttons in the horizontal scroll bar. Use the [ScrollWidth](#) property to specify the width of the vertical scroll bar. Use the [ScrollBars](#) property to specify which scroll bar is visible or hidden in the control. Use the [ScrollHeight](#) property to specify the height of the horizontal scroll bar. Use the [ScrollPartVisible](#) property to specify the visible parts in the control's scroll bar. Use the [ScrollThumbSize](#) property to define a fixed size for the scrollbar's thumb.

## property Gantt.ScrollButtonWidth as Long

Specifies the width of the button in the horizontal scrollbar.

Type	Description
Long	A long expression that defines the width of the button in the horizontal scroll bar.

By default, the ScrollButtonWidth property is -1. If the ScrollButtonWidth property is -1, the control uses the default width ( from the system ) for the buttons in the horizontal scroll bar. Use the [ScrollButtonHeight](#) property to specify the height of the buttons in the vertical scroll bar. Use the [ScrollWidth](#) property to specify the width of the vertical scroll bar. Use the [ScrollBars](#) property to specify which scroll bar is visible or hidden in the control. Use the [ScrollHeight](#) property to specify the height of the horizontal scroll bar. Use the [ScrollPartVisible](#) property to specify the visible parts in the control's scroll bar. Use the [ScrollThumbSize](#) property to define a fixed size for the scrollbar's thumb.

## property Gantt.ScrollBySingleLine as Boolean

Retrieves or sets a value that indicates whether the control scrolls the lines to the end, item by item.

Type	Description
Boolean	A boolean expression that indicates whether the control scrolls the lines to the end, item by item.

By default, the ScrollBySingleLine property is False. We recommend to set the ScrollBySingleLine property on True if you have one of the following:

- If you have at least a cell that has [CellSingleLine](#) property on exCaptionWordWrap / exCaptionBreakWrap / False, or a column with [Def\(exCellSingleLine\)](#) on exCaptionWordWrap / exCaptionBreakWrap / False
- If your control contains at least an item that hosts an ActiveX control. See [InsertControlItem](#) property.
- If the control displays items with different height. Use the [ItemHeight](#) property to specify the item's height.

In conclusion, If the ScrollBySingleLine property is

- **False**, the first visible item can not be partially visible. The False value is recommended when all items has the same height.
- **True**, the first visible item can be partially visible, and clicking the up or down buttons on the vertical scroll bar makes the control to scroll vertically pixel by pixel ( The [DefaultItemHeight](#) property indicates the number of pixels to scroll at once ). You can set the [AutoDrag](#) property on exAutoDragScroll, and so the user can scroll the control's content by clicking the control and dragging the cursor up or down. The True value is recommended when the control may display items of different sizes.

Click here  to watch a movie on how Scroll Line by Line works.

Use the [EnsureVisibleItem](#) property to ensure that an item fits the control's client area. Use the [ScrollBars](#) property to hide the control's scroll bars. Use the [Scroll](#) method to programmatically scroll the control's content. Use the [ItemsAllowSizing](#) property to specify whether all items are resizable or not. Use the [ItemAllowSizing](#) property to specify whether the user can resize the item at runtime.

## property Gantt.ScrollFont (ScrollBar as ScrollBarEnum) as IFontDisp

Retrieves or sets the scrollbar's font.

Type	Description
ScrollBar as <a href="#">ScrollBarEnum</a>	A ScrollBarEnum expression that indicates the vertical or the horizontal scroll bar.
IFontDisp	A Font object

Use the ScrollFont property to specify the font in the control's scroll bar. Use the [ScrollPartCaption](#) property to specify the caption of the scroll's part. Use the [ScrollPartVisible](#) property to add or remove buttons/parts in the control's scrollbar. By default, when a part becomes visible, the [ScrollPartEnable](#) property is automatically called, so the parts becomes enabled. Use the [ScrollPartEnable](#) property to specify enable or disable parts in the control's scrollbar. Use the [ScrollBars](#) property to specify the visible scrollbars in the control. Use the [OffsetChanged](#) event to notify your application that the scroll position is changed. Use the [OversizeChanged](#) event to notify your application whether the range for a specified scroll bar is changed. Use the [ScrollPos](#) property to specify the position for the control's scroll bar. The control fires the [ScrollButtonClick](#) event when the user clicks a part of the scroll bar.

## property Gantt.ScrollHeight as Long

Specifies the height of the horizontal scrollbar.

Type	Description
Long	A long expression that defines the height of the horizontal scroll bar.

By default, the ScrollHeight property is -1. If the ScrollHeight property is -1, the control uses the default height of the horizontal scroll bar from the system. Use the ScrollHeight property to specify the height of the horizontal scroll bar. Use the [ScrollBars](#) property to specify which scroll bar is visible or hidden in the control. Use the [ScrollButtonWidth](#) property to specify the width of the buttons in the horizontal scroll bar. Use the [ScrollWidth](#) property to specify the width of the vertical scroll bar. Use the [ScrollButtonHeight](#) property to specify the height of the buttons in the vertical scroll bar. Use the [ScrollPartVisible](#) property to specify the visible parts in the control's scroll bar. Use the [ScrollThumbSize](#) property to define a fixed size for the scrollbar's thumb.

## property Gantt.ScrollOrderParts(ScrollBar as ScrollBarEnum) as String

Specifies the order of the buttons in the scroll bar.

Type	Description
ScrollBar as <a href="#">ScrollBarEnum</a>	A ScrollBar expression that indicates the scrollbar where the order of buttons is displayed.
String	A String expression that indicates the order of the buttons in the scroll bar. The list includes expressions like l, l1, ..., l5, t, r, r1, ..., r6 separated by comma, each expression indicating a <a href="#">part</a> of the scroll bar, and its position indicating the displaying order.

Use the ScrollOrderParts to customize the order of the buttons in the scroll bar. By default, the ScrollOrderParts property is empty. If the ScrollOrderParts property is empty the default order of the buttons in the scroll bar are displayed like follows:



so, the order of the parts is: l1, l2, l3, l4, l5, l, t, r, r1, r2, r3, r4, r5 and r6. Use the [ScrollPartVisible](#) to specify whether a button in the scrollbar is visible or hidden. Use the [ScrollPartEnable](#) property to enable or disable a button in the scroll bar. Use the [ScrollPartCaption](#) property to assign a caption to a button in the scroll bar.

Use the ScrollOrderParts property to change the order of the buttons in the scroll bar. For instance, "l,r,t,l1,r1" puts the left and right buttons to the left of the thumb area, and the l1 and r1 buttons right after the thumb area. If the parts are not specified in the ScrollOrderParts property, automatically they are added to the end.



The list of supported literals in the ScrollOrderParts property is:

- l for exLeftBPart, (<) The left or top button.
- l1 for exLeftB1Part, (L1) The first additional button, in the left or top area.
- l2 for exLeftB2Part, (L2) The second additional button, in the left or top area.
- l3 for exLeftB3Part, (L3) The third additional button, in the left or top area.
- l4 for exLeftB4Part, (L4) The forth additional button, in the left or top area.
- l5 for exLeftB5Part, (L5) The fifth additional button, in the left or top area.
- t for exLowerBackPart, exThumbPart and exUpperBackPart, The union between the exLowerBackPart and the exUpperBackPart parts.
- r for exRightBPart, (>) The right or down button.
- r1 for exRightB1Part, (R1) The first additional button in the right or down side.

- **r2** for exRightB2Part, (R2) The second additional button in the right or down side.
- **r3** for exRightB3Part, (R3) The third additional button in the right or down side.
- **r4** for exRightB4Part, (R4) The forth additional button in the right or down side.
- **r5** for exRightB5Part, (R5) The fifth additional button in the right or down side.
- **r6** for exRightB6Part, (R6) The sixth additional button in the right or down side.

Any other literal between commas is ignored. If duplicate literals are found, the second is ignored, and so on. For instance, "t,l,r" indicates that the left/top and right/bottom buttons are displayed right/bottom after the thumb area.

## property Gantt.ScrollPartCaption(ScrollBar as ScrollBarEnum, Part as ScrollPartEnum) as String

Specifies the caption being displayed on the specified scroll part.

Type	Description
ScrollBar as <a href="#">ScrollBarEnum</a>	A ScrollBar expression that indicates the scrollbar where the caption is displayed.
Part as <a href="#">ScrollPartEnum</a>	A ScrollPartEnum expression that specifies the parts of the scroll where the text is displayed
String	A String expression that specifies the caption being displayed on the part of the scroll bar.

Use the ScrolPartCaption property to specify the caption of the scroll's part. The [ScrollPartCaptionAlignment](#) property specifies the alignment of the caption in the part of the scroll bar. Use the [ScrollPartVisible](#) property to add or remove buttons/parts in the control's scrollbar. By default, when a part becomes visible, the [ScrollPartEnable](#) property is automatically called, so the parts becomes enabled. Use the [ScrollPartEnable](#) property to specify enable or disable parts in the control's scrollbar. Use the [ScrollBars](#) property to specify the visible scrollbars in the control. Use the [OffsetChanged](#) event to notify your application that the scroll position is changed. Use the [OversizeChanged](#) event to notify your application whether the range for a specified scroll bar is changed. Use the [ScrollPos](#) property to specify the position for the control's scroll bar. The control fires the [ScrollButtonClick](#) event when the user clicks a part of the scroll bar. Use the [ScrollFont](#) property to specify the font in the control's scroll bar. Use the [ScrollOrderParts](#) property to customize the order of the buttons in the scroll bar.



By default, the following parts are shown:

- exLeftBPart ( the left or up button of the control )
- exLowerBackPart ( the part between the left/up button and the thumb part of the control )
- exThumbPart ( the thumb/scrollbox part )
- exUpperBackPart ( the part between the the thumb and the right/down button of the control )
- exRightBPart ( the right or down button of the control )

The following VB sample adds up and down additional buttons to the control's vertical scroll

bar :

With Gantt1

```
.BeginUpdate  
    .ScrollBars = exDisableBoth  
    .ScrollPartVisible(exVScroll, exLeftB1Part Or exRightB1Part) = True  
    .ScrollPartCaption(exVScroll, exLeftB1Part) = "<img></img>1"  
    .ScrollPartCaption(exVScroll, exRightB1Part) = "<img></img>2"  
.EndUpdate
```

End With

The following VB.NET sample adds up and down additional buttons to the control's vertical scroll bar :

With AxGantt1

```
.BeginUpdate()  
    .ScrollBars = EXGANTTLib.ScrollBarsEnum.exDisableBoth  
    .set_ScrollPartVisible(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exLeftB1Part Or EXGANTTLib.ScrollPartEnum.exRightB1Part,  
True)  
    .set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exLeftB1Part, "<img></img>1")  
    .set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exRightB1Part, "<img></img>2")  
.EndUpdate()  
End With
```

The following C# sample adds up and down additional buttons to the control's vertical scroll bar :

```
axGantt1.BeginUpdate();  
axGantt1.ScrollBars = EXGANTTLib.ScrollBarsEnum.exDisableBoth;  
axGantt1.set_ScrollPartVisible(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exLeftB1Part | EXGANTTLib.ScrollPartEnum.exRightB1Part,  
true);  
axGantt1.set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exLeftB1Part , "<img></img>1");  
axGantt1.set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exRightB1Part, "<img></img>2");
```

```
axGantt1.EndUpdate();
```

The following C++ sample adds up and down additional buttons to the control's vertical scroll bar :

```
m_gantt.BeginUpdate();
m_gantt.SetScrollBars( 15 /*exDisableBoth*/ );
m_gantt.SetScrollPartVisible( 0 /*exVScroll*/, 32768 /*exLeftB1Part*/ | 32
/*exRightB1Part*/, TRUE );
m_gantt.SetScrollPartCaption( 0 /*exVScroll*/, 32768 /*exLeftB1Part*/ , _T("<img>
</img>1" ) );
m_gantt.SetScrollPartCaption( 0 /*exVScroll*/, 32 /*exRightB1Part*/ , _T("<img>
</img>2" ) );
m_gantt.EndUpdate();
```

The following VFP sample adds up and down additional buttons to the control's vertical scroll bar :

With thisform.Gantt1

```
.BeginUpdate
.ScrollBars = 15
.ScrollPartVisible(0, bitor(32768,32)) = .t.
.ScrollPartCaption(0,32768) = "<img></img>1"
.ScrollPartCaption(0, 32) = "<img></img>2"
.EndUpdate
EndWith
```

\*\*\* ActiveX Control Event \*\*\*

LPARAMETERS scrollpart

```
wait window nowait ltrim(str(scrollpart))
```

## property Gantt.ScrollPartCaptionAlignment(ScrollBar as ScrollBarEnum, Part as ScrollPartEnum) as AlignmentEnum

Specifies the alignment of the caption in the part of the scroll bar.

Type	Description
ScrollBar as <a href="#">ScrollBarEnum</a>	A ScrollBar expression that indicates the scrollbar where the caption is displayed.
Part as <a href="#">ScrollPartEnum</a>	A ScrollPartEnum expression that specifies the parts of the scroll where the text is displayed
<a href="#">AlignmentEnum</a>	An AlignmentEnum expression that specifies the alignment of the caption in the part of the scrollbar.

The ScrollPartCaptionAlignment property specifies the alignment of the caption in the part of the scroll bar. By default, the caption is centered. Use the [ScrollPartCaption](#) property to specify the caption being displayed on specified part of the scroll bar. Use the [ScrollPartVisible](#) property to add or remove buttons/parts in the control's scrollbar.

The following VB sample displays "left" aligned to the left on the lower part of the control's horizontal scroll bar, and "right" aligned to the right on the upper part of the control's horizontal scroll bar:

With Gantt1

```
.ScrollPartCaption(exHScroll,exLowerBackPart) = "left"  
.ScrollPartCaptionAlignment(exHScroll,exLowerBackPart) = LeftAlignment  
.ScrollPartCaption(exHScroll,exUpperBackPart) = "right"  
.ScrollPartCaptionAlignment(exHScroll,exUpperBackPart) = RightAlignment  
.ColumnAutoResize = False  
.Columns.Add 1  
.Columns.Add 2  
.Columns.Add 3  
.Columns.Add 4
```

End With

The following VB.NET sample displays "left" aligned to the left on the lower part of the control's horizontal scroll bar, and "right" aligned to the right on the upper part of the control's horizontal scroll bar:

With AxGantt1

```
.set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exHScroll,EXGANTTLib.ScrollPartEnum.e  
.set_ScrollPartCaptionAlignment(EXGANTTLib.ScrollBarEnum.exHScroll,EXGANTTLib.ScrollP  
.set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exHScroll,EXGANTTLib.ScrollPartEnum.e  
.set_ScrollPartCaptionAlignment(EXGANTTLib.ScrollBarEnum.exHScroll,EXGANTTLib.ScrollP  
.ColumnAutoSize = False  
.Columns.Add 1  
.Columns.Add 2  
.Columns.Add 3  
.Columns.Add 4  
End With
```

The following C# sample displays "left" aligned to the left on the lower part of the control's horizontal scroll bar, and "right" aligned to the right on the upper part of the control's horizontal scroll bar:

```
axGantt1.set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exHScroll,EXGANTTLib.ScrollPa  
axGantt1.set_ScrollPartCaptionAlignment(EXGANTTLib.ScrollBarEnum.exHScroll,EXGANTT  
axGantt1.set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exHScroll,EXGANTTLib.ScrollPa  
axGantt1.set_ScrollPartCaptionAlignment(EXGANTTLib.ScrollBarEnum.exHScroll,EXGANTT  
  
axGantt1.ColumnAutoSize = false;  
axGantt1.Columns.Add(1.ToString());  
axGantt1.Columns.Add(2.ToString());  
axGantt1.Columns.Add(3.ToString());  
axGantt1.Columns.Add(4.ToString());
```

The following C++ sample displays "left" aligned to the left on the lower part of the control's horizontal scroll bar, and "right" aligned to the right on the upper part of the control's

horizontal scroll bar:

```
/*
Copy and paste the following directives to your header file as
it defines the namespace 'EXGANTTLib' for the library: 'ExGantt 1.0 Control Library'

#import "ExGantt.dll"
using namespace EXGANTTLib;
*/
EXGANTTLib::IGanttPtr spGantt1 = GetDlgItem(IDC_GANTT1)->GetControlUnknown();
spGantt1-
>PutScrollPartCaption(EXGANTTLib::exHScroll,EXGANTTLib::exLowerBackPart,L"left");
spGantt1-
>PutScrollPartCaptionAlignment(EXGANTTLib::exHScroll,EXGANTTLib::exLowerBackPart,EX

spGantt1-
>PutScrollPartCaption(EXGANTTLib::exHScroll,EXGANTTLib::exUpperBackPart,L"right");
spGantt1-
>PutScrollPartCaptionAlignment(EXGANTTLib::exHScroll,EXGANTTLib::exUpperBackPart,EX

spGantt1->PutColumnAutoResize(VARIANT_FALSE);
spGantt1->GetColumns()->Add(L"1");
spGantt1->GetColumns()->Add(L"2");
spGantt1->GetColumns()->Add(L"3");
spGantt1->GetColumns()->Add(L"4");
```

The following VFP sample displays "left" aligned to the left on the lower part of the control's horizontal scroll bar, and "right" aligned to the right on the upper part of the control's horizontal scroll bar:

```
with thisform.Gantt1
```

```
.ScrollPartCaption(1,512) = "left"
.ScrollPartCaptionAlignment(1,512) = 0
.ScrollPartCaption(1,128) = "right"
.ScrollPartCaptionAlignment(1,128) = 2
.ColumnAutoResize = .F.
.Columns.Add(1)
.Columns.Add(2)
```

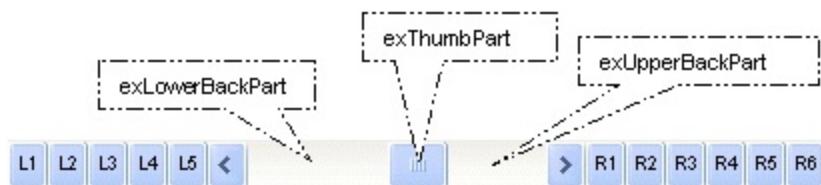
```
.Columns.Add(3)
.Columns.Add(4)
endwith
```

## property Gantt.ScrollPartEnable(ScrollBar as ScrollBarEnum, Part as ScrollPartEnum) as Boolean

Indicates whether the specified scroll part is enabled or disabled.

Type	Description
ScrollBar as <a href="#">ScrollBarEnum</a>	A ScrollBar expression that indicates the scrollbar where the part is enabled or disabled.
Part as <a href="#">ScrollPartEnum</a>	A ScrollPartEnum expression that specifies the parts of the scroll bar being enabled or disabled.
Boolean	A Boolean expression that specifies whether the scrollbar's part is enabled or disabled.

By default, when a part becomes visible, the [ScrollPartEnable](#) property is automatically called, so the parts becomes enabled. Use the [ScrollPartVisible](#) property to add or remove buttons/parts in the control's scrollbar. Use the [ScrollPartEnable](#) property to specify enable or disable parts in the control's scrollbar. Use the [ScrollBars](#) property to specify the visible scrollbars in the control. Use the [ScrolPartCaption](#) property to specify the caption of the scroll's part. Use the [OffsetChanged](#) event to notify your application that the scroll position is changed. Use the [OversizeChanged](#) event to notify your application whether the range for a specified scroll bar is changed. Use the [ScrollPos](#) property to specify the position for the control's scroll bar. The control fires the [ScrollButtonClick](#) event when the user clicks a part of the scroll bar. Use the [ScrollOrderParts](#) property to customize the order of the buttons in the scroll bar.

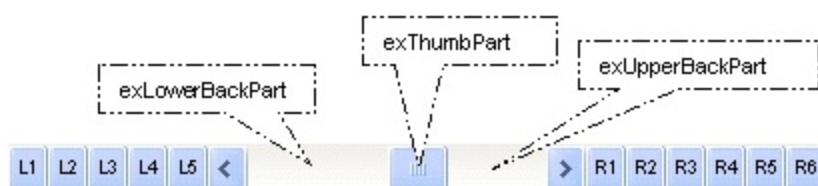


## property Gantt.ScrollPartVisible(ScrollBar as ScrollBarEnum, Part as ScrollPartEnum) as Boolean

Indicates whether the specified scroll part is visible or hidden.

Type	Description
ScrollBar as <a href="#">ScrollBarEnum</a>	A ScrollBar expression that indicates the scrollbar where the part is visible or hidden.
Part as <a href="#">ScrollPartEnum</a>	A ScrollPartEnum expression that specifies the parts of the scroll bar being visible
Boolean	A Boolean expression that specifies whether the scrollbar's part is visible or hidden.

Use the ScrollPartVisible property to add or remove buttons/parts in the control's scrollbar. By default, when a part becomes visible, the [ScrollPartEnable](#) property is automatically called, so the parts becomes enabled. Use the [ScrollPartEnable](#) property to specify enable or disable parts in the control's scrollbar. Use the [ScrollBars](#) property to specify the visible scrollbars in the control. Use the [ScrollPartCaption](#) property to specify the caption of the scroll's part. Use the [OffsetChanged](#) event to notify your application that the scroll position is changed. Use the [OversizeChanged](#) event to notify your application whether the range for a specified scroll bar is changed. Use the [ScrollPos](#) property to specify the position for the control's scroll bar. The control fires the [ScrollButtonClick](#) event when the user clicks a part of the scroll bar. Use the [Background](#) property to change the visual appearance for any part in the control's scroll bar. Use the [ScrollOrderParts](#) property to customize the order of the buttons in the scroll bar.



By default, the following parts are shown:

- exLeftBPart ( the left or up button of the control )
- exLowerBackPart ( the part between the left/up button and the thumb part of the control )
- exThumbPart ( the thumb/scrollbox part )
- exUpperBackPart ( the part between the the thumb and the right/down button of the control )
- exRightBPart ( the right or down button of the control )

The following VB sample adds up and down additional buttons to the control's vertical scroll bar :

With Gantt1

```
.BeginUpdate  
    .ScrollBars = exDisableBoth  
    .ScrollPartVisible(exVScroll, exLeftB1Part Or exRightB1Part) = True  
    .ScrollPartCaption(exVScroll, exLeftB1Part) = "<img></img>1"  
    .ScrollPartCaption(exVScroll, exRightB1Part) = "<img></img>2"  
.EndUpdate
```

End With

The following VB.NET sample adds up and down additional buttons to the control's vertical scroll bar :

With AxGantt1

```
.BeginUpdate()  
    .ScrollBars = EXGANTTLib.ScrollBarsEnum.exDisableBoth  
    .set_ScrollPartVisible(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exLeftB1Part Or EXGANTTLib.ScrollPartEnum.exRightB1Part,  
True)  
    .set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exLeftB1Part, "<img></img>1")  
    .set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exRightB1Part, "<img></img>2")  
.EndUpdate()  
End With
```

The following C# sample adds up and down additional buttons to the control's vertical scroll bar :

```
axGantt1.BeginUpdate();  
axGantt1.ScrollBars = EXGANTTLib.ScrollBarsEnum.exDisableBoth;  
axGantt1.set_ScrollPartVisible(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exLeftB1Part | EXGANTTLib.ScrollPartEnum.exRightB1Part,  
true);  
axGantt1.set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exLeftB1Part , "<img></img>1");  
axGantt1.set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exRightB1Part, "<img></img>2");  
axGantt1.EndUpdate();
```

The following C++ sample adds up and down additional buttons to the control's vertical scroll bar :

```
m_gantt.BeginUpdate();
m_gantt.SetScrollBars( 15 /*exDisableBoth*/ );
m_gantt.SetScrollPartVisible( 0 /*exVScroll*/, 32768 /*exLeftB1Part*/ | 32
/*exRightB1Part*/, TRUE );
m_gantt.SetScrollPartCaption( 0 /*exVScroll*/, 32768 /*exLeftB1Part*/ , _T("<img>
</img>1" ) );
m_gantt.SetScrollPartCaption( 0 /*exVScroll*/, 32 /*exRightB1Part*/ , _T("<img>
</img>2" ) );
m_gantt.EndUpdate();
```

The following VFP sample adds up and down additional buttons to the control's vertical scroll bar :

With thisform.Gantt1

```
.BeginUpdate
.ScrollBars = 15
.ScrollPartVisible(0, bitor(32768,32)) = .t.
.ScrollPartCaption(0,32768) = "<img></img>1"
.ScrollPartCaption(0, 32) = "<img></img>2"
.EndUpdate
```

EndWith

\*\*\* ActiveX Control Event \*\*\*

LPARAMETERS scrollpart

wait window nowait ltrim(str(scrollpart))

## property Gantt.ScrollPos(Vertical as Boolean) as Long

Specifies the vertical/horizontal scroll position.

Type	Description
Vertical as Boolean	A boolean expression that specifies the scrollbar being requested. True indicates the Vertical scroll bar, False indicates the Horizontal scroll bar.
Long	A long expression that defines the scroll bar position.

Use the ScrollPos property to change programmatically the position of the control's scroll bar. Use the ScrollPos property to get the horizontal or vertical scroll position. Use the [ScrollBars](#) property to define the control's scroll bars. Use the [Scroll](#) method to scroll programmatically the control's content. The control fires the [OffsetChanged](#) event when the control's scroll position is changed.

## property Gantt.ScrollThumbSize(ScrollBar as ScrollBarEnum) as Long

Specifies the size of the thumb in the scrollbar.

Type	Description
ScrollBar as <a href="#">ScrollBarEnum</a>	A ScrollBarEnum expression that indicates the vertical or the horizontal scroll bar.
Long	A long expression that defines the size of the scrollbar's thumb.

Use the ScrollThumbSize property to define a fixed size for the scrollbar's thumb. By default, the ScrollThumbSize property is -1, that makes the control computes automatically the size of the thumb based on the scrollbar's range. If case, use the fixed size for your thumb when you change its visual appearance using the [Background\(exVSThumb\)](#) or [Background\(exHSThumb\)](#) property. Use the [ScrollWidth](#) property to specify the width of the vertical scroll bar. Use the [ScrollButtonWidth](#) property to specify the width of the buttons in the horizontal scroll bar. Use the [ScrollHeight](#) property to specify the height of the horizontal scroll bar. Use the [ScrollButtonHeight](#) property to specify the height of the buttons in the vertical scroll bar. Use the [ScrollPartVisible](#) property to specify the visible parts in the control's scroll bar.

## property Gantt.ScrollToolTip(ScrollBar as ScrollBarEnum) as String

Specifies the tooltip being shown when the user moves the scroll box.

Type	Description
ScrollBar as <a href="#">ScrollBarEnum</a>	A ScrollBarEnum expression that indicates the vertical scroll bar or the horizontal scroll bar.
String	A string expression being shown when the user clicks and moves the scrollbar's thumb.

Use the ScrollToolTip property to specify whether the control displays a tooltip when the user clicks and moves the scrollbar's thumb. By default, the ScrollToolTip property is empty. If the ScrollToolTip property is empty, the tooltip is not shown when the user clicks and moves the thumb of the scroll bar. The [OffsetChanged](#) event notifies your application that the user changes the scroll position. Use the [SortPartVisible](#) property to specify the parts being visible in the control's scroll bar. Use the [ScrollBars](#) property to specify the visible scrollbars in the control.

The following VB sample displays a tooltip when the user clicks and moves the thumb in the control's scroll bar:

```
Private Sub Gantt1_OffsetChanged(ByVal Horizontal As Boolean, ByVal NewVal As Long)
    If (Not Horizontal) Then
        Gantt1.ScrollToolTip(exVScroll) = "Record " & NewVal
    End If
End Sub
```

The following VB.NET sample displays a tooltip when the user clicks and moves the thumb in the control's scroll bar:

```
Private Sub AxGantt1_OffsetChanged(ByVal sender As System.Object, ByVal e As AxEXGANTTLib._IGanttEvents_OffsetChangedEventArgs) Handles AxGantt1.OffsetChanged
    If (Not e.horizontal) Then
        AxGantt1.set_ScrollToolTip(EXGANTTLib.ScrollBarEnum.exVScroll, "Record " &
e.newVal.ToString())
    End If
End Sub
```

The following C++ sample displays a tooltip when the user clicks and moves the thumb in the control's scroll bar:

```
void OnOffsetChangedGantt1(BOOL Horizontal, long NewVal)
{
    if ( !Horizontal )
    {
        CString strFormat;
        strFormat.Format( _T("%i"), NewVal );
        m_gantt.SetScrollToolTip( 0, strFormat );
    }
}
```

The following C# sample displays a tooltip when the user clicks and moves the thumb in the control's scroll bar:

```
private void axGantt1_OffsetChanged(object sender,
AxEXGANTTLib._IGanttEvents_OffsetChangedEventArgs e)
{
    if ( !e.horizontal )
        axGantt1.set_ScrollToolTip(EXGANTTLib.ScrollBarEnum.exVScroll, "Record " +
e.newVal.ToString());
}
```

The following VFP sample displays a tooltip when the user clicks and moves the thumb in the control's scroll bar:

```
*** ActiveX Control Event ***
LPARAMETERS horizontal, newval

If (1 # horizontal) Then
    thisform.Gantt1.ScrollToolTip(0) = "Record " + ltrim(str(newval))
EndIf
```

## property Gantt.ScrollWidth as Long

Specifies the width of the vertical scrollbar.

Type	Description
Long	A long expression that defines the width of the vertical scroll bar.

By default, the ScrollWidth property is -1. If the ScrollWidth property is -1, the control uses the default width of the vertical scroll bar from the system. Use the ScrollWidth property to specify the width of the vertical scroll bar. Use the [ScrollBars](#) property to specify which scroll bar is visible or hidden in the control. Use the [ScrollButtonWidth](#) property to specify the width of the buttons in the horizontal scroll bar. Use the [ScrollHeight](#) property to specify the height of the horizontal scroll bar. Use the [ScrollButtonHeight](#) property to specify the height of the buttons in the vertical scroll bar. Use the [ScrollPartVisible](#) property to specify the visible parts in the control's scroll bar. Use the [ScrollThumbSize](#) property to define a fixed size for the scrollbar's thumb.

## property Gantt.SearchColumnIndex as Long

Retrieves or sets a value indicating the column's index that is used for auto search feature.

Type	Description
Long	A long expression indicating the column's index that is used for auto search feature.

The SearchColumnIndex property indicates the index of the column being used by the control's incremental search feature. The user changes the searching column if he presses TAB or Shift + TAB. Use the [UseTabKey](#) property to specify whether the control uses the TAB key. Use the [AutoSearch](#) property to specify whether the control enables the incremental searching feature. Use the [AutoSearch](#) property to specify the type of incremental searching the control supports within the column. Use the [MarkSearchColumn](#) property to hide the rectangle around the searching column.

## property Gantt.SelBackColor as Color

Retrieves or sets a value that indicates the selection background color.

Type	Description
Color	A color expression that indicates the selection background color. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.

By default, the SelBackColor property applies the background color only to list area. Use the [SelBackColor](#) property to specify the background color for selected items in the chart area. Use the SelBackColor and [SelForeColor](#) properties to define the colors used for selected items. The control highlights the selected items only if the SelBackColor and [BackColor](#) properties have different values, and the SelForeColor and [ForeColor](#) properties have different values. Use the [SelectCount](#) property to get the number of selected items. Use the [SelectedItem](#) property to get the selected item. Use the [SelectItem](#) to select or unselect a specified item. Use the [FocusItem](#) property to get the focused item. The control fires the [SelectionChanged](#) event when user changes the selection. Use the [SelectableItem](#) property to specify the user can select an item. [How do I assign a new look for the selected item?](#)



For instance, the following VB sample changes the visual appearance for the selected item. The [SelBackColor](#) property indicates the selection background color. Shortly, we need to add a skin to the Appearance object using the Add method, and we need to set the last 7 bits in the SelBackColor property to indicates the index of the skin that we want to use. The sample applies the "█" to the selected item(s):

With Gantt1

With .VisualAppearance

.Add &H23, App.Path + "\selected.ebn"

End With

.SelForeColor = RGB(0, 0, 0)

.SelBackColor = &H23000000

End With

The sample adds the skin with the index 35 ( Hexa 23 ), and applies to the selected item

using the SelBackColor property.

The following C++ sample applies a [new appearance](#) to the selected item(s):

```
#include "Appearance.h"
m_gantt.GetVisualAppearance().Add( 0x23,
COleVariant(_T("D:\\Temp\\ExGantt_Help\\selected.ebn")));
m_gantt.SetSelBackColor( 0x23000000 );
m_gantt.SetSelForeColor( 0 );
```

The following VB.NET sample applies a [new appearance](#) to the selected item(s):

With AxGantt1

```
With .VisualAppearance
    .Add(&H23, "D:\\Temp\\ExGantt_Help\\selected.ebn")
End With
.SelForeColor = Color.Black
.Template = "SelBackColor = 587202560"
End With
```

The VB.NET sample uses the [Template](#) property to assign a new value to the SelBackColor property. The 587202560 value represents &23000000 in hexadecimal.

The following C# sample applies a [new appearance](#) to the selected item(s):

```
axGantt1.VisualAppearance.Add(0x23, "D:\\Temp\\ExGantt_Help\\selected.ebn");
axGantt1.Template = "SelBackColor = 587202560";
```

The following VFP sample applies a [new appearance](#) to the selected item(s):

With thisform.Gantt1

```
With .VisualAppearance
    .Add(35, "D:\\Temp\\ExGantt_Help\\selected.ebn")
EndWith
.SelForeColor = RGB(0, 0, 0)
.SelBackColor = .587202560
EndWith
```

The 587202560 value represents &23000000 in hexadecimal. The 35 value represents &23 in hexadecimal

## How do I assign a new look for the selected item?

The component supports skinning parts of the control, including the selected item. Shortly, the idea is that identifier of the skin being added to the Appearance collection is stored in the first significant byte of property of the color type. In our case, we know that the SelBackColor property changes the background color for the selected item. This is what we need to change. In other words, we need to change the visual appearance for the selected item, and that means changing the background color of the selected item. So, the following code ( blue code ) changes the appearance for the selected item:

With Gantt1

```
.VisualAppearance.Add &H34, App.Path + "\aqua.ebn"  
.SelBackColor = &H34000000
```

End With

Please notice that the 34 hexa value is arbitrary chosen, it is not a predefined value. Shortly, we have added a skin with the identifier 34, and we specified that the SelBackColor property should use that skin, in order to change the visual appearance for the selected item. Also, please notice that the 34 value is stored in the first significant byte, not in other position. For instance, the following sample doesn't use any skin when displaying the selected item:

With Gantt1

```
.VisualAppearance.Add &H34, App.Path + "\aqua.ebn"  
.SelBackColor = &H34
```

End With

This code ( red code ) DOESN'T use any skin, because the 34 value is not stored in the higher byte of the color value. The sample just changes the background color for the selected item to some black color ( RGB(0,0,34) ). So, please pay attention when you want to use a skin and when to use a color. Simple, if you are calling &H34000000, you have 34 followed by 6 ( six ) zeros, and that means the first significant byte of the color expression. Now, back to the problem. The next step is how we are creating skins? or EBN files? The Exontrol's [exbutton](#) component includes a builder tool that saves skins to EBN files. So, if you want to create new skin files, you need to download and install the exbutton component from our web site. Once that the exbutton component is installed, please follow the steps.

Let's say that we have a BMP file, that we want to stretch on the selected item's background.

1. Open the VB\Builder or VC\Builder sample

2. Click the **New File** button ( on the left side in the toolbar ), an empty skin is created.
3. Locate the **Background** tool window and select the **Picture\Add New** item in the menu, the Open file dialog is opened.
4. Select the picture file ( GIF, BMP, JPG, JPEG ). You will notice that the visual appearance of the focused object in the skin is changed, actually the picture you have selected is tiled on the object's background.
5. Select the **None** item, in the Background tool window, so the focused object in the skin is not displaying anymore the picture being added.
6. Select the **Root** item in the skin builder window ( in the left side you can find the hierarchy of the objects that composes the skin ), so the Root item is selected, and so focused.
7. Select the picture file you have added at the step 4, so the Root object is filled with the picture you have chosen.
8. Resize the picture in the Background tool window, until you reach the view you want to have, no black area, or change the CX and CY fields in the Background tool window, so no black area is displayed.
9. Select **Stretch** button in the Background tool window, so the Root object stretches the picture you have selected.
10. Click the **Save a file** button, and select a name for the new skin, click the Save button after you typed the name of the skin file. Add the .ebn extension.
11. Close the builder

You can always open the skin with the builder and change it later, in case you want to change it.

Now, create a new project, and insert the component where you want to use the skin, and add the skin file to the Appearance collection of the object, using blue code, by changing the name of the file or the path where you have selected the skin. Once that you have added the skin file to the Appearance collection, you can change the visual appearance for parts of the controls that supports skinning. **Usually the properties that changes the background color for a part of the control supports skinning as well.**

## property Gantt.SelBackMode as BackModeEnum

Retrieves or sets a value that indicates whether the selection is transparent or opaque.

Type	Description
<a href="#">BackModeEnum</a>	A BackModeEnum expression that indicates whether the selection is transparent or opaque.

Use the SelBackMode property to specify how the selection appears. Use the SelBackMode property to specify how the control displays the selection when the control has a [picture](#) on its background. Use the [SelBackColor](#) property to specify the selection background color. Use the [SelForeColor](#) property to specify the selection foreground color.

## property Gantt.SelectColumn as Boolean

Specifies whether the user selects cells only in SelectColumnIndex column, while FullRowSelect property is False.

Type	Description
Boolean	A boolean expression that specifies whether the user selects cells only in <a href="#">SelectColumnIndex</a> column, while the <a href="#">FullRowSelect</a> property is False

By default, the SelectColumn property is False. The SelectColumn property has effect only if the FullRowSelect is False. The control displays the selected cell in the SelectColumnIndex column. The SelectColumnIndex property specifies the index of selected column. Use the [SelectableItem](#) property to specify the user can select an item.

## property Gantt>SelectColumnIndex as Long

Retrieves or sets a value that indicates the column's index where the user can select an item by clicking.

Type	Description
Long	A long expression that indicates the column's index where the user can select the item.

The property has effect only if the [FullRowSelect](#) property is False. Use the [SelectedItem](#) property to determine the selected items. Use the [SelectColumnInner](#) property to get the index of the inner cell that's selected or focused. Use the [SplitCell](#) property to split a cell. Use the [SelectableItem](#) property to specify the user can select an item.

## property Gantt.SelectColumnInner as Long

Retrieves or sets a value that indicates the index of the inner cell that's selected.

Type	Description
Long	A long expression that indicates the index of the inner cell that's focused or selected.

Use the `SelectColumnInner` property to get the index of the inner cell that's selected or focused. The `SelectColumnInner` property may be greater than zero, if the control contains inner cells. The [SplitCell](#) method splits a cell in two cells. The newly created cell is called inner cell. The [FocusItem](#) property indicates the focused item. The [SelectColumnIndex](#) property determines the index of the column that's selected when [FullRowSelect](#) property is `False`. Use the [SelectableItem](#) property to specify the user can select an item.

## **property Gantt.SelectOnRelease as Boolean**

Indicates whether the selection occurs when the user releases the mouse button.

Type	Description
Boolean	A Boolean expression that indicates whether the selection occurs when the user releases the mouse button.

By default, the SelectOnRelease property is False. By default, the selection occurs, as soon as the user clicks an object. The SelectOnRelease property indicates whether the selection occurs when the user releases the mouse button.

## property Gantt.SelForeColor as Color

Retrieves or sets a value that indicates the selection foreground color.

Type	Description
Color	A color expression that indicates the selection foreground color.

By default, the SelForeColor property is applied ONLY to selected items being displayed in the list area. Use the [SelForeColor](#) property to change the foreground color of selected items being displayed in the chart area. Use the SelForeColor and [SelBackColor](#) properties to change the colors used for selected items. The control highlights the selected items only if the SelBackColor and [BackColor](#) properties have different values, and the SelForeColor and [ForeColor](#) properties have different values. Use the [SelectCount](#) property to get the number of selected items. Use the [SelectedItem](#) property to get the selected item. Use the [SelectItem](#) to select or unselect a specified item. Use the [FocusItem](#) property to get the focused item. The control fires the [SelectionChanged](#) event when user changes the selection. Use the [SelectableItem](#) property to specify the user can select an item.

## property Gantt.SelLength as Long

Returns or sets the number of characters selected.

Type	Description
Long	A long expression that indicates the number of characters selected.

By default, the SelLength property is -1 ( all text gets selected ). Use the SelLength property to specify the number of characters being selected when the edit operations begins. The [SelStart](#) and SelLength properties have effect only if the control is editable. Use the [AllowEdit](#) property to allow control edits the data using a text box field. Use the [Edit](#) method to programmatically edit a cell using a textbox field. The SelLength property must be set in the code, before starting editing the cell. The control fires the [BeforeCellEdit](#) event when the control is about to open the text box editor. The control fires the [AfterCellEdit](#) property when the edit ends.

## property Gantt.SelStart as Long

Returns or sets the starting point of text selected; indicates the position of the insertion point if no text is selected.

Type	Description
Long	A long expression that indicates the starting point of text selected

By default, the SelStart property is 0 ( the text gets selected from the first character ). Use the SelStart property to specify the starting point of selected text, when edit operations begins. The SelStart and [SelLength](#) properties are valid only if the control is editable. Use the [AllowEdit](#) property to allow control edits the data using a text box field. Use the [Edit](#) method to programmatically edit a cell using a textbox field. The SelStart property must be set in the code, before starting editing the cell. The control fires the [BeforeCellEdit](#) event when the control is about to open the text box editor. The control fires the [AfterCellEdit](#) property when the edit ends.

## property Gantt.ShowFocusRect as Boolean

Retrieves or sets a value indicating whether the control draws a thin rectangle around the focused item.

Type	Description
Boolean	A boolean expression that indicates whether the control draws a thin rectangle around the focused item.

Use the ShowFocusRect property to hide the rectangle drawn around the focused item. The [FocusItem](#) property specifies the handle of the focused item. If there is no focused item the FocusItem property retrieves 0. At one moment, only one item can be focused. When the selection is changed the focused item is changed too. Use the [SelectCount](#) property to get the number of selected items. Use the [SelectedItem](#) property to get the selected item. Use the [SelectItem](#) to select or unselect a specified item. If the control supports only single selection, you can use the FocusItem property to get the selected/focused item because they are always the same.

## property Gantt.ShowImageList as Boolean

Specifies whether the control's image list window is visible or hidden.

Type	Description
Boolean	A boolean expression that specifies whether the control's image list window is visible or hidden.

By default, the ShowImageList property is True. Use the ShowImageList property to hide the control's images list window. The control's images list window is visible only at design time. Use the [Images](#) method to associate an images list control to the control. Use the [Repacelcon](#) method to add, remove or clear icons in the control's images collection. Use the [CellImage](#), [CellImages](#) properties to assign icons to a cell. Use the [CellPicture](#) property to assign a picture to a cell. Use the [CheckImage](#) or [Radiolimage](#) property to specify a different look for checkboxes or radio buttons in the cells.



## **property Gantt.ShowLockedItems as Boolean**

Retrieves or sets a value that indicates whether the locked items are visible or hidden.

Type	Description
Boolean	A boolean expression that specifies whether the locked items are shown or hidden.

A locked or fixed item is always displayed on the top or bottom side of the control no matter if the control's list is scrolled up or down. Use the ShowLockedItems property to show or hide the locked items. Use the [LockedItemCount](#) property to add or remove items fixed/locked to the top or bottom side of the control. Use the [LockedItem](#) property to access a locked item by its position. Use the [CellCaption](#) property to specify the caption for a cell.

## method Gantt.ShowToolTip (ToolTip as String, [Title as Variant], [Alignment as Variant], [X as Variant], [Y as Variant])

Shows the specified tooltip at given position.

Type	Description
ToolTip as String	<p>The ToolTip parameter can be any of the following:</p> <ul style="list-style-type: none"><li>• NULL(BSTR) or "&lt;null&gt;"(string) to indicate that the tooltip for the object being hovered is not changed</li><li>• A String expression that indicates the description of the tooltip, that supports built-in HTML format (adds, replaces or changes the object's tooltip)</li></ul>
Title as Variant	<p>The Title parameter can be any of the following:</p> <ul style="list-style-type: none"><li>• missing (VT_EMPTY, VT_ERROR type) or "&lt;null&gt;"(string) the title for the object being hovered is not changed.</li><li>• A String expression that indicates the title of the tooltip (no built-in HTML format) (adds, replaces or changes the object's title)</li></ul>
Alignment as Variant	<p>A long expression that indicates the alignment of the tooltip relative to the position of the cursor. If missing (VT_EMPTY, VT_ERROR) the alignment of the tooltip for the object being hovered is not changed.</p> <p>The Alignment parameter can be one of the following:</p> <ul style="list-style-type: none"><li>• 0 - exTopLeft</li><li>• 1 - exTopRight</li><li>• 2 - exBottomLeft</li><li>• 3 - exBottomRight</li><li>• 0x10 - exCenter</li><li>• 0x11 - exCenterLeft</li><li>• 0x12 - exCenterRight</li><li>• 0x13 - exCenterTop</li><li>• 0x14 - exCenterBottom</li></ul> <p>By default, the tooltip is aligned relative to the top-left corner (0 - exTopLeft).</p>

Specifies the horizontal position to display the tooltip as one of the following:

- missing (VT\_EMPTY, VT\_ERROR type), indicates that the tooltip is shown on its default position / current cursor position (ignored)
- -1, indicates the current horizontal position of the cursor (current x-position)
- a numeric expression that indicates the horizontal screen position to show the tooltip (fixed screen x-position)
- a string expression that indicates the horizontal displacement relative to default position to show the tooltip (moved)

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Specifies the vertical position to display the tooltip as one of the following:

- missing (VT\_EMPTY, VT\_ERROR type), indicates that the tooltip is shown on its default position / current cursor position (ignored)
- -1, indicates the current vertical position of the cursor (current y-position)
- a numeric expression that indicates the vertical screen position to show the tooltip (fixed screen y-position)
- a string expression that indicates the vertical displacement relative to default position to show the tooltip (displacement)

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Use the `ShowToolTip` method to display a custom tooltip at specified position or to update the object's tooltip, title or position. You can call the `ShowToolTip` method during the [MouseMove](#) event. Use the [ToolTipPopDelay](#) property specifies the period in ms of time the ToolTip remains visible if the mouse pointer is stationary within a control. The [ToolTipDelay](#) property specifies the time in ms that passes before the ToolTip appears. Use the [ToolTipWidth](#) property to specify the width of the tooltip window. Use the [ToolTipFont](#) property to change the tooltip's font. Use the [Background\(exToolTipAppearance\)](#) property indicates the visual appearance of the borders of the tooltips. Use the [Background\(exToolTipBackColor\)](#) property indicates the tooltip's background color. Use the [Background\(exToolTipForeColor\)](#) property indicates the tooltip's foreground color.

For instance:

- `ShowToolTip(`<null>`,`<null>`,,,`+8`,`+8`)`, shows the tooltip of the object moved relative

to its default position

- `ShowToolTip(`<null>`, `new title`)`, adds, changes or replaces the title of the object's tooltip
- `ShowToolTip(`new content`)`, adds, changes or replaces the object's tooltip
- `ShowToolTip(`new content` , `new title`)`, shows the tooltip and title at current position
- `ShowToolTip(`new content` , `new title` , , `+8` , `+8`)`, shows the tooltip and title moved relative to the current position
- `ShowToolTip(`new content` , , , 128, 128)`, displays the tooltip at a fixed position
- `ShowToolTip(`` , ``)`, hides the tooltip

The ToolTip parameter supports the built-in HTML format like follows:

- `<b> ... </b>` displays the text in **bold**
- `<i> ... </i>` displays the text in *italics*
- `<u> ... </u>` underlines the text
- `<s> ... </s>` Strike-through text
- `<a id;options> ... </a>` displays an [anchor](#) element that can be clicked. An anchor is a piece of text or some other object (for example an image) which marks the beginning and/or the end of a hypertext link. The `<a>` element is used to mark that piece of text (or inline image), and to give its hypertextual relationship to other documents. The control fires the `AnchorClick(AnchorID, Options)` event when the user clicks the anchor element. The `FormatAnchor` property customizes the visual effect for anchor elements.

The control supports expandable HTML captions feature which allows you to `expand(show)/collapse(hide)` different information using `<a ;exp=>` or `<a ;e64=>` anchor tags. The `exp/e64` field of the anchor stores the HTML line/lines to show once the user clicks/collapses/expands the caption.

- `exp`, stores the plain text to be shown once the user clicks the anchor, such as "`<a ;exp=show lines>`"
- `e64`, encodes in BASE64 the HTML text to be shown once the user clicks the anchor, such as "`<a ;e64=gA8ABmABnABjABvABshIAQAEAAHAAGESikWio+ABzABohp3iELABpABu</a>`" that displays `show lines-` in gray when the user clicks the `+` anchor. The string encodes the "`<fgcolor 808080>show lines<a>-</a></fgcolor>`" The `Decode64Text/Encode64Text` methods of the `eXPrint` can be used to decode/encode `e64` fields.

Any ex-HTML caption can be transformed to an expandable-caption, by inserting the anchor ex-HTML tag. For instance, "`<solidline><b>Header</b></solidline><br>Line1<r><a ;exp=show lines>+</a><br>Line2<br>Line3`" shows the Header in underlined and bold on the first line and Line1, Line2, Line3 on the rest. The "show lines" is shown instead of Line1, Line2, Line3 once the user clicks the `+` sign.

- <font face;size> ... </font> displays portions of text with a different font and/or different size. For instance, the "<font Tahoma;12>bit</font>" draws the bit text using the Tahoma font, on size 12 pt. If the name of the font is missing, and instead size is present, the current font is used with a different size. For instance, "<font ;12>bit</font>" displays the bit text using the current font, but with a different size.
- <fgcolor rrggbb> ... </fgcolor> or <fgcolor=rrggbb> ... </fgcolor> displays text with a specified **foreground** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- <bgcolor rrggbb> ... </bgcolor> or <bgcolor=rrggbb> ... </bgcolor> displays text with a specified **background** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- <solidline rrggbb> ... </solidline> or <solidline=rrggbb> ... </solidline> draws a solid-line on the bottom side of the current text-line, of specified RGB color. The <solidline> ... </solidline> draws a black solid-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- <dotline rrggbb> ... </dotline> or <dotline=rrggbb> ... </dotline> draws a dot-line on the bottom side of the current text-line, of specified RGB color. The <dotline> ... </dotline> draws a black dot-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- <upline> ... </upline> draws the line on the top side of the current text-line (requires <solidline> or <dotline>).
- <r> right aligns the text
- <c> centers the text
- <br> forces a line-break
- <img>number[:width]</img> inserts an icon inside the text. The number indicates the index of the icon being inserted. Use the **Images** method to assign a list of icons to your chart. The last 7 bits in the high significant byte of the number expression indicates the identifier of the skin being used to paint the object. Use the [Add](#) method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part. The width is optional and indicates the width of the icon being inserted. Using the width option you can overwrite multiple icons getting a nice effect. By default, if the width field is missing, the width is 18 pixels.
- <img>key[:width]</img> inserts a custom size picture into the text being previously loaded using the **HTMLPicture** property. The Key parameter indicates the key of the picture being displayed. The Width parameter indicates a custom size, if you require to stretch the picture, else the original size of the picture is used.
- & glyph characters as &#amp; ( & ), &#lt; ( < ), &#gt; ( > ), &#qout; ( " ) and &#number; ( the character with specified code ), For instance, the &#8364; displays the EUR character. The & ampersand is only recognized as markup when it is followed by a known letter or a #character and a digit. For instance if you want to display <b>bold</b> in HTML caption you can use &lt;b&gt;bold&lt;/b&gt;

- <off offset> ... </off> defines the vertical offset to display the text/element. The offset parameter defines the offset to display the element. This tag is inheritable, so the offset is kept while the associated </off> tag is found. You can use the <off offset> HTML tag in combination with the <font face;size> to define a smaller or a larger font to be displayed. For instance: "Text with <font ;7><off 6>subscript" displays the text such as: Text with subscript. The "Text with <font ;7><off -6>superscript" displays the text such as: Text with superscript.
- <gra rrggbb;mode;blend> ... </gra> defines a gradient text. The text color or <fgcolor> defines the starting gradient color, while the rr/gg/bb represents the red/green/blue values of the ending color, 808080 if missing as gray. The mode is a value between 0 and 4, 1 if missing, and blend could be 0 or 1, 0 if missing. The <font> HTML tag can be used to define the height of the font. Any of the rrggbb, mode or blend field may not be specified. The <gra> with no fields, shows a vertical gradient color from the current text color to gray (808080). For instance the "<font ;18><gra FFFFFF;1;1>gradient-center</gra></font>" generates the following picture:

gradient-center

- <out rrggbb;width> ... </out> shows the text with outlined characters, where rr/gg/bb represents the red/green/blue values of the outline color, 808080 if missing as gray, width indicates the size of the outline, 1 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><out 000000><fgcolor=FFFFFF>outlined</fgcolor></out></font>" generates the following picture:

outlined

- <sha rrggbb;width;offset> ... </sha> define a text with a shadow, where rr/gg/bb represents the red/green/blue values of the shadow color, 808080 if missing as gray, width indicates the size of shadow, 4 if missing, and offset indicates the offset from the origin to display the text's shadow, 2 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><sha>shadow</sha></font>" generates the following picture:

shadow

or "<font ;31><sha 404040;5;0><fgcolor=FFFFFF>outline anti-aliasing</fgcolor></sha></font>" gets:

outline anti-aliasing

## property Gantt.SingleSel as Boolean

Retrieves or sets a value that indicates whether the control supports single or multiple selection.

Type	Description
Boolean	A boolean expression that indicates whether the control supports single or multiple selection.

Use the SingleSel property to enable multiple selection. Use the [SelectCount](#) property to get the number of selected items. Use the [SelectedItem](#) property to get the selected item. Use the [SelectItem](#) to select or unselect a specified item. Use the [FocusItem](#) property to get the focused item. If the control supports only single selection, you can use the FocusItem property to get the selected/focused item because they are always the same. The control fires the [SelectionChanged](#) event when user selects an item. Use the [SelForeColor](#) and [SelBackColor](#) properties to specify colors for selected items. Use the [SelectableItem](#) property to specify the user can select an item. The [FullRowSelect](#) property specifies whether the selection spans the entire width of the control.

## property Gantt.SingleSort as Boolean

Returns or sets a value that indicates whether the control supports sorting by single or multiple columns.

Type	Description
Boolean	A boolean expression that indicates whether the control supports sorting by single or multiple columns.

Use the SingleSort property to allow sorting by multiple columns. Sorting by a single column in the control is a simple matter of clicking on the column head. Sorting by multiple columns, however, is not so obvious. But it's actually quite easy. The user has two options to sort by multiple columns:

- First, sort by the first criterion, by clicking on the column head. Then hold the SHIFT key down as you click on a second heading.
- Click the column head and drag to the control's sort bar in the desired position.

By default, the SingleSort property is True, and so the user can have sorting by a single column only. Use the [SortBarVisible](#) property to show the control's sort bar. The SingleSort property is automatically set on False, if the SortBarVisible property is set to True. Use the [SortOnClick](#) property to specify the action that control should execute when the user clicks the control's header. Use the [SortOrder](#) property to sort a column programmatically. Use the [SortPosition](#) property to specify the position of the column in the sorted columns list. The control fires the [Sort](#) event when the user sorts a column. Use the [ItemBySortPosition](#) property to get the columns being sorted in their order.

For instance, if the control contains multiple sorted columns, changing the SingleSort property on True, erases all the columns in the sorting columns collection, and so no column is sorted.

## property Gantt.SortBarCaption as String

Specifies the caption being displayed on the control's sort bar when the sort bar contains no columns.

Type	Description
String	A String expression that indicates the caption of the control's sort bar.

The SortBarCaption property specifies the caption of the control's sort bar, when it contains no sorted columns. Use the [SortBarVisible](#) property to show the control's sort bar. Use the [BackColorSortBar](#), [BackColorSortBarCaption](#) and [ForeColorSortBar](#) properties to specify colors for the control's sort bar. Use the [SortBarHeight](#) property to specify the height of the control's sort bar. Use the [SortBarColumnWidth](#) property to specify the width of the column in the control's sort bar. By default, the SortBarCaption property is "Drag a <b>column</b> header here to sort by that column.". Use the [Font](#) property to specify the control's font. Use the [ItemBySortPosition](#) property to access the columns in the control's sort bar.

The SortBarCaption property may include built-in HTML tags like follows:

- **<b> ... </b>** displays the text in **bold**
- **<i> ... </i>** displays the text in *italics*
- **<u> ... </u>** underlines the text
- **<s> ... </s>** Strike-through text
- **<a id=options> ... </a>** displays an [anchor](#) element that can be clicked. An anchor is a piece of text or some other object (for example an image) which marks the beginning and/or the end of a hypertext link. The [a](#) element is used to mark that piece of text (or inline image), and to give its hypertextual relationship to other documents. The control fires the [AnchorClick\(AnchorID, Options\)](#) event when the user clicks the anchor element. The [FormatAnchor](#) property customizes the visual effect for anchor elements.

The control supports expandable HTML captions feature which allows you to expand(show)/collapse(hide) different information using [<a ;exp=>](#) or [<a ;e64=>](#) anchor tags. The exp/e64 field of the anchor stores the HTML line/lines to show once the user clicks/collapses/expands the caption.

- exp, stores the plain text to be shown once the user clicks the anchor, such as "[<a ;exp=show lines>](#)"
- e64, encodes in BASE64 the HTML text to be shown once the user clicks the anchor, such as "[<a ;e64=gA8ABmABnABjABvABshIAOQAEAAHAAGESikWio+ABzABohp3iELABpABu</a>](#)" that displays show lines- in gray when the user clicks the + anchor. The "gA8ABmABnABjABvABshIAOQAEAAHAAGESikWio+ABzABohp3iELABpABuABljY string encodes the "<fgcolor 808080>show lines<a>-</a></fgcolor>" The

Decode64Text/Encode64Text methods of the eXPrint can be used to decode/encode e64 fields.

Any ex-HTML caption can be transformed to an expandable-caption, by inserting the anchor ex-HTML tag. For instance, "<solidline><b>Header</b></solidline><br>Line1<r><a ;exp=show lines>+</a><br>Line2<br>Line3" shows the Header in underlined and bold on the first line and Line1, Line2, Line3 on the rest. The "show lines" is shown instead of Line1, Line2, Line3 once the user clicks the + sign.

- <font face;size> ... </font> displays portions of text with a different font and/or different size. For instance, the "<font Tahoma;12>bit</font>" draws the bit text using the Tahoma font, on size 12 pt. If the name of the font is missing, and instead size is present, the current font is used with a different size. For instance, "<font ;12>bit</font>" displays the bit text using the current font, but with a different size.
- <fgcolor rrggbb> ... </fgcolor> or <fgcolor=rrggbb> ... </fgcolor> displays text with a specified **foreground** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- <bgcolor rrggbb> ... </bgcolor> or <bgcolor=rrggbb> ... </bgcolor> displays text with a specified **background** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- <solidline rrggbb> ... </solidline> or <solidline=rrggbb> ... </solidline> draws a solid-line on the bottom side of the current text-line, of specified RGB color. The <solidline> ... </solidline> draws a black solid-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- <dotline rrggbb> ... </dotline> or <dotline=rrggbb> ... </dotline> draws a dot-line on the bottom side of the current text-line, of specified RGB color. The <dotline> ... </dotline> draws a black dot-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- <upline> ... </upline> draws the line on the top side of the current text-line (requires <solidline> or <dotline>).
- <r> right aligns the text
- <c> centers the text
- <br> forces a line-break
- <img>number[:width]</img> inserts an icon inside the text. The number indicates the index of the icon being inserted. Use the Images method to assign a list of icons to your chart. The last 7 bits in the high significant byte of the number expression indicates the identifier of the skin being used to paint the object. Use the [Add](#) method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part. The width is optional and indicates the width of the icon being inserted. Using the width option you can overwrite multiple icons getting a nice effect. By default, if the width field is missing, the width is 18 pixels.
- <img>key[:width]</img> inserts a custom size picture into the text being previously

loaded using the `HTMLPicture` property. The `Key` parameter indicates the key of the picture being displayed. The `Width` parameter indicates a custom size, if you require to stretch the picture, else the original size of the picture is used.

- & glyph characters as `&amp;` ( & ), `&lt;` ( < ), `&gt;` ( > ), `&qout;` ( " ) and `&#number;` ( the character with specified code ), For instance, the `&#8364;` displays the EUR character. The & ampersand is only recognized as markup when it is followed by a known letter or a #character and a digit. For instance if you want to display `<b>bold</b>` in HTML caption you can use `<b>&lt;b&gt;bold&lt;/b&gt;</b>`;
- `<off offset> ... </off>` defines the vertical offset to display the text/element. The `offset` parameter defines the offset to display the element. This tag is inheritable, so the offset is keep while the associated `</off>` tag is found. You can use the `<off offset>` HTML tag in combination with the `<font face;size>` to define a smaller or a larger font to be displayed. For instance: "Text with `<font ;7><off 6>subscript`" displays the text such as: Text with `subscript` The "Text with `<font ;7><off -6>superscript`" displays the text such as: Text with `superscript`
- `<gra rrggbb;mode;blend> ... </gra>` defines a gradient text. The text color or `<fgcolor>` defines the starting gradient color, while the rr/gg/bb represents the red/green/blue values of the ending color, 808080 if missing as gray. The mode is a value between 0 and 4, 1 if missing, and blend could be 0 or 1, 0 if missing. The `<font>` HTML tag can be used to define the height of the font. Any of the rrggbb, mode or blend field may not be specified. The `<gra>` with no fields, shows a vertical gradient color from the current text color to gray (808080). For instance the "`<font ;18><gra FFFFFF;1;1>gradient-center</gra></font>`" generates the following picture:



gradient-center

- `<out rrggbb;width> ... </out>` shows the text with outlined characters, where rr/gg/bb represents the red/green/blue values of the outline color, 808080 if missing as gray, width indicates the size of the outline, 1 if missing. The text color or `<fgcolor>` defines the color to show the inside text. The `<font>` HTML tag can be used to define the height of the font. For instance the "`<font ;31><out 000000><fgcolor=FFFFFF>outlined</fgcolor></out></font>`" generates the following picture:



outlined

- `<sha rrggbb;width;offset> ... </sha>` define a text with a shadow, where rr/gg/bb represents the red/green/blue values of the shadow color, 808080 if missing as gray, width indicates the size of shadow, 4 if missing, and offset indicates the offset from the origin to display the text's shadow, 2 if missing. The text color or `<fgcolor>` defines the color to show the inside text. The `<font>` HTML tag can be used to define the height of the font. For instance the "`<font ;31><sha>shadow</sha></font>`" generates the following picture:



shadow

or "<font ;31><sha 404040;5;0><fgcolor=FFFFFF>outline anti-aliasing</fgcolor></sha></font>" gets:

# outline anti-aliasing

Drag a <b>column</b> header here to sort by that column.		
Name	Val...	
1 First		
2 Second		
3 Th...		

## property Gantt.SortBarColumnWidth as Long

Specifies the maximum width a column can be in the control's sort bar.

Type	Description
Long	A long expression that indicates the width of the columns in the control's sort bar. If the value is negative, all columns in the sort bar are displayed with the same width ( the absolute value represents the width of the columns, in pixels ). If the value is positive, it indicates the maximum width, so the width of the columns in the sort bar may differ.

Use the SortBarColumnWidth property to specify the width of the column in the control's sort bar. Use the [SortBarVisible](#) property to show the control's sort bar. Use the [Width](#) property to specify the width of the column in the control's header bar. Use the [SortBarHeight](#) property to specify the height of the control's sort bar. Use the [SortBarCaption](#) property to specify the caption being displayed in the control's sort bar when it contains no columns.

## property Gantt.SortBarHeight as Long

Retrieves or sets a value that indicates the height of the control's sort bar.

Type	Description
Long	A long expression that indicates the height of the control's sort bar, in pixels.

Use the SortBarHeight property to specify the height of the control's sort bar. Use the [SortBarVisible](#) property to show the control's sort bar. By default, the SortBarHeight property is 18 pixels. Use the [HeaderHeight](#) property to specify the height of the control's header bar. Use the [SortBarColumnWidth](#) property to specify the width of the columns being displayed in the control's sort bar. Use the [BackColorSortBar](#), [BackColorSortBarCaption](#) and [ForeColorSortBar](#) properties to specify colors for the control's sort bar. Use the [SortBarCaption](#) property to specify the caption being displayed in the control's sort bar when it contains no columns.

## property Gantt.SortBarVisible as Boolean

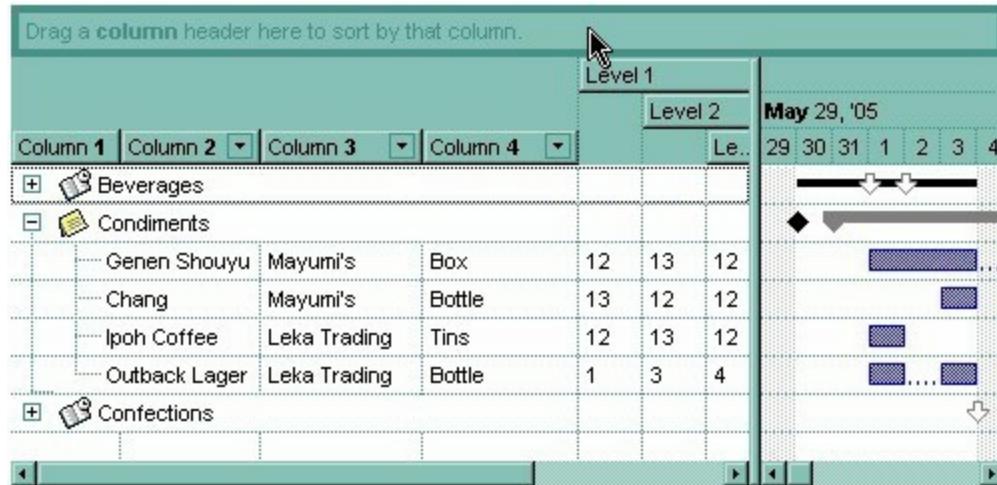
Retrieves or sets a value that indicates whether control's sort bar is visible or hidden.

Type	Description
Boolean	A boolean expression that indicates whether the sort bar is visible or hidden.

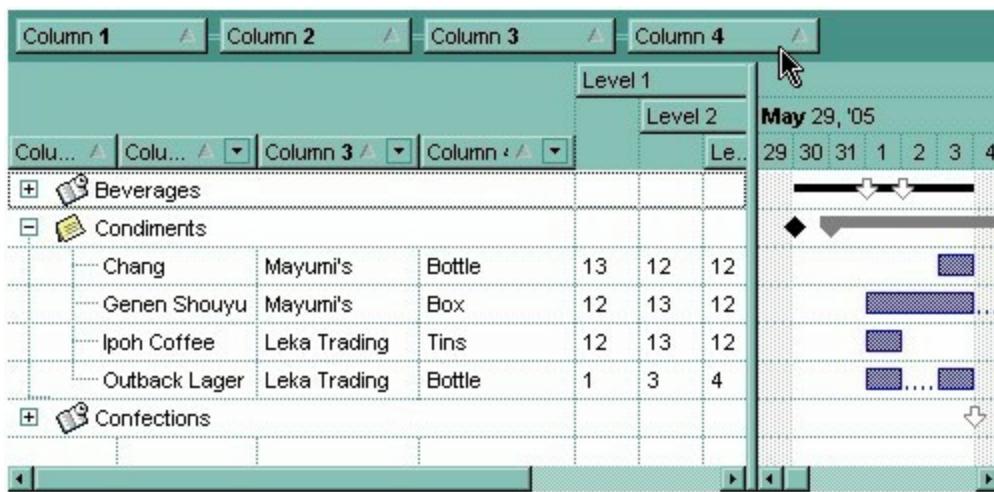
Use the SortBarVisible property to show the control's sort bar. By default, the SortBarVisible property is False. Use the [SingleSort](#) property to specify whether the control supports sorting by single or multiple columns. Sorting by a single column in the control is a simple matter of clicking on the column head. Sorting by multiple columns, however, is not so obvious. But it's actually quite easy. The user has two options to sort by multiple columns:

- First, sort by the first criterion, by clicking on the column head. Then hold the SHIFT key down as you click on a second heading.
- Click the column head and drag to the control's sort bar in the desired position.

The control's sort bar displays the [SortBarCaption](#) expression, when it contains no columns, like follows ( the "Drag a **column** header ..." area is the control's sort bar ) :



The sort bar displays the list of columns being sorted in their order as follows:



The [SortOrder](#) property adds or removes programmatically columns in the control's sort bar. Use the [SortPosition](#) property to specify the position of the column in the sorting columns collection. Use the [ItemBySortPosition](#) property to access the columns being sorted. Use the [SortOnClick](#) property to specify the action that control should execute when user clicks the column's header. Use the [AllowSort](#) property to specify whether the user sorts a column by clicking the column's header. The control fires the Sort event when the user sorts a column. Use the [Chart](#) object to access all properties and methods related to the Gantt chart.

## property Gantt.SortOnClick as SortOnClickEnum

Retrieves or sets a value that indicates whether the control sorts automatically the data when the user click on column's caption.

Type	Description
<a href="#">SortOnClickEnum</a>	A SortOnClick expression that indicates whether the control sorts automatically the data when the user click on the column's header.

Use the SortOnClick property to disable sorting items when the user clicks on the column's header. Use the [SortBarVisible](#) property to show the control's sort bar. Use the [SingleSort](#) property to allow sorting by single or multiple columns. Use the [AllowSort](#) property to avoid sorting a column when user clicks the column. Use the [DefaultSortOrder](#) property to specify the column's default sort order, when the user first clicks the column's header.

There are two methods to get the items sorted like follows:

- Using the [SortOrder](#) property of the [Column](#) object::

```
Gantt1.Columns(CollIndex).SortOrder = SortAscending
```

The SortOrder property adds the sorting icon to the column's header, if the [DisplaySortIcon](#) property is True.

- Using the [SortChildren](#) method of the [Items](#) collection. The SortChildren sorts the items. The SortChildren method sorts the child items of the given parent item in the control. SortChildren will not recourse through the tree, only the immediate children of the item will be sorted. The following sample sorts descending the list of root items on the "Column 1"( if your control displays a list, all items are considered being root items ).

```
Gantt1.Items.SortChildren 0, "Column 1", False
```

The control fires the [Sort](#) event when the control sorts a column ( the user clicks the column's head ) or when the sorting position is changed in the control's sort bar. Use the Sort event to sort the data when the SortOnClk property is [exUserSort](#).

## property Gantt.Statistics as String

Gives statistics data of objects being hold by the control.

Type	Description
String	A String expression that gives information about objects being loaded into the control.

The Statistics property gives statistics data of objects being hold by the control. The Statistics property gives a rough idea on how many columns, items, cell, bars, links, notes and so on are loaded into the control. Also, the Statistics property gives percentage usage of base-memory of different objects within the memory.

The following output shows how the Statistics looks like, on a 32-bits machine:

Cells:  $832 \times 57 = 47,424$  (40.32%)

Control:  $1 \times 25,120 = 25,120$  (21.36%)

Item-Bars:  $64 \times 336 = 21,504$  (18.28%)

Column:  $13 \times 696 = 9,048$  (7.69%)

Item:  $64 \times 96 = 6,144$  (5.22%)

Charts:  $1 \times 4,872 = 4,872$  (4.14%)

Bar:  $7 \times 160 = 1,120$  (0.95%)

Levels:  $1 \times 992 = 992$  (0.84%)

Items:  $1 \times 692 = 692$  (0.59%)

Level:  $1 \times 424 = 424$  (0.36%)

Columns:  $1 \times 172 = 172$  (0.15%)

Links:  $1 \times 52 = 52$  (0.04%)

Appearances:  $1 \times 28 = 28$  (0.02%)

Bars:  $1 \times 20 = 20$  (0.02%)

Appearance:  $0 \times 712 = 0$  (0.00%)

CComVariant:  $0 \times 16 = 0$  (0.00%)

Cells(Inner):  $0 \times 57 = 0$  (0.00%)

CSmartVariant:  $0 \times 9 = 0$  (0.00%)

Link:  $0 \times 336 = 0$  (0.00%)

The following output shows how the Statistics looks like, on a 64-bits machine:

Cells:  $832 \times 97 = 80,704$  (42.02%)

Control:  $1 \times 40,784 = 40,784$  (21.24%)

Item-Bars:  $64 \times 488 = 31,232$  (16.26%)

Column: 13 x 1,128 = 14,664 (7.64%)

Item: 64 x 176 = 11,264 (5.86%)

Charts: 1 x 7,760 = 7,760 (4.04%)

Bar: 7 x 240 = 1,680 (0.87%)

Levels: 1 x 1,472 = 1,472 (0.77%)

Items: 1 x 1,328 = 1,328 (0.69%)

Level: 1 x 672 = 672 (0.35%)

Columns: 1 x 320 = 320 (0.17%)

Links: 1 x 88 = 88 (0.05%)

Appearances: 1 x 48 = 48 (0.02%)

Bars: 1 x 40 = 40 (0.02%)

Appearance: 0 x 1,168 = 0 (0.00%)

CComVariant: 0 x 24 = 0 (0.00%)

Cells(Inner): 0 x 97 = 0 (0.00%)

CSmartVariant: 0 x 9 = 0 (0.00%)

Link: 0 x 480 = 0 (0.00%)

# property Gantt.Template as String

Specifies the control's template.

Type	Description
String	A string expression that indicates the control's template.

The control's template uses the X-Script language to initialize the control's content. Use the Template property page of the control to update the control's Template property. Use the Template property to execute code by passing instructions as a string ( template string ). Use the [ExecuteTemplate](#) property to execute a template script and gets the result.

Most of our UI components provide a Template page that's accessible in design mode. No matter what programming language you are using, you can have a quick view of the component's features using the WYSWYG Template editor.

- Place the control to your form or dialog.
- Locate the Properties item, in the control's context menu, in design mode. If your environment doesn't provide a Properties item in the control's context menu, please try to locate in the Properties browser.
- Click it, and locate the Template page.
- Click the Help button. In the left side, you will see the component, in the right side, you will see a x-script code that calls methods and properties of the control.

The control's Template page helps user to initialize the control's look and feel in design mode, using the x-script language that's easy and powerful. The Template page displays the control on the left side of the page. On the right side of the Template page, a simple editor is displayed where user writes the initialization code. The control's look and feel is automatically updated as soon as the user types new instructions. The Template script is saved to the container persistence ( when Apply button is pressed ), and it is executed when the control is initialized at runtime. Any component that provides a WYSWYG Template page, provides a Template property. The Template property executes code from a string ( template string ).

The Template or x-script is composed by lines of instructions. Instructions are separated by "\n\r" ( newline characters ) or ";" character. The ; character may be available only for newer versions of the components.

An x-script instruction/line can be one of the following:

- **Dim** list of variables *Declares the variables. Multiple variables are separated by commas. ( Sample: Dim h, h1, h2 )*
- **variable = property( list of arguments )** *Assigns the result of the property to a variable. The "variable" is the name of a declared variable. The "property" is the property name*

*of the object in the context. The "list or arguments" may include variables or values separated by commas. ( Sample: h = InsertItem(0,"New Child") )*

- *property( list of arguments ) = value Changes the property. The value can be a variable, a string, a number, a boolean value or a RGB value.*
- *method( list of arguments ) Invokes the method. The "list or arguments" may include variables or values separated by commas.*
- *{ Beginning the object's context. The properties or methods called between { and } are related to the last object returned by the property prior to { declaration.*
- *} Ending the object's context*
- *object.property( list of arguments ).property( list of arguments ).... The .(dot) character splits the object from its property. For instance, the Columns.Add("Column1").HeaderBackColor = RGB(255,0,0), adds a new column and changes the column's header back color.*

The x-script may uses constant expressions as follow:

- *boolean expression with possible values as True or False*
- *numeric expression may starts with 0x which indicates a hexa decimal representation, else it should starts with digit, or +/- followed by a digit, and . is the decimal separator. Sample: 13 indicates the integer 13, or 12.45 indicates the double expression 12,45*
- *date expression is delimited by # character in the format #mm/dd/yyyy hh:mm:ss#. Sample: #31/12/1971# indicates the December 31, 1971*
- *string expression is delimited by " or ` characters. If using the ` character, please make sure that it is different than ' which allows adding comments inline. Sample: "text" indicates the string text.*

Also , the template or x-script code may support general functions as follows:

- **Me** *property indicates the original object.*
- **RGB(R,G,B)** *property retrieves an RGB value, where the R, G, B are byte values that indicates the R G B values for the color being specified. For instance, the following code changes the control's background color to red: BackColor = RGB(255,0,0)*
- **LoadPicture(file)** *property loads a picture from a file or from BASE64 encoded strings, and returns a Picture object required by the picture properties.*
- **CreateObject(progID)** *property creates and retrieves a single uninitialized object of the class associated with a specified program identifier.*

## property Gantt.TemplateDef as Variant

Defines inside variables for the next Template/ExecuteTemplate call.

Type	Description
Variant	A string expression that indicates the Dim declaration, or any Object expression to be assigned to previously declared variables.

The TemplateDef property has been added to allow programming languages such as dBASE Plus to set control's properties with multiple parameters. It is known that programming languages such as **dBASE Plus or XBasic from AlphaFive**, does not support setting a property with multiple parameters. In other words, these programming languages does not support something like *Property(Parameters) = Value*, so our controls provide an alternative using the TemplateDef method. The first call of the TemplateDef should be a declaration such as "Dim a,b" which means the next 2 calls of the TemplateDef defines the variables a and b. The next call should be [Template](#) or [ExecuteTemplate](#) property which can use the variable a and b being defined previously.

So, calling the TemplateDef property should be as follows:

with (Control)

```
TemplateDef = [Dim var_Column]
TemplateDef = var_Column
Template = [var_Column.Def(4) = 255]
endwith
```

This sample allocates a variable var\_Column, assigns the value to the variable ( the second call of the TemplateDef ), and the Template call uses the var\_Column variable ( as an object ), to call its Def property with the parameter 4.

Let's say we need to define the background color for a specified column, so we need to call the Def(exCellBackColor) property of the column, to define the color for all cells in the column.

The following **VB6** sample shows setting the Def property such as:

With Control

```
.Columns.Add("Column 1").Def(exCellBackColor) = 255
.Columns.Add "Column 2"
.Items.AddItem 0
.Items.AddItem 1
```

```
.Items.AddItem 2
```

```
End With
```

In **dBASE Plus**, calling the Def(4) has no effect, instead using the TemplateDef helps you to use properly the Def property as follows:

```
local Control,var_Column
```

```
Control = form.Activex1.nativeObject
```

```
// Control.Columns.Add("Column 1").Def(4) = 255
```

```
var_Column = Control.Columns.Add("Column 1")
```

```
with (Control)
```

```
    TemplateDef = [Dim var_Column]
```

```
    TemplateDef = var_Column
```

```
    Template = [var_Column.Def(4) = 255]
```

```
endwith
```

```
Control.Columns.Add("Column 2")
```

```
Control.Items.AddItem(0)
```

```
Control.Items.AddItem(1)
```

```
Control.Items.AddItem(2)
```

The equivalent sample for **XBasic in A5**, is as follows:

```
Dim Control as P
```

```
Dim var_Column as P
```

```
Control = topparent:CONTROL_ACTIVEX1.activex
```

```
' Control.Columns.Add("Column 1").Def(4) = 255
```

```
var_Column = Control.Columns.Add("Column 1")
```

```
Control.TemplateDef = "Dim var_Column"
```

```
Control.TemplateDef = var_Column
```

```
Control.Template = "var_Column.Def(4) = 255"
```

```
Control.Columns.Add("Column 2")
```

```
Control.Items.AddItem(0)
```

```
Control.Items.AddItem(1)
```

```
Control.Items.AddItem(2)
```

The samples just call the Column.Def(4) = Value, using the TemplateDef. The first call of TemplateDef property is "Dim var\_Column", which indicates that the next call of the TemplateDef will defines the value of the variable var\_Column, in other words, it defines the object var\_Column. The last call of the Template property uses the var\_Column member to use the x-script and so to set the Def property so a new color is being assigned to the column.

The TemplateDef, [Template](#) and [ExecuteTemplate](#) support x-script language ( Template script of the Exontrols ), like explained bellow:

The Template or x-script is composed by lines of instructions. Instructions are separated by "\n\r" ( newline characters ) or ";" character. The ; character may be available only for newer versions of the components.

An x-script instruction/line can be one of the following:

- **Dim** list of variables *Declares the variables. Multiple variables are separated by commas. ( Sample: Dim h, h1, h2 )*
- **variable = property( list of arguments )** *Assigns the result of the property to a variable. The "variable" is the name of a declared variable. The "property" is the property name of the object in the context. The "list or arguments" may include variables or values separated by commas. ( Sample: h = InsertItem(0,"New Child") )*
- **property( list of arguments ) = value** *Changes the property. The value can be a variable, a string, a number, a boolean value or a RGB value.*
- **method( list of arguments )** *Invokes the method. The "list or arguments" may include variables or values separated by commas.*
- **{ Beginning the object's context.** *The properties or methods called between { and } are related to the last object returned by the property prior to { declaration.*
- **}** *Ending the object's context*
- **object.property( list of arguments ).property( list of arguments )....** *The .(dot) character splits the object from its property. For instance, the Columns.Add("Column1").HeaderBackColor = RGB(255,0,0), adds a new column and changes the column's header back color.*

The x-script may uses constant expressions as follow:

- **boolean** expression with possible values as *True* or *False*
- **numeric** expression may starts with 0x which indicates a hexa decimal representation, else it should starts with digit, or +/- followed by a digit, and . is the decimal separator. *Sample: 13 indicates the integer 13, or 12.45 indicates the double expression 12,45*
- **date** expression is delimited by # character in the format #mm/dd/yyyy hh:mm:ss#. *Sample: #31/12/1971# indicates the December 31, 1971*
- **string** expression is delimited by " or ` characters. If using the ` character, please

make sure that it is different than ' which allows adding comments inline. Sample: "text" indicates the string text.

Also , the template or x-script code may support general functions as follows:

- **Me** property indicates the original object.
- **RGB(R,G,B)** property retrieves an RGB value, where the R, G, B are byte values that indicates the R G B values for the color being specified. For instance, the following code changes the control's background color to red: BackColor = RGB(255,0,0)
- **LoadPicture(file)** property loads a picture from a file or from BASE64 encoded strings, and returns a Picture object required by the picture properties.
- **CreateObject(progID)** property creates and retrieves a single uninitialized object of the class associated with a specified program identifier.

## method Gantt.TemplatePut (NewVal as Variant)

Defines inside variables for the next Template/ExecuteTemplate call.

Type	Description
NewVal as Variant	A string expression that indicates the Dim declaration, or any Object expression to be assigned to previously declared variables.

The TemplatePut method / [TemplateDef](#) property has been added to allow programming languages such as dBASE Plus to set control's properties with multiple parameters. It is known that programming languages such as **dBASE Plus or XBasic from AlphaFive**, does not support setting a property with multiple parameters. In other words, these programming languages does not support something like *Property(Parameters) = Value*, so our controls provide an alternative using the TemplateDef / TemplatePut method. The first call of the TemplateDef should be a declaration such as "Dim a,b" which means the next 2 calls of the TemplateDef defines the variables a and b. The next call should be [Template](#) or [ExecuteTemplate](#) property which can use the variable a and b being defined previously.

The [TemplateDef](#), [TemplatePut](#), [Template](#) and [ExecuteTemplate](#) support x-script language ( Template script of the Exontrols ), like explained bellow:

The Template or x-script is composed by lines of instructions. Instructions are separated by "\n\r" ( newline characters ) or ";" character. The ; character may be available only for newer versions of the components.

An x-script instruction/line can be one of the following:

- **Dim** list of variables *Declares the variables. Multiple variables are separated by commas. ( Sample: Dim h, h1, h2 )*
- variable = property( list of arguments ) *Assigns the result of the property to a variable. The "variable" is the name of a declared variable. The "property" is the property name of the object in the context. The "list or arguments" may include variables or values separated by commas. ( Sample: h = InsertItem(0,"New Child") )*
- property( list of arguments ) = value *Changes the property. The value can be a variable, a string, a number, a boolean value or a RGB value.*
- method( list of arguments ) *Invokes the method. The "list or arguments" may include variables or values separated by commas.*
- { *Beginning the object's context. The properties or methods called between { and } are related to the last object returned by the property prior to { declaration.*
- } *Ending the object's context*
- object. property( list of arguments ).property( list of arguments ).... *The .(dot) character splits the object from its property. For instance, the*

`Columns.Add("Column1").HeaderBackColor = RGB(255,0,0)`, adds a new column and changes the column's header back color.

The x-script may uses constant expressions as follow:

- boolean expression with possible values as *True* or *False*
- numeric expression may starts with 0x which indicates a hexa decimal representation, else it should starts with digit, or +/- followed by a digit, and . is the decimal separator.  
*Sample: 13 indicates the integer 13, or 12.45 indicates the double expression 12,45*
- date expression is delimited by # character in the format #mm/dd/yyyy hh:mm:ss#.  
*Sample: #31/12/1971# indicates the December 31, 1971*
- string expression is delimited by " or ` characters. If using the ` character, please make sure that it is different than ' which allows adding comments inline. *Sample: "text" indicates the string text.*

Also , the template or x-script code may support general functions as follows:

- **Me** property indicates the original object.
- **RGB(R,G,B)** property retrieves an RGB value, where the R, G, B are byte values that indicates the R G B values for the color being specified. For instance, the following code changes the control's background color to red: `BackColor = RGB(255,0,0)`
- **LoadPicture(file)** property loads a picture from a file or from BASE64 encoded strings, and returns a Picture object required by the picture properties.
- **CreateObject(progID)** property creates and retrieves a single uninitialized object of the class associated with a specified program identifier.

## property Gantt.ToolTipDelay as Long

Specifies the time in ms that passes before the ToolTip appears.

Type	Description
Long	A long expression that specifies the time in ms that passes before the ToolTip appears.

If the ToolTipDelay or ToolTipPopDelay property is 0, the control displays no tooltips. The [ToolTipPopDelay](#) property specifies the period in ms of time the ToolTip remains visible if the mouse pointer is stationary within a control. Use the [ToolTipWidth](#) property to specify the width of the tooltip window. Use the [ToolTipFont](#) property to assign a font for the control's tooltip. Use the [Background\(exToolTipAppearance\)](#) property indicates the visual appearance of the borders of the tooltips. Use the [Background\(exToolTipBackColor\)](#) property indicates the tooltip's background color. Use the [Background\(exToolTipForeColor\)](#) property indicates the tooltip's foreground color. Use the [CellToolTip](#) property to specify the cell's tooltip. Use the [ItemBar\(,exBarToolTip\)](#) property to specify a tooltip for a bar. Use the [Link\(,exLinkToolTip\)](#) property to specify the tooltip to be shown when the cursor hovers the link.

## property Gantt.ToolTipFont as IFontDisp

Retrieves or sets the tooltip's font.

Type	Description
IFontDisp	A Font object being used to display the tooltip.

Use the ToolTipFont property to assign a font for the control's tooltip. The [ToolTipPopDelay](#) property specifies the period in ms of time the ToolTip remains visible if the mouse pointer is stationary within a control. Use the [ToolTipWidth](#) property to specify the width of the tooltip window. The [ToolTipDelay](#) property specifies the time in ms that passes before the ToolTip appears. Use the <font> HTML element to assign a different font for portions of text inside the tooltip. Use the [Background\(exToolTipAppearance\)](#) property indicates the visual appearance of the borders of the tooltips. Use the [Background\(exToolTipBackColor\)](#) property indicates the tooltip's background color. Use the [Background\(exToolTipForeColor\)](#) property indicates the tooltip's foreground color. Use the [ShowToolTip](#) method to display a custom tooltip. Use the [CellToolTip](#) property to specify the cell's tooltip. Use the [ItemBar\(,,exBarToolTip\)](#) property to specify a tooltip for a bar. Use the [Link\(exLinkToolTip\)](#) property to specify the tooltip to be shown when the cursor hovers the link.

## property Gantt.ToolTipPopDelay as Long

Specifies the period in ms of time the ToolTip remains visible if the mouse pointer is stationary within a control.

Type	Description
Long	A long expression that specifies the period in ms of time the ToolTip remains visible if the mouse pointer is stationary within a control.

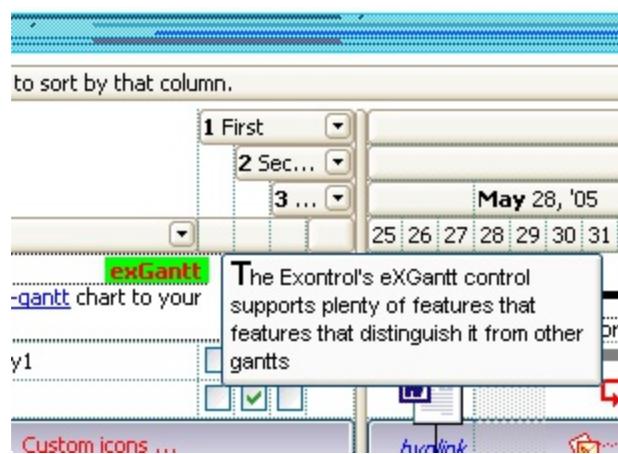
If the ToolTipDelay or ToolTipPopDelay property is 0, the control displays no tooltips. The [ToolTipDelay](#) property specifies the time in ms that passes before the ToolTip appears. Use the [ToolTipWidth](#) property to specify the width of the tooltip window. Use the [ToolTipFont](#) property to assign a font for the control's tooltip. Use the [Background\(exToolTipAppearance\)](#) property indicates the visual appearance of the borders of the tooltips. Use the [Background\(exToolTipBackColor\)](#) property indicates the tooltip's background color. Use the [Background\(exToolTipForeColor\)](#) property indicates the tooltip's foreground color. Use the [ShowToolTip](#) method to display a custom tooltip. Use the [CellToolTip](#) property to specify the cell's tooltip. Use the [ItemBar\(,,exBarToolTip\)](#) property to specify a tooltip for a bar. Use the [Link\(,exLinkToolTip\)](#) property to specify the tooltip to be shown when the cursor hovers the link.

## property Gantt.ToolTipWidth as Long

Specifies a value that indicates the width of the tooltip window, in pixels.

Type	Description
Long	A long expression that indicates the width of the tooltip window.

Use the ToolTipWidth property to change the tooltip window width. The height of the tooltip window is automatically computed based on tooltip's description. The [ToolTipPopDelay](#) property specifies the period in ms of time the ToolTip remains visible if the mouse pointer is stationary within a control. The [ToolTipDelay](#) property specifies the time in ms that passes before the ToolTip appears. Use the [Background\(exToolTipAppearance\)](#) property indicates the visual appearance of the borders of the tooltips. Use the [Background\(exToolTipBackColor\)](#) property indicates the tooltip's background color. Use the [Background\(exToolTipForeColor\)](#) property indicates the tooltip's foreground color. Use the [ShowToolTip](#) method to display a custom tooltip. Use the [ToolTipFont](#) property to assign a font for the control's tooltip. Use the [CellToolTip](#) property to specify the cell's tooltip. Use the [ItemBar\(,exBarToolTip\)](#) property to specify a tooltip for a bar. Use the [Link\(exLinkToolTip\)](#) property to specify the tooltip to be shown when the cursor hovers the links.



## property Gantt.TreeColumnIndex as Long

Retrieves or sets a value indicating the column's index where the hierarchy will be displayed.

Type	Description
Long	A long expression that indicates the index of the column where the control's hierarchy is displayed.

Use the TreeColumnIndex property to change the column's index where the hierarchy lines are painted. Use [HasLines](#) and [LinesAtRoot](#) properties to show the hierarchy lines. Use the [HasButtons](#) property to define the +/- signs appearance. If the TreeColumnIndex property is -1, the control doesn't paint the hierarchy. Use the [Indent](#) property to define the amount, in pixels, that child items are indented relative to their parent items.

## **property Gantt.UseTabKey as Boolean**

Specifies whether the TAB key is used to change the searching column.

Type	Description
Boolean	A boolean expression that specifies whether the TAB key is used to change the incremental searching column.

By default, the UseTabKey property is True. The UseTabKey property specifies whether the control uses the TAB key to change the searching column. If the UseTabKey property is False, the TAB key is used to navigate through the form's controls.

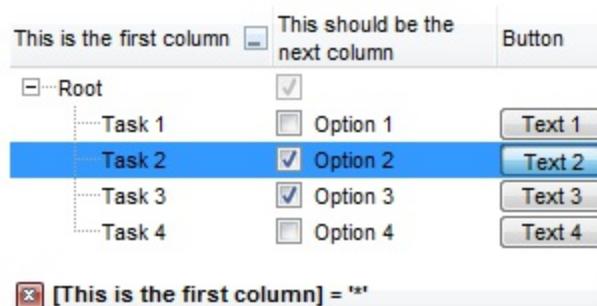
## property Gantt.UseVisualStyle as UIVisualStyleEnum

Specifies whether the control uses the current visual theme to display certain UI parts.

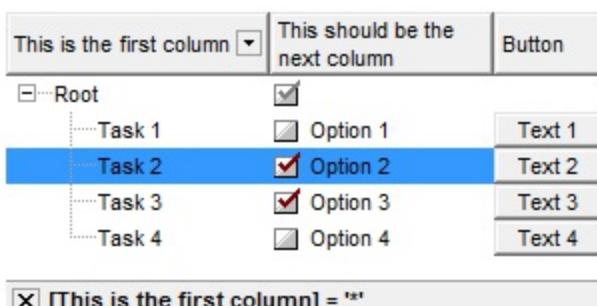
Type	Description
<a href="#">UIVisualStyleEnum</a>	An UIVisualStyleEnum expression that specifies which UI parts of the control are shown using the current visual theme.

By default, the UseVisualStyle property is exDefaultVisualStyle, which means that all known UI parts are shown as in the current theme. The UseVisualStyle property may specify the UI parts that you need to enable or disable the current visual theme. The UI Parts are like header, filterbar, check-boxes, buttons and so on. The UseVisualStyle property has effect only a current theme is selected for your desktop. The UseVisualStyle property. Use the [Appearance](#) property of the control to provide your own visual appearance using the EBN files.

The following screen shot shows the control while the UseVisualStyle property is exDefaultVisualStyle:



since the second screen shot shows the same data as the UseVisualStyle property is exNoVisualStyle:



## property Gantt.Version as String

Retrieves the control's version.

Type	Description
String	A string expression that indicates the control's version.

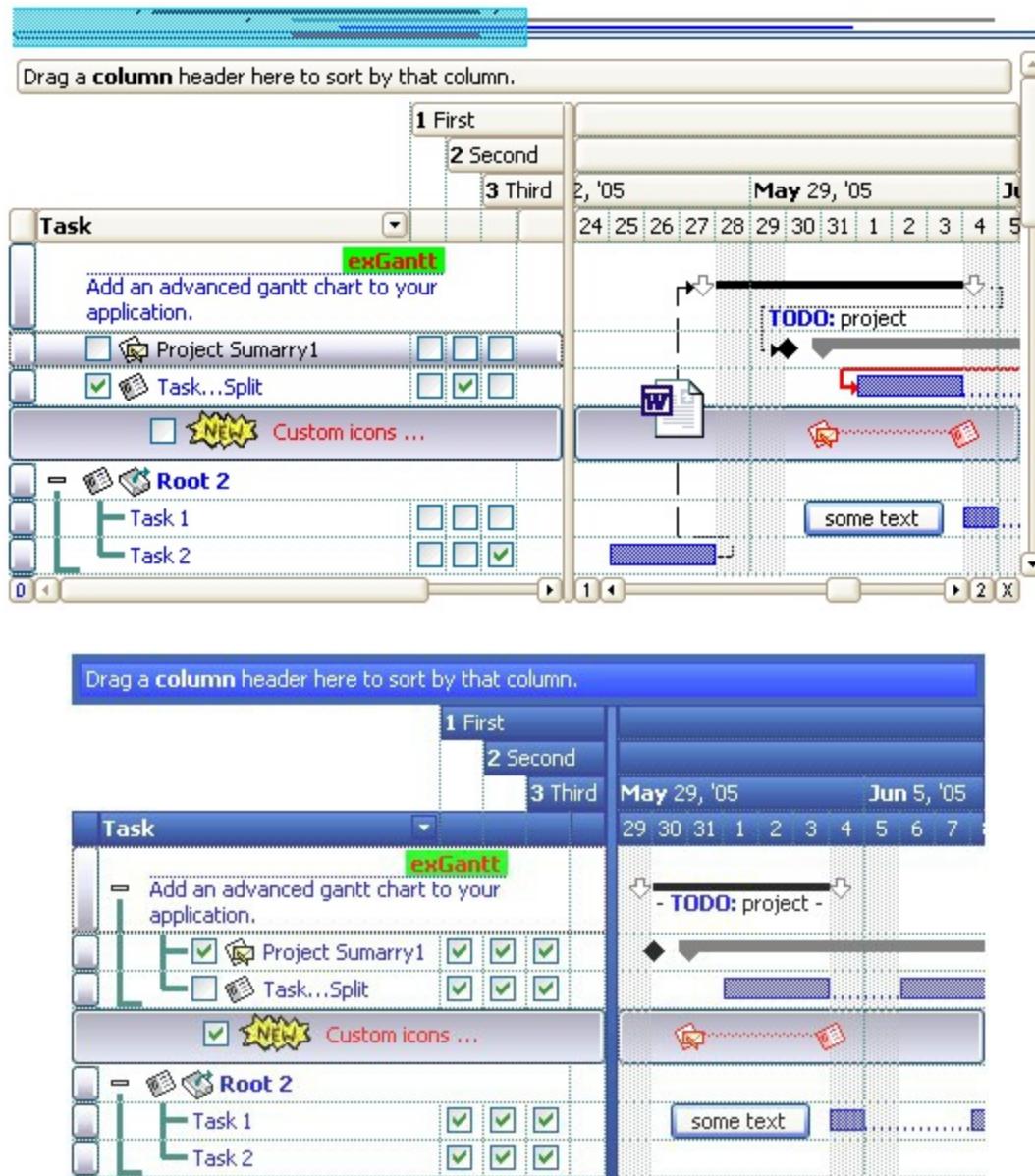
The version property specifies the control's version.

## property Gantt.VisualAppearance as Appearance

Retrieves the control's appearance.

Type	Description
<a href="#">Appearance</a>	An Appearance object that holds a collection of skins.

Use the [Add](#) method to add or replace skins to the control. The skin method, in it's simplest form, uses a single graphic file (\*.ebn) assigned to a part of the control. By using a collection of objects laid over the graphic, it is possible to define which sections of the graphic will be used as borders, corners and other possible elements, fixing them to their proper position regardless of the size of the part.



The skin method may change the visual appearance for the following parts in the control:

- **levels** on the chart area, [BackColor](#) property, [BackColorLevelHeader](#) property
- bar's background, [ItemBar\(exBarBackColor\)](#) property

- control's **header bar**, [BackColorHeader](#) property
- control's **filter bar**, [FilterBarBackColor](#) property
- control's **sort bar**, [BackColorSort](#) property
- the caption of the control's sort bar, [BackColorSortCaption](#) property
- **selected item** or cell, [SelBackColor](#) property
- **item**, [ItemBackColor](#) property
- **cell**, [CellBackColor](#) property
- cell's **button**, "drop down" filter bar button, "close" filter bar button, and so on, [Background](#) property

## property Gantt.VisualDesign as String

Invokes the control's VisualAppearance designer.

Type	Description
String	A String expression that encodes the control's Visual Appearance.

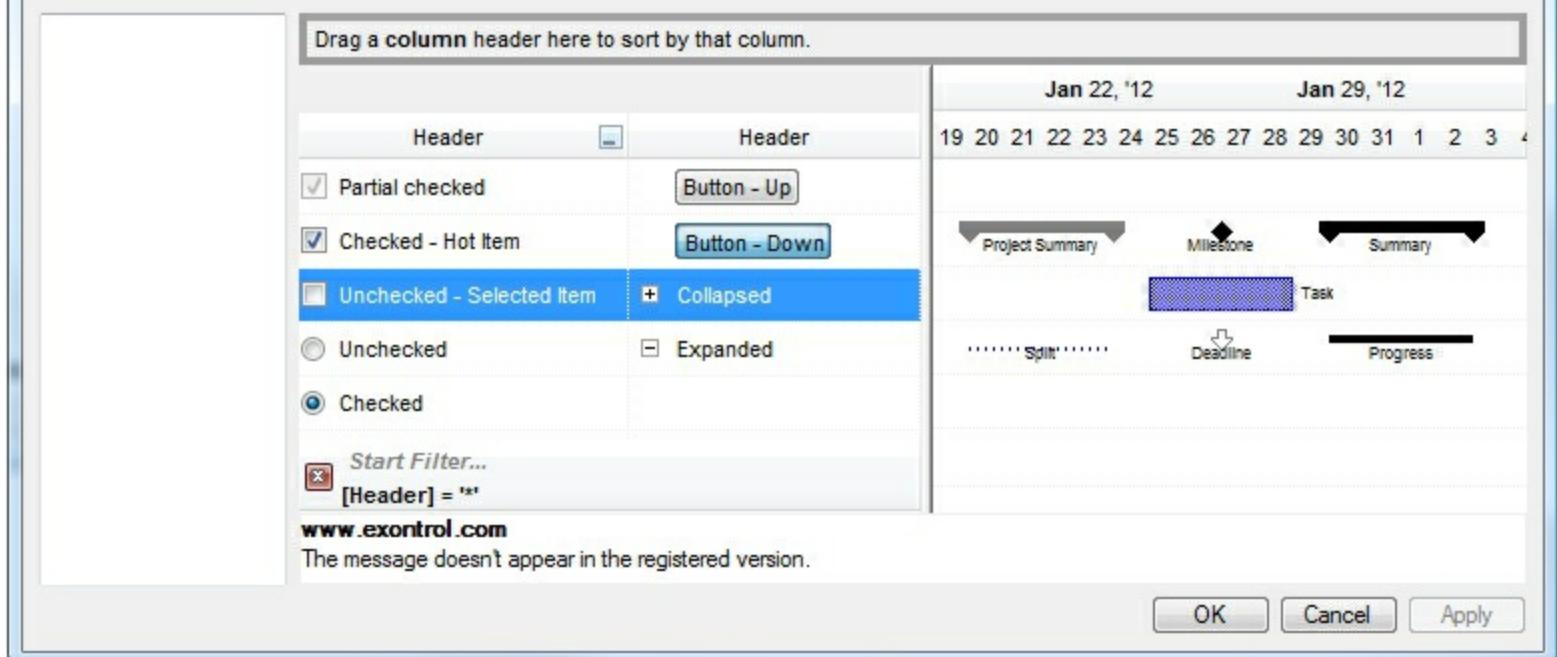
By default, the VisualDesign property is "". The VisualDesign property helps you to define fast and easy the control's visual appearance using the XP-Theme elements or [EBN](#) objects. The VisualDesign property can be accessed on design mode, and it can be used to design the visual appearance of different parts of the control by drag and drop XP or EBN elements. The VisualAppearance designer returns an encoded string that can be used to define different looks, just by calling the VisualDesign = encoded\_string. If you require removing the current visual appearance, you can call the VisualDesign on "" ( empty string ). The VisualDesign property encodes EBN or XP-Theme nodes, using the [Add](#) method of the [Appearance](#) collection being accessed through the [VisualAppearance](#) property.

- For the /COM version, click the control in Design mode, select the Properties, and choose the "Visual Design" page.
- For the /NET version, select the VisualDesign property in the Properties browser, and then click ... so the "Visual Design" page is displayed.
- The /WPF version does not provide a VisualAppearance designer, instead you can use the values being generated by the /COM or /NET to apply the same visual appearance.
- Click here  to watch a movie on how you define the control's visual appearance using the XP-Theme
- Click here  to watch a movie on how you define the control's visual appearance using the EBN files.

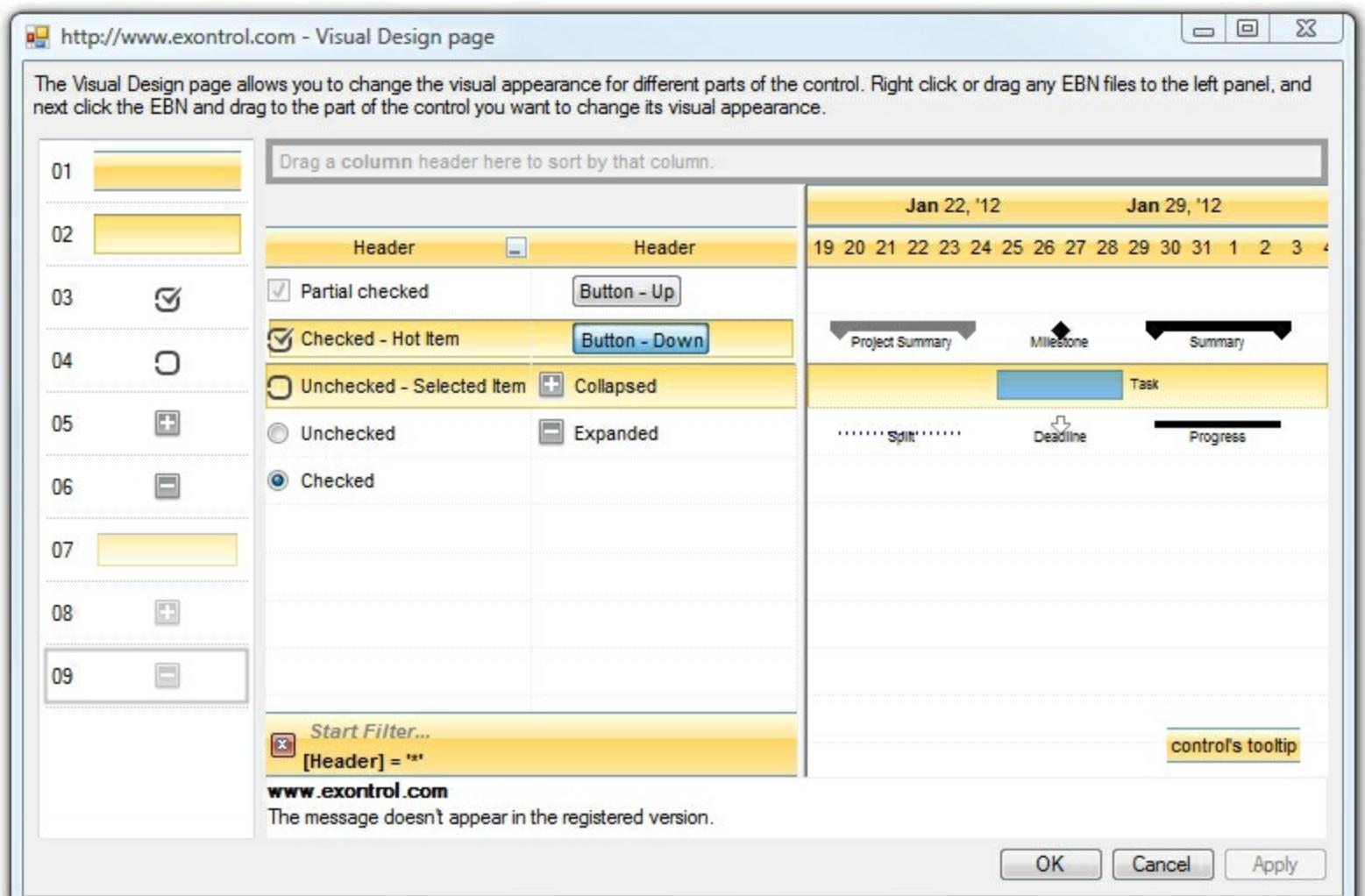
The left panel, should be user to add your EBN or XP-Theme elements. Once you add them drag and drop the EBN or XP-Theme element from the left side to the part which visual appearance you want to change.

The following picture shows the control's VisualDesign form ( empty ):

The Visual Design page allows you to change the visual appearance for different parts of the control. Right click or drag any EBN files to the left panel, and next click the EBN and drag to the part of the control you want to change its visual appearance.



The following picture shows the control's VisualDesign form after applying some EBN objects:



This layout generates the following code:

With Exgantt1

.VisualDesign =

"gBFLBWlgBAEHhEJAEGg7oB0HBSQAwABsIfj/jEJAcKhYEjgCAscA8ThQBA8cAgljgDh8KBAPj  
& \_

"RuF6FxmAkchiheZg5gYZIW0yMhZhqD55jlboamcCY2HGG5nCmVh0h2ZYUAYCQ4Xqbh9h8  
& \_

"o5B8MwE4HsD4/g/ijHQHoLwxUjrH0H4Z4rR2h7A8N8UggRNBNGCP8eA/A/gXGSPMfg3w  
& \_

"DCDgJQFlCxhDQGYBofYQYFCwD4J+XYQwlBECiCwJIExhhnCIDoNAnhzj8CyBclosQ+BIAwM  
& \_

"J8YQlwaBMCaCMd6hRnBpE+HolwlQ9hdEKM8VYawoCcC8BUSYtxqBuDuFsOwTgLgLhZhAh  
& \_

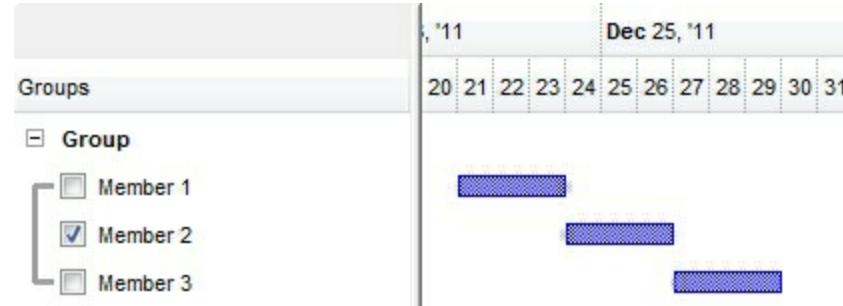
"zhGhtoEB+AsArhnhLhehUB5BfA4BfARBPgWB9h3hhBZB/AvA+BzhkhLhCh7hPg8g1BfhzAKE  
& \_

"hQH1hSgAgcAmghglg2AugLBigiBqAnAzBiVdgIA1ANAjBEgbAmAJMwA+gLgjgyBWA4AOE  
& \_

"IAUgCA0AMhjA0ggWUgjh+GhBihl1yAKhiByBqAkV1gCAKAiV3141516g+Jmhj19V+V/AI2/

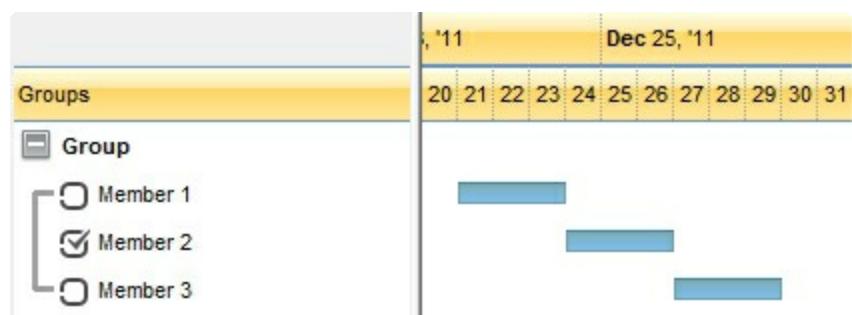
End With

If running the empty control we get the following picture:



If running the control using the code being generated by the VisualAppearance designer we

get:



## Items object

The Items object contains a collection of items. Each item is identified by a handle HITEM. The HITEM is of long type. Each item contains a collection of cells. The number of cells is determined by the number of Column objects in the control. To access the Items collection use Items property of the control. Using the Items collection you can add, remove or change the control items. The Items collection can be organized as a hierarchy or as a tabular data. The Items collection supports the following properties and methods:

Name	Description
<a href="#">AcceptSetParent</a>	Retrieves a value indicating whether the SetParent method can be accomplished..
<a href="#">AddBar</a>	Adds a bar to an item.
<a href="#">AddItem</a>	Adds a new item, and returns a handle to the newly created item.
<a href="#">AddLink</a>	Links a bar to another.
<a href="#">CellBackColor</a>	Retrieves or sets the cell's background color.
<a href="#">CellBold</a>	Retrieves or sets a value that indicates whether the cell's caption should appear in bold.
<a href="#">CellButtonAutoWidth</a>	Retrieves or sets a value indicating whether the cell's button fits the cell's caption.
<a href="#">CellCaption</a>	Retrieves or sets the text displayed on a specific cell.
<a href="#">CellCaptionFormat</a>	Specifies how the cell's caption is displayed.
<a href="#">CellChecked</a>	Retrieves the cell's handle that is checked on a specific radio group.
<a href="#">CellData</a>	Retrieves or sets the extra data for a specific cell.
<a href="#">CellEnabled</a>	Returns or sets a value that determines whether a cell can respond to user-generated events.
<a href="#">CellFont</a>	Retrieves or sets the cell's font.
<a href="#">CellForeColor</a>	Retrieves or sets the cell's foreground color.
<a href="#">CellHAlignment</a>	Retrieves or sets a value that indicates the alignment of the cell's caption.
<a href="#">CellHasButton</a>	Retrieves or sets a value indicating whether the cell has associated a push button or not.
<a href="#">CellHasCheckBox</a>	Retrieves or sets a value indicating whether the cell has associated a checkbox or not.

<a href="#">CellHasRadioButton</a>	Retrieves or sets a value indicating whether the cell has associated a radio button or not.
<a href="#">CellHyperLink</a>	Specifies whether the cell's is highlighted when the cursor mouse is over the cell.
<a href="#">CellImage</a>	Retrieves or sets an Image that is displayed on the cell's area.
<a href="#">CellImages</a>	Specifies an additional list of icons shown in the cell.
<a href="#">CellItalic</a>	Retrieves or sets a value that indicates whether the cell's caption should appear in italic.
<a href="#">CellItem</a>	Retrieves the handle of item that is the owner of a specific cell.
<a href="#">CellMerge</a>	Retrieves or sets a value that indicates the index of the cell that's merged to.
<a href="#">CellParent</a>	Retrieves the parent of an inner cell.
<a href="#">CellPicture</a>	Retrieves or sets a value that indicates the Picture object displayed by the cell.
<a href="#">CellPictureHeight</a>	Retrieves or sets a value that indicates the height of the cell's picture.
<a href="#">CellPictureWidth</a>	Retrieves or sets a value that indicates the width of the cell's picture.
<a href="#">CellRadioGroup</a>	Retrieves or sets a value indicating the radio group where the cell is contained.
<a href="#">CellSingleLine</a>	Retrieves or sets a value indicating whether the cell's caption is painted using one or more lines.
<a href="#">CellState</a>	Retrieves or sets the cell's state. Has effect only for check and radio cells.
<a href="#">CellStrikeOut</a>	Retrieves or sets a value that indicates whether the cell's caption should appear in strikeout.
<a href="#">CellToolTip</a>	Retrieves or sets a text that is used to show the tooltip's cell.
<a href="#">CellUnderline</a>	Retrieves or sets a value that indicates whether the cell's caption should appear in underline.
<a href="#">CellVAlignment</a>	Retrieves or sets a value that indicates how the cell's caption is vertically aligned.
<a href="#">CellWidth</a>	Retrieves or sets a value that indicates the width of the inner cell.

<a href="#">ChildCount</a>	Retrieves the number of children items.
<a href="#">ClearBars</a>	Clears the bars from the item.
<a href="#">ClearCellBackColor</a>	Clears the cell's background color.
<a href="#">ClearCellForeColor</a>	Clears the cell's foreground color.
<a href="#">ClearCellHAlignment</a>	Clears the cell's alignment.
<a href="#">ClearItemBackColor</a>	Clears the item's background color.
<a href="#">ClearItemForeColor</a>	Clears the item's foreground color.
<a href="#">ClearLinks</a>	Clears all links in the chart.
<a href="#">DefaultItem</a>	Retrieves or sets the default item.
<a href="#">Edit</a>	Edits a cell.
<a href="#">EnableItem</a>	Returns or sets a value that determines whether a item can respond to user-generated events.
<a href="#">EnsureVisibleItem</a>	Ensures the given item is in the visible client area.
<a href="#">ExpandItem</a>	Expands, or collapses, the child items of the specified item.
<a href="#">FindItem</a>	Finds an item, looking for Caption in CollIndex colum. The searching starts at StartIndex item.
<a href="#">FindItemData</a>	Finds the item giving its data.
<a href="#">FindPath</a>	Finds the item, given its path. The control searches the path on the SearchColumnIndex column.
<a href="#">FirstItemBar</a>	Gets the key of the first bar in the item.
<a href="#">FirstLink</a>	Gets the key of the first link.
<a href="#">FirstVisibleItem</a>	Retrieves the handle of the first visible item into control.
<a href="#">FocusItem</a>	Retrieves the handle of item that has the focus.
<a href="#">FormatCell</a>	Specifies the custom format to display the cell's content.
<a href="#">FullPath</a>	Returns the fully qualified path of the referenced item in the control. The caption is taken from the column SearchColumnIndex.
<a href="#">InnerCell</a>	Retrieves the inner cell.
<a href="#">InsertControlItem</a>	Inserts a new item of ActiveX type, and returns a handle to the newly created item.
<a href="#">InsertItem</a>	Inserts a new item, and returns a handle to the newly created item.
	Returns a value that indicates whether the item is locked

<a href="#">IsItemLocked</a>	or unlocked.
<a href="#">IsItemVisible</a>	Checks if the specific item is in the visible client area.
<a href="#">ItemAllowSizing</a>	Retrieves or sets a value that indicates whether a user can resize the item at run-time.
<a href="#">ItemAppearance</a>	Specifies the item's appearance when the item hosts an ActiveX control.
<a href="#">ItemBackColor</a>	Retrieves or sets a background color for a specific item.
<a href="#">ItemBar</a>	Gets or sets a bar property.
<a href="#">ItemBold</a>	Retrieves or sets a value that indicates whether the item should appear in bold.
<a href="#">ItemByIndex</a>	Retrieves the handle of the item given its index in Items collection..
<a href="#">ItemCell</a>	Retrieves the cell's handle based on a specific column.
<a href="#">ItemChild</a>	Retrieves the child of a specified item.
<a href="#">ItemControlID</a>	Retrieves the item's control identifier that was used by InsertControlItem.
<a href="#">ItemCount</a>	Retrieves the number of items.
<a href="#">ItemData</a>	Retrieves or sets the extra data for a specific item.
<a href="#">ItemDivider</a>	Specifies whether the item acts like a divider item. The value indicates the index of column used to define the divider's title.
<a href="#">ItemDividerLine</a>	Defines the type of line in the divider item.
<a href="#">ItemDividerLineAlignment</a>	Specifies the alignment of the line in the divider item.
<a href="#">ItemFont</a>	Retrieves or sets the item's font.
<a href="#">ItemForeColor</a>	Retrieves or sets a foreground color for a specific item.
<a href="#">ItemHasChildren</a>	Adds an expand button to left side of the item even if the item has no child items.
<a href="#">ItemHeight</a>	Retrieves or sets the item's height.
<a href="#">ItemItalic</a>	Retrieves or sets a value that indicates whether the item should appear in italic.
<a href="#">ItemMaxHeight</a>	Retrieves or sets a value that indicates the maximum height when the item's height is variable.
<a href="#">ItemMinHeight</a>	Retrieves or sets a value that indicates the minimum height when the item's height is sizing.

<a href="#">ItemObject</a>	Retrieves the ActiveX object associated, if the item was created using InsertControlItem method.
<a href="#">ItemParent</a>	Returns the handle of parent item.
<a href="#">ItemPosition</a>	Retrieves or sets a value that indicates the item's position in the children list.
<a href="#">ItemStrikeOut</a>	Retrieves or sets a value that indicates whether the item should appear in strikeout.
<a href="#">ItemToIndex</a>	Retrieves the index of item into Items collection given its handle.
<a href="#">ItemUnderline</a>	Retrieves or sets a value that indicates whether the item should appear in underline.
<a href="#">ItemWidth</a>	Retrieves or sets a value that indicates the item's width while it contains an ActiveX control.
<a href="#">ItemWindowHost</a>	Retrieves the window's handle that hosts an ActiveX control when the item was created using InsertControlItem.
<a href="#">ItemWindowHostCreateStyle</a>	Retrieves or sets a value that indicates a combination of window styles used to create the ActiveX window host.
<a href="#">LastVisibleItem</a>	Retrieves the handle of the last visible item.
<a href="#">Link</a>	Gets or sets a property for a link.
<a href="#">LockedItem</a>	Retrieves the handle of the locked/fixed item.
<a href="#">LockedItemCount</a>	Specifies the number of items fixed on the top or bottom side of the control.
<a href="#">MatchItemCount</a>	Retrieves the number of items that match the filter.
<a href="#">MergeCells</a>	Merges a list of cells.
<a href="#">NextItemBar</a>	Gets the key of the next bar in the item.
<a href="#">NextLink</a>	Gets the key of the next link.
<a href="#">NextSiblingItem</a>	Retrieves the next sibling of the item in the parent's child list.
<a href="#">NextVisibleItem</a>	Retrieves the handle of next visible item.
<a href="#">PathSeparator</a>	Returns or sets the delimiter character used for the path returned by the FullPath property.
<a href="#">PrevSiblingItem</a>	Retrieves the previous sibling of the item in the parent's child list.
<a href="#">PrevVisibleItem</a>	Retrieves the handle of previous visible item.

<a href="#">RemoveAllItems</a>	Removes all items from the control.
<a href="#">RemoveBar</a>	Removes a bar from an item.
<a href="#">RemoveItem</a>	Removes a specific item.
<a href="#">RemoveLink</a>	Removes a link.
<a href="#">RemoveSelection</a>	Removes the selected items (including the descendants).
<a href="#">RootCount</a>	Retrieves the number of root objects into Items collection.
<a href="#">RootItem</a>	Retrieves the handle of the root item giving its index into the root items collection.
<a href="#">SelectableItem</a>	Specifies whether the user can select the item.
<a href="#">SelectAll</a>	Selects all items.
<a href="#">SelectCount</a>	Retrieves the handle of selected item giving its index in selected items collection.
<a href="#">SelectedItem</a>	Retrieves the selected item's handle given its index in selected items collection.
<a href="#">SelectItem</a>	Selects or unselects a specific item.
<a href="#">SelectPos</a>	Selects items by position.
<a href="#">SetParent</a>	Changes the parent of the given item.
<a href="#">SortableItem</a>	Specifies whether the item is sortable.
<a href="#">SortChildren</a>	Sorts the child items of the given parent item in the control. SortChildren will not recurse through the tree, only the immediate children of Item will be sorted.
<a href="#">SplitCell</a>	Splits a cell, and returns the inner created cell.
<a href="#">UnmergeCells</a>	Unmerges a list of cells.
<a href="#">UnselectAll</a>	Unselects all items.
<a href="#">UnsplitCell</a>	Unsplits a cell.
<a href="#">VisibleCount</a>	Retrieves the number of visible items.
<a href="#">VisibleItemCount</a>	Retrieves the number of visible items.

## **property Items.AcceptSetParent (Item as HITEM, NewParent as HITEM) as Boolean**

Retrieves a value indicating whether the SetParent method can be accomplished.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item being moved.
NewParent as HITEM	A long expression that indicates the handle of the parent item where the item should be moved.
Boolean	A boolean expression that indicates whether the item can be child of the NewParent item.

Use this property to make sure that [SetParent](#) can be called. The AcceptSetParent property checks if an item can be child of another item.

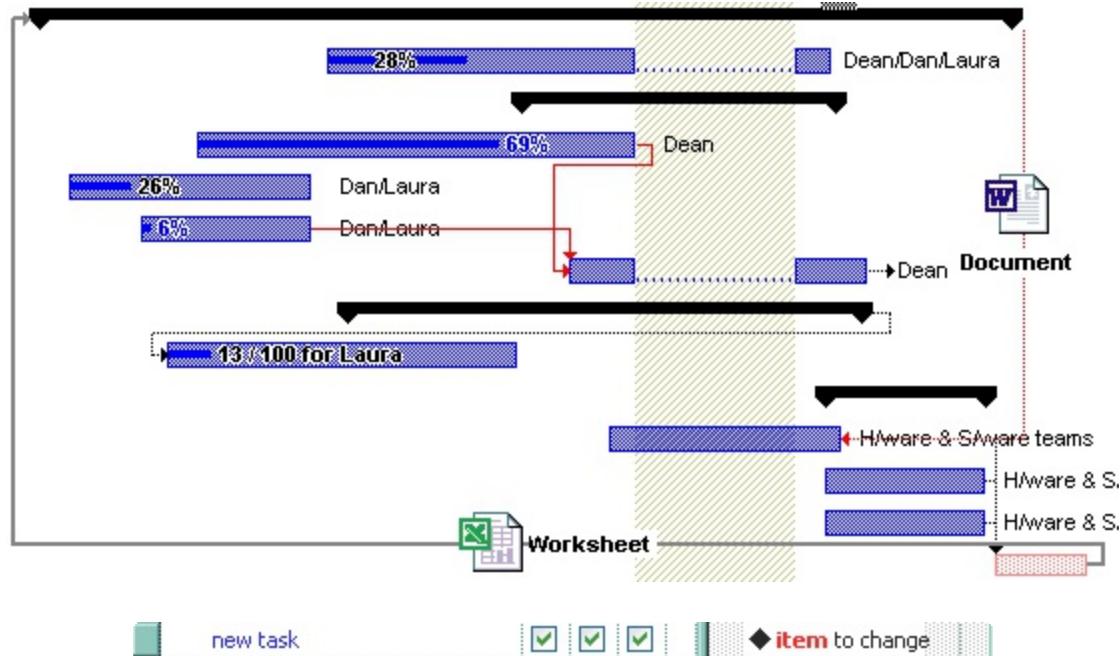
## method Items.AddBar (Item as HITEM, BarName as Variant, DateStart as Variant, DateEnd as Variant, [Key as Variant], [Text as Variant])

Adds a bar to an item.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item where the bar is inserted.
BarName as Variant	A String expression that indicates the name of the bar being inserted, or a long expression that indicates the index of the bar being inserted
DateStart as Variant	A Date expression that indicates the date/time where the bar starts, or a string expression that indicates the start date and time. For instance, the "6/10/2003 10:13", indicates the date and the time.
DateEnd as Variant	A Date expression that indicates the date where the bar ends, or a string expression that indicates the end date and time. For instance, the "6/10/2003 10:13", indicates the date and the time.
Key as Variant	Optional. A String expression that indicates the key of the bar being inserted. If missing, the Key parameter is empty. If the Item has only a single Bar you can not use the Key parameter, else an unique key should be used.
Text as Variant	Optional. A String expression that indicates the text being displayed. The Text may include built-in HTML format. Use the <a href="#">ItemBar(exBarHAlignCaption/exBarVAlignCaption)</a> to display and align the caption of the bar inside or outside of the bar.

Use the AddBar property to add a bar to an item. Use the [ShowEmptyBars](#) property to show the bars, even if the start and end dates are identical. If you want to assign multiple bars to the same items, you have to use different keys ( Key parameter ), else the default bar is overwritten. More than that, if the DateStart and DateEnd are identical, the bar or text is not shown, except the Milestone bar. Use the [Add](#) method to add new types of bars to the [Bars](#) collection. Use the [FirstVisibleDate](#) property to specify the first visible date in the chart area. Use the Key parameter to identify a bar inside an item. If the AddBar method is called multiple time with the same item, the bar is moved. Use the [ItemBar](#) property to access a bar inside the item. Use the [RemoveBar](#) method to remove a bar from an item. Use the [ClearBars](#) method to remove all bars in the item. Use the [PaneWidth](#) property to specify the width of the chart. Use the [NonworkingDays](#) property to specify the non-working days. Use the [NextDate](#) property to compute the next or previous date based

on a time unit. Use the [ItemBar\(exBarToolTip\)](#) property to assign a tooltip to a bar. Use the [ItemBar\(exBarBackColor\)](#) property to change the background or the visual appearance for the portion delimited by the start and end points. Use the [FirstItemBar](#) and [NextItemBar](#) methods to enumerate the bars inside the item. Use the [Height](#) property to specify the height of the bars. Use the [ItemBar\(exBarsCount\)](#) property to retrieve the number of bars in a specified item.



The following VB sample adds a "Milestone" bar and a text beside:

With Gantt1.Items

```

h = .AddItem("new task")
.AddBar h, "Milestone", "5/30/2005 10:00", "5/31/2005"
.AddBar h, "", "5/31/2005", "6/10/2005", "beside", "<fgcolor=FF0000><b>item</b>
</fgcolor> to change"
End With

```

or

With Gantt1.Items

```

.AddBar .AddItem("new task"), "Milestone", "5/30/2005 10:00", "6/10/2005", , "
<fgcolor=FF0000><b>item</b></fgcolor> to change"
End With

```

The following VB sample adds an item with a single "Task" bar:

```
Dim h As HITEM, d As Date
```

With Gantt1.Items

```
d = Gantt1.Chart.FirstVisibleDate  
h = .AddItem("new task")  
.AddBar h, "Task", Gantt1.Chart.NextDate(d, exDay, 2), Gantt1.Chart.NextDate(d, exDay,  
4)  
End With
```

The following VB sample adds an item with three bars ( two "Task" bars, and one "Split" bar ) that looks like :

```
Dim h As HITEM, d As Date  
With Gantt1.Items  
d = Gantt1.Chart.FirstVisibleDate  
h = .AddItem("new task ")  
.AddBar h, "Task", d + 2, d + 4, "K1"  
.AddBar h, "Split", d + 4, d + 5, "K2"  
.AddBar h, "Task", d + 5, d + 9, "K3"  
End With
```

The  bar is composed by three parts: K1, K2 and K3.

The following C++ sample adds a "Milestone" bar and a text beside:

```
#include "Items.h"  
COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;  
CItems items = m_gantt.GetItems();  
long h = items.AddItem( COleVariant( "new task" ) );  
items.AddBar( h, COleVariant("Milestone"), COleVariant( "5/30/2005 10:00" ), COleVariant(  
"5/31/2005" ), vtMissing, vtMissing );  
items.AddBar( h, COleVariant(""), COleVariant( "5/31/2005" ), COleVariant( "6/10/2005" ),  
COleVariant( _T("just a key") ), COleVariant( "<fgcolor=FF0000><b>item</b></fgcolor>  
to change" ) );
```

or

```
#include "Items.h"  
COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;  
CItems items = m_gantt.GetItems();  
long h = items.AddItem( COleVariant( "new task" ) );  
items.AddBar( h, COleVariant("Milestone"), COleVariant( "5/30/2005 10:00" ), COleVariant(
```

"6/10/2005" ), vtMissing, COleVariant( " <fgcolor=FF0000><b>item</b></fgcolor> to change" ) );

The following C++ sample adds an item with a single "Task" bar:

```
COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;
CItems items = m_gantt.GetItems();
CChart chart = m_gantt.GetChart();
DATE d = V2D( &chart.GetFirstVisibleDate() );
long h = items.AddItem( COleVariant("new task") );
items.AddBar( h, COleVariant( "Task"), COleVariant( (double)chart.GetNextDate( d, 4096,
COleVariant((long)2) ) ), COleVariant( (double)chart.GetNextDate( d, 4096,
COleVariant((long)4) ) ), vtMissing , vtMissing );
```

The following C++ sample adds an item with three bars ( two "Task" bars, and one "Split" bar ) that looks like above:

```
COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;
CItems items = m_gantt.GetItems();
DATE d = V2D( &m_gantt.GetChart().GetFirstVisibleDate() );
long h = items.AddItem( COleVariant("new task") );
items.AddBar( h, COleVariant( "Task"), COleVariant( d + 2 ), COleVariant( d + 4 ),
COleVariant( "K1" ), vtMissing );
items.AddBar( h, COleVariant( "Split"), COleVariant( d + 4 ), COleVariant( d + 5 ),
COleVariant( "K2" ), vtMissing );
items.AddBar( h, COleVariant( "Task"), COleVariant( d + 5 ), COleVariant( d + 9 ),
COleVariant( "K3" ), vtMissing );
```

where the V2D function converts a Variant expression to a DATE expression and may look like follows:

```
static DATE V2D( VARIANT* pvtDate )
{
    COleVariant vtDate;
    vtDate.ChangeType( VT_DATE, pvtDate );
    return V_DATE( &vtDate );
}
```

The following VB.NET sample adds a "Milestone" bar and a text beside:

With AxGantt1.Items

```
Dim h As Integer = .AddItem("new task")
.AddBar(h, "Milestone", "5/30/2005 10:00", "5/31/2005")
.AddBar(h, "", "5/31/2005", "6/10/2005", "beside", "<fgcolor=FF0000><b>item</b>
</fgcolor> to change")
End With
```

or

With AxGantt1.Items

```
Dim h As Integer = .AddItem("new task")
.AddBar(h, "Milestone", "5/30/2005 10:00", "6/10/2005",, " <fgcolor=FF0000>
<b>item</b></fgcolor> to change")
End With
```

The following VB.NET sample adds an item with a single "Task" bar:

With AxGantt1.Items

```
Dim d As DateTime = AxGantt1.Chart.FirstVisibleDate
Dim h As Integer = .AddItem("new task")
.AddBar(h, "Task", AxGantt1.Chart.NextDate(d, EXGANTTLib.UnitEnum.exDay, 2),
AxGantt1.Chart.NextDate(d, EXGANTTLib.UnitEnum.exDay, 4))
End With
```

The following VB.NET sample adds an item with three bars ( two "Task" bars, and one "Split" bar ) that looks like above:

With AxGantt1.Items

```
Dim d As DateTime = AxGantt1.Chart.FirstVisibleDate
Dim h As Integer = .AddItem("new task ")
.AddBar(h, "Task", d.AddDays(2), d.AddDays(4), "K1")
.AddBar(h, "Split", d.AddDays(4), d.AddDays(5), "K2")
.AddBar(h, "Task", d.AddDays(5), d.AddDays(9), "K3")
End With
```

The following C# sample adds a "Milestone" bar and a text beside:

```
EXGANTTLib.Items items = axGantt1.Items;
int h = items.AddItem("new task");
```

```
items.AddBar(h, "Milestone", "5/30/2005 10:00", "5/31/2005", null, null);
items.AddItem("", "5/31/2005", "6/10/2005", "just a new key", "<fgcolor=FF0000>
<b>item</b></fgcolor> to change");
```

or

```
EXGANTTLib.Items items = axGantt1.Items;
int h = items.AddItem("new task");
items.AddBar(h, "Milestone", "5/30/2005 10:00", "6/10/2005", null, "<fgcolor=FF0000>
<b>item</b></fgcolor> to change");
```

The following C# sample adds an item with a single "Task" bar:

```
EXGANTTLib.Items items = axGantt1.Items;
int h = items.AddItem("new task");
DateTime d = Convert.ToDateTime(axGantt1.Chart.FirstVisibleDate);
items.AddBar(h, "Task", axGantt1.Chart.get_NextDate(d, EXGANTTLib.UnitEnum.exDay, 2),
axGantt1.Chart.get_NextDate(d, EXGANTTLib.UnitEnum.exDay, 4), null, null);
```

The following C# sample adds an item with three bars ( two "Task" bars, and one "Split" bar ) that looks like above:

```
EXGANTTLib.Items items = axGantt1.Items;
int h = items.AddItem("new task");
DateTime d = Convert.ToDateTime( axGantt1.Chart.FirstVisibleDate );
items.AddBar(h, "Task", d.AddDays(2), d.AddDays(4), "K1", null );
items.AddBar(h, "Split", d.AddDays(4), d.AddDays(5), "K2", null);
items.AddBar(h, "Task", d.AddDays(5), d.AddDays(9), "K3", null);
```

The following VFP sample adds an item with a single "Task" bar:

With thisform.Gantt1.Items

```
d = thisform.Gantt1.Chart.FirstVisibleDate
.DefaultItem = .AddItem("new task")
.AddBar(0, "Task", thisform.Gantt1.Chart.NextDate(d,4096,2),
thisform.Gantt1.Chart.NextDate(d,4096,4))
EndWith
```

The following VFP sample adds an item with three bars ( two "Task" bars, and one "Split" bar ) that looks like above:

```
With thisform.Gantt1.Items
```

```
    thisform.Gantt1.Chart.FirstVisibleDate = "5/29/2005"  
    .DefaultItem = .AddItem("new task")  
    .AddBar(0, "Task", "5/31/2005", "6/2/2005", "K1", "")  
    .AddBar(0, "Split", "6/2/2005", "6/4/2005", "K2", "")  
    .AddBar(0, "Task", "6/4/2005", "6/9/2005", "K3", "")
```

```
EndWith
```

## method Items.AddItem ([Caption as Variant])

Adds a new item, and returns a handle to the newly created item.

Type	Description
Caption as Variant	A string expression that indicates the cell's caption for the first column. or a safe array that contains the captions for each column. The Caption accepts HTML format, if the <a href="#">CellCaptionFormat</a> property is exHTML.
Return	Description
HITEM	A long expression that indicates the handle of the newly created item.

Use the [Add](#) method to add new columns to the control. If the control contains no columns, the AddItem method fails. Use the AddItem property to add new items to the control. Use the [AddBar](#) method to add bars to the item. The bars are always shown in the chart area. Use the [PaneWidth](#) property to specify the width of the chart. Use [InsertItem](#) method to insert child items to the list. Use the [InsertControlItem](#) property to insert and ActiveX control. Use the [LockedItemCount](#) property to add or remove items locked to the top or bottom side of the control. Use the [MergeCells](#) method to combine two or multiple cells in a single cell. Use the [SplitCell](#) property to split a cell. Use the [BeginUpdate](#) and [EndUpdate](#) methods to maintain performance while adding new columns and items. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula. Use the [LoadXML/SaveXML](#) methods to load/save the control's data from/to XML files.

The AddItem property adds a new item that has no parent. When a new item is added (inserted) to the [Items](#) collection, the control fires the [AddItem](#) event. If the control contains more than one column use the [CellCaption](#) property to set the cell's caption. If there are no columns AddItem method fails.

The following VB6 sample uses the VB Array function to add two items:

With Gantt1

.BeginUpdate

```
.Columns.Add "Column 1"  
.Columns.Add "Column 2"  
.Columns.Add "Column 3"
```

With .Items

```
.AddItem Array("Item 1.1", "Item 1.2", "Item 1.3")
.AddItem Array("Item 2.1", "Item 2.2", "Item 2.3")
End With
```

```
.EndUpdate
```

```
End With
```

In VB/.NET using the /NET assembly, the Array equivalent is New Object such as follows:

With Gantt1

```
.BeginUpdate()
```

```
.Columns.Add("Column 1")
.Columns.Add("Column 2")
.Columns.Add("Column 3")
```

With .Items

```
.AddItem(New Object() {"Item 1.1", "Item 1.2", "Item 1.3"})
.AddItem(New Object() {"Item 2.1", "Item 2.2", "Item 2.3"})
```

```
End With
```

```
.EndUpdate()
```

```
End With
```

In C# using the /NET assembly, the Array equivalent is new object such as follows:

```
exgantt1.BeginUpdate();
```

```
exgantt1.Columns.Add("Column 1");
exgantt1.Columns.Add("Column 2");
exgantt1.Columns.Add("Column 3");
```

```
exgantt1.Items.AddItem(new object[] { "Item 1.1", "Item 1.2", "Item 1.3" });
exgantt1.Items.AddItem(new object[] { "Item 2.1", "Item 2.2", "Item 2.3" });
```

```
exgantt1.EndUpdate();
```

Use the [PutItems](#) method to load an array, like in the following VB sample:

```

Set rs = CreateObject("ADODB.Recordset")
rs.Open "Orders", "Provider=Microsoft.Jet.OLEDB.3.51;Data Source= D:\Program
Files\Microsoft Visual Studio\VB98\NWIND.MDB", 3 ' Opens the table using static mode
Gantt1.BeginUpdate
' Add the columns
With Gantt1.Columns
For Each f In rs.Fields
    .Add f.Name
Next
End With
Gantt1.PutItems rs.getRows()
Gantt1.EndUpdate

```

The following C++ sample adds new items to the control:

```

#include "Items.h"
CItems items = m_gantt.GetItems();
long iNewItem = items.AddItem( COleVariant( "Item 1" ) );
items.SetCellCaption( COleVariant( iNewItem ), COleVariant( (long)1 ), COleVariant(
"SubItem 1" ) );
iNewItem = items.AddItem( COleVariant( "Item 2" ) );
items.SetCellCaption( COleVariant( iNewItem ), COleVariant( (long)1 ), COleVariant(
"SubItem 2" ) );

```

The following VB.NET sample adds new items to the control:

```

With AxGantt1.Items
    Dim iNewItem As Integer
    iNewItem = .AddItem("Item 1")
    .CellCaption(iNewItem, 1) = "SubItem 1"
    iNewItem = .AddItem("Item 2")
    .CellCaption(iNewItem, 1) = "SubItem 2"
End With

```

The following C# sample adds new items to the control:

```

EXGANTTLib.Items items = axGantt1.Items;
int iNewItem = items.AddItem( "Item 1" );
items.set_CellCaption( iNewItem, 1, "SubItem 1" );

```

```
iNewItem = items.AddItem( "Item 2" );
items.set_CellCaption( iNewItem, 1, "SubItem 2" );
```

The following VFP sample adds new items to the control:

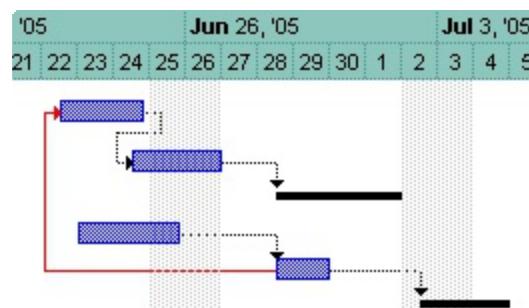
```
with thisform.Gantt1.Items
    .DefaultItem = .AddItem("Item 1")
    .CellCaption(0, 1) = "SubItem 1"
endwith
```

**method Items.AddLink (LinkKey as Variant, StartItem as HITEM,  
StartBarKey as Variant, EndItem as HITEM, EndBarKey as Variant)**

Links a bar to another.

Type	Description
LinkKey as Variant	A String expression that indicates the key of the link. This value is used to identify the link.
StartItem as HITEM	A HITEM expression that indicates the handle of the item where the link starts.
StartBarKey as Variant	A String expression that indicates the key of the bar in the StartItem where the link starts.
EndItem as HITEM	A HITEM expression that indicates the handle of the item where the link ends.
EndBarKey as Variant	A String expression that indicates the key of the bar in the EndItem where the link ends.

Use the `AddLink` method to draw a line between two bars. By default, the bar is drawn from the right side of the starting bar, to the left side of the ending bar. Use the `Link(exLinkStartPos)` property to change where the link starts in the starting bar. Use the `Link(exLinkEndPos)` property to change where the link starts in the starting bar. Use the `AddBar` method to add new bars to an item. Use the `Link` property to change the appearance of the line between bars. Use the `ShowLinks` property to hide all links in the chart area. Use the `ClearLinks` method to clear the links collection. The `AddLink` method fails, if the `StartItem` or `EndItem` item is not valid, or if the `StartBarKey` or `EndBarKey` bar does not exist. Use the `LinkColor` property to change the color for all links between bars. Use the `Link(exLinkShowDir)` property to hide the link's arrow. Use the `RemoveLink` method to remove a specific link. Use the `BeginUpdate` and `EndUpdate` methods to maintain performance while adding columns, items, bars or links. Use the `FirstLink` and `NextLink` properties to enumerate the links in the control.



The following VB sample adds a link between two bars:

```
With Gantt1.Items
```

```
    Dim h1 As HITEM
```

```
    h1 = .AddItem("Item 1")
```

```
    .AddBar h1, "Task", Gantt1.Chart.FirstVisibleDate + 2, Gantt1.Chart.FirstVisibleDate + 4
```

```
    Dim h2 As HITEM
```

```
    h2 = .AddItem("Item 2")
```

```
    .AddBar h2, "Task", Gantt1.Chart.FirstVisibleDate + 1, Gantt1.Chart.FirstVisibleDate + 2,
```

```
"A"
```

```
    .AddLink "Link11", h1, "", h2, "A"
```

```
End With
```

```
Gantt1.EndUpdate
```

The following C++ sample adds a link between two bars:

```
COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;  
m_gantt.BeginUpdate();  
CItems items = m_gantt.GetItems();  
CChart chart = m_gantt.GetChart();  
long h1 = items.AddItem( COleVariant( "Item1" ) );  
items.AddBar( h1, COleVariant( "Task" ), COleVariant( V_DATE(&chart.GetFirstVisibleDate())  
+ 2 ), COleVariant( V_DATE(&chart.GetFirstVisibleDate()) + 4 ), vtMissing, vtMissing );  
long h2 = items.AddItem( COleVariant( "Item2" ) );  
items.AddBar( h2, COleVariant( "Task" ), COleVariant( V_DATE(&chart.GetFirstVisibleDate())  
+ 1 ), COleVariant( V_DATE(&chart.GetFirstVisibleDate()) + 2 ), COleVariant("JustAKey"),  
vtMissing );  
items.AddLink( COleVariant( "Link1" ), h1, vtMissing, h2, COleVariant("JustAKey") );  
m_gantt.EndUpdate();
```

The following VB.NET sample adds a link between two bars:

```
AxGantt1.BeginUpdate()
```

```
Dim d As Date = AxGantt1.Chart.FirstVisibleDate
```

```
With AxGantt1.Items
```

```
    Dim h1 As Integer = .AddItem("Item 1")
```

```
    .AddBar(h1, "Task", d.AddDays(2), d.AddDays(4))
```

```
    Dim h2 As Integer = .AddItem("Item 2")
```

```
    .AddBar(h2, "Task", d.AddDays(1), d.AddDays(2), "A")
```

```
    .AddLink("Link11", h1, "", h2, "A")
```

End With

AxGantt1.EndUpdate()

The following C# sample adds a link between two bars:

```
axGantt1.BeginUpdate();
DateTime d = Convert.ToDateTime(axGantt1.Chart.FirstVisibleDate);
EXGANTTLib.Items splItems = axGantt1.Items;
int h1 = splItems.AddItem("Item 1");
splItems.AddBar(h1, "Task", d.AddDays(2), d.AddDays(4) , null, null);
int h2 = splItems.AddItem("Item 2");
splItems.AddBar(h2, "Task", d.AddDays(1), d.AddDays(2), "A", null);
splItems.AddLink("Link1", h1, null, h2, "A");
axGantt1.EndUpdate();
```

The following VFP sample adds a link between two bars:

```
thisform.Gantt1.BeginUpdate
local d
d = thisform.Gantt1.Chart.FirstVisibleDate
With thisform.Gantt1.Items
    local h1
    .DefaultItem = .AddItem("Item 1")
    h1 = .DefaultItem
    .AddBar(0, "Task", thisform.Gantt1.Chart.NextDate(d,4096,2),
thisform.Gantt1.Chart.NextDate(d,4096,4))
    local h2
    .DefaultItem = .AddItem("Item 2")
    h2 = .DefaultItem
    .AddBar(0, "Task", thisform.Gantt1.Chart.NextDate(d,4096,1),
thisform.Gantt1.Chart.NextDate(d,4096,2), "A")
    .AddLink("Link11", h1, "", h2, "A")
EndWith
thisform.Gantt1.EndUpdate
```

## **property Items.CellBackColor([Item as Variant], [ColIndex as Variant]) as Color**

Retrieves or sets the cell's background color.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Color	A color expression that indicates the cell's background color.

To change the background color for the entire item you can use [ItemBackColor](#) property. Use the [ClearCellBackColor](#) method to clear the cell's background color. Use the [BackColor](#) property to specify the control's background color. Use the [CellForeColor](#) property to specify the cell's foreground color. Use the [ItemForeColor](#) property to specify the item's foreground color. Use the [Def\(exCellBackColor\)](#) property to specify the background color for all cells in the column. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula.

In VB.NET or C# you require the following functions until the .NET framework will support them:

You can use the following VB.NET function:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32
    Dim i As Long
    i = c.R
    i = i + 256 * c.G
    i = i + 256 * 256 * c.B
    ToUInt32 = Convert.ToUInt32(i)
End Function
```

You can use the following C# function:

```
private UInt32 ToUInt32(Color c)
{
    long i;
    i = c.R;
```

```
i = i + 256 * c.G;  
i = i + 256 * 256 * c.B;  
return Convert.ToInt32(i);  
}
```

The following C# sample changes the background color for the focused cell:

```
axGantt1.Items.set_CellBackColor(axGantt1.Items.FocusItem, 0, ToUInt32(Color.Red));
```

The following VB.NET sample changes the background color for the focused cell:

```
With AxGantt1.Items
```

```
    .CellBackColor(.FocusItem, 0) = ToUInt32(Color.Red)
```

```
End With
```

The following C++ sample changes the background color for the focused cell:

```
#include "Items.h"  
CItems items = m_gantt.GetItems();  
items.SetCellBackColor( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ),  
RGB(255,0,0) );
```

The following VFP sample changes the background color for the focused cell:

```
with thisform.Gantt1.Items  
    .DefaultItem = .FocusItem  
    .CellBackColor( 0, 0 ) = RGB(255,0,0)  
endwith
```

For instance, the following VB code changes background color of the left top cell of your control: Gantt1.Items.CellBackColor(Gantt1.Items(0), 0) = vbBlue

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell ( see ItemCell property ). Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold(, Gantt1.Items.ItemCell(Gantt1.Items(0), 0)) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True

## property Items.CellBold([Item as Variant], [ColIndex as Variant]) as Boolean

Retrieves or sets a value that indicates whether the cell's caption should appear in bold.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Boolean	A boolean expression that indicates whether the cell should appear in bold.

Use the CellBold property to bold a cell. Use the [ItemBold](#) property to specify whether the item should appear in bold. Use the [HeaderBold](#) property of the Column object to bold the column's caption. Use the [CellItalic](#), [CellUnderline](#) or [CellStrikeOut](#) property to apply different font attributes to the cell. Use the [ItemItalic](#), [ItemUnderline](#) or [ItemStrikeOut](#) property to apply different font attributes to the item. Use the [CellCaptionFormat](#) property to specify an HTML caption. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula.

The following VB sample bolds the cells in the first column

```
Dim h As Variant  
Gantt1.BeginUpdate  
With Gantt1.Items  
For Each h In Gantt1.Items  
    .CellBold(h, 0) = True  
Next  
End With  
Gantt1.EndUpdate
```

The following C++ sample bolds the focused cell:

```
#include "Items.h"  
CItems items = m_gantt.GetItems();  
items.SetCellBold( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ), TRUE );
```

The following C# sample bolds the focused cell:

```
axGantt1.Items.set_CellBold(axGantt1.Items.FocusItem, 0, true);
```

The following VB.NET sample bolds the focused cell:

```
With AxGantt1.Items
```

```
    .CellBold(.FocusItem, 0) = True
```

```
End With
```

The following VFP sample bolds the focused cell:

```
with thisform.Gantt1.Items
```

```
    .DefaultItem = .FocusItem
```

```
    .CellBold( 0, 0 ) = .t.
```

```
endwith
```

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell ( see ItemCell property ). Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold(, Gantt1.Items.ItemCell(Gantt1.Items(0), 0)) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## property Items.CellButtonAutoWidth([Item as Variant], [ColIndex as Variant]) as Boolean

Retrieves or sets a value indicating whether the cell's button fits the cell's caption.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, or a string expression that indicates the column's caption or the column's key.
Boolean	A boolean expression indicating whether the cell's button fits the cell's caption.

By default, the CellButtonAutoWidth property is False. The CellButtonAutoWidth property has effect only if the [CellHasButton](#) property is true. Use the [Def](#) property to specify that all buttons in the column fit to the cell's content. If the CellButtonAutoWidth property is False, the width of the button is the same as the width of the column. If the CellButtonAutoWidth property is True, the button area covers only the cell's caption. Use the [CellCaption](#) property to specify the button's caption. Use the [CellCaptionFormat](#) property to assign an HTML caption to the button. The control fires the [CellButtonClick](#) property when the user clicks a button.

Button 1	CellButtonAutoWidth(h,0) = False
Button 2	CellButtonAutoWidth(h,0) = True

## property Items.CellCaption([Item as Variant], [CollIndex as Variant]) as Variant

Retrieves or sets the text displayed on a specific cell.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
CollIndex as Variant	A long expression that indicates the column's index, or the handle to the cell, if the Item parameter is 0, a string expression that indicates the column's caption or the column's key.
Variant	A variant expression that indicates the cell's caption. The cell's caption supports built-in HTML format.

The CellCaption property specifies the cell's caption. To associate an user data for a cell you can use [CellData](#) property. Use the [CellCaptionFormat](#) property to use HTML tags in the cell's caption. Use the [ItemData](#) property to associate an extra data to an item. To hide a column you have to use [Visible](#) property of the [Column](#) object. The [AddItem](#) method specifies also the caption for the first cell in the item. Use the [SplitCell](#) property to split a cell. The CellCaption property indicates the formula being used to compute the field, if the [CellCaptionFormat](#) property is exComputedField. The [ComputedField](#) property specifies the formula to compute the entire column. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula.

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see [Column.Index](#) property ) of a column , the column's caption ( a string value, see [Column.Caption](#) property ), or a handle to a cell ( see [ItemCell](#) property ). Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0) ) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## property Items.CellCaptionFormat([Item as Variant], [ColIndex as Variant]) as CaptionFormatEnum

Specifies how the cell's caption is displayed.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index or cell's handle, or a string expression that specifies the column's caption
<a href="#">CaptionFormatEnum</a>	A CaptionFormatEnum expression that defines the way how the cell's caption is displayed.

The component supports built-in HTML format. That means that you can use HTML tags when displays the cell's caption . By default, the CellCaptionFormat property is exText. If the CellCaptionFormat is exText, the cell displays the [CellCaption](#) property like it is. If the CellCaptionFormat is exHTML, the cell displays the CellCaption property using the HTML tags specified in the CaptionFormatEnum type. If the CellCaptionFormat property is exComputedField, the CellCaption property indicates the formula to calculate the cell, based on the other cells. Use the [Def](#) property to specify that all cells in the column display HTML format. Use [ItemBold](#), [ItemItalic](#), [ItemUnderline](#) or [ItemStrikeOut](#) property to apply different font attributes to the item. Use the [CellItalic](#), [CellUnderline](#), [CellBold](#) or [CellStrikeOut](#) property to apply different font attributes to the cell. Use the [FormatColumn](#) property to format the column.

## property Items.CellChecked (RadioGroup as Long) as HCELL

Retrieves the cell's handle that is checked on a specific radio group.

Type	Description
RadioGroup as Long	A long expression that indicates the radio group identifier.
HCELL	A long expression that identifies the handle of the cell that's checked in the specified radio group. To retrieve the handle of the owner item you have to use <a href="#">CellItem</a> property.

A radio group contains a set of cells of radio types. Use the [CellHasRadioButton](#) property to set the cell of radio type. To change the state for a cell you can use the [CellState](#) property. To add or remove a cell to a given radio group you have to use CellHasRadioButton property. Use the [CellRadioGroup](#) property to add cells in the same radio group. The control fires the [CellStateChanged](#) event when the check box or radio button state is changed.

The following VB sample groups all cells on the first column into a radio group, and display the cell's checked on the radio group when the state of a radio group is changed:

```
Private Sub Gantt1_AddItem(ByVal Item As EXGANTTLibCtl.HITEM)
    Gantt1.Items.CellHasRadioButton(Item, 0) = True
    Gantt1.Items.CellRadioGroup(Item, 0) = 1234 ' The 1234 is arbitrary and it represents the
                                                identifier for the radio group
End Sub
```

```
Private Sub Gantt1_CellStateChanged(ByVal Item As EXGANTTLibCtl.HITEM, ByVal
                                    ColIndex As Long)
    Debug.Print "In the 1234 radio group the "" & Gantt1.Items.CellCaption(
    Gantt1.Items.CellChecked(1234)) & "" is checked."
End Sub
```

The following C++ sample groups the radio cells on the first column, and displays the caption of the checked radio cell:

```
#include "Items.h"
COleVariant vtColumn( long(0) );
CItems items = m_gantt.GetItems();
m_gantt.BeginUpdate();
```

```

for ( long i = 0; i < items.GetItemCount(); i++ )
{
    COleVariant vtItem( items.GetItemByIndex( i ) );
    items.SetCellHasRadioButton( vtItem, vtColumn, TRUE );
    items.SetCellRadioGroup( vtItem, vtColumn, 1234 );
}
m_gantt.EndUpdate();

```

```

static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return szDefault;

        COleVariant vt;
        vt.ChangeType( VT_BSTR, pv );
        return V_BSTR( &vt );
    }
    return szDefault;
}

```

```

void OnCellStateChangedGantt1(long Item, long CollIndex)
{
    CItems items = m_gantt.GetItems();
    long hCell = items.GetCellChecked( 1234 );
    COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;
    OutputDebugString( V2S( &items.GetCellCaption( vtMissing, COleVariant( hCell ) ) ) );
}

```

The following VB.NET sample groups the radio cells on the first column, and displays the caption of the checked radio cell:

```

With AxGantt1
    .BeginUpdate()
    With .Items
        Dim k As Integer
        For k = 0 To .ItemCount - 1

```

```
.CellHasRadioButton(.ItemByIndex(k), 0) = True  
.CellRadioGroup(.ItemByIndex(k), 0) = 1234  
Next  
End With  
.EndUpdate()  
End With
```

```
Private Sub AxGantt1_CellStateChanged(ByVal sender As Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_CellStateChangedEvent) Handles  
AxGantt1.CellStateChanged  
With AxGantt1.Items  
    Debug.WriteLine(.CellCaption(, .CellChecked(1234)))  
End With  
End Sub
```

The following C# sample groups the radio cells on the first column, and displays the caption of the checked radio cell:

```
axGantt1.BeginUpdate();  
EXGANTTLib.Items items = axGantt1.Items;  
for (int i = 0; i < items.ItemCount; i++)  
{  
    items.set_CellHasRadioButton(items[i], 0, true);  
    items.set_CellRadioGroup(items[i], 0, 1234);  
}  
axGantt1.EndUpdate();
```

```
private void axGantt1_CellStateChanged(object sender,  
AxEXGANTTLib._IGanttEvents_CellStateChangedEvent e)  
{  
    string strOutput = axGantt1.Items.get_CellCaption( 0,  
axGantt1.Items.get_CellChecked(1234) ).ToString();  
    strOutput += " state = " + axGantt1.Items.get_CellState(e.item, e.colIndex).ToString() ;  
    System.Diagnostics.Debug.WriteLine( strOutput );  
}
```

The following VFP sample groups the radio cells on the first column, and displays the caption of the checked radio cell:

```
thisform.Gantt1.BeginUpdate()  
with thisform.Gantt1.Items  
    local i  
    for i = 0 to .ItemCount - 1  
        .DefaultItem = .ItemByIndex(i)  
        .CellHasRadioButton( 0,0 ) = .t.  
        .CellRadioGroup(0,0) = 1234  
    next  
endwith  
thisform.Gantt1.EndUpdate()
```

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell ( see ItemCell property ). Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0) ) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## property Items.CellData([Item as Variant], [ColIndex as Variant]) as Variant

Retrieves or sets the extra data for a specific cell.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Variant	A variant expression that indicates the cell's user data.

Use the CellData to associate an extra data to your cell. Use [ItemData](#) when you need to associate an extra data with an item. The CellData value is not used by the control, it is only for user use. Use the [Data](#) property to assign an extra data to a column. Use the [SortUserData](#) or [SortUserDataString](#) type to sort the column based on the CellData value. Use the [CellCaption](#) property to specify the cell's caption.

Note: A cell is the intersection of an item with a column. All properties that has an Item and a ColIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the ColIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell ( see ItemCell property ). Here's few hints how to use properties with Item and ColIndex parameters:

```
Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0) ) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## **property Items.CellEnabled([Item as Variant], [ColIndex as Variant]) as Boolean**

Returns or sets a value that determines whether a cell can respond to user-generated events.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Boolean	A boolean expression that indicates whether the cell is enabled or disabled.

Use the CellEnabled property to disable a cell. A disabled cell looks grayed. Use the [EnableItem](#) property to disable an item. Once that one cell is disabled it cannot be checked or clicked. Use the [SelectableItem](#) property to specify the user can select an item. To disable a column you can use [Enabled](#) property of the Column object.

Note: A cell is the intersection of an item with a column. All properties that has an Item and a ColIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the ColIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell ( see ItemCell property ). Here's few hints how to use properties with Item and ColIndex parameters:

```
Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0) ) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## property Items.CellFont ([Item as Variant], [ColIndex as Variant]) as IFontDisp

Retrieves or sets the cell's font.

Type	Description
Item as Variant	A long expression that indicates the item's handle, or optional if the cell's handle is passed to ColIndex parameter
ColIndex as Variant	A long expression that indicates the column's index or cell's handle, or a string expression that indicates the column's caption.
IFontDisp	A Font object that indicates the cell's font.

By default, the CellFont property is nothing. If the CellFont property is noting, the cell uses the item's [font](#). Use the CellFont and [ItemFont](#) properties to specify different fonts for cells or items. Use the [CellBold](#), [CellItalic](#), [CellUnderline](#), [CellStrikeout](#), [ItemBold](#), [ItemUnderline](#), [ItemStrikeout](#), [ItemItalic](#) or [CellCaptionFormat](#) to specify different font attributes. Use the [Refresh](#) method to refresh the control's content on the fly. Use the [BeginUpdate](#) and [EndUpdate](#) methods if you are doing multiple changes, so no need for an update each time a change is done.

The following VB sample changes the font for the focused cell:

```
With Gantt1.Items
```

```
    .CellFont(.FocusItem, 0) = Gantt1.Font
```

```
    With .CellFont(.FocusItem, 0)
```

```
        .Name = "Comic Sans MS"
```

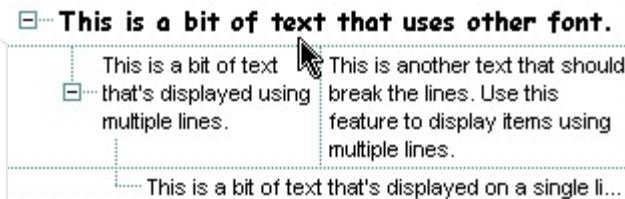
```
        .Size = 10
```

```
        .Bold = True
```

```
    End With
```

```
End With
```

```
Gantt1.Refresh
```



The following C++ sample changes the font for the focused cell:

```
#include "Items.h"  
#include "Font.h"  
CItems items = m_gantt.GetItems();  
COleVariant vtItem(items.GetFocusItem()), vtColumn( (long)0 );
```

```
items.SetCellFont( vtItem, vtColumn, m_gantt.GetFont().m_lpDispatch );
COleFont font = items.GetCellFont( vtItem, vtColumn );
font.SetName( "Comic Sans MS" );
font.SetBold( TRUE );
m_gantt.Refresh();
```

The following VB.NET sample changes the font for the focused cell:

With AxGantt1.Items

```
.CellFont(.FocusItem, 0) = IFDH.GetIFontDisp(AxGantt1.Font)
With .CellFont(.FocusItem, 0)
    .Name = "Comic Sans MS"
    .Bold = True
End With
End With
AxGantt1.CtlRefresh()
```

where the IFDH class is defined like follows:

Public Class IFDH

Inherits System.Windows.Forms.AxHost

Sub New()

MyBase.New("")
End Sub

Public Shared Function GetIFontDisp(ByVal font As Font) As Object

GetIFontDisp = AxHost.GetIFontFromFont(font)

End Function

End Class

The following C# sample changes the font for the focused cell:

```
axGantt1.Items.set_CellFont( axGantt1.Items.FocusItem, 0, IFDH.GetIFontDisp(
axGantt1.Font ) );
stdole.IFontDisp spFont = axGantt1.Items.get_CellFont(axGantt1.Items.FocusItem, 0 );
spFont.Name = "Comic Sans MS";
spFont.Bold = true;
```

```
axGantt1.CtlRefresh();
```

where the IFDH class is defined like follows:

```
internal class IFDH : System.Windows.Forms.AxHost
{
    public IFDH() : base("")
    {
    }

    public static stdole.IFontDisp GetIFontDisp(System.Drawing.Font font)
    {
        return System.Windows.Forms.AxHost.GetIFontFromFont(font) as stdole.IFontDisp;
    }
}
```

The following VFP sample changes the font for the focused cell:

```
with thisform.Gantt1.Items
    .DefaultItem = .FocusItem
    .CellFont(0,0) = thisform.Gantt1.Font
    with .CellFont(0,0)
        .Name = "Comic Sans MS"
        .Bold = .t.
    endwith
endwith
thisform.Gantt1.Object.Refresh()
```

## property Items.CellForeColor([Item as Variant], [ColIndex as Variant]) as Color

Retrieves or sets the cell's foreground color.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Color	A color expression that indicates the cell's foreground color.

The CellForeColor property identifies the cell's foreground color. Use the [ClearCellForeColor](#) property to clear the cell's foreground color. Use the [ItemForeColor](#) property to specify the the item's foreground color. Use the [Def\(exCellForeColor\)](#) property to specify the foreground color for all cells in the column.

For instance, the following VB code changes the left top cell of your control:  
Gantt1.Items.CellForeColor(Gantt1.Items(0), 0) = vbBlue

In VB.NET or C# you require the following functions until the .NET framework will provide:

You can use the following VB.NET function:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32
    Dim i As Long
    i = c.R
    i = i + 256 * c.G
    i = i + 256 * 256 * c.B
    ToUInt32 = Convert.ToInt32(i)
End Function
```

You can use the following C# function:

```
private UInt32 ToUInt32(Color c)
{
    long i;
    i = c.R;
    i = i + 256 * c.G;
```

```
i = i + 256 * 256 * c.B;  
return Convert.ToInt32(i);  
}
```

The following C# sample changes the foreground color for the focused cell:

```
axGantt1.Items.set_CellForeColor(axGantt1.Items.FocusItem, 0, ToUInt32(Color.Red) );
```

The following VB.NET sample changes the foreground color for the focused cell:

With AxGantt1.Items

```
.CellForeColor(FocusItem, 0) = ToUInt32(Color.Red)
```

End With

The following C++ sample changes the foreground color for the focused cell:

```
#include "Items.h"  
CItems items = m_gantt.GetItems();  
items.SetCellForeColor( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ),  
RGB(255,0,0) );
```

The following VFP sample changes the foreground color for the focused cell:

```
with thisform.Gantt1.Items  
.DefaultItem = .FocusItem  
.CellForeColor( 0, 0 ) = RGB(255,0,0)  
endwith
```

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell. Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0) ) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## property Items.CellHAlignment ([Item as Variant], [ColIndex as Variant]) as AlignmentEnum

Retrieves or sets a value that indicates the alignment of the cell's caption.

Type	Description
Item as Variant	A long expression that indicates the handle of the item.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's key or the column's caption.
<a href="#">AlignmentEnum</a>	An AlignmentEnum expression that indicates the alignment of the cell's caption.

The CellHAlignment property aligns a particular cell. Use the [Alignment](#) property of the [Column](#) object to align all the cells in the column. Use the [CellVAlignment](#) property to align vertically the caption of the cell, when the item displays its content using multiple lines. Use the [ClearCellHAlignment](#) method to clear the cell's alignment previously set by the CellHAlignment property. If the CellHAlignment property is not set, the Alignment property of the Column object indicates the cell's alignment. If the cell belongs to the column that displays the hierarchy ( [TreeColumnIndex](#) property ), the cell can be aligned to the left or to the right.

The following VB sample right aligns the focused cell:

```
With Gantt1.Items
    .CellHAlignment(.FocusItem, 0) = AlignmentEnum.RightAlignment
End With
```

The following C++ sample right aligns the focused cell:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetCellHAlignment( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ), 2
/*RightAlignment* );
```

The following VB.NET sample right aligns the focused cell:

```
With AxGantt1.Items
    .CellHAlignment(.FocusItem, 0) = EXGANTTLib.AlignmentEnum.RightAlignment
End With
```

The following C# sample right aligns the focused cell:

```
axGantt1.Items.set_CellHAlignment(axGantt1.Items.FocusItem, 0,  
EXGANTTLib.AlignmentEnum.RightAlignment);
```

The following VFP sample right aligns the focused cell:

```
with thisform.Gantt1.Items  
.DefaultItem = .FocusItem  
.CellHAlignment(0,0) = 2 && RightAlignment  
endwith
```

## property Items.CellHasButton([Item as Variant], [ColIndex as Variant]) as Boolean

Retrieves or sets a value indicating whether the cell has associated a push button or not.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Boolean	A boolean expression that indicates whether the cell contains a button.

The CellHasButton property specifies whether the cell display a button inside. When the cell's button is clicked the control fires [CellButtonClick](#) event. The caption of the push button is specified by the [CellCaption](#) property. Use the [Def](#) property to assign buttons for all cells in the column. Use the [Add](#) method to add new skins to the control. Use the [Background](#) property to specify a background color or a visual appearance for specific parts in the control. See also: [CellButtonAutoWidth](#) property.

The following VB sample changes the appearance for buttons in the cells. The sample use the skin "  " when the button is up, and the skin "  " when the button is down:

With Gantt1

With .VisualAppearance

.Add &H20, App.Path + "\buttonu.ebn"

.Add &H21, App.Path + "\buttond.ebn"

End With

.Background(exCellButtonUp) = &H20000000

.Background(exCellButtonDown) = &H21000000

End With

The following C++ sample changes the appearance for buttons in the cells:

```
#include "Appearance.h"
m_gantt.GetVisualAppearance().Add( 0x20,
COleVariant(_T("D:\\Temp\\ExGantt.Help\\buttonu.ebn")));
m_gantt.GetVisualAppearance().Add( 0x21,
COleVariant(_T("D:\\Temp\\ExGantt.Help\\buttond.ebn")));
m_gantt.SetBackground( 2 /*exCellButtonUp*/, 0x20000000 );
```

```
m_gantt.SetBackground( 3 /*exCellButtonDown*/, 0x21000000 );
```

The following VB.NET sample changes the appearance for buttons in the cells.

With AxGantt1

```
With .VisualAppearance  
    .Add(&H20, "D:\Temp\ExGantt.Help\buttonu.ebn")  
    .Add(&H21, "D:\Temp\ExGantt.Help\buttond.ebn")  
End With  
.set_Background(EXGANTTLib.BackgroundPartEnum.exCellButtonUp, &H20000000)  
.set_Background(EXGANTTLib.BackgroundPartEnum.exCellButtonDown, &H21000000)  
End With
```

The following C# sample changes the appearance for buttons in the cells.

```
axGantt1.VisualAppearance.Add(0x20, "D:\\Temp\\ExGantt.Help\\buttonu.ebn");  
axGantt1.VisualAppearance.Add(0x21, "D:\\Temp\\ExGantt.Help\\buttond.ebn");  
axGantt1.set_Background(EXGANTTLib.BackgroundPartEnum.exCellButtonUp,  
0x20000000);  
axGantt1.set_Background(EXGANTTLib.BackgroundPartEnum.exCellButtonDown,  
0x21000000);
```

The following VFP sample changes the appearance for buttons in the cells.

With thisform.Gantt1

```
With .VisualAppearance  
    .Add(32, "D:\Temp\ExGantt.Help\buttonu.ebn")  
    .Add(33, "D:\Temp\ExGantt.Help\buttond.ebn")  
EndWith  
.Object.Background(2) = 536870912  
.Object.Background(3) = 553648128  
endwith
```

the 536870912 indicates the 0x20000000 value in hexadecimal, and the 553648128 indicates the 0x21000000 value in hexadecimal

The following VB sample sets the cells of the first column to be of button type, and displays a message if the button is clicked:

```
Private Sub Gantt1_AddItem(ByVal Item As EXGANTTLibCtl.HITEM)
```

```
Gantt1.Items.CellHasButton(Item, 0) = True
```

```
End Sub
```

```
Private Sub Gantt1_CellButtonClick(ByVal Item As EXGANTTLibCtl.HITEM, ByVal CollIndex  
As Long)
```

```
    MsgBox "The cell of button type has been clicked"
```

```
End Sub
```

The following VB sample assigns a button to the focused cell:

```
With Gantt1.Items
```

```
    .CellHasButton(.FocusItem, 0) = True
```

```
End With
```

The following C++ sample assigns a button to the focused cell:

```
#include "Items.h"
```

```
CItems items = m_gantt.GetItems();
```

```
items.SetCellHasButton( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ), TRUE
```

```
);
```

The following VB.NET sample assigns a button to the focused cell:

```
With AxGantt1.Items
```

```
    .CellHasButton(.FocusItem, 0) = True
```

```
End With
```

The following C# sample assigns a button to the focused cell:

```
axGantt1.Items.set_CellHasButton(axGantt1.Items.FocusItem, 0, true);
```

The following VFP sample assigns a button to the focused cell:

```
with thisform.Gantt1.Items
```

```
    .DefaultItem = .FocusItem
```

```
    .CellHasButton(0,0) = .t.
```

```
endwith
```

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of

an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell. Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0) ) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## property Items.CellHasCheckBox([Item as Variant], [ColIndex as Variant]) as Boolean

Retrieves or sets a value indicating whether the cell has associated a checkbox or not.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Boolean	A boolean expression that indicates whether the cell contains a check box button.

To change the state for a check cell you have to use [CellState](#) property. The cell cannot display in the same time a radio and a check button. The control fires [CellStateChanged](#) event when the cell's state has been changed. To set the cell of radio type you have call [CellHasRadioButton](#) property. Use the [Def](#) property to assign check boxes for all cells in the column. Use the [CellImage](#) property to add a single icon to a cell. Use the [CellImages](#) property to assign multiple icons to a cell. Use the [CellPicture](#) property to load a custom size picture to a cell. Use the [PartialCheck](#) property to allow partial check feature within the column. Use the [CheckImage](#) property to change the check box appearance. Use the [FilterType](#) property on exCheck to filter for checked or unchecked items. The [Column.Def\(exCellDrawPartsOrder\)](#) property specifies the order of the drawing parts for the entire column. By default, the parts are shows as check icon icons picture caption.

The following sample enumerates the cells in the first column and assign a checkbox to all of them:

```
Dim h As Variant
Gantt1.BeginUpdate
With Gantt1.Items
For Each h In Gantt1.Items
    .CellHasCheckBox(h, 0) = True
Next
End With
Gantt1.EndUpdate
```

The same thing we can do using the Def property like follows:

```
With Gantt1.Columns(0)
    .Def(exCellHasCheckBox) = True
```

End With

The following sample shows how to set the type of cells to radio type while adding new items:

```
Private Sub Gantt1.AddItem(ByVal Item As EXGANTTLibCtl.HITEM)
    Gantt1.Items.CellHasCheckBox(Item, 0) = True
End Sub
```

The following sample shows how to use the CellStateChanged event to display a message when a cell of radio or check type has changed its state:

```
Private Sub Gantt1_CellStateChanged(ByVal Item As EXGANTTLibCtl.HITEM, ByVal
    ColIndex As Long)
    Debug.Print "The cell """ & Gantt1.Items.CellCaption(Item, ColIndex) & """
    has changed its state. The new state is " & If(Gantt1.Items.CellState(Item, ColIndex) = 0, "Unchecked",
    "Checked")
End Sub
```

The following VB sample adds a checkbox to the focused cell:

```
With Gantt1.Items
    .CellHasCheckBox(.FocusItem, 0) = True
End With
```

The following C++ sample adds a checkbox to the focused cell:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetCellHasCheckBox( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ),
TRUE );
```

The following C# sample adds a checkbox to the focused cell:

```
axGantt1.Items.set_CellHasCheckBox(axGantt1.Items.FocusItem, 0, true);
```

The following VB.NET sample adds a checkbox to the focused cell:

```
With AxGantt1.Items
    .CellHasCheckBox(.FocusItem, 0) = True
End With
```

The following VFP sample adds a checkbox to the focused cell:

```
with thisform.Gantt1.Items  
    .DefaultItem = .FocusItem  
    .CellHasCheckBox(0,0) = .t.  
endwith
```

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell. Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0)) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## property Items.CellHasRadioButton([Item as Variant], [ColIndex as Variant]) as Boolean

Retrieves or sets a value indicating whether the cell has associated a radio button or not.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Boolean	A boolean expression that indicates whether the cell contains a radio button.

Retrieves or sets a value indicating whether the cell has associated a radio button or not. To change the state for a radio cell you have to use [CellState](#) property. The cell cannot display in the same time a radio and a check button. The control fires [CellStateChanged](#) event when the cell's state has been changed. To set the cell of check type you have call [CellHasCheckBox](#) property. To add or remove a cell to a given radio group you have to use [CellRadioGroup](#) property. Use the [Def](#) property to assign radio buttons for all cells in the column. Use the [CellImage](#) property to add a single icon to a cell. Use the [CellImages](#) property to assign multiple icons to a cell. Use the [CellPicture](#) property to load a custom size picture to a cell. Use the [RadioImage](#) property to change the radio button appearance. The [Column.Def\(exCellDrawPartsOrder\)](#) property specifies the order of the drawing parts for the entire column. By default, the parts are shows as check icon icons picture caption.

The following VB sample sets the radio type for all cells in the first column, and group all of them in the same radio group ( 1234 ):

```
Dim h As Variant
Gantt1.BeginUpdate
With Gantt1.Items
For Each h In Gantt1.Items
    .CellHasRadioButton(h, 0) = True
    .CellRadioGroup(h, 0) = 1234
Next
End With
Gantt1.EndUpdate
```

or

```
Private Sub Gantt1.AddItem(ByVal Item As EXGANTTLibCtl.HITEM)
```

```
Gantt1.Items.CellHasRadioButton(Item, 0) = True  
Gantt1.Items.CellRadioGroup(Item, 0) = 1234  
End Sub
```

To find out the radio cell that is checked in the radio group 1234 you have to call: [MsgBox Gantt1.Items.CellCaption\(, Gantt1.Items.CellChecked\(1234\)\)](#)

The following sample group all cells of the first column into a radio group, and display the cell's checked on the radio group when the state of a radio group has been changed:

```
Private Sub Gantt1.AddItem(ByVal Item As EXGANTTLibCtl.HITEM)  
    Gantt1.Items.CellHasRadioButton(Item, 0) = True  
    Gantt1.Items.CellRadioGroup(Item, 0) = 1234 ' The 1234 is arbitrary and it represents the  
    identifier for the radio group  
End Sub
```

```
Private Sub Gantt1_CellStateChanged(ByVal Item As EXGANTTLibCtl.HITEM, ByVal  
CollIndex As Long)  
    Debug.Print "In the 1234 radio group the "" & Gantt1.Items.CellCaption(,  
Gantt1.Items.CellChecked(1234)) & "" is checked."  
End Sub
```

The following VB sample assigns a radio button to the focused cell:

```
With Gantt1.Items  
    .CellHasRadioButton(.FocusItem, 0) = True  
    .CellRadioGroup(.FocusItem, 0) = 1234  
End With
```

The following C++ sample assigns a radio button to the focused cell:

```
#include "Items.h"  
CItems items = m_gantt.GetItems();  
items.SetCellHasRadioButton( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ),  
TRUE );  
items.SetCellRadioGroup( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ),  
1234 );
```

The following VB.NET sample assigns a radio button to the focused cell:

With AxGantt1.Items

```
.CellHasRadioButton(.FocusItem, 0) = True  
.CellRadioGroup(.FocusItem, 0) = 1234
```

End With

The following C# sample assigns a radio button to the focused cell:

```
axGantt1.Items.set_CellHasRadioButton(axGantt1.Items.FocusItem, 0, true);  
axGantt1.Items.set_CellRadioGroup(axGantt1.Items.FocusItem, 0, 1234);
```

The following VFP sample assigns a radio button to the focused cell:

```
with thisform.Gantt1.Items  
.DefaultItem = .FocusItem  
.CellHasRadioButton(0,0) = .t.  
.CellRadioGroup(0,0) = 1234  
endwith
```

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell. Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0) ) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## **property Items.CellHyperLink ([Item as Variant], [ColIndex as Variant]) as Boolean**

Specifies whether the cell's is highlighted when the cursor mouse is over the cell.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, or a string expression that indicates the column's caption.
Boolean	A boolean expression that indicates whether the cell is highlighted when the cursor is over the cell.

Use the CellHyperLink property to add hyperlink cells to your list/tree. Use the [HyperLinkClick](#) event to notify your application when a hyperlink cell is clicked. Use the [CellForeColor](#) property to specify the cell's foreground color. Use the [HyperLinkColor](#) property to specify the hyperlink color.

## property Items.CellImage ([Item as Variant], [ColIndex as Variant]) as Long

Retrieves or sets an Image that is displayed on the cell's area.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Long	A long value that indicates the image index. The last 7 bits in the high significant byte of the long expression indicates the identifier of the skin being used to paint the object. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part.

Use the CellImage property to assign a single icon to a cell. Use the [CellImages](#) property to assign multiple icons to a cell. The [ImageSize](#) property defines the size (width/height) of the icons within the control's Images collection. Use the [Images](#) method to assign icons to the control at runtime. You can add images at design time by dragging a file to image editor of the control. The CellImage = 0 removes the cell's image. The collection of [Images](#) is 1 based. The [CellImageClick](#) event occurs when the cell's image is clicked. Use the [ItemFromPoint](#) property to retrieve the part of the control being clicked. Use the [CellHasCheckBox](#) property to add a check box to a cell. Use the [CellHasRadioButton](#) property to assign a radio button to a cell. Use the [CellPicture](#) property to load a custom size picture to a cell. Use the <img> HTML tag to insert icons inside the cell's caption, if the [CellCaptionFormat](#) property is exHTML. Use the [FilterType](#) property on exImage to filter items by icons. The [Column.Def\(exCellDrawPartsOrder\)](#) property specifies the order of the drawing parts for the entire column. By default, the parts are shows as check icon icons picture caption.

The following VB sample sets cell's image for the first column while new items are added ( to run the sample make sure that control's images collection is not empty):

```
Private Sub Gantt1.AddItem(ByVal Item As EXGANTTLibCtl.HITEM)
    Gantt1.Items.CellImage(Item, 0) = 1
End Sub
```

The following VB sample changes the cell's image when the user has clicked on the cell's image ( to run the following sample you have to add two images to the gantt's images

collection. ) ,

```
Private Sub Gantt1.AddItem(ByVal Item As EXGANTTLibCtl.HITEM)
```

```
    Gantt1.Items.CellImage(Item, 0) = 1
```

```
End Sub
```

```
Private Sub Gantt1_CellImageClick(ByVal Item As EXGANTTLibCtl.HITEM, ByVal CollIndex
```

```
As Long)
```

```
    Gantt1.Items.CellImage(Item, CollIndex) = Gantt1.Items.CellImage(Item, CollIndex) Mod 2
```

```
+ 1
```

```
End Sub
```

The following C++ sample displays the first icon in the focused cell:

```
#include "Items.h"
```

```
CItems items = m_gantt.GetItems();
```

```
items.SetCellImage( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ), 1 );
```

The following C# sample displays the first icon in the focused cell:

```
axGantt1.Items.set_CellImage(axGantt1.Items.FocusItem, 0, 1);
```

The following VB.NET sample displays the first icon in the focused cell:

```
With AxGantt1.Items
```

```
    .CellImage(.FocusItem, 0) = 1
```

```
End With
```

The following VFP sample displays the first icon in the focused cell:

```
with thisform.Gantt1.Items
```

```
    .DefaultItem = .FocusItem
```

```
    .CellImage(0,0) = 1
```

```
endwith
```

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell. Here's few hints how to use properties with Item and CollIndex parameters:

Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0) ) = True

Gantt1.Items.CellBold( Gantt1.Items(0), 0 ) = True

Gantt1.Items.CellBold( Gantt1.Items(0), "ColumnName" ) = True

## property Items.CellImages ([Item as Variant], [ColIndex as Variant]) as Variant

Specifies an additional list of icons shown in the cell.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Variant	A string expression that indicates the list of icons shown in the cell.

The CellImages property assigns multiple icons to a cell. The [CellImage](#) property assign a single icon to the cell. Instead if multiple icons need to be assigned to a single cell you have to use the CellImages property. The CellImages property takes a list of additional icons and display them in the cell. The list is separated by ',' and should contain numbers that represent indexes to Images list collection. Use the [ItemFromPoint](#) property to retrieve the part of the control being clicked. Use the [CellHasCheckBox](#) property to add a check box to a cell. Use the [CellHasRadioButton](#) property to assign a radio button to a cell. Use the [CellPicture](#) property to load a custom size picture to a cell. The [Column.Def\(exCellDrawPartsOrder\)](#) property specifies the order of the drawing parts for the entire column. By default, the parts are shows as check icon icons picture caption. The [ImageSize](#) property defines the size (width/height) of the icons within the control's Images collection.

The following VB sample assigns the first and third icon to the cell:

```
With Gantt1.Items
    .CellImages(.ItemByIndex(0), 1) = "1,3"
End With
```

The following VB sample displays the index of icon being clicked:

```
Private Sub Gantt1_MouseUp(Button As Integer, Shift As Integer, X As Single, Y As Single)
    Dim i As HITEM, h As HitTestInfoEnum, c As Long
    With Gantt1
        i = .ItemFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY, c, h)
    End With
    If (i < > 0) Then
        If exHTCellIcon = (h And exHTCellIcon) Then
```

```
    Debug.Print "The index of icon being clicked is: " & (h And &FFFF0000) / 65536
End If
End If
End Sub
```

The following C++ sample assigns the first and the third icon to the cell:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetCellImages( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ),
COleVariant( "1,3" ) );
```

The following C++ sample displays the index of icon being clicked:

```
#include "Items.h"
void OnMouseUpGantt1(short Button, short Shift, long X, long Y)
{
    CItems items = m_gantt.GetItems();
    long c = 0, hit = 0, h = m_gantt.GetItemFromPoint( X, Y, &c, &hit );
    if ( h != 0 )
    {
        if ( ( hit & 0x44 /*exHTCellIcon*/ ) == 0x44 )
        {
            CString strFormat;
            strFormat.Format( "The index of icon being clicked is: %i\n", (hit >> 16) );
            OutputDebugString( strFormat );
        }
    }
}
```

The following VB.NET sample assigns the first and the third icon to the cell:

```
With AxGantt1.Items
    .CellImages(.FocusItem, 0) = "1,3"
End With
```

The following VB.NET sample displays the index of icon being clicked:

```
Private Sub AxGantt1_MouseUpEvent(ByVal sender As Object, ByVal e As
```

```
AxEXGANTTLib._IGanttEvents_MouseUpEvent) Handles AxGantt1.MouseUpEvent  
With AxGantt1
```

```
    Dim i As Integer, c As Integer, hit As EXGANTTLib.HitTestInfoEnum  
    i = .get_ItemFromPoint(e.x, e.y, c, hit)  
    If (Not (i = 0)) Then  
        Debug.WriteLine("The index of icon being clicked is: " & (hit And &HFFFF0000) /  
65536)  
    End If  
End With  
End Sub
```

The following C# sample assigns the first and the third icon to the cell:

```
axGantt1.Items.set_CellImages(axGantt1.Items.FocusItem, 0, "1,3");
```

The following C# sample displays the index of icon being clicked:

```
private void axGantt1_MouseUpEvent(object sender,  
AxEXGANTTLib._IGanttEvents_MouseUpEvent e)  
{  
    int c = 0;  
    EXGANTTLib.HitTestInfoEnum hit;  
    int i = axGantt1.get_ItemFromPoint(e.x, e.y, out c, out hit);  
    if ((i != 0))  
    {  
        if (((Convert.ToInt32(hit) &  
Convert.ToInt32(EXGANTTLib.HitTestInfoEnum.exHTCellIcon)) ==  
Convert.ToInt32(EXGANTTLib.HitTestInfoEnum.exHTCellIcon))  
        {  
            string s = axGantt1.Items.get_CellCaption(i, c).ToString();  
            s = "Cell: " + s + ", Icon's Index: " + (Convert.ToInt32(hit) >> 16).ToString();  
            System.Diagnostics.Debug.WriteLine(s);  
        }  
    }  
}
```

The following VFP sample assigns the first and the third icon to the cell:

```
with thisform.Gantt1.Items
```

```
.DefaultItem = .FocusItem  
.CellImages(0,0) = "1,3"  
endwith
```

The following VFP sample displays the index of icon being clicked:

```
*** ActiveX Control Event ***  
LPARAMETERS button, shift, x, y  
  
local c, hit  
c = 0  
hit = 0  
with thisform.Gantt1  
    .Items.DefaultItem = .ItemFromPoint( x, y, @c, @hit )  
    if ( .Items.DefaultItem <> 0 )  
        if ( bitand( hit, 68 )= 68 )  
            wait window nowait .Items.CellCaption( 0, c ) + " " + Str( Int((hit - 68)/65536) )  
        endif  
    endif  
endwith
```

Add the code to the MouseUp, MouseMove or MouseDown event,

## property Items.CellItalic([Item as Variant], [CollIndex as Variant]) as Boolean

Retrieves or sets a value that indicates whether the cell's caption should appear in italic.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
CollIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Boolean	A boolean expression that indicates whether the cell should appear in italic.

Use [ItemBold](#), [ItemItalic](#), [ItemUnderline](#) or [ItemStrikeOut](#) property to apply different font attributes to the item. Use the CellItalic, [CellUnderline](#), [CellBold](#) or [CellStrikeOut](#) property to apply different font attributes to the cell. Use the [CellCaptionFormat](#) property to specify an HTML caption. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula.

The following VB sample makes italic the focused cell:

```
With Gantt1.Items  
    .CellItalic(.FocusItem, 0) = True  
End With
```

The following C++ sample makes italic the focused cell:

```
#include "Items.h"  
CItems items = m_gantt.GetItems();  
items.SetCellItalic( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ), TRUE );
```

The following C# sample makes italic the focused cell:

```
axGantt1.Items.set_CellItalic(axGantt1.Items.FocusItem, 0, true);
```

The following VB.NET sample makes italic the focused cell:

```
With AxGantt1.Items  
    .CellItalic(.FocusItem, 0) = True  
End With
```

The following VFP sample makes italic the focused cell:

```
with thisform.Gantt1.Items  
    .DefaultItem = .FocusItem  
    .CellItalic( 0, 0 ) = .t.  
endwith
```

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell. Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0) ) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## property Items.CellItem (Cell as HCELL) as HITEM

Retrieves the handle of the item that is owner for a specific cell.

Type	Description
Cell as HCELL	A long expression that indicates the handle of the cell.
HITEM	A long expression that indicates the handle of the item.

Use the CellItem property to retrieve the item's handle. Use the [ItemCell](#) property to gets the cell's handle given an item and a column. Most of the properties of the Items object that have parameters [Item as Variant], [CollIndex as Variant], could use the handle of the cell to identify the cell, instead the CollIndex parameter. For instance the following statements are equivalents:

```
With Gantt1.Items
```

```
    .CellCaption(.FocusItem, 0) = "this"  
    .CellCaption(, .ItemCell(.FocusItem, 0)) = "this"
```

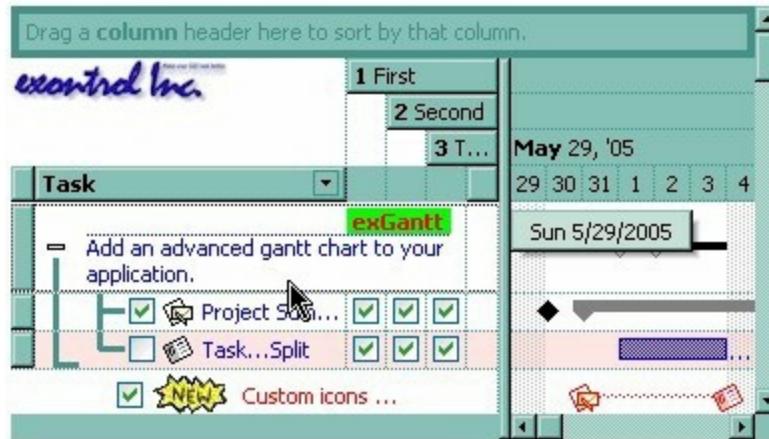
```
End With
```

## property Items.CellMerge([Item as Variant], [ColIndex as Variant]) as Variant

Retrieves or sets a value that indicates the index of the cell that's merged to.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Variant	A long expression that indicates the index of the cell that's merged with, a safe array that holds the indexes of the cells being merged.

Use the CellMerge property to combine two or more cells in the same item in a single cell. The data of the source cell is displayed in the new larger cell. All the other cells' data is not lost. Use the [ItemDivider](#) property to display a single cell in the entire item ( merging all cells in the same item ). Use the [UnmergeCells](#) method to unmerge the merged cells. Use the CellMerge property to unmerge a single cell. Use the [MergeCells](#) method to combine one or more cells in a single cell. Use the [Add](#) method to add new columns to the control. Use the [SplitCell](#) property to split a cell.



You can merge the first three cells in the root item using any of the following methods:

```
With Gantt1
  With .Items
    .CellMerge(RootItem(0), 0) = Array(1, 2)
  End With
End With
```

```
With Gantt1
```

## **.BeginUpdate**

With .Items

```
Dim r As Long  
r = .RootItem(0)  
.CellMerge(r, 0) = 1  
.CellMerge(r, 0) = 2
```

End With

## **.EndUpdate**

End With

With Gantt1

## **.BeginUpdate**

With .Items

```
Dim r As Long  
r = .RootItem(0)  
.MergeCells .ItemCell(r, 0), .ItemCell(r, 1)  
.MergeCells .ItemCell(r, 0), .ItemCell(r, 2)
```

End With

## **.EndUpdate**

End With

With Gantt1

With .Items

```
Dim r As Long  
r = .RootItem(0)  
.MergeCells .ItemCell(r, 0), Array(.ItemCell(r, 1), .ItemCell(r, 2))
```

End With

End With

With Gantt1

With .Items

```
Dim r As Long  
r = .RootItem(0)  
.MergeCells Array(.ItemCell(r, 0), .ItemCell(r, 1), .ItemCell(r, 2))
```

End With

End With

The following sample shows few methods to unmerge cells:

```
With Gantt1
    With .Items
        .UnmergeCells .ItemCell(.RootItem(0), 0)
    End With
End With
```

```
With Gantt1
    With .Items
        Dim r As Long
        r = .RootItem(0)
        .UnmergeCells Array(.ItemCell(r, 0), .ItemCell(r, 1))
    End With
End With
```

```
With Gantt1
    .BeginUpdate
    With .Items
        .CellMerge(.RootItem(0), 0) = -1
        .CellMerge(.RootItem(0), 1) = -1
        .CellMerge(.RootItem(0), 2) = -1
    End With
    .EndUpdate
End With
```

The following VB sample merges the first three cells in the focused item:

```
With Gantt1.Items
    .CellMerge(.FocusItem, 0) = 1
    .CellMerge(.FocusItem, 0) = 2
End With
```

The following C++ sample merges the first three cells in the focused item:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
COleVariant vtItem( items.GetFocusItem() ), vtColumn( long( 0 ) );
items.SetCellMerge( vtItem, vtColumn, COleVariant( long(1) ) );
items.SetCellMerge( vtItem, vtColumn, COleVariant( long(2) ) );
```

The following VB.NET sample merges the first three cells in the focused item:

```
With AxGantt1.Items
```

```
    .CellMerge(.FocusItem, 0) = 1  
    .CellMerge(.FocusItem, 0) = 2
```

```
End With
```

The following C# sample merges the first three cells in the focused item:

```
axGantt1.Items.set_CellMerge(axGantt1.Items.FocusItem, 0, 1);  
axGantt1.Items.set_CellMerge(axGantt1.Items.FocusItem, 0, 2);
```

The following VFP sample merges the first three cells in the focused item:

```
with thisform.Gantt1.Items
```

```
    .DefaultItem = .FocusItem  
    .CellMerge(0,0) = 1  
    .CellMerge(0,0) = 2
```

```
endwith
```

In other words, the sample shows how to display the first cell using the space occupied by three cells.

## property Items.CellParent ([Item as Variant], [ColIndex as Variant]) as Variant

Retrieves the parent of an inner cell.

Type	Description
Item as Variant	A long expression that indicates the handle of the item where the cell is, or 0. If the Item parameter is 0, the ColIndex parameter must indicate the handle of the cell.
ColIndex as Variant	A long expression that indicates the index of the column where a cell is divided, or a long expression that indicates the handle of the cell being divided, if the Item parameter is missing or it is zero.
Variant	A long expression that indicates the handle of the parent cell.

Use the CellParent property to get the parent of the inner cell. The [SplitCell](#) method splits a cell in two cells ( the newly created cell is called inner cell ). Use the [InnerCell](#) property to get the inner cell. Use the [CellItem](#) property to get the item that's the owner of the cell. The CellParent property gets 0 if the cell is not an inner cell. The parent cell is always displayed to the left side of the cell. The inner cell ( InnerCell ) is displayed to the right side of the cell.

The following VB sample determines whether the cell is a master cell or an inner cell:

```
Private Function isMaster(ByVal g As EXGANTTLibCtl.Gantt, ByVal h As  
EXGANTTLibCtl.HITEM, ByVal c As Long) As Boolean  
    With g.Items  
        isMaster = .CellParent(h, c) = 0  
    End With  
End Function
```

The following VB sample determines the master cell ( the cell from where the splitting starts ):

```
Private Function getMaster(ByVal g As EXGANTTLibCtl.Gantt, ByVal h As  
EXGANTTLibCtl.HITEM, ByVal c As Long) As EXGANTTLibCtl.HCELL  
    With g.Items  
        Dim r As EXGANTTLibCtl.HCELL  
        r = c  
        If Not (h = 0) Then  
            r = .ItemCell(h, c)
```

```

End If
While Not (.CellParent(, r) = 0)
    r = .CellParent(, r)
Wend
getMaster = r
End With
End Function

```

The following C++ sample determines whether the cell is a master cell or an inner cell:

```

#include "Items.h"

static long V2I( VARIANT* pv, long nDefault = 0 )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return nDefault;

        COleVariant vt;
        vt.ChangeType( VT_I4, pv );
        return V_I4( &vt );
    }
    return nDefault;
}

BOOL isMaster( CGantt gantt, long hItem, long nCollIndex )
{
    return V2I( &gantt.GetItems().GetCellParent( COleVariant( hItem ), COleVariant(
nCollIndex ) ) ) == 0;
}

```

The following C++ sample determines the master cell ( the cell from where the splitting starts ):

```

long getMaster( CGantt gantt, long hItem, long nCollIndex )
{
    COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;

```

```

CItems items = gantt.GetItems();
long r = nColIndex;
if ( hItem )
    r = items.GetItemCell( hItem, COleVariant( nColIndex ) );
long r2 = 0;
while ( r2 = V2I( &items.GetCellParent( vtMissing, COleVariant( r ) ) ) )
    r = r2;
return r;
}

```

The following VB.NET sample determines whether the cell is a master cell or an inner cell:

```

Private Function isMaster(ByVal g As AxEXGANTTLib.AxGantt, ByVal h As Long, ByVal c As
Long) As Boolean
    With g.Items
        isMaster = .CellParent(h, c) = 0
    End With
End Function

```

The following VB.NET sample determines the master cell ( the cell from where the splitting starts ):

```

Shared Function getMaster(ByVal g As AxEXGANTTLib.AxGantt, ByVal h As Integer, ByVal c As
Integer) As Integer
    With g.Items
        Dim r As Integer
        r = c
        If Not (h = 0) Then
            r = .ItemCell(h, c)
        End If
        While Not (.CellParent(, r) = 0)
            r = .CellParent(, r)
        End While
        getMaster = r
    End With
End Function

```

The following C# sample determines whether the cell is a master cell or an inner cell:

```
private bool isMaster(AxEXGANTTLib.AxGantt gantt, int h, int c)
{
    return Convert.ToInt32(gantt.Items.get_CellParent(h, c)) != 0;
}
```

The following C# sample determines the master cell ( the cell from where the splitting starts ):

```
private long getMaster(AxEXGANTTLib.AxGantt g, int h, int c)
{
    int r = c, r2 = 0;
    if ( h != 0 )
        r = Convert.ToInt32( g.Items.get_ItemCell(h,c) );
    r2 = Convert.ToInt32( g.Items.get_CellParent(null, r));
    while ( r2 != 0 )
    {
        r = r2;
        r2 = Convert.ToInt32( g.Items.get_CellParent(null, r));
    }
    return r;
}
```

## property Items.CellPicture ([Item as Variant], [ColIndex as Variant]) as Variant

Retrieves or sets a value that indicates the Picture object displayed by the cell.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Variant	A Picture object that indicates the cell's picture. ( A Picture object implements IPicture interface ), a string expression that indicates the base64 encoded string that holds a picture object. Use the <a href="#">eximages</a> tool to save your picture as base64 encoded format.

The control can associate to a cell a check or radio button, an icon, multiple icons, a picture and a caption. Use the CellPicture property to associate a picture to a cell. You can use the CellPicture property when you want to display images with different widths into a cell. Use the [CellImage](#) property to associate an icon from [Images](#) collection. Use the [CellImages](#) property to assign multiple icons to a cell. Use the [CellHasCheckBox](#) property to add a check box to a cell. Use the [CellHasRadioButton](#) property to assign a radio button to a cell. Use the [CellPictureWidth](#) and [CellPictureHeight](#) properties to stretch the cell's picture on a specified size. The [Column.Def\(exCellDrawPartsOrder\)](#) property specifies the order of the drawing parts for the entire column. By default, the parts are shows as check icon icons picture caption.

The following VB sample loads a picture from a file:

```
Gantt1.Items.CellPicture(h, 0) = LoadPicture("c:\winnt\logo.gif")
```

The following VB sample associates a picture to a cell by loading it from a base64 encoded string:

```
Dim s As String
s =
"gBCJr+BAAg0HGwEgwog4jg4ig4BAEFg4AZEKisZjUbAAzg5mg6Zg7Mg7/g0ek8oGcgjsisks
s = s +
"XgBadlDXdYSXRb9wWBcIK2taF1gAI5HiPaN8oPdINWbaF23KAwyWkNYyXxg9p3WNYjU/c
```

```

With Gantt1
    .BeginUpdate
    .Columns.Add "Column 1"
    With .Items
        Dim h As HITEM
        h = .AddItem("Item 1")
        .CellPicture(h, 0) = s
        .ItemHeight(h) = 24
    End With
    .EndUpdate
End With

```

The following C++ loads a picture from a file:

```

#include
BOOL LoadPicture( LPCTSTR szFileName, IPictureDisp** ppPictureDisp )
{
    BOOL bResult = FALSE;
    if ( szFileName )
    {
        OFSTRUCT of;
        HANDLE hFile = NULL;;
#ifndef _UNICODE
        USES_CONVERSION;
        if ( (hFile = (HANDLE)OpenFile( W2A(szFileName), &of, OF_READ |
OF_SHARE_COMPAT) != (HANDLE)HFILE_ERROR )
#else
        if ( (hFile = (HANDLE)OpenFile( szFileName, &of, OF_READ | OF_SHARE_COMPAT)) != (HANDLE)HFILE_ERROR )
#endif
        *ppPictureDisp = NULL;
        DWORD dwHighWord = NULL, dwSizeLow = GetFileSize( hFile, &dwHighWord );
        DWORD dwFileSize = dwSizeLow;
        HRESULT hResult = NULL;
        if ( HGLOBAL hGlobal = GlobalAlloc(GMEM_MOVEABLE, dwFileSize) )
            if ( void* pvData = GlobalLock( hGlobal ) )

```

```

    {
        DWORD dwReadBytes = NULL;
        BOOL bRead = ReadFile( hFile, pvData, dwFileSize, &dwReadBytes, NULL );
        GlobalUnlock( hGlobal );
        if ( bRead )
        {
            CComPtr spStream;
            _ASSERT( dwFileSize == dwReadBytes );
            if ( SUCCEEDED( CreateStreamOnHGlobal( hGlobal, TRUE, &spStream ) ) )
                if ( SUCCEEDED( hResult = OleLoadPicture( spStream, 0, FALSE,
IID_IPictureDisp, (void**)&pPicture ) ) )
                    bResult = TRUE;
            }
        }
        CloseHandle( hFile );
    }
}

IPictureDisp* pPicture = NULL;
if ( LoadPicture( "c:\\winnt\\zapotec.bmp", &pPicture ) )
{
    COleVariant vtPicture;
    V_VT( &vtPicture ) = VT_DISPATCH;
    pPicture->QueryInterface( IID_IDispatch, (LPVOID*)&V_DISPATCH( &vtPicture ) );
    CItems items = m_gantt.GetItems();
    items.SetCellPicture( COleVariant( items.GetFocusItem() ), COleVariant( long(0) ), vtPicture
);
    pPicture->Release();
}

```

The following VB.NET sample loads a picture from a file:

With AxGantt1.Items

```

    .CellPicture(.FocusItem, 0) =
IPDH.GetIPictureDisp(Image.FromFile("c:\\winnt\\zapotec.bmp"))

```

End With

where the IPDH class is defined like follows:

```
Public Class IPDH
    Inherits System.Windows.Forms.AxHost

    Sub New()
        MyBase.New("")
    End Sub

    Public Shared Function GetIPictureDisp(ByVal image As Image) As Object
        GetIPictureDisp = AxHost.GetIPictureDispFromPicture(image)
    End Function

End Class
```

The following C# sample loads a picture from a file:

```
axGantt1.Items.set_CellPicture(axGantt1.Items.FocusItem, 0,
IPDH.GetIPictureDisp(Image.FromFile("c:\\winnt\\zapotec.bmp")));
```

where the IPDH class is defined like follows:

```
internal class IPDH : System.Windows.Forms.AxHost
{
    public IPDH() : base("") {}

    public static object GetIPictureDisp(System.Drawing.Image image)
    {
        return System.Windows.Forms.AxHost.GetIPictureDispFromPicture( image );
    }
}
```

The following VFP sample loads a picture from a file:

```
with thisform.Gantt1.Items
```

```
.DefaultItem = .FocusItem  
.CellPicture( 0, 0 ) = LoadPicture("c:\winnt\zapotec.bmp")  
endwith
```

## property Items.CellPictureHeight ([Item as Variant], [ColIndex as Variant]) as Long

Retrieves or sets a value that indicates the height of the cell's picture.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Long	A long expression that indicates the height of the cell's picture, or -1, if the property is ignored.

By default, the CellPictureHeight property is -1. Use the [CellPicture](#) property to assign a custom size picture to a cell. Use the [CellPictureWidth](#) property to specify the width of the cell's picture. The CellPictureWidth and CellPictureHeight properties specifies the size of the area where the cell's picture is stretched. If the CellPictureWidth and CellPictureHeight properties are -1 ( by default ), the cell displays the full size picture. If the CellPictureHeight property is greater than 0, it indicates the height of the area where the cell's picture is stretched. Use the [ItemHeight](#) property to specify the height of the item. Use the [CellImage](#) or [CellImages](#) property to assign one or more icons to the cell.

## property Items.CellPictureWidth ([Item as Variant], [ColIndex as Variant]) as Long

Retrieves or sets a value that indicates the width of the cell's picture.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Long	A long expression that indicates the width of the cell's picture, or -1, if the property is ignored.

By default, the CellPictureWidth property is -1. Use the [CellPicture](#) property to assign a custom size picture to a cell. Use the [CellPictureHeight](#) property to specify the height of the cell's picture. The CellPictureWidth and CellPictureHeight properties specifies the size of the area where the cell's picture is stretched. If the CellPictureWidth and CellPictureHeight properties are -1 ( by default ), the cell displays the full size picture. If the CellPictureWidth property is greater than 0, it indicates the width of the area where the cell's picture is stretched. Use the [CellImage](#) or [CellImages](#) property to assign one or more icons to the cell.

## property Items.CellRadioGroup([Item as Variant], [ColIndex as Variant]) as Long

Retrieves or sets a value indicating the radio group where the cell is contained.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Long	A long value that identifies the cell's radio group.

Use the CellRadioGroup property to add or remove a radio button from a group. In a radio group only one radio button can be checked. A radio cell cannot be contained by two different radio groups. Use the [CellHasRadioButton](#) property to add a radio button to a cell. When the cell's state is changed the control fires the [CellStateChanged](#) event. The [CellState](#) property specifies the cell's state. By default, when a cell of radio type is created the radio cell is not grouped to any of existent radio groups.

The following VB sample sets the radio type for all cells in the first column, and group all of them in the same radio group ( 1234 ):

```
Dim h As Variant
Gantt1.BeginUpdate
With Gantt1.Items
For Each h In Gantt1.Items
    .CellHasRadioButton(h, 0) = True
    .CellRadioGroup(h, 0) = 1234
Next
End With
Gantt1.EndUpdate
```

or

```
Private Sub Gantt1.AddItem(ByVal Item As EXGANTTLibCtl.HITEM)
    Gantt1.Items.CellHasRadioButton(Item, 0) = True
    Gantt1.Items.CellRadioGroup(Item, 0) = 1234
End Sub
```

To find out the radio cell that is checked in the radio group 1234 you have to call: [MsgBox](#)

```
Gantt1.Items.CellCaption(), Gantt1.Items.CellChecked(1234))
```

The following sample group all cells of the first column into a radio group, and display the cell's checked on the radio group when the state of a radio group has been changed:

```
Private Sub Gantt1.AddItem(ByVal Item As EXGANTTLibCtl.HITEM)
    Gantt1.Items.CellHasRadioButton(Item, 0) = True
    Gantt1.Items.CellRadioGroup(Item, 0) = 1234 ' The 1234 is arbitrary and it represents the
                                                identifier for the radio group
End Sub
```

```
Private Sub Gantt1_CellStateChanged(ByVal Item As EXGANTTLibCtl.HITEM, ByVal
                                    ColIndex As Long)
    Debug.Print "In the 1234 radio group the "" & Gantt1.Items.CellCaption(
        Gantt1.Items.CellChecked(1234)) & "" is checked."
End Sub
```

The following VB sample assigns a radio button to the focused cell:

```
With Gantt1.Items
    .CellHasRadioButton(.FocusItem, 0) = True
    .CellRadioGroup(.FocusItem, 0) = 1234
End With
```

The following C++ sample assigns a radio button to the focused cell:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetCellHasRadioButton( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ),
                            TRUE );
items.SetCellRadioGroup( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ),
                        1234 );
```

The following VB.NET sample assigns a radio button to the focused cell:

```
With AxGantt1.Items
    .CellHasRadioButton(.FocusItem, 0) = True
    .CellRadioGroup(.FocusItem, 0) = 1234
End With
```

The following C# sample assigns a radio button to the focused cell:

```
axGantt1.Items.set_CellHasRadioButton(axGantt1.Items.FocusItem, 0, true);
axGantt1.Items.set_CellRadioGroup(axGantt1.Items.FocusItem, 0, 1234);
```

The following VFP sample assigns a radio button to the focused cell:

```
with thisform.Gantt1.Items
    .DefaultItem = .FocusItem
    .CellHasRadioButton(0,0) = .t.
    .CellRadioGroup(0,0) = 1234
endwith
```

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell. Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0)) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

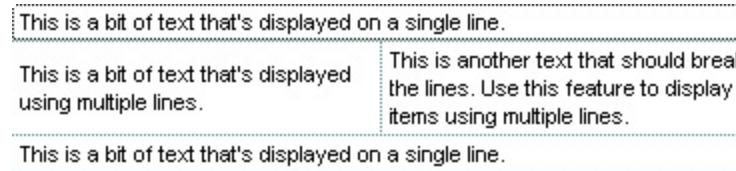
```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## property Items.CellSingleLine([Item as Variant], [ColIndex as Variant]) as CellSingleLineEnum

Retrieves or sets a value indicating whether the cell's caption is painted using one or more lines.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
<a href="#">CellSingleLineEnum</a>	A CellSingleLineEnum expression that indicates whether the cell displays its caption using one or more lines.

By default, the CellSingleLine property is exCaptionSingleLine / True, which indicates that the cell's caption is displayed on a single line. Use the [Def\(exCellSingleLine\)](#) property to specify that all cells in the column display their content using multiple lines. The control can displays the cell's caption using more lines, if the CellSingleLine property is exCaptionWordWrap or exCaptionBreakWrap. The CellSingleLine property wraps the cell's caption so it fits in the cell's client area. If the text doesn't fit the cell's client area, the height of the item is increased or decreased. When the CellSingleLine is exCaptionWordWrap / exCaptionBreakWrap / False, the height of the item is computed based on each cell caption. *If the CellSingleLine property is exCaptionWordWrap / exCaptionBreakWrap / False, changing the [ItemHeight](#) property has no effect.* Use the [ItemMaxHeight](#) property to specify the maximum height of the item when its height is variable. Use the [CellVAlignment](#) property to align vertically a cell.



If using the CellSingleLine / [Def\(exCellSingleLine\)](#) property, we recommend to set the [ScrollBySingleLine](#) property on True so all items can be scrolled.

The following VB sample displays the caption of the focused cell using multiple lines:

```
With Gantt1.Items  
    .CellSingleLine(.FocusItem, 0) = True  
End With
```

The following C++ sample displays the caption of the focused cell using multiple lines:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetCellSingleLine( COleVariant( items.GetFocusItem() ), COleVariant( long(0) ), FALSE
);
```

The following VB.NET sample displays the caption of the focused cell using multiple lines:

```
With AxGantt1.Items
```

```
    .CellSingleLine(.FocusItem, 0) = False
```

```
End With
```

The following C# sample displays the caption of the focused cell using multiple lines:

```
axGantt1.Items.set_CellSingleLine(axGantt1.Items.FocusItem, 0, false);
```

The following VFP sample displays the caption of the focused cell using multiple lines:

```
with thisform.Gantt1.Items
```

```
    .DefaultItem = .FocusItem
```

```
    .CellSingleLine( 0, 0 ) = .f
```

```
endwith
```

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell. Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0) ) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## property Items.CellState([Item as Variant], [ColIndex as Variant]) as Long

Retrieves or sets the cell's state. Has effect only for check and radio cells.

Type	Description
Item as Variant	A long expression that indicates the item's handle that indicates the owner of the cell.
ColIndex as Variant	A long expression that identifies the column's index, or a string expression that specifies the column's caption or the column's key.
Long	A long value that indicates the cell's state.

Use the CellState property to change the cell's state. The CellState property has effect only for check and radio cells. Use the [CellHasCheckBox](#) property to assign a check box to a cell. Use the [CellHasRadioButton](#) property to add a radio button to a cell. The control fires the [CellStateChanged](#) event when user changes the cell's state. Use the [PartialCheck](#) property to allow partial check feature within the column. Use the [CheckImage](#) property to change the check box appearance. Use the [RadioImage](#) property to change the radio button appearance. Use the [FilterType](#) property on exCheck to filter for checked or unchecked items.

The following VB sample adds a check box that's checked to the focused cell:

With Gantt1.Items

```
.CellHasCheckBox(.FocusItem, 0) = True  
.CellState(.FocusItem, 0) = 1
```

End With

The following C++ sample adds a check box that's checked to the focused cell:

```
#include "Items.h"  
CItems items = m_gantt.GetItems();  
COleVariant vtItem( items.GetFocusItem() ), vtColumn( long(0) );  
items.SetCellHasCheckBox( vtItem, vtColumn, TRUE );  
items.SetCellState( vtItem, vtColumn, 1 );
```

The following VB.NET sample adds a check box that's checked to the focused cell:

With AxGantt1.Items

```
.CellHasCheckBox(.FocusItem, 0) = True  
.CellState(.FocusItem, 0) = 1
```

## End With

The following C# sample adds a check box that's checked to the focused cell:

```
axGantt1.Items.set_CellHasCheckBox(axGantt1.Items.FocusItem, 0, true);
axGantt1.Items.set_CellState(axGantt1.Items.FocusItem, 0, 1);
```

The following VFP sample adds a check box that's checked to the focused cell:

```
with thisform.Gantt1.Items
    .DefaultItem = .FocusItem
    .CellHasCheckBox( 0, 0 ) = .t.
    .CellState( 0,0 ) = 1
endwith
```

The following VB sample changes the state for a cell to checked state:

[Gantt1.Items.CellState\(Gantt1.Items\(0\), 0\) = 1,](#)

The following VB sample changes the state for a cell to to unchecked state:

[Gantt1.Items.CellState\(Gantt1.Items\(0\), 0\) = 0,](#)

The following VB sample changes the state for a cell to partial checked state:

[Gantt1.Items.CellState\(Gantt1.Items\(0\), 0\) = 2](#)

The following VB sample displays a message when a cell of radio or check type is changing its state:

```
Private Sub Gantt1_AddItem(ByVal Item As EXGANTTLibCtl.HITEM)
    Gantt1.Items.CellHasCheckBox(Item, 0) = True
End Sub
```

```
Private Sub Gantt1_CellStateChanged(ByVal Item As EXGANTTLibCtl.HITEM, ByVal
    ColIndex As Long)
    Debug.Print "The cell """ & Gantt1.Items.CellCaption(Item, ColIndex) & """
    has changed its state. The new state is " & IIf(Gantt1.Items.CellState(Item, ColIndex) = 0, "Unchecked",
    "Checked")
End Sub
```

Note: A cell is the intersection of an item with a column. All properties that has an Item and a ColIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the ColIndex parameter indicates an index ( a numerical value, see

Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell. Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0) ) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## **property Items.CellStrikeOut([Item as Variant], [ColIndex as Variant]) as Boolean**

Retrieves or sets a value that indicates whether the cell's caption should appear in strikeout.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Boolean	A boolean expression that indicates whether the cell's caption should appear in strikeout.

If the CellStrikeOut property is True, the cell's font is displayed with a horizontal line through it. Use [ItemBold](#), [ItemItalic](#), [ItemUnderline](#) or [ItemStrikeOut](#) property to apply different font attributes to the item. Use the [CellItalic](#), [CellUnderline](#), [CellBold](#) or CellStrikeOut property to apply different font attributes to the cell. Use the [CellCaptionFormat](#) property to specify an HTML caption. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula.

The following VB sample draws a horizontal line through the caption of the cell that has the focus:

```
With Gantt1.Items
    .CellStrikeOut(FocusItem, 0) = True
End With
```

The following C++ sample draws a horizontal line through the caption of the cell that has the focus:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetCellStrikeOut( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ), TRUE );
```

The following C# sample draws a horizontal line through the caption of the cell that has the focus:

```
axGantt1.Items.set_CellStrikeOut(axGantt1.Items.FocusItem, 0, true);
```

The following VB.NET sample draws a horizontal line through the caption of the cell that has the focus:

```
With AxGantt1.Items  
    .CellStrikeOut(.FocusItem, 0) = True  
End With
```

The following VFP sample draws a horizontal line through the caption of the cell that has the focus:

```
with thisform.Gantt1.Items  
    .DefaultItem = .FocusItem  
    .CellStrikeOut(0, 0 ) = .t.  
endwith
```

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell. Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0)) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## property Items.CellToolTip([Item as Variant], [ColIndex as Variant]) as String

Retrieves or sets a text that is used to show the tooltip's cell.

Type	Description
Item as Variant	A long expression that indicates the handle of the item.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
String	A string expression that indicates the cell's tooltip.

By default, the CellToolTip property is "..." (three dots). If the CellToolTip property is "..." the control displays the cell's caption if it doesn't fit the cell's client area. If the CellToolTip property is different than "...", the control shows a tooltip that displays the CellToolTip value. The control fires the [ToolTip](#) event when the column's tooltip is about to be displayed. Use the [ToolTipWidth](#) property to specify the width of the tooltip window. The [ToolTipPopDelay](#) property specifies the period in ms of time the ToolTip remains visible if the mouse pointer is stationary within a control. The [ToolTipDelay](#) property specifies the time in ms that passes before the ToolTip appears.

The tooltip supports the following HTML tags:

- **<b> ... </b>** displays the text in **bold**
- **<i> ... </i>** displays the text in *italics*
- **<u> ... </u>** underlines the text
- **<s> ... </s>** Strike-through text
- **<a id;options> ... </a>** displays an [anchor](#) element that can be clicked. An anchor is a piece of text or some other object (for example an image) which marks the beginning and/or the end of a hypertext link. The [a](#) element is used to mark that piece of text (or inline image), and to give its hypertextual relationship to other documents. The control fires the *AnchorClick(AnchorID, Options)* event when the user clicks the anchor element. The *FormatAnchor* property customizes the visual effect for anchor elements.

The control supports expandable HTML captions feature which allows you to expand(show)/collapse(hide) different information using [a ;exp=>](#) or [a ;e64=>](#) anchor tags. The exp/e64 field of the anchor stores the HTML line/lines to show once the user clicks/collapses/expands the caption.

- exp, stores the plain text to be shown once the user clicks the anchor, such as "[a ;exp=show lines>](#)"
- e64, encodes in BASE64 the HTML text to be shown once the user clicks the

anchor, such as "<a ;e64=gA8ABmABnABjABvABshIAQAEAAHAAGESikWio+ABzABohp3iELABpABu</a>" that displays show lines- in gray when the user clicks the + anchor. The "gA8ABmABnABjABvABshIAQAEAAHAAGESikWio+ABzABohp3iELABpABuABljY string encodes the "<fgcolor 808080>show lines<a>-</a></fgcolor>" The Decode64Text/Encode64Text methods of the eXPrint can be used to decode/encode e64 fields.

Any ex-HTML caption can be transformed to an expandable-caption, by inserting the anchor ex-HTML tag. For instance, "<solidline><b>Header</b></solidline> <br>Line1<r><a ;exp=show lines>+</a><br>Line2<br>Line3" shows the Header in underlined and bold on the first line and Line1, Line2, Line3 on the rest. The "show lines" is shown instead of Line1, Line2, Line3 once the user clicks the + sign.

- **<font face;size> ... </font>** displays portions of text with a different font and/or different size. For instance, the "<font Tahoma;12>bit</font>" draws the bit text using the Tahoma font, on size 12 pt. If the name of the font is missing, and instead size is present, the current font is used with a different size. For instance, "<font ;12>bit</font>" displays the bit text using the current font, but with a different size.
- **<fgcolor rrggbb> ... </fgcolor>** or **<fgcolor=rrggbb> ... </fgcolor>** displays text with a specified **foreground** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<bgcolor rrggbb> ... </bgcolor>** or **<bgcolor=rrggbb> ... </bgcolor>** displays text with a specified **background** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<solidline rrggbb> ... </solidline>** or **<solidline=rrggbb> ... </solidline>** draws a solid-line on the bottom side of the current text-line, of specified RGB color. The <solidline> ... </solidline> draws a black solid-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<dotline rrggbb> ... </dotline>** or **<dotline=rrggbb> ... </dotline>** draws a dot-line on the bottom side of the current text-line, of specified RGB color. The <dotline> ... </dotline> draws a black dot-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<upline> ... </upline>** draws the line on the top side of the current text-line (requires <solidline> or <dotline>).
- **<r>** right aligns the text
- **<c>** centers the text
- **<br>** forces a line-break
- **<img>number[:width]</img>** inserts an icon inside the text. The number indicates the index of the icon being inserted. Use the Images method to assign a list of icons to your chart. The last 7 bits in the high significant byte of the number expression indicates the identifier of the skin being used to paint the object. Use the [Add](#) method to add new skins to the control. If you need to remove the skin appearance from a part

of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part. The width is optional and indicates the width of the icon being inserted. Using the width option you can overwrite multiple icons getting a nice effect. By default, if the width field is missing, the width is 18 pixels.

- <img>key[:width]</img> inserts a custom size picture into the text being previously loaded using the HTMLPicture property. The Key parameter indicates the key of the picture being displayed. The Width parameter indicates a custom size, if you require to stretch the picture, else the original size of the picture is used.
- & glyph characters as &#amp; ( & ), &lt; ( < ), &gt; ( > ), &quot; ( " ) and &#number; ( the character with specified code ), For instance, the &#8364; displays the EUR character. The & ampersand is only recognized as markup when it is followed by a known letter or a #character and a digit. For instance if you want to display <b>bold</b> in HTML caption you can use &lt;b&gt;bold&lt;/b&gt;
- <off offset> ... </off> defines the vertical offset to display the text/element. The offset parameter defines the offset to display the element. This tag is inheritable, so the offset is keep while the associated </off> tag is found. You can use the <off offset> HTML tag in combination with the <font face;size> to define a smaller or a larger font to be displayed. For instance: "Text with <font ;7><off 6>subscript" displays the text such as: Text with subscript The "Text with <font ;7><off -6>superscript" displays the text such as: Text with superscript
- <gra rrggbb;mode;blend> ... </gra> defines a gradient text. The text color or <fgcolor> defines the starting gradient color, while the rr/gg/bb represents the red/green/blue values of the ending color, 808080 if missing as gray. The mode is a value between 0 and 4, 1 if missing, and blend could be 0 or 1, 0 if missing. The <font> HTML tag can be used to define the height of the font. Any of the rrggbb, mode or blend field may not be specified. The <gra> with no fields, shows a vertical gradient color from the current text color to gray (808080). For instance the "<font ;18><gra FFFFFF;1;1>gradient-center</gra></font>" generates the following picture:

gradient-center

- <out rrggbb;width> ... </out> shows the text with outlined characters, where rr/gg/bb represents the red/green/blue values of the outline color, 808080 if missing as gray, width indicates the size of the outline, 1 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><out 000000><fgcolor=FFFFFF>outlined</fgcolor></out></font>" generates the following picture:

outlined

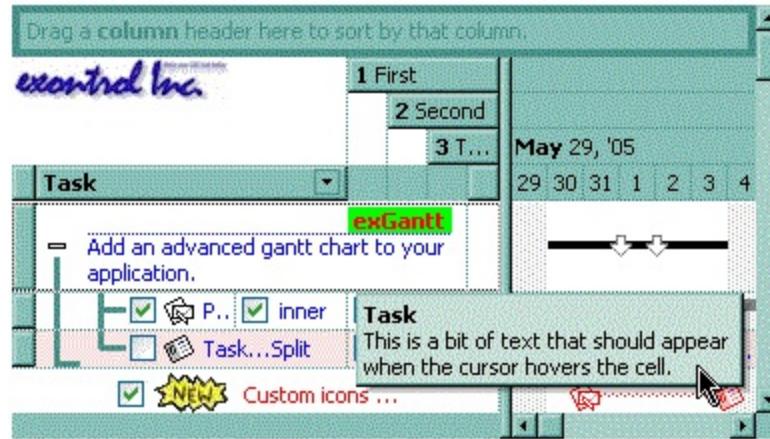
- <sha rrggbb;width;offset> ... </sha> define a text with a shadow, where rr/gg/bb represents the red/green/blue values of the shadow color, 808080 if missing as gray, width indicates the size of shadow, 4 if missing, and offset indicates the offset from the origin to display the text's shadow, 2 if missing. The text color or <fgcolor> defines the

color to show the inside text. The `<font>` HTML tag can be used to define the height of the font. For instance the "`<font ;31><sha>shadow</sha></font>`" generates the following picture:

**shadow**

or "`<font ;31><sha 404040;5;0><fgcolor=FFFFFF>outline anti-aliasing</fgcolor></sha></font>`" gets:

**outline anti-aliasing**



**Note:** The intersection of an item with a column defines a cell. Each cell is uniquely represented by its handle. The cell's handle is of HCELL type, that's equivalent with a long type. All properties of [Items](#) object that have two parameters *Item* and *ColIndex*, that refers a cell.

## **property Items.CellUnderline([Item as Variant], [CollIndex as Variant]) as Boolean**

Retrieves or sets a value that indicates whether the cell's caption should appear in underline.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
CollIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.
Boolean	A boolean expression that indicates whether the cell is underlined.

Use [ItemBold](#), [ItemItalic](#), [ItemUnderline](#) or [ItemStrikeOut](#) property to apply different font attributes to the item. Use the [CellItalic](#), [CellUnderline](#), [CellBold](#) or [CellStrikeOut](#) property to apply different font attributes to the cell. Use the [CellCaptionFormat](#) property to specify an HTML caption. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula.

The following VB sample underlines the focused cell:

```
With Gantt1.Items  
    .CellUnderline(.FocusItem, 0) = True  
End With
```

The following C++ sample underlines the focused cell:

```
#include "Items.h"  
CItems items = m_gantt.GetItems();  
items.SetCellUnderline( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ), TRUE );
```

The following C# sample underlines the focused cell:

```
axGantt1.Items.set_CellUnderline(axGantt1.Items.FocusItem, 0, true);
```

The following VB.NET sample underlines the focused cell:

```
With AxGantt1.Items  
    .CellUnderline(.FocusItem, 0) = True
```

The following VFP sample underlines the focused cell:

```
with thisform.Gantt1.Items  
    .DefaultItem = .FocusItem  
    .CellUnderline(0, 0 ) = .t.  
endwith
```

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell. Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold( Gantt1.Items.ItemCell(Gantt1.Items(0), 0)) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

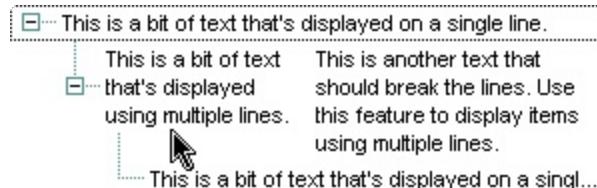
```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## property Items.CellVAlignment ([Item as Variant], [ColIndex as Variant]) as VAlignmentEnum

Retrieves or sets a value that indicates how the cell's caption is vertically aligned.

Type	Description
Item as Variant	A long expression that identifies the item's handle
ColIndex as Variant	A long expression that indicates the column's index or the cell's handle, a string expression that indicates the column's caption.
<a href="#">VAlignmentEnum</a>	A VAlignmentEnum expression that indicates the cell's vertically alignment.

Use the CellVAlignment property to specify the vertically alignment for the cell's caption. Use the [CellSingleLine](#) property to specify whether a cell uses single or multiple lines. Use the [CellHAlignment](#) property to align horizontally the cell. The +/- button is aligned accordingly to the cell's caption. Use the [Def\(exCellVAlignment\)](#) property to specify the same vertical alignment for the entire column.



The following VB sample aligns the focused cell to the bottom:

With Gantt1.Items

```
.CellVAlignment(.FocusItem, 0) = VAlignmentEnum.BottomAlignment
```

End With

The following C++ sample right aligns the focused cell:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetCellVAlignment( COleVariant( items.GetFocusItem() ), COleVariant( (long)0 ), 2
/*BottomAlignment*/ );
```

The following VB.NET sample right aligns the focused cell:

With AxGantt1.Items

```
.CellVAlignment(.FocusItem, 0) = EXGANTTLib.VAlignmentEnum.BottomAlignment
```

The following C# sample right aligns the focused cell:

```
axGantt1.Items.set_CellVAlignment(axGantt1.Items.FocusItem, 0,  
EXGANTTLib.VAlignmentEnum.BottomAlignment);
```

The following VFP sample right aligns the focused cell:

```
with thisform.Gantt1.Items  
.DefaultItem = .FocusItem  
.CellVAlignment(0,0) = 2 && BottomAlignment  
endwith
```

## property Items.CellWidth([Item as Variant], [ColIndex as Variant]) as Long

Retrieves or sets a value that indicates the width of the inner cell.

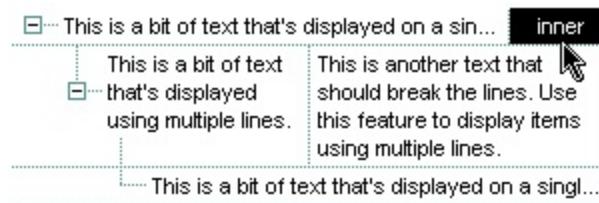
Type	Description
Item as Variant	A long expression that indicates the handle of the item where the cell is, or 0. If the Item parameter is 0, the ColIndex parameter must indicate the handle of the cell.
ColIndex as Variant	A long expression that indicates the index of the column where a cell is divided, or a long expression that indicates the handle of the cell being divided, if the Item parameter is missing or it is zero.
Long	A long expression that indicates the width of the cell.

The CellWidth property specifies the cell's width. The CellWidth property has effect only if the cell contains inner cells. The [SplitCell](#) method splits a cell in two cells ( the newly created cell is called inner cell ). Use the [InnerCell](#) property to get the inner cell. Use the [CellParent](#) property to get the parent of the inner cell. Use the [CellItem](#) property to get the item that's the owner of the cell. Use the [BeginUpdate](#) and [EndUpdate](#) methods to refresh the cell's width when changing it on the fly.

The CellWidth property specifies the width of the cell, where the cell is divided in two or multiple (inner) cells like follows:

- if the CellWidth property is less than zero, the master cell calculates the width of the inner cell, so all the inner cells with CellWidth less than zero have the same width in the master cell.
- if the CellWidth property is greater than zero, it indicates the width in pixels of the inner cell.

By default, the CellWidth property is -1, and so when the user splits a cell the inner cell takes the right half of the area occupied by the master cell.



The following VB sample splits the first visible cell in three cells:

With Gantt1

.BeginUpdate

.DrawGridLines = exAllLines

```
With .Items
```

```
    Dim h As HITEM, f As HCELL
```

```
    h = .FirstVisibleItem
```

```
    f = .ItemCell(h, 0)
```

```
    f = .SplitCell(f)
```

```
    .CellCaption(f) = "Split 1"
```

```
    f = .SplitCell(f)
```

```
    .CellCaption(f) = "Split 2"
```

```
End With
```

```
.EndUpdate
```

```
End With
```

The following VB sample specifies that the inner cell should have 32 pixels:

```
With Gantt1
```

```
    .BeginUpdate
```

```
    .DrawGridLines = exAllLines
```

```
    With .Items
```

```
        Dim h As HITEM, f As HCELL
```

```
        h = .FirstVisibleItem
```

```
        f = .ItemCell(h, 0)
```

```
        f = .SplitCell(f)
```

```
        .CellCaption(f) = "Split"
```

```
        .CellWidth(f) = 32
```

```
    End With
```

```
.EndUpdate
```

```
End With
```

The following VB sample adds an inner cell to the focused cell with 48 pixels width:

```
Gantt1.BeginUpdate
```

```
With Gantt1.Items
```

```
    Dim h As Long
```

```
    h = .SplitCell(.FocusItem, 0)
```

```
    .CellBackColor(h) = vbBlack
```

```
    .CellForeColor(h) = vbWhite
```

```
    .CellHAlignment(h) = CenterAlignment
```

```
    .CellCaption(h) = "inner"
```

```
.CellWidth( h ) = 48  
End With  
Gantt1.EndUpdate
```

The following C++ sample adds an inner cell to the focused cell with 48 pixels width:

```
#include "Items.h"  
m_gantt.BeginUpdate();  
CItems items = m_gantt.GetItems();  
COleVariant vtItem( items.GetFocusItem() ), vtColumn( long(0) ), vtMissing; V_VT( &vtMissing ) = VT_ERROR;  
COleVariant vtInner = items.GetSplitCell( vtItem, vtColumn );  
items.SetCellWidth( vtMissing, vtInner, 48 );  
items.SetCellBackColor( vtMissing, vtInner, 0 );  
items.SetCellForeColor( vtMissing, vtInner, RGB(255,255,255) );  
items.SetCellCaption( vtMissing, vtInner, COleVariant("inner") );  
items.SetCellHAlignment( vtMissing, vtInner, 1 );  
m_gantt.EndUpdate();
```

The following VB.NET sample adds an inner cell to the focused cell with 48 pixels width:

```
With AxGantt1  
.BeginUpdate()  
With .Items  
    Dim iInner As Integer  
    iInner = .SplitCell(.FocusItem, 0)  
    .CellCaption( iInner ) = "inner"  
    .CellHAlignment( iInner ) = EXGANTTLib.AlignmentEnum.CenterAlignment  
    .CellWidth( iInner ) = 48  
    .CellBackColor( iInner ) = 0  
    .CellForeColor( iInner ) = ToUInt32(Color.White)  
End With  
.EndUpdate()  
End With
```

The following C# sample adds an inner cell to the focused cell with 48 pixels width:

```
EXGANTTLib.Items items = axGantt1.Items;  
axGantt1.BeginUpdate();
```

```
object iInner = items.get_SplitCell(axGantt1.Items.FocusItem, 0);
items.set_CellCaption(null, iInner, "inner");
items.set_CellHAlignment(null, iInner, EXGANTTLib.AlignmentEnum.CenterAlignment);
items.set_CellBackColor(null, iInner, ToUInt32(Color.Black));
items.set_CellForeColor(null, iInner, ToUInt32(Color.White));
items.set_CellWidth(null, iInner, 48);
axGantt1.EndUpdate();
```

## property Items.ChildCount (Item as HITEM) as Long

Retrieves the number of children items.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
Long	A long value that indicates the number of child items.

Use the ChildCount property checks whether an item has child items. Use the [ItemChild](#) property to get the first child item, if there is one, 0 else. Use the [ItemHasChildren](#) property to specify whether the item should display a +/- sign even if it contains no child items.

## method Items.ClearBars (Item as HITEM)

Clears the bars from the item.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item where the bars are removed. If the Item parameter is 0, the ClearBars method removes all bars from all items. In this case the <a href="#">DefaultItem</a> property should be 0 ( by default ), else it refers a single item being indicated by the DefaultItem property.

Use the ClearBars method to remove all bars in the specified item. *If the Item parameter is not 0 ( indicates a valid handle ), the ClearBars removes only bars in the specified item. If the Item parameter is 0, the ClearBars method removes all bars from all items, in other words from the entire chart.* Use the [BeginUpdate](#) / [EndUpdate](#) methods to refresh the control's content after removing a bar or several bars.

Use the [RemoveBar](#) method to remove a bar from an item. Use the [Remove](#) method to remove a type of bar from the [Bars](#) collection. Use the [Add](#) method to add new types of bars to the Bars collection. Use the [FirstVisibleDate](#) property to specify the first visible date in the chart area. Use the Key parameter to identify a bar inside an item. Use the [ItemBar](#) property to access a bar inside the item. Use the [PaneWidth](#) property to specify the width of the chart. Use the [NonworkingDays](#) property to specify the non-working days.

## method Items.ClearCellBackColor ([Item as Variant], [ColIndex as Variant])

Clears the cell's background color.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index or the cell's handle, a string expression that indicates the column's caption.

The ClearCellBackColor method clears the cell's background color when the [CellBackColor](#) property is used. Use the [BackColor](#) property to specify the control's background color.

## method Items.ClearCellForeColor ([Item as Variant], [ColIndex as Variant])

Clears the cell's foreground color.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
ColIndex as Variant	A long expression that indicates the column's index or the cell's handle, a string expression that indicates the column's caption.

The ClearCellForeColor method clears the cell's foreground color when [CellForeColor](#) property was used.

## method Items.ClearCellHAlignment ([Item as Variant], [ColIndex as Variant])

Clears the cell's alignment.

Type	Description
Item as Variant	A long expression that indicates the handle of the item.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's key or the column's caption.

Use the ClearCellHAlignment method to clear the alignment of the cell's caption previously set using the [CellHAlignment](#) property. If the CellHAlignment property is not called, the [Alignment](#) property of the [Column](#) object specifies the alignment of the cell's caption.

## method Items.ClearItemBackColor (Item as HITEM)

Clears the item's background color.

Type	Description
Item as HITEM	A long expression that indicates the item's handle. If the Item is 0, the ClearItemBackColor clears the background color for all items.

The ClearItemBackColor method clears the item's background color when [ItemBackColor](#) property is used ( columns/items part only). The [ClearItemBackColor](#) method clears the item's background color when [ItemBackColor](#) property is used ( chart part only ).

## method Items.ClearItemForeColor (Item as HITEM)

Clears the item's foreground color.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.

The ClearItemForeColor method clears the item's foreground color when [ItemForeColor](#) property is used. Use the [ForeColor](#) property to change the control's foreground color.

## method Items.ClearLinks ()

Clears all links in the chart.

Type	Description
------	-------------

Use the ClearLinks method to remove all links in the control. Use the [ShowLinks](#) property to hide all links in the control. Use the [RemoveLink](#) method to remove a specified link. Use the [AddLink](#) method to add a link between two bars. Use the [RemoveAllItems](#) method to remove all items in the control. Use the [RemoveItem](#) method to remove an item. The RemoveItem method removes all links related to the item.

## property Items.DefaultItem as HITEM

Retrieves or sets the default item's handle.

Type	Description
HITEM	A long expression that indicates the handle of the item that's used by all properties of the Items object, that have a parameter Item.

The property is used in VFP implementation. The VFP fires "Invalid Subscript Range" error, while it tries to process a number grater than 65000. Since, the HITEM is a long value that most of the time exceeds 65000, the VFP users have to use this property, instead passing directly the handles to properties.

The following sample shows to change the cell's image:

```
.Items.DefaultItem = .Items.AddItem("Item 1")
.Items.CellImage(0,1) = 2
```

In VFP the following sample fires: "Invalid Subscript Range":

```
i = .Items.AddItem("Item 1")
.Items.CellImage(i,1) = 2
```

because the i variable is grater than 65000, and the VFP thinks that the CellImage is an array, but it is not. It is a property. Hope that future versions will correct this problem in VFP.

So, if you pass zero to a property that has a parameter titled Item, the control takes instead the DefaultItem value.

Let's say that your code looks like follows:

```
LOCAL h
```

```
SCAN
```

```
    _key="K_"+ALLTRIM(STR(projekte.ID))
```

```
    WITH THISFORM.myplan.Items
```

```
        h = .AddItem(ALLTRIM(projekte.project_name))
```

```
        .AddBar( h,"Project Summary" , DTOT(projekte.sdate),DTOT(projekte.edate), _key, "" )
```

```
        .ItemBar( h ,_key,3 ) = "my text"
```

```
    ENDWITH
```

```
ENDSCAN
```

The h variable indicates the handle of the newly created item. This value is always greater than 65000, so the VFP environment always fires an error when compiling the AddBar and ItemBar properties because it considers accessing an array, and its limit is 65000. Of course this problem is related to VFP ignoring the fact that it is calling a property! not an array, so our products provide a DefaultItem property that help VFP users to pass this error. So, in VFP the above code should look like follows:

```
SCAN  
    _key="K_"+ALLTRIM(STR(projekte.ID))  
    WITH THISFORM.myplan.Items  
        .DefaultItem = .AddItem(ALLTRIM(projekte.project_name))  
        .AddBar( 0,"Project Summary" , DTOT(projekte.sdate),DTOT(projekte.edate),_key, "" )  
        THISFORM.myplan.Template = "Items.ItemBar( 0," + _key + ",3 ) = `my text`"  
    ENDWITH  
ENDSCAN
```

The difference ( marked in red ) is that the first parameter for properties like AddBar and ItemBar is 0, and before calling them the Items.DefaultItem property indicates the handle of the item being accessed. How it works? The control uses the value of the Items.DefaultItem property, when the first parameter of the ItemBar, AddBar and so on is 0. The AddItem property saves before the handle of the newly created item to the DefaultItem property, and so the VFP error is gone, and the code works like you expect

## method Items.Edit ([Item as Variant], [CollIndex as Variant])

Edits a cell.

Type	Description
Item as Variant	A long expression that indicates the item's handle.
CollIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.

The Edit method starts editing an item. The edit operation starts only if the control's [AllowEdit](#) property is True. When the edit operation starts the control fires the [BeforeCellEdit](#) event. Use the BeforeCellEdit event to cancel the edit operation. When the edit operation ends the control fires the [AfterCellEdit](#) event. Use the AfterCellEdit event to change the cell's caption after edit operation ends. Use the [SelStart](#), [SelLength](#) properties to specify the coordinates of the text being selected when edit starts. The following code starts editing the first cell: Gantt1.Items.Edit Gantt1.Items(0), 0.

The following VB sample changes the cell's caption when the edit operation ends:

```
Private Sub Gantt1_AfterCellEdit(ByVal Item As EXGANTTLibCtl.HITEM, ByVal CollIndex As Long, ByVal NewCaption As String)
    Gantt1.Items.CellCaption(Item, CollIndex) = NewCaption
End Sub
```

The following VB sample starts editing the cell as soon as the user clicks the item:

```
Private Sub Gantt1_MouseDown(Button As Integer, Shift As Integer, X As Single, Y As Single)
    ' Converts the container coordinates to client coordinates
    X = X / Screen.TwipsPerPixelX
    Y = Y / Screen.TwipsPerPixelY
    Dim h As HITEM
    Dim c As Long
    Dim hit As EXGANTTLibCtl.HitTestInfoEnum
    ' Gets the item from (X,Y)
    h = Gantt1.ItemFromPoint(X, Y, c, hit)
    If Not (h = 0) Then
        With Gantt1
            .AllowEdit = True
        End With
    End If
End Sub
```

```
With .Items
    .Edit h, 0
End With
End With
End If
End Sub
```

The following VB.NET sample changes the cell's caption as soon as the edit operation ends.

```
Private Sub AxGantt1_AfterCellEdit(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_AfterCellEditEvent) Handles AxGantt1.AfterCellEdit
    AxGantt1.Items.CellCaption(e.item, e.colIndex) = e.newCaption
End Sub
```

The following C# sample changes the cell's caption as soon as the edit operation ends.

```
private void axGantt1_AfterCellEdit(object sender,
AxEXGANTTLib._IGanttEvents_AfterCellEditEvent e)
{
    axGantt1.Items.set_CellCaption( e.item, e.colIndex, e.newCaption );
}
```

The following C++ sample changes the cell's caption as soon as the edit operation ends.

```
void OnAfterCellEditGantt1(long Item, long CollIndex, LPCTSTR NewCaption)
{
    m_gantt.GetItems().SetCellCaption( COleVariant( Item ), COleVariant( CollIndex ),
COleVariant( NewCaption ) );
}
```

The following VFP sample changes the cell's caption as soon as the edit operation ends.

```
*** ActiveX Control Event ***
LPARAMETERS item, colindex, newcaption

with thisform.Gantt1.Items
    .DefaultItem = item
    .CellCaption( 0, colindex ) = newcaption
```

endwith

Note: A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell. Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold(, Gantt1.Items.ItemCell(Gantt1.Items(0), 0)) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## **property Items.EnableItem(Item as HITEM) as Boolean**

Returns or sets a value that determines whether a item can respond to user-generated events.

Type	Description
Item as HITEM	A long expression that indicates the item's handle that is enabled or disabled.
Boolean	A boolean expression that indicates whether the item is enabled or disabled.

Use the **EnableItem** property to disable an item. A disabled item looks grayed and it is selectable. Use the [SelectableItem](#) property to specify the user can select an item. Once that an item is disabled all the cells of the item are disabled, so [CellEnabled](#) property has no effect. To disable a column you can use [Enabled](#) property of a Column object.

## method Items.EnsureVisibleItem (Item as HITEM)

Ensures the given item is in the visible client area.

Type	Description
Item as HITEM	A long expression that indicates the item's handle that fits the client area.

The method doesn't expand parent items. The EnsureVisibleItem method scrolls the control's content until the item is visible. Use the [IsItemVisible](#) to check if an item fits the control's client area. Use the [Scroll](#) method to scroll programmatically the control. Use the [EnsureVisibleColumn](#) method to ensure that a specified column fits the control's client area.

The following VB sample ensures that first item is visible:

```
Gantt1.Items.EnsureVisibleItem Gantt1.Items(0)
```

The following C++ sample ensures that first item is visible:

```
#include "Items.h"  
CItems items = m_gantt.GetItems();  
items.EnsureVisibleItem( items.GetItemByIndex( 0 ) );
```

The following C# sample ensures that first item is visible:

```
axGantt1.Items.EnsureVisibleItem(axGantt1.Items[0]);
```

The following VB.NET sample ensures that first item is visible:

```
AxGantt1.Items.EnsureVisibleItem( AxGantt1.Items.FocusItem );
```

The following VFP sample ensures that first item is visible:

```
with thisform.Gantt1.Items  
    .EnsureVisibleItem( .ItemByIndex( 0 ) )  
endwith
```

## property Items.ExpandItem(Item as HITEM) as Boolean

Expands, or collapses, the child items of the specified item.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item being expanded or collapsed. If the Item is 0, setting the ExpandItem property expands or collapses all items. For instance, the ExpandItem(0) = False, collapses all items, while the ExpandItem(0) = True, expands all items.
Boolean	A boolean expression that indicates whether the item is expanded or collapsed.

Use ExpandItem property to programmatically expand or collapse an item. Use the ExpandItem property to check whether an items is expanded or collapsed. Before expanding/collapsing an item, the control fires the [BeforeExpandItem](#) event. Use the BeforeExpandEvent to cancel expanding/collapsing of an item. After item was expanded/collapsed the control fires the [AfterExpandItem](#) event. The following samples shows how to expand the selected item:

Gantt1.Items.ExpandItem(Gantt1.Items.SelectedItem()) = True. The property has no effect if the item has no child items. To check if the item has child items you can use [ChildCount](#) property. Use the [ItemHasChildren](#) property to display a +/- expand sign to the item even if it doesn't contain child items. The [ExpandOnSearch](#) property specifies whether the control expands nodes when incremental searching is on ( [AutoSearch](#) property is different than 0 ) and user types characters when the control has the focus. Use the [ExpandOnKeys](#) property to specify whether the user expands or collapses the focused items using arrow keys. Use the [InsertItem](#) property to add child items.

The following VB sample programmatically expands the item when the user selects it :

```
Private Sub Gantt1_SelectionChanged()
    Gantt1.Items.ExpandItem(Gantt1.Items.SelectedItem()) = True
End Sub
```

The following VB sample expands programmatically the focused item:

```
With Gantt1.Items
    .ExpandItem(.FocusItem) = True
End With
```

The following C++ sample expands programmatically the focused item:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetExpandItem( items.GetFocusItem(), TRUE );
```

The following VB.NET sample expands programmatically the focused item:

```
AxGantt1.Items.ExpandItem( AxGantt1.Items.FocusItem ) = True
```

The following C# sample expands programmatically the focused item:

```
axGantt1.Items.set_ExpandItem( axGantt1.Items.FocusItem, true );
```

The following VFP sample expands programmatically the focused item:

```
with thisform.Gantt1.Items
    .DefaultItem = .FocusItem
    .ExpandItem( 0 ) = .t.
endwith
```

## **property Items.FindItem (Caption as Variant, [ColIndex as Variant], [StartIndex as Variant]) as HITEM**

Finds an item, looking for Caption in ColIndex column. The searching starts at StartIndex item.

Type	Description
Caption as Variant	A Variant expression that indicates the caption that is searched for.
ColIndex as Variant	A long expression that indicates the column's index or the cell's handle, a string expression that indicates the column's caption.
StartIndex as Variant	A long value that indicates the index of item from where the searching starts.
HITEM	A long expression that indicates the item's handle that matches the criteria.

Use the FindItem to search for an item. Finds a control's item that matches [CellCaption](#)( Item, ColIndex ) = Caption. The StartIndex parameter indicates the index from where the searching starts. If it is missing, the searching starts from the item with the 0 index. The searching is case sensitive only if the ASCIIUpper property is empty. Use the [AutoSearch](#) property to enable incremental search feature within the column.

The following VB sample selects the first item that matches "DUMON" on the first column:

```
Gantt1.Items.SelectItem(Gantt1.Items.FindItem("DUMON", 0)) = True
```

The following C++ sample finds and selects an item:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
COleVariant vtMissing;
long hFind = items.GetFindItem( COleVariant("King"), COleVariant("LastName"), vtMissing );
if ( hFind != NULL )
    items.SetSelectItem( hFind, TRUE );
```

The following C# sample finds and selects an item:

```
axGantt1.Items.set_SelectItem(axGantt1.Items.get_FindItem("Child 2", 0, 0), true);
```

The following VB.NET sample finds and selects an item:

With AxGantt1.Items

```
Dim iFind As Integer  
iFind = .FindItem("Child 2", 0)  
If Not (iFind = 0) Then  
    .SelectItem(iFind) = True  
End If  
End With
```

The following VFP sample finds and selects an item:

with thisform.Gantt1.Items

```
.DefaultItem = .FindItem("Child 2",0)  
if ( .DefaultItem <> 0 )  
    .SelectItem( 0 ) = .t.  
endif  
endwith
```

## **property Items.FindItemData (UserData as Variant, [StartIndex as Variant]) as HITEM**

Finds the item giving its data.

Type	Description
UserData as Variant	A Variant expression that indicates the value being searched.
StartIndex as Variant	A long expression that indicates the index of the item where the searching starts.
HITEM	A long expression that indicates the handle of the item found.

Use the **FindItemData** property to search for an item giving its extra-data. Use the [ItemData](#) property to associate an extra data to an item. Use the [FindItem](#) property to locate an item given its caption. Use the [FindPath](#) property to search for an item given its path.

## property Items.FindPath (Path as String) as HITEM

Finds an item given its path.

Type	Description
Path as String	A string expression that indicates the item's path.
HITEM	A long expression that indicates the item's handle that matches the criteria.

The FindPath property searches the item on the column [SearchColumnIndex](#). Use the [FullPath](#) property in order to get the item's path. Use the [FindItem](#) to search for an item.

The following VB sample selects the item based on its path:

```
Gantt1.Items.SelectItem(Gantt1.Items.FindPath("Files and Folders\Hidden Files and Folders\Do not show hidden files and folder")) = True
```

The following C++ sample selects the item based on its path:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
COleVariant vtMissing;
long hFind = items.GetFindPath( "Files and Folders\\Hidden Files and Folders\\Do not show hidden files and folder" );
if ( hFind != NULL )
    items.SetSelectItem( hFind, TRUE );
```

The following VB.NET sample selects the item based on its path:

With AxGantt1.Items

```
Dim iFind As Integer
iFind = .FindPath("Files and Folders\Hidden Files and Folders\Do not show hidden files and folder")
If Not (iFind = 0) Then
    .SelectItem(iFind) = True
End If
End With
```

The following C# sample selects the item based on its path:

```
int iFind = axGantt1.Items.get_FindPath("Files and Folders\\Hidden Files and Folders\\Do not show hidden files and folder");
if ( iFind != 0 )
    axGantt1.Items.set_SelectItem(iFind, true);
```

The following VFP sample selects the item based on its path:

```
with thisform.Gantt1.Items
```

```
    .DefaultItem = .FindPath("Files and Folders\\Hidden Files and Folders\\Do not show hidden files and folder")
    if ( .DefaultItem <> 0 )
        .SelectItem( 0 ) = .t.
    endif
endwith
```

## property Items.FirstItemBar (Item as HITEM) as Variant

Gets the key of the first bar in the item.

Type	Description
Item as HITEM	A HITEM expression that indicates the handle of the item where the bars are enumerated.
Variant	A String expression that indicates the key of the first bar in the item, or empty if the item contains no bar.

Use the [FirstItemBar](#) and [NextItemBar](#) methods to enumerate the bars inside the item. Use the [BarItem](#) property to access properties of the specified bar. Use the [AddBar](#) method to add new bars to the item. Use the [RemoveBar](#) method to remove a bar from an item. Use the [ClearBars](#) method to remove all bars in the item. Use the [BarItem\(exBarsCount\)](#) property to retrieve the number of bars in a specified item.

The following VB sample enumerates the bars in the item ( h indicates the handle of the item ):

With Gantt1

```
If Not (h = 0) Then
    Dim k As Variant
    k = .Items.FirstItemBar(h)
    While Not IsEmpty(k)
        Debug.Print "Key = " & k
        k = .Items.NextItemBar(h, k)
    Wend
End If
End With
```

The following C++ sample enumerates the bars in the item ( h indicates the handle of the item ):

```
CItems items = m_gantt.GetItems();
COleVariant vtBar = items.GetFirstItemBar(h) ;
while ( V_VT( &vtBar ) != VT_EMPTY )
{
    OutputDebugString( V2S( &vtBar ) );
    OutputDebugString( "\n" );
    vtBar = items.GetNextItemBar( h, vtBar );
```

}

where the V2S function converts a Variant expression to a string:

```
static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )  
{  
    if ( pv )  
    {  
        if ( pv->vt == VT_ERROR )  
            return szDefault;  
  
        COleVariant vt;  
        vt.ChangeType( VT_BSTR, pv );  
        return V_BSTR( &vt );  
    }  
    return szDefault;  
}
```

The following VB.NET sample enumerates the bars in the item ( h indicates the handle of the item ):

With AxGantt1

```
If Not (h = 0) Then  
    Dim k As Object  
    k = .Items.FirstItemBar(h)  
    While TypeOf k Is String  
        System.Diagnostics.Debug.Print(k.ToString())  
        k = .Items.NextItemBar(h, k)  
    End While  
End If  
End With
```

The following C# sample enumerates the bars in the item ( h indicates the handle of the item ):

```
object k = axGantt1.Items.get_FirstItemBar(h);  
while ( k != null )  
{  
    System.Diagnostics.Debug.Print(k.ToString());
```

```
k = axGantt1.Items.get_NextItemBar(h, k);
}
```

The following VFP sample enumerates the bars in the item ( h indicates the handle of the item ):

```
With thisform.Gantt1
```

```
If Not (h = 0) Then
  local k
  k = .Items.FirstItemBar(h)
  do While !empty(k)
    ?k
    k = .Items.NextItemBar(h, k)
  enddo
Endif
EndWith
```

In VFP, please make sure that you are using non empty values for the keys. For instance, if you are omitting the Key parameter of the AddBar method, an empty key is missing. If you need to use the FirstItemBar and NextItemBar properties, you have to use non empty keys for the bars.

## property Items.FirstLink as Variant

Gets the key of the first link.

Type	Description
Variant	A string expression that indicates the key of the first link, or empty, if there are no links.

Use the FirstLink and [NextLink](#) properties to enumerate the links in the control. The FirstLink property retrieves an empty value, if there are no links in the control. Use the [AddLink](#) property to link two bars. Use the [ShowLinks](#) property to show or hide the links. Use the [Link](#) property to access a property of the link.

The following VB sample enumerates the links:

```
With Gantt1.Items
```

```
    Dim k As Variant  
    k = .FirstLink()  
    While Not IsEmpty(k)  
        Debug.Print "LinkKey = " & k  
        k = .NextLink(k)  
    Wend  
End With
```

The following C++ sample enumerates the links:

```
CItems items = m_gantt.GetItems();  
COleVariant vtLinkKey = items.GetFirstLink() ;  
while ( V_VT( &vtLinkKey ) != VT_EMPTY )  
{  
    OutputDebugString( V2S( &vtLinkKey ) );  
    OutputDebugString( "\n" );  
    vtLinkKey = items.GetNextLink( vtLinkKey );  
}
```

where the V2S function converts a Variant expression to a string:

```
static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )  
{  
    if ( pv )
```

```
{  
    if ( pv->vt == VT_ERROR )  
        return szDefault;  
  
    COleVariant vt;  
    vt.ChangeType( VT_BSTR, pv );  
    return V_BSTR( &vt );  
}  
return szDefault;  
}
```

The following VB.NET sample enumerates the links:

With AxGantt1.Items

```
Dim k As Object  
k = .FirstLink  
While (TypeOf k Is String)  
    System.Diagnostics.Debug.Print(k.ToString())  
    k = .NextLink(k)  
End While  
End With
```

The following C# sample enumerates the links:

```
object k = axGantt1.Items.FirstLink;  
while (k != null)  
{  
    System.Diagnostics.Debug.Print(k.ToString());  
    k = axGantt1.Items.get_NextLink(k);  
}
```

The following VFP sample enumerates the links:

With thisform.Gantt1.Items

```
local k  
k = .FirstLink  
do While !empty(k)  
    ?k  
    k = .NextLink(k)
```

enddo  
endwith

## property Items.FirstVisibleItem as HITEM

Retrieves the handle of the first visible item into control.

Type	Description
HITEM	A long expression that indicates the handle of the first visible item.

Use the [FirstVisibleItem](#), [NextVisibleItem](#) and [IsItemVisible](#) properties to get the items that fit the client area. Use the [NextVisibleItem](#) property to get the next visible item. Use the [IsVisibleItem](#) property to check whether an item fits the control's client area.

The following VB sample enumerates the items that fit the control's client area:

```
On Error Resume Next
Dim h As HITEM
Dim i As Long, j As Long, nCols As Long
nCols = Gantt1.Columns.Count
With Gantt1.Items
    h = .FirstVisibleItem
    While Not (h = 0) And .IsItemVisible(h)
        Dim s As String
        s = ""
        For j = 0 To nCols - 1
            s = s + .CellCaption(h, j) + Chr(9)
        Next
        Debug.Print s
        h = .NextVisibleItem(h)
    Wend
End With
```

The following C++ sample enumerates the items that fit the control's client area:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
long hItem = items.GetFirstVisibleItem();
while ( hItem && items.GetIsItemVisible( hItem ) )
{
    OutputDebugString( V2S( &items.GetCellCaption( COleVariant( hItem ), COleVariant(
```

```
long(0) ));  
    hItem = items.GetNextVisibleItem( hItem );  
}
```

The following VB.NET sample enumerates the items that fit the control's client area:

With AxGantt1.Items

```
Dim hItem As Integer  
hItem = .FirstVisibleItem  
While Not (hItem = 0)  
    If (.IsItemVisible(hItem)) Then  
        Debug.Print(.CellCaption(hItem, 0))  
        hItem = .NextVisibleItem(hItem)  
    Else  
        Exit While  
    End If  
End While  
End With
```

The following C# sample enumerates the items that fit the control's client area:

```
EXGANTTLib.Items items = axGantt1.Items;  
int hItem = items.FirstVisibleItem;  
while ( ( hItem != 0 ) && (items.get_IsItemVisible(hItem)) )  
{  
    object strCaption = items.get_CellCaption(hItem, 0);  
    System.Diagnostics.Debug.WriteLine( strCaption != null ? strCaption.ToString() : "" );  
    hItem = items.get_NextVisibleItem(hItem);  
}
```

The following VFP sample enumerates the items that fit the control's client area:

```
with thisform.Gantt1.Items  
.DefaultItem = .FirstVisibleItem  
do while ( ( .DefaultItem <> 0 ) and ( .IsItemVisible( 0 ) ) )  
    wait window .CellCaption( 0, 0 )  
    .DefaultItem = .NextVisibleItem( 0 )  
enddo  
endwith
```



## property Items.FocusItem as HITEM

Retrieves the handle of item that has the focus.

Type	Description
HITEM	A long expression that indicates the handle of the focused item.

The FocusItem property specifies the handle of the focused item. If there is no focused item the FocusItem property retrieves 0. At one moment, only one item can be focused. When the selection is changed the focused item is changed too. Use the [SelectCount](#) property to get the number of selected items. Use the [SelectedItem](#) property to get the selected item. Use the [SelectItem](#) to select or unselect a specified item. If the control supports only single selection, you can use the FocusItem property to get the selected/focused item because they are always the same. Use the [ShowFocusRect](#) property to indicate whether the control draws a marking rectangle around the focused item. You can change the focused item, by selecting a new item using the SelectItem method. If the items is not selectable, it is not focusable as well. Use the [SelectableItem](#) property to specify whether an item is selectable/focusable.

## property Items.FormatCell([Item as Variant], [ColIndex as Variant]) as String

Specifies the custom format to display the cell's content.

Type	Description
Item as Variant	A long expression that indicates the handle of the item.
ColIndex as Variant	A long expression that indicates the column's index, a string expression that indicates the column's key or the column's caption.
String	A string expression that indicates the format to be applied on the cell's value, including HTML formatting, if the cell supports it.

By default, the FormatCell property is empty. The format is being applied if valid ( not empty, and syntactically correct ). The expression may be a combination of variables, constants, strings, dates and operators, and value. The *value* operator gives the value to be formatted. A string is delimited by ", ` or ' characters, and inside they can have the starting character preceded by \ character, ie "\\"This is a quote\\\"". A date is delimited by # character, ie #1/31/2001 10:00# means the January 31th, 2001, 10:00 AM. The [FormatColumn](#) property applies the predefined format for all cells in the columns. The [CellCaption](#) property indicates the cell's caption.

The CellValue property of the cell is being shown as:

- formatted using the FormatCell property, if it is valid
- formatted using the [FormatColumn](#) property, if it is valid

In other words, all cells applies the format of the [FormatColumn](#) property, excepts the cells with the FormatCell property being set. If the cell belongs to a column with the [FireFormatColumn](#) property on True, the Value parameter of the [FormatColumn](#) event shows the newly caption for the cell to be shown.

For instance:

- the "[currency\(value\)](#)" displays the column using the current format for the currency ie, 1000 gets displayed as \$1,000.00
- the "[longdate\(date\(value\)\)](#)" converts the value to a date and gets the long format to display the date in the column, ie #1/1/2001# displays instead Monday, January 01, 2001
- the "['<b>' + \(\(0:=proper\(value\)\) left 1\) + '</b>' + \(=:0 mid 2\)](#)" converts the name to proper, so the first letter is capitalized, bolds the first character, and let unchanged the rest, ie a "mihai filimon" gets displayed "Mihai Filimon".

- the "`len(value) ? ((0:=dbl(value)) < 10 ? '<fgcolor=808080><font ;7>' : '<b>')` + `currency(=:0)`" displays the cells that contains not empty daya, the value in currency format, with a different font and color for values less than 10, and bolded for those that are greater than 10, as can see in the following screen shot in the column (A+B+C):

Name	A	B	C	A+B+C
Root				
Child 1	7+	3+	1 =	\$11.00
Child 2	2+	5+	42=	\$19.00
Child 3	2+	2+	4 =	\$8.00
Child 4	2+	9+	4 =	\$15.00

The expression supports cell's identifiers as follows:

- `%0, %1, %2, ...` specifies the value of the cell in the column with the index 0, 1 2, ... The [CellCaption](#) property specifies the cell's value. For instance, "`%0` format `'"` formats the value on the cell with the index 0, using current regional setting, while "`int(%1)`" converts the value of the column with the index 1, to integer.

Other known operators for auto-numbering are:

- number **index** 'format', indicates the index of the item. The first added item has the index 0, the second added item has the index 1, and so on. The index of the item remains the same even if the order of the items is changed by sorting. For instance, 1 index " gets the index of the item starting from 1 while 100 index " gets the index of the item starting from 100. The number indicates the starting index, while the format is a set of characters to be used for specifying the index. If the format is missing, the index of the item is formatted as numbers. For instance: 1 index 'A-Z' gets the index as A, B, C... Z, BA, BB, ... BZ, CA, .... The 1 index 'abc' gives the index as: a,b,c,ba,bb,bc,ca,cb,cc,.... You can use other number formatting function to format the returned value. For instance "1 index " format '0||2|:'" gets the numbers grouped by 2 digits and separated by : character.

In the following screen shot the `FormatColumn("Col 1") = "1 index ""`

Col 1	Col 2
1	+ [Root A]
4	- [Root B]
5	- Child 1
6	- Child 2

In the following screen shot the `FormatColumn("Col 1") = "1 index 'A-Z""`

Col 1	Col 2
A	+ Root A
D	- Root B
E	Child 1
F	Child 2

- number **apos** 'format' indicates the absolute position of the item. The first displayed item has the absolute position 0 ( scrolling position on top ), the next visible item is 1, and so on. The number indicates the starting position, while the format is a set of characters to be used for specifying the position. For instance, 1 apos " gets the absolute position of the item starting from 1, while 100 apos " gets the position of the item starting from 100. If the format is missing, the absolute position of the item is formatted as numbers.

In the following screen shot the FormatColumn("Col 1") = "1 apos ""

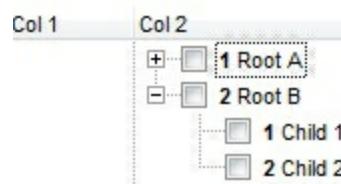
Col 1	Col 2
1	+ Root A
2	- Root B
3	Child 1
4	Child 2

In the following screen shot the FormatColumn("Col 1") = "1 apos 'A-Z'"

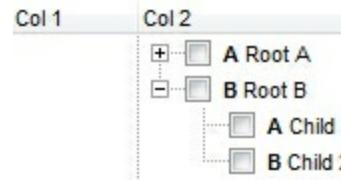
Col 1	Col 2
A	+ Root A
B	- Root B
C	Child 1
D	Child 2

- number **pos** 'format' indicates the relative position of the item. The relative position is the position of the visible child item in the parent children collection. The number indicates the starting position, while the format is a set of characters to be used for specifying the position. For instance, 1 pos " gets the relative position of the item starting from 1, while 100 pos " gets the relative position of the item starting from 100. If the format is missing, the relative position of the item is formatted as numbers. *The difference between pos and opos can be seen while filtering the items in the control. For instance, if no filter is applied to the control, the pos and opos gets the same result. Instead, if the filter is applied, the opos gets the position of the item in the list of unfiltered items, while the pos gets the position of the item in the filtered list.*

In the following screen shot the FormatColumn("Col 2") = "<b>" + 1 pos " + '</b> ' + value"

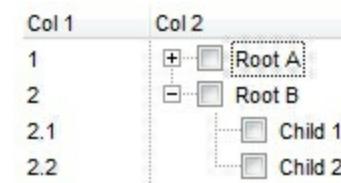


In the following screen shot the FormatColumn("Col 2") = "<b>' + 1 pos 'A-Z' + </b> ' + value"

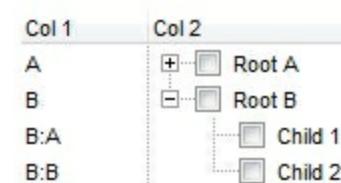


- number **opos** 'format' indicates the relative old position of the item. The relative old position is the position of the child item in the parent children collection. The number indicates the starting position, while the format is a set of characters to be used for specifying the position. For instance, 1 pos " gets the relative position of the item starting from 1, while 100 pos " gets the relative position of the item starting from 100. If the format is missing, the relative position of the item is formatted as numbers. *The difference between pos and opos can be seen while filtering the items in the control. For instance, if no filter is applied to the control, the pos and opos gets the same result. Instead, if the filter is applied, the opos gets the position of the item in the list of unfiltered items, while the pos gets the position of the item in the filtered list.*
- number **rpos** 'format' indicates the relative recursive position of the item. The recursive position indicates the position of the parent items too. The relative position is the position of the visible child item in the parent children collection. The number indicates the starting position, while the format is of the following type "delimiter|format|format|...". If the format is missing, the delimiter is . character, and the positions are formatted as numbers. The format is applied consecutively to each parent item, from root to item itself.

In the following screen shot the FormatColumn("Col 1") = "1 rpos ""



In the following screen shot the FormatColumn("Col 1") = "1 rpos ':|A-Z'"



In the following screen shot the FormatColumn("Col 1") = "1 rpos '|A-Z|'"

Col 1	Col 2
A	Root A Child 1 Child 2
A.1	
A.2	
B	Root B Child 1 Child 2
B.1	
B.2	

In the following screen shot the FormatColumn("Col 1") = "1 apos "" and FormatColumn("Col 2") = "<b><font Tahoma;10>' + 1 rpos '|A-Z|' + '</font></b> ' + value"

Col 1	Col 2
1	<b>A</b> Root A A.1 Child 1 A.1.1 new1 A.1.2 new1 A.2 Child 2
2	
3	
4	
5	
6	<b>B</b> Root B B.1 Child 1 B.2 Child 2
7	
8	

- number **rindex** 'format', number **rapos** 'format' and number **ropos** 'format' are working similar with number **rpos** 'format', excepts that they gives the index, absolute position, or the old child position.

This property/method supports predefined constants and operators/functions as described [here](#).

## **property Items.FullPath (Item as HITEM) as String**

Returns the fully qualified path of the referenced item in the ExGantt control.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item.
String	A string expression that indicates the fully qualified path.

Use the FullPath property in order to get the fully qualified path of the referenced item. Use [PathSeparator](#) to change the separator used by FullPath property. Use the [FindPath](#) property to get the item's selected based on its path. The fully qualified path is the concatenation of the text in the given cell's caption property on the column [SearchColumnIndex](#) with the [CellCaption](#) property values of all its ancestors.

## property Items.InnerCell ([Item as Variant], [ColIndex as Variant], [Index as Variant]) as Variant

Retrieves the inner cell.

Type	Description
Item as Variant	A long expression that indicates the handle of the item where the cell is, or 0. If the Item parameter is 0, the ColIndex parameter must indicate the handle of the cell.
ColIndex as Variant	A long expression that indicates the index of the column where a cell is divided, or a long expression that indicates the handle of the cell being divided, if the Item parameter is missing or it is zero.
Index as Variant	A long expression that indicates the index of the inner being requested. If the Index parameter is missing or it is zero, the InnerCell property retrieves the master cell.
Variant	A long expression that indicates the handle of the inner cell.

Use the InnerCell property to get the inner cell. The InnerCell( , , 0 ) property always retrieves the same cell. The InnerCell( , , 1 ) retrieves the first inner cell, and so on. The InnerCells property always retrieves a non empty value. For instance, if a cell contains only two splitted cells, the InnerCell( , , 3 ), or InnerCell( , , 4 ), and so on, always retrieves the last inner cell. The [SplitCell](#) method splits a cell in two cells ( the newly created cell is called inner cell ). Use the [CellParent](#) property to get the parent of the inner cell. Use the [CellItem](#) property to get the item that's the owner of the cell. Use the [CellWidth](#) property to specify the width of the inner cell. Use the CellParent property to determine whether the cell is a master cell or an inner cell. If the CellParent property gets 0, it means that the cell is master, else it is inner.

The following VB sample specifies whether a cell contains inner cells ( the function checks whether a cell is splitted ):

```
Private Function isSplit(ByVal g As EXGANTTLibCtl.Gantt, ByVal h As  
EXGANTTLibCtl.HITEM, ByVal c As Long) As Boolean  
    With g.Items  
        isSplit = IIf(Not .InnerCell(h, c, 0) = .InnerCell(h, c, 1), True, False)  
    End With  
End Function
```

The following VB sample gets the master cell:

```
Private Function getMaster(ByVal g As EXGANTTLibCtl.Gantt, ByVal h As EXGANTTLibCtl.HITEM, ByVal c As Long) As EXGANTTLibCtl.HCELL
```

```
With g.Items
```

```
    Dim r As EXGANTTLibCtl.HCELL
```

```
    r = c
```

```
    If Not (h = 0) Then
```

```
        r = .ItemCell(h, c)
```

```
    End If
```

```
    While Not (.CellParent(r) = 0)
```

```
        r = .CellParent(r)
```

```
    Wend
```

```
    getMaster = r
```

```
End With
```

```
End Function
```

The following VB sample counts the inner cells:

```
Private Function getInnerCount(ByVal g As EXGANTTLibCtl.Gantt, ByVal h As EXGANTTLibCtl.HITEM, ByVal c As Long) As Long
```

```
With g.Items
```

```
    Dim i As Long
```

```
    i = -1
```

```
    Do
```

```
        i = i + 1
```

```
    Loop While Not (.InnerCell(h, c, i) = .InnerCell(h, c, i + 1))
```

```
    getInnerCount = i
```

```
End With
```

```
End Function
```

The following C++ sample specifies whether a cell contains inner cells ( the function checks whether a cell is splitted ):

```
long V2I( VARIANT* pvtValue )
{
    COleVariant vtResult;
    vtResult.ChangeType( VT_I4, pvtValue );
    return V_I4( &vtResult );
}
```

```
BOOL isSplit( CGantt& gantt, long h, long c )
{
    CItems items = gantt.GetItems();
    return V2I( &items.GetInnerCell( COleVariant( h ), COleVariant( c ), COleVariant( (long)0 ) )
) != V2I( &items.GetInnerCell( COleVariant( h ), COleVariant( c ), COleVariant( (long)1 ) ) );
}
```

The following C++ sample gets the master cell:

```
long getMaster( CGantt& gantt, long h, long c )
{
    COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;
    CItems items = gantt.GetItems();
    long r = c;
    if ( h != 0 )
        r = items.GetItemCell( h, COleVariant( c ) );
    while ( V2I( &items.GetCellParent( vtMissing, COleVariant( r ) ) ) != 0 )
        r = V2I( &items.GetCellParent( vtMissing, COleVariant( r ) ) );
    return r;
}
```

The following C++ sample counts the inner cells:

```
long getInnerCount( CGantt& gantt, long h, long c )
{
    CItems items = gantt.GetItems();
    COleVariant vtItem( h ), vtColumn( c );
    long i = -1;
    do
    {
        i++;
    }
    while ( V2I( &items.GetInnerCell( vtItem, vtColumn, COleVariant( i ) ) ) != V2I(
&items.GetInnerCell( vtItem, vtColumn, COleVariant( (long)(i + 1) ) ) );
    return i;
}
```

The following VB.NET sample splits the first visible cell in two cells:

With AxGantt1.Items

```
Dim i As Object  
i = .SplitCell(.FirstVisibleItem, 0)  
.CellCaption(Nothing, i) = "inner cell"  
End With
```

The following C# sample splits the first visible cell in two cells:

```
EXGANTTLib.Items items = axGantt1.Items;  
object i = items.get_SplitCell(items.FirstVisibleItem, 0);  
items.set_CellCaption(null, i, "inner cell");
```

The following VFP sample splits the first visible cell in two cells:

with thisform.Gantt1.Items

```
local i  
i = .SplitCell(.FirstVisibleItem,0)  
local s, crlf  
crlf = chr(13) + chr(10)  
s = "Items" + crlf  
s = s + "{" + crlf  
s = s + "CellCaption(" + str(i) + ") = " + chr(34) + "inner cell" + chr(34) + crlf  
s = s + "}"  
thisform.Gantt1.Template = s  
endwith
```

## method Items.InsertControlItem (Parent as HITEM, ControlID as String, [License as Variant])

Inserts a new item of ActiveX type, and returns a handle to the newly created item.

Type	Description
Parent as HITEM	A long expression that indicates the handle of the parent item where the ActiveX will be inserted. If the argument is missing then the InsertControlItem property inserts the ActiveX control as a root item. If the Parent property is referring a locked item ( <a href="#">ItemLocked</a> property ), the InsertControlItem property doesn't insert a new child ActiveX, instead insert the ActiveX control to the locked item that's specified by the Parent property.
ControlID as String	A string expression that can be formatted as follows: a prog ID, a CLSID, a URL, a reference to an Active document , a fragment of HTML.
License as Variant	A string expression that indicates the runtime license key, if it is required. An empty string, if the control doesn't require a runtime license key.
Return	Description
HITEM	A long expression that indicates the handle of the newly created item.

Use the [AddBar](#) method to add bars to the item. The bars are always shown in the chart area. Use the [PaneWidth](#) property to specify the width of the chart. The control supports ActiveX hosting, so you can insert any ActiveX component. The ControlID must be formatted in one of the following ways:

- A ProgID such as "Exontrol.Gantt"
- A CLSID such as "{8E27C92B-1264-101C-8A2F-040224009C02}"
- A URL such as "https://www.exontrol.com"
- A reference to an Active document such as "c:\temp\myfile.doc", or "c:\temp\picture.gif"
- A fragment of HTML such as "MSHTML:<HTML><BODY>This is a line of text</BODY></HTML>"
- A fragment of XML

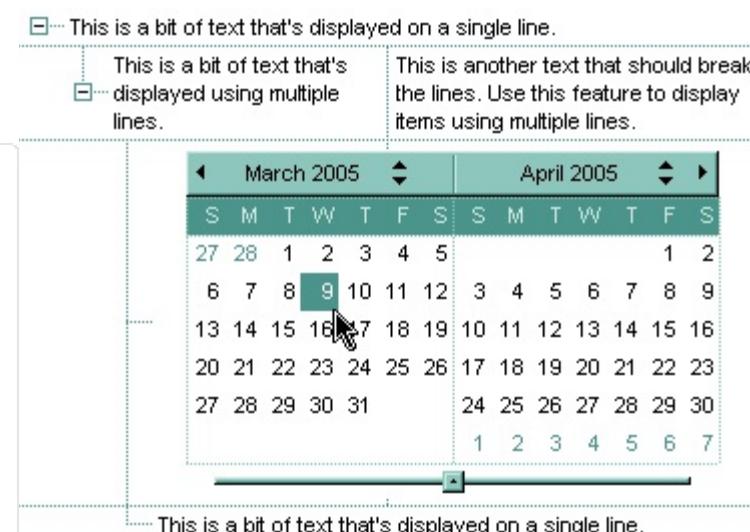
The InsertControlItem property creates an ActiveX control that's hosted by the exGrid control. **The look and feel of the inner ActiveX control depends on the identifier you are using, and the version of the library that implements the ActiveX control, so you**

**need to consult the documentation of the inner ActiveX control you are inserting inside the exGantt control.**

Once that an item of ActiveX type has been added you can get the OLE control created using the ItemObject property. To check if an item contains an ActiveX control you can use ItemControlID property. To change the height of an ActiveX item you have to use ItemHeight property. When the control contains at least an item of ActiveX type, it is recommended to set [ScrollBySingleLine](#) property of control to true. Events from contained components are fired through to your program using the exact same model used in VB6 for components added at run time ( See [ItemOleEvent](#) event, [OleEvent](#) and [OleEventParam](#) ). For instance, when an ActiveX control fires an event, the control forwards that event to your container using ItemOleEvent event of the exGantt control. Use the [ItemObject](#) property to access the object being created by the InsertControlItem property. Use the [ItemHeight](#) property to specify the height of the item when containing an ActiveX control. Use the [ItemWidth](#) property to specify the width of the ActiveX control. Use the [BeginUpdate](#) and [EndUpdate](#) methods to update the control's content when adding ActiveX controls on the fly. Use the [ItemControlID](#) property to retrieve the control's identifier.

The following VB sample adds the Exontrol's ExCalendar Component:

```
With Gantt1
    .BeginUpdate
    .ScrollBySingleLine = True
    With Gantt1.Items
        Dim h As HITEM
        h = .InsertControlItem(
            "Exontrol.Calendar")
        .ItemHeight(h) = 182
        With .ItemObject(h)
            .Appearance = 0
            .BackColor = vbWhite
            .ForeColor = vbBlack
            .ShowTodayButton = False
        End With
    End With
    .EndUpdate
End With
```

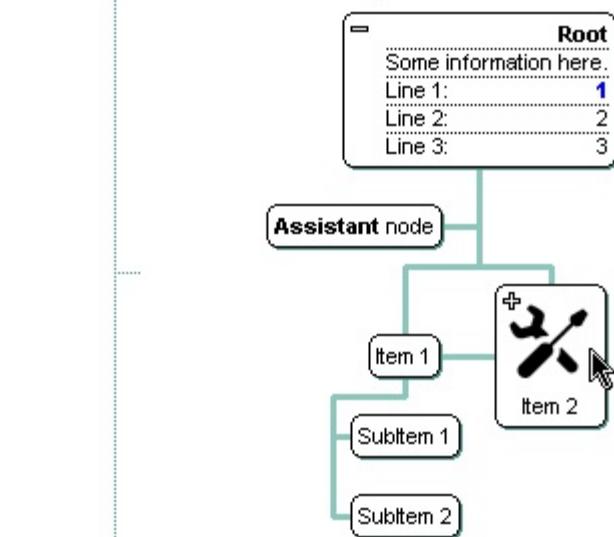


The following C++ sample adds the Exontrol's ExOrgChart Component:

This is a bit of text that's displayed on a single line.

This is a bit of text that's displayed using multiple lines.

This is another text that should break the lines. Use this feature to display items using multiple lines.



This is a bit of text that's displayed on a single line.

```
#include "Items.h"
```

```
#pragma warning( disable : 4146 )
```

```
#import <ExOrgChart.dll>
```

```
CItems items = m_gantt.GetItems();
m_gantt.BeginUpdate();
m_gantt.SetScrollBySingleLine( TRUE );
COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;
long h = items.InsertControlItem( 0, "Exontrol.ChartView", vtMissing );
items.setItemHeight( h, 182 );
EXORGCHARTLib::IChartViewPtr spChart( items.GetItemObject(h) );
if ( spChart != NULL )
{
    spChart->BeginUpdate();
    spChart->BackColor = RGB(255,255,255);
    spChart->ForeColor = RGB(0,0,0);
    EXORGCHARTLib::INodesPtr spNodes = spChart->Nodes;
    spNodes->Add( "Child 1", "Root", "1", vtMissing, vtMissing );
    spNodes->Add( "SubChild 1", "1", vtMissing, vtMissing, vtMissing );
    spNodes->Add( "SubChild 2", "1", vtMissing, vtMissing, vtMissing );
    spNodes->Add( "Child 2", "Root", vtMissing, vtMissing, vtMissing );
    spChart->EndUpdate();
```

```
}
```

```
m_gantt.EndUpdate();
```

The sample uses the #import statement to include the ExOrgChart's Type Library. In this sample, the ItemObject property retrieves an IChartView object. The path to the library should be provided in case it is not located in your system folder.

The following C# sample adds the Exontrol's ExGantt Component:

```
axGantt1.BeginUpdate();
EXGANTTLib.Items items = axGantt1.Items;
axGantt1.ScrollBySingleLine = true;
int h = items.InsertControlItem(0, "Exontrol.Gantt","");
items.set_ItemHeight(h, 182);
object ganttInside = items.get_ItemObject(h);
if (ganttInside != null)
{
    EXGANTTLib.Gantt gantt = ganttInside as EXGANTTLib.Gantt;
    if (gantt != null)
    {
        gantt.BeginUpdate();
        gantt.LinesAtRoot = EXGANTTLib.LinesAtRootEnum.exLinesAtRoot;
        gantt.Columns.Add("Column 1");
        gantt.Columns.Add("Column 2");
        gantt.Columns.Add("Column 3");
        EXGANTTLib.Items itemsInside = gantt.Items;
        int hInside = itemsInside.AddItem("Item 1");
        itemsInside.set_CellCaption(hInside, 1, "SubItem 1");
        itemsInside.set_CellCaption(hInside, 2, "SubItem 2");
        hInside = itemsInside.InsertItem(hInside, null, "Item 2");
        itemsInside.set_CellCaption(hInside, 1, "SubItem 1");
        itemsInside.set_CellCaption(hInside, 2, "SubItem 2");
        gantt.EndUpdate();
    }
}
axGantt1.EndUpdate();
```

The following VB.NET sample adds the Exontrol's ExOrgChart Component:

```
With AxGantt1
```

```
    .BeginUpdate()
```

```
    .ScrollBySingleLine = True
```

```
    With .Items
```

```
        Dim hItem As Integer
```

```
        hItem = .InsertControlItem( "Exontrol.ChartView" )
```

```
        .ItemHeight(hItem) = 182
```

```
        With .ItemObject(hItem)
```

```
            .BackColor = ToUInt32(Color.White)
```

```
            .ForeColor = ToUInt32(Color.Black)
```

```
            With .Nodes
```

```
                .Add("Child 1", , "1")
```

```
                .Add("SubChild 1", "1")
```

```
                .Add("SubChild 2", "1")
```

```
                .Add("Child 2")
```

```
            End With
```

```
        End With
```

```
    End With
```

```
    .EndUpdate()
```

```
End With
```

The following VFP sample adds the Exontrol's ExGrid Component:

```
with thisform.Gantt1
```

```
    .BeginUpdate()
```

```
    .ScrollBySingleLine = .t.
```

```
    with .Items
```

```
        .DefaultItem = .InsertControlItem(0, "Exontrol.Grid")
```

```
        .ItemHeight( 0 ) = 182
```

```
        with .ItemObject( 0 )
```

```
            .BeginUpdate()
```

```
            with .Columns
```

```
                with .Add("Column 1").Editor()
```

```
                    .EditType = 1 && EditType editor
```

```
                endwith
```

```
            endwith
```

```
            with .Items
```

```

.AddItem("Text 1")
.AddItem("Text 2")
.AddItem("Text 3")
endwith
.EndUpdate()
endwith
endwith
.EndUpdate()
endwith

```

The following VB sample adds dynamically an ExGantt ActiveX Control and a Microsoft Calendar Control:

```

' Inserts a new ActiveX control of Exontrol.Gantt type
Dim hGantt As HITEM
hGantt = Gantt1.Items.InsertControlItem(Gantt1.Items(0), "Exontrol.Gantt",
runtimelicensekey )
' Sets the ActiveX control height
Gantt1.Items.ItemHeight(hGantt) = 212
' Gets the ExGantt control created. Since the ProgID used to create the item is
"Exontrol.Gantt"
' the object will be of EXGANTTLibCtl.Gantt type
Dim objGantt As Object
Set objGantt = Gantt1.Items.ItemObject(hGantt)
objGantt.Columns.Add "Column"
objGantt.Items.AddItem "One"
objGantt.Items.AddItem "Two"
objGantt.Items.AddItem "Three"

' Inserts a new ActiveX control of MSCAL.Calendar type
Dim hCalc As HITEM
hCalc = objGantt.Items.InsertControlItem(, "MSCal.Calendar")
Set objCalc = Gantt1.Items.ItemObject(hCalc)
objCalc.ShowTitle = False
objCalc.ShowDateSelectors = False

```

where the runtimelicensekey is the exGantt's runtime license key. Please [contact us](#) to get the exGantt's runtime license key. Please notice that your development license key **is not**

**equivalent** with the generated runtime license key. **Your order number is required**, when requesting the control's runtime license key. If you are using the DEMO version for testing purpose, you don't need a runtime license key.

The following VB sample handles any event that a contained ActiveX fires:

```
Private Sub Gantt1_ItemOleEvent(ByVal Item As EXGANTTLibCtl.HITEM, ByVal Ev As EXGANTTLibCtl.IOleEvent)
    On Error Resume Next
    Dim i As Long
    Debug.Print "The " & Ev.Name & " was fired."
    If Not (Ev.CountParam = 0) Then
        Debug.Print "The event has the following parameters: "
        For i = 0 To Ev.CountParam - 1
            Debug.Print " - " & Ev(i).Name & " = " & Ev(i).Value
        Next
    End If
End Sub
```

Some of ActiveX controls requires additional window styles to be added to the container window. For instance, the Web Brower added by the Gantt1.Items.InsertControlItem(, "https://www.exontrol.com") won't add scroll bars, so you have to do the following:

First thing is to declare the WS\_HSCROLL and WS\_VSCROLL constants at the top of your module:

```
Private Const WS_VSCROLL = &H200000
Private Const WS_HSCROLL = &H100000
```

Then you need to insert a Web control use the following lines:

```
Dim hWeb As HITEM
hWeb = Gantt1.Items.InsertControlItem(, "https://www.exontrol.com")
Gantt1.Items.ItemHeight(hWeb) = 196
```

Next step is adding the AddItem event handler:

```
Private Sub Gantt1_AddItem(ByVal Item As EXGANTTLibCtl.HITEM)
    If (Gantt1.Items.ItemControlID(Item) = "https://www.exontrol.com") Then
        ' Some of controls like the WEB control, requires some additional window styles ( like
```

## WS\_HSCROLL and WS\_VSCROLL window styles )

' for the window that host that WEB control, to allow scrolling the web page

Gantt1.Items.**ItemWindowHostCreateStyle**(Item) =

Gantt1.Items.**ItemWindowHostCreateStyle**(Item) + WS\_HSCROLL + WS\_VSCROLL

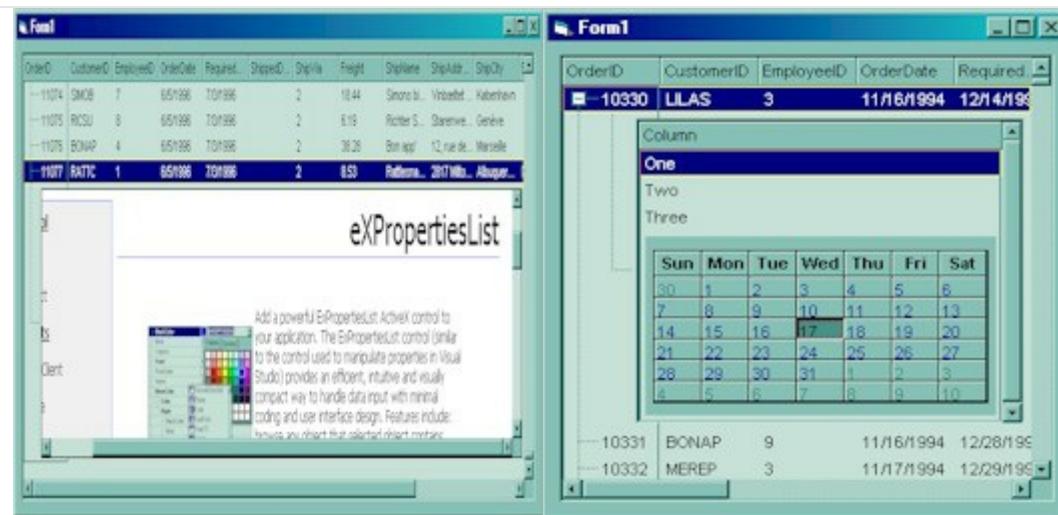
End If

End Sub

If somehow the InsertItemControl wasn't able to create your ActiveX on some Windows platforms, and you don't know why, you can use the following

code to make sure that ActiveX control can be created properly by using ( the sample is trying to add a new Microsoft RichText ActivX control into your form):

```
Controls.Add "RICHTEXT.RichtextCtrl", "rich"
```



**method Items.InsertItem ([Parent as HITEM], [UserData as Variant], [Caption as Variant])**

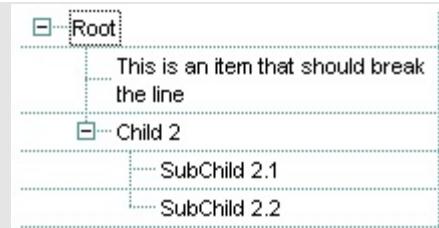
Inserts a new item, and returns a handle to the newly created item.

Type	Description
Parent as HITEM	A long expression that indicates the item's handle that indicates the parent item where the newly item is inserted.
UserData as Variant	A Variant expression that indicates the item's extra data.
Caption as Variant	A string expression that indicates the cell's caption on the first column, a safe array that holds the caption for each column.
Return	Description
HITEM	Retrieves the handle of the newly created item.

Use the [InsertItem](#) property to add a new child item to the specified item. The [InsertItem](#) property fires the [AddItem](#) event. You can use the [InsertItem\(,, "Root"\)](#) or [AddItem\("Root"\)](#) to add a root item. An item that has no parent is a root item. Use the [AddBar](#) method to add bars to the item. The bars are always shown in the chart area. Use the [PaneWidth](#) property to specify the width of the chart. Use the [CellCaption](#) property to specify the cell's caption when control contains multiple columns. Use the [CellCaptionFormat](#) property to specify whether the cell displays the caption using the HTML format. To insert an ActiveX control, use the [InsertControlItem](#) property of the [Items](#) property. Use the [ExpandItem](#) property to expand an item. Use the [MergeCells](#) method to combine two or multiple cells in a single cell. Use the [SplitCell](#) property to split a cell. Use the [LinesAtRoot](#) property to link items at the root of the hierarchy. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula. Use the [LoadXML/SaveXML](#) methods to load/save the control's data from/to XML files.

The following VB sample shows how to create a simple hierarchy:

```
With Gantt1  
    .BeginInit  
    .ColumnAutoResize = True  
    .LinesAtRoot = exLinesAtRoot  
    .FullRowSelect = False  
    .MarkSearchColumn = False  
    .Columns.Add "Default"  
With .Items
```



```

Dim h As HITEM, hx As HITEM
h = .InsertItem(, , "Root")
hx = .InsertItem(h, , "This is an item that should break the line")
.CellSingleLine(hx, 0) = False
h = .InsertItem(h, , "Child 2")
.InsertItem h, , "SubChild 2.1"
h = .InsertItem(h, , "SubChild 2.2")
End With
.EndUpdate
End With

```

The following VB sample insert items and multiple columns as well:

Column 1	Column 2
Root	
This is an item that should break the line	Just another cell that holds some info
Child 2	
SubChild 2.1	SubItem 2.1
SubChild 2.2	SubItem 2.2

With Gantt1

```

.BeginUpdate
.HeaderVisible = True
.ColumnAutoResize = True
.LinesAtRoot = exLinesAtRoot
.FullRowSelect = False
.MarkSearchColumn = False
.Columns.Add "Column 1"
.Columns.Add "Column 2"

```

With .Items

```

Dim h As HITEM, hx As HITEM
h = .InsertItem(, , "Root")
hx = .InsertItem(h, , Array("This is an item that should break
the line", "Just another cell that holds some info"))
.CellSingleLine(hx, 0) = False
.CellSingleLine(hx, 1) = False
h = .InsertItem(h, , "Child 2")
.InsertItem h, , Array("SubChild 2.1", "SubItem 2.1")
h = .InsertItem(h, , Array("SubChild 2.2", "SubItem 2.2"))

```

End With

.EndUpdate

End With

The following VB sample inserts a child item and expands the focused item:

With Gantt1.Items

```
.InsertItem .FocusItem, , "new child"
```

```
.ExpandItem(.FocusItem) = True
```

End With

The following C++ sample inserts a child item and expands the focused item:

```
#include "Items.h"
```

```
CItems items = m_gantt.GetItems();
```

```
COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;
```

```
long h = items.InsertItem( items.GetFocusItem(), vtMissing, COleVariant( "new child" ) );
```

```
items.SetExpandItem( items.GetFocusItem(), TRUE );
```

The following VB.NET sample inserts a child item and expands the focused item:

With AxGantt1.Items

```
Dim hItem As Integer
```

```
hItem = .InsertItem(.FocusItem, , "new child")
```

```
.ExpandItem(.FocusItem) = True
```

End With

The following C# sample inserts a child item and expands the focused item:

```
int hItem = axGantt1.Items.InsertItem(axGantt1.Items.FocusItem, null, "new child");  
axGantt1.Items.set_ExpandItem(axGantt1.Items.FocusItem, true);
```

The following VFP sample inserts a child item and expands the focused item:

with thisform.Gantt1.Items

```
.DefaultItem = .InsertItem( .FocusItem, "", "new child" )
```

```
.DefaultItem = .FocusItem
```

```
.ExpandItem(0) = .t.
```

endwith

## property Items.IsItemLocked (Item as HITEM) as Boolean

Returns a value that indicates whether the item is locked or unlocked.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item.
Boolean	A boolean expression that indicates whether the item is locked or unlocked.

Use the IsItemLocked property to check whether an item is locked or unlocked. A locked item is always displayed on the top or bottom side of the control no matter if the control's list is scrolled up or down. Use the [LockedItemCount](#) property to add or remove items fixed/locked to the top or bottom side of the control. Use the [LockedItem](#) property to access a locked item by its position. Use the [ShowLockedItems](#) property to show or hide the locked items.

The following VB sample prints the locked item from the cursor:

```
Private Sub Gantt1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As Single)
    On Error Resume Next
    ' Converts the container coordinates to client coordinates
    X = X / Screen.TwipsPerPixelX
    Y = Y / Screen.TwipsPerPixelY
    Dim h As HITEM
    Dim c As Long
    Dim hit As EXGANTTLibCtl.HitTestInfoEnum
    ' Gets the item from (X,Y)
    With Gantt1
        h = .ItemFromPoint(X, Y, c, hit)
        If Not (h = 0) Then
            If (.Items.IsItemLocked(h)) Then
                Debug.Print .Items.CellCaption(h, c)
            End If
        End If
    End With
End Sub
```

The following C++ sample prints the locked item from the cursor:

```

#include "Items.h"
void OnMouseMoveGantt1(short Button, short Shift, long X, long Y)
{
    long c = 0, hit = 0, hItem = m_gantt.GetItemFromPoint( X, Y, &c, &hit );
    if ( hItem != 0 )
    {
        CItems items = m_gantt.GetItems();
        if ( items.GetItemLocked( hItem ) )
        {
            COleVariant vtItem( hItem ), vtColumn( c );
            CString strCaption = V2S( &items.GetCellCaption( vtItem, vtColumn ) ), strOutput;
            strOutput.Format( "Cell: '%s', Hit = %08X\n", strCaption, hit );
            OutputDebugString( strOutput );
        }
    }
}

```

The following VB.NET sample prints the locked item from the cursor:

```

Private Sub AxGantt1_MouseMoveEvent(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_MouseMoveEvent) Handles AxGantt1.MouseMoveEvent
    With AxGantt1
        Dim i As Integer, c As Integer, hit As EXGANTTLib.HitTestInfoEnum
        i = .get_ItemFromPoint(e.x, e.y, c, hit)
        If Not (i = 0) Then
            With .Items
                If (.IsItemLocked(i)) Then
                    Debug.WriteLine("Cell: " & .CellCaption(i, c) & " Hit: " & hit.ToString())
                End If
            End With
        End If
    End With
End Sub

```

The following C# sample prints the locked item from the cursor:

```

private void axGantt1_MouseMoveEvent(object sender,
AxEXGANTTLib._IGanttEvents_MouseMoveEvent e)

```

```
{  
    int c = 0;  
    EXGANTTLib.HitTestInfoEnum hit;  
    int i = axGantt1.get_ItemFromPoint(e.x, e.y, out c, out hit);  
    if (i != 0)  
        if (axGantt1.Items.get_IsItemLocked(i))  
        {  
            object cap = axGantt1.Items.get_CellCaption(i, c);  
            string s = cap != null ? cap.ToString() : "";  
            s = "Cell: " + s + ", Hit: " + hit.ToString();  
            System.Diagnostics.Debug.WriteLine(s);  
        }  
}
```

The following VFP sample prints the locked item from the cursor:

```
*** ActiveX Control Event ***  
LPARAMETERS button, shift, x, y  
  
local c, hit  
c = 0  
hit = 0  
with thisform.Gantt1  
    .Items.DefaultItem = .ItemFromPoint( x, y, @c, @hit )  
    with .Items  
        if ( .DefaultItem <> 0 )  
            if ( .IsItemLocked( 0 ) )  
                wait window nowait .CellCaption( 0, c ) + " " + Str( hit )  
            endif  
        endif  
    endwith  
endwith
```

## property Items.IsItemVisible (Item as HITEM) as Boolean

Checks if the specific item fits the control's client area.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item that fits the client area.
Boolean	A boolean expression that indicates whether the item fits the client area.

To make sure that an item fits the client area call [EnsureVisibleItem](#) method. Use the [FirstVisibleItem](#), [NextVisibleItem](#) and IsItemVisible properties to get the items that fit the client area. Use the NextVisibleItem property to get the next visible item. Use the IsVisibleItem property to check whether an item fits the control's client area.

The following VB sample enumerates the items that fit the control's client area:

```
On Error Resume Next
Dim h As HITEM
Dim i As Long, j As Long, nCols As Long
nCols = Gantt1.Columns.Count
With Gantt1.Items
    h = .FirstVisibleItem
    While Not (h = 0) And .IsItemVisible(h)
        Dim s As String
        s = ""
        For j = 0 To nCols - 1
            s = s + .CellCaption(h, j) + Chr(9)
        Next
        Debug.Print s
        h = .NextVisibleItem(h)
    Wend
End With
```

The following C++ sample enumerates the items that fit the control's client area:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
long hItem = items.GetFirstVisibleItem();
```

```
while ( hItem && items.GetIsItemVisible( hItem ) )
{
    OutputDebugString( V2S( &items.GetCellCaption( COleVariant( hItem ), COleVariant(
long(0) ) ) ) );
    hItem = items.GetNextVisibleItem( hItem );
}
```

The following VB.NET sample enumerates the items that fit the control's client area:

With AxGantt1.Items

```
Dim hItem As Integer
hItem = .FirstVisibleItem
While Not (hItem = 0)
    If (.IsItemVisible(hItem)) Then
        Debug.Print(.CellCaption(hItem, 0))
        hItem = .NextVisibleItem(hItem)
    Else
        Exit While
    End If
End While
End With
```

The following C# sample enumerates the items that fit the control's client area:

```
EXGANTTLib.Items items = axGantt1.Items;
int hItem = items.FirstVisibleItem;
while ( ( hItem != 0 ) && (items.get_IsItemVisible(hItem)) )
{
    object strCaption = items.get_CellCaption(hItem, 0);
    System.Diagnostics.Debug.WriteLine( strCaption != null ? strCaption.ToString() : "" );
    hItem = items.get_NextVisibleItem(hItem);
}
```

The following VFP sample enumerates the items that fit the control's client area:

with thisform.Gantt1.Items

```
.DefaultItem = .FirstVisibleItem
do while ( ( .DefaultItem <> 0 ) and ( .IsItemVisible( 0 ) ) )
    wait window .CellCaption( 0, 0 )
```

```
.DefaultItem = .NextVisibleItem( 0 )
```

```
enddo
```

```
endwith
```

## property Items.ItemAllowSizing(Item as HITEM) as Boolean

Retrieves or sets a value that indicates whether a user can resize the item at run-time.

Type	Description
Item as HITEM	A HITEM expression that indicates the handle of the item that can be resized.
Boolean	A Boolean expression that specifies whether the user can resize the item at run-time.

By default, the user can resize the item at run-time using mouse movements. Use the ItemAllowSizing property to specify whether a user can resize the item at run-time. Use the [ItemsAllowSizing](#) property to specify whether all items are resizable or not. Use the [ItemHeight](#) property to specify the height of the item. An item is resizable if the ItemAllowSizing property is True, or if the ItemsAllowSizing property is True (that means all items are resizable), and the ItemAllowSizing property is not False. For instance, if your application requires all items being resizable but only few of them being not resizable, you can have the ItemsAllowSizing property on True, and for those items that are not resizable, you can call the ItemAllowSizing property on False. The user can resize an item by moving the mouse between two items, so the vertical split cursor shows up, click and drag the mouse to the new position. Use the [CellSingleLine](#) property to specify whether the cell displays its caption using multiple lines. The [ScrollBySingleLine](#) property is automatically set on True, as soon as the user resizes an item.

## property Items.ItemAppearance(Item as HITEM) as AppearanceEnum

Specifies the item's appearance when the item hosts an ActiveX control.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item that was previously created by <a href="#">InsertControlItem</a> property.
<a href="#">AppearanceEnum</a>	An AppearanceEnum expression that indicates the item's appearance.

Use the ItemAppearance property to specify the item's appearance if the item is of ActiveX type. Use the [InsertControlItem](#) property to insert an ActiveX control inside. Use the [ItemObject](#) property to access the object being created by the InsertControlItem property. Use the [ItemHeight](#) property to specify the height of the item when containing an ActiveX control.

## property Items.ItemBackColor(Item as HITEM) as Color

Retrieves or sets a background color for a specific item.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item. If the Item is 0, the ItemBackColor changes the background color for all items.
Color	A color expression that indicates the item's background color.

The ItemBackColor property specifies the background or the visual appearance for the item's background on the columns/item section. Use the [CellBackColor](#) property to change the cell's background color. To change the background color of the entire control you can call [BackColor](#) property of the control. Use the [ClearItemBackColor](#) property to clear the item's background color, after setting using the ItemBackColor property. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula. The [ItemBackColor](#) property of the Chart object specifies the item's background or visual appearance for the chart area.

In VB.NET or C# you require the following functions until the .NET framework will provide:

You can use the following VB.NET function:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32
    Dim i As Long
    i = c.R
    i = i + 256 * c.G
    i = i + 256 * 256 * c.B
    ToUInt32 = Convert.ToUInt32(i)
End Function
```

You can use the following C# function:

```
private UInt32 ToUInt32(Color c)
{
    long i;
    i = c.R;
    i = i + 256 * c.G;
    i = i + 256 * 256 * c.B;
```

```
    return Convert.ToInt32(i);
}
```

The following C# sample changes the background color for the focused item:

```
axGantt1.Items.set_ItemBackColor(axGantt1.Items.FocusItem, ToUInt32(Color.Red));
```

The following VB.NET sample changes the background color for the focused item:

With AxGantt1.Items

```
.ItemBackColor(.FocusItem) = ToUInt32(Color.Red)
```

```
End With
```

The following C++ sample changes the background color for the focused item:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetItemBackColor( items.GetFocusItem(), RGB(255,0,0) );
```

The following VFP sample changes the background color for the focused item:

```
with thisform.Gantt1.Items
    .DefaultItem = .FocusItem
    .ItemBackColor( 0 ) = RGB(255,0,0)
endwith
```

Use the following VB sample changes the background color for the cells in the first column, when adding new items:

```
Private Sub Gantt1.AddItem(ByVal Item As EXGANTTLibCtl.HITEM)
    Gantt1.Items.CellBackColor(Item, 0) = vbBlue
End Sub
```

## **property Items.ItemBar(Item as HITEM, Key as Variant, Property as ItemBarPropertyEnum) as Variant**

Gets or sets a bar property.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item where the bar is removed.
Key as Variant	A String expression that indicates the key of the bar being accessed. If missing, the Key parameter is empty. If the Item has only a single Bar you may not use the Key parameter, else an unique key should be used to allow multiple bars inside the item. The Key may include a pattern with wild characters as *, ?, # or [], if the Key starts with "<" and ends on ">" aka "<K*>" which indicates all bars with the key K or starts on K. The pattern may include a space which divides multiple patterns for matching. For instance "<A* *K>" indicates all keys that start on A and all keys that end on K.
Property as ItemBarPropertyEnum	An <a href="#">ItemBarPropertyEnum</a> expression that indicates the property being accessed
Variant	A Variant expression that indicates the property's value.

Use the ItemBar property to access properties related to the bars being shown in the item. You can change a property for all bars with a specified key, from all items, by using the Item parameter on 0. For instance, the `ItemBar(0, "K1", exBarColor) = RGB(255,0,0)` changes the color for all bars with the key K1, from all items. If the Item parameter indicates a valid item, the bars referred is only inside the item. For instance, the `ItemBar(FirstVisibleItem, "K1", exBarColor) = RGB(255,0,0)` changes the color for the bar in the first visible item with the key K1.

Based on the values of the Item and Key parameters the ItemBar property changes a property for none, one or multiple bars as follows:

- **ItemBar(0,"\*>",Property) = Value** changes the Property of all bars in the chart.
- **ItemBar(0,"<pattern>",Property) = Value** changes the Property of all bars in the chart that match a specified pattern using wild characters as \*, ?, # or [].
- **ItemBar(Item,"\*>",Property) = Value** changes the Property of all bars in the item.
- **ItemBar(Item,"<pattern>",Property) = Value** changes the Property of all bars in the item that match a specified pattern using wild characters as \*, ?, # or []

The pattern may include the space character which indicates multiple patterns to be

used when matching. For instance "A\* \*K" indicates all keys that starts on A and all keys that ends on K. If not using a pattern, the ItemBar changes the property for specified key in all items if 0 is used for Item, or single Item if a valid handle is used on the Item parameter.

Here's few samples of using the set ItemBar property:

- *ItemBar(Item,"K1",Property) = Value changes the Property of the bar K1 from the specified Item.*
- *ItemBar(0,"K1",Property) = Value changes the Property of the bar K1 from the entire chart.*
- *ItemBar(0,"<A\* K\*>",Property) = Value changes the Property of all bars from the chart with the Key A or K or starts with A or K.*
- *ItemBar(0,"<\*K>",Property) = Value changes the Property of all bars from the chart with the Key K or ends on K.*
- *ItemBar(Item,"<K\*>",Property) = Value changes the Property of all bars from the specified Item with the Key K or starts on K.*
- *ItemBar(Item,"<K??>",Property) = Value changes the Property of all bars from the specified Item with the Key of 3 characters and starts with K.*

Currently, the single read-only property that supports pattern for the Key parameter is **exBarsCount**, which counts the bars as follows:

- **ItemBar(0,"<\*>",exBarsCount)** counts all bars in the chart.
- **ItemBar(0,"<pattern>",exBarsCount)** counts all bars in the chart that match a specified pattern using wild characters as \*, ?, # or [].
- **ItemBar(Item,"<\*>",exBarsCount)** counts all bars in the giving Item.
- **ItemBar(Item,"<pattern>",exBarsCount)** counts all bars in the item that match a specified pattern using wild characters as \*, ?, # or [].

The pattern may include the space character which indicates multiple patterns to be used when matching. For instance "A\* \*K" indicates all keys that start on A and all keys that end on K.

Here's few samples of using the get ItemBar(exBarsCount) property:

- *ItemBar(Item,"K1",exBarsCount) gets the count of the bar K1 from the specified Item. This could be 0, if K1 is not found or 1, if the K1 is found on the Item, as an item could hold a single bar with the same Key.*
- *ItemBar(0,"K1",exBarsCount) counts all bars K1 from the entire chart.*
- *ItemBar(Item,"<\*>",exBarsCount) counts all bars in the specified item.*
- *ItemBar(Item,"",exBarsCount) is equivalent with ItemBar(Item,"<\*>",exBarsCount).*

- *ItemBar(0, "<\*>", exBarsCount)* counts all bars from the entire chart.
- *ItemBar(0, "", exBarsCount)* is equivalent with *ItemBar(0, "<\*>", exBarsCount)*.
- *ItemBar(0, "<A\* K\*>", exBarsCount)* gets the count of all bars from the chart with the Key A or K or starts with A or K.
- *ItemBar(0, "<\*K>", exBarsCount)* gets the number of bars from the chart with the Key K or ends on K.
- *ItemBar(Item, "<K\*>", exBarsCount)* counts all bars from the specified Item with the Key K or starts on K.
- *ItemBar(Item, "<K??>", exBarsCount)* counts all bars from the specified Item with the Key of 3 characters and starts with K.

Use the [AddBar](#) property to add new bars to the item. Use the [FirstVisibleDate](#) property to specify the first visible date in the chart area. Use the [RemoveBar](#) method to remove a bar from an item. Use the [ClearBars](#) method to remove all bars in the item. Use the [Refresh](#) method to refresh the chart.

The /NET Assembly version defines get/set shortcut properties as follow ( they start with get\_ or set\_ keywords ):

- **BarName** : String, retrieves or sets a value that indicates the name of the bar
- **BarStart** : DateTime, retrieves or sets a value that indicates the start of the bar
- **BarEnd** : DateTime, retrieves or sets a value that indicates the end of the bar
- **BarCaption** : String Retrieves or sets a value that indicates the caption being assigned to the bar
- **BarHAlignCaption** : [AlignmentEnum](#), retrieves or sets a value that indicates the horizontal alignment of the caption inside the bar
- **BarVAlignCaption** : [VAlignmentEnum](#), retrieves or sets a value that indicates the vertical alignment of the caption inside the bar
- **BarToolTip** : String, retrieves or sets a value that indicates the tooltip being shown when the cursor hovers the bar
- **BarBackColor** : Color, retrieves or sets a value that indicates the background color for the area being occupied by the bar
- **BarForeColor** : Color, retrieves or sets a value that indicates the foreground color for the caption of the bar
- **BarKey** : Object, specifies key of the bar
- **BarPercent** : Double, specifies the percent to display the progress on the bar
- **BarPercentCaptionFormat** : String, specifies the HTML format to be displayed as percent
- **BarShowPercentCaption** : Boolean, specifies whether the percent is displayed as caption on the bar
- **BarAlignPercentCaption** : [AlignmentEnum](#), specifies the alignment of the percent caption on the bar

- **BarData** : Object, associates an extra data to a bar
- **BarOffset** : Integer, specifies the vertical offset where the bar is shown
- **BarTransparent** : Integer, specifies the percent of the transparency to display the bar
- **BarsCount** : Integer, retrieves a value that indicates the number of bars in the item
- **BarWorkingCount** : Integer, specifies the count of working units in the bar
- **BarNonWorkingCount** : Integer, retrieves the count of non-working units in the bar
- **BarColor** : Color, specifies the color for the bar. If used it replaces the bar's type color, for current bar only.
- **BarDuration** : Double, specifies the duration of the bar in days
- **BarMove**: Double, moves the bar by specified amount of time

So instead using the `get_ItemBar` or `set_ItemBar` properties you can use these functions.

For instance, the following sample changes the bar's color:

With Exgantt1.Items

```
.set_BarColor(.FocusItem, .get_FirstItemBar(.FocusItem), Color.Red)
```

End With

The following VB sample changes the end date for the bar in the first visible item ( in this sample we consider that `AddBar` method was used with the `Key` parameter as being empty ) :

With Gantt1.Items

```
.BarItem(.FirstVisibleItem, "", exBarEnd) = "6/19/2005"
```

End With

The following C++ sample changes the end date for the bar in the first visible item:

```
CItems items = m_gantt.GetItems();
```

```
items.SetItemBar( items.GetFirstVisibleItem(), COleVariant(""), 2 /*exBarEnd*/,
COleVariant("6/19/2005") );
```

The following VB.NET sample changes the end date for the bar in the first visible item:

With AxGantt1.Items

```
.BarItem(.FirstVisibleItem, "", EXGANTTLib.ItemBarPropertyEnum.exBarEnd) =
"6/19/2005"
End With
```

The following C# sample changes the end date for the bar in the first visible item:

```
axGantt1.Items.set_ItemBar(axGantt1.Items.FirstVisibleItem, "",  
EXGANTTLib.ItemBarPropertyEnum.exBarEnd, "6/19/2005");
```

The following VFP sample changes the end date for the bar in the first visible item:

```
with thisform.Gantt1.Items  
.DefaultItem = .FirstVisibleItem  
thisform.Gantt1.Template = "Items.ItemBar(0," + _key + ",2) = `20/07/2005`"  
endwith
```

where the `_key` is the key of the bar being resized.

The VFP sample uses the [Template](#) property in order to execute the ItemBar property, else some version of VFP could fire "Function argument, value, type, or count is invalid". The sample builds the script:

```
Items.ItemBar(0,_key,2) = `20/07/2005`
```

This way the ItemBar property for the default item is invoked

## property Items.ItemBold(Item as HITEM) as Boolean

Retrieves or sets a value that indicates whether the item should appear in bold.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item.
Boolean	A boolean expression that indicates whether the item should appear in bold.

Use ItemBold, [ItemItalic](#), [ItemUnderline](#) or [ItemStrikeOut](#) property to apply different font attributes to the item. Use the [CellItalic](#), [CellUnderline](#), [CellBold](#) or [CellStrikeOut](#) property to apply different font attributes to the cell. Use the [CellCaptionFormat](#) property to specify an HTML caption. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula.

The following VB sample bolds the selected item:

```
Dim hOldBold As HITEM

Private Sub Gantt1_SelectionChanged()
    If Not (hOldBold = 0) Then
        Gantt1.Items.ItemBold(hOldBold) = False
    End If
    hOldBold = Gantt1.Items.SelectedItem()
    Gantt1.Items.ItemBold(hOldBold) = True
End Sub
```

The following VB sample bolds the focused item:

```
With Gantt1.Items
    .ItemBold(.FocusItem) = True
End With
```

The following C++ sample bolds the focused item:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetItemBold( items.GetFocusItem() , TRUE );
```

The following C# sample bolds the focused item:

```
axGantt1.Items.set_ItemBold(axGantt1.Items.FocusItem, true);
```

The following VB.NET sample bolds the focused item:

```
With AxGantt1.Items
```

```
    .ItemBold(.FocusItem) = True
```

```
End With
```

The following VFP sample bolds the focused item:

```
with thisform.Gantt1.Items
```

```
    .DefaultItem = .FocusItem
```

```
    .ItemBold( 0 ) = .t.
```

```
endwith
```

## property Items.ItemByIndex (Index as Long) as HITEM

Retrieves the handle of the item given its index in Items collection..

Type	Description
Index as Long	A long expression that indicates the index of the item.
HITEM	A long expression that indicates the item's handle.

Use the ItemByIndex to get the index of an item. Use the [ItemCount](#) property to count the items in the control. Use the [ItemPosition](#) property to get the item's position. Use the [ItemToIndex](#) property to get the index of giving item. For instance, The ItemByIndex property is the default property for Items object, so the following statements are equivalents: Gantt1.Items(0), Gantt1.Items.ItemByIndex(0).

The following VB sample enumerates all items in the control:

```
Dim i As Long, n As Long
With Gantt1.Items
    n = .ItemCount
    For i = 0 To n - 1
        Debug.Print .ItemByIndex(i)
    Next
End With
```

The following C++ sample enumerates all items in the control:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;
for ( long i = 0; i < items.GetItemCount(); i++ )
{
    COleVariant vtItem( items.GetItemByIndex( i ) ), vtColumn( long(0) );
    CString strCaption = V2S( &items.GetCellCaption( vtItem, vtColumn ) ), strOutput;
    strOutput.Format( "Cell: '%s'\n", strCaption );
    OutputDebugString( strOutput );
}
```

The following VB.NET sample enumerates all items in the control:

```
With AxGantt1
```

```
Dim i As Integer  
For i = 0 To .Items.ItemCount - 1  
    Debug.Print(.Items.CellCaption(.Items(i), 0))  
Next  
End With
```

The following C# sample enumerates all items in the control:

```
EXGANTTLib.Items items = axGantt1.Items;  
for (int i = 0; i < items.ItemCount; i++)  
{  
    object caption = items.get_CellCaption(items[i], 0);  
    string strCaption = caption != null ? caption.ToString() : "";  
    System.Diagnostics.Debug.WriteLine(strCaption);  
}
```

The following VFP sample enumerates all items in the control:

```
with thisform.Gantt1.Items  
local i  
for i = 0 to .ItemCount - 1  
    .DefaultItem = .ItemByIndex( i )  
    wait window nowait .CellCaption(0,0)  
next  
endwith
```

## property Items.ItemCell (Item as HITEM, CollIndex as Variant) as HCELL

Retrieves the cell's handle based on a specific column.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
CollIndex as Variant	A long expression that indicates the column's index or the cell's handle, a string expression that indicates the column's caption.
HCELL	A long expression that indicates the handle of the cell.

A cell is the intersection of an item with a column. All properties that has an Item and a CollIndex parameters are referring to a cell. The Item parameter represents the handle of an item, and the CollIndex parameter indicates an index ( a numerical value, see Column.Index property ) of a column , the column's caption ( a string value, see Column.Caption property ), or a handle to a cell. Here's few hints how to use properties with Item and CollIndex parameters:

```
Gantt1.Items.CellBold(, Gantt1.Items.ItemCell(Gantt1.Items(0), 0)) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), 0) = True
```

```
Gantt1.Items.CellBold(Gantt1.Items(0), "ColumnName") = True
```

## property Items.ItemChild (Item as HITEM) as HITEM

Retrieves the first child item of a specified item.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
HITEM	A long expression that indicates the handle of the first child item.

If the ItemChild property gets 0, the item has no child items. Use this property to get the first child of an item. [NextVisibleItem](#) or [NextSiblingItem](#) to get the next visible, sibling item. The control displays a +/- sign to parent items, if the [HasButtons](#) property is not zero, the ItemChild property is not empty, or the [ItemHasChildren](#) property is True.

The following VB function recursively enumerates the item and all its child items:

```
Sub Recltem(ByVal c As EXGANTTLibCtl.Gantt, ByVal h As HITEM)
    If Not (h = 0) Then
        Dim hChild As HITEM
        With c.Items
            Debug.Print .CellCaption(h, 0)
            hChild = .ItemChild(h)
            While Not (hChild = 0)
                Recltem c, hChild
                hChild = .NextSiblingItem(hChild)
            Wend
        End With
    End If
End Sub
```

The following C++ function recursively enumerates the item and all its child items:

```
void Recltem( CGantt* pGantt, long hItem )
{
    COleVariant vtColumn( (long)0 );
    if ( hItem )
    {
        CItems items = pGantt->GetItems();
```

```

CString strCaption = V2S( &items.GetCellCaption( COleVariant( hItem ), vtColumn ) );
strOutput;
strOutput.Format( "Cell: '%s'\n", strCaption );
OutputDebugString( strOutput );

long hChild = items.GetItemChild( hItem );
while ( hChild )
{
    Recltem( pGantt, hChild );
    hChild = items.GetNextSiblingItem( hChild );
}
}
}

```

The following VB.NET function recursively enumerates the item and all its child items:

```

Shared Sub Recltem(ByVal c As AxEXGANTTLib.AxGantt, ByVal h As Integer)
If Not (h = 0) Then
    Dim hChild As Integer
    With c.Items
        Debug.WriteLine(.CellCaption(h, 0))
        hChild = .ItemChild(h)
        While Not (hChild = 0)
            Recltem(c, hChild)
            hChild = .NextSiblingItem(hChild)
        End While
    End With
End If
End Sub

```

The following C# function recursively enumerates the item and all its child items:

```

internal void Recltem(AxEXGANTTLib.AxGantt gantt, int hItem)
{
    if (hItem != 0)
    {
        EXGANTTLib.Items items = gantt.Items;
        object caption = items.get_CellCaption( hItem, 0 );
    }
}

```

```
System.Diagnostics.Debug.WriteLine(caption != null ? caption.ToString() : "");
```

```
int hChild = items.get_ItemChild(hItem);
while (hChild != 0)
{
    RecItem(gantt, hChild);
    hChild = items.get_NextSiblingItem(hChild);
}
```

The following VFP function recursively enumerates the item and all its child items ( recitem method ):

```
LPARAMETERS h
```

```
with thisform.Gantt1
```

```
If ( h != 0 ) Then
    local hChild
    With .Items
        .DefaultItem = h
        wait window .CellCaption(0, 0)
        hChild = .ItemChild(h)
        do While (hChild != 0)
            thisform.recitem(hChild)
            hChild = .NextSiblingItem(hChild)
        enddo
    EndWith
EndIf
endwith
```

## property Items.ItemControlID (Item as HITEM) as String

Retrieves the item's control identifier that was used by InsertControlItem property.

Type	Description
Item as HITEM	A long expression that indicates the item's handle that was previously created by the <a href="#">InsertControlItem</a> property.
String	A string expression that indicates the control identifier used by InsertControlItem method to create an item that hosts an ActiveX control.

The ItemControlID property retrieves the control identifier used by the [InsertControlItem](#) property. If the item was created using [AddItem](#) or [InsertItem](#) properties the ItemControlID property retrieves an empty string. For instance, the ItemControlID property can be used to check if an item contains an ActiveX control or not.

## property Items.ItemCount as Long

Retrieves the number of items.

Type	Description
Long	A long value that indicates the number of items into the Items collection.

The ItemCount property counts the items in the control. Use the [ItemByIndex](#) property to access an item giving its index. Use the [AddItem](#), [InsertItem](#), [InsertControlItem](#), [PutItems](#) or [DataSource](#) property to add new items to the control. Use [ChildCount](#) to get the number of child items.

The following VB sample enumerates all items in the control:

```
Dim i As Long, n As Long
With Gantt1.Items
    n = .ItemCount
    For i = 0 To n - 1
        Debug.Print .ItemByIndex(i)
    Next
End With
```

The following C++ sample enumerates all items in the control:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;
for ( long i = 0; i < items.GetItemCount(); i++ )
{
    COleVariant vtItem( items.GetItemByIndex( i ) ), vtColumn( long(0) );
    CString strCaption = V2S( &items.GetCellCaption( vtItem, vtColumn ) ), strOutput;
    strOutput.Format( "Cell: '%s'\n", strCaption );
    OutputDebugString( strOutput );
}
```

The following VB.NET sample enumerates all items in the control:

```
With AxGantt1
    Dim i As Integer
```

```
For i = 0 To .Items.ItemCount - 1
    Debug.Print(.Items.CellCaption(.Items(i), 0))
Next
End With
```

The following C# sample enumerates all items in the control:

```
EXGANTTLib.Items items = axGantt1.Items;
for (int i = 0; i < items.ItemCount; i++)
{
    object caption = items.get_CellCaption(items[i], 0);
    string strCaption = caption != null ? caption.ToString() : "";
    System.Diagnostics.Debug.WriteLine(strCaption);
}
```

The following VFP sample enumerates all items in the control:

```
with thisform.Gantt1.Items
local i
for i = 0 to .ItemCount - 1
    .DefaultItem = .ItemByIndex( i )
    wait window nowait .CellCaption(0,0)
next
endwith
```

## property Items.ItemData(Item as HITEM) as Variant

Retrieves or sets the extra data for a specific item.

Type	Description
Item as HITEM	A long expression that indicates the item's handle that has associated some extra data.
Variant	A variant value that indicates the item's extra data.

Use the ItemData property to assign an extra value to an item. Use [CellData](#) property to associate an extra data with a cell. The ItemData and CellData are of Variant type, so you will be able to save here what ever you want: numbers, objects, strings, and so on. The user data is only for user use. The control doesn't use this value. Use the [Data](#) property to assign an extra data to a column. For instance, you can use the [RemoveItem](#) event to release any extra data that is associated to the item.

## property Items.ItemDivider(Item as HITEM) as Long

Specifies whether the item acts like a divider item. The value indicates the index of column used to define the divider's title.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
Long	A long expression that indicates the column's index.

A divider item uses the item's client area to display a single cell. The ItemDivider property specifies the index of the cell being displayed. In other words, the divider item merges the item cells into a single cell. Use the [ItemDividerLine](#) property to define the line that underlines the divider item. Use the [LockedItemCount](#) property to lock items on the top or bottom side of the control. Use the [MergeCells](#) method to combine two or multiple cells in a single cell. Use the [SelectableItem](#) property to specify the user can select an item. A divider item has sense for a control with multiple columns.

The following VB sample adds a divider item that's locked to the top side of the control ( Before running this sample please make sure that your control has columns ):

With Gantt1

.BeginUpdate

.DrawGridLines = exNoLines

With .Items

.LockedItemCount(TopAlignment) = 1

Dim h As HITEM

h = .LockedItem(TopAlignment, 0)

.ItemDivider(h) = 0

.ItemHeight(h) = 22

.CellCaption(h, 0) = "<b>Total</b>:"

\$12.344.233"

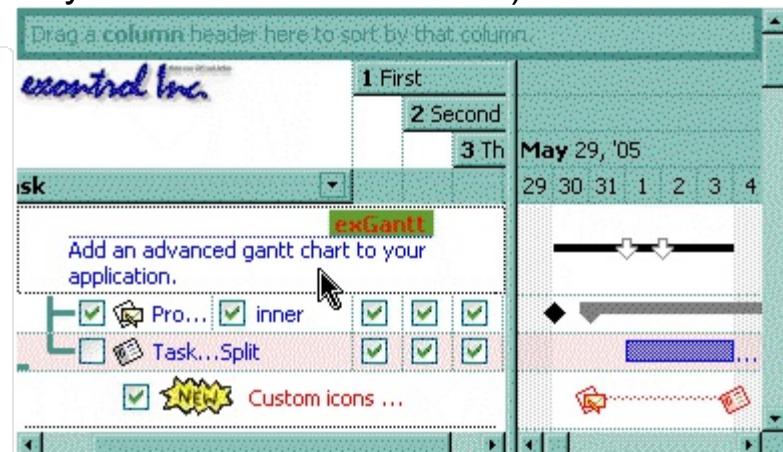
.CellCaptionFormat(h, 0) = exHTML

.CellHAlignment(h, 0) = RightAlignment

End With

.EndUpdate

End With



The following C++ sample adds a divider item, that's not selectable too:

```
#include "Items.h"
```

```
CItems items = m_gantt.GetItems();
long i = items.AddItem( COleVariant("divider item") );
items.SetItemDivider( i, 0 );
items.SetSelectableItem( i, FALSE );
```

The following C# sample adds a divider item, that's not selectable too:

```
int i = axGantt1.Items.AddItem("divider item");
axGantt1.Items.set_ItemDivider(i, 0);
axGantt1.Items.set_SelectableItem(i, false);
```

The following VB.NET sample adds a divider item, that's not selectable too:

With AxGantt1.Items

```
Dim i As Integer
i = .AddItem("divider item")
.ItemDivider(i) = 0
.SelectableItem(i) = False
End With
```

The following VFP sample adds a divider item, that's not selectable too:

with thisform.Gantt1.Items

```
.DefaultItem = .AddItem("divider item")
.ItemDivider(0) = 0
.SelectableItem(0) = .f.
endwith
```

## property Items.ItemDividerLine(Item as HITEM) as DividerLineEnum

Defines the type of line in the divider item.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
<a href="#">DividerLineEnum</a>	A DividerLineEnum expression that indicates the type of the line in the divider item.

By default, the ItemDividerLine property is SingleLine. The ItemDividerLine property specifies the type of line that underlines a divider item. Use the [ItemDivider](#) property to define a divider item. Use the ItemDividerLine and [ItemDividerAlignment](#) properties to define the style of the line into the divider item. Use the [CellMerge](#) property to merge two or more cells.

## **property Items.ItemDividerLineAlignment(Item as HITEM) as DividerAlignmentEnum**

Specifies the alignment of the line in the divider item.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
<a href="#">DividerAlignmentEnum</a>	A DividerAlignmentEnum expression that specifies the line's alignment.

By default, the ItemDividerLineAlignment property is DividerBottom. The Use the [ItemDividerLine](#) and ItemDividerLineAlignment properties to define the style of the line into a divider item. Use the [ItemDivider](#) property to define a divider item.

## property Items.ItemFont (Item as HITEM) as IFontDisp

Retrieves or sets the item's font.

Type	Description
Item as HITEM	A long expression that specifies the item's handle.
IFontDisp	A Font object that specifies the item's font.

By default, the ItemFont property is nothing. If the ItemFont property is nothing, the item uses the control's [font](#). Use the ItemFont property to define a different font for the item. Use the [CellFont](#) and ItemFont properties to specify different fonts for cells or items. Use the [CellBold](#), [CellItalic](#), [CellUnderline](#), [CellStrikeout](#), [ItemBold](#), [ItemUnderline](#), [ItemStrikeout](#), [ItemItalic](#) or [CellCaptionFormat](#) to specify different font attributes. Use the [ItemHeight](#) property to specify the height of the item. Use the [Refresh](#) method to refresh the control's content on the fly. Use the [BeginUpdate](#) and [EndUpdate](#) methods if you are doing multiple changes, so no need for an update each time a change is done.

The following VB sample changes the font for the focused item:

With Gantt1.Items

```
.ItemFont(.FocusItem) = Gantt1.Font
```

With .ItemFont(.FocusItem)

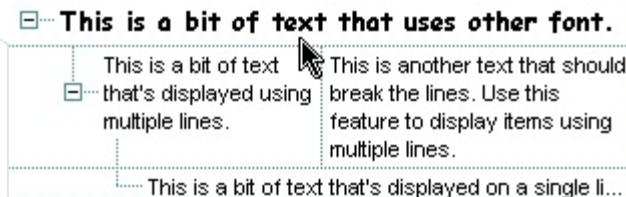
```
    .Name = "Comic Sans MS"
```

```
    .Bold = True
```

End With

End With

```
Gantt1.Refresh
```



The following C++ sample changes the font for the focused item:

```
#include "Items.h"  
#include "Font.h"  
CItems items = m_gantt.GetItems();  
items.SetItemFont( items.GetFocusItem(), m_gantt.GetFont().m_lpDispatch );  
COleFont font = items.GetItemFont( items.GetFocusItem() );  
font.SetName( "Comic Sans MS" );  
font.SetBold( TRUE );  
m_gantt.Refresh();
```

The following VB.NET sample changes the font for the focused item:

```
With AxGantt1.Items
```

```
    .ItemFont(.FocusItem) = IFDH.GetIFontDisp(AxGantt1.Font)
```

```
    With .ItemFont(.FocusItem)
```

```
        .Name = "Comic Sans MS"
```

```
        .Bold = True
```

```
    End With
```

```
End With
```

```
AxGantt1.CtlRefresh()
```

where the IFDH class is defined like follows:

```
Public Class IFDH
```

```
    Inherits System.Windows.Forms.AxHost
```

```
    Sub New()
```

```
        MyBase.New("")
```

```
    End Sub
```

```
    Public Shared Function GetIFontDisp(ByVal font As Font) As Object
```

```
        GetIFontDisp = AxHost.GetIFontFromFont(font)
```

```
    End Function
```

```
End Class
```

The following C# sample changes the font for the focused item:

```
axGantt1.Items.set_ItemFont( axGantt1.Items.FocusItem, IFDH.GetIFontDisp(
axGantt1.Font ) );
stdole.IFontDisp spFont = axGantt1.Items.get_ItemFont(axGantt1.Items.FocusItem );
spFont.Name = "Comic Sans MS";
spFont.Bold = true;
axGantt1.CtlRefresh();
```

where the IFDH class is defined like follows:

```
internal class IFDH : System.Windows.Forms.AxHost
```

```
{
```

```
    public IFDH() : base("")
```

```
{  
}  
  
public static stdole.IFontDisp GetIFontDisp(System.Drawing.Font font)  
{  
    return System.Windows.Forms.AxHost.GetIFontFromFont(font) as stdole.IFontDisp;  
}  
}
```

The following VFP sample changes the font for the focused item:

```
with thisform.Gantt1.Items  
.DefaultItem = .FocusItem  
.ItemFont(0) = thisform.Gantt1.Font  
with .ItemFont(0)  
.Name = "Comic Sans MS"  
.Bold = .t.  
endwith  
endwith  
thisform.Gantt1.Object.Refresh()
```

## property Items.ItemForeColor(Item as HITEM) as Color

Retrieves or sets a foreground color for a specific item.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
Color	A color expression that defines the item's foreground color.

Use the [CellForeColor](#) property to change the item's foreground color. Use the [ForeColor](#) property to change the control's foreground color. Use the [ClearItemForeColor](#) property to clear the item's foreground color.

The following VB sample changes the foreground color for cells in the first column as user add new items:

```
Private Sub Gantt1_AddItem(ByVal Item As EXGANTTLibCtl.HITEM)
    Gantt1.Items.CellForeColor(Item, 0) = vbBlue
End Sub
```

In VB.NET or C# you require the following functions until the .NET framework will provide:

You can use the following VB.NET function:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32
    Dim i As Long
    i = c.R
    i = i + 256 * c.G
    i = i + 256 * 256 * c.B
    ToUInt32 = Convert.ToUInt32(i)
End Function
```

You can use the following C# function:

```
private UInt32 ToUInt32(Color c)
{
    long i;
    i = c.R;
    i = i + 256 * c.G;
    i = i + 256 * 256 * c.B;
```

```
    return Convert.ToInt32(i);
}
```

The following C# sample changes the foreground color of the focused item:

```
axGantt1.Items.set_ItemForeColor(axGantt1.Items.FocusItem, ToUInt32(Color.Red) );
```

The following VB.NET sample changes the foreground color of the focused item:

```
With AxGantt1.Items
```

```
    .ItemForeColor(.FocusItem) = ToUInt32(Color.Red)
```

```
End With
```

The following C++ sample changes the foreground color of the focused item:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetItemForeColor( items.GetFocusItem(), RGB(255,0,0) );
```

The following VFP sample changes the foreground color of the focused item:

```
with thisform.Gantt1.Items
    .DefaultItem = .FocusItem
    .ItemForeColor( 0 ) = RGB(255,0,0)
endwith
```

## property Items.ItemHasChildren (Item as HITEM) as Boolean

Adds an expand button to left side of the item even if the item has no child items.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
Boolean	A boolean expression that indicates whether the control adds an expand button to the left side of the item even if the item has no child items.

By default, the ItemHasChildren property is False. Use the ItemHasChildren property to build a virtual tree. Use the [BeforeExpandItem](#) event to add new child items to the expanded item. Use the [ItemChild](#) property to get the first child item, if exists. Use the [ItemCount](#) or [ChildCount](#) property to determine whether an item contains child items. The control displays a +/- sign to parent items, if the [HasButtons](#) property is not empty, the ItemChild property is not empty, or the ItemHasChildren property is True. Use the [InsertItem](#) method to insert a new child item. Use the [CellData](#) or [ItemData](#) property to assign an extra value to a cell or to an item.

The following VB sample inserts a child item as soon as user expands an item ( the sample has effect only if your control contains items that have the ItemHasChildren property on True ):

```
Private Sub Gantt1_BeforeExpandItem(ByVal Item As EXGANTTLibCtl.HITEM, Cancel As Variant)
    With Gantt1.Items
        If (.ItemHasChildren(Item)) Then
            If .ChildCount(Item) = 0 Then
                Dim h As Long
                h = .InsertItem(Item, , "new " & Item)
            End If
        End If
    End With
End Sub
```

The following VB.NET sample inserts a child item when the user expands an item that has the ItemHasChildren property on True:

```
Private Sub AxGantt1_BeforeExpandItem(ByVal sender As Object, ByVal e As AxEXGANTTLib._IGanttEvents_BeforeExpandItemEvent) Handles
```

## AxGantt1.BeforeExpandItem

With AxGantt1.Items

```
If (.ItemHasChildren(e.item)) Then
    If .ChildCount(e.item) = 0 Then
        Dim h As Long
        h = .InsertItem(e.item, , "new " & e.item.ToString())
    End If
End If
End With
End Sub
```

The following C# sample inserts a child item when the user expands an item that has the ItemHasChildren property on True:

```
private void axGantt1_BeforeExpandItem(object sender,
AxEXGANTTLib._IGanttEvents_BeforeExpandItemEvent e)
{
    EXGANTTLib.Items items = axGantt1.Items;
    if ( items.get_ItemHasChildren( e.item ) )
        if (items.get_ChildCount(e.item) == 0)
    {
        items.InsertItem(e.item, null, "new " + e.item.ToString());
    }
}
```

The following C++ sample inserts a child item when the user expands an item that has the ItemHasChildren property on True:

```
#include "Items.h"
void OnBeforeExpandItemGantt1(long Item, VARIANT FAR* Cancel)
{
    CItems items = m_gantt.GetItems();
    if ( items.GetItemHasChildren( Item ) )
        if ( items.GetChildCount( Item ) == 0 )
    {
        COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;
        items.InsertItem( Item, vtMissing, COleVariant( "new item" ) );
    }
}
```

}

The following VFP sample inserts a child item when the user expands an item that has the ItemHasChildren property on True( BeforeExpandItem event ):

```
*** ActiveX Control Event ***
```

```
LPARAMETERS item, cancel
```

```
with thisform.Gantt1.Items
```

```
  if ( .ItemHasChildren( item ) )
    if ( .ChildCount( item ) = 0 )
      .InsertItem(item,"","new " + trim(str(item)))
    endif
  endif
endwith
```

## property Items.ItemHeight(Item as HITEM) as Long

Retrieves or sets the item's height.

Type	Description
Item as HITEM	A long expression that indicates the item's handle. If the Item is 0, setting the ItemHeight property changes the height for all items. For instance, the ItemHeight(0) = 24, changes the height for all items to be 24 pixels wide.
Long	A long value that indicates the item's height in pixels.

To change the default height of the item before inserting items to collection you can call [DefaultItemHeight](#) property of the control. The control supports items with different heights. When an item hosts an ActiveX control ( was previously created by the [InsertControllItem](#) property ), the ItemHeight property changes the height of contained ActiveX control. The [CellSingleLine](#) property specifies whether a cell displays its caption using multiple lines. The ItemHeight property has no effect, if the CellSingleLine property is False. If the CellSingleLine property is False, you can specify the maximum height for the item using the [ItemMaxHeight](#) property. Use the [ScrollBySingleLine](#) property when using items with different heights. Use the [ItemAllowSizing](#) property to specify whether the user can resize the item at runtime. Use the [Height](#) property to specify the height of the bars.

## property Items.ItemItalic(Item as HITEM) as Boolean

Retrieves or sets a value that indicates whether the item should appear in italic.

Type	Description
Item as HITEM	A long expression that indicates the item's handle that uses italic font attribute.
Boolean	A boolean expression that indicates whether the item should appear in italic.

Use [ItemBold](#), [ItemItalic](#), [ItemUnderline](#) or [ItemStrikeOut](#) property to apply different font attributes to the item. Use the [CellItalic](#), [CellUnderline](#), [CellBold](#) or [CellStrikeOut](#) property to apply different font attributes to the cell. Use the [CellCaptionFormat](#) property to specify an HTML caption. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula.

The following VB sample makes italic the selected item:

```
Private Sub Gantt1_SelectionChanged()
    If Not (h = 0) Then Gantt1.Items.ItemItalic(h) = False
    h = Gantt1.Items.SelectedItem()
    Gantt1.Items.ItemItalic(h) = True
End Sub
```

The following VB sample makes italic the focused item:

```
With Gantt1.Items
    .ItemItalic(.FocusItem) = True
End With
```

The following C++ sample makes italic the focused item:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetItemItalic( items.GetFocusItem() , TRUE );
```

The following C# sample makes italic the focused item:

```
axGantt1.Items.set_ItemItalic(axGantt1.Items.FocusItem, true);
```

The following VB.NET sample makes italic the focused item:

```
With AxGantt1.Items  
    .ItemItalic(.FocusItem) = True  
End With
```

The following VFP sample makes italic the focused item:

```
with thisform.Gantt1.Items  
    .DefaultItem = .FocusItem  
    .ItemItalic( 0 ) = .t.  
endwith
```

## property Items.ItemMaxHeight(Item as HITEM) as Long

Retrieves or sets a value that indicates the maximum height when the item's height is variable.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item. If the Item is 0, setting the ItemMaxHeight property changes the maximum-height for all items. For instance, the ItemMaxHeight(0) = 24, changes the maximum height for all items to be 24 pixels wide.
Long	A long value that indicates the maximum height when the item's height is variable.

By default, the ItemMaxHeight property is -1. The ItemMaxHeight property has effect only if it is greater than 0, and the item contains cells with [CellSingleLine](#) property on False. The CellSingleLine property specifies whether a cell displays its caption using multiple lines. The [ItemHeight](#) property has no effect, if the CellSingleLine property is False. If the CellSingleLine property is False, you can specify the maximum height for the item using the ItemMaxHeight property. Use the [ItemAllowSizing](#) property to specify whether the user can resize the item at runtime.

## **property Items.ItemMinHeight(Item as HITEM) as Long**

Retrieves or sets a value that indicates the minimum height when the item's height is sizing.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item. If the Item is 0, setting the ItemMinHeight property changes the minimum-height for all items. For instance, the ItemMinHeight(0) = 24, changes the minimum height for all items to be 24 pixels wide.
Long	A long value that indicates the minimum height when the item's height is variable.

By default, the ItemMinHeight property is -1. The ItemMinHeight property has effect only if the item contains cells with [CellSingleLine](#) property on False. The [ItemMaxHeight](#) property specifies the maximum height of the item while resizing. The CellSingleLine property specifies whether a cell displays its caption using multiple lines. The [ItemHeight](#) property has no effect, if the CellSingleLine property is False. If the CellSingleLine property is False, you can specify the minimum height for the item using the ItemMinHeight property. Use the [ItemAllowSizing](#) property to specify whether the user can resize the item at runtime.

## property Items.ItemObject (Item as HITEM) as Object

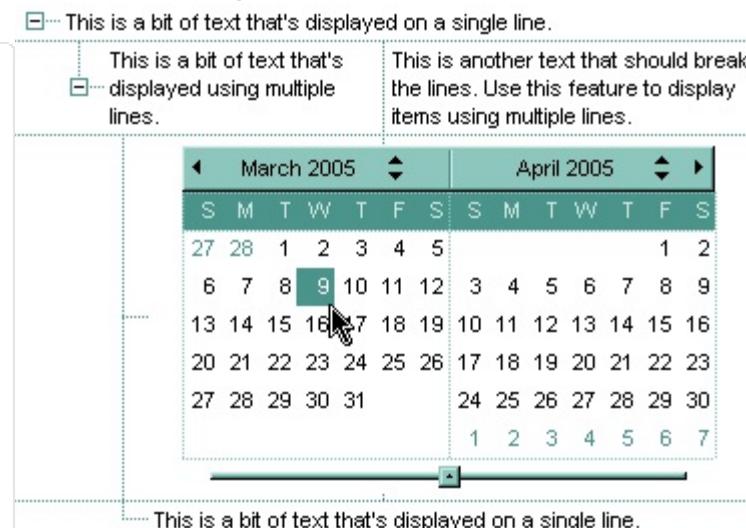
Retrieves the item's ActiveX object associated, if the item was previously created by InsertControlItem property.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item that was previously created by <a href="#">InsertControlItem</a> property.
Object	An object that indicates the ActiveX hosted by the item.

Use the ItemObject to retrieve the ActiveX control created by the [InsertControlItem](#) method. Use the [ItemControlID](#) property to retrieve the control's identifier. Use the [ItemHeight](#) property to specify the item's height. If the item hosts an ActiveX control, the ItemHeight property specifies the height of the ActiveX control also.

The following VB sample adds the Exontrol's ExCalendar Component:

```
With Gantt1
    .BeginUpdate
    .ScrollBySingleLine = True
    With Gantt1.Items
        Dim h As HITEM
        h = .InsertControlItem(
            "Exontrol.Calendar")
        .ItemHeight(h) = 182
        With .ItemObject(h)
            .Appearance = 0
            .BackColor = vbWhite
            .ForeColor = vbBlack
            .ShowTodayButton = False
        End With
    End With
    .EndUpdate
End With
```



The following C++ sample adds the Exontrol's ExOrgChart Component:

```
#include "Items.h"
```

```
#pragma warning( disable : 4146 )
```

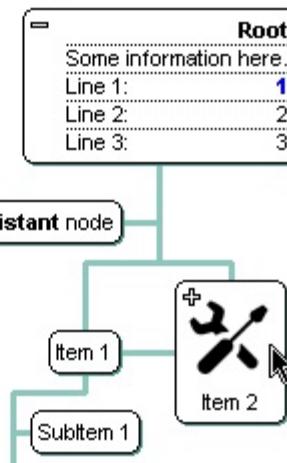
```
#import <ExOrgChart.dll>
```

```
CItems items = m_gantt.GetItems();
m_gantt.BeginUpdate();
m_gantt.SetScrollBySingleLine( TRUE );
COleVariant vtMissing; V_VT( &vtMissing ) =
VT_ERROR;
long h = items.InsertControlItem( 0,
"Exontrol.ChartView", vtMissing );
items.SetItemHeight( h, 182 );
EXORGCHARTLib::IChartViewPtr spChart(
items.GetItemObject(h) );
if ( spChart != NULL )
{
    spChart->BeginUpdate();
    spChart->BackColor = RGB(255,255,255);
    spChart->ForeColor = RGB(0,0,0);
    EXORGCHARTLib::INodesPtr spNodes =
spChart->Nodes;
    spNodes->Add( "Child 1", "Root", "1",
vtMissing, vtMissing );
    spNodes->Add( "SubChild 1", "1", vtMissing,
vtMissing, vtMissing );
    spNodes->Add( "SubChild 2", "1", vtMissing,
vtMissing, vtMissing );
    spNodes->Add( "Child 2", "Root", vtMissing,
vtMissing, vtMissing );
    spChart->EndUpdate();
}
m_gantt.EndUpdate();
```

This is a bit of text that's displayed on a single line.

This is a bit of text that's displayed using multiple lines.

This is another text that should break the lines. Use this feature to display items using multiple lines.



This is a bit of text that's displayed on a single line.

The sample uses the #import statement to include the ExOrgChart's Type Library. In this sample, the ItemObject property retrieves an IChartView object. The path to the library should be provided in case it is not located in your system folder.

The following C# sample adds the Exontrol's ExGantt Component:

```
axGantt1.BeginUpdate();
EXGANTTLib.Items items = axGantt1.Items;
axGantt1.ScrollBySingleLine = true;
int h = items.InsertControlItem(0, "Exontrol.Gantt","");
items.set_ItemHeight(h, 182);
object ganttInside = items.get_ItemObject(h);
if (ganttInside != null)
{
    EXGANTTLib.Gantt gantt = ganttInside as EXGANTTLib.Gantt;
    if (gantt != null)
    {
        gantt.BeginUpdate();
        gantt.LinesAtRoot = EXGANTTLib.LinesAtRootEnum.exLinesAtRoot;
        gantt.Columns.Add("Column 1");
        gantt.Columns.Add("Column 2");
        gantt.Columns.Add("Column 3");
        EXGANTTLib.Items itemsInside = gantt.Items;
        int hInside = itemsInside.AddItem("Item 1");
        itemsInside.set_CellCaption(hInside, 1, "SubItem 1");
        itemsInside.set_CellCaption(hInside, 2, "SubItem 2");
        hInside = itemsInside.InsertItem(hInside, null, "Item 2");
        itemsInside.set_CellCaption(hInside, 1, "SubItem 1");
        itemsInside.set_CellCaption(hInside, 2, "SubItem 2");
        gantt.EndUpdate();
    }
}
axGantt1.EndUpdate();
```

The following VB.NET sample adds the Exontrol's ExOrgChart Component:

```
With AxGantt1
    .BeginUpdate()
    .ScrollBySingleLine = True
    With .Items
        Dim hItem As Integer
        hItem = .InsertControlItem( "Exontrol.ChartView" )
```

```
.ItemHeight(hlItem) = 182
With .ItemObject(hlItem)
    .BackColor = ToUInt32(Color.White)
    .ForeColor = ToUInt32(Color.Black)
    With .Nodes
        .Add("Child 1", , "1")
        .Add("SubChild 1", "1")
        .Add("SubChild 2", "1")
        .Add("Child 2")
    End With
End With
End With
End With
.EndUpdate()
End With
```

The following VFP sample adds the Exontrol's ExGrid Component:

```
with thisform.Gantt1
.BeginUpdate()
.ScrollBySingleLine = .t.
with .Items
    .DefaultItem = .InsertControlItem(0, "Exontrol.Grid")
    .ItemHeight( 0 ) = 182
    with .ItemObject( 0 )
        .BeginUpdate()
        with .Columns
            with .Add("Column 1").Editor()
                .EditType = 1 && EditType editor
            endwith
        endwith
        with .Items
            .AddItem("Text 1")
            .AddItem("Text 2")
            .AddItem("Text 3")
        endwith
        .EndUpdate()
    endwith

```

endwith

.EndUpdate()

endwith

## property Items.ItemParent (Item as HITEM) as HITEM

Returns the handle of the parent item.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
HITEM	A long expression that indicates the handle of the parent item.

Use the ItemParent property to retrieve the parent item. Use the [InsertItem](#) property to insert child items. Use the [InsertControlItem](#) property to insert ActiveX controls. The [SetParent](#) method changes the item's parent at runtime. To verify if an item can be parent for another item you can call [AcceptSetParent](#) property. If the item has no parent the ItemParent property retrieves 0. If the ItemParent gets 0 for an item, than the item is called root. The control is able to handle more root items. To get the collection of root items you can use [RootCount](#) and [RootItem](#) properties. Use the [ItemChild](#) property to retrieve the first child item.

## **property Items.ItemPosition(Item as HITEM) as Long**

Retrieves or sets a value that indicates the item's position in the children list.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
Long	A long expression that indicates the item's position in the children list.

The ItemPosition property gets the item's position in the children items list. You can use the ItemPosition property to change the item's position after it been added to collection. When the control sorts the tree, the item for each position can be changed, so you can use the item's handle or item's index to identify an item. Use the [SortChildren](#) method to sort the child items. Use the [SortOrder](#) property to sort a column.

## property Items.ItemStrikeOut(item as HITEM) as Boolean

Retrieves or sets a value that indicates whether the item should appear in strikeout.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
Boolean	A boolean expression that indicates whether the item should appear in strikeout.

If the ItemStrikeOut property is True, the cell's font is displayed with a horizontal line through it. Use [ItemBold](#), [ItemItalic](#), [ItemUnderline](#) or ItemStrikeOut property to apply different font attributes to the item. Use the [CellItalic](#), [CellUnderline](#), [CellBold](#) or [CellStrikeOut](#) property to apply different font attributes to the cell. Use the [CellCaptionFormat](#) property to specify an HTML caption. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula.

The following VB sample draws a horizontal line through the selected item:

```
Private Sub Gantt1_SelectionChanged()
    If Not (h = 0) Then Gantt1.Items.ItemStrikeOut(h) = False
    h = Gantt1.Items.SelectedItem()
    Gantt1.Items.ItemStrikeOut(h) = True
End Sub
```

The following VB sample draws a horizontal line through the focused item:

```
With Gantt1.Items
    .ItemStrikeOut(.FocusItem) = True
End With
```

The following C++ sample draws a horizontal line through the focused item:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetItemStrikeOut( items.GetFocusItem() , TRUE );
```

The following C# sample draws a horizontal line through the focused item:

```
axGantt1.Items.set_ItemStrikeOut(axGantt1.Items.FocusItem, true);
```

The following VB.NET sample draws a horizontal line through the focused item:

```
With AxGantt1.Items  
    .ItemStrikeOut(.FocusItem) = True  
End With
```

The following VFP sample draws a horizontal line through the focused item:

```
with thisform.Gantt1.Items  
    .DefaultItem = .FocusItem  
    .ItemStrikeOut( 0 ) = .t.  
endwith
```

## **property Items.ItemToIndex (Item as HITEM) as Long**

Retrieves the index of item into Items collection given its handle.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
Long	A long expression that indicates the index of the item in Items collection.

Use the ItemToIndex property to get the item's index in the Items collection. Use [ItemPosition](#) property to change the item's position. Use the [ItemByIndex](#) property to get an item giving its index. The [ItemCount](#) property counts the items in the control. The [ChildCount](#) property counts the child items.

## property Items.ItemUnderline(Item as HITEM) as Boolean

Retrieves or sets a value that indicates whether the item should appear in underline.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
Boolean	A boolean expression that indicates whether the item should appear in underline.

Use [ItemBold](#), [ItemItalic](#), ItemUnderline or [ItemStrikeOut](#) property to apply different font attributes to the item. Use the [CellItalic](#), [CellUnderline](#), [CellBold](#) or [CellStrikeOut](#) property to apply different font attributes to the cell. Use the [CellCaptionFormat](#) property to specify an HTML caption. Use the [ConditionalFormats](#) method to apply formats to a cell or range of cells, and have that formatting change depending on the value of the cell or the value of a formula.

The following VB sample underlines the selected item:

```
Private Sub Gantt1_SelectionChanged()
    If Not (h = 0) Then Gantt1.Items.ItemUnderline(h) = False
    h = Gantt1.Items.SelectedItem()
    Gantt1.Items.ItemUnderline(h) = True
End Sub
```

The following VB sample underlines the focused item:

```
With Gantt1.Items
    .ItemUnderline(.FocusItem) = True
End With
```

The following C++ sample underlines the focused item:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetItemUnderline( items.GetFocusItem() , TRUE );
```

The following C# sample underlines the focused item:

```
axGantt1.Items.set_ItemUnderline(axGantt1.Items.FocusItem, true);
```

The following VB.NET sample underlines the focused item:

```
With AxGantt1.Items
```

```
    .ItemUnderline(.FocusItem) = True
```

```
End With
```

The following VFP sample underlines the focused item:

```
with thisform.Gantt1.Items
```

```
    .DefaultItem = .FocusItem
```

```
    .ItemUnderline( 0 ) = .t.
```

```
endwith
```

## property Items.ItemWidth(Item as HITEM) as Long

Retrieves or sets a value that indicates the item's width while it contains an ActiveX control.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
Long	A long expression that indicates the item's width, when the item contains an ActiveX control.

By default, the ItemWidth property is -1. If the ItemWidth property is -1, the control resizes the ActiveX control to fit the control's client area. Use the [ItemHeight](#) property to specify the item's height. The property has effect only if the item contains an ActiveX control. Use the [InsertControlItem](#) property to insert ActiveX controls. Use the [ItemObject](#) property to retrieve the ActiveX object that's hosted by an item.

## property Items.ItemWindowHost (Item as HITEM) as Long

Retrieves the window's handle that hosts an ActiveX control when the item was created using [InsertControlItem](#) method.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item that was previously created by <a href="#">InsertControlItem</a> method.
Long	A long value that indicates the window handle that hosts the item's ActiveX.

The ItemWindowHost property retrieves the handle of the window that's the container for the item's ActiveX control. Use the [InsertControlItem](#) method to insert an ActiveX control. Use the [ItemObject](#) property to access the ActiveX properties and methods. Use the [hWnd](#) property to get the handle of the control's window. The Microsoft Windows operating environment identifies each form and control in an application by assigning it a handle, or hWnd. The hWnd property is used with Windows API calls. Many Windows operating environment functions require the hWnd of the active window as an argument.

## property Items.ItemWindowHostCreateStyle(Item as HITEM) as Long

Retrieves or sets a value that indicates a combination of window styles used to create the ActiveX window host.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item that was previously created by <a href="#">InsertControlItem</a> method.
Long	A long value that indicates the container window's style.

The ItemWindowHostCreateStyle property specifies the window styles of the ActiveX's container window, when a new ActiveX control is inserted using the [InsertControlItem](#) method. The ItemWindowHostCreateStyle property has no effect for non ActiveX items. The ItemWindowHostCreateStyle property must be called during the [AddItem](#) event, like in the following samples. Generally, the ItemWindowHostCreateStyle property is useful to include WS\_HSCROLL and WS\_VSCROLL styles for a IWebBrowser control ( WWW browser control ), to include scrollbars in the browsed web page.

Some of ActiveX controls requires additional window styles to be added to the container window. For instance, the Web Brower added by the Gantt1.Items.InsertControlItem(, "https://www.exontrol.com") won't add scroll bars, so you have to do the following:

First thing is to declare the WS\_HSCROLL and WS\_VSCROLL constants at the top of your module:

```
Private Const WS_VSCROLL = &H200000  
Private Const WS_HSCROLL = &H100000
```

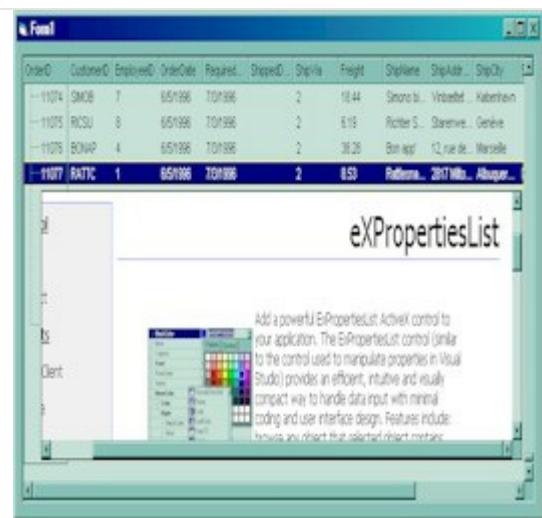
Then you need to insert a Web control use the following lines:

```
Dim hWeb As HITEM  
hWeb = Gantt1.Items.InsertControlItem(, "https://www.exontrol.com")  
Gantt1.Items.ItemHeight(hWeb) = 196
```

Next step is adding the AddItem event handler:

```
Private Sub Gantt1.AddItem(ByVal Item As EXGANTTLibCtl.HITEM)  
    If (Gantt1.Items.ItemControlID(Item) = "https://www.exontrol.com") Then  
        ' Some of controls like the WEB control, requires some additional window styles ( like  
        WS_HSCROLL and WS_VSCROLL window styles )  
        ' for the window that host that WEB control, to allow scrolling the web page
```

```
Gantt1.Items.ItemWindowHostCreateStyle(Item) =  
Gantt1.Items.ItemWindowHostCreateStyle(Item) + WS_HSCROLL + WS_VSCROLL  
End If  
End Sub
```



## property Items.LastVisibleItem ([Partially as Variant]) as HITEM

Retrieves the handle of the last visible item.

Type	Description
Partially as Variant	A Boolean expression that indicates whether the item is partially visible. By default, the Partially parameter is False.
HITEM	A long expression that indicates handle of the last visible item.

To get the first visible item use [FirstVisibleItem](#) property. The LastVisibleItem property retrieves the handle for the last visible item. Use the [FirstVisibleItem](#), [NextVisibleItem](#) and [IsItemVisible](#) properties to get the items that fit the client area. Use the [NextVisibleItem](#) property to get the next visible item. Use the [IsVisibleItem](#) property to check whether an item fits the control's client area.

The following VB sample enumerates the items that fit the control's client area:

```
On Error Resume Next
Dim h As HITEM
Dim i As Long, j As Long, nCols As Long
nCols = Gantt1.Columns.Count
With Gantt1.Items
    h = .FirstVisibleItem
    While Not (h = 0) And .IsItemVisible(h)
        Dim s As String
        s = ""
        For j = 0 To nCols - 1
            s = s + .CellCaption(h, j) + Chr(9)
        Next
        Debug.Print s
        h = .NextVisibleItem(h)
    Wend
End With
```

The following C++ sample enumerates the items that fit the control's client area:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
```

```
long hItem = items.GetFirstVisibleItem();
while ( hItem && items.GetIsItemVisible( hItem ) )
{
    OutputDebugString( V2S( &items.GetCellCaption( COleVariant( hItem ), COleVariant(
long(0) ) ) ) );
    hItem = items.GetNextVisibleItem( hItem );
}
```

The following VB.NET sample enumerates the items that fit the control's client area:

With AxGantt1.Items

```
Dim hItem As Integer
hItem = .FirstVisibleItem
While Not (hItem = 0)
    If (.IsItemVisible(hItem)) Then
        Debug.Print(.CellCaption(hItem, 0))
        hItem = .NextVisibleItem(hItem)
    Else
        Exit While
    End If
End While
End With
```

The following C# sample enumerates the items that fit the control's client area:

```
EXGANTTLib.Items items = axGantt1.Items;
int hItem = items.FirstVisibleItem;
while ( ( hItem != 0 ) && (items.get_IsItemVisible(hItem)) )
{
    object strCaption = items.get_CellCaption(hItem, 0);
    System.Diagnostics.Debug.WriteLine( strCaption != null ? strCaption.ToString() : "" );
    hItem = items.get_NextVisibleItem(hItem);
}
```

The following VFP sample enumerates the items that fit the control's client area:

```
with thisform.Gantt1.Items
.DefaultItem = .FirstVisibleItem
do while ( ( .DefaultItem <> 0 ) and ( .IsItemVisible( 0 ) ) )
```

```
wait window .CellCaption( 0, 0 )
.DefaultItem = .NextVisibleItem( 0 )
enddo
endwith
```

## property Items.Link(LinkKey as Variant, Property as LinkPropertyEnum) as Variant

Gets or sets a property for a link.

Type	Description
LinkKey as Variant	A String expression that indicates the key of the link being accessed.
Property as <a href="#">LinkPropertyEnum</a>	A LinkPropertyEnum expression that specifies the option being accessed.
Variant	A Variant value that indicates the newly value for the property.

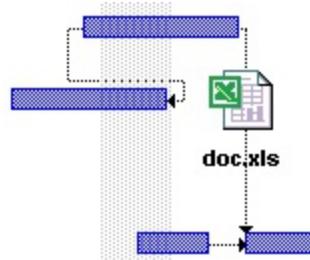
Use the Link property to access different properties for a specified link. Use the [AddLink](#) method to add a new link between two bars. For instance, the Link(exLinkShowDir) property indicates whether the arrow of the link that specifies the direction, is shown or hidden. Use the [RemoveLink](#) method to remove a specific link. Use the [FirstLink](#) and [NextLink](#) properties to enumerate the links in the control. Use the [BeginUpdate](#) and [EndUpdate](#) methods to maintain performance while adding columns, items, bars or links. Use the [HTMLPicture](#) property to add custom size pictures. Use the [LinkFromPoint](#) property to get the key of the link from the cursor.

The /NET Assembly version defines get/set shortcut properties as follow ( they start with get\_ or set\_ keywords ):

- **LinkStartItem** : Integer, retrieves or sets a value that indicates the handle of the item where the link start
- **LinkStartBar** : Object, retrieves or sets a value that indicates the key of the bar where the link starts
- **LinkEndItem** : Integer, retrieves or sets a value that indicates the handle of the item where the link ends
- **LinkEndBar** : Object, retrieves or sets a value that indicates the key of the bar where the link ends
- **LinkVisible** : Boolean, specifies whether the link is visible or hidden
- **LinkUserData** : Object, specifies an extra data associated with the link
- **LinkStartPos** : [AlignmentEnum](#), specifies the position where the link starts in the source item
- **LinkEndPos** : [AlignmentEnum](#), specifies the position where the link ends in the target item
- **LinkColor** : Color, specifies the color to paint the link
- **LinkStyle** : [LinkStyleEnum](#), specifies the style to paint the link
- **LinkWidth** : Integer, specifies the width in pixels of the link

- **LinkShowDir** : Boolean, specifies whether the link shows the direction
- **LinkText** : String, specifies the HTML text being displayed on the link
- **LinkToolTip** : String, specifies the HTML text being shown when the cursor hovers the link
- **LinksCount** : Integer, specifies the number of the links within the chart

So instead using the `get_Link` or `set_Link` properties you can use these functions.



The following VB sample displays a text plus a picture on a link:

```
Gantt1.Items.Link("Link", exLinkText) = " <img>excel</img><br><br><b>doc.xls</b>"
```

## property Items.LockedItem (Alignment as VAlignmentEnum, Index as Long) as HITEM

Retrieves the handle of the locked item.

Type	Description
Alignment as <a href="#">VAlignmentEnum</a>	A VAlignmentEnum expression that indicates whether the locked item requested is on the top or bottom side of the control.
Index as Long	A long expression that indicates the position of item being requested.
HITEM	A long expression that indicates the handle of the locked item

A locked or fixed item is always displayed on the top or bottom side of the control no matter if the control's list is scrolled up or down. Use the LockedItem property to access a locked item by its position. Use the [LockedItemCount](#) property to add or remove items fixed/locked to the top or bottom side of the control. Use the [ShowLockedItems](#) property to show or hide the locked items. Use the [IsItemLocked](#) property to check whether an item is locked or unlocked. Use the [CellCaption](#) property to specify the caption for a cell. Use the [InsertControlItem](#) property to assign an ActiveX control to a locked item only

The following VB sample adds an item that's locked to the top side of the control:

With Gantt1

```
Dim a As EXGANTTLibCtl.VAlignmentEnum
a = EXGANTTLibCtl.VAlignmentEnum.TopAlignment
.BeginUpdate
With .Items
    .LockedItemCount(a) = 1
    Dim h As EXGANTTLibCtl.HITEM
    h = .LockedItem(a, 0)
    .CellCaption(h, 0) = "<b>locked</b> item"
    .CellCaptionFormat(h, 0) = exHTML
End With
.EndUpdate
End With
```

The following C++ sample adds an item that's locked to the top side of the control:

```
#include "Items.h"
m_gantt.BeginUpdate();
CItems items = m_gantt.GetItems();
items.SetLockedItemCount( 0 /*TopAlignment*/, 1);
long i = items.GetLockedItem( 0 /*TopAlignment*/, 0 );
COleVariant vtItem(i), vtColumn( long(0) );
items.SetCellCaption( vtItem, vtColumn, COleVariant( "<b>locked</b> item" ) );
items.SetCellCaptionFormat( vtItem, vtColumn, 1/*exHTML*/ );
m_gantt.EndUpdate();
```

The following VB.NET sample adds an item that's locked to the top side of the control:

With AxGantt1

```
.BeginUpdate()
With .Items
    .LockedItemCount(EXGANTTLib.VAlignmentEnum.TopAlignment) = 1
    Dim i As Integer
    i = .LockedItem(EXGANTTLib.VAlignmentEnum.TopAlignment, 0)
    .CellCaption(i, 0) = "<b>locked</b> item"
    .CellCaptionFormat(i, 0) = EXGANTTLib.CaptionFormatEnum.exHTML
End With
.EndUpdate()
End With
```

The following C# sample adds an item that's locked to the top side of the control:

```
axGantt1.BeginUpdate();
EXGANTTLib.Items items = axGantt1.Items;
items.set_LockedItemCount(EXGANTTLib.VAlignmentEnum.TopAlignment, 1);
int i = items.get_LockedItem(EXGANTTLib.VAlignmentEnum.TopAlignment, 0);
items.set_CellCaption(i, 0, "<b>locked</b> item");
items.set_CellCaptionFormat(i, 0, EXGANTTLib.CaptionFormatEnum.exHTML);
axGantt1.EndUpdate();
```

The following VFP sample adds an item that's locked to the top side of the control:

```
with thisform.Gantt1
.BeginUpdate()
```

With .Items

.LockedItemCount(0) = 1

.DefaultItem = .LockedItem(0, 0)

.CellCaption(0, 0) = "<b>locked</b> item"

.CellCaptionFormat(0, 0) = 1 && EXGANTTLib.CaptionFormatEnum.exHTML

EndWith

.EndUpdate()

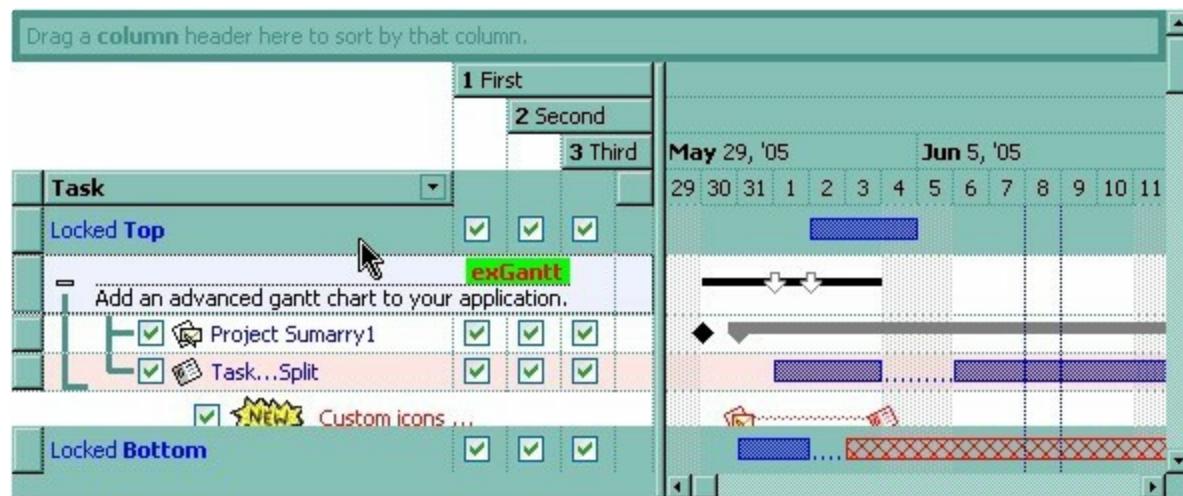
endwith

## property Items.LockedItemCount(Alignment as VAlignmentEnum) as Long

Specifies the number of items fixed on the top or bottom side of the control.

Type	Description
Alignment as <a href="#">VAlignmentEnum</a>	A VAlignmentEnum expression that specifies the top or bottom side of the control.
Long	A long expression that indicates the number of items locked to the top or bottom side of the control.

A locked or fixed item is always displayed on the top or bottom side of the control no matter if the control's list is scrolled up or down. Use the LockedItemCount property to add or remove items fixed/locked to the top or bottom side of the control. Use the [LockedItem](#) property to access a locked item by its position. Use the [ShowLockedItems](#) property to show or hide the locked items. Use the [CellCaption](#) property to specify the caption for a cell. Use the [CountLockedColumns](#) property to lock or unlock columns in the control. Use the [ItemBackColor](#) property to specify the item's background color. Use the [ItemDivider](#) property to merge the cells. Use the [MergeCells](#) method to combine two or multiple cells in a single cell.



The following VB sample adds two items that are locked to the top side of the control, and one item that's locked to the bottom side of the control:

### With Gantt1

```
Dim h As EXGANTTLibCtl.HITEM
Dim a As EXGANTTLibCtl.VAlignmentEnum
a = EXGANTTLibCtl.VAlignmentEnum.TopAlignment
.BeginUpdate
With .Items
    .LockedItemCount(a) = 2
```

```

For i = 0 To .LockedItemCount(a) - 1
    h = .LockedItem(a, i)
    .CellCaption(h, 0) = "item <b>locked</b> to the top side of the control"
    .CellCaptionFormat(h, 0) = exHTML
    .ItemBackColor(h) = SystemColorConstants.vb3DFace
    .ItemForeColor(h) = SystemColorConstants.vbWindowText
Next
a = EXGANTTLibCtl.VAlignmentEnum.BottomAlignment
.LockedItemCount(a) = 1
h = .LockedItem(a, 0)
.CellCaption(h, 0) = "item <b>locked</b> to the bottom side of the control"
.CellCaptionFormat(h, 0) = exHTML
.ItemBackColor(h) = SystemColorConstants.vb3DFace
End With
.EndUpdate
End With

```

The following C++ sample adds an item that's locked to the top side of the control:

```

#include "Items.h"
m_gantt.BeginUpdate();
CItems items = m_gantt.GetItems();
items.SetLockedItemCount( 0 /*TopAlignment*/, 1);
long i = items.GetLockedItem( 0 /*TopAlignment*/, 0 );
COleVariant vtItem(i), vtColumn( long(0) );
items.SetCellCaption( vtItem, vtColumn, COleVariant( "<b>locked</b> item" ) );
items.SetCellCaptionFormat( vtItem, vtColumn, 1/*exHTML*/ );
m_gantt.EndUpdate();

```

The following VB.NET sample adds an item that's locked to the top side of the control:

```

With AxGantt1
    .BeginUpdate()
    With .Items
        .LockedItemCount(EXGANTTLib.VAlignmentEnum.TopAlignment) = 1
        Dim i As Integer
        i = .LockedItem(EXGANTTLib.VAlignmentEnum.TopAlignment, 0)
        .CellCaption(i, 0) = "<b>locked</b> item"
    End With
End With

```

```
.CellCaptionFormat(i, 0) = EXGANTTLib.CaptionFormatEnum.exHTML
```

```
End With
```

```
.EndUpdate()
```

```
End With
```

The following C# sample adds an item that's locked to the top side of the control:

```
axGantt1.BeginUpdate();
EXGANTTLib.Items items = axGantt1.Items;
items.set_LockedItemCount(EXGANTTLib.VAlignmentEnum.TopAlignment, 1);
int i = items.get_LockedItem(EXGANTTLib.VAlignmentEnum.TopAlignment, 0);
items.set_CellCaption(i, 0, "<b>locked</b> item");
items.set_CellCaptionFormat(i, 0, EXGANTTLib.CaptionFormatEnum.exHTML);
axGantt1.EndUpdate();
```

The following VFP sample adds an item that's locked to the top side of the control:

```
with thisform.Gantt1
.BeginUpdate()
With .Items
    .LockedItemCount(0) = 1
    .DefaultItem = .LockedItem(0, 0)
    .CellCaption(0, 0) = "<b>locked</b> item"
    .CellCaptionFormat(0, 0) = 1 && EXGANTTLib.CaptionFormatEnum.exHTML
EndWith
.EndUpdate()
endwith
```

## property Items.MatchItemCount as Long

Retrieves the number of items that match the filter.

Type	Description
Long	A long expression that specifies the number of matching items in the control. The value could be a positive value if no filter is applied, or negative while filter is on.

The MatchItemCount property counts the number of items that matches the current filter criteria. At runtime, the MatchItemCount property is a positive integer if no filter is applied, and negative if a filter is applied. If positive, it indicates the number of items within the control ([ItemCount](#) property). If negative, a filter is applied, and the absolute value minus one, indicates the number of matching items after filter is applied. A matching item includes its parent items, if the control's [FilterInclude](#) property allows including child items.

The MatchItemCount property returns a value as explained bellow:

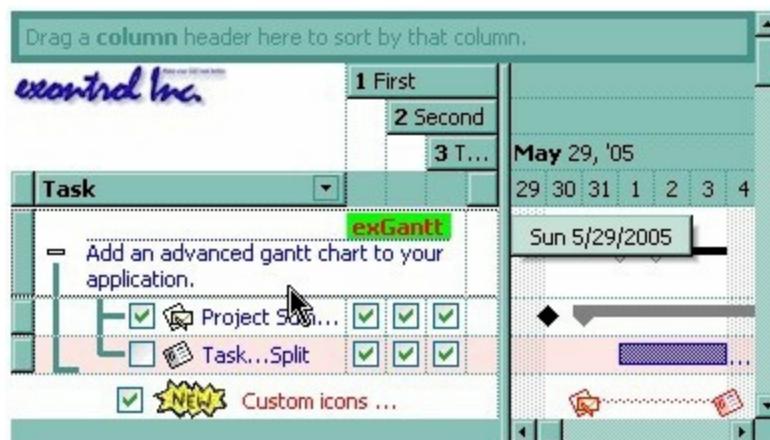
- 0, the control displays/contains no items, and no filter is applied to any column
- -1, the control displays no items, and there is a filter applied ( no match found )
- positive number, indicates the number of items within the control ([ItemCount](#) property)
- negative number, the absolute value minus 1, indicates the number of items that matches the current filter ( match found )

## method Items.MergeCells ([Cell1 as Variant], [Cell2 as Variant], [Options as Variant])

Merges a list of cells.

Type	Description
Cell1 as Variant	A long expression that indicates the handle of the cell being merged, or a safe array that holds a collection of handles for the cells being merged. Use the <a href="#">ItemCell</a> property to retrieves the handle of the cell. The <b>first cell (in the list, if exists)</b> specifies the cell being displayed in the new larger cell.
Cell2 as Variant	A long expression that indicates the handle of the cell being merged, or a safe array that holds a collection of handles for the cells being merged. Use the <a href="#">ItemCell</a> property to retrieves the handle of the cell. The first cell in the list specifies the cell being displayed in the new larger cell.
Options as Variant	Reserved.

The MergeCells method combines two or more cells into one cell. The data in the **first specified cell** is displayed in the new larger cell. All the other cells' data is not lost. Use the [CellMerge](#) property to merge or unmerge a cell with another cell in the same item. Use the [ItemDivider](#) property to display a single cell in the entire item ( merging all cells in the item ). Use the [UnmergeCells](#) method to unmerge the merged cells. Use the [CellCaption](#) property to specify the cell's caption. Use the [ItemCell](#) property to retrieves the handle of the cell. Use the [BeginMethod](#) and [EndUpdate](#) methods to maintain performance, when merging multiple cells in the same time. The MergeCells methods creates a list of cells from Cell1 and Cell2 parameters that need to be merged, and the first cell in the list specifies the displayed cell in the merged cell. Use the [SplitCell](#) property to split a cell. Use the [SelectableItem](#) property to specify the user can select an item.



The following VB sample adds three columns, a root item and two child items:

With Gantt1

.BeginUpdate

.MarkSearchColumn = False

.DrawGridLines = exAllLines

.LinesAtRoot = exLinesAtRoot

With .Columns.Add("Column 1")

.Def(exCellCaptionFormat) = exHTML

End With

.Columns.Add "Column 2"

.Columns.Add "Column 3"

With .Items

Dim h As Long

h = .AddItem("Root. This is the root item")

.InsertItem h, , Array("Child 1", "SubItem 2", "SubItem 3")

.InsertItem h, , Array("Child 2", "SubItem 2", "SubItem 3")

.ExpandItem(h) = True

.SelectItem(h) = True

End With

.EndUpdate

End With

and it looks like follows ( notice that the caption of the root item is truncated by the column that belongs to ):

Column 1	Column 2	Column 3
Root. This is		
Child 1	SubItem 2	SubItem 3
Child 2	SubItem 2	SubItem 3

If we are merging the first three cells in the root item we get:

Column 1	Column 2	Column 3
Root. This is the root item		
Child 1	SubItem 2	SubItem 3
Child 2	SubItem 2	SubItem 3

You can merge the first three cells in the root item using any of the following methods:

With Gantt1

With .Items

```
.CellMerge(.RootItem(0), 0) = Array(1, 2)
```

```
End With
```

```
End With
```

With Gantt1

**.BeginUpdate**

With .Items

```
Dim r As Long
```

```
r = .RootItem(0)
```

```
.CellMerge(r, 0) = 1
```

```
.CellMerge(r, 0) = 2
```

```
End With
```

**.EndUpdate**

```
End With
```

With Gantt1

**.BeginUpdate**

With .Items

```
Dim r As Long
```

```
r = .RootItem(0)
```

```
.MergeCells .ItemCell(r, 0), .ItemCell(r, 1)
```

```
.MergeCells .ItemCell(r, 0), .ItemCell(r, 2)
```

```
End With
```

**.EndUpdate**

```
End With
```

With Gantt1

With .Items

```
Dim r As Long
```

```
r = .RootItem(0)
```

```
.MergeCells .ItemCell(r, 0), Array(.ItemCell(r, 1), .ItemCell(r, 2))
```

```
End With
```

```
End With
```

With Gantt1

With .Items

```
Dim r As Long
```

```
r = .RootItem(0)
    .MergeCells Array(.ItemCell(r, 0), .ItemCell(r, 1), .ItemCell(r, 2))
End With
End With
```

The following VB sample merges the first three cells:

```
With Gantt1.Items
    .MergeCells .ItemCell(.FocusItem, 0), Array(.ItemCell(.FocusItem, 1), .ItemCell(.FocusItem, 2))
End With
```

The following C++ sample merges the first three cells:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
COleVariant vtFocusCell( items.GetItemCell(items.GetFocusItem(), COleVariant( (long)0 ) ), vtMissing; V_VT( &vtMissing ) = VT_ERROR;
items.MergeCells( vtFocusCell, COleVariant( items.GetItemCell(items.GetFocusItem(), COleVariant( (long)1 ) ) ), vtMissing );
items.MergeCells( vtFocusCell, COleVariant( items.GetItemCell(items.GetFocusItem(), COleVariant( (long)2 ) ) ), vtMissing );
```

The following VB.NET sample merges the first three cells:

```
With AxGantt1.Items
    .MergeCells(.ItemCell(.FocusItem, 0), .ItemCell(.FocusItem, 1))
    .MergeCells(.ItemCell(.FocusItem, 0), .ItemCell(.FocusItem, 2))
End With
```

The following C# sample merges the first three cells:

```
EXGANTTLib.Items items = axGantt1.Items;
items.MergeCells(items.get_ItemCell( items.FocusItem, 0 ), items.get_ItemCell( items.FocusItem, 1 ), "");
items.MergeCells(items.get_ItemCell(items.FocusItem, 0),
items.get_ItemCell(items.FocusItem, 2), "");
```

The following VFP sample merges the first three cells:

```
with thisform.Gantt1.Items
```

```
    .MergeCells(.ItemCell(.FocusItem,0), .ItemCell(.FocusItem,1), "")
```

```
    .MergeCells(.ItemCell(.FocusItem,0), .ItemCell(.FocusItem,2), "")
```

```
endwith
```

Now, the question is what should I use in my program in order to merge some cells? For instance, if you are using handle to cells ( HCELL type ), we would recommend using the MergeCells method, else you could use as well the CellMerge property.

## property Items.NextItemBar (Item as HITEM, Key as Variant) as Variant

Gets the key of the next bar in the item.

Type	Description
Item as HITEM	A HITEM expression that indicates the handle of the item where the bars are enumerated.
Key as Variant	A String expression that indicates the key of the bar.
Variant	A String expression that indicates the key of the next bar in the item, or empty if there is no next bar in the item

Use the [FirstItemBar](#) and [NextItemBar](#) methods to enumerate the bars inside the item. Use the [BarItem](#) property to access properties of the specified bar. Use the [AddBar](#) method to add new bars to the item. Use the [RemoveBar](#) method to remove a bar from an item. Use the [ClearBars](#) method to remove all bars in the item. The FirstItemBar and NextItemBar methods enumerates bars in alphabetic order of the keys. Use the [BarItem\(exBarsCount\)](#) property to retrieve the number of bars in a specified item.

The following VB sample enumerates the bars in the item ( h indicates the handle of the item ):

With Gantt1

```
If Not (h = 0) Then
    Dim k As Variant
    k = .Items.FirstItemBar(h)
    While Not IsEmpty(k)
        Debug.Print "Key = " & k
        k = .Items.NextItemBar(h, k)
    Wend
End If
End With
```

The following C++ sample enumerates the bars in the item ( h indicates the handle of the item ):

```
CItems items = m_gantt.GetItems();
COleVariant vtBar = items.GetFirstItemBar(h) ;
while ( V_VT( &vtBar ) != VT_EMPTY )
{
    OutputDebugString( V2S( &vtBar ) );
```

```
OutputDebugString( "\n" );
vtBar = items.GetNextItemBar( h, vtBar );
}
```

where the V2S function converts a Variant expression to a string:

```
static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return szDefault;

        COleVariant vt;
        vt.ChangeType( VT_BSTR, pv );
        return V_BSTR( &vt );
    }
    return szDefault;
}
```

The following VB.NET sample enumerates the bars in the item ( h indicates the handle of the item ):

With AxGantt1

```
If Not (h = 0) Then
    Dim k As Object
    k = .Items.FirstItemBar(h)
    While TypeOf k Is String
        System.Diagnostics.Debug.Print(k.ToString)
        k = .Items.NextItemBar(h, k)
    End While
End If
End With
```

The following C# sample enumerates the bars in the item ( h indicates the handle of the item ):

```
object k = axGantt1.Items.get_FirstItemBar(h);
while ( k != null )
```

```
{  
    System.Diagnostics.Debug.Print(k.ToString());  
    k = axGantt1.Items.get_NextItemBar(h, k);  
}
```

The following VFP sample enumerates the bars in the item ( h indicates the handle of the item ):

```
With thisform.Gantt1
```

```
If Not (h = 0) Then  
    local k  
    k = .Items.FirstItemBar(h)  
    do While !empty(k)  
        ?k  
        k = .Items.NextItemBar(h, k)  
    enddo  
Endif  
EndWith
```

In VFP, please make sure that you are using non empty values for the keys. For instance, if you are omitting the Key parameter of the AddBar method, an empty key is missing. If you need to use the FirstItemBar and NextItemBar properties, you have to use non empty keys for the bars.

## property Items.NextLink (LinkKey as Variant) as Variant

Gets the key of the next link.

Type	Description
LinkKey as Variant	A string expression that indicates the key of the previous link
Variant	A string expression that indicates the key of the next link, or empty value if there is no next link.

Use the [FirstLink](#) and NextLink properties to enumerate the links in the control. The NextLink property retrieves an empty value, if there is no next link in the control. Use the [AddLink](#) property to link two bars. Use the [ShowLinks](#) property to show or hide the links. Use the [Link](#) property to access a property of the link.

The following VB sample enumerates the links:

```
With Gantt1.Items
```

```
    Dim k As Variant
```

```
    k = .FirstLink()
```

```
    While Not IsEmpty(k)
```

```
        Debug.Print "LinkKey = " & k
```

```
        k = .NextLink(k)
```

```
    Wend
```

```
End With
```

The following C++ sample enumerates the links:

```
CItems items = m_gantt.GetItems();
COleVariant vtLinkKey = items.GetFirstLink() ;
while ( V_VT( &vtLinkKey ) != VT_EMPTY )
{
    OutputDebugString( V2S( &vtLinkKey ) );
    OutputDebugString( "\n" );
    vtLinkKey = items.GetNextLink( vtLinkKey );
}
```

where the V2S function converts a Variant expression to a string:

```
static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
```

```
{  
    if ( pv )  
    {  
        if ( pv->vt == VT_ERROR )  
            return szDefault;  
  
        COleVariant vt;  
        vt.ChangeType( VT_BSTR, pv );  
        return V_BSTR( &vt );  
    }  
    return szDefault;  
}
```

The following VB.NET sample enumerates the links:

With AxGantt1.Items

```
Dim k As Object  
k = .FirstLink  
While (TypeOf k Is String)  
    System.Diagnostics.Debug.Print(k.ToString())  
    k = .NextLink(k)  
End While  
End With
```

The following C# sample enumerates the links:

```
object k = axGantt1.Items.FirstLink;  
while (k != null)  
{  
    System.Diagnostics.Debug.Print(k.ToString());  
    k = axGantt1.Items.get_NextLink(k);  
}
```

The following VFP sample enumerates the links:

With thisform.Gantt1.Items

```
local k  
k = .FirstLink  
do While !empty(k)
```

```
?k  
k = .NextLink(k)  
enddo  
endwith
```

## **property Items.NextSiblingItem (Item as HITEM) as HITEM**

Retrieves the next sibling of the item in the parent's child list.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
HITEM	A long expression that indicates the handle of the next sibling item.

The NextSiblingItem property retrieves the next sibling of the item in the parent's child list. Use [ItemChild](#) and NextSiblingItem properties to enumerate the collection of child items.

The following VB function recursively enumerates the item and all its child items:

```
Sub Recltem(ByVal c As EXGANTTLibCtl.Gantt, ByVal h As HITEM)
    If Not (h = 0) Then
        Dim hChild As HITEM
        With c.Items
            Debug.Print .CellCaption(h, 0)
            hChild = .ItemChild(h)
            While Not (hChild = 0)
                Recltem c, hChild
                hChild = .NextSiblingItem(hChild)
            Wend
        End With
    End If
End Sub
```

The following C++ function recursively enumerates the item and all its child items:

```
void Recltem( CGantt* pGantt, long hItem )
{
    COleVariant vtColumn( (long)0 );
    if ( hItem )
    {
        CItems items = pGantt->GetItems();

        CString strCaption = V2S( &items.GetCellCaption( COleVariant( hItem ), vtColumn ) ),
        strOutput;
```

```

strOutput.Format( "Cell: '%s'\n", strCaption );
OutputDebugString( strOutput );

long hChild = items.GetItemChild( hItem );
while ( hChild )
{
    Recltem( pGantt, hChild );
    hChild = items.GetNextSiblingItem( hChild );
}
}
}

```

The following VB.NET function recursively enumerates the item and all its child items:

```

Shared Sub Recltem(ByVal c As AxEXGANTTLib.AxGantt, ByVal h As Integer)
If Not (h = 0) Then
    Dim hChild As Integer
    With c.Items
        Debug.WriteLine(.CellCaption(h, 0))
        hChild = .ItemChild(h)
        While Not (hChild = 0)
            Recltem(c, hChild)
            hChild = .NextSiblingItem(hChild)
        End While
    End With
End If
End Sub

```

The following C# function recursively enumerates the item and all its child items:

```

internal void Recltem(AxEXGANTTLib.AxGantt gantt, int hItem)
{
    if (hItem != 0)
    {
        EXGANTTLib.Items items = gantt.Items;
        object caption = items.get_CellCaption( hItem, 0 );
        System.Diagnostics.Debug.WriteLine(caption != null ? caption.ToString() : "");
    }
}

```

```
int hChild = items.get_ItemChild(hItem);
while (hChild != 0)
{
    Recltem(gantt, hChild);
    hChild = items.get_NextSiblingItem(hChild);
}
}
```

The following VFP function recursively enumerates the item and all its child items ( recitem method ):

```
LPARAMETERS h

with thisform.Gantt1
If ( h != 0 ) Then
    local hChild
    With .Items
        .DefaultItem = h
        wait window .CellCaption(0, 0)
        hChild = .ItemChild(h)
        do While (hChild != 0)
            thisform.recitem(hChild)
            hChild = .NextSiblingItem(hChild)
        enddo
    EndWith
EndIf
endwith
```

## property Items.NextVisibleItem (Item as HITEM) as HITEM

Retrieves the handle of next visible item.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
HITEM	A long expression that indicates the handle of the next visible item.

Use the NextVisibleItem property to access the visible items. The NextVisibleItem property retrieves 0 if there are no more visible items. Use the [IsItemVisible](#) property to check whether an item fits the control's client area. Use the [FirstVisibleItem](#) property to retrieve the first visible item.

The following VB sample enumerates all visible items:

```
Private Sub VisItems(ByVal c As EXGANTTLibCtl.Gantt)
    Dim h As HITEM
    With c.Items
        h = .FirstVisibleItem
        While Not (h = 0)
            Debug.Print .CellCaption(h, 0)
            h = .NextVisibleItem(h)
        Wend
    End With
End Sub
```

The following C++ sample enumerates all visible items:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
long hItem = items.GetFirstVisibleItem();
while ( hItem )
{
    OutputDebugString( V2S( &items.GetCellCaption( COleVariant( hItem ), COleVariant(
long(0) ) ) ) );
    hItem = items.GetNextVisibleItem( hItem );
}
```

The following C# sample enumerates all visible items:

```
EXGANTTLib.Items items = axGantt1.Items;
int hItem = items.FirstVisibleItem;
while ( hItem != 0 )
{
    object strCaption = items.get_CellCaption(hItem, 0);
    System.Diagnostics.Debug.WriteLine( strCaption != null ? strCaption.ToString() : "" );
    hItem = items.get_NextVisibleItem(hItem);
}
```

The following VB.NET sample enumerates all visible items:

With AxGantt1.Items

```
Dim hItem As Integer
hItem = .FirstVisibleItem
While Not (hItem = 0)
    Debug.Print(.CellCaption(hItem, 0))
    hItem = .NextVisibleItem(hItem)
End While
End With
```

The following VFP sample enumerates all visible items:

with thisform.Gantt1.Items

```
.DefaultItem = .FirstVisibleItem
do while ( .DefaultItem <> 0 )
    wait window .CellCaption( 0, 0 )
    .DefaultItem = .NextVisibleItem( 0 )
enddo
endwith
```

## property Items.PathSeparator as String

Returns or sets the delimiter character used for the path returned by the FullPath and FindPath properties.

Type	Description
String	A string expression that indicates the delimiter character used for the path returned by the FullPath and FindPath properties.

By default the PathSeparator is "\". The PathSeparator property is used by properties like [FullPath](#) and [FindPath](#).

## **property Items.PrevSiblingItem (Item as HITEM) as HITEM**

Retrieves the previous sibling of the item in the parent's child list.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
HITEM	A long expression that indicates the handle of the previous sibling item

The **PrevSiblingItem** retrieves 0 if there are no more previous sibling items. The [NextSiblingItem](#) property retrieves the next sibling of the item in the parent's child list. Use the [FirstVisibleItem](#) property to retrieve the first visible item. Use the [ItemParent](#) property to retrieve the parent of the item.

## **property Items.PrevVisibleItem (Item as HITEM) as HITEM**

Retrieves the handle of previous visible item.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
HITEM	A long expression that indicates the handle of the previous visible item

The **PrevVisibleItem** property retrieves 0 if there are no previous visible items. The [NextVisibleItem](#) property retrieves the next visible item. Use the [FirstVisibleItem](#) property to retrieve the first visible item. Use the [ItemParent](#) property to retrieve the parent of the item.

## method Items.RemoveAllItems ()

Removes all items from the control.

Type	Description
------	-------------

Use the RemoveAllItems method to remove all items in the control. Use the [Clear](#) method to remove all columns in the control. Use the [RemoveItem](#) method to remove a single item in the control.

## method Items.RemoveBar (Item as HITEM, [Key as Variant])

Removes a bar from an item.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item where the bar is removed. If the Item parameter is 0, the RemoveBar method removes all bars with specified key from all items. In this case the <a href="#">DefaultItem</a> property should be 0 ( by default ), else it refers a single item being indicated by the DefaultItem property.
Key as Variant	A String expression that indicates the key of the bar to be removed. If missing, the Key parameter is empty. The Key may include a pattern with wild characters as *, ?, # or [], if the Key starts with "<" and ends on ">" aka "<K*>" which indicates all bars with the key K or starts on K. The pattern may include a space which divides multiple patterns for matching. For instance "<A* *K>" indicates all keys that start on A and all keys that end on K.

Use the RemoveBar method to remove a bar from an item. *If the Item parameter is not 0 ( indicates a valid handle ), the RemoveBar removes a single bar ( if found, with the Key being specified by the Key parameter ). If the Item parameter is 0, the RemoveBar method removes all bars with specified key from all items. Use the [BeginUpdate](#) / [EndUpdate](#) methods to refresh the control's content after removing a bar or several bars. Use the [ClearBars](#) method to remove all bars in the item.*

Based on the values of Item and Key parameters the RemoveBar property remove none, one or multiple bars as follow:

- **RemoveBar(0,"<\*>")** removes all bars in the chart
- **RemoveBar(0,"<pattern>")** removes all bars in the chart that match a specified pattern using wild characters as \*, ?, # or []
- **RemoveBar(Item,"<\*>")** removes all bars in the specified Item
- **RemoveBar(Item,"<pattern>")** removes all bars from the giving Item that match a specified pattern using wild characters as \*, ?, # or []

The pattern may include the space character which indicates multiple patterns to be used when matching. For instance "A\* \*K" indicates all keys that start on A and all keys that end on K.

Here's few samples of using the RemoveBar method:

- *RemoveBar(Item, "K1") removes the bar K1 from the specified Item*
- *RemoveBar(0, "K1") removes the bar K1 from the entire chart*
- *RemoveBar(0, "<A\* K\*>") removes all bars from the chart with the Key A or K or starts with A or K*
- *RemoveBar(0, "<\*K>") removes all bars from the chart with the Key K or ends on K*
- *RemoveBar(Item, "<K\*>") removes all bars from the specified Item with the Key K or starts on K*
- *RemoveBar(Item, "<K??>") removes all bars from the specified Item with the Key of 3 characters and starts with K*

Use the [AddBar](#) method to add new bars to the item. Use the [Remove](#) method to remove a type of bar from the [Bars](#) collection. Use the [Add](#) method to add new types of bars to the Bars collection. Use the [FirstVisibleDate](#) property to specify the first visible date in the chart area. Use the Key parameter to identify a bar inside an item. Use the [BarItem](#) property to access a bar inside the item. Use the [PaneWidth](#) property to specify the width of the chart. Use the [NonworkingDays](#) property to specify the non-working days.

## method Items.RemoveItem (Item as HITEM)

Removes a specific item.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item being removed.

The RemoveItem method removes an item. The RemoveItem method does not remove the item, if it contains child items. The following sample removes the first item:

Gantt1.Items.RemoveItem Gantt1.Items(0). Use the [RemoveAllItems](#) method to remove all items in the control. Use the [BeginUpdate](#) and [EndUpdate](#) methods to maintain performance while removing the items. The RemoveItem method can't remove an item that's locked. Instead you can use the [LockedItemCount](#) property to add or remove locked items. Use the [IsItemLocked](#) property to check whether an item is locked. The [RemoveSelection](#) method removes the selected items (including the descendants).

The following VB sample removes recursively an item:

```
Private Sub RemoveItemRec(ByVal t As EXGANTTLibCtl.Gantt, ByVal h As HITEM)
    If Not h = 0 Then
        With t.Items
            t.BeginUpdate
            Dim hChild As HITEM
            hChild = .ItemChild(h)
            While (hChild < > 0)
                Dim hNext As HITEM
                hNext = .NextSiblingItem(hChild)
                RemoveItemRec t, hChild
                hChild = hNext
            Wend
            .RemoveItem h
            t.EndUpdate
        End With
    End If
End Sub
```

The following C++ sample removes recursively an item:

```
void RemoveItemRec( CGantt* pGantt, long hItem )
```

```

{
if ( hItem )
{
    pGantt->BeginUpdate();
    CItems items = pGantt->GetItems();
    long hChild = items.GetItemChild( hItem );
    while ( hChild )
    {
        long nNext = items.GetNextSiblingItem( hChild );
        RemoveItemRec( pGantt, hChild );
        hChild = nNext;
    }
    items.RemoveItem( hItem );
    pGantt->EndUpdate();
}
}

```

The following VB.NET sample removes recursively an item:

```

Shared Sub RemoveItemRec(ByVal t As AxEXGANTTLib.AxGantt, ByVal h As Integer)
If Not h = 0 Then
    With t.Items
        t.BeginUpdate()
        Dim hChild As Integer = .ItemChild(h)
        While (hChild <> 0)
            Dim hNext As Integer = .NextSiblingItem(hChild)
            RemoveItemRec(t, hChild)
            hChild = hNext
        End While
        .RemoveItem(h)
        t.EndUpdate()
    End With
End If
End Sub

```

The following C# sample removes recursively an item:

```
internal void RemoveItemRec(AxEXGANTTLib.AxGantt gantt, int hItem)
```

```

{
if (hItem != 0)
{
EXGANTTLib.Items items = gantt.Items;
gantt.BeginUpdate();
int hChild = items.get_ItemChild(hItem);
while (hChild != 0)
{
    int hNext = items.get_NextSiblingItem(hChild);
    RemoveItemRec(gantt, hChild);
    hChild = hNext;
}
items.RemoveItem(hItem);
gantt.EndUpdate();
}
}

```

The following VFP sample removes recursively an item ( removeitemrec method ):

```

LPARAMETERS h

with thisform.Gantt1
If ( h != 0 ) Then
    .BeginUpdate()
    local hChild
    With .Items
        hChild = .ItemChild(h)
        do While (hChild != 0)
            local hNext
            hNext = .NextSiblingItem(hChild)
            thisform.removeitemrec(hChild)
            hChild = hNext
        enddo
        .RemoveItem( h )
    EndWith
    .EndUpdate()
EndIf

```

endwith

## method Items.RemoveLink (LinkKey as Variant)

Removes a link.

Type	Description
LinkKey as Variant	A String expression that indicates the key of the link being removed.

Use the RemoveLink method to remove the specified link. Use the [Link\(exLinkVisible\)](#) property to hide a specific link between two bars. Use the [AddLink](#) method to add a link between two bars. Use the [ClearLinks](#) method to remove all links in the control. Use the [ShowLinks](#) property to hide all links in the control. Use the [RemoveItem](#) method to remove an item. The RemoveItem method removes all links related to the item.

## method Items.RemoveSelection ()

Removes the selected items (including the descendants).

Type	Description
------	-------------

The RemoveSelection method removes the selected items (including the descendants). The [RemoveItem](#) method removes an item (if the item has no descendants). The [UnselectAll](#) method unselects all items in the list.

## property Items.RootCount as Long

Retrieves the number of root objects into Items collection.

Type	Description
Long	A long value that indicates the count of root items in the Items collection.

A root item is an item that has no parent ([ItemParent\(\)](#) = 0). Use the [RootItem](#) property of the Items object to enumerates the root items. Use the [AddItem](#) to add root items to the control. Use the [InsertItem](#) method to insert child items.

The following VB sample enumerates all root items:

```
Dim i As Long, n As Long
With Gantt1.Items
    n = .RootCount
    For i = 0 To n - 1
        Debug.Print .CellCaption(.RootItem(i), 0)
    Next
End With
```

The following C++ sample enumerates all root items:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
for ( long i = 0 ; i < items.GetRootCount(); i++ )
{
    COleVariant vtItem( items.GetRootItem(i) ), vtColumn( long(0) );
    OutputDebugString( V2S( &items.GetCellCaption( vtItem, vtColumn ) ) );
}
```

The following VB.NET sample enumerates all root items:

```
With AxGantt1.Items
    Dim i As Integer
    For i = 0 To .RootCount - 1
        Debug.Print(.CellCaption(.RootItem(i), 0))
    Next
End With
```

The following C# sample enumerates all root items:

```
for (int i = 0; i < axGantt1.Items.RootCount; i++)
{
    object strCaption = axGantt1.Items.get_CellCaption(axGantt1.Items.get_RootItem(i), 0);
    System.Diagnostics.Debug.WriteLine(strCaption != null ? strCaption.ToString() : "");
```

The following VFP sample enumerates all root items:

```
with thisform.Gantt1.Items
local i
for i = 0 to .RootCount - 1
    .DefaultItem = .RootItem(i)
    wait window nowait .CellCaption(0,0)
next
endwith
```

## property Items.RootItem ([Position as Long]) as HITEM

Retrieves the handle of the root item giving its index into the root items collection.

Type	Description
Position as Long	A long value that indicates the position of the root item being accessed.
HITEM	A long expression that indicates the handle of the root item.

A root item is an item that has no parent ([ItemParent\(\)](#) = 0). Use the [RootCount](#) property of to count the root items. Use the [AddItem](#) to add root items to the control. Use the [InsertItem](#) method to insert child items.

The following VB sample enumerates all root items:

```
Dim i As Long, n As Long
With Gantt1.Items
    n = .RootCount
    For i = 0 To n - 1
        Debug.Print .CellCaption(RootItem(i), 0)
    Next
End With
```

The following C++ sample enumerates all root items:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
for ( long i = 0 ; i < items.GetRootCount(); i++ )
{
    COleVariant vtItem( items.GetRootItem(i) ), vtColumn( long(0) );
    OutputDebugString( V2S( &items.GetCellCaption( vtItem, vtColumn ) ) );
}
```

The following VB.NET sample enumerates all root items:

```
With AxGantt1.Items
    Dim i As Integer
    For i = 0 To .RootCount - 1
        Debug.Print(.CellCaption(RootItem(i), 0))
```

Next

End With

The following C# sample enumerates all root items:

```
for (int i = 0; i < axGantt1.Items.RootCount; i++)
{
    object strCaption = axGantt1.Items.get_CellCaption(axGantt1.Items.get_RootItem(i), 0);
    System.Diagnostics.Debug.WriteLine(strCaption != null ? strCaption.ToString() : "");
}
```

The following VFP sample enumerates all root items:

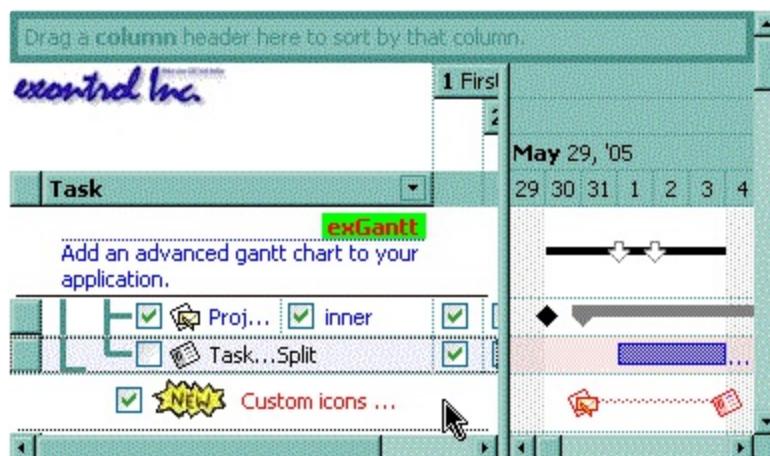
```
with thisform.Gantt1.Items
local i
for i = 0 to .RootCount - 1
    .DefaultItem = .RootItem(i)
    wait window nowait .CellCaption(0,0)
next
endwith
```

## property Items.SelectableItem(Item as HITEM) as Boolean

Specifies whether the user can select the item.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item being selectable.
Boolean	A boolean expression that specifies whether the item is selectable.

By default, all items are selectable, excepts the locked items that are not selectable. A selectable item is an item that user can select using the keys or the mouse. The SelectableItem property specifies whether the user can select an item. The SelectableItem property doesn't change the item's appearance. The [LockedItemCount](#) property specifies the number of locked items to the top or bottom side of the control. Use the [ItemDivider](#) property to define a divider item. Use the [ItemForeColor](#) property to specify the item's foreground color. Use the [ItemBackColor](#) property to specify the item's background color. Use the [ItemFont](#), [ItemBold](#), [ItemItalic](#), [ItemUnderline](#) or [ItemStrikeOut](#) property to assign a different font to the item. Use the [EnableItem](#) property to disable an item. A disabled item looks grayed, but it is selectable. For instance, the user can't change the check box state in a disabled item. Use the [SelectItem](#) property to select an item. The [ItemFromPoint](#) property gets the item from point. For instance, if the user clicks a non selectable item the [SelectionChanged](#) event is not fired. A non selectable item is not focusable as well. It means that if the incremental searching is on, the non selectable items are ignored. Use the [SelectCount](#) property to get the number of selected items. Use the [SelForeColor](#) and [SelBackColor](#) properties to customize the colors for selected items.



The following VB sample makes not selectable the first visible item:

With Gantt1.Items

```
.SelectableItem(.FirstVisibleItem) = False
```

End With

The following C++ sample makes not selectable the first visible item:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetSelectableItem( items.GetFirstVisibleItem(), FALSE );
```

The following VB.NET sample makes not selectable the first visible item:

```
With AxGantt1.Items
    .SelectableItem(.FirstVisibleItem) = False
End With
```

The following C# sample makes not selectable the first visible item:

```
axGantt1.Items.set_SelectableItem(axGantt1.Items.FirstVisibleItem, false);
```

The following VFP sample makes not selectable the first visible item:

```
with thisform.Gantt1.Items
    .DefaultItem = .FirstVisibleItem
    .SelectableItem(0) = .f.
endwith
```

## method Items.SelectAll ()

Selects all items.

Type	Description
------	-------------

Use the SelectAll method to select all visible items in the gantt. The SelectAll method has effect only if the [SingleSel](#) property is False, if the control supports multiple items selection. Use the [UnselectAll](#) method to unselect all items in the list. Use the [SelectItem](#) property to select or unselect a specified item. Use the [SelectedItem](#) property to retrieve a value that indicates whether the item is selected or unselected. Use the [SelectCount](#) property to retrieve the number of selected items

## property Items.SelectCount as Long

Counts the number of items that are selected into control.

Type	Description
Long	A long expression that identifies the number of selected items.

The SelectCount property counts the selected items in the control. The SelectCount property gets 0, if no items are selected in the control. The ExGantt control supports multiple selection. Use the [SingleSel](#) property of the control to allow multiple selection. Use the [SelectedItem](#) property to retrieve the handle of the selected item(s). The control fires the [SelectionChanged](#) event when user changes the selection in the control. Use the [SelectItem](#) property to select programmatically an item. Use the [SelForeColor](#) and [SelBackColor](#) properties to specify colors for selected items. If the control supports only single selection ( SingleSel property is True ), the [FocusItem](#) retrieves the selected item too.

If the control's SingleSel is false, then the following statement retrieves the handle for the selected item: Gantt1.Items.SelectedItem().

If the control supports multiple selection then the following VB sample shows how to enumerate all selected items:

```
Dim h As HITEM
Dim i As Long, j As Long, nCols As Long, nSels As Long
nCols = Gantt1.Columns.Count
With Gantt1.Items
    nSels = .SelectCount
    For i = 0 To nSels - 1
        Dim s As String
        For j = 0 To nCols - 1
            s = s + .CellCaption(.SelectedItem(i), j) + Chr(9)
        Next
        Debug.Print s
    Next
End With
```

The following VB sample unselects all items in the control:

```
With Gantt1
```

```
.BeginUpdate
With .Items
    While Not .SelectCount = 0
        .SelectItem(.SelectedItem(0)) = False
    Wend
End With
.EndUpdate
End With
```

The following C++ sample enumerates the selected items:

```
CItems items = m_gantt.GetItems();
long n = items.GetSelectCount();
if ( n != 0 )
{
    for ( long i = 0; i < n; i++ )
    {
        long h = items.GetSelectedItem( i );
        COleVariant vtString;
        vtString.ChangeType( VT_BSTR, &items.GetCellCaption( COleVariant( h ), COleVariant(
(long)0 ) ) );
        CString str = V_BSTR( &vtString );
        MessageBox( str );
    }
}
```

The following C++ sample unselects all items in the control:

```
m_gantt.BeginUpdate();
CItems items = m_gantt.GetItems();
while ( items.GetSelectCount() )
    items.SetSelectedItem( items.GetSelectedItem( 0 ), FALSE );
m_gantt.EndUpdate();
```

The following VB.NET sample enumerates the selected items:

With AxGantt1.Items

```
Dim nCols As Integer = AxGantt1.Columns.Count, i As Integer
For i = 0 To .SelectCount - 1
```

```
Debug.Print(.CellCaption(SelectedItem(i), 0))
```

```
Next
```

```
End With
```

The following VB.NET sample unselects all items in the control:

```
With AxGantt1
```

```
    .BeginUpdate()
```

```
    With .Items
```

```
        While Not .SelectCount = 0
```

```
            .SelectItem(.SelectedItem(0)) = False
```

```
        End While
```

```
    End With
```

```
    .EndUpdate()
```

```
End With
```

The following C# sample enumerates the selected items:

```
for (int i = 0; i < axGantt1.Items.SelectCount; i++)
{
    object strCaption = axGantt1.Items.get_CellCaption(axGantt1.Items.get_SelectedItem(i),
0);
    System.Diagnostics.Debug.WriteLine(strCaption != null ? strCaption.ToString() : "");
}
```

The following C# sample unselects all items in the control:

```
axGantt1.BeginUpdate();
EXGANTTLib.Items items = axGantt1.Items;
while (items.SelectCount != 0)
    items.set_SelectItem(items.get_SelectedItem(0), false);
axGantt1.EndUpdate();
```

The following VFP sample enumerates the selected items:

```
with thisform.Gantt1.Items
```

```
local i
```

```
for i = 0 to .SelectCount - 1
```

```
    .DefaultItem = .SelectedItem(i)
```

```
wait window nowait .CellCaption(0,0)
```

```
next
```

```
endwith
```

The following VFP sample unselects all items in the control:

```
With thisform.Gantt1
```

```
.BeginUpdate()
```

```
with .Items
```

```
do while ( .SelectCount() # 0 )
```

```
    .DefaultItem = .SelectedItem(0)
```

```
    .SelectItem(0) = .f.
```

```
enddo
```

```
endwith
```

```
.EndUpdate()
```

```
EndWith
```

## property Items.SelectedItem ([Index as Long]) as HITEM

Retrieves the selected item's handle given its index in selected items collection.

Type	Description
Index as Long	Identifies the index of the selected item into the selected items collection.
HITEM	A long expression that indicates the handle of the selected item.

Use the [SelectedItem](#) property to get the handle of the selected item(s) in the control. Use the [SelectCount](#) property to find out how many items are selected in the control. The control fires the [SelectionChanged](#) event when user changes the selection in the control. Use the [SelectItem](#) property to select programmatically an item. If the control supports only single selection, you can use the [FocusItem](#) property to get the selected/focused item because they are always the same. Use the [SingleSel](#) property to enable single or multiple selection. Use the [SelForeColor](#) and [SelBackColor](#) properties to specify colors for selected items.

The following sample shows hot to print the caption for the selected item: `Debug.Print Gantt1.Items.CellCaption(Gantt1.Items.SelectedItem(0), 0)`.

The following sample applies an italic font attribute to the selected item:

```
Private Sub Gantt1_SelectionChanged()
    If Not (h = 0) Then Gantt1.Items.ItemItalic(h) = False
    h = Gantt1.Items.SelectedItem()
    Gantt1.Items.ItemItalic(h) = True
End Sub
```

The following VB sample enumerates the selected items:

```
Dim i As Long
With Gantt1.Items
    For i = 0 To .SelectCount - 1
        Debug.Print .CellCaption(.SelectedItem(i), 0)
    Next
End With
```

The following VB sample unselects all items in the control:

```
With Gantt1
```

```
.BeginUpdate
```

```
With .Items
```

```
While Not .SelectCount = 0
```

```
    .SelectItem(.SelectedItem(0)) = False
```

```
Wend
```

```
End With
```

```
.EndUpdate
```

```
End With
```

The following VC sample displays the selected items:

```
#include "Items.h"
```

```
static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
```

```
{
```

```
    if ( pv )
```

```
{
```

```
    if ( pv->vt == VT_ERROR )
```

```
        return szDefault;
```

```
    COleVariant vt;
```

```
    vt.ChangeType( VT_BSTR, pv );
```

```
    return V_BSTR( &vt );
```

```
}
```

```
    return szDefault;
```

```
}
```

```
CItems items = m_gantt.GetItems();
```

```
for ( long i = 0; i < items.GetSelectCount(); i++ )
```

```
{
```

```
    COleVariant vtItem( items.GetSelectedItem( i ) );
```

```
    CString strOutput;
```

```
    strOutput.Format( "%s\n", V2S( &items.GetCellCaption( vtItem, COleVariant( (long)0 ) ) )
```

```
);
```

```
    OutputDebugString( strOutput );
```

```
}
```

The following C++ sample unselects all items in the control:

```
m_gantt.BeginUpdate();
CItems items = m_gantt.GetItems();
while ( items.GetSelectCount() )
    items.SetSelectedItem( items.GetSelectedItem( 0 ), FALSE );
m_gantt.EndUpdate();
```

The following VB.NET sample displays the selected items:

With AxGantt1.Items

```
Dim i As Integer
For i = 0 To .SelectCount - 1
    Debug.WriteLine(.CellCaption(.SelectedItem(i), 0))
Next
End With
```

The following VB.NET sample unselects all items in the control:

With AxGantt1

```
.BeginUpdate()
With .Items
    While Not .SelectCount = 0
        .SelectItem(.SelectedItem(0)) = False
    End While
End With
.EndUpdate()
End With
```

The following C# sample displays the selected items:

```
for ( int i = 0; i < axGantt1.Items.SelectCount - 1; i++ )
{
    object cell = axGantt1.Items.get_CellCaption( axGantt1.Items.get_SelectedItem( i ), 0 );
    System.Diagnostics.Debug.WriteLine( cell != null ? cell.ToString() : "" );
}
```

The following C# sample unselects all items in the control:

```
axGantt1.BeginUpdate();
EXGANTTLib.Items items = axGantt1.Items;
while (items.SelectCount != 0)
    items.set_SelectItem(items.get_SelectedItem(0), false);
axGantt1.EndUpdate();
```

The following VFP sample displays the selected items:

```
with thisform.Gantt1.Items
for i = 0 to .SelectCount - 1
    .DefaultItem = .SelectedItem( i )
    wait window nowait .CellCaption( 0, 0 )
next
endwith
```

The following VFP sample unselects all items in the control:

```
With thisform.Gantt1
.BeginUpdate()
with .Items
    do while ( .SelectCount() # 0 )
        .DefaultItem = .SelectedItem(0)
        .SelectedItem(0) = .f.
    enddo
endwith
.EndUpdate()
EndWith
```

## property Items.SelectItem(Item as HITEM) as Boolean

Selects or unselects a specific item.

Type	Description
Item as HITEM	A long expression that indicates the item's handle that is selected or unselected.
Boolean	A boolean expression that indicates the item's state. True if the item is selected, and False if the item is not selected.

Use the `SelectItem` to select or unselect a specified item (that's selectable). Use the [SelectableItem](#) property to specify the user can select an item. Use the [SelectCount](#) property to get the number of selected items. Use the [SelectedItem](#) property to get the selected item. Use the [FocusItem](#) property to get the focused item. If the control supports only single selection, you can use the `FocusItem` property to get the selected/focused item because they are always the same. The control fires the [SelectionChanged](#) event when user selects an item. Use the [SelForeColor](#) and [SelBackColor](#) properties to specify colors for selected items. Use the [SingleSel](#) property to allow multiple selection. Use the [SelectPos](#) property to select an item giving its position. Use the [EnsureVisibleItem](#) property to ensure that an item is visible.

The following VB sample shows how to select the first created item:

```
Gantt1.Items.SelectItem(Gantt1.Items(0)) = True
```

The following VB sample selects the first visible item:

```
With Gantt1.Items
```

```
    .SelectItem(.FirstVisibleItem) = True
```

```
End With
```

The following VB sample enumerates the selected items:

```
Dim i As Long
```

```
With Gantt1.Items
```

```
    For i = 0 To .SelectCount - 1
```

```
        Debug.Print .CellCaption(.SelectedItem(i), 0)
```

```
    Next
```

```
End With
```

The following C++ sample selects the first visible item:

```
#include "Items.h"
CItems items = m_gantt.GetItems();
items.SetSelectItem( items.GetFirstVisibleItem(), TRUE );
```

The following C++ sample unselects all items in the control:

```
m_gantt.BeginUpdate();
CItems items = m_gantt.GetItems();
while ( items.GetSelectCount() )
    items.SetSelectItem( items.GetSelectedItem( 0 ), FALSE );
m_gantt.EndUpdate();
```

The following VB.NET sample selects the first visible item:

```
With AxGantt1.Items
    .SelectItem(.FirstVisibleItem) = True
End With
```

The following VB.NET sample unselects all items in the control:

```
With AxGantt1
    .BeginUpdate()
    With .Items
        While Not .SelectCount = 0
            .SelectItem(.SelectedItem(0)) = False
        End While
    End With
    .EndUpdate()
End With
```

The following C# sample selects the first visible item:

```
axGantt1.Items.set_SelectItem(axGantt1.Items.FirstVisibleItem, true);
```

The following C# sample unselects all items in the control:

```
axGantt1.BeginUpdate();
EXGANTTLib.Items items = axGantt1.Items;
while (items.SelectCount != 0)
    items.set_SelectItem(items.get_SelectedItem(0), false);
```

```
axGantt1.EndUpdate();
```

The following VFP sample selects the first visible item:

```
with thisform.Gantt1.Items  
    .DefaultItem = .FirstVisibleItem  
    .SelectItem(0) = .t.  
endwith
```

The following VFP sample unselects all items in the control:

```
With thisform.Gantt1  
    .BeginUpdate()  
    with .Items  
        do while ( .SelectCount() # 0 )  
            .DefaultItem = .SelectedItem(0)  
            .SelectItem(0) = .f.  
        enddo  
    endwith  
    .EndUpdate()  
EndWith
```

## property Items.SelectPos as Variant

Selects items by position.

Type	Description
Variant	A long expression that indicates the position of item being selected, or a safe array that holds a collection of position of items being selected.

Use the SelectPos property to select items by position. Use the [SelectItem](#) property to select an item giving its handle. The SelectPos property selects an item giving its general position. The [ItemPosition](#) property gives the relative position, or the position of the item in the child items collection.

The following VB sample selects the first item in the control:

```
Gantt1.Items.SelectPos = 0
```

The following VB sample selects first two items:

```
Gantt1.Items.SelectPos = Array(0, 1)
```

The following C++ sample selects the first item in the control:

```
m_gantt.GetItems().SetSelectPos( COleVariant( long(0) ) );
```

The following VB.NET sample selects the first item in the control:

```
With AxGantt1.Items  
    .SelectPos = 0  
End With
```

The following C# sample selects the first item in the control:

```
axGantt1.Items.SelectPos = 0;
```

The following VFP sample selects the first item in the control:

```
with thisform.Gantt1.Items  
    .SelectPos = 0  
endwith
```



## method Items.SetParent (Item as HITEM, NewParent as HITEM)

Changes the parent of the given item.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item being moved.
NewParent as HITEM	A long expression that indicates the handle of the new parent item.

Use the SetParent property to change the parent item at runtime. Use the [InsertItem](#) property to insert child items. Use the [InsertControlItem](#) property to insert ActiveX controls. Use [AcceptSetParent](#) property to verify if the the parent of an item can be changed. The following VB sample changes the parent item of the first item: Gantt1.Items.SetParent Gantt1.Items(0), Gantt1.Items(1). Use the [ItemParent](#) property to retrieve the parent of the item.

## property Items.SortableItem(Item as HITEM) as Boolean

Specifies whether the item is sortable.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item being sortable.
Boolean	A boolean expression that specifies whether the item is sortable.

By default, all items are sortable. A sortable item can change its position after sorting. An unsortable item keeps its position after user performs a sort operation. Thought, the position of an unsortable item can be changed using the [ItemPosition](#) property. Use the SortableItem to specify a group item, a total item or a separator item. An unsortable item is not counted by a total field. The [SortType](#) property specifies the type of repositioning is being applied on the column when a sort operation is performed. The [SortOrder](#) property specifies whether the column is sorted ascendant or descendent. Use the [SortChildren](#) method to sort the items. Use the [AllowSort](#) property to avoid sorting a column when the user clicks the column. The [ItemDivider](#) property indicates whether the item displays a single cell, instead showing all cells. The [SelectableItem](#) property specifies whether an item can be selected.

The following screen shots shows the control when no column is sorted: ( Group 1 and Group 2 has the SortableItem property on False )

Name	A	B	C
Group 1			
Child 1	1	2	3
Child 2	4	5	6
Group 2			
Child 1	1	2	3
Child 2	4	5	6

The following screen shots shows the control when the column A is being sorted: ( Group 1 and Group 2 keeps their original position after sorting )

Name	A	B	C
Group 1			
Child 2	4	5	6
Child 1	1	2	3
Group 2			
Child 2	4	5	6
Child 1	1	2	3

## method Items.SortChildren (Item as HITEM, CollIndex as Variant, Ascending as Boolean)

Sorts the child items of the given parent item in the control.

Type	Description
Item as HITEM	A long expression that indicates the item's handle that is going to be sorted.
CollIndex as Variant	A long expression that indicates the column's index or the cell's handle, a string expression that indicates the column's caption.
Ascending as Boolean	A boolean expression that defines the sort order.

The SortChildren will not recurse through the tree, only the immediate children of item will be sorted. If your control acts like a simple list you can use the following line of code to sort ascending the list by first column: Gantt1.Items.SortChildren 0, 0. To change the way how a column is sorted use [SortType](#) property of Column object. The SortChildren property doesn't display the sort icon on column's header. The control automatically sorts the children items when user clicks on column's header, depending on the [SortOnClick](#) property. The [SortOrder](#) property sorts the items and displays the sorting icon in the column's header. Use the [AllowSort](#) property to avoid sorting a column when the user clicks the column.

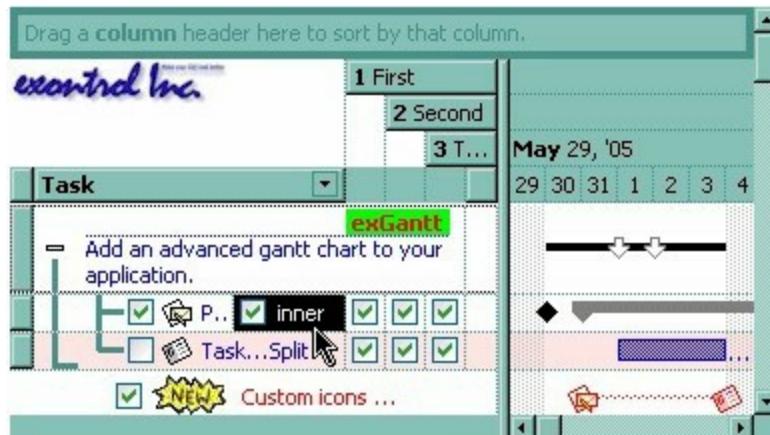
## property Items.SplitCell ([Item as Variant], [ColIndex as Variant]) as Variant

Splits a cell, and returns the inner created cell.

Type	Description
Item as Variant	A long expression that indicates the handle of the item where a cell is being divided, or 0. If the Item parameter is 0, the ColIndex parameter must indicate the handle of the cell.
ColIndex as Variant	A long expression that indicates the index of the column where a cell is divided, or a long expression that indicates the handle of the cell being divided, if the Item parameter is missing or it is zero.
Variant	A long expression that indicates the handle of the cell being created.

The SplitCell method splits a cell in two cells. The newly created cell is called inner cell. The SplitCell method always returns the handle of the inner cell. If the cell is already divided using the SplitCell method, it returns the handle of the inner cell without creating a new inner cell. You can split an inner cell too, and so you can have a master cell divided in multiple cells. Use the [CellWidth](#) property to specify the width of the inner cell. Use the [CellCaption](#) property to assign a caption to a cell. Use the [InnerCell](#) property to access an inner cell giving its index. Use the [CellParent](#) property to get the parent of the inner cell. Use the [CellItem](#) property to get the owner of the cell. Use the [UnsplitCell](#) method to remove the inner cell if it exists. Use the [MergeCells](#) property to combine two or more cells in a single cell. Use the [SelectableItem](#) property to specify the user can select an item. Include the exIncludeInnerCells flag in the [FilterList](#) property and so the drop down filter window lists the inner cells too.

( "Merge" means multiple cells in a single cell, "Split" means multiple cells **inside** a single cell )



The following VB sample splits a single cell in two cells ( Before running the following sample, please make sure that your control contains columns, and at least an item ):

With Gantt1.Items

```
Dim h As HITEM, f As HCELL  
h = .FirstVisibleItem  
f = .SplitCell(h, 0)  
.CellCaption(, f) = "inner cell"  
End With
```

The following C++ sample splits the first visible cell in two cells:

```
#include "Items.h"  
CItems items = m_gantt.GetItems();  
COleVariant vtMissing; V_VT( &vtMissing ) = VT_ERROR;  
COleVariant vtSplit = items.GetSplitCell( COleVariant( items.GetFirstVisibleItem() ),  
COleVariant( long(0) ) );  
items.SetCellCaption( vtMissing, vtSplit, COleVariant( "inner cell" ) );
```

The following VB.NET sample splits the first visible cell in two cells:

With AxGantt1.Items

```
Dim i As Object  
i = .SplitCell(.FirstVisibleItem, 0)  
.CellCaption(Nothing, i) = "inner cell"  
End With
```

The following C# sample splits the first visible cell in two cells:

```
EXGANTTLib.Items items = axGantt1.Items;  
object i = items.get_SplitCell(items.FirstVisibleItem, 0);  
items.set_CellCaption(null, i, "inner cell");
```

The following VFP sample splits the first visible cell in two cells:

with thisform.Gantt1.Items

```
local i  
i = .SplitCell(.FirstVisibleItem,0)  
local s, crlf  
crlf = chr(13) + chr(10)
```

```
s = "Items" + crlf
s = s + "{" + crlf
s = s + "CellCaption(" + str(i) + ") = " + chr(34) + "inner cell" + chr(34) + crlf
s = s + "}"
thisform.Gantt1.Template = s
endwith
```

## method Items.UnmergeCells ([Cell as Variant])

Unmerges a list of cells.

Type	Description
Cell as Variant	A long expression that indicates the handle of the cell being unmerged, or a safe array that holds a collection of handles for the cells being unmerged. Use the <a href="#">ItemCell</a> property to retrieves the handle of the cell.

Use the UnmergeCells method to unmerge merged cells. Use the [MergeCells](#) method or [CellMerge](#) property to combine ( merge ) two or more cells in a single one. The UnmergeCells method unmerges all the cells that was merged. The CellMerge property unmerges only a single cell. The rest of merged cells remains combined.

The following samples show few methods to unmerge cells:

```
With Gantt1
  With .Items
    .UnmergeCells .ItemCell(.RootItem(0), 0)
  End With
End With
```

```
With Gantt1
  With .Items
    Dim r As Long
    r = .RootItem(0)
    .UnmergeCells Array(.ItemCell(r, 0), .ItemCell(r, 1))
  End With
End With
```

```
With Gantt1
  .BeginUpdate
  With .Items
    .CellMerge(.RootItem(0), 0) = -1
    .CellMerge(.RootItem(0), 1) = -1
    .CellMerge(.RootItem(0), 2) = -1
  End With
  .EndUpdate
End With
```

## method Items.UnselectAll ()

Unselects all items.

Type	Description
Use the UnselectAll method to unselect all items in the list. The UnselectAll method has effect only if the <a href="#">SingleSel</a> property is False, if the control supports multiple items selection. Use the <a href="#">SelectAll</a> method to select all items in the list. Use the <a href="#">SelectedItem</a> property to select or unselect a specified item. Use the <a href="#">SelectedItem</a> property to retrieve a value that indicates whether the item is selected or unselected. Use the <a href="#">SelectCount</a> property to retrieve the number of selected items. The <a href="#">RemoveSelection</a> method removes the selected items (including the descendants)	

## method Items.UnsplitCell ([Item as Variant], [ColIndex as Variant])

Unsplits a cell.

Type	Description
Item as Variant	A long expression that indicates the handle of the item, or 0. If the Item parameter is 0, the ColIndex parameter must indicate the handle of the cell.
ColIndex as Variant	A long expression that indicates the index of the column where a cell is divided, or a long expression that indicates the handle of the cell being divided, if the Item parameter is missing or it is zero.

Use the UnsplitCells method to remove the inner cells. The [SplitCell](#) method splits a cell in two cells, and retrieves the newly created cell. The UnsplitCell method has no effect if the cell contains no inner cells. The UnsplitCells method remove recursively all inner cells. For instance, if a cell contains an inner cell, and this inner cell contains another inner cell, when calling the UnsplitCells method for the master cell, all inner cells inside of the cell will be deleted. Use the [CellParent](#) property to get the parent of the inner cell. Use the [CellItem](#) property to get the owner of the cell. Use the [InnerCell](#) property to access an inner cell giving its index. Use the [UnmergeCells](#) method to unmerge merged cells. ( "Merge" means multiple cells in a single cell, "Split" means multiple cells **inside** a single ).

## property Items.VisibleCount as Long

Retrieves the number of visible items.

Type	Description
Long	Counts the visible items.

Use [FirstVisibleItem](#) and [NextVisibleItem](#) properties to determine the items that fit the client area. Use the `IsItemVisible` property to check whether an item fits the control's client area. Use the [ItemCount](#) property to count the items in the control. Use the [ChildCount](#) property to count the child items.

## property Items.VisibleItemCount as Long

Retrieves the number of visible items.

Type	Description
Long	A long expression that specifies the number of visible items in the control. The value could be a positive value if no filter is applied, or negative while filter is on.

The VisibleItemCount property counts the number of visible items in the list. For instance, you can use the VisibleItemCount property to get the number the control displays once the user applies a filter.

The VisibleItemCount property returns a value as explained bellow:

- 0, the control displays/contains no items, and no filter is applied to any column
- -1, the control displays no items, and there is a filter applied ( no match found )
- positive number, indicates the number of visible items, and the control has no filter applied to any column
- negative number, the absolute value minus 1, indicates the number of visible items, and there is a filter applied ( match found )

The [VisibleCount](#) property retrieves the number of items being displayed in the control's client area. Use [FirstVisibleItem](#) and [NextVisibleItem](#) properties to determine the items being displayed in the control's client area. Use the [IsItemVisible](#) property to check whether an item fits the control's client area. Use the [ItemCount](#) property to count the items in the control. Use the [ChildCount](#) property to count the child items

## Level object

The Level object describes a level in the chart. Use the [Chart](#) object to access the control's Chart object. Use the [Bars](#) property to add new type of bars to the control. The Level property supports the following properties and methods:

Name	Description
<a href="#">Alignment</a>	Specifies the label's alignment.
<a href="#">BackColor</a>	Specifies the level's background color.
<a href="#">Count</a>	Counts the units in the level.
<a href="#">DrawGridLines</a>	Specifies whether the grid lines are shown or hidden for specified level.
<a href="#">DrawTickLines</a>	Specifies whether the tick lines are shown or hidden.
<a href="#">ForeColor</a>	Specifies the level's foreground color.
<a href="#">GridLineColor</a>	Specifies the grid line color for the specified level.
<a href="#">GridLineStyle</a>	Specifies the style for the chart's vertical gridlines.
<a href="#">Label</a>	Retrieves or sets a value that indicates the format of the level's label.
<a href="#">ReplaceLabel</a>	Specifies a HTML replacement for the given label.
<a href="#">ToolTip</a>	Specifies the format of the tooltip that's shown when the cursor hovers the level.
<a href="#">Unit</a>	Retrieves or sets a value that indicates the unit of the level.

## property Level.Alignment as AlignmentEnum

Specifies the label's alignment.

Type	Description
<a href="#">AlignmentEnum</a>	An AlignmentEnum expression that indicates how the level's label is aligned in the chart's header. The Alignment property can combine the LeftAlignment, CenterAlignment and RightAlignment with exHOutside which indicates that the label is always visible when user does scrolling the chart.

By default, the Alignment property is CenterAlignment. Use the Alignment property to align labels in the chart's header. If the Alignment property includes the exHOutside, the label is being visible while the time unit is visible. For instance, if the Alignment property is CenterAlignment + exHOutside (  $17 = 1 + 16$  ), the labels are always centered, and visible while the time-unit is visible, so the label is still visible while the time unit is partially visible, usually when the user does scroll left or right the chart. Use the [Label](#) property to specify the label of the level. Use the [ForeColor](#) and [BackColor](#) properties to change the level's appearance.

For instance the following screen shot shows the component if the Level.Alignment property is 1 ( CenterAlignment ):

'06	Sep 24, '06	Oct 1, '06
21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6 7		

while the next screen shot shows the component if the Level.Alignment property is 17 ( CenterAlignment + exHOutside ):

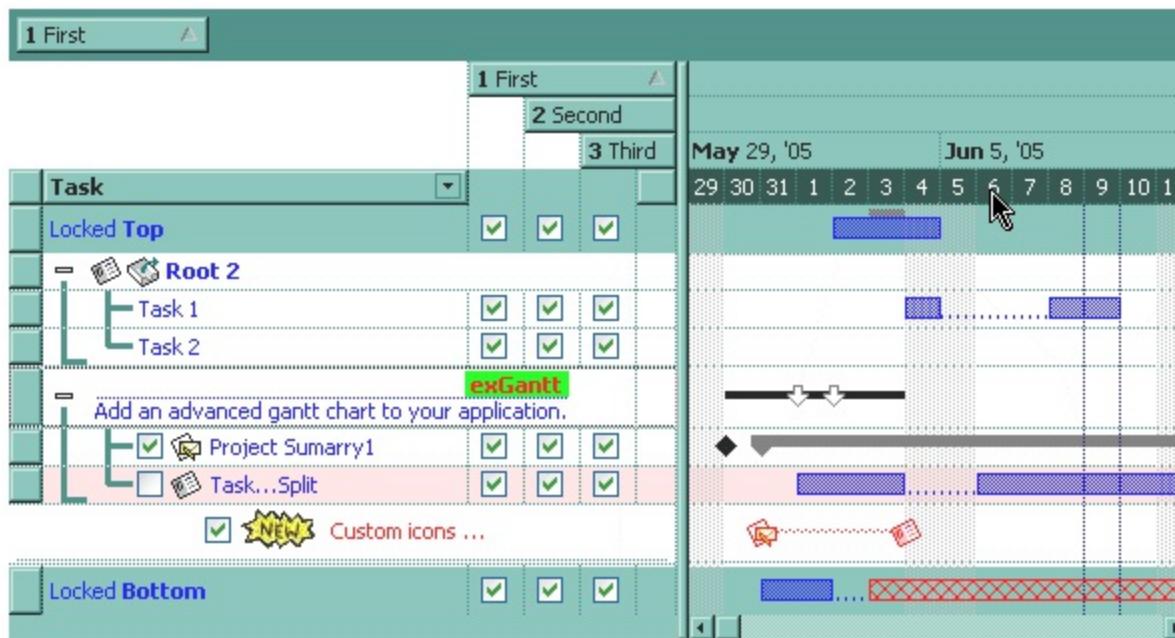
Sep 17, '06	Sep 24, '06	Oct 1, '06
21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6 7		

## property Level.BackColor as Color

Specifies the level's background color.

Type	Description
Color	A Color expression that indicates the level's background color. The last 7 bits in the high significant byte of the color to indicates the identifier of the skin being used. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the background's part.

Use the **BackColor** property to specify the background color for a specified level. Use the [ForeColor](#) property to specify the foreground color for a specified level. Use the [BackColorLevelHeader](#) property to specify the background color of the chart's header. Use the [ForeColorLevelHeader](#) property to specify the foreground color of the chart's header. Use the [BackColor](#) property to specify the chart's background color. Use the [ForeColor](#) property to specify the chart's foreground color. Use the [ItemBackColor](#) property to change the item's background color. Use the [NonworkingDaysColor](#) property the color of the brush to fill the nonworking days area.



The following VB sample changes the appearance for the last level:

With Gantt1.Chart

```
With .Level(.LevelCount - 1)
```

```
.BackColor = SystemColorConstants.vbDesktop
```

```
.ForeColor = RGB(255, 255, 255)
```

```
End With
```

```
End With
```

The following C++ sample changes the appearance for the last level:

```
CLevel level = m_gantt.GetChart().GetLevel(m_gantt.GetChart().GetLevelCount()-1);
level.SetBackColor( 0x80000000 | COLOR_DESKTOP );
level.SetForeColor( RGB(255,255,255) );
```

The following VB.NET sample changes the appearance for the last level:

```
With AxGantt1.Chart
```

```
    With .Level(.LevelCount - 1)
        .BackColor = ToUInt32(SystemColors.Desktop)
        .ForeColor = RGB(255, 255, 255)
```

```
    End With
```

```
End With
```

where the ToUInt32 function converts a Color expression to an OLE\_COLOR type:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32
```

```
    Dim i As Long
    i = c.R
    i = i + 256 * c.G
    i = i + 256 * 256 * c.B
    ToUInt32 = Convert.ToUInt32(i)
```

```
End Function
```

The following C# sample changes the appearance for the last level:

```
EXGANTTLib.Level level = axGantt1.Chart.get_Level(axGantt1.Chart.LevelCount - 1);
level.BackColor = ToUInt32(SystemColors.Desktop);
level.ForeColor = ToUInt32(Color.FromArgb(255,255,255));
```

where the ToUInt32 function converts a Color expression to an OLE\_COLOR type:

```
private UInt32 ToUInt32(Color c)
{
    long i;
    i = c.R;
```

```
i = i + 256 * c.G;  
i = i + 256 * 256 * c.B;  
return Convert.ToInt32(i);  
}
```

The following VFP sample changes the appearance for the last level:

With thisform.Gantt1.Chart

```
With .Level(.LevelCount - 1)  
.BackColor = 0x80000001  
.ForeColor = RGB(255, 255, 255)  
EndWith  
EndWith
```

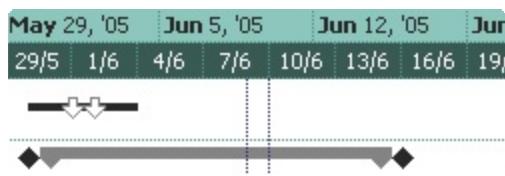
## property Level.Count as Long

Counts the units in the level.

Type	Description
Long	A Long expression that indicates the number of units being displayed in the same place in the level.

By default, the Count property is 1. The Count property specifies the number of units being displayed in the level. The [Unit](#) property specifies the unit being used to display labels in the level. Use the [Label](#) property to assign a caption for the level. Use the [NextDate](#) property to get the next date. Use the [Zoom](#) method to zoom the chart to a specified interval of dates. Use the [FormatDate](#) property to format a date to a specified format.

The following screen shot shows a header that displays the dates from 3 by 3 days :



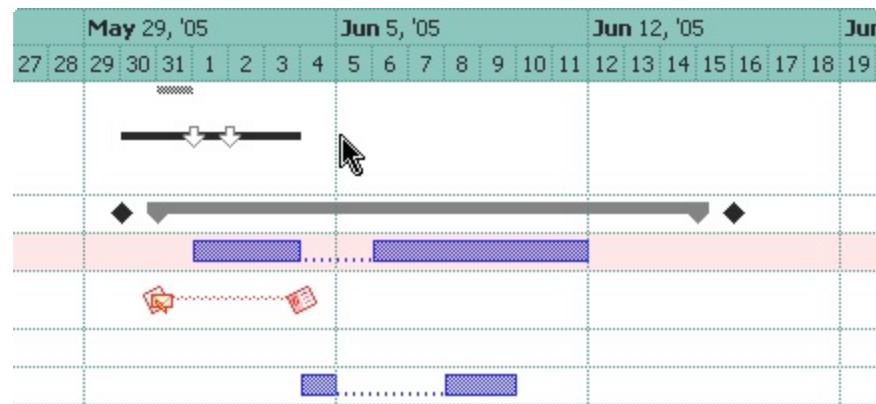
## property Level.DrawGridLines as Boolean

Specifies whether the grid lines are shown or hidden for specified level.

Type	Description
Boolean	A Boolean expression that indicates whether the vertical grid lines between time units in the level are visible or hidden.

By default, the DrawGridLines property is False. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the chart's area. The [GridLineStyle](#) property to specify the style for horizontal or/and vertical gridlines in the level view. Use the [GridLineColor](#) property to specify the color for the vertical grid lines between time units.

The DrawGridLines property draws the vertical grid lines only if the [DrawGridLines](#) property of the Chart object is exVLines, exRowLines or exAllLines. If the [DrawGridLines](#) property is exNoLines, exHLines, the DrawGridLines property has no effect. Use the [MarkTodayColor](#) property to specify the color to mark the today date. Use the [NonworkingDays](#) property to specify the nonworking days. Use the [NonworkingDaysPattern](#) property to specify the brush to fill the nonworking days area. Use the [DrawTickLines](#) property to specify whether the grid lines between time units in the level are visible or hidden.

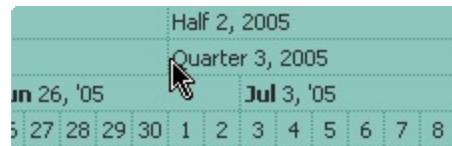


## property Level.DrawTickLines as Boolean

Specifies whether the tick lines are shown or hidden.

Type	Description
Boolean	A Boolean expression that indicates whether the vertical tick lines between time units in the level are visible or hidden.

By default, the DrawTickLines property is True. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the chart's area. Use the [GridLineColor](#) property to specify the color for grid lines. Use the [DrawGridLines](#) property to draw grid lines for a specified level. Use the [DrawLevelSeperator](#) property to draw lines between levels inside the chart's header. Use the [MarkTodayColor](#) property to specify the color to mark the today date.

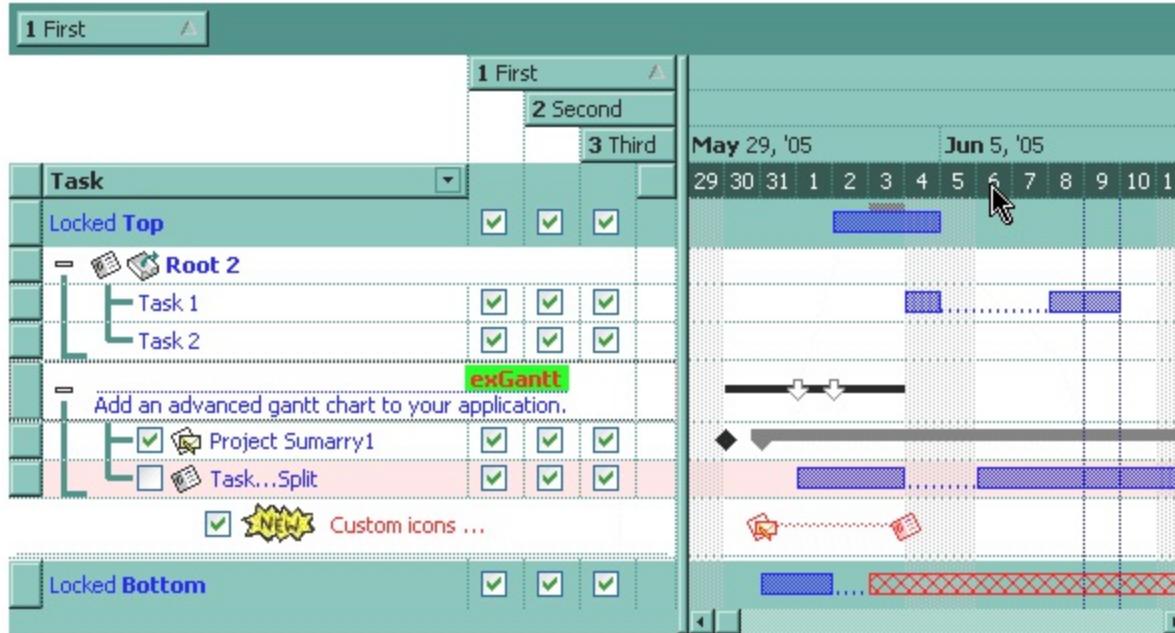


## property Level.ForeColor as Color

Specifies the level's foreground color.

Type	Description
Color	A Color expression that indicates the level's foreground color.

Use the ForeColor property to specify the foreground color for a specified level. Use the [BackColor](#) property to specify the background color for a specified level. Use the [BackColorLevelHeader](#) property to specify the background color of the chart's header. Use the [ForeColorLevelHeader](#) property to specify the foreground color of the chart's header. Use the [BackColor](#) property to specify the chart's background color. Use the [ForeColor](#) property to specify the chart's foreground color. Use the [ItemBackColor](#) property to change the item's background color. Use the [NonworkingDaysColor](#) property the color of the brush to fill the nonworking days area.



The following VB sample changes the appearance for the last level:

With Gantt1.Chart

```
With .Level(.LevelCount - 1)
    .BackColor = SystemColorConstants.vbDesktop
    .ForeColor = RGB(255, 255, 255)
```

End With

End With

The following C++ sample changes the appearance for the last level:

```
CLevel level = m_gantt.GetChart().GetLevel(m_gantt.GetChart().GetLevelCount()-1);
level.SetBackColor( 0x80000000 | COLOR_DESKTOP );
level.SetForeColor( RGB(255,255,255) );
```

The following VB.NET sample changes the appearance for the last level:

With AxGantt1.Chart

```
With .Level(.LevelCount - 1)
    .BackColor = ToUInt32(SystemColors.Desktop)
    .ForeColor = RGB(255, 255, 255)
End With
End With
```

where the ToUInt32 function converts a Color expression to an OLE\_COLOR type:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32
    Dim i As Long
    i = c.R
    i = i + 256 * c.G
    i = i + 256 * 256 * c.B
    ToUInt32 = Convert.ToUInt32(i)
End Function
```

The following C# sample changes the appearance for the last level:

```
EXGANTTLib.Level level = axGantt1.Chart.get_Level(axGantt1.Chart.LevelCount - 1);
level.BackColor = ToUInt32(SystemColors.Desktop);
level.ForeColor = ToUInt32(Color.FromArgb(255,255,255));
```

where the ToUInt32 function converts a Color expression to an OLE\_COLOR type:

```
private UInt32 ToUInt32(Color c)
{
    long i;
    i = c.R;
    i = i + 256 * c.G;
    i = i + 256 * 256 * c.B;
    return Convert.ToInt32(i);
}
```

The following VFP sample changes the appearance for the last level:

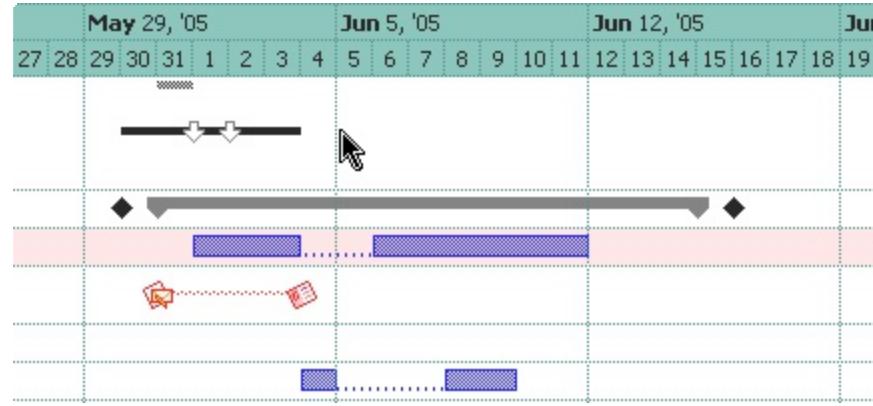
```
With thisform.Gantt1.Chart  
  With .Level(.LevelCount - 1)  
    .BackColor = 0x80000001  
    .ForeColor = RGB(255, 255, 255)  
  EndWith  
EndWith
```

## property Level.GridLineColor as Color

Specifies the grid line color for the specified level.

Type	Description
Color	A Color expression that indicates the color of the vertical grid lines in the chart area.

Use the GridLineColor property to specify the color for the vertical grid lines between time units. Use the [DrawGridLines](#) property to specify whether the control draws the grid lines in the chart's area. The DrawGridLines property draws the vertical grid lines only if the [DrawGridLines](#) property of the Chart object is exVLines, exRowLines or exAllLines. If the [DrawGridLines](#) property is exNoLines, exHLines, the DrawGridLines property has no effect. Use the [MarkTodayColor](#) property to specify the color to mark the today date.



## property Level.GridLineStyle as GridLinesStyleEnum

Specifies the style for the chart's vertical gridlines.

Type	Description
<a href="#">GridLinesStyleEnum</a>	A GridLinesStyleEnum expression that specifies the style to show the chart's vertical gridlines.

By default, the GridLineStyle property is exGridLinesDot. The GridLineStyle property has effect only if the chart's [DrawGridLines](#) property is not zero and one of the level's [DrawGridLines](#) property is True. Use the [GridLineColor](#) property to specify the color for vertical grid lines. Use the [DrawTickLines](#) property to specify whether the grid lines between time units in the level are visible or hidden.

## property Level.Label as Variant

Retrieves or sets a value that indicates the format of the level's label.

Type	Description
Variant	A String expression that indicates the format of the level's label, an <a href="#">UnitEnum</a> expression that indicates the predefined format being used. The <a href="#">Label</a> property defines predefined formats for labales.

The Label property defines the HTML labels being displayed on the chart's header. Use the [Alignment](#) property to specify the label's alignment. Use the [ToolTip](#) property to specify the tooltip being displayed when the cursor hovers the level. Use the [BackColor](#) and [ForeColor](#) properties to change the level's appearance. The [WeekDays](#) property retrieves or sets a value that indicates the list of names for each week day, separated by space. Use the [MonthNames](#) property to specify the name of the months in the year. The [FormatDate](#) property formats a date. Use the [ReplaceLabel](#) property to add icons/pictures/images or change the captions of the levels. Valid date values range from January 1, 100 A.D. (-647434) to December 31, 9999 A.D. (2958465). A date value of 0 represents December 30, 1899.

The Label property supports alternative HTML labels being separated by "<|>" and values for Count and Unit being separated by "<||>". By alternate HTML label we mean that you can define a list of HTML labels that may be displayed in the chart's header based on the space allocated for the time-unit. In other words, the control chooses automatically the alternate HTML label to be displayed for best fitting in the portion of the chart where the time-unit should be shown.

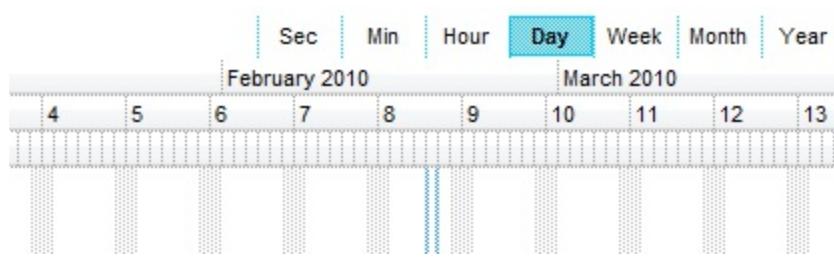
The Label property format is "**ALT1[<|>ALT2<|>...[<||>COUNT[<||>UNIT]]]**" where

- ALT defines a HTML label
- COUNT specifies the value for the Count property
- UNIT field indicates the value for the Unit property
- and the parts delimited by [] brackets may miss.

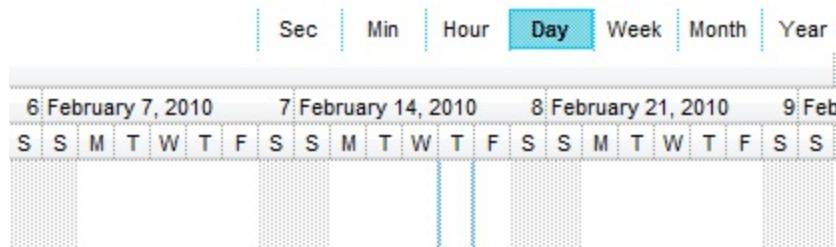
**The Label property may change the [Unit](#) and the [Count](#) property.** You can always use a different Unit or Count by setting the property after setting the Label property.

The following screen shots shows the chart's header using different values for UnitWidth property.

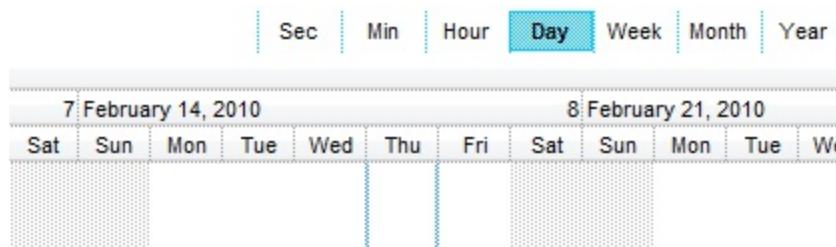
- The UnitWidth property is 6 pixels, so the base level displays nothing.



- The UnitWidth property is 18 pixels, so the base level displays the first letter of the weekday ( S - S )



- The UnitWidth property is 36 pixels, so the base level displays the first 3 letters of the weekday ( Sun - Sat )



For instance, Label = "<|><%d1%><|><%d2%><|><%d3%><|><%dddd%><|><%d3%>, <%m3%> <%d%>, '<%yy%><|><%dddd%>, <%mmmm%> <%d%>, <%yyyy%> <||>1<||>4096" indicates a list of 7 alternate HTML labels, the Count property set on 1 and the Unit property set on exDay (4096).

So, the header of the level in the chart shows one of the following alternate HTML labels:

- displays nothing, if the space is less than 6 pixels.
- <%d1%> - First letter of the weekday (S to S)
- <%d2%> - First two letters of the weekday (Su to Sa)
- <%d3%> - First three letters of the weekday (Sun to Sat)
- <%dddd%> - Full name of the weekday (Sunday to Saturday)
- <%d3%>, <%m3%> <%d%>, '<%yy%> -
- <%dddd%>, <%mmmm%> <%d%>, <%yyyy%>

based on the space being allocated for the time unit. If the label is being shown on the base level, the [UnitWidth](#) property defines the space for the time-unit, so the control chooses the alternate HTML label which best fits the allocated space ( width ). The [Font](#) property defines the font to show the chart's labels which is also used to get the best fit label to be displayed. For any other level, the space is automatically calculated based on the base

level's width. In other words, when UnitWidth property is changed or the user rescale or zoom the chart area, the chart's header displays alternate labels. If the Label property defines no alternate labels, the single representation is shown no matter of the UnitWidth, Font and other zooming settings.

The Label property may change the Unit property as in the following scenario. Let's say that you need to display the weeks so you choose to have the week number "<%ww%>" or the first day in the week in format "<%d3%>, <%m3%> <%d%>, '<%yy%>" so the Label property should be "<%ww%><|><%d3%>, <%m3%> <%d%>, '<%yy%>". If you are using this format, the Unit property will always be set on exDay, as in the second alternate label the unit is day as the minimum scale unit being found is <%d3%> or <%d%> which indicates days. In order to correct this, you should specify the Unit to be used for the alternate labels as "<%ww%><|><%d3%>, <%m3%> <%d%>, '<%yy%><||><||>256".

For instance, if a level should display 15 to 15 minutes, you can do one of the following:

- call the Label = "<%nn%>" and after call the Count = 15.
- call the Label = "<%nn%><||>15", which means that the level displays minutes, and the Count property is automatically set on 15.

Any of these statements can be used to let the level displays minutes from 15 to 15.

The Label property supports the following built-in tags:

- <%d%> - Day of the month in one or two numeric digits, as needed (1 to 31).
- <%dd%> - Day of the month in two numeric digits (01 to 31).
- <%d1%> - First letter of the weekday (S to S). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%d2%> - First two letters of the weekday (Su to Sa). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%d3%> - First three letters of the weekday (Sun to Sat). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%ddd%> - First three letters of the weekday (Sun to Sat). ( Use the [WeekDays](#) property to specify the name of the days in the week ). You can use the <%loc\_ddd%> that indicates the day of week as a three-letter abbreviation using the current user regional and language settings.
- <%loc\_ddd%> - Indicates the day of week as a three-letter abbreviation using the current user regional and language settings.
- <%dddd%> - Full name of the weekday (Sunday to Saturday). ( Use the [WeekDays](#) property to specify the name of the days in the week ). You can use the <%loc\_dddd%> that indicates day of week as its full name using the current user regional and language settings.
- <%loc\_dddd%> - Indicates day of week as its full name using the current user

regional and language settings.

- <%i%> - Displays the number instead the date. For instance, you can display numbers as 1000, 1001, 1002, 1003, instead dates. ( the valid range is from -647,434 to 2,958,465 )
- <%w%> - Day of the week (1 to 7).
- <%ww%> - Week of the year (1 to 53).
- <%m%> - Month of the year in one or two numeric digits, as needed (1 to 12).
- <%mr%> - Month of the year in Roman numerals, as needed (I to XII).
- <%mm%> - Month of the year in two numeric digits (01 to 12).
- <%m1%> - First letter of the month (J to D). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%m2%> - First two letters of the month (Ja to De). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%m3%> - First three letters of the month (Jan to Dec). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%mmm%> - First three letters of the month (Jan to Dec). ( Use the [MonthNames](#) property to specify the name of the months in the year ). You can use the <%loc\_mmm%> that indicates month as a three-letter abbreviation using the current user regional and language settings.
- <%loc\_mmm%> - Indicates month as a three-letter abbreviation using the current user regional and language settings.
- <%mmmm%> - Full name of the month (January to December). ( Use the [MonthNames](#) property to specify the name of the months in the year ). You can use the <%loc\_mmmm%> that indicates month as its full name using the current user regional and language settings.
- <%loc\_mmmm%> - Indicates month as its full name using the current user regional and language settings.
- <%q%> - Date displayed as the quarter of the year (1 to 4).
- <%y%> - Number of the day of the year (1 to 366).
- <%yy%> - Last two digits of the year (01 to 99).
- <%yyyy%> - Full year (0100 to 9999).
- <%hy%> - Date displayed as the half of the year (1 to 2).
- <%loc\_gg%> - Indicates period/era using the current user regional and language settings.
- <%loc\_sdate%> - Indicates the date in the short format using the current user regional and language settings.
- <%loc\_ldate%> - Indicates the date in the long format using the current user regional and language settings.
- <%loc\_dsep%> - Indicates the date separator using the current user regional and language settings (/).
- <%h%> - Hour in one or two digits, as needed (0 to 23).
- <%hh%> - Hour in two digits (00 to 23).

- <%n%> - Minute in one or two digits, as needed (0 to 59).
- <%nn%> - Minute in two digits (00 to 59).
- <%s%> - Second in one or two digits, as needed (0 to 59).
- <%ss%> - Second in two digits (00 to 59).
- <%AM/PM%> - Twelve-hour clock with the uppercase letters "AM" or "PM", as appropriate. ( Use the [AMPM](#) property to specify the name of the AM and PM indicators ). You can use the <%loc\_AM/PM%> that indicates the time marker such as AM or PM using the current user regional and language settings. You can use <%loc\_A/P%> that indicates the one character time marker such as A or P using the current user regional and language settings
- <%loc\_AM/PM%> - Indicates the time marker such as AM or PM using the current user regional and language settings.
- <%loc\_A/P%> - Indicates the one character time marker such as A or P using the current user regional and language settings.
- <%loc\_time%> - Indicates the time using the current user regional and language settings.
- <%loc\_time24%> - Indicates the time in 24 hours format without a time marker using the current user regional and language settings.
- <%loc\_tsep%> - indicates the time separator using the current user regional and language settings (:).

The following tags are displayed based on the user's Regional and Language Options:

- <%loc\_sdate%> - Indicates the date in the short format using the current user settings.
- <%loc\_ldate%> - Indicates the date in the long format using the current user settings.
- <%loc\_ddd%> - Indicates day of week as a three-letter abbreviation using the current user settings.
- <%loc\_dddd%> - Indicates day of week as its full name using the current user settings.
- <%loc\_mmm%> - Indicates month as a three-letter abbreviation using the current user settings.
- <%loc\_mmmm%> - Indicates month as its full name using the current user settings.
- <%loc\_gg%> - Indicates period/era using the current user settings.
- <%loc\_dsep%> - Indicates the date separator using the current user settings.
- <%loc\_time%> - Indicates the time using the current user settings.
- <%loc\_time24%> - Indicates the time in 24 hours format without a time marker using the current user settings.
- <%loc\_AM/PM%> - Indicates the time marker such as AM or PM using the current user settings.
- <%loc\_A/P%> - Indicates the one character time marker such as A or P using the current user settings.

- <%loc\_tsep%> - Indicates the time separator using the current user settings.
- <%loc\_y%> - Represents the Year only by the last digit, using current regional settings.
- <%loc\_yy%> - Represents the Year only by the last two digits, using current regional settings. A leading zero is added for single-digit years.
- <%loc\_yyyy%> - Represents the Year by a full four or five digits, depending on the calendar used. Thai Buddhist and Korean calendars have five-digit years. The "yyyy" pattern shows five digits for these two calendars, and four digits for all other supported calendars. Calendars that have single-digit or two-digit years, such as for the Japanese Emperor era, are represented differently. A single-digit year is represented with a leading zero, for example, "03". A two-digit year is represented with two digits, for example, "13". No additional leading zeros are displayed.

The Label property supports the following built-in HTML tags:

- <b> ... </b> displays the text in **bold**
- <i> ... </i> displays the text in *italics*
- <u> ... </u> underlines the text
- <s> ... </s> Strike-through text
- <a id;options> ... </a> displays an [anchor](#) element that can be clicked. An anchor is a piece of text or some other object (for example an image) which marks the beginning and/or the end of a hypertext link. The <a> element is used to mark that piece of text (or inline image), and to give its hypertextual relationship to other documents. The control fires the *AnchorClick(AnchorID, Options)* event when the user clicks the anchor element. The *FormatAnchor* property customizes the visual effect for anchor elements.

The control supports expandable HTML captions feature which allows you to expand(show)/collapse(hide) different information using <a ;exp=> or <a ;e64=> anchor tags. The exp/e64 field of the anchor stores the HTML line/lines to show once the user clicks/collapses/expands the caption.

- exp, stores the plain text to be shown once the user clicks the anchor, such as "<a ;exp=show lines>"
- e64, encodes in BASE64 the HTML text to be shown once the user clicks the anchor, such as "<a ;e64=gA8ABmABnABjABvABshIAOQAEAAHAAGESikWio+ABzABohp3iELABpABu</a>" that displays show lines- in gray when the user clicks the + anchor. The "gA8ABmABnABjABvABshIAOQAEAAHAAGESikWio+ABzABohp3iELABpABuABljY string encodes the "<fgcolor 808080>show lines<a>-</a></fgcolor>" The Decode64Text/Encode64Text methods of the eXPrint can be used to decode/encode e64 fields.

Any ex-HTML caption can be transformed to an expandable-caption, by inserting the

anchor ex-HTML tag. For instance, "<solidline><b>Header</b></solidline><br>Line1<r><a ;exp=show lines>+</a><br>Line2<br>Line3" shows the Header in underlined and bold on the first line and Line1, Line2, Line3 on the rest. The "show lines" is shown instead of Line1, Line2, Line3 once the user clicks the + sign.

- **<font face;size> ... </font>** displays portions of text with a different font and/or different size. For instance, the "<font Tahoma;12>bit</font>" draws the bit text using the Tahoma font, on size 12 pt. If the name of the font is missing, and instead size is present, the current font is used with a different size. For instance, "<font ;12>bit</font>" displays the bit text using the current font, but with a different size.
- **<fgcolor rrggbb> ... </fgcolor>** or **<fgcolor=rrggbb> ... </fgcolor>** displays text with a specified **foreground** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<bgcolor rrggbb> ... </bgcolor>** or **<bgcolor=rrggbb> ... </bgcolor>** displays text with a specified **background** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<solidline rrggbb> ... </solidline>** or **<solidline=rrggbb> ... </solidline>** draws a solid-line on the bottom side of the current text-line, of specified RGB color. The <solidline> ... </solidline> draws a black solid-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<dotline rrggbb> ... </dotline>** or **<dotline=rrggbb> ... </dotline>** draws a dot-line on the bottom side of the current text-line, of specified RGB color. The <dotline> ... </dotline> draws a black dot-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<upline> ... </upline>** draws the line on the top side of the current text-line (requires <solidline> or <dotline>).
- **<r>** right aligns the text
- **<c>** centers the text
- **<br>** forces a line-break
- **<img>number[:width]</img>** inserts an icon inside the text. The number indicates the index of the icon being inserted. Use the **Images** method to assign a list of icons to your chart. The last 7 bits in the high significant byte of the number expression indicates the identifier of the skin being used to paint the object. Use the [Add](#) method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part. The width is optional and indicates the width of the icon being inserted. Using the width option you can overwrite multiple icons getting a nice effect. By default, if the width field is missing, the width is 18 pixels.
- **<img>key[:width]</img>** inserts a custom size picture into the text being previously loaded using the **HTMLPicture** property. The Key parameter indicates the key of the picture being displayed. The Width parameter indicates a custom size, if you require to stretch the picture, else the original size of the picture is used.
- & glyph characters as **&amp;**; (**&**), **&lt;**; (**<**), **&gt;**; (**>**), **&qout;** (**"**) and **&#number;**

( the character with specified code ), For instance, the &#8364; displays the EUR character. The & ampersand is only recognized as markup when it is followed by a known letter or a #character and a digit. For instance if you want to display <b>bold</b> in HTML caption you can use &lt;b&gt;bold&lt;/b&gt;

- **<off offset> ... </off>** defines the vertical offset to display the text/element. The offset parameter defines the offset to display the element. This tag is inheritable, so the offset is keep while the associated </off> tag is found. You can use the <off offset> HTML tag in combination with the <font face;size> to define a smaller or a larger font to be displayed. For instance: "Text with <font ;7><off 6>subscript" displays the text such as: Text with subscript The "Text with <font ;7><off -6>superscript" displays the text such as: Text with subscript
- **<gra rrggbb;mode;blend> ... </gra>** defines a gradient text. The text color or <fgcolor> defines the starting gradient color, while the rr/gg/bb represents the red/green/blue values of the ending color, 808080 if missing as gray. The mode is a value between 0 and 4, 1 if missing, and blend could be 0 or 1, 0 if missing. The <font> HTML tag can be used to define the height of the font. Any of the rrggbb, mode or blend field may not be specified. The <gra> with no fields, shows a vertical gradient color from the current text color to gray (808080). For instance the "<font ;18><gra FFFFFF;1;1>gradient-center</gra></font>" generates the following picture:



gradient-center

- **<out rrggbb;width> ... </out>** shows the text with outlined characters, where rr/gg/bb represents the red/green/blue values of the outline color, 808080 if missing as gray, width indicates the size of the outline, 1 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><out 000000><fgcolor=FFFFFF>outlined</fgcolor></out></font>" generates the following picture:



outlined

- **<sha rrggbb;width;offset> ... </sha>** define a text with a shadow, where rr/gg/bb represents the red/green/blue values of the shadow color, 808080 if missing as gray, width indicates the size of shadow, 4 if missing, and offset indicates the offset from the origin to display the text's shadow, 2 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><sha>shadow</sha></font>" generates the following picture:



shadow

or "<font ;31><sha 404040;5;0><fgcolor=FFFFFF>outline anti-aliasing</fgcolor></sha></font>" gets:

# outline anti-aliasing

The Label property may be a combination of any of these tags. For instance, the "<b><%mmm%></b> <%d%>, '<%yy%>" displays a date like: "May 29,'05".



The first level displays the month, the year and the number of the week in the year , the second level displays the name of the week day, and the third level displays the day of the month. The LevelCount property specifies the number of levels being displayed, in our case 3.

The following Template shows how to display your header using three levels as arranged in the picture above ( just copy and paste the following script to Template page ):

```
BeginUpdate()
Chart
{
    LevelCount = 3
    Level(0)
    {
        Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%>"
        Unit = 256 'exWeek
    }
    Level(1).Label = "<%d1%>"
    Level(2).Label = "<%d%>"
}
EndUpdate()
```

The following VB sample displays your header using 3 levels as shown above:

```
With Gantt1
    .BeginUpdate
    With .Chart
        .LevelCount = 3
        With .Level(0)
            .Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%>"
            .Unit = EXGANTTLibCtl.UnitEnum.exWeek
        End With
    End With
    .EndUpdate
End With
```

```
End With
.Level(1).Label = "<%d1%>"
.Level(2).Label = "<%d%>"
End With
.EndUpdate
End With
```

The following VFP sample displays your header using 3 levels:

```
with thisform.gantt1
.BeginUpdate()
with .Chart
    .LevelCount = 3
    with .Level(0)
        .Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%>""
        .Unit = 256
    endwith
    .Level(1).Label = "<%d1%>"
    .Level(2).Label = "<%d%>"
endwith
.EndUpdate()
endwith
```

The following VB.NET sample displays your header using 3 levels:

```
With AxGantt1
.BeginUpdate()
With .Chart
    .LevelCount = 3
    With .Level(0)
        .Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%>""
        .Unit = EXGANTTLib.UnitEnum.exWeek
    End With
    .Level(1).Label = "<%d1%>"
    .Level(2).Label = "<%d%>"
End With
.EndUpdate()
End With
```

The following C# sample displays your header using 3 levels:

```
axGantt1.BeginUpdate();
EXGANTTLib.Chart chart = axGantt1.Chart;
chart.LevelCount = 3;
chart.get_Level(0).Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%>";
chart.get_Level(0).Unit = EXGANTTLib.UnitEnum.exWeek;
chart.get_Level(1).Label = "<%d1%>";
chart.get_Level(2).Label = "<%d%>";
axGantt1.EndUpdate();
```

The following C++ sample displays your header using 3 levels:

```
m_gantt.BeginUpdate();
CChart chart = m_gantt.GetChart();
chart.SetLevelCount( 3 );
chart.GetLevel(0).SetLabel(COleVariant( "<b><%mmm%>, <%yyyy%></b> <r>Week:<%ww%>" ));
chart.GetLevel(0).SetUnit(256);
chart.GetLevel(1).SetLabel(COleVariant( "<%d1%>" ));
chart.GetLevel(2).SetLabel(COleVariant( "<%d%>" ));
m_gantt.EndUpdate();
```

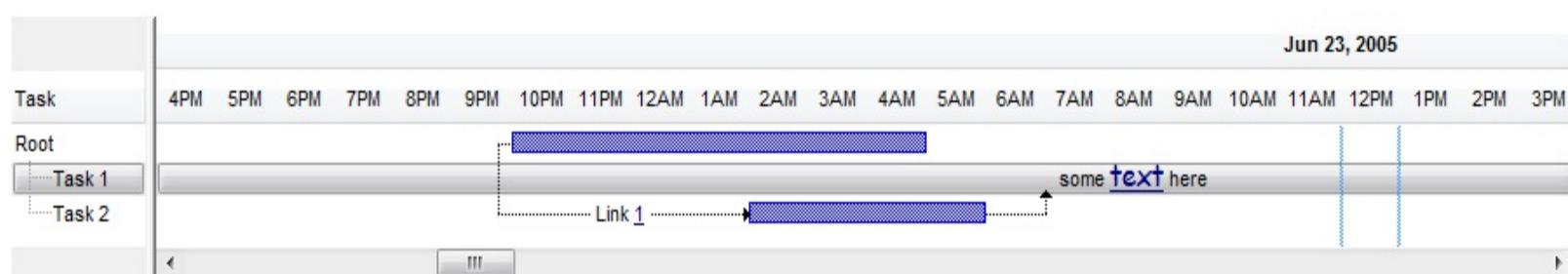
**property Level.ReplaceLabel(Label as String) as String**

Specifies a HTML replacement for the given label.

Type	Description
Label as String	A String expression that specifies the caption being replaced. If empty, the set method removes all replacements in the level.
String	A String expression that specifies the new caption, that can use built-n HTML tags as explained bellow.

By default, the `Label` property specifies the caption being displayed in the chart's header. Use the `ReplaceLabel` property to customize your chart's header. The `ReplaceLabel` property may be used to add icons or pictures ( `<img>` ), or change the captions of the levels in the chart's header. The `ReplaceLabel` property is a get/set property. When get property is called, the `ReplaceLabel(Label)` property returns the replacement HTML string for specified label. If the set property is called, the specified label is replaced with the newly value, so the newly value is displayed instead. You can remove all replacement by calling the set `ReplaceLabel` property with `Label` parameter as empty string. The `Label` parameter never includes the HTML built tags. For instance, if your `Label` property is "`<%h%><%AM/PM%>`", then the `Label` parameter should be: 12AM,1AM,2AM, and so on, as they are displayed on the chart's header.

The following screen shot shows the chart's header when no replacements are performed:



The following screen shot shows the chart's header when the hours were replaced with icons:



The following screen shot shows the chart's header when the hours were replaced with icons, excepts the 12:00 PM were replaced by Noon caption:



The ReplaceLabel property supports the following built-in HTML elements:

- **<b> ... </b>** displays the text in **bold**
- **<i> ... </i>** displays the text in *italics*
- **<u> ... </u>** underlines the text
- **<s> ... </s>** Strike-through text
- **<a id=options> ... </a>** displays an [anchor](#) element that can be clicked. An anchor is a piece of text or some other object (for example an image) which marks the beginning and/or the end of a hypertext link. The [element](#) is used to mark that piece of text (or inline image), and to give its hypertextual relationship to other documents. The control fires the *AnchorClick(AnchorID, Options)* event when the user clicks the anchor element. The *FormatAnchor* property customizes the visual effect for anchor elements.

The control supports expandable HTML captions feature which allows you to expand(show)/collapse(hide) different information using [;exp=>](#) or [;e64=>](#) anchor tags. The exp/e64 field of the anchor stores the HTML line/lines to show once the user clicks/collapses/expands the caption.

- exp, stores the plain text to be shown once the user clicks the anchor, such as "[;exp=show lines](#)"
- e64, encodes in BASE64 the HTML text to be shown once the user clicks the anchor, such as "[;e64=gA8ABmABnABjABvABshIAOQAEAAHAAGESikWio+ABzABohp3iELABpABu</a>" that displays show lines- in gray when the user clicks the + anchor. The "gA8ABmABnABjABvABshIAOQAEAAHAAGESikWio+ABzABohp3iELABpABuABljY string encodes the "<fgcolor 808080>show lines<a>-</a></fgcolor>" The Decode64Text/Encode64Text methods of the eXPrint can be used to decode/encode e64 fields.](#)

Any ex-HTML caption can be transformed to an expandable-caption, by inserting the anchor ex-HTML tag. For instance, "<solidline><b>Header</b></solidline> <br>Line1<r><a ;exp=show lines>+</a><br>Line2<br>Line3" shows the Header in underlined and bold on the first line and Line1, Line2, Line3 on the rest. The "show lines" is shown instead of Line1, Line2, Line3 once the user clicks the + sign.

- **<font face;size> ... </font>** displays portions of text with a different font and/or different size. For instance, the "<font Tahoma;12>bit</font>" draws the bit text using

the Tahoma font, on size 12 pt. If the name of the font is missing, and instead size is present, the current font is used with a different size. For instance, "<font ;12>bit</font>" displays the bit text using the current font, but with a different size.

- <**fgcolor rrggbb**> ... </**fgcolor**> or <**fgcolor=rrggbb**> ... </**fgcolor**> displays text with a specified **foreground** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- <**bgcolor rrggbb**> ... </**bgcolor**> or <**bgcolor=rrggbb**> ... </**bgcolor**> displays text with a specified **background** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- <**solidline rrggbb**> ... </**solidline**> or <**solidline=rrggbb**> ... </**solidline**> draws a solid-line on the bottom side of the current text-line, of specified RGB color. The <**solidline**> ... </**solidline**> draws a black solid-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- <**dotline rrggbb**> ... </**dotline**> or <**dotline=rrggbb**> ... </**dotline**> draws a dot-line on the bottom side of the current text-line, of specified RGB color. The <**dotline**> ... </**dotline**> draws a black dot-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- <**upline**> ... </**upline**> draws the line on the top side of the current text-line (requires <**solidline**> or <**dotline**>).
- <**r**> right aligns the text
- <**c**> centers the text
- <**br**> forces a line-break
- <**img>number[:width]</img**> inserts an icon inside the text. The number indicates the index of the icon being inserted. Use the **Images** method to assign a list of icons to your chart. The last 7 bits in the high significant byte of the number expression indicates the identifier of the skin being used to paint the object. Use the [Add](#) method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part. The width is optional and indicates the width of the icon being inserted. Using the width option you can overwrite multiple icons getting a nice effect. By default, if the width field is missing, the width is 18 pixels.
- <**img>key[:width]</img**> inserts a custom size picture into the text being previously loaded using the **HTMLPicture** property. The Key parameter indicates the key of the picture being displayed. The Width parameter indicates a custom size, if you require to stretch the picture, else the original size of the picture is used.
- & glyph characters as &#amp; ( & ), &#lt; ( < ), &#gt; ( > ), &#qout; ( " ) and &#number; ( the character with specified code ), For instance, the &#8364; displays the EUR character. The & ampersand is only recognized as markup when it is followed by a known letter or a #character and a digit. For instance if you want to display <b>bold</b> in HTML caption you can use &lt;b&gt;bold&lt;/b&gt;
- <**off offset**> ... </**off**> defines the vertical offset to display the text/element. The offset parameter defines the offset to display the element. This tag is inheritable, so the

offset is keep while the associated </off> tag is found. You can use the <off offset> HTML tag in combination with the <font face;size> to define a smaller or a larger font to be displayed. For instance: "Text with <font ;7><off 6>subscript" displays the text such as: Text with subscript The "Text with <font ;7><off -6>superscript" displays the text such as: Text with subscript

- **<gra rrggbb;mode;blend> ... </gra>** defines a gradient text. The text color or <fgcolor> defines the starting gradient color, while the rr/gg/bb represents the red/green/blue values of the ending color, 808080 if missing as gray. The mode is a value between 0 and 4, 1 if missing, and blend could be 0 or 1, 0 if missing. The <font> HTML tag can be used to define the height of the font. Any of the rrggbb, mode or blend field may not be specified. The <gra> with no fields, shows a vertical gradient color from the current text color to gray (808080). For instance the "<font ;18><gra FFFFFF;1;1>gradient-center</gra></font>" generates the following picture:

gradient-center

- **<out rrggbb;width> ... </out>** shows the text with outlined characters, where rr/gg/bb represents the red/green/blue values of the outline color, 808080 if missing as gray, width indicates the size of the outline, 1 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><out 000000><fgcolor=FFFFFF>outlined</fgcolor></out></font>" generates the following picture:

outlined

- **<sha rrggbb;width;offset> ... </sha>** define a text with a shadow, where rr/gg/bb represents the red/green/blue values of the shadow color, 808080 if missing as gray, width indicates the size of shadow, 4 if missing, and offset indicates the offset from the origin to display the text's shadow, 2 if missing. The text color or <fgcolor> defines the color to show the inside text. The <font> HTML tag can be used to define the height of the font. For instance the "<font ;31><sha>shadow</sha></font>" generates the following picture:

shadow

or "<font ;31><sha 404040;5;0><fgcolor=FFFFFF>outline anti-aliasing</fgcolor></sha></font>" gets:

outline anti-aliasing

## property Level.ToolTip as Variant

Specifies the format of the tooltip that's shown when the cursor hovers the level.

Type	Description
Variant	A String expression that indicates the format of the tooltip, or an <a href="#">UnitEnum</a> expression that indicates the predefined tooltip being used. The <a href="#">LabelToolTip</a> property specifies a predefined tooltip.

The ToolTip property specifies the tooltip being shown when the cursor hovers the level. The [ToolTipDelay](#) property specifies the time in ms that passes before the ToolTip appears. The [ToolTipPopDelay](#) property specifies the period in ms of time the ToolTip remains visible if the mouse pointer is stationary within a control. Use the [ToolTipWidth](#) property to specify the width of the tooltip window. The [WeekDays](#) property retrieves or sets a value that indicates the list of names for each week day, separated by space. Use the [MonthNames](#) property to specify the name of the months in the year. The [UnitScale](#) property changes the [Label](#), [Unit](#) and the [ToolTip](#) for a level with predefined values defined by the [Label](#) and [LabelToolTip](#) properties.

The ToolTip property supports the following built-in tags:

- <%d%> - Day of the month in one or two numeric digits, as needed (1 to 31).
- <%dd%> - Day of the month in two numeric digits (01 to 31).
- <%d1%> - First letter of the weekday (S to S). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%d2%> - First two letters of the weekday (Su to Sa). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%d3%> - First three letters of the weekday (Sun to Sat). ( Use the [WeekDays](#) property to specify the name of the days in the week )
- <%ddd%> - First three letters of the weekday (Sun to Sat). ( Use the [WeekDays](#) property to specify the name of the days in the week ). You can use the <%loc\_ddd%> that indicates the day of week as a three-letter abbreviation using the current user regional and language settings.
- <%loc\_ddd%> - Indicates the day of week as a three-letter abbreviation using the current user regional and language settings.
- <%dddd%> - Full name of the weekday (Sunday to Saturday). ( Use the [WeekDays](#) property to specify the name of the days in the week ). You can use the <%loc\_dddd%> that indicates day of week as its full name using the current user regional and language settings.
- <%loc\_dddd%> - Indicates day of week as its full name using the current user regional and language settings.
- <%i%> - Displays the number instead the date. For instance, you can display numbers

as 1000, 1001, 1002, 1003, instead dates. ( the valid range is from -647,434 to 2,958,465 )

- <%w%> - Day of the week (1 to 7).
- <%ww%> - Week of the year (1 to 53).
- <%m%> - Month of the year in one or two numeric digits, as needed (1 to 12).
- <%mr%> - Month of the year in Roman numerals, as needed (I to XII).
- <%mm%> - Month of the year in two numeric digits (01 to 12).
- <%m1%> - First letter of the month (J to D). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%m2%> - First two letters of the month (Ja to De). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%m3%> - First three letters of the month (Jan to Dec). ( Use the [MonthNames](#) property to specify the name of the months in the year )
- <%mmm%> - First three letters of the month (Jan to Dec). ( Use the [MonthNames](#) property to specify the name of the months in the year ). You can use the <%loc\_mmm%> that indicates month as a three-letter abbreviation using the current user regional and language settings.
- <%loc\_mmm%> - Indicates month as a three-letter abbreviation using the current user regional and language settings.
- <%mmmm%> - Full name of the month (January to December). ( Use the [MonthNames](#) property to specify the name of the months in the year ). You can use the <%loc\_mmmm%> that indicates month as its full name using the current user regional and language settings.
- <%loc\_mmmm%> - Indicates month as its full name using the current user regional and language settings.
- <%q%> - Date displayed as the quarter of the year (1 to 4).
- <%y%> - Number of the day of the year (1 to 366).
- <%yy%> - Last two digits of the year (01 to 99).
- <%yyyy%> - Full year (0100 to 9999).
- <%hy%> - Date displayed as the half of the year (1 to 2).
- <%loc\_gg%> - Indicates period/era using the current user regional and language settings.
- <%loc\_sdate%> - Indicates the date in the short format using the current user regional and language settings.
- <%loc\_ldate%> - Indicates the date in the long format using the current user regional and language settings.
- <%loc\_dsep%> - Indicates the date separator using the current user regional and language settings (/).
- <%h%> - Hour in one or two digits, as needed (0 to 23).
- <%hh%> - Hour in two digits (00 to 23).
- <%n%> - Minute in one or two digits, as needed (0 to 59).
- <%nn%> - Minute in two digits (00 to 59).

- <%\$%> - Second in one or two digits, as needed (0 to 59).
- <%ss%> - Second in two digits (00 to 59).
- <%AM/PM%> - Twelve-hour clock with the uppercase letters "AM" or "PM", as appropriate. ( Use the [AMPM](#) property to specify the name of the AM and PM indicators ). You can use the <%loc\_AM/PM%> that indicates the time marker such as AM or PM using the current user regional and language settings. You can use <%loc\_A/P%> that indicates the one character time marker such as A or P using the current user regional and language settings
- <%loc\_AM/PM%> - Indicates the time marker such as AM or PM using the current user regional and language settings.
- <%loc\_A/P%> - Indicates the one character time marker such as A or P using the current user regional and language settings.
- <%loc\_time%> - Indicates the time using the current user regional and language settings.
- <%loc\_time24%> - Indicates the time in 24 hours format without a time marker using the current user regional and language settings.
- <%loc\_tsep%> - indicates the time separator using the current user regional and language settings (:).

The following tags are displayed based on the user's Regional and Language Options:

- <%loc\_sdate%> - Indicates the date in the short format using the current user settings.
- <%loc\_ldate%> - Indicates the date in the long format using the current user settings.
- <%loc\_ddd%> - Indicates day of week as a three-letter abbreviation using the current user settings.
- <%loc\_dddd%> - Indicates day of week as its full name using the current user settings.
- <%loc\_mmm%> - Indicates month as a three-letter abbreviation using the current user settings.
- <%loc\_mmmm%> - Indicates month as its full name using the current user settings.
- <%loc\_gg%> - Indicates period/era using the current user settings.
- <%loc\_dsep%> - Indicates the date separator using the current user settings.
- <%loc\_time%> - Indicates the time using the current user settings.
- <%loc\_time24%> - Indicates the time in 24 hours format without a time marker using the current user settings.
- <%loc\_AM/PM%> - Indicates the time marker such as AM or PM using the current user settings.
- <%loc\_A/P%> - Indicates the one character time marker such as A or P using the current user settings.
- <%loc\_tsep%> - Indicates the time separator using the current user settings.
- <%loc\_y%> - Represents the Year only by the last digit, using current regional

settings.

- <%loc\_yy%> - Represents the Year only by the last two digits, using current regional settings. A leading zero is added for single-digit years.
- <%loc\_yyyy%> - Represents the Year by a full four or five digits, depending on the calendar used. Thai Buddhist and Korean calendars have five-digit years. The "yyyy" pattern shows five digits for these two calendars, and four digits for all other supported calendars. Calendars that have single-digit or two-digit years, such as for the Japanese Emperor era, are represented differently. A single-digit year is represented with a leading zero, for example, "03". A two-digit year is represented with two digits, for example, "13". No additional leading zeros are displayed.

The ToolTip property supports the following built-in HTML tags:

- <b> ... </b> displays the text in **bold**
- <i> ... </i> displays the text in *italics*
- <u> ... </u> underlines the text
- <s> ... </s> Strike-through text
- <a id=options> ... </a> displays an [anchor](#) element that can be clicked. An anchor is a piece of text or some other object (for example an image) which marks the beginning and/or the end of a hypertext link. The <a> element is used to mark that piece of text (or inline image), and to give its hypertextual relationship to other documents. The control fires the *AnchorClick(AnchorID, Options)* event when the user clicks the anchor element. The *FormatAnchor* property customizes the visual effect for anchor elements.

The control supports expandable HTML captions feature which allows you to expand(show)/collapse(hide) different information using <a ;exp=> or <a ;e64=> anchor tags. The exp/e64 field of the anchor stores the HTML line/lines to show once the user clicks/collapses/expands the caption.

- exp, stores the plain text to be shown once the user clicks the anchor, such as "<a ;exp=show lines>"
- e64, encodes in BASE64 the HTML text to be shown once the user clicks the anchor, such as "<a ;e64=gA8ABmABnABjABvABshIAOQAEAAHAAGESikWio+ABzABohp3iELABpABu</a>" that displays show lines- in gray when the user clicks the + anchor. The "gA8ABmABnABjABvABshIAOQAEAAHAAGESikWio+ABzABohp3iELABpABuABljY string encodes the "<fgcolor 808080>show lines<a>-</a></fgcolor>" The Decode64Text/Encode64Text methods of the eXPrint can be used to decode/encode e64 fields.

Any ex-HTML caption can be transformed to an expandable-caption, by inserting the anchor ex-HTML tag. For instance, "<solidline><b>Header</b></solidline> <br>Line1<r><a ;exp=show lines>+</a><br>Line2<br>Line3" shows the Header in

underlined and bold on the first line and Line1, Line2, Line3 on the rest. The "show lines" is shown instead of Line1, Line2, Line3 once the user clicks the + sign.

- **<font face;size> ... </font>** displays portions of text with a different font and/or different size. For instance, the "<font Tahoma;12>bit</font>" draws the bit text using the Tahoma font, on size 12 pt. If the name of the font is missing, and instead size is present, the current font is used with a different size. For instance, "<font ;12>bit</font>" displays the bit text using the current font, but with a different size.
- **<fgcolor rrggbb> ... </fgcolor>** or **<fgcolor=rrggbb> ... </fgcolor>** displays text with a specified **foreground** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<bgcolor rrggbb> ... </bgcolor>** or **<bgcolor=rrggbb> ... </bgcolor>** displays text with a specified **background** color. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<solidline rrggbb> ... </solidline>** or **<solidline=rrggbb> ... </solidline>** draws a solid-line on the bottom side of the current text-line, of specified RGB color. The **<solidline> ... </solidline>** draws a black solid-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<dotline rrggbb> ... </dotline>** or **<dotline=rrggbb> ... </dotline>** draws a dot-line on the bottom side of the current text-line, of specified RGB color. The **<dotline> ... </dotline>** draws a black dot-line on the bottom side of the current text-line. The rr/gg/bb represents the red/green/blue values of the color in hexa values.
- **<upline> ... </upline>** draws the line on the top side of the current text-line (requires **<solidline>** or **<dotline>**).
- **<r>** right aligns the text
- **<c>** centers the text
- **<br>** forces a line-break
- **<img>number[:width]</img>** inserts an icon inside the text. The number indicates the index of the icon being inserted. Use the **Images** method to assign a list of icons to your chart. The last 7 bits in the high significant byte of the number expression indicates the identifier of the skin being used to paint the object. Use the [Add](#) method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset the last 7 bits in the high significant byte of the color being applied to the part. The width is optional and indicates the width of the icon being inserted. Using the width option you can overwrite multiple icons getting a nice effect. By default, if the width field is missing, the width is 18 pixels.
- **<img>key[:width]</img>** inserts a custom size picture into the text being previously loaded using the **HTMLPicture** property. The Key parameter indicates the key of the picture being displayed. The Width parameter indicates a custom size, if you require to stretch the picture, else the original size of the picture is used.
- & glyph characters as **&amp;** ( & ), **&lt;** ( < ), **&gt;** ( > ), **&qout;** ( " ) and **&#number;** ( the character with specified code ), For instance, the **&#8364;** displays the EUR

character. The & ampersand is only recognized as markup when it is followed by a known letter or a #character and a digit. For instance if you want to display **<b>bold</b>** in HTML caption you can use **&lt;b&gt;bold&lt;/b&gt;**

- **<off offset> ... </off>** defines the vertical offset to display the text/element. The offset parameter defines the offset to display the element. This tag is inheritable, so the offset is keep while the associated **</off>** tag is found. You can use the **<off offset>** HTML tag in combination with the **<font face;size>** to define a smaller or a larger font to be displayed. For instance: "Text with **<font ;7><off 6>subscript**" displays the text such as: Text with **subscript** The "Text with **<font ;7><off -6>superscript**" displays the text such as: Text with **superscript**
- **<gra rrggbb;mode;blend> ... </gra>** defines a gradient text. The text color or **<fgcolor>** defines the starting gradient color, while the rr/gg/bb represents the red/green/blue values of the ending color, 808080 if missing as gray. The mode is a value between 0 and 4, 1 if missing, and blend could be 0 or 1, 0 if missing. The **<font>** HTML tag can be used to define the height of the font. Any of the rrggbb, mode or blend field may not be specified. The **<gra>** with no fields, shows a vertical gradient color from the current text color to gray (808080). For instance the "**<font ;18><gra FFFFFF;1;1>gradient-center</gra></font>**" generates the following picture:



- **<out rrggbb;width> ... </out>** shows the text with outlined characters, where rr/gg/bb represents the red/green/blue values of the outline color, 808080 if missing as gray, width indicates the size of the outline, 1 if missing. The text color or **<fgcolor>** defines the color to show the inside text. The **<font>** HTML tag can be used to define the height of the font. For instance the "**<font ;31><out 000000><fgcolor=FFFFFF>outlined</fgcolor></out></font>**" generates the following picture:



- **<sha rrggbb;width;offset> ... </sha>** define a text with a shadow, where rr/gg/bb represents the red/green/blue values of the shadow color, 808080 if missing as gray, width indicates the size of shadow, 4 if missing, and offset indicates the offset from the origin to display the text's shadow, 2 if missing. The text color or **<fgcolor>** defines the color to show the inside text. The **<font>** HTML tag can be used to define the height of the font. For instance the "**<font ;31><sha>shadow</sha></font>**" generates the following picture:



or "**<font ;31><sha 404040;5;0><fgcolor=FFFFFF>outline anti-aliasing</fgcolor></sha></font>**" gets:

outline anti-aliasing

## property Level.Unit as UnitEnum

Retrieves or sets a value that indicates the unit of the level.

Type	Description
<a href="#">UnitEnum</a>	An UnitEnum expression that indicates the level's time unit.

The Unit property specifies the unit being used to display labels in the level. Use the [Label](#) property to assign a caption for the level. Changing the Label property may change the Unit property. For instance, if the user calls Label = "<%d%>", the Unit property is automatically put on exDay. The [UnitScale](#) property indicates the minimum time unit from all levels. The UnitScale property changes the [Label](#), [Unit](#) and the [ToolTip](#) for a level with predefined values defined by the [Label](#) and [LabelToolTip](#) properties. Use the [LevelCount](#) property to specify the count of levels in the chart's header. Use the [UnitWidth](#) property to specify the width of the time unit. Use the [Count](#) property to specify the number of units being displayed in the same place. Use the [NextDate](#) property to get the next date. Use the [Zoom](#) method to zoom the chart to a specified interval of dates.



The first level displays the month, the year and the number of the week in the year , the second level displays the name of the week day, and the third level displays the day of the month. The LevelCount property specifies the number of levels being displayed, in our case 3.

The following Template shows how to display your header using three levels as arranged in the picture above ( just copy and paste the following script to Template page ):

```
BeginUpdate()
Chart
{
    LevelCount = 3
    Level(0)
    {
        Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%>"
        Unit = 256 'exWeek
    }
    Level(1).Label = "<%d1%>"
    Level(2).Label = "<%d%>"
}
```

```
EndUpdate()
```

The following VB sample displays your header using 3 levels as shown above:

```
With Gantt1
```

```
    .BeginUpdate
```

```
    With .Chart
```

```
        .LevelCount = 3
```

```
        With .Level(0)
```

```
            .Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%>"
```

```
            .Unit = EXGANTTLibCtl.UnitEnum.exWeek
```

```
        End With
```

```
        .Level(1).Label = "<%d1%>"
```

```
        .Level(2).Label = "<%d%>"
```

```
    End With
```

```
    .EndUpdate
```

```
End With
```

The following VFP sample displays your header using 3 levels:

```
with thisform.gantt1
```

```
.BeginUpdate()
```

```
with .Chart
```

```
    .LevelCount = 3
```

```
    with .Level(0)
```

```
        .Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%>"
```

```
        .Unit = 256
```

```
    endwith
```

```
    .Level(1).Label = "<%d1%>"
```

```
    .Level(2).Label = "<%d%>"
```

```
endwith
```

```
.EndUpdate()
```

```
endwith
```

The following VB.NET sample displays your header using 3 levels:

```
With AxGantt1
```

```
.BeginUpdate()
```

```
With .Chart
```

```
.LevelCount = 3
With .Level(0)
    .Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%>""
    .Unit = EXGANTTLib.UnitEnum.exWeek
End With
    .Level(1).Label = "<%d1%>"
    .Level(2).Label = "<%d%>"
End With
.EndUpdate()
End With
```

The following C# sample displays your header using 3 levels:

```
axGantt1.BeginUpdate();
EXGANTTLib.Chart chart = axGantt1.Chart;
chart.LevelCount = 3;
chart.get_Level(0).Label = "<b><%mmm%>, <%yyyy%></b> <r>Week: <%ww%> ";
chart.get_Level(0).Unit = EXGANTTLib.UnitEnum.exWeek;
chart.get_Level(1).Label = "<%d1%>";
chart.get_Level(2).Label = "<%d%>";
axGantt1.EndUpdate();
```

The following C++ sample displays your header using 3 levels:

```
m_gantt.BeginUpdate();
CChart chart = m_gantt.GetChart();
chart.SetLevelCount( 3 );
chart.GetLevel(0).SetLabel(COleVariant( "<b><%mmm%>, <%yyyy%></b> <r>Week:<%ww%>" ));
chart.GetLevel(0).SetUnit(256);
chart.GetLevel(1).SetLabel(COleVariant( "<%d1%>" ));
chart.GetLevel(2).SetLabel(COleVariant( "<%d%>" ));
m_gantt.EndUpdate();
```

## OleEvent object

The OleEvent object holds information about an event fired by an ActiveX control hosted by an item that was created using the [InsertControlItem](#) method.

Name	Description
<a href="#">CountParam</a>	Retrieves the count of the OLE event's arguments.
<a href="#">ID</a>	Retrieves a long expression that specifies the identifier of the event.
<a href="#">Name</a>	Retrieves the original name of the fired event.
<a href="#">Param</a>	Retrieves an OleEventParam object given either the index of the parameter, or its name.
<a href="#">ToString</a>	Retrieves information about the event.

## property OleEvent.CountParam as Long

Retrieves the count of the OLE event's arguments.

Type	Description
Long	A long value that indicates the count of the arguments.

The following sample enumerates the arguments of an OLE event when [ItemOLEEvent](#) is fired.

```
Private Sub Gantt1_ItemOLEEvent(ByVal Item As EXGANTTLibCtl.HITEM, ByVal Ev As EXGANTTLibCtl.IOleEvent)
    Debug.Print "Event name:" & Ev.Name
    If (Ev.CountParam = 0) Then
        Debug.Print "The event has no arguments."
    Else
        Debug.Print "The event has the following arguments:"
        Dim i As Long
        For i = 0 To Ev.CountParam - 1
            Debug.Print Ev(i).Name; " = " & Ev(i).Value
        Next
    End If
End Sub
```

The following VC sample displays the events that an ActiveX control is firing while it is hosted by an item:

```
#import <exgantt.dll> rename( "GetItems", "exGetItems" )

static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return szDefault;

        COleVariant vt;
        vt.ChangeType( VT_BSTR, pv );
        return V_BSTR( &vt );
    }
}
```

```

}

return szDefault;
}

void OnItemOleEventGantt1(long Item, LPDISPATCH Ev)
{
    EXGANTTLib::IOleEventPtr spEvent( Ev );
    CString strOutput;
    strOutput.Format( "Event's name: %s\n", spEvent->Name.operator const char *() );
    OutputDebugString( strOutput );
    if ( spEvent->CountParam == 0 )
        OutputDebugString( "The event has no parameters." );
    else
    {
        for ( long i = 0; i < spEvent->CountParam; i++ )
        {
            EXGANTTLib::IOleEventParamPtr spParam = spEvent->GetParam( COleVariant( i ) );
            strOutput.Format( "Name: %s, Value: %s\n", spParam->Name.operator const char *(),
                V2S( &spParam->Value ) );
            OutputDebugString( strOutput );
        }
    }
    OutputDebugString( "" );
}

```

The #import clause is required to get the wrapper classes for IOleEvent and IOleEventParam objects, that are not defined by the MFC class wizard. The same #import statement defines the EXGANTTLib namespace that include all objects and types of the control's TypeLibrary. In case your exgantt.dll library is located to another place than the system folder or well known path, the path to the library should be provided, in order to let the VC finds the type library.

The following VB.NET sample displays the events that an ActiveX control is firing while it is hosted by an item:

```

Private Sub AxGantt1_ItemOleEvent(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_ItemOleEventEvent) Handles AxGantt1.ItemOleEvent
    Debug.WriteLine("Event's name: " & e.ev.Name)
    Dim i As Long

```

```
For i = 0 To e.ev.CountParam - 1
    Dim eP As EXGANTTLib.OleEventParam
    eP = e.ev(i)
    Debug.WriteLine("Name: " & e.ev.Name & " Value: " & eP.Value)
Next
End Sub
```

The following C# sample displays the events that an ActiveX control is firing while it is hosted by an item:

```
private void axGantt1_ItemOleEvent(object sender,
AxEXGANTTLib._IGanttEvents_ItemOleEventEvent e)
{
    System.Diagnostics.Debug.WriteLine( "Event's name: " + e.ev.Name.ToString() );
    for ( int i= 0; i < e.ev.CountParam ; i++ )
    {
        EXGANTTLib.IOleEventParam evP = e.ev[i];
        System.Diagnostics.Debug.WriteLine( "Name: " + evP.Name.ToString() + ", Value: " +
evP.Value.ToString() );
    }
}
```

The following VFP sample displays the events that an ActiveX control fires when it is hosted by an item:

```
*** ActiveX Control Event ***
LPARAMETERS item, ev

local s
s = "Event's name: " + ev.Name
for i = 0 to ev.CountParam - 1
    s = s + "Name: " + ev.Param(i).Name + ",Value: " + Str(ev.Param(i).Value)
endfor
wait window nowait s
```

## property OleEvent.ID as Long

Retrieves a long expression that specifies the identifier of the event.

Type	Description
Long	A Long expression that defines the identifier of the OLE event.

The identifier of the event could be used to identify a specified OLE event. Use the [Name](#) property of the OLE Event to get the name of the OLE Event. Use the [ToString](#) property to display information about an OLE event. The ToString property displays the identifier of the event after the name of the event in two [] brackets. For instance, the ToString property gets the "KeyDown[-602](KeyCode/Short\* = 9,Shift/Short = 0)" when TAB key is pressed, so the identifier of the KeyDown event being fired by the inside User editor is -602.

## property OleEvent.Name as String

Retrieves the original name of the fired event.

Type	Description
String	A string expression that indicates the event's name.

The Name property gets the name of the event. Use the [ID](#) property to access an event by its identifier. Use the [ToString](#) property to display information about an OLE event. The ToString property displays the identifier of the event after the name of the event in two [] brackets. For instance, the ToString property gets the "KeyDown[-602](KeyCode/Short\* = 9,Shift/Short = 0)" when TAB key is pressed, so the identifier of the KeyDown event being fired by the inside User editor is -602. The following sample enumerates the arguments of an OLE event when [ItemOLEEvent](#) is fired.

```
Private Sub Gantt1_ItemOleEvent(ByVal Item As EXGANTTLibCtl.HITEM, ByVal Ev As EXGANTTLibCtl.IOleEvent)
    Debug.Print "Event name:" & Ev.Name
    If (Ev.CountParam = 0) Then
        Debug.Print "The event has no arguments."
    Else
        Debug.Print "The event has the following arguments:"
        Dim i As Long
        For i = 0 To Ev.CountParam - 1
            Debug.Print Ev(i).Name; " = " & Ev(i).Value
        Next
    End If
End Sub
```

The following VC sample displays the events that an ActiveX control is firing while it is hosted by an item:

```
#import <exgantt.dll> rename( "GetItems", "exGetItems" )
```

```
static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
```

```

    return szDefault;

    COleVariant vt;
    vt.ChangeType( VT_BSTR, pv );
    return V_BSTR( &vt );
}

return szDefault;
}

void OnItemOleEventGantt1(long Item, LPDISPATCH Ev)
{
    EXGANTTLib::IOleEventPtr spEvent( Ev );
    CString strOutput;
    strOutput.Format( "Event's name: %s\n", spEvent->Name.operator const char *() );
    OutputDebugString( strOutput );
    if ( spEvent->CountParam == 0 )
        OutputDebugString( "The event has no parameters." );
    else
    {
        for ( long i = 0; i < spEvent->CountParam; i++ )
        {
            EXGANTTLib::IOleEventParamPtr spParam = spEvent->GetParam( COleVariant( i ) );
            strOutput.Format( "Name: %s, Value: %s\n", spParam->Name.operator const char *(),
                V2S( &spParam->Value ) );
            OutputDebugString( strOutput );
        }
    }
    OutputDebugString( "" );
}

```

The #import clause is required to get the wrapper classes for IOleEvent and IOleEventParam objects, that are not defined by the MFC class wizard. The same #import statement defines the EXGANTTLib namespace that include all objects and types of the control's TypeLibrary. In case your exgantt.dll library is located to another place than the system folder or well known path, the path to the library should be provided, in order to let the VC finds the type library.

The following VB.NET sample displays the events that an ActiveX control is firing while it is

hosted by an item:

```
Private Sub AxGantt1_ItemOleEvent(ByVal sender As Object, ByVal e As AxEXGANTTLib._IGanttEvents_ItemOleEventEvent) Handles AxGantt1.ItemOleEvent
    Debug.WriteLine("Event's name: " & e.ev.Name)
    Dim i As Long
    For i = 0 To e.ev.CountParam - 1
        Dim eP As EXGANTTLib.OleEventParam
        eP = e.ev(i)
        Debug.WriteLine("Name: " & e.ev.Name & " Value: " & eP.Value)
    Next
End Sub
```

The following C# sample displays the events that an ActiveX control is firing while it is hosted by an item:

```
private void axGantt1_ItemOleEvent(object sender,
AxEXGANTTLib._IGanttEvents_ItemOleEventEvent e)
{
    System.Diagnostics.Debug.WriteLine( "Event's name: " + e.ev.ToString() );
    for ( int i= 0; i < e.ev.CountParam ; i++ )
    {
        EXGANTTLib.IOleEventParam evP = e.ev[i];
        System.Diagnostics.Debug.WriteLine( "Name: " + evP.Name.ToString() + ", Value: " +
evP.Value.ToString() );
    }
}
```

The following VFP sample displays the events that an ActiveX control fires when it is hosted by an item:

```
*** ActiveX Control Event ***
LPARAMETERS item, ev

local s
s = "Event's name: " + ev.Name
for i = 0 to ev.CountParam - 1
    s = s + "Name: " + ev.Param(i).Name + ",Value: " + Str(ev.Param(i).Value)
endfor
```

wait window nowait s

## property OleEvent.Param (Item as Variant) as OleEventParam

Retrieves an OleEventParam object given either the index of the parameter, or its name.

Type	Description
Item as Variant	A long expression that indicates the argument's index or a string expression that indicates the argument's name.
OleEventParam	An <a href="#">OleEventParam</a> object that contains the name and the value for the argument.

The following sample enumerates the arguments of an OLE event when [ItemOLEEvent](#) is fired.

```
Private Sub Gantt1_ItemOLEEvent(ByVal Item As EXGANTTLibCtl.HITEM, ByVal Ev As EXGANTTLibCtl.IOleEvent)
    Debug.Print "Event name:" & Ev.Name
    If (Ev.CountParam = 0) Then
        Debug.Print "The event has no arguments."
    Else
        Debug.Print "The event has the following arguments:"
        Dim i As Long
        For i = 0 To Ev.CountParam - 1
            Debug.Print Ev(i).Name; " = " & Ev(i).Value
        Next
    End If
End Sub
```

The following VC sample displays the events that an ActiveX control is firing while it is hosted by an item:

```
#import <exgantt.dll> rename( "GetItems", "exGetItems" )

static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return szDefault;
```

```

COleVariant vt;
vt.ChangeType( VT_BSTR, pv );
return V_BSTR( &vt );
}

return szDefault;
}

void OnItemOleEventGantt1(long Item, LPDISPATCH Ev)
{
    EXGANTTLib::IOleEventPtr spEvent( Ev );
    CString strOutput;
    strOutput.Format( "Event's name: %s\n", spEvent->Name.operator const char *() );
    OutputDebugString( strOutput );
    if ( spEvent->CountParam == 0 )
        OutputDebugString( "The event has no parameters." );
    else
    {
        for ( long i = 0; i < spEvent->CountParam; i++ )
        {
            EXGANTTLib::IOleEventParamPtr spParam = spEvent->GetParam( COleVariant( i ) );
            strOutput.Format( "Name: %s, Value: %s\n", spParam->Name.operator const char *(),
                V2S( &spParam->Value ) );
            OutputDebugString( strOutput );
        }
    }
    OutputDebugString( "" );
}

```

The #import clause is required to get the wrapper classes for IOleEvent and IOleEventParam objects, that are not defined by the MFC class wizard. The same #import statement defines the EXGANTTLib namespace that include all objects and types of the control's TypeLibrary. In case your exgantt.dll library is located to another place than the system folder or well known path, the path to the library should be provided, in order to let the VC finds the type library.

The following VB.NET sample displays the events that an ActiveX control is firing while it is hosted by an item:

```
Private Sub AxGantt1_ItemOleEvent(ByVal sender As Object, ByVal e As
```

```

AxEXGANTTLib._IGanttEvents_ItemOleEventEvent) Handles AxGantt1.ItemOleEvent
    Debug.WriteLine("Event's name: " & e.ev.Name)
    Dim i As Long
    For i = 0 To e.ev.CountParam - 1
        Dim eP As EXGANTTLib.OleEventParam
        eP = e.ev(i)
        Debug.WriteLine("Name: " & e.ev.Name & " Value: " & eP.Value)
    Next
End Sub

```

The following C# sample displays the events that an ActiveX control is firing while it is hosted by an item:

```

private void axGantt1_ItemOleEvent(object sender,
AxEXGANTTLib._IGanttEvents_ItemOleEventEvent e)
{
    System.Diagnostics.Debug.WriteLine( "Event's name: " + e.ev.Name.ToString() );
    for ( int i= 0; i < e.ev.CountParam ; i++ )
    {
        EXGANTTLib.IOleEventParam evP = e.ev[i];
        System.Diagnostics.Debug.WriteLine( "Name: " + evP.Name.ToString() + ", Value: " +
evP.Value.ToString() );
    }
}

```

The following VFP sample displays the events that an ActiveX control fires when it is hosted by an item:

```

*** ActiveX Control Event ***
LPARAMETERS item, ev

local s
s = "Event's name: " + ev.Name
for i = 0 to ev.CountParam - 1
    s = s + "Name: " + ev.Param(i).Name + " ,Value: " + Str(ev.Param(i).Value)
endfor
wait window nowait s

```

## property OleEvent.ToString as String

Retrieves information about the event.

Type	Description
String	A String expression that shows information about an OLE event. The ToString property gets the information as follows: Name[ID] (Param/Type = Value, Param/Type = Value, ... ). For instance, "KeyDown[-602] (KeyCode/Short* = 9,Shift/Short = 0)" indicates that the KeyDown event is fired, with the identifier -602 with two parameters KeyCode as a reference to a short type with the value 8, and Shift parameter as Short type with the value 0.

Use the ToString property to display information about fired event such us name, parameters, types and values. Using the ToString property you can quickly identifies the event that you should handle in your application. Use the [ID](#) property to specify a specified even by its identifier. Use the [Name](#) property to get the name of the event. Use the [Param](#) property to access a specified parameter using its index or its name.

Displaying ToString property during the OLE Event event may show data like follows:

```
MouseMove[-606](Button/Short = 0,Shift/Short = 0,X/Long = 46,Y/Long = 15)
MouseDown[-605](Button/Short = 1,Shift/Short = 0,X/Long = 46,Y/Long = 15)
KeyDown[-602](KeyCode/Short* = 83,Shift/Short = 0)
KeyPress[-603](KeyAscii/Short* = 115)
Change[2]()
KeyUp[-604](KeyCode/Short* = 83,Shift/Short = 0)
MouseUp[-607](Button/Short = 1,Shift/Short = 0,X/Long = 46,Y/Long = 15)
MouseMove[-606](Button/Short = 0,Shift/Short = 0,X/Long = 46,Y/Long = 15)
```

## OleEventParam object

The OleEventParam holds the name and the value for an event's argument.

Name	Description
<a href="#">Name</a>	Retrieves the name of the event's parameter.
<a href="#">Value</a>	Retrieves or sets the value of the event's parameter.

## property OleEventParam.Name as String

Retrieves the name of the event's parameter.

Type	Description
String	A string expression that indicates the name of the event's parameter.

The following sample enumerates the arguments of an OLE event when [ItemOLEEvent](#) is fired.

```
Private Sub Gantt1_ItemOleEvent(ByVal Item As EXGANTTLibCtl.HITEM, ByVal Ev As EXGANTTLibCtl.IOleEvent)
    Debug.Print "Event name:" & Ev.Name
    If (Ev.CountParam = 0) Then
        Debug.Print "The event has no arguments."
    Else
        Debug.Print "The event has the following arguments:"
        Dim i As Long
        For i = 0 To Ev.CountParam - 1
            Debug.Print Ev(i).Name; " = " & Ev(i).Value
        Next
    End If
End Sub
```

The following VC sample displays the events that an ActiveX control is firing while it is hosted by an item:

```
#import <exgantt.dll> rename( "GetItems", "exGetItems" )

static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return szDefault;

        COleVariant vt;
        vt.ChangeType( VT_BSTR, pv );
```

```

        return V_BSTR( &vt );
    }
    return szDefault;
}

void OnItemOleEventGantt1(long Item, LPDISPATCH Ev)
{
    EXGANTTLib::IOleEventPtr spEvent( Ev );
    CString strOutput;
    strOutput.Format( "Event's name: %s\n", spEvent->Name.operator const char *() );
    OutputDebugString( strOutput );
    if ( spEvent->CountParam == 0 )
        OutputDebugString( "The event has no parameters." );
    else
    {
        for ( long i = 0; i < spEvent->CountParam; i++ )
        {
            EXGANTTLib::IOleEventParamPtr spParam = spEvent->GetParam( COleVariant( i ) );
            strOutput.Format( "Name: %s, Value: %s\n", spParam->Name.operator const char *(),
                V2S( &spParam->Value ) );
            OutputDebugString( strOutput );
        }
    }
    OutputDebugString( "" );
}

```

The #import clause is required to get the wrapper classes for IOleEvent and IOleEventParam objects, that are not defined by the MFC class wizard. The same #import statement defines the EXGANTTLib namespace that include all objects and types of the control's TypeLibrary. In case your exgantt.dll library is located to another place than the system folder or well known path, the path to the library should be provided, in order to let the VC finds the type library.

The following VB.NET sample displays the events that an ActiveX control is firing while it is hosted by an item:

```

Private Sub AxGantt1_ItemOleEvent(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_ItemOleEventEvent) Handles AxGantt1.ItemOleEvent
    Debug.WriteLine("Event's name: " & e.ev.Name)

```

```

Dim i As Long
For i = 0 To e.ev.CountParam - 1
    Dim eP As EXGANTTLib.OleEventParam
    eP = e.ev(i)
    Debug.WriteLine("Name: " & e.ev.Name & " Value: " & eP.Value)
Next
End Sub

```

The following C# sample displays the events that an ActiveX control is firing while it is hosted by an item:

```

private void axGantt1_ItemOleEvent(object sender,
AxEXGANTTLib._IGanttEvents_ItemOleEventEvent e)
{
    System.Diagnostics.Debug.WriteLine( "Event's name: " + e.ev.Name.ToString() );
    for ( int i= 0; i < e.ev.CountParam ; i++ )
    {
        EXGANTTLib.IOleEventParam evP = e.ev[i];
        System.Diagnostics.Debug.WriteLine( "Name: " + evP.Name.ToString() + ", Value: " +
evP.Value.ToString() );
    }
}

```

The following VFP sample displays the events that an ActiveX control fires when it is hosted by an item:

```

*** ActiveX Control Event ***
LPARAMETERS item, ev

local s
s = "Event's name: " + ev.Name
for i = 0 to ev.CountParam - 1
    s = s + "Name: " + ev.Param(i).Name + " ,Value: " + Str(ev.Param(i).Value)
endfor
wait window nowait s

```

## property OleEventParam.Value as Variant

Retrieves or sets the value of the event's parameter.

Type	Description
Variant	A variant value that indicates the value of the event's parameter.

The following sample enumerates the arguments of an OLE event when [ItemOLEEvent](#) is fired.

```
Private Sub Gantt1_ItemOleEvent(ByVal Item As EXGANTTLibCtl.HITEM, ByVal Ev As EXGANTTLibCtl.IOleEvent)
    Debug.Print "Event name:" & Ev.Name
    If (Ev.CountParam = 0) Then
        Debug.Print "The event has no arguments."
    Else
        Debug.Print "The event has the following arguments:"
        Dim i As Long
        For i = 0 To Ev.CountParam - 1
            Debug.Print Ev(i).Name; " = " & Ev(i).Value
        Next
    End If
End Sub
```

The following VC sample displays the events that an ActiveX control is firing while it is hosted by an item:

```
#import <exgantt.dll> rename( "GetItems", "exGetItems" )

static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return szDefault;

        COleVariant vt;
        vt.ChangeType( VT_BSTR, pv );
```

```

    return V_BSTR( &vt );
}
return szDefault;
}

void OnItemOleEventGantt1(long Item, LPDISPATCH Ev)
{
    EXGANTTLib::IOleEventPtr spEvent( Ev );
    CString strOutput;
    strOutput.Format( "Event's name: %s\n", spEvent->Name.operator const char *() );
    OutputDebugString( strOutput );
    if ( spEvent->CountParam == 0 )
        OutputDebugString( "The event has no parameters." );
    else
    {
        for ( long i = 0; i < spEvent->CountParam; i++ )
        {
            EXGANTTLib::IOleEventParamPtr spParam = spEvent->GetParam( COleVariant( i ) );
            strOutput.Format( "Name: %s, Value: %s\n", spParam->Name.operator const char *(),
                V2S( &spParam->Value ) );
            OutputDebugString( strOutput );
        }
    }
    OutputDebugString( "" );
}

```

The #import clause is required to get the wrapper classes for IOleEvent and IOleEventParam objects, that are not defined by the MFC class wizard. The same #import statement defines the EXGANTTLib namespace that include all objects and types of the control's TypeLibrary. In case your exgantt.dll library is located to another place than the system folder or well known path, the path to the library should be provided, in order to let the VC finds the type library.

The following VB.NET sample displays the events that an ActiveX control is firing while it is hosted by an item:

```

Private Sub AxGantt1_ItemOleEvent(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_ItemOleEventEvent) Handles AxGantt1.ItemOleEvent
    Debug.WriteLine("Event's name: " & e.ev.Name)

```

```

Dim i As Long
For i = 0 To e.ev.CountParam - 1
    Dim eP As EXGANTTLib.OleEventParam
    eP = e.ev(i)
    Debug.WriteLine("Name: " & e.ev.Name & " Value: " & eP.Value)
Next
End Sub

```

The following C# sample displays the events that an ActiveX control is firing while it is hosted by an item:

```

private void axGantt1_ItemOleEvent(object sender,
AxEXGANTTLib._IGanttEvents_ItemOleEventEvent e)
{
    System.Diagnostics.Debug.WriteLine( "Event's name: " + e.ev.Name.ToString() );
    for ( int i= 0; i < e.ev.CountParam ; i++ )
    {
        EXGANTTLib.IOleEventParam evP = e.ev[i];
        System.Diagnostics.Debug.WriteLine( "Name: " + evP.Name.ToString() + ", Value: " +
evP.Value.ToString() );
    }
}

```

The following VFP sample displays the events that an ActiveX control fires when it is hosted by an item:

```

*** ActiveX Control Event ***
LPARAMETERS item, ev

local s
s = "Event's name: " + ev.Name
for i = 0 to ev.CountParam - 1
    s = s + "Name: " + ev.Param(i).Name + " ,Value: " + Str(ev.Param(i).Value)
endfor
wait window nowait s

```

## ExGantt events

The Exontrol's ExGantt component supports the following events:

Name	Description
<a href="#">AddColumn</a>	Fired after a new column has been added.
<a href="#">AddItem</a>	Occurs after a new Item has been inserted to Items collection.
<a href="#">AfterCellEdit</a>	Occurs after data in the current cell is edited.
<a href="#">AfterExpandItem</a>	Fired after an item is expanded (collapsed).
<a href="#">AnchorClick</a>	Occurs when an anchor element is clicked.
<a href="#">BeforeCellEdit</a>	Occurs just before the user enters edit mode by clicking in a cell.
<a href="#">BeforeExpandItem</a>	Fired before an item is about to be expanded (collapsed).
<a href="#">CellButtonClick</a>	Fired after the user clicks on the cell of button type.
<a href="#">CellImageClick</a>	Fired after the user clicks on the image's cell area.
<a href="#">CellStateChanged</a>	Fired after cell's state has been changed.
<a href="#">CellStateChanging</a>	Fired before cell's state is about to be changed.
<a href="#">Click</a>	Occurs when the user presses and then releases the left mouse button over the tree control.
<a href="#">ColumnClick</a>	Fired after the user clicks on column's header.
<a href="#">DateChange</a>	Occurs when the first visible date is changed.
<a href="#">DateTimeChanged</a>	Notifies your application that the current time is changed.
<a href="#">DblClick</a>	Occurs when the user dblclk the left mouse button over an object.
<a href="#">Event</a>	Notifies the application once the control fires an event.
<a href="#">FilterChange</a>	Occurs when the filter was changed.
<a href="#">FilterChanging</a>	Notifies your application that the filter is about to change.
<a href="#">FormatColumn</a>	Fired when a cell requires to format its caption.
<a href="#">HyperLinkClick</a>	Occurs when the user clicks on a hyperlink cell.
<a href="#">ItemOleEvent</a>	Fired when an ActiveX control hosted by an item has fired an event.
<a href="#">KeyDown</a>	Occurs when the user presses a key while an object has the focus.

<a href="#">KeyPress</a>	Occurs when the user presses and releases an ANSI key.
<a href="#">KeyUp</a>	Occurs when the user releases a key while an object has the focus.
<a href="#">LayoutChanged</a>	Occurs when column's position or column's size is changed.
<a href="#">MouseDown</a>	Occurs when the user presses a mouse button.
<a href="#">MouseMove</a>	Occurs when the user moves the mouse.
<a href="#">MouseUp</a>	Occurs when the user releases a mouse button.
<a href="#">OffsetChanged</a>	Occurs when the scroll position has been changed.
<a href="#">OLECompleteDrag</a>	Occurs when a source component is dropped onto a target component, informing the source component that a drag action was either performed or canceled
<a href="#">OLEDragDrop</a>	Occurs when a source component is dropped onto a target component when the source component determines that a drop can occur.
<a href="#">OLEDragOver</a>	Occurs when one component is dragged over another.
<a href="#">OLEGiveFeedback</a>	Allows the drag source to specify the type of OLE drag-and-drop operation and the visual feedback.
<a href="#">OLESetData</a>	Occurs on a drag source when a drop target calls the GetData method and there is no data in a specified format in the OLE drag-and-drop DataObject.
<a href="#">OLEStartDrag</a>	Occurs when the OLEDrag method is called.
<a href="#">OversizeChanged</a>	Occurs when the right range of the scroll has been changed.
<a href="#">OverviewZoom</a>	Occurs once the user selects a new time scale unit in the overview zoom area.
<a href="#">RClick</a>	Fired when right mouse button is clicked
<a href="#">RemoveColumn</a>	Fired before deleting a Column.
<a href="#">RemoveItem</a>	Occurs before deleting an Item.
<a href="#">ScrollButtonClick</a>	Occurs when the user clicks a button in the scrollbar.
<a href="#">SelectionChanged</a>	Fired after a new item has been selected.
<a href="#">Sort</a>	Fired when the control sorts a column.
<a href="#">ToolTip</a>	Fired when the control prepares the object's tooltip.

## event AddColumn (Column as Column)

Fired after a new column has been added.

Type	Description
Column as <a href="#">Column</a>	A Column object that's added to the Columns collection.

The AddColumn event is fired after a new column has been inserted to Columns collection. Use the AddColumn event to associate extra data to a new column. Use the [Add](#) method to add new columns to Columns collection. Use the [ColumnAutoSize](#) property to fit all visible columns in the control's client area.

Syntax for AddColumn event, **/NET** version, on:

C#      private void AddColumn(object sender, exontrol.EXGANTTLib.Column Column)  
        {  
        }  
    }

VB      Private Sub AddColumn(ByVal sender As System.Object, ByVal Column As  
             exontrol.EXGANTTLib.Column) Handles AddColumn  
        End Sub

Syntax for AddColumn event, **/COM** version, on:

C#      private void AddColumn(object sender,  
             AxEXGANTTLib.\_IGanttEvents\_AddColumnEvent e)  
        {  
        }  
    }

C++      void OnAddColumn(LPDISPATCH Column)  
        {  
        }  
    }

C++ Builder      void \_\_fastcall AddColumn(TObject \*Sender, Exganttlib\_tlb::IColumn \*Column)  
        {  
        }  
    }

Delphi      procedure AddColumn(ASender: TObject; Column : IColumn);  
             begin  
             end;

Delphi 8  
(.NET  
only)

```
procedure AddColumn(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_AddColumnEvent);  
begin  
end;
```

Powe...

```
begin event AddColumn(oleobject Column)  
end event AddColumn
```

VB.NET

```
Private Sub AddColumn(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_AddColumnEvent) Handles AddColumn  
End Sub
```

VB6

```
Private Sub AddColumn(ByVal Column As EXGANTTLibCtl.ICollection)  
End Sub
```

VBA

```
Private Sub AddColumn(ByVal Column As Object)  
End Sub
```

VFP

```
LPARAMETERS Column
```

Xbas...

```
PROCEDURE OnAddColumn(oGantt,Column)  
RETURN
```

Syntax for AddColumn event, **/COM** version (others), on:

Java...

```
<SCRIPT EVENT="AddColumn(Column)" LANGUAGE="JScript">  
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">  
Function AddColumn(Column)  
End Function  
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComAddColumn Variant IIColumn  
    Forward Send OnComAddColumn IIColumn  
End_Procedure
```

METHOD OCX\_AddColumn(Column) CLASS MainDialog  
RETURN NIL

X++ void onEvent\_AddColumn(COM \_Column)  
{  
}

XBasic function AddColumn as v (Column as OLE::Exontrol.Gantt.1::IColumn)  
end function

dBASE function nativeObject\_AddColumn(Column)  
return

The following VB sample shows how to set the width for all columns:

```
Private Sub Gantt1_AddColumn(ByVal Column As EXGANTTLibCtl.IColumn)
    Column.Width = 128
End Sub
```

The following VB.NET sample changes the column's width when a new column is added:

```
Private Sub AxGantt1_AddColumn(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_AddColumnEvent) Handles AxGantt1.AddColumn
    e.column.Width = 128
End Sub
```

The following C# sample changes the column's width when a new column is added:

```
private void axGantt1_AddColumn(object sender,
AxEXGANTTLib._IGanttEvents_AddColumnEvent e)
{
    e.column.Width = 128;
}
```

The following C++ sample changes the column's width when a new column is added:

```
#include "Column.h"
```

```
#include "Columns.h"
void OnAddColumnGantt1(LPDISPATCH Column)
{
    CColumn column( Column );column.m_bAutoRelease = FALSE;
    column.SetWidth( 128 );
}
```

The following VFP sample changes the column's width when a new column is added:

```
*** ActiveX Control Event ***
```

```
LPARAMETERS column
```

```
with column
```

```
    .Width = 128
```

```
endwith
```

## event AddItem (Item as HITEM)

Occurs after a new Item has been inserted to Items collection.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item that's inserted to the Items collection.

The AddItem event notifies your application that a new items is inserted. Use the [AddItem](#) and [InsertItem](#) methods to insert new items to Items collection. Use the [InsertControllItem](#) method to add a new item that hosts an ActiveX control. Use the [Add](#) method to add new columns to Columns Collection. Use the [Def](#) property to specify a common value for all cells in the same column.

Syntax for AddItem event, **/NET** version, on:

C#

```
private void AddItem(object sender,int Item)
{
}
```

VB

```
Private Sub AddItem(ByVal sender As System.Object, ByVal Item As Integer)
Handles AddItem
End Sub
```

Syntax for AddItem event, **/COM** version, on:

C#

```
private void AddItem(object sender, AxEXGANTTLib._IGanttEvents_AddItemEvent
e)
{
```

C++

```
void OnAddItem(long Item)
{
```

C++ Builder

```
void __fastcall AddItem(TObject *Sender,Exgantlib_tlb::HITEM Item)
{
```

Delphi

```
procedure AddItem(ASender: TObject; Item : HITEM);
```

```
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure AddItem(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_AddItemEvent);  
begin  
end;
```

Powe...

```
begin event AddItem(long Item)  
end event AddItem
```

VB.NET

```
Private Sub AddItem(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_AddItemEvent) Handles AddItem  
End Sub
```

VB6

```
Private Sub AddItem(ByVal Item As EXGANTTLibCtl.HITEM)  
End Sub
```

VBA

```
Private Sub AddItem(ByVal Item As Long)  
End Sub
```

VFP

```
LPARAMETERS Item
```

Xbas...

```
PROCEDURE OnAddItem(oGantt,Item)  
RETURN
```

Syntax for AddItem event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="AddItem(Item)" LANGUAGE="JScript">  
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">  
Function AddItem(Item)  
End Function  
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComAddItem HITEM lIItem
    Forward Send OnComAddItem lIItem
End_Procedure
```

Visual  
Objects

```
METHOD OCX_AddItem(Item) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_AddItem(int _Item)
{
}
```

XBasic

```
function AddItem as v (Item as OLE::Exontrol.Gantt.1::HITEM)
end function
```

dBASE

```
function nativeObject_AddItem(Item)
return
```

The following VB sample shows how to change the item's foreground color:

```
Private Sub Gantt1.AddItem(ByVal Item As EXGANTTLibCtl.HITEM)
    Gantt1.Items.ItemForeColor(Item) = vbBlue
End Sub
```

The following VB sample changes the background color for all cells in the first column:

```
Gantt1.Columns(0).Def(exCellBackColor) = RGB(240, 240, 240)
```

The following C++ sample changes the item's foreground color when a new items is inserted:

```
#include "Items.h"
void OnAddItemGantt1(long Item)
{
    if ( ::IsWindow( m_gantt.m_hWnd ) )
    {
        CItems items = m_gantt.GetItems();
        items.SetItemForeColor( Item, RGB(0,0,255) );
    }
}
```

```
}
```

The following C++ sample changes the background color for all cells in the first column:

```
COleVariant vtBackColor( (long)RGB(240, 240, 240) );
m_gantt.GetColumns().GetItem( COleVariant( (long) 0 ) ).SetDef( /*exCellBackColor*/ 4,
vtBackColor );
```

The following VB.NET sample changes the item's foreground color when a new items is inserted:

```
Shared Function ToUInt32(ByVal c As Color) As UInt32
```

```
    Dim i As Long
    i = c.R
    i = i + 256 * c.G
    i = i + 256 * 256 * c.B
    ToUInt32 = Convert.ToUInt32(i)
End Function
```

```
Private Sub AxGantt1.AddItem(ByVal sender As System.Object, ByVal e As
AxEXGANTTLib._IGanttEvents_AddItemEvent) Handles AxGantt1.AddItem
    AxGantt1.Items.ItemForeColor(e.item) = ToUInt32(Color.Blue)
End Sub
```

The following VB.NET sample changes the background color for all cells in the first column:

```
With AxGantt1.Columns(0)
    .Def(EXGANTTLib.DefColumnEnum.exCellBackColor) = ToUInt32(Color.WhiteSmoke)
End With
```

The following C# sample changes the item's foreground color when a new items is inserted:

```
private UInt32 ToUInt32(Color c)
{
    long i;
    i = c.R;
    i = i + 256 * c.G;
    i = i + 256 * 256 * c.B;
```

```
    return Convert.ToInt32(i);
}

private void axGantt1.AddItem(object sender,
AxEXGANTTLib._IGanttEvents.AddItemEvent e)
{
    axGantt1.Items.set_ItemForeColor( e.item, ToUInt32(Color.Blue) );
}
```

The following C# sample changes the background color for all cells in the first column:

```
axGantt1.Columns[0].set_Def(EXGANTTLib.DefColumnEnum.exCellBackColor,
ToUInt32(Color.WhiteSmoke));
```

The following VFP sample changes the item's foreground color when a new items is inserted:

```
*** ActiveX Control Event ***
LPARAMETERS item

with thisform.Gantt1.Items
    .DefaultItem = item
    .ItemForeColor( 0 ) = RGB(0,0,255 )
endwith
```

The following VFP sample changes the background color for all cells in the first column:

```
with thisform.Gantt1.Columns(0)
    .Def( 4 ) = RGB(240,240,240)
endwith
```

For instance, the following VB sample loads an ADO recordset.

```
Dim rs As Object

Private Sub Form_Load()

    Set rs = CreateObject("ADODB.Recordset")
    rs.Open "Orders", "Provider=Microsoft.Jet.OLEDB.3.51;Data Source= D:\Program
```

```
Gantt1.BeginUpdate  
' Add the columns  
With Gantt1.Columns  
For Each f In rs.Fields  
    .Add f.Name  
Next  
End With  
  
' Add the items  
With Gantt1.Items  
rs.MoveFirst  
While Not rs.EOF  
    .InsertItem , rs.Bookmark  
    rs.MoveNext  
Wend  
End With  
  
Gantt1.EndUpdate  
End Sub
```

```
Private Sub Gantt1_AddItem(ByVal Item As EXGANTTLibCtl.HITEM)  
    Dim i As Integer  
    Dim n As Integer  
    n = Gantt1.Columns.Count  
    With Gantt1.Items  
        For i = 0 To n - 1  
            .CellCaption(Item, i) = rs(i).Value  
        Next  
    End With  
End Sub
```

The following VB sample use the PutItems method to load items to the control:

```
Dim rs As Object
```

```
Private Sub Form_Load()
```

```
    Set rs = CreateObject("ADODB.Recordset")
    rs.Open "Orders", "Provider=Microsoft.Jet.OLEDB.3.51;Data Source= D:\Program
Files\Microsoft Visual Studio\VB98\NWIND.MDB", 3 ' Opens the table using static mode
```

```
    Gantt1.BeginUpdate
```

```
    ' Add the columns
```

```
    With Gantt1.Columns
```

```
        For Each f In rs.Fields
```

```
            .Add f.Name
```

```
    Next
```

```
    End With
```

```
    Gantt1.PutItems rs.getRows()
```

```
    Gantt1.EndUpdate
```

```
End Sub
```

## event AfterCellEdit (Item as HITEM, CollIndex as Long, NewCaption as String)

Occurs after data in the current cell is edited.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item being changed.
CollIndex as Long	A long expression that specifies the index of the column where the change occurs, or a handle to a cell being edited if the Item parameter is 0.
NewCaption as String	A string expression that indicates the newly cell's caption.

The AfterCellEdit and [BeforeCellEdit](#) events are fired only if the [AllowEdit](#) property of the control is True. Use the [Edit](#) method to programmatically edits a cell. If the user doesn't handle the AfterCellEdit event the cell's caption remains unchanged. Use the AfterCellEdit event to change the cell's caption after user edits a cell. The AfterCellEdit event is not fired if the user has canceled the edit operation using BeforeCellEdit event.

Syntax for AfterCellEdit event, **/NET** version, on:

```
c# private void AfterCellEdit(object sender,int Item,int CollIndex,string NewCaption)
{
}
```

```
vb Private Sub AfterCellEdit(ByVal sender As System.Object, ByVal Item As
Integer, ByVal CollIndex As Integer, ByVal NewCaption As String) Handles
AfterCellEdit
End Sub
```

Syntax for AfterCellEdit event, **/COM** version, on:

```
c# private void AfterCellEdit(object sender,
AxEXGANTTLib._IGanttEvents_AfterCellEditEvent e)
{}
```

```
c++ void OnAfterCellEdit(long Item,long CollIndex,LPCTSTR NewCaption)
{}
```

C++  
Builder

```
void __fastcall AfterCellEdit(TObject *Sender,Exgantlib_tlb::HITEM Item,long  
ColIndex,BSTR NewCaption)  
{  
}
```

Delphi

```
procedure AfterCellEdit(ASender: TObject; Item : HITEM;ColIndex :  
Integer;NewCaption : WideString);  
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure AfterCellEdit(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_AfterCellEditEvent);  
begin  
end;
```

Powe...

```
begin event AfterCellEdit(long Item,long ColIndex,string NewCaption)  
end event AfterCellEdit
```

VB.NET

```
Private Sub AfterCellEdit(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_AfterCellEditEvent) Handles AfterCellEdit  
End Sub
```

VB6

```
Private Sub AfterCellEdit(ByVal Item As EXGANTTLibCtl.HITEM,ByVal ColIndex As  
Long,ByVal NewCaption As String)  
End Sub
```

VBA

```
Private Sub AfterCellEdit(ByVal Item As Long,ByVal ColIndex As Long,ByVal  
NewCaption As String)  
End Sub
```

VFP

```
LPARAMETERS Item,ColIndex,NewCaption
```

Xbas...

```
PROCEDURE OnAfterCellEdit(oGantt,Item,ColIndex,NewCaption)  
RETURN
```

Syntax for AfterCellEdit event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="AfterCellEdit(Item,ColIndex,NewCaption)"  
LANGUAGE="JScript">  
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">  
Function AfterCellEdit(Item,ColIndex,NewCaption)  
End Function  
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComAfterCellEdit HITEM lItem Integer lColIndex String  
lNewCaption  
    Forward Send OnComAfterCellEdit lItem lColIndex lNewCaption  
End_Procedure
```

Visual  
Objects

```
METHOD OCX_AfterCellEdit(Item,ColIndex,NewCaption) CLASS MainDialog  
RETURN NIL
```

X++

```
void onEvent_AfterCellEdit(int _Item,int _ColIndex,str _NewCaption)  
{  
}
```

XBasic

```
function AfterCellEdit as v (Item as OLE::Exontrol.Gantt.1::HITEM,ColIndex as  
N,NewCaption as C)  
end function
```

dBASE

```
function nativeObject_AfterCellEdit(Item,ColIndex,NewCaption)  
return
```

The following VB sample changes the cell's caption as soon as the edit operation ends.

```
Private Sub Gantt1_AfterCellEdit(ByVal Item As EXGANTTLibCtl.HITEM, ByVal ColIndex As  
Long, ByVal NewCaption As String)  
    Gantt1.Items.CellCaption(Item, ColIndex) = NewCaption  
End Sub
```

Use the BeforeCellEdit is you need to cancel editing cells. The following VB sample cancels editing of any cell that's shoted by the first column:

```
Private Sub Gantt1_BeforeCellEdit(ByVal Item As EXGANTTLibCtl.HITEM, ByVal CollIndex As Long, Value As Variant, Cancel As Variant)
    Cancel = CollIndex = 0
End Sub
```

The following VB.NET sample changes the cell's caption as soon as the edit operation ends.

```
Private Sub AxGantt1_AfterCellEdit(ByVal sender As Object, ByVal e As AxEXGANTTLib._IGanttEvents_AfterCellEditEvent) Handles AxGantt1.AfterCellEdit
    AxGantt1.Items.CellCaption(e.item, e.colIndex) = e.newCaption
End Sub
```

The following C# sample changes the cell's caption as soon as the edit operation ends.

```
private void axGantt1_AfterCellEdit(object sender,
AxEXGANTTLib._IGanttEvents_AfterCellEditEvent e)
{
    axGantt1.Items.set_CellCaption( e.item, e.colIndex, e.newCaption );
}
```

The following C++ sample changes the cell's caption as soon as the edit operation ends.

```
void OnAfterCellEditGantt1(long Item, long CollIndex, LPCTSTR NewCaption)
{
    m_gantt.GetItems().SetCellCaption( COleVariant( Item ), COleVariant( CollIndex ),
COleVariant( NewCaption ) );
}
```

The following VFP sample changes the cell's caption as soon as the edit operation ends.

```
*** ActiveX Control Event ***
LPARAMETERS item, colindex, newcaption

with thisform.Gantt1.Items
    .DefaultItem = item
    .CellCaption( 0, colindex ) = newcaption
endwith
```



## event AfterExpandItem (Item as HITEM)

Fired after an item is expanded (collapsed).

Type	Description
Item as HITEM	A long expression that indicates the item's handle that indicates the item expanded or collapsed.

The AfterExpandItem event notifies your application that an item is collapsed or expanded. Use the [ExpandItem](#) method to programmatically expand or collapse an item. The ExpandItem property also specifies whether an item is expand or collapsed. The [ItemChild](#) property retrieves the first child item. Use the [BeforeExpandItem](#) event to cancel expanding or collapsing items.

Syntax for AfterExpandItem event, **/NET** version, on:

C#

```
private void AfterExpandItem(object sender,int Item)
{
}
```

VB

```
Private Sub AfterExpandItem(ByVal sender As System.Object, ByVal Item As Integer) Handles AfterExpandItem
End Sub
```

Syntax for AfterExpandItem event, **/COM** version, on:

C#

```
private void AfterExpandItem(object sender,
AxEXGANTTLib._IGanttEvents_AfterExpandItemEvent e)
{}
```

C++

```
void OnAfterExpandItem(long Item)
{}
```

C++ Builder

```
void __fastcall AfterExpandItem(TObject *Sender,Exgantlib_tlb::HITEM Item)
{}
```

Delphi

```
procedure AfterExpandItem(ASender: TObject; Item : HITEM);
```

```
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure AfterExpandItem(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_AfterExpandItemEvent);  
begin  
end;
```

Powe...

```
begin event AfterExpandItem(long Item)  
end event AfterExpandItem
```

VB.NET

```
Private Sub AfterExpandItem(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_AfterExpandItemEvent) Handles AfterExpandItem  
End Sub
```

VB6

```
Private Sub AfterExpandItem(ByVal Item As EXGANTTLibCtl.HITEM)  
End Sub
```

VBA

```
Private Sub AfterExpandItem(ByVal Item As Long)  
End Sub
```

VFP

```
LPARAMETERS Item
```

Xbas...

```
PROCEDURE OnAfterExpandItem(oGantt,Item)  
RETURN
```

Syntax for AfterExpandItem event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="AfterExpandItem(Item)" LANGUAGE="JScript">  
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">  
Function AfterExpandItem(Item)  
End Function  
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComAfterExpandItem HITEM lIItem
    Forward Send OnComAfterExpandItem lIItem
End_Procedure
```

Visual  
Objects

```
METHOD OCX_AfterExpandItem(Item) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_AfterExpandItem(int _Item)
{
}
```

XBasic

```
function AfterExpandItem as v (Item as OLE::Exontrol.Gantt.1::HITEM)
end function
```

dBASE

```
function nativeObject_AfterExpandItem(Item)
return
```

The following VB sample prints the item's state when it is expanded or collapsed:

```
Private Sub Gantt1_AfterExpandItem(ByVal Item As EXGANTTLibCtl.HITEM)
    Debug.Print "The " & Item & " item was " & IIf(Gantt1.Items.ExpandItem(Item),
"expanded", "collapsed")
End Sub
```

The following C# sample prints the item's state when it is expanded or collapsed:

```
private void axGantt1_AfterExpandItem(object sender,
AxEXGANTTLib._IGanttEvents_AfterExpandItemEvent e)
{
    System.Diagnostics.Debug.WriteLine( axGantt1.Items.get_ExpandItem( e.item) ?
"expanded" : "collapsed" );
}
```

The following VB.NET sample prints the item's state when it is expanded or collapsed:

```
Private Sub AxGantt1_AfterExpandItem(ByVal sender As Object, ByVal e As
```

```
AxEXGANTTLib._IGanttEvents_AfterExpandItemEvent) Handles AxGantt1.AfterExpandItem
    Debug.WriteLine(IIf(AxGantt1.Items.ExpandItem(e.item), "expanded", "collapsed"))
End Sub
```

The following C++ sample prints the item's state when it is expanded or collapsed:

```
void OnAfterExpandItemGantt1(long Item)
{
    CItems items = m_gantt.GetItems();
    CString strFormat;
    strFormat.Format( "%s", items.GetExpandItem( Item ) ? "expanded" : "collapsed" );
    OutputDebugString( strFormat );
}
```

The following VFP sample prints the item's state when it is expanded or collapsed:

```
*** ActiveX Control Event ***
```

```
LPARAMETERS item
```

```
with thisform.Gantt1.Items
    if ( .ExpandItem(item) )
        wait window "expanded" nowait
    else
        wait window "collapsed" nowait
    endif
endwith
```

# event AnchorClick (AnchorID as String, Options as String)

Occurs when an anchor element is clicked.

Type	Description
AnchorID as String	A string expression that indicates the identifier of the anchor.
Options as String	A string expression that specifies options of the anchor element.

The control fires the AnchorClick event to notify that the user clicks an anchor element. An anchor is a piece of text or some other object (for example an image) which marks the beginning and/or the end of a hypertext link. The  [<a>](#)  element is used to mark that piece of text (or inline image), and to give its hypertextual relationship to other documents. The AnchorClick event is fired only if prior clicking the control it shows the hand cursor. For instance, if the cell is disabled, the hand cursor is not shown when hovers the anchor element, and so the AnchorClick event is not fired. Use the  [FormatAnchor](#)  property to specify the visual effect for anchor elements. For instance, if the user clicks the anchor <a1>anchor</a>, the control fires the AnchorClick event, where the AnchorID parameter is 1, and the Options parameter is empty. Also, if the user clicks the anchor <a 1;yourextradata>anchor</a>, the AnchorID parameter of the AnchorClick event is 1, and the Options parameter is "yourextradata".

Syntax for AnchorClick event, **/NET** version, on:

c#      private void AnchorClick(object sender,string AnchorID,string Options)  
        {  
        }

VB      Private Sub AnchorClick(ByVal sender As System.Object, ByVal AnchorID As String, ByVal Options As String) Handles AnchorClick  
        End Sub

Syntax for AnchorClick event, **/COM** version, on:

c#      private void AnchorClick(object sender,  
                 AxEXGANTTLib.\_IGanttEvents\_AnchorClickEvent e)  
        {  
        }

c++      void OnAnchorClick(LPCTSTR AnchorID,LPCTSTR Options)

```
{  
}
```

C++  
Builder

```
void __fastcall AnchorClick(TObject *Sender,BSTR AnchorID,BSTR Options)  
{  
}
```

Delphi

```
procedure AnchorClick(ASender: TObject; AnchorID : WideString;Options :  
WideString);  
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure AnchorClick(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_AnchorClickEvent);  
begin  
end;
```

Powe...

```
begin event AnchorClick(string AnchorID,string Options)  
end event AnchorClick
```

VB.NET

```
Private Sub AnchorClick(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_AnchorClickEvent) Handles AnchorClick  
End Sub
```

VB6

```
Private Sub AnchorClick(ByVal AnchorID As String,ByVal Options As String)  
End Sub
```

VBA

```
Private Sub AnchorClick(ByVal AnchorID As String,ByVal Options As String)  
End Sub
```

VFP

```
LPARAMETERS AnchorID,Options
```

Xbas...

```
PROCEDURE OnAnchorClick(oGantt,AnchorID,Options)  
RETURN
```

Syntax for AnchorClick event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="AnchorClick(AnchorID,Options)" LANGUAGE="JScript">
</SCRIPT>
```

VBS...

```
<SCRIPT LANGUAGE="VBScript">
Function AnchorClick(AnchorID,Options)
End Function
</SCRIPT>
```

Visual Data...

```
Procedure OnComAnchorClick String ||AnchorID String ||Options
    Forward Send OnComAnchorClick ||AnchorID ||Options
End_Procedure
```

Visual Objects

```
METHOD OCX_AnchorClick(AnchorID,Options) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_AnchorClick(str _AnchorID,str _Options)
{
}
```

XBasic

```
function AnchorClick as v (AnchorID as C, Options as C)
end function
```

dBASE

```
function nativeObject_AnchorClick(AnchorID,Options)
return
```

## event BeforeCellEdit (Item as HITEM, CollIndex as Long, Value as Variant, Cancel as Variant)

Occurs just before the user enters edit mode by clicking twice in a cell.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item being changed.
CollIndex as Long	A long expression that specifies the index of the column where the change occurs, or the handle of the cell being edited if the Item parameter is 0.
Value as Variant	A Variant expression that indicates the edit's caption. By default, the caption of the edit control is the cell's caption. The user can change the text that the edit control displays.
Cancel as Variant	A boolean expression that indicates whether the control cancels the default operation.

The BeforeCellEdit event notifies your application that the user starts editing a cell. Use the [Edit](#) method to programmatically edits a cell. Use the [AllowEdit](#) property to enable edit feature in the control. Use the BeforeCellEdit event to cancel editing cells or to change the edit's caption before it is displayed. Use the [AfterCellEdit](#) to change the cell's caption when the edit operation ends.

Syntax for BeforeCellEdit event, **/NET** version, on:

```
C# private void BeforeCellEdit(object sender,int Item,int CollIndex,ref object Value,ref object Cancel)
{
}
```

```
VB Private Sub BeforeCellEdit(ByVal sender As System.Object, ByVal Item As Integer, ByVal CollIndex As Integer, ByRef Value As Object, ByRef Cancel As Object)
Handles BeforeCellEdit
End Sub
```

Syntax for BeforeCellEdit event, **/COM** version, on:

```
C# private void BeforeCellEdit(object sender,
AxEXGANTTLib._IGanttEvents_BeforeCellEditEvent e)
{
```

```
}
```

C++

```
void OnBeforeCellEdit(long Item,long CollIndex,VARIANT FAR* Value,VARIANT FAR* Cancel)
{
}
```

C++ Builder

```
void __fastcall BeforeCellEdit(TObject *Sender,Exgantlib_tlb::HITEM Item,long CollIndex,Variant * Value,Variant * Cancel)
{
}
```

Delphi

```
procedure BeforeCellEdit(ASender: TObject; Item : HITEM;CollIndex : Integer;var Value : OleVariant;var Cancel : OleVariant);
begin
end;
```

Delphi 8  
(.NET only)

```
procedure BeforeCellEdit(sender: System.Object; e: AxEXGANTTLib._IGanttEvents_BeforeCellEditEvent);
begin
end;
```

Power...

```
begin event BeforeCellEdit(long Item,long CollIndex,any Value,any Cancel)
end event BeforeCellEdit
```

VB.NET

```
Private Sub BeforeCellEdit(ByVal sender As System.Object, ByVal e As AxEXGANTTLib._IGanttEvents_BeforeCellEditEvent) Handles BeforeCellEdit
End Sub
```

VB6

```
Private Sub BeforeCellEdit(ByVal Item As EXGANTTLibCtl.HITEM,ByVal CollIndex As Long,Value As Variant,Cancel As Variant)
End Sub
```

VBA

```
Private Sub BeforeCellEdit(ByVal Item As Long,ByVal CollIndex As Long,Value As Variant,Cancel As Variant)
End Sub
```

VFP

```
LPARAMETERS Item,CollIndex,Value,Cancel
```

Xbas... PROCEDURE OnBeforeCellEdit(oGantt,Item,ColIndex,Value,Cancel)  
RETURN

Syntax for BeforeCellEdit event, /COM version (others), on:

Java... <SCRIPT EVENT="BeforeCellEdit(Item,ColIndex,Value,Cancel)"  
LANGUAGE="JScript">  
</SCRIPT>

VBS... <SCRIPT LANGUAGE="VBScript">  
Function BeforeCellEdit(Item,ColIndex,Value,Cancel)  
End Function  
</SCRIPT>

Visual  
Data... Procedure OnComBeforeCellEdit HITEM lIItem Integer lIColIndex Variant lIValue  
Variant lICancel  
    Forward Send OnComBeforeCellEdit lIItem lIColIndex lIValue lICancel  
End\_Procedure

Visual  
Objects METHOD OCX\_BeforeCellEdit(Item,ColIndex,Value,Cancel) CLASS MainDialog  
RETURN NIL

x++ void onEvent\_BeforeCellEdit(int \_Item,int \_ColIndex,COMVariant /\*variant\*/  
\_Value,COMVariant /\*variant\*/ \_Cancel)  
{  
}

XBasic function BeforeCellEdit as v (Item as OLE::Exontrol.Gantt.1::HITEM,ColIndex as  
N,Value as A,Cancel as A)  
end function

dBASE function nativeObject\_BeforeCellEdit(Item,ColIndex,Value,Cancel)  
return

The following VB sample cancels editing of any cell that belongs to the first column:

```
Private Sub Gantt1_BeforeCellEdit(ByVal Item As EXGANTTLibCtl.HITEM, ByVal ColIndex As Long, Value As Variant, Cancel As Variant)
    Cancel = ColIndex = 0
End Sub
```

The following VB.NET sample cancels editing of any cell that belongs to the first column:

```
Private Sub AxGantt1_BeforeCellEdit(ByVal sender As Object, ByVal e As AxEXGANTTLib._IGanttEvents_BeforeCellEditEvent) Handles AxGantt1.BeforeCellEdit
    e.cancel = e.colIndex = 0
End Sub
```

The following C# sample cancels editing of any cell that belongs to the first column:

```
private void axGantt1_BeforeCellEdit(object sender,
AxEXGANTTLib._IGanttEvents_BeforeCellEditEvent e)
{
    e.cancel = e.colIndex == 0;
}
```

The following C++ sample cancels editing of any cell that belongs to the first column:

```
void OnBeforeCellEditGantt1(long Item, long ColIndex, VARIANT FAR* Value, VARIANT FAR* Cancel)
{
    if ( ColIndex == 0 )
    {
        V_VT( Cancel ) = VT_BOOL;
        V_BOOL( Cancel ) = VARIANT_TRUE;
    }
}
```

The following VFP sample cancels editing of any cell that belongs to the first column:

```
*** ActiveX Control Event ***
LPARAMETERS item, colindex, value, cancel

if ( colindex = 0 )
    cancel = .t.
```

endif

## event BeforeExpandItem (Item as HITEM, Cancel as Variant)

Fired before an item is about to be expanded (collapsed).

Type	Description
Item as HITEM	A long expression that indicates the handle of the item being expanded or collapsed.
Cancel as Variant	A boolean expression that indicates whether the control cancel expanding or collapsing the item.

The BeforeExpandItem event notifies your application that an item is about to be collapsed or expanded. Use the BeforeExpandItem event to cancel expanding or collapsing items. Use the BeforeExpandItem event to load new items when filling a virtual tree. The [AfterExpandItem](#) event is fired after an item is expanded or collapsed. Use the [ExpandItem](#) method to programmatically expand or collapse an item. Use the [ExpandOnSearch](#) property to expand items while user types characters to search for items using incremental search feature.

Syntax for BeforeExpandItem event, /NET version, on:

C#      private void BeforeExpandItem(object sender,int Item,ref object Cancel)  
        {  
        }  
    }

VB      Private Sub BeforeExpandItem(ByVal sender As System.Object, ByVal Item As Integer, ByRef Cancel As Object) Handles BeforeExpandItem  
        End Sub

Syntax for BeforeExpandItem event, /COM version, on:

C#      private void BeforeExpandItem(object sender,  
                 AxEXGANTTLib.\_IGanttEvents\_BeforeExpandItemEvent e)  
        {  
        }  
    }

C++      void OnBeforeExpandItem(long Item,VARIANT FAR\* Cancel)  
        {  
        }  
    }

C++ Builder      void \_\_fastcall BeforeExpandItem(TObject \*Sender,Exganttlb\_tlb::HITEM

```
Item,Variant * Cancel)
{
}
```

Delphi

```
procedure BeforeExpandItem(ASender: TObject; Item : HITEM;var Cancel : OleVariant);
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure BeforeExpandItem(sender: System.Object; e: AxEXGANTTLib._IGanttEvents_BeforeExpandItemEvent);
begin
end;
```

Powe...

```
begin event BeforeExpandItem(long Item,any Cancel)
end event BeforeExpandItem
```

VB.NET

```
Private Sub BeforeExpandItem(ByVal sender As System.Object, ByVal e As AxEXGANTTLib._IGanttEvents_BeforeExpandItemEvent) Handles BeforeExpandItem
End Sub
```

VB6

```
Private Sub BeforeExpandItem(ByVal Item As EXGANTTLibCtl.HITEM,Cancel As Variant)
End Sub
```

VBA

```
Private Sub BeforeExpandItem(ByVal Item As Long,Cancel As Variant)
End Sub
```

VFP

```
L PARAMETERS Item,Cancel
```

Xbas...

```
PROCEDURE OnBeforeExpandItem(oGantt,Item,Cancel)
RETURN
```

Syntax for BeforeExpandItem event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="BeforeExpandItem(Item,Cancel)" LANGUAGE="JScript">
```

```
</SCRIPT>
```

VBScript

```
<SCRIPT LANGUAGE="VBScript">
Function BeforeExpandItem(Item,Cancel)
End Function
</SCRIPT>
```

Visual Data...

```
Procedure OnComBeforeExpandItem HITEM lIItem Variant lICancel
    Forward Send OnComBeforeExpandItem lIItem lICancel
End_Procedure
```

Visual Objects

```
METHOD OCX_BeforeExpandItem(Item,Cancel) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_BeforeExpandItem(int _Item,COMVariant /*variant*/ _Cancel)
{
}
```

XBasic

```
function BeforeExpandItem as v (Item as OLE::Exontrol.Gantt.1::HITEM,Cancel as A)
end function
```

dBASE

```
function nativeObject_BeforeExpandItem(Item,Cancel)
return
```

The following VB sample cancels expanding or collapsing items:

```
Private Sub Gantt1_BeforeExpandItem(ByVal Item As EXGANTTLibCtl.HITEM, Cancel As Variant)
    Cancel = True
End Sub
```

The following VB sample prints the item's state when it is expanded or collapsed:

```
Private Sub Gantt1_AfterExpandItem(ByVal Item As EXGANTTLibCtl.HITEM)
    Debug.Print "The " & Item & " item was " & IIf(Gantt1.Items.ExpandItem(Item),
"expanded", "collapsed")
End Sub
```

The following C# sample cancels expanding or collapsing items:

```
private void axGantt1_BeforeExpandItem(object sender,  
AxEXGANTTLib._IGanttEvents_BeforeExpandItemEvent e)  
{  
    e.cancel = true;  
}
```

The following VB.NET sample cancels expanding or collapsing items:

```
Private Sub AxGantt1_BeforeExpandItem(ByVal sender As Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_BeforeExpandItemEvent) Handles  
AxGantt1.BeforeExpandItem  
    e.cancel = True  
End Sub
```

The following C++ sample cancels expanding or collapsing items:

```
void OnBeforeExpandItemGantt1(long Item, VARIANT FAR* Cancel)  
{  
    V_VT( Cancel ) = VT_BOOL;  
    V_BOOL( Cancel ) = VARIANT_TRUE;  
}
```

The following VFP sample cancels expanding or collapsing items:

```
*** ActiveX Control Event ***  
LPARAMETERS item, cancel  
  
cancel = .t.
```

## event CellButtonClick (Item as HITEM, CollIndex as Long)

Fired after the user clicks on the cell of button type.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item where the user clicks the cell's button.
CollIndex as Long	A long expression that specifies the index of the column where the user clicks the cell's button, or a long expression that indicates the handle of the cell being clicked, if the Item parameter is 0.

The CellButtonClick event is fired after the user has released the left mouse button over a cell of button type. Use the [CellHasButton](#) property to specify whether a cell is of button type. The CellButtonClick event notifies your application that user presses a cell of button type.

Syntax for CellButtonClick event, **/NET** version, on:

```
C# private void CellButtonClick(object sender,int Item,int CollIndex)
{
}
```

```
VB Private Sub CellButtonClick(ByVal sender As System.Object, ByVal Item As
Integer, ByVal CollIndex As Integer) Handles CellButtonClick
End Sub
```

Syntax for CellButtonClick event, **/COM** version, on:

```
C# private void CellButtonClick(object sender,
AxEXGANTTLib._IGanttEvents_CellButtonClickEvent e)
{}
```

```
C++ void OnCellButtonClick(long Item,long CollIndex)
{}
```

```
{  
}
```

Delphi

```
procedure CellButtonClick(ASender: TObject; Item : HITEM; CollIndex : Integer);  
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure CellButtonClick(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_CellButtonClickEvent);  
begin  
end;
```

Powe...

```
begin event CellButtonClick(long Item, long CollIndex)  
end event CellButtonClick
```

VB.NET

```
Private Sub CellButtonClick(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_CellButtonClickEvent) Handles CellButtonClick  
End Sub
```

VB6

```
Private Sub CellButtonClick(ByVal Item As EXGANTTLibCtl.HITEM, ByVal CollIndex  
As Long)  
End Sub
```

VBA

```
Private Sub CellButtonClick(ByVal Item As Long, ByVal CollIndex As Long)  
End Sub
```

VFP

```
L PARAMETERS Item, CollIndex
```

Xbas...

```
PROCEDURE OnCellButtonClick(oGantt,Item,CollIndex)  
RETURN
```

Syntax for CellButtonClick event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="CellButtonClick(Item,CollIndex)" LANGUAGE="JScript">  
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
```

```
Function CellButtonClick(Item,ColIndex)
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComCellButtonClick HITEM lIItem Integer lIColIndex
    Forward Send OnComCellButtonClick lIItem lIColIndex
End_Procedure
```

Visual  
Objects

```
METHOD OCX_CellButtonClick(Item,ColIndex) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_CellButtonClick(int _Item,int _ColIndex)
{
}
```

XBasic

```
function CellButtonClick as v (Item as OLE::Exontrol.Gantt.1::HITEM,ColIndex as N)
end function
```

dBASE

```
function nativeObject_CellButtonClick(Item,ColIndex)
return
```

The following VB sample sets the cells of the first column to be of button type, and displays a message when one of them has been clicked.

```
Private Sub Gantt1_AddItem(ByVal Item As EXGANTTLibCtl.HITEM)
    Gantt1.Items.CellHasButton(Item, 0) = True
End Sub
```

```
Private Sub Gantt1_CellButtonClick(ByVal Item As EXGANTTLibCtl.HITEM, ByVal ColIndex
As Long)
    MsgBox "The cell of button type has been clicked"
End Sub
```

The following VB.NET sample displays a message when the user clicks a button in the cell:

```
Private Sub AxGantt1_CellButtonClick(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_CellButtonClickEvent) Handles AxGantt1.CellButtonClick
    MsgBox("The cell of button type has been clicked")
```

End Sub

The following C# sample displays a message when the user clicks a button in the cell:

```
private void axGantt1_CellButtonClick(object sender,  
AxEXGANTTLib._IGanttEvents_CellButtonClickEvent e)  
{  
    MessageBox.Show("The cell of button type has been clicked");  
}
```

The following C++ sample displays a message when the user clicks a button in the cell:

```
void OnCellButtonClickGantt1(long Item, long CollIndex)  
{  
    MessageBox( "The cell of button type has been clicked." );  
}
```

The following VFP sample displays a message when the user clicks a button in the cell:

```
*** ActiveX Control Event ***  
LPARAMETERS item, colindex  
  
wait window "The cell of button type has been clicked."
```

## event CellImageClick (Item as HITEM, CollIndex as Long)

Occurs when the user clicks the cell's icon.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item where the user clicks the cell's icon.
CollIndex as Long	A long expression that indicates the index of the column where the user clicks the cell's icon, or a long expression that indicates the handle of the cell being clicked, if the Item parameter is 0.

The CellImageClick event is fired when user clicks on the cell's image. Use the [CellImage](#) property to assign an icon to a cell. Use the [CellImages](#) property to assign multiple icons to a cell. Use the [ItemFromPoint](#) property to determine the index of the icon being clicked, in case the cell displays multiple icons using the CellImages property. Use the [CellHasCheckBox](#) or [CellHasRadioButton](#) property to assign a check box or a radio button to a cell.

Syntax for CellImageClick event, **/NET** version, on:

```
c# private void CellImageClick(object sender,int Item,int CollIndex)
{
}
```

```
vb Private Sub CellImageClick(ByVal sender As System.Object, ByVal Item As
Integer, ByVal CollIndex As Integer) Handles CellImageClick
End Sub
```

Syntax for CellImageClick event, **/COM** version, on:

```
c# private void CellImageClick(object sender,
AxEXGANTTLib._IGanttEvents_CellImageClickEvent e)
{}
```

```
c++ void OnCellImageClick(long Item,long CollIndex)
{}
```

C++  
Builder

```
void __fastcall CellImageClick(TObject *Sender, Exgantlib_tlb::HITEM Item, long CollIndex)
{
}
```

Delphi

```
procedure CellImageClick(ASender: TObject; Item : HITEM; CollIndex : Integer);
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure CellImageClick(sender: System.Object; e:
AxEXGANTTLib._IGanttEvents_CellImageClickEvent);
begin
end;
```

Powe...

```
begin event CellImageClick(long Item, long CollIndex)
end event CellImageClick
```

VB.NET

```
Private Sub CellImageClick(ByVal sender As System.Object, ByVal e As
AxEXGANTTLib._IGanttEvents_CellImageClickEvent) Handles CellImageClick
End Sub
```

VB6

```
Private Sub CellImageClick(ByVal Item As EXGANTTLibCtl.HITEM, ByVal CollIndex As
Long)
End Sub
```

VBA

```
Private Sub CellImageClick(ByVal Item As Long, ByVal CollIndex As Long)
End Sub
```

VFP

```
L PARAMETERS Item, CollIndex
```

Xbas...

```
PROCEDURE OnCellImageClick(oGantt, Item, CollIndex)
RETURN
```

Syntax for CellImageClick event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="CellImageClick(Item,CollIndex)" LANGUAGE="JScript">
```

```
</SCRIPT>
```

VBScript

```
<SCRIPT LANGUAGE="VBScript">  
Function CellImageClick(Item,ColIndex)  
End Function  
</SCRIPT>
```

Visual Data...

```
Procedure OnComCellImageClick HITEM lIItem Integer lIColIndex  
    Forward Send OnComCellImageClick lIItem lIColIndex  
End_Procedure
```

Visual Objects

```
METHOD OCX_CellImageClick(Item,ColIndex) CLASS MainDialog  
RETURN NIL
```

X++

```
void onEvent_CellImageClick(int _Item,int _ColIndex)  
{  
}
```

XBasic

```
function CellImageClick as v (Item as OLE::Exontrol.Gantt.1::HITEM,ColIndex as N)  
end function
```

dBASE

```
function nativeObject_CellImageClick(Item,ColIndex)  
return
```

The following VB sample assigns an icon to each cell that's added, and changes the cell's icon when the user clicks the icon:

```
Private Sub Gantt1.AddItem(ByVal Item As EXGANTTLibCtl.HITEM)  
    Gantt1.Items.CellImage(Item, 0) = 1  
End Sub
```

```
Private Sub Gantt1_CellImageClick(ByVal Item As EXGANTTLibCtl.HITEM, ByVal ColIndex  
As Long)  
    Gantt1.Items.CellImage(Item, ColIndex) = Gantt1.Items.CellImage(Item, ColIndex) Mod 2  
+ 1  
End Sub
```

The following VB sample displays the index of icon being clicked:

```

Private Sub Gantt1_MouseUp(Button As Integer, Shift As Integer, X As Single, Y As Single)
    Dim i As HITEM, h As HitTestInfoEnum, c As Long
    With Gantt1
        i = .ItemFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY, c, h)
    End With
    If (i <> 0) or (c <> 0) Then
        If exHTCellIcon = (h And exHTCellIcon) Then
            Debug.Print "The index of icon being clicked is: " & (h And &HFFFF0000) / 65536
        End If
    End If
End Sub

```

The following C++ sample changes the cell's icon being clicked:

```

#include "Items.h"
void OnCellImageClickGantt1(long Item, long CollIndex)
{
    CItems items = m_gantt.GetItems();
    COleVariant vtItem( Item ), vtColumn( CollIndex );
    items.SetCellImage( vtItem , vtColumn , items.GetCellImage( vtItem, vtColumn ) % 2 + 1
);
}

```

The following C# sample changes the cell's icon being clicked:

```

private void axGantt1_CellImageClick(object sender,
AxEXGANTTLib._IGanttEvents_CellImageClickEvent e)
{
    axGantt1.Items.set_CellImage( e.item, e.colIndex, axGantt1.Items.get_CellImage( e.item,
e.colIndex ) % 2 + 1 );
}

```

The following VB/.NET sample changes the cell's icon being clicked:

```

Private Sub AxGantt1_CellImageClick(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_CellImageClickEvent) Handles AxGantt1.CellImageClick
    With AxGantt1.Items
        .CellImage(e.item, e.colIndex) = .CellImage(e.item, e.colIndex) Mod 2 + 1
    End With

```

End With

End Sub

The following VFP sample changes the cell's icon being clicked:

```
*** ActiveX Control Event ***
```

```
LPARAMETERS item, colindex
```

```
with thisform.Gantt1.Items
```

```
    .DefaultItem = item
```

```
    .CellImage( 0,colindex ) = .CellImage( 0,colindex ) + 1
```

```
endwith
```

## event CellStateChanged (Item as HITEM, CollIndex as Long)

Fired after cell's state has been changed.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item where the cell's state is changed.
CollIndex as Long	A long expression that indicates the index of the column where the cell's state is changed, or a long expression that indicates the handle of the cell, if the Item parameter is 0.

A cell that contains a radio button or a check box button fires the CellStateChanged event when its state is changed. Use the [CellState](#) property to change the cell's state. Use the [CellHasRadioButton](#) or [CellHasCheckBox](#) property to enable radio or check box button into a cell. Use the [CellImage](#) property to display an icon in the cell. Use the [CellImages](#) property to display multiple icons in the same cell. Use the [PartialCheck](#) property to enable partial check feature ( check boxes with three states: partial, checked and unchecked ). Use the [CellChecked](#) property to determine the handle of the cell that's checked in a radio group. Use the [CellRadioGroup](#) property to radio group cells.

Syntax for CellStateChanged event, /NET version, on:

c#      private void CellStateChanged(object sender,int Item,int CollIndex)  
        {  
        }  
    }

VB      Private Sub CellStateChanged(ByVal sender As System.Object, ByVal Item As Integer, ByVal CollIndex As Integer) Handles CellStateChanged  
        End Sub

Syntax for CellStateChanged event, /COM version, on:

c#      private void CellStateChanged(object sender,  
                 AxEXGANTTLib.\_IGanttEvents\_CellStateChangedEvent e)  
        {  
        }

C++      void OnCellStateChanged(long Item,long CollIndex)  
        {  
        }

C++  
Builder

```
void __fastcall CellStateChanged(TObject *Sender,Exgantlib_tlb::HITEM Item,long CollIndex)
{
}
```

Delphi

```
procedure CellStateChanged(ASender: TObject; Item : HITEM;CollIndex : Integer);
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure CellStateChanged(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_CellStateChangedEvent);
begin
end;
```

Powe...

```
begin event CellStateChanged(long Item,long CollIndex)
end event CellStateChanged
```

VB.NET

```
Private Sub CellStateChanged(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_CellStateChangedEvent) Handles CellStateChanged
End Sub
```

VB6

```
Private Sub CellStateChanged(ByVal Item As EXGANTTLibCtl.HITEM, ByVal CollIndex  
As Long)
End Sub
```

VBA

```
Private Sub CellStateChanged(ByVal Item As Long, ByVal CollIndex As Long)
End Sub
```

VFP

```
LPARAMETERS Item,CollIndex
```

Xbas...

```
PROCEDURE OnCellStateChanged(oGantt,Item,CollIndex)
RETURN
```

Syntax for CellStateChanged event, **/COM** version (others), on:

Java...

```
<SCRIPT EVENT="CellStateChanged(Item,CollIndex)" LANGUAGE="JScript">
</SCRIPT>
```

VBS...

```
<SCRIPT LANGUAGE="VBScript">
Function CellStateChanged(Item,ColIndex)
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComCellStateChanged HITEM lItem Integer lColIndex
    Forward Send OnComCellStateChanged lItem lColIndex
End_Procedure
```

Visual  
Objects

```
METHOD OCX_CellStateChanged(Item,ColIndex) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_CellStateChanged(int _Item,int _ColIndex)
{
}
```

XBasic

```
function CellStateChanged as v (Item as OLE::Exontral.Gantt.1::HITEM,ColIndex as
N)
end function
```

dBASE

```
function nativeObject_CellStateChanged(Item,ColIndex)
return
```

The following VB sample displays a message when the user clicks a check box or a radio button:

```
Private Sub Gantt1_CellStateChanged(ByVal Item As EXGANTTLibCtl.HITEM, ByVal
ColIndex As Long)
    Debug.Print "The cell "" & Gantt1.Items.CellCaption(Item, ColIndex) & "" has changed
its state. The new state is " & If(Gantt1.Items.CellState(Item, ColIndex) = 0, "Unchecked",
"Checked")
End Sub
```

The following VC sample displays the caption of the cell whose checkbox's state is changed:

```
#include "Items.h"
```

```

static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return szDefault;

        COleVariant vt;
        vt.ChangeType( VT_BSTR, pv );
        return V_BSTR( &vt );
    }
    return szDefault;
}

void OnCellStateChangedGantt1(long Item, long CollIndex)
{
    CItems items = m_gantt.GetItems();
    COleVariant vtItem( Item ), vtColumn( CollIndex );
    CString strCellCaption = V2S( &items.GetCellCaption( vtItem, vtColumn ) );
    CString strOutput;
    strOutput.Format( "%s's checkbox state is %i\r\n", strCellCaption, items.GetCellState(
        vtItem, vtColumn ) );
    OutputDebugString( strOutput );
}

```

The following VB.NET sample displays a message when the user clicks a check box or a radio button:

```

Private Sub AxGantt1_CellStateChanged(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_CellStateChangedEvent) Handles
AxGantt1.CellStateChanged
    Debug.WriteLine("The cell """ & AxGantt1.Items.CellCaption(e.item, e.colIndex) & """
has changed its state. The new state is " & If(AxGantt1.Items.CellState(e.item, e.colIndex) = 0,
"Unchecked", "Checked"))
End Sub

```

The following C# sample outputs a message when the user clicks a check box or a radio button:

```
private void axGantt1_CellStateChanged(object sender,  
AxEXGANTTLib._IGanttEvents_CellStateChangedEvent e)  
{  
    string strOutput = axGantt1.Items.get_CellCaption( e.item, e.colIndex ).ToString();  
    strOutput += " state = " + axGantt1.Items.get_CellState(e.item, e.colIndex).ToString() ;  
    System.Diagnostics.Debug.WriteLine( strOutput );  
}
```

The following VFP sample prints a message when the user clicks a check box or a radio button:

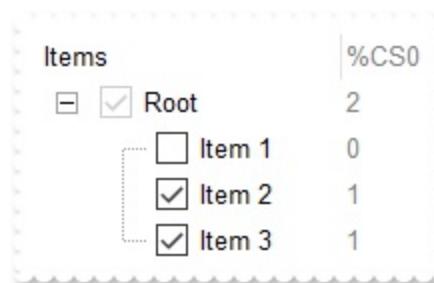
```
*** ActiveX Control Event ***  
LPARAMETERS item, colindex  
  
local sOutput  
sOutput = ""  
with thisform.Gantt1.Items  
    .DefaultItem = item  
    sOutput = .CellCaption( 0, colindex )  
    sOutput = sOutput + ", state = " + str(.CellState( 0, colindex ))  
    wait window nowait sOutput  
endwith
```

## event CellStateChanging (Item as HITEM, CollIndex as Long, NewState as Long)

Fired before cell's state is about to be changed.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item where the cell's state is about to be changed.
CollIndex as Long	A long expression that indicates the index of the column where the cell's state is changed, or a long expression that indicates the handle of the cell, if the Item parameter is 0.
NewState as Long	A long expression that specifies the new state of the cell ( 0- unchecked, 1 - checked, 2 - partial checked )

The control fires the CellStateChanging event just before cell's state is about to be changed. For instance, you can prevent changing the cell's state, by calling the NewState = Items.CellState(Item,CollIndex). A cell that contains a radio button or a check box button fires the [CellStateChanged](#) event when its state is changed. Use the [CellState](#) property to change the cell's state. Use the [CellHasRadioButton](#) or [CellHasCheckBox](#) property to enable radio or check box button into a cell. Use the [Def](#) property to assign check-boxes / radio-buttons for all cells in the column. Use the [CellImage](#) property to display an icon in the cell. Use the [CellImages](#) property to display multiple icons in the same cell. Use the [PartialCheck](#) property to enable partial check feature ( check boxes with three states: partial, checked and unchecked ). Use the [CellChecked](#) property to determine the handle of the cell that's checked in a radio group. Use the [CellRadioGroup](#) property to radio group cells. We would not recommend changing the CellState property during the CellStateChanging event, to prevent recursive calls, instead you can change the NewState parameter which is passed by reference.



Once the user clicks a check-box, radio-button, the control fires the following events:

- CellStateChanging event, where the NewState parameter indicates the new state of the cell's checkbox / radio-button.
- [CellStateChanged](#) event notifies your application that the cell's check-box or radio-

button has been changed. The [CellState](#) property determines the check-box/radio-button state of the cell.

For instance, the following VB sample prevents changing the cell's checkbox/radio-button, when the control's `ReadOnly` property is set:

```
Private Sub Gantt1_CellStateChanging(ByVal Item As EXGANTTLibCtl.HITEM, ByVal CollIndex As Long, NewState As Long)
    With Gantt1
        If (.ReadOnly) Then
            With .Items
                NewState = .CellState(Item, CollIndex)
            End With
        End If
    End With
End Sub
```

Syntax for `CellStateChanging` event, **/NET** version, on:

```
C# private void CellStateChanging(object sender,int Item,int CollIndex,ref int NewState)
{
}
```

```
VB Private Sub CellStateChanging(ByVal sender As System.Object,ByVal Item As Integer,ByVal CollIndex As Integer,ByRef NewState As Integer) Handles CellStateChanging
End Sub
```

Syntax for `CellStateChanging` event, **/COM** version, on:

```
C# private void CellStateChanging(object sender,
AxEXGANTTLib._IGanttEvents_CellStateChangingEvent e)
{}
```

```
C++ void OnCellStateChanging(long Item,long CollIndex,long FAR* NewState)
{}
```

C++  
Builder

```
void __fastcall CellStateChanging(TObject *Sender, Extreelib_tlb::HITEM Item, long CollIndex, long * NewState)
{
}
```

Delphi

```
procedure CellStateChanging(ASender: TObject; Item : HITEM; CollIndex : Integer; var NewState : Integer);
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure CellStateChanging(sender: System.Object; e: AxEXGANTTLib._IGanttEvents_CellStateChangingEvent);
begin
end;
```

Powe...

```
begin event CellStateChanging(long Item, long CollIndex, long NewState)

end event CellStateChanging
```

VB.NET

```
Private Sub CellStateChanging(ByVal sender As System.Object, ByVal e As AxEXGANTTLib._IGanttEvents_CellStateChangingEvent) Handles CellStateChanging
End Sub
```

VB6

```
Private Sub CellStateChanging(ByVal Item As EXGANTTLibCtl.HITEM, ByVal CollIndex As Long, ByVal NewState As Long)
End Sub
```

VBA

```
Private Sub CellStateChanging(ByVal Item As Long, ByVal CollIndex As Long, ByVal NewState As Long)
End Sub
```

VFP

```
L PARAMETERS Item, CollIndex, NewState
```

Xbas...

```
PROCEDURE OnCellStateChanging(oGantt, Item, CollIndex, NewState)
RETURN
```

Syntax for CellStateChanging event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="CellStateChanging(Item,ColIndex,NewState)"  
LANGUAGE="JScript">  
</SCRIPT>
```

VBScrip...

```
<SCRIPT LANGUAGE="VBScript">  
Function CellStateChanging(Item,ColIndex,NewState)  
End Function  
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComCellStateChanging HITEM lItem Integer lColIndex Integer  
lNewState  
    Forward Send OnComCellStateChanging lItem lColIndex lNewState  
End_Procedure
```

Visual  
Objects

```
METHOD OCX_CellStateChanging(Item,ColIndex,NewState) CLASS MainDialog  
RETURN NIL
```

x++

```
void onEvent_CellStateChanging(int _Item,int _ColIndex,COMVariant /*long*/  
 _NewState)  
{  
}
```

XBasic

```
function CellStateChanging as v (Item as OLE::Exontrol.Gantt.1::HITEM,ColIndex  
as N,NewState as N)  
end function
```

dBASE

```
function nativeObject_CellStateChanging(Item,ColIndex,NewState)  
return
```

## event Click ()

Occurs when the user presses and then releases the left mouse button over the control.

Type	Description
------	-------------

The Click event is fired when the user releases the left mouse button over the control. Use a [MouseDown](#) or [MouseUp](#) event procedure to specify actions that will occur when a mouse button is pressed or released. Unlike the Click and [DblClick](#) events, MouseDown and MouseUp events lets you distinguish between the left, right, and middle mouse buttons. You can also write code for mouse-keyboard combinations that use the SHIFT, CTRL, and ALT keyboard modifiers.

Syntax for Click event, **/NET** version, on:

C#      private void Click(object sender)  
        {  
        }  
    }

VB      Private Sub Click(ByVal sender As System.Object) Handles Click  
        End Sub

Syntax for Click event, **/COM** version, on:

C#      private void ClickEvent(object sender, EventArgs e)  
        {  
        }  
    }

C++      void OnClick()  
        {  
        }  
    }

C++ Builder      void \_\_fastcall Click(TObject \*Sender)  
        {  
        }  
    }

Delphi      procedure Click(ASender: TObject);  
        begin  
        end;

Delphi 8  
.NET  
only)

```
procedure ClickEvent(sender: System.Object; e: System.EventArgs);
begin
end;
```

Powe...

```
begin event Click()
end event Click
```

VB.NET

```
Private Sub ClickEvent(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles ClickEvent
End Sub
```

VB6

```
Private Sub Click()
End Sub
```

VBA

```
Private Sub Click()
End Sub
```

VFP

```
LPARAMETERS nop
```

Xbas...

```
PROCEDURE OnClick(oGantt)
RETURN
```

Syntax for Click event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="Click()" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function Click()
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComClick
Forward Send OnComClick
```

End\_Procedure

Visual  
Objects

METHOD OCX\_Click() CLASS MainDialog  
RETURN NIL

X++

```
void onEvent_Click()  
{  
}
```

XBasic

```
function Click as v ()  
end function
```

dBASE

```
function nativeObject_Click()  
return
```

## event ColumnClick (Column as Column)

Fired after the user clicks on column's header.

Type	Description
Column as <a href="#">Column</a>	A Column object that indicates clicked column.

The ColumnClick event is fired when the user clicks the column's header. By default, the control sorts by the column when user clicks the column's header. Use the [SortOnClick](#) property to specify the operation that control does when user clicks the column's caption. Use the [ColumnFromPoint](#) property to access the column from point. Use the [ItemFromPoint](#) property to access the item from point. The control fires [Sort](#) method when the control sorts a column. Use the [MouseDown](#) or [MouseUp](#) event to notify the control when the user clicks the control, including the columns.

Syntax for ColumnClick event, **/NET** version, on:

```
C# private void ColumnClick(object sender, exontrol.EXGANTTLib.Column Column)
{
}
```

```
VB Private Sub ColumnClick(ByVal sender As System.Object, ByVal Column As
exontrol.EXGANTTLib.Column) Handles ColumnClick
End Sub
```

Syntax for ColumnClick event, **/COM** version, on:

```
C# private void ColumnClick(object sender,
AxEXGANTTLib._IGanttEvents_ColumnClickEvent e)
{}
```

```
C++ void OnColumnClick(LPDISPATCH Column)
{}
```

```
C++ Builder void __fastcall ColumnClick(TObject *Sender, Exganttlib_tlb::IColumn *Column)
{}
```

Delphi

```
procedure ColumnClick(ASender: TObject; Column : IColumn);
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure ColumnClick(sender: System.Object; e:
AxEXGANTTLib._IGanttEvents_ColumnClickEvent);
begin
end;
```

Powe...

```
begin event ColumnClick(oleobject Column)
end event ColumnClick
```

VB.NET

```
Private Sub ColumnClick(ByVal sender As System.Object, ByVal e As
AxEXGANTTLib._IGanttEvents_ColumnClickEvent) Handles ColumnClick
End Sub
```

VB6

```
Private Sub ColumnClick(ByVal Column As EXGANTTLibCtl.ILColumn)
End Sub
```

VBA

```
Private Sub ColumnClick(ByVal Column As Object)
End Sub
```

VFP

```
L PARAMETERS Column
```

Xbas...

```
PROCEDURE OnColumnClick(oGantt,Column)
RETURN
```

Syntax for ColumnClick event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="ColumnClick(Column)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function ColumnClick(Column)
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComColumnClick Variant IIColumn
    Forward Send OnComColumnClick IIColumn
End_Procedure
```

Visual  
Objects

```
METHOD OCX_ColumnClick(Column) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_ColumnClick(COM _Column)
{}
```

XBasic

```
function ColumnClick as v (Column as OLE::Exontrol.Gantt.1::IColumn)
end function
```

dBASE

```
function nativeObject_ColumnClick(Column)
return
```

The following VB sample displays the caption of the column being clicked:

```
Private Sub Gantt1_ColumnClick(ByVal Column As EXGANTTLibCtl.ICollection)
    Debug.Print Column.Caption
End Sub
```

The following C++ sample displays the caption of the column being clicked:

```
#include "Column.h"
void OnColumnClickGantt1(LPDISPATCH Column)
{
    CColumn column( Column );
    column.m_bAutoRelease = FALSE;
    MessageBox( column.GetCaption() );

}
```

The following VB.NET sample displays the caption of the column being clicked:

```
Private Sub AxGantt1_ColumnClick(ByVal sender As Object, ByVal e As
```

```
AxEXGANTTLib._IGanttEvents_ColumnClickEvent) Handles AxGantt1.ColumnClick
    MessageBox.Show(e.column.Caption)
End Sub
```

The following C# sample displays the caption of the column being clicked:

```
private void axGantt1_ColumnClick(object sender,
AxEXGANTTLib._IGanttEvents_ColumnClickEvent e)
{
    MessageBox.Show( e.column.Caption );
}
```

The following VFP sample displays the caption of the column being clicked:

```
*** ActiveX Control Event ***
LPARAMETERS column

with column
    wait window nowait .Caption
endwith
```

## event DateChange ()

Occurs when the first visible date is changed.

Type	Description
	<p>The DateChange event is fired when the first visible date is changed. Use the <a href="#">FirstVisibleDate</a> property to specify the first visible date. Use the <a href="#">ScrollTo</a> method to ensure that a specified date is visible. Use the <a href="#">FormatDate</a> property to format a date to a specified format.</p>
	<p>Syntax for DateChange event, <b>/NET</b> version, on:</p> <p>C#      private void DateChange(object sender)         {         }  VB      Private Sub DateChange(ByVal sender As System.Object) Handles DateChange         End Sub</p>
	<p>Syntax for DateChange event, <b>/COM</b> version, on:</p> <p>C#      private void DateChange(object sender, EventArgs e)         {         }  C++      void OnDateChange()         {         }  C++ Builder      void __fastcall DateChange(TObject *Sender)         {         }  Delphi      procedure DateChange(ASender: TObject); begin end;  Delphi 8 (.NET only)      procedure DateChange(sender: System.Object; e: System.EventArgs); begin end;</p>

Powe...

```
begin event DateChange()  
end event DateChange
```

VB.NET

```
Private Sub DateChange(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles DateChange  
End Sub
```

VB6

```
Private Sub DateChange()  
End Sub
```

VBA

```
Private Sub DateChange()  
End Sub
```

VFP

```
LPARAMETERS nop
```

Xbas...

```
PROCEDURE OnDateChange(oGantt)  
RETURN
```

Syntax for DateChange event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="DateChange()" LANGUAGE="JScript">  
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">  
Function DateChange()  
End Function  
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComDateChange  
    Forward Send OnComDateChange  
End_Procedure
```

Visual  
Objects

```
METHOD OCX_DateChange() CLASS MainDialog  
RETURN NIL
```

X++

```
void onEvent_DateChange()  
{
```

```
}
```

**XBasic**

```
function DateChange as v ()  
end function
```

**dBASE**

```
function nativeObject_DateChange()  
return
```

The following VB sample displays the first visible date when the user changes the first visible date:

```
Private Sub Gantt1_DateChange()  
    With Gantt1.Chart  
        Debug.Print FormatDateTime(.FirstVisibleDate)  
    End With  
End Sub
```

or you can use the FormatDate method like follows:

```
Private Sub Gantt1_DateChange()  
    With Gantt1.Chart  
        Debug.Print .FormatDate(.FirstVisibleDate, "<%yyyy%>-<%m%>-<%d%>")  
    End With  
End Sub
```

The following C++ sample displays the first visible date when the user changes the first visible date:

```
#include "Gantt.h"  
#include "Chart.h"  
  
static DATE V2D( VARIANT* pvtDate )  
{  
    COleVariant vtDate;  
    vtDate.ChangeType( VT_DATE, pvtDate );  
    return V_DATE( &vtDate );  
}
```

```

void OnDateChangeGantt1()
{
    if ( m_gantt.GetControlUnknown() )
    {
        CChart chart = m_gantt.GetChart();
        TCHAR szDate[1024] = _T("");
        SYSTEMTIME stDate = {0};
        VariantTimeToSystemTime( V2D( &chart.GetFirstVisibleDate() ), &stDate );
        GetDateFormat( LOCALE_SYSTEM_DEFAULT, LOCALE_USE_CP_ACP, &stDate, NULL,
szDate, 1024 );
        OutputDebugString( szDate );
    }
}

```

The following VB.NET sample displays the first visible date when the user changes the first visible date:

```

Private Sub AxGantt1_DateChange(ByVal sender As Object, ByVal e As System.EventArgs)
Handles AxGantt1.DateChange
    Debug.WriteLine(AxGantt1.Chart.FirstVisibleDate.ToString())
End Sub

```

The following C# sample displays the first visible date when the user changes the first visible date:

```

private void axGantt1_DateChange(object sender, EventArgs e)
{
    System.Diagnostics.Debug.WriteLine(axGantt1.Chart.FirstVisibleDate.ToString());
}

```

The following VFP sample displays the first visible date when the user changes the first visible date:

\*\*\* ActiveX Control Event \*\*\*

```

with thisform.Gantt1.Chart
    wait window nowait .FormatDate(.FirstVisibleDate, "<%yyyy%>-<%m%>-<%d%>")
endwith

```

## event DateTimeChanged (DateTime as Date)

Notifies your application that the current time is changed.

Type	Description
DateTime as Date	A Date-Time expression that indicates the new current time.

The DateTimeChanged event notifies your application when the current date-time is changed. The DateTimeChanged event is fired ONLY if the [MarkNowColor](#) property is not zero (0). Use the [FirstVisibleDate](#) property to specify the first visible Date-Time in the control's chart. The [MarkNowUnit](#) property specifies the unit of time to count for. For instance, you can show the current date-time from current second, to next second, from minute to next minute, and so on. Use the [MarkNowCount](#) property to specify the number of units of date-time to count from. For instance, you can show the current date-time from 5 seconds to 5 seconds, and so on. The [MarkNowWidth](#) property specifies the width in pixels of the vertical bar that shows the current date-time. The [MarkNowTransparent](#) property specifies the percent of transparency to show the vertical bar that indicates the current date-time.

Syntax for DateTimeChanged event, **/NET** version, on:

C#

```
private void DateTimeChanged(object sender, DateTime DateTime)
{
}
```

VB

```
Private Sub DateTimeChanged(ByVal sender As System.Object, ByVal Date As Date) Handles DateTimeChanged
End Sub
```

Syntax for DateTimeChanged event, **/COM** version, on:

C#

```
private void DateTimeChanged(object sender,
AxEXGANTTLib._IGanttEvents_DateTimeChangedEvent e)
{}
```

C++

```
void OnDateTimeChanged(DATE DateTime)
{}
```

```
void __fastcall DateTimeChanged(TObject *Sender, DATE DateTime)
{
}
```

Delphi

```
procedure DateTimeChanged(ASender: TObject; DateTime : TDateTime);
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure DateTimeChanged(sender: System.Object; e:
AxEXGANTTLib._IGanttEvents_DateTimeChangedEvent);
begin
end;
```

Powe...

```
begin event DateTimeChanged(datetime DateTime)
end event DateTimeChanged
```

VB.NET

```
Private Sub DateTimeChanged(ByVal sender As System.Object, ByVal e As
AxEXGANTTLib._IGanttEvents_DateTimeChangedEvent) Handles
DateTimeChanged
End Sub
```

VB6

```
Private Sub DateTimeChanged(ByVal DateTime As Date)
End Sub
```

VBA

```
Private Sub DateTimeChanged(ByVal DateTime As Date)
End Sub
```

VFP

```
L PARAMETERS DateTime
```

Xbas...

```
PROCEDURE OnDateTimeChanged(oGantt,DateTime)
RETURN
```

Syntax for DateTimeChanged event, /COM version (others), on:

Java... <SCRIPT EVENT="DateTimeChanged(DateTime)" LANGUAGE="JScript">

```
</SCRIPT>
```

VBScript

```
<SCRIPT LANGUAGE="VBScript">
Function DateTimeChanged(DateTime)
End Function
</SCRIPT>
```

Visual Data...

```
Procedure OnComDateTimeChanged DateTime IIDateTime
    Forward Send OnComDateTimeChanged IIDateTime
End_Procedure
```

Visual Objects

```
METHOD OCX_DateTimeChanged(DateTime) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_DateTimeChanged(date _DateTime)
{}
```

XBasic

```
function DateTimeChanged as v (DateTime as T)
end function
```

dBASE

```
function nativeObject_DateTimeChanged(DateTime)
return
```

## event DblClick (Shift as Integer, X as OLE\_XPOS\_PIXELS, Y as OLE\_YPOS\_PIXELS)

Occurs when the user dblclk the left mouse button over an object.

Type	Description
Shift as Integer	An integer that corresponds to the state of the SHIFT, CTRL, and ALT keys.
X as OLE_XPOS_PIXELS	A single that specifies the current X location of the mouse pointer. The x values is always expressed in container coordinates.
Y as OLE_YPOS_PIXELS	A single that specifies the current Y location of the mouse pointer. The y values is always expressed in container coordinates

The DblClick event is fired when user double clicks the control. Use the [ItemFromPoint](#) method to determine the cell over the cursor. Use the [ExpandOnDblClick](#) property to specify whether an item is expanded or collapsed when user double clicks it. Use the [ColumnFromPoint](#) property to get the column from point.

Syntax for DblClick event, **/NET** version, on:

C#

```
private void DblClick(object sender,short Shift,int X,int Y)
{
}
```

VB

```
Private Sub DblClick(ByVal sender As System.Object, ByVal Shift As Short, ByVal X
As Integer, ByVal Y As Integer) Handles DblClick
End Sub
```

Syntax for DblClick event, **/COM** version, on:

C#

```
private void DblClick(object sender, AxEXGANTTLib._IGanttEvents_DblClickEvent
e)
{
```

C++

```
void OnDblClick(short Shift, long X, long Y)
{
```

C++  
Builder

```
void __fastcall DblClick(TObject *Sender,short Shift,int X,int Y)
{
}
```

Delphi

```
procedure DblClick(ASender: TObject; Shift : Smallint;X : Integer;Y : Integer);
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure DblClick(sender: System.Object; e:
AxEXGANTTLib._IGanttEvents_DblClickEvent);
begin
end;
```

Powe...

```
begin event DblClick(integer Shift,long X,long Y)
end event DblClick
```

VB.NET

```
Private Sub DblClick(ByVal sender As System.Object, ByVal e As
AxEXGANTTLib._IGanttEvents_DblClickEvent) Handles DblClick
End Sub
```

VB6

```
Private Sub DblClick(Shift As Integer,X As Single,Y As Single)
End Sub
```

VBA

```
Private Sub DblClick(ByVal Shift As Integer,ByVal X As Long,ByVal Y As Long)
End Sub
```

VFP

```
LPARAMETERS Shift,X,Y
```

Xbas...

```
PROCEDURE OnDblClick(oGantt,Shift,X,Y)
RETURN
```

Syntax for DblClick event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="DblClick(Shift,X,Y)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
```

```
Function DblClick(Shift,X,Y)
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComDblClick Short lShift OLE_XPOS_PIXELS lX OLE_YPOS_PIXELS
lY
    Forward Send OnComDblClick lShift lX lY
End_Procedure
```

Visual  
Objects

```
METHOD OCX_DblClick(Shift,X,Y) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_DblClick(int _Shift,int _X,int _Y)
{
}
```

XBasic

```
function DblClick as v (Shift as N,X as OLE::Exontral.Gantt.1::OLE_XPOS_PIXELS,Y as
OLE::Exontral.Gantt.1::OLE_YPOS_PIXELS)
end function
```

dBASE

```
function nativeObject_DblClick(Shift,X,Y)
return
```

The following VB sample prints a message when an item has been double clicked:

```
Private Sub Gantt1_DblClick(Shift As Integer, X As Single, Y As Single)
    ' Converts the container coordinates to client coordinates
    X = X / Screen.TwipsPerPixelX
    Y = Y / Screen.TwipsPerPixelY
    Dim h As HITEM
    Dim c As Long, hit as Long
    ' Gets the item from (X,Y)
    h = Gantt1.ItemFromPoint(X, Y, c, hit)
    If Not (h = 0) Then
        MsgBox "The " & h & " item has been double clicked."
    End If
End Sub
```

The following VB sample displays a message when a cell has been double clicked:

```
Private Sub Gantt1_DblClick(Shift As Integer, X As Single, Y As Single)
    ' Converts the container coordinates to client coordinates
    X = X / Screen.TwipsPerPixelX
    Y = Y / Screen.TwipsPerPixelY
    Dim h As HITEM
    Dim c As Long, hit As Long
    ' Gets the item from (X,Y)
    h = Gantt1.ItemFromPoint(X, Y, c, hit)
    If Not (h = 0) Then
        MsgBox "The """" & Gantt1.Items.CellCaption(h, c) & """ cell has been double clicked."
    End If
End Sub
```

The following C++ sample displays the caption of the cell being double clicked ( including the inner cells ):

```
#include "Items.h"

static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return szDefault;

        COleVariant vt;
        vt.ChangeType( VT_BSTR, pv );
        return V_BSTR( &vt );
    }
    return szDefault;
}

void OnDblClickGantt1(short Shift, long X, long Y)
{
    long c = NULL, hit = NULL;
    long h = m_gantt.GetItemFromPoint( X, Y, &c, &hit );
```

```

if ( ( h != 0 ) || ( c != 0 ) )
{
    COleVariant vtItem( h ), vtColumn( c );
    CString strCaption = V2S( &m_gantt.GetItems() ).GetCellCaption( vtItem, vtColumn );
    MessageBox( strCaption );
}
}

```

The following VB.NET sample displays the caption of the cell being double clicked ( including the inner cells ):

```

Private Sub AxGantt1_DblClick(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_DblClickEvent) Handles AxGantt1.DblClick
    Dim h As Integer, c As Integer, hit As EXGANTTLib.HitTestInfoEnum
    With AxGantt1
        h = .get_ItemFromPoint(e.x, e.y, c, hit)
        If Not (h = 0) Or Not (c = 0) Then
            MessageBox.Show(.Items.CellCaption(h, c))
        End If
    End With
End Sub

```

The following C# sample displays the caption of the cell being double clicked ( including the inner cells ):

```

private void axGantt1_DblClick(object sender, AxEXGANTTLib._IGanttEvents_DblClickEvent
e)
{
    EXGANTTLib.HitTestInfoEnum hit;
    int c = 0, h = axGantt1.get_ItemFromPoint( e.x, e.y, out c, out hit );
    if ( ( h != 0 ) || ( c != 0 ) )
        MessageBox.Show( axGantt1.Items.get_CellCaption( h, c ).ToString() );
}

```

The following VFP sample displays the caption of the cell being double clicked:

```

*** ActiveX Control Event ***
LPARAMETERS shift, x, y

```

```
local c, hit
```

```
c = 0
```

```
hit = 0
```

```
with thisform.Gantt1
```

```
    .Items.DefaultItem = .ItemFromPoint( x, y, @c, @hit )
```

```
    if ( .Items.DefaultItem != 0 )
```

```
        wait window nowait .Items.CellCaption( 0, c )
```

```
    endif
```

```
endwith
```

## event Event (EventID as Long)

Notifies the application once the control fires an event.

Type	Description
EventID as Long	A Long expression that specifies the identifier of the event. Use the <a href="#">EventParam(-2)</a> to display entire information about fired event ( such as name, identifier, and properties ).

The Event notification occurs ANY time the control fires an event.

This is useful for X++ language, which does not support event with parameters passed by reference.

In X++ the "Error executing code: FormActiveXControl (data source), method ... called with invalid parameters" occurs when handling events that have parameters passed by reference. Passed by reference, means that in the event handler, you can change the value for that parameter, and so the control will takes the new value, and use it. The X++ is NOT able to handle properly events with parameters by reference, so we have the solution.

The solution is using and handling the Event notification and EventParam method., instead handling the event that gives the "invalid parameters" error executing code.

Let's presume that we need to handle the BarParentChange event to change the \_Cancel parameter from false to true, which fires the "Error executing code: FormActiveXControl (data source), method onEvent\_BarParentChange called with invalid parameters." We need to know the identifier of the BarParentChange event ( each event has an unique identifier and it is static, defined in the control's type library ). If you are not familiar with what a type library means just handle the Event of the control as follows:

```
// Notifies the application once the control fires an event.  
void onEvent_Event(int _EventID)  
{  
    print exgantt1.EventParam(-2).toString();  
}
```

This code allows you to display the information for each event of the control being fired as in the list bellow:

```
"MouseMove/-606( 1 , 0 , 145 , 36 )" VT_BSTR  
"BarParentChange/125( 192998632 , 'B' , 192999592 , =false )" VT_BSTR  
"BeforeDrawPart/54( 2 , -1962866148 , =0 , =0 , =0 , =0 , =false )" VT_BSTR
```

```
"AfterDrawPart/55( 2 , -1962866148 , 0 , 0 , 0 , 0 )" VT_BSTR
```

```
"MouseMove/-606( 1 , 0 , 145 , 35 )" VT_BSTR
```

Each line indicates an event, and the following information is provided: the name of the event, its identifier, and the list of parameters being passed to the event. The parameters that starts with = character, indicates a parameter by reference, in other words one that can changed during the event handler.

Now, we can see that the identifier for the BarParentChange event is 125, so we need to handle the Event event as:

```
// Notifies the application once the control fires an event.  
void onEvent_Event(int _EventID)  
{  
    ;  
    if ( _EventID == 125 ) /*event BarParentChange (Item as HITEM, Key as Variant, NewItem  
as HITEM, Cancel as Boolean) */  
        exgantt1.EventParam( 3 /*Cancel*/, COMVariant::createFromBoolean(true) );  
}
```

The code checks if the BarParentChange ( \_EventID == 125) event is fired, and changes the third parameter of the event to true. The definition for BarParentChange event can be consulted in the control's documentation or in the ActiveX explorer. So, anytime you need to access the original parameters for the event you should use the EventParam method that allows you to get or set a parameter. If the parameter is not passed by reference, you can not change the parameter's value.

Now, let's add some code to see a complex sample, so let's say that we need to prevent moving the bar from an item to any disabled item. So, we need to specify the Cancel parameter as not Items.EnableItem(NewItem), in other words cancels if the new parent is disabled. Shortly the code will be:

```
// Notifies the application once the control fires an event.  
void onEvent_Event(int _EventID)  
{  
    ;  
    if ( _EventID == 125 ) /*event BarParentChange (Item as HITEM, Key as Variant, NewItem  
as HITEM, Cancel as Boolean) */  
        if ( !exgantt1.Items().EnableItem( exgantt1.EventParam( 2 /*NewItem*/ ) ) )  
            exgantt1.EventParam( 3 /*Cancel*/, COMVariant::createFromBoolean(true) );  
}
```

In conclusion, anytime the X++ fires the "invalid parameters." while handling an event, you can use and handle the Event notification and EventParam methods of the control

Syntax for Event event, /NET version, on:

C# private void Event(object sender,int EventID)  
{  
}

VB Private Sub Event(ByVal sender As System.Object, ByVal EventID As Integer)  
Handles Event  
End Sub

Syntax for Event event, /COM version, on:

C# private void Event(object sender, AxEXGANTTLib.\_IGanttEvents\_EventEvent e)  
{  
}

C++ void OnEvent(long EventID)  
{  
}

C++ Builder void \_\_fastcall Event(TObject \*Sender,long EventID)  
{  
}

Delphi procedure Event(ASender: TObject; EventID : Integer);  
begin  
end;

Delphi 8 (.NET only) procedure Event(sender: System.Object; e:  
AxEXGANTTLib.\_IGanttEvents\_EventEvent);  
begin  
end;

Powe... begin event Event(long EventID)  
end event Event

VB.NET

```
Private Sub Event(ByVal sender As System.Object, ByVal e As AxEXGANTTLib._IGanttEvents_EventEvent) Handles Event
End Sub
```

VB6

```
Private Sub Event(EventID As Long)
End Sub
```

VBA

```
Private Sub Event(EventID As Long)
End Sub
```

VFP

```
LPARAMETERS EventID
```

Xbas...

```
PROCEDURE OnEvent(oGantt,EventID)
RETURN
```

Syntax for Event event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="Event(EventID)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function Event(EventID)
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComEvent Integer lEventID
    Forward Send OnComEvent lEventID
End_Procedure
```

Visual  
Objects

```
METHOD OCX_Event(EventID) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_Event(int _EventID)
{
```

XBasic

```
function Event as v (EventID as N)
```

```
end function
```

```
function nativeObject_Event(EventID)
```

```
return
```

## event FilterChange ()

Occurs when filter was changed.

Type	Description
------	-------------

Use the FilterChange event to notify your application that the control's filter is changed. The [FilterChanging](#) event occurs just before applying the filter. Use the [Filter](#) and [FilterType](#) properties to retrieve the column's filter string, if case, and the column's filter type. The [ApplyFilter](#) and [ClearFilter](#) methods fire the FilterChange event. Use the [DisplayFilterButton](#) property to add a filter bar button to the column's caption. Use the [FilterBarHeight](#) property to specify the height of the control's filter bar. Use the [FilterBarFont](#) property to specify the font for the control's filter bar.

Syntax for FilterChange event, **/NET** version, on:

C#      private void FilterChange(object sender)  
        {  
        }  
    }

VB      Private Sub FilterChange(ByVal sender As System.Object) Handles FilterChange  
        End Sub

Syntax for FilterChange event, **/COM** version, on:

C#      private void FilterChange(object sender, EventArgs e)  
        {  
        }  
    }

C++      void OnFilterChange()  
        {  
        }  
    }

C++  
Builder      void \_\_fastcall FilterChange(TObject \*Sender)  
        {  
        }  
    }

Delphi      procedure FilterChange(ASender: TObject);  
begin  
end;

procedure FilterChange(sender: System.Object; e: System.EventArgs);  
begin  
end;

Powe... begin event FilterChange()  
end event FilterChange

VB.NET Private Sub FilterChange(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles FilterChange  
End Sub

VB6 Private Sub FilterChange()  
End Sub

VBA Private Sub FilterChange()  
End Sub

VFP LPARAMETERS nop

Xbas... PROCEDURE OnFilterChange(oGantt)  
RETURN

Syntax for FilterChange event, /COM version (others), on:

Java... <SCRIPT EVENT="FilterChange()" LANGUAGE="JScript">  
</SCRIPT>

VBSc... <SCRIPT LANGUAGE="VBScript">  
Function FilterChange()  
End Function  
</SCRIPT>

Visual  
Data... Procedure OnComFilterChange  
Forward Send OnComFilterChange

End\_Procedure

Visual  
Objects

METHOD OCX\_FilterChange() CLASS MainDialog  
RETURN NIL

X++

```
void onEvent_FilterChange()
{
}
```

XBasic

```
function FilterChange as v ()
end function
```

dBASE

```
function nativeObject_FilterChange()
return
```

## event FilterChanging ()

Notifies your application that the filter is about to change.

### Type

### Description

The FilterChanging event occurs just before applying the filter. The [FilterChange](#) event occurs once the filter is applied, so the list gets filtered. Use the [Filter](#) and [FilterType](#) properties to retrieve the column's filter string, if case, and the column's filter type. The [ApplyFilter](#) and [ClearFilter](#) methods fire the FilterChange event. Use the [DisplayFilterButton](#) property to add a filter bar button to the column's caption. Use the [FilterBarHeight](#) property to specify the height of the control's filter bar. Use the [FilterBarFont](#) property to specify the font for the control's filter bar. For instance, you can use the FilterChanging event to start a timer, and count the time to get the filter applied, when the FilterChange event is fired.

Syntax for FilterChanging event, **/NET** version, on:

C#      private void FilterChanging(object sender)  
        {  
        }  
    }

VB      Private Sub FilterChanging(ByVal sender As System.Object) Handles  
             FilterChanging  
             End Sub

Syntax for FilterChanging event, **/COM** version, on:

C#      private void FilterChanging(object sender, EventArgs e)  
        {  
        }  
    }

C++      void OnFilterChanging()  
        {  
        }  
    }

C++  
Builder      void \_\_fastcall FilterChanging(TObject \*Sender)  
        {  
        }  
    }

Delphi      procedure FilterChanging(ASender: TObject; );  
             begin

end;

Delphi 8  
(.NET only)

```
procedure FilterChanging(sender: System.Object; e: System.EventArgs);
begin
end;
```

Powe...

```
begin event FilterChanging()
end event FilterChanging
```

VB.NET

```
Private Sub FilterChanging(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles FilterChanging
End Sub
```

VB6

```
Private Sub FilterChanging()
End Sub
```

VBA

```
Private Sub FilterChanging()
End Sub
```

VFP

```
LPARAMETERS nop
```

Xbas...

```
PROCEDURE OnFilterChanging(oGantt)
RETURN
```

Syntax for FilterChanging event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="FilterChanging()" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function FilterChanging()
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComFilterChanging
    Forward Send OnComFilterChanging
End_Procedure
```

Visual  
Objects

METHOD OCX\_FilterChanging() CLASS MainDialog  
RETURN NIL

X++

```
void onEvent_FilterChanging()
{
}
```

XBasic

```
function FilterChanging as v ()
end function
```

dBASE

```
function nativeObject_FilterChanging()
return
```

# event FormatColumn (Item as HITEM, CollIndex as Long, Value as Variant)

Fired when a cell requires to format its caption.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item being formatted.
CollIndex as Long	A long expression that indicates the index of the column being formatted.
Value as Variant	A Variant value that indicates the value being displayed in the cell. By default, the Value parameter is initialized with the <a href="#">CellCaption</a> property.

Use the FormatColumn event to display a string different than the CellCaption property. The FormatColumn event is fired only if the [FireFormatColumn](#) property of the Column is True. The FormatColumn event lets the user to provide the cell's caption before it is displayed on the control's list. For instance, the FormatColumn event is useful when the column cells contains prices( numbers ), and you want to display that column formatted as currency, like \$50 instead 50. Also, you can use the FormatColumn event to display item's index in the column, or to display the result of some operations based on the cells in the item ( totals, currency conversion and so on ).

Syntax for FormatColumn event, **/NET** version, on:

C#      private void FormatColumn(object sender,int Item,int CollIndex,ref object Value)  
        {  
        }

VB      Private Sub FormatColumn(ByVal sender As System.Object, ByVal Item As Integer, ByVal CollIndex As Integer, ByRef Value As Object) Handles FormatColumn  
        End Sub

Syntax for FormatColumn event, **/COM** version, on:

C#      private void FormatColumn(object sender,  
                 AxEXGANTTLib.\_IGanttEvents\_FormatColumnEvent e)  
        {  
        }

C++      void OnFormatColumn(long Item,long CollIndex,VARIANT FAR\* Value)  
        {  
        }

```
}
```

C++  
Builder

```
void __fastcall FormatColumn(TObject *Sender,Exganttlb::HITEM Item,long  
CollIndex,Variant * Value)  
{  
}
```

Delphi

```
procedure FormatColumn(ASender: TObject; Item : HITEM; CollIndex : Integer; var  
Value : OleVariant);  
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure FormatColumn(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_FormatColumnEvent);  
begin  
end;
```

Powe...

```
begin event FormatColumn(long Item, long CollIndex, any Value)  
end event FormatColumn
```

VB.NET

```
Private Sub FormatColumn(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_FormatColumnEvent) Handles FormatColumn  
End Sub
```

VB6

```
Private Sub FormatColumn(ByVal Item As EXGANTTLibCtl.HITEM, ByVal CollIndex  
As Long, Value As Variant)  
End Sub
```

VBA

```
Private Sub FormatColumn(ByVal Item As Long, ByVal CollIndex As Long, Value As  
Variant)  
End Sub
```

VFP

```
L PARAMETERS Item, CollIndex, Value
```

Xbas...

```
PROCEDURE OnFormatColumn(oGantt,Item, CollIndex, Value)  
RETURN
```

Syntax for FormatColumn event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="FormatColumn(Item,ColIndex,Value)" LANGUAGE="JScript">
</SCRIPT>
```

VBS...

```
<SCRIPT LANGUAGE="VBScript">
Function FormatColumn(Item,ColIndex,Value)
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComFormatColumn HITEM lItem Integer lColIndex Variant lValue
    Forward Send OnComFormatColumn lItem lColIndex lValue
End_Procedure
```

Visual  
Objects

```
METHOD OCX_FormatColumn(Item,ColIndex,Value) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_FormatColumn(int _Item,int _ColIndex,COMVariant /*variant*/
_Value)
{
}
```

XBasic

```
function FormatColumn as v (Item as OLE::Exontrol.Gantt.1::HITEM,ColIndex as
N,Value as A)
end function
```

dBASE

```
function nativeObject_FormatColumn(Item,ColIndex,Value)
return
```

The following VB samples use the FormatCurrency function, to display a number as a currency. The FormatCurrency VB function returns an expression formatted as a currency value using the currency symbol defined in the system control panel.

```
Gantt1.Columns("Freight").FireFormatColumn = True
Gantt1.Columns("Freight").HeaderBold = True
Gantt1.Columns("Freight").Alignment = RightAlignment
```

```
Private Sub Gantt1_FormatColumn(ByVal Item As EXGANTTLibCtl.HITEM, ByVal
```

Freight
\$12.75
<b>\$10.19</b>
\$52.84
\$0.59
\$8.56
\$42.11
\$15.51
\$108.26
\$84.21

```
CollIndex As Long, Value As Variant)
```

```
    Value = FormatCurrency(Value, 2) ' The FormatCurrency is a VB function
```

```
End Sub
```

if the sample looks like following:

```
Gantt1.Columns("Freight").FireFormatColumn = False  
Gantt1.Columns("Freight").HeaderBold = True  
Gantt1.Columns("Freight").Alignment = RightAlignment
```

Freight
12.75
10.19
52.84
0.59
8.56
42.11
15.51
108.26
84.21

For instance, you can use the FormatColumn event to display "Yes" or "No" caption for a boolean column. The following VB sample shows how to do it:

```
Private Sub Gantt1_FormatColumn(ByVal Item As EXGANTTLibCtl.HITEM, ByVal CollIndex  
As Long, Value As Variant)  
    Value = IIf(Value < 50, "Yes", "No")  
End Sub
```

The following VB sample displays the result of adding ( concatenating ) of two cells:

```
Private Sub Gantt1_FormatColumn(ByVal Item As EXGANTTLibCtl.HITEM, ByVal CollIndex  
As Long, Value As Variant)  
    With Gantt1.Items  
        Value = .CellCaption(Item, 0) + .CellCaption(Item, 1)  
    End With  
End Sub
```

The following C++ sample displays a date column using a format like "Saturday, January 31, 2004":

```
void OnFormatColumnGantt1(long Item, long CollIndex, VARIANT FAR* Value)  
{  
    COleDateTime date( *Value );  
    COleVariant vtnewValue( date.Format( _T("%A, %B %d, %Y") ) );  
    VariantCopy( Value, vtnewValue );  
}
```

The following VB.NET sample displays a date column using LongDate format:

```
Private Sub AxGantt1_FormatColumn(ByVal sender As Object, ByVal e As AxEXGANTTLib._IGanttEvents_FormatColumnEvent) Handles AxGantt1.FormatColumn
    e.value = DateTime.Parse(e.value).ToLongDateString()
End Sub
```

The following C# sample displays a date column using LongDate format:

```
private void axGantt1_FormatColumn(object sender,
AxEXGANTTLib._IGanttEvents_FormatColumnEvent e)
{
    e.value = DateTime.Parse(e.value.ToString()).ToLongDateString();
}
```

The following VFP sample displays the item's index using the FormatColumn event:

```
*** ActiveX Control Event ***
LPARAMETERS item, colindex, value
with thisform.Gantt1.Items
    .DefaultItem = item
    value = .ItemToIndex(0)
endwith
```

before running the sample please make sure that the :

```
application.AutoYield = .f.
```

is called during the Form.Init event.

## event HyperLinkClick (Item as HITEM, CollIndex as Long)

Occurs when the user clicks on a hyperlink cell.

Type	Description
Item as HITEM	A long expression that indicates the item's handle.
CollIndex as Long	A long expression that indicates the column's index.

The HyperLinkClick event is fired when user clicks a hyperlink cell. A hyperlink cell has the [CellHyperLink](#) property on True. The control changes the shape of the cursor when the mouse hovers a hyper linkcell. Use the HyperLinkClick event to notify your application that a hyperlink cell is clicked. Use the [HyperLinkColor](#) property to specify the hyperlink color. The HyperLinkClick event is fired only if the user clicks a cell that has the CellHyperLink property on True. Use the [ItemFromPoint](#) property to get an item or a cell from point. Use the [ColumnFromPoint](#) property to get the column from point.

Syntax for HyperLinkClick event, /NET version, on:

C#      private void HyperLinkClick(object sender,int Item,int CollIndex)  
        {  
        }  
    }

VB      Private Sub HyperLinkClick(ByVal sender As System.Object, ByVal Item As Integer, ByVal CollIndex As Integer) Handles HyperLinkClick  
        End Sub

Syntax for HyperLinkClick event, /COM version, on:

C#      private void HyperLinkClick(object sender,  
                 AxEXGANTTLib.\_IGanttEvents\_HyperLinkClickEvent e)  
        {  
        }  
    }

C++      void OnHyperLinkClick(long Item,long CollIndex)  
        {  
        }  
    }

C++ Builder      void \_\_fastcall HyperLinkClick(TObject \*Sender,Exgantlib\_tlb::HITEM Item,long CollIndex)  
        {  
        }

```
}
```

Delphi

```
procedure HyperLinkClick(ASender: TObject; Item : HITEM;ColIndex : Integer);  
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure HyperLinkClick(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_HyperLinkClickEvent);  
begin  
end;
```

Powe...

```
begin event HyperLinkClick(long Item,long ColIndex)  
end event HyperLinkClick
```

VB.NET

```
Private Sub HyperLinkClick(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_HyperLinkClickEvent) Handles HyperLinkClick  
End Sub
```

VB6

```
Private Sub HyperLinkClick(ByVal Item As EXGANTTLibCtl.HITEM, ByVal ColIndex As  
Long)  
End Sub
```

VBA

```
Private Sub HyperLinkClick(ByVal Item As Long, ByVal ColIndex As Long)  
End Sub
```

VFP

```
L PARAMETERS Item,ColIndex
```

Xbas...

```
PROCEDURE OnHyperLinkClick(oGantt,Item,ColIndex)  
RETURN
```

Syntax for HyperLinkClick event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="HyperLinkClick(Item,ColIndex)" LANGUAGE="JScript">  
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">  
Function HyperLinkClick(Item,ColIndex)
```

```
End Function  
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComHyperLinkClick HITEM lIItem Integer lCollIndex  
    Forward Send OnComHyperLinkClick lIItem lCollIndex  
End_Procedure
```

Visual  
Objects

```
METHOD OCX_HyperLinkClick(lItem,CollIndex) CLASS MainDialog  
RETURN NIL
```

X++

```
void onEvent_HyperLinkClick(int _Item,int _CollIndex)  
{  
}
```

XBasic

```
function HyperLinkClick as v (lItem as OLE::Exontrol.Gantt.1::HITEM,CollIndex as N)  
end function
```

dBASE

```
function nativeObject_HyperLinkClick(lItem,CollIndex)  
return
```

The following VB sample displays the caption of the hyperlink cell that's been clicked:

```
Private Sub Gantt1_HyperLinkClick(ByVal Item As EXGANTTLibCtl.HITEM, ByVal CollIndex  
As Long)  
    Debug.Print Gantt1.Items.CellCaption(Item, CollIndex)  
End Sub
```

The following VC sample displays the caption of the hyperlink cell that's been clicked:

```
#include "Items.h"  
  
static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )  
{  
    if ( pv )  
    {  
        if ( pv->vt == VT_ERROR )  
            return szDefault;
```

```

COleVariant vt;
vt.ChangeType( VT_BSTR, pv );
return V_BSTR( &vt );
}
return szDefault;
}

void OnHyperLinkClickGantt1(long Item, long CollIndex)
{
    CItems items = m_gantt.GetItems();
    COleVariant vtItem( Item ), vtColumn( CollIndex );
    OutputDebugString( V2S( &items.GetCellCaption( vtItem, vtColumn ) ) );
}

```

The following VB.NET sample displays the caption of the hyperlink cell that's been clicked:

```

Private Sub AxGantt1_HyperLinkClick(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_HyperLinkClickEvent) Handles AxGantt1.HyperLinkClick
    With AxGantt1.Items
        Debug.WriteLine(.CellCaption(e.item, e.colIndex))
    End With
End Sub

```

The following C# sample displays the caption of the hyperlink cell that's been clicked:

```

private void axGantt1_HyperLinkClick(object sender,
AxEXGANTTLib._IGanttEvents_HyperLinkClickEvent e)
{
    System.Diagnostics.Debug.WriteLine( axGantt1.Items.get_CellCaption(e.item, e.colIndex
) );
}

```

The following VFP sample displays the caption of the hyperlink cell that's been clicked:

```

*** ActiveX Control Event ***
LPARAMETERS item, colindex

with thisform.Gantt1.Items
    .DefaultItem = item

```

```
wait window nowait .CellCaption( 0, colindex )
```

```
endwith
```

## event ItemOleEvent (Item as HITEM, Ev as OleEvent)

Fired when an ActiveX control hosted by an item has fired an event.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item that hosts an ActiveX control.
Ev as <a href="#">OleEvent</a>	An OleEvent object that contains information about the fired event.

The Exontrol's ExGantt control supports ActiveX hosting. The [InsertItemControl](#) method inserts an item that hosts an ActiveX control. The ItemOleEvent event notifies your application that a hosted ActiveX control fires an event. The [ItemObject](#) property gets the ActiveX object hosted by an item that is inserted using the InsertControlItem method. The ItemObject property gets nothing if the item doesn't host an ActiveX control, or if inserting an ActiveX control failed ).

Syntax for ItemOleEvent event, **/NET** version, on:

C#      private void ItemOleEvent(object sender,int Item,exontrol.EXGANTTLib.OleEvent Ev)  
        {  
        }  
    }

VB      Private Sub ItemOleEvent(ByVal sender As System.Object, ByVal Item As Integer, ByVal Ev As exontrol.EXGANTTLib.OleEvent) Handles ItemOleEvent  
        End Sub

Syntax for ItemOleEvent event, **/COM** version, on:

C#      private void ItemOleEvent(object sender,  
                 AxEXGANTTLib.\_IGanttEvents\_ItemOleEventEvent e)  
        {  
        }  
    }

C++      void OnItemOleEvent(long Item,LPDISPATCH Ev)  
        {  
        }  
    }

```
void __fastcall ItemOleEvent(TObject *Sender,Exgantlib_tlb::HITEM  
Item,Exgantlib_tlb::IOleEvent *Ev)  
{  
}
```

Delphi

```
procedure ItemOleEvent(ASender: TObject; Item : HITEM;Ev : IOleEvent);  
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure ItemOleEvent(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_ItemOleEventEvent);  
begin  
end;
```

Power...

```
begin event ItemOleEvent(long Item,oleobject Ev)  
end event ItemOleEvent
```

VB.NET

```
Private Sub ItemOleEvent(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_ItemOleEventEvent) Handles ItemOleEvent  
End Sub
```

VB6

```
Private Sub ItemOleEvent(ByVal Item As EXGANTTLibCtl.HITEM, ByVal Ev As  
EXGANTTLibCtl.IOleEvent)  
End Sub
```

VBA

```
Private Sub ItemOleEvent(ByVal Item As Long, ByVal Ev As Object)  
End Sub
```

VFP

```
L PARAMETERS Item,Ev
```

Xbas...

```
PROCEDURE OnItemOleEvent(oGantt,Item,Ev)  
RETURN
```

Syntax for ItemOleEvent event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="ItemOleEvent(Item,Ev)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function ItemOleEvent(Item,Ev)
End Function
</SCRIPT>
```

Visual Data...

```
Procedure OnComItemOleEvent HITEM lIItem Variant lIEv
    Forward Send OnComItemOleEvent lIItem lIEv
End_Procedure
```

Visual Objects

```
METHOD OCX_ItemOleEvent(Item,Ev) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_ItemOleEvent(int _Item,COM _Ev)
{
}
```

XBasic

```
function ItemOleEvent as v (Item as OLE::Exontrol.Gantt.1::HITEM,Ev as
OLE::Exontrol.Gantt.1::IOleEvent)
end function
```

dBASE

```
function nativeObject_ItemOleEvent(Item,Ev)
return
```

The following VB sample adds an item that hosts the Microsoft Calendar Control and prints each event fired by that ActiveX control:

```
Gantt1.Items.ItemHeight(Gantt1.Items.InsertControlItem( "MSCal.Calendar")) = 256
```



```

Private Sub Gantt1_ItemOleEvent(ByVal Item As EXGANTTLibCtl.HITEM, ByVal Ev As
EXGANTTLibCtl.IOleEvent)
    Debug.Print "Event name:" & Ev.Name
    If (Ev.CountParam = 0) Then
        Debug.Print "The event has no arguments."
    Else
        Debug.Print "The event has the following arguments:"
        Dim i As Long
        For i = 0 To Ev.CountParam - 1
            Debug.Print Ev(i).Name; " = " & Ev(i).Value
        Next
    End If
End Sub

```

The following VC sample displays the events that an ActiveX control is firing while it is hosted by an item:

```
#import <exgantt.dll> rename( "GetItems", "exGetItems" )
```

```

static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return szDefault;

        COleVariant vt;
        vt.ChangeType( VT_BSTR, pv );
        return V_BSTR( &vt );
    }
    return szDefault;
}

void OnItemOleEventGantt1(long Item, LPDISPATCH Ev)
{
    EXGANTTLib::IOleEventPtr spEvent( Ev );
    CString strOutput;
```

```

strOutput.Format( "Event's name: %s\n", spEvent->Name.operator const char *() );
OutputDebugString( strOutput );
if ( spEvent->CountParam == 0 )
    OutputDebugString( "The event has no parameters." );
else
{
    for ( long i = 0; i < spEvent->CountParam; i++ )
    {
        EXGANTTLib::IOleEventParamPtr spParam = spEvent->GetParam( COleVariant( i ) );
        strOutput.Format( "Name: %s, Value: %s\n", spParam->Name.operator const char *(),
        V2S( &spParam->Value ) );
        OutputDebugString( strOutput );
    }
}
OutputDebugString( "" );
}

```

The #import clause is required to get the wrapper classes for IOleEvent and IOleEventParam objects, that are not defined by the MFC class wizard. The same #import statement defines the EXGANTTLib namespace that include all objects and types of the control's TypeLibrary. In case your exgantt.dll library is located to another place than the system folder or well known path, the path to the library should be provided, in order to let the VC finds the type library.

The following VB.NET sample displays the events that an ActiveX control is firing while it is hosted by an item:

```

Private Sub AxGantt1_ItemOleEvent(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_ItemOleEventEvent) Handles AxGantt1.ItemOleEvent
    Debug.WriteLine("Event's name: " & e.ev.Name)
    Dim i As Long
    For i = 0 To e.ev.CountParam - 1
        Dim eP As EXGANTTLib.OleEventParam
        eP = e.ev(i)
        Debug.WriteLine("Name: " & e.ev.Name & " Value: " & eP.Value)
    Next
End Sub

```

The following C# sample displays the events that an ActiveX control is firing while it is

hosted by an item:

```
private void axGantt1_ItemOleEvent(object sender,
AxEXGANTTLib._IGanttEvents_ItemOleEventEvent e)
{
    System.Diagnostics.Debug.WriteLine( "Event's name: " + e.ev.Name.ToString() );
    for ( int i= 0; i < e.ev.CountParam ; i++ )
    {
        EXGANTTLib.IOleEventParam evP = e.ev[i];
        System.Diagnostics.Debug.WriteLine( "Name: " + evP.Name.ToString() + ", Value: " +
evP.Value.ToString() );
    }
}
```

The following VFP sample displays the events that an ActiveX control fires when it is hosted by an item:

```
*** ActiveX Control Event ***
LPARAMETERS item, ev

local s
s = "Event's name: " + ev.Name
for i = 0 to ev.CountParam - 1
    s = s + "Name: " + ev.Param(i).Name + " ,Value: " + Str(ev.Param(i).Value)
endfor
wait window nowait s
```

## event KeyDown (KeyCode as Integer, Shift as Integer)

Occurs when the user presses a key while an object has the focus.

Type	Description
KeyCode as Integer	An integer that represent the key code.
Shift as Integer	An integer that corresponds to the state of the SHIFT, CTRL, and ALT keys at the time of the event. The shift argument is a bit field with the least-significant bits corresponding to the SHIFT key (bit 0), the CTRL key (bit 1), and the ALT key (bit 2). These bits correspond to the values 1, 2, and 4, respectively. Some, all, or none of the bits can be set, indicating that some, all, or none of the keys are pressed. For example, if both CTRL and ALT are pressed, the value of shift is 6.

Use KeyDown and [KeyUp](#) event procedures if you need to respond to both the pressing and releasing of a key. Use the [ExpandOnKeys](#) property to specify whether the user expands or collapses the focused items using arrow keys. You test for a condition by first assigning each result to a temporary integer variable and then comparing shift to a bit mask. Use the And operator with the shift argument to test whether the condition is greater than 0, indicating that the modifier was pressed, as in this example:

```
ShiftDown = (Shift And 1) > 0
```

```
CtrlDown = (Shift And 2) > 0
```

```
AltDown = (Shift And 4) > 0
```

In a procedure, you can test for any combination of conditions, as in this example:

```
If AltDown And CtrlDown Then
```

Syntax for KeyDown event, **/NET** version, on:

```
C# private void KeyDown(object sender, ref short KeyCode, short Shift)
{
}
```

```
VB Private Sub KeyDown(ByVal sender As System.Object, ByRef KeyCode As
Short, ByVal Shift As Short) Handles KeyDown
End Sub
```

Syntax for KeyDown event, **/COM** version, on:

C#

```
private void KeyDownEvent(object sender, AxEXGANTTLib._IGanttEvents_KeyDownEvent e)
{
}
```

C++

```
void OnKeyDown(short FAR* KeyCode,short Shift)
{
}
```

C++ Builder

```
void __fastcall KeyDown(TObject *Sender,short * KeyCode,short Shift)
{}
```

Delphi

```
procedure KeyDown(ASender: TObject; var KeyCode : Smallint;Shift : Smallint);
begin
end;
```

Delphi 8  
(.NET only)

```
procedure KeyDownEvent(sender: System.Object; e: AxEXGANTTLib._IGanttEvents_KeyDownEvent);
begin
end;
```

Powe...

```
begin event KeyDown(integer KeyCode,integer Shift)
end event KeyDown
```

VB.NET

```
Private Sub KeyDownEvent(ByVal sender As System.Object, ByVal e As AxEXGANTTLib._IGanttEvents_KeyDownEvent) Handles KeyDownEvent
End Sub
```

VB6

```
Private Sub KeyDown(KeyCode As Integer,Shift As Integer)
End Sub
```

VBA

```
Private Sub KeyDown(KeyCode As Integer, ByVal Shift As Integer)
End Sub
```

VFP

```
LPARAMETERS KeyCode,Shift
```

Xbas...

PROCEDURE OnKeyDown(oGantt,KeyCode,Shift)  
RETURN

Syntax for KeyDown event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="KeyDown(KeyCode,Shift)" LANGUAGE="JScript">  
</SCRIPT>
```

VBS...

```
<SCRIPT LANGUAGE="VBScript">  
Function KeyDown(KeyCode,Shift)  
End Function  
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComKeyDown Short ||KeyCode Short ||Shift  
    Forward Send OnComKeyDown ||KeyCode ||Shift  
End_Procedure
```

Visual  
Objects

```
METHOD OCX_KeyDown(KeyCode,Shift) CLASS MainDialog  
RETURN NIL
```

X++

```
void onEvent_KeyDown(COMVariant /*short*/ _KeyCode,int _Shift)  
{  
}
```

XBasic

```
function KeyDown as v (KeyCode as N,Shift as N)  
end function
```

dBASE

```
function nativeObject_KeyDown(KeyCode,Shift)  
return
```

## event KeyPress (KeyAscii as Integer)

Occurs when the user presses and releases an ANSI key.

Type	Description
KeyAscii as Integer	An integer that returns a standard numeric ANSI keycode.

The KeyPress event lets you immediately test keystrokes for validity or for formatting characters as they are typed. Changing the value of the keyascii argument changes the character displayed. Use [KeyDown](#) and [KeyUp](#) event procedures to handle any keystroke not recognized by KeyPress, such as function keys, editing keys, navigation keys, and any combinations of these with keyboard modifiers. Unlike the KeyDown and KeyUp events, KeyPress does not indicate the physical state of the keyboard; instead, it passes a character. KeyPress interprets the uppercase and lowercase of each character as separate key codes and, therefore, as two separate characters.

Syntax for KeyPress event, **/NET** version, on:

c#      private void KeyPress(object sender,ref short KeyAscii)  
        {  
        }  
    }

VB      Private Sub KeyPress(ByVal sender As System.Object,ByRef KeyAscii As Short)  
Handles KeyPress  
End Sub

Syntax for KeyPress event, **/COM** version, on:

c#      private void KeyPressEvent(object sender,  
                 AxEXGANTTLib.\_IGanttEvents\_KeyPress e)  
        {  
        }  
    }

C++      void OnKeyPress(short FAR\* KeyAscii)  
        {  
        }  
    }

C++  
Builder      void \_\_fastcall KeyPress(TObject \*Sender,short \* KeyAscii)  
        {  
        }  
    }

Delphi

```
procedure KeyPress(ASender: TObject; var KeyAscii : Smallint);
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure KeyPressEvent(sender: System.Object; e:
AxEXGANTTLib._IGanttEvents_KeyPressEvent);
begin
end;
```

Powe...

```
begin event KeyPress(integer KeyAscii)
end event KeyPress
```

VB.NET

```
Private Sub KeyPressEvent(ByVal sender As System.Object, ByVal e As
AxEXGANTTLib._IGanttEvents_KeyPressEvent) Handles KeyPressEvent
End Sub
```

VB6

```
Private Sub KeyPress(KeyAscii As Integer)
End Sub
```

VBA

```
Private Sub KeyPress(KeyAscii As Integer)
End Sub
```

VFP

```
L PARAMETERS KeyAscii
```

Xbas...

```
PROCEDURE OnKeyPress(oGantt,KeyAscii)
RETURN
```

Syntax for KeyPress event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="KeyPress(KeyAscii)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function KeyPress(KeyAscii)
End Function
</SCRIPT>
```

Visual  
Data...

Procedure OnComKeyPress Short lIKeyAscii  
    Forward Send OnComKeyPress lIKeyAscii  
End\_Procedure

Visual  
Objects

METHOD OCX\_KeyPress(KeyAscii) CLASS MainDialog  
RETURN NIL

X++

```
void onEvent_KeyPress(COMVariant /*short*/ _KeyAscii)  
{  
}
```

XBasic

```
function KeyPress as v (KeyAscii as N)  
end function
```

dBASE

```
function nativeObject_KeyPress(KeyAscii)  
return
```

# event KeyUp (KeyCode as Integer, Shift as Integer)

Occurs when the user releases a key while an object has the focus.

Type	Description
KeyCode as Integer	An integer that represent the key code.
Shift as Integer	An integer that corresponds to the state of the SHIFT, CTRL, and ALT keys at the time of the event. The shift argument is a bit field with the least-significant bits corresponding to the SHIFT key (bit 0), the CTRL key (bit 1), and the ALT key (bit 2). These bits correspond to the values 1, 2, and 4, respectively. Some, all, or none of the bits can be set, indicating that some, all, or none of the keys are pressed. For example, if both CTRL and ALT are pressed, the value of shift is 6.

Use the KeyUp event procedure to respond to the releasing of a key.

Syntax for KeyUp event, /NET version, on:

C#      private void KeyUp(object sender, ref short KeyCode, short Shift)  
        {  
        }  
    }

VB      Private Sub KeyUp(ByVal sender As System.Object, ByRef KeyCode As Short, ByVal Shift As Short) Handles KeyUp  
        End Sub

Syntax for KeyUp event, /COM version, on:

C#      private void KeyUpEvent(object sender,  
                 AxEXGANTTLib.\_IGanttEvents\_KeyUpEvent e)  
        {  
        }  
    }

C++      void OnKeyUp(short FAR\* KeyCode, short Shift)  
        {  
        }  
    }

C++ Builder      void \_\_fastcall KeyUp(TObject \*Sender, short \* KeyCode, short Shift)

```
{  
}
```

Delphi

```
procedure KeyUp(ASender: TObject; var KeyCode : Smallint;Shift : Smallint);  
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure KeyUpEvent(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_KeyUpEvent);  
begin  
end;
```

Powe...

```
begin event KeyUp(integer KeyCode,integer Shift)  
end event KeyUp
```

VB.NET

```
Private Sub KeyUpEvent(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_KeyUpEvent) Handles KeyUpEvent  
End Sub
```

VB6

```
Private Sub KeyUp(KeyCode As Integer,Shift As Integer)  
End Sub
```

VBA

```
Private Sub KeyUp(KeyCode As Integer, ByVal Shift As Integer)  
End Sub
```

VFP

```
L PARAMETERS KeyCode,Shift
```

Xbas...

```
PROCEDURE OnKeyUp(oGantt,KeyCode,Shift)  
RETURN
```

Syntax for KeyUp event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="KeyUp(KeyCode,Shift)" LANGUAGE="JScript">  
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">  
Function KeyUp(KeyCode,Shift)
```

```
End Function  
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComKeyUp Short ||KeyCode Short ||Shift  
    Forward Send OnComKeyUp ||KeyCode ||Shift  
End_Procedure
```

Visual  
Objects

```
METHOD OCX_KeyUp(KeyCode,Shift) CLASS MainDialog  
RETURN NIL
```

X++

```
void onEvent_KeyUp(COMVariant /*short*/ _KeyCode,int _Shift)  
{  
}
```

XBasic

```
function KeyUp as v (KeyCode as N,Shift as N)  
end function
```

dBASE

```
function nativeObject_KeyUp(KeyCode,Shift)  
return
```

## event LayoutChanged ()

Occurs when column's position or column's size is changed.

### Type

### Description

The LayoutChanged event is fired each time when the user resizes a column, or drags the column to a new position. Use the LayoutChanged event to notify your application that the columns position or size is changed. Use the LayoutChanged event to save the columns position and size for future use. Use the [Width](#) property to retrieve the column's width. Use the [Position](#) property to retrieve the column's position. The [Visible](#) property specifies whether a column is shown or hidden. Use the [ColumnAutoResize](#) property to specify whether the visible columns fit the control's client area.

Syntax for LayoutChanged event, **/NET** version, on:

C#  
private void LayoutChanged(object sender)  
{  
}

VB  
Private Sub LayoutChanged(ByVal sender As System.Object) Handles  
LayoutChanged  
End Sub

Syntax for LayoutChanged event, **/COM** version, on:

C#  
private void LayoutChanged(object sender, EventArgs e)  
{  
}

C++  
void OnLayoutChanged()  
{  
}

C++  
Builder  
void \_\_fastcall LayoutChanged(TObject \*Sender)  
{  
}

Delphi  
procedure LayoutChanged(ASender: TObject);  
begin  
end;

Delphi 8  
(.NET  
only)

```
procedure LayoutChanged(sender: System.Object; e: System.EventArgs);
begin
end;
```

Powe...

```
begin event LayoutChanged()
end event LayoutChanged
```

VB.NET

```
Private Sub LayoutChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles LayoutChanged
End Sub
```

VB6

```
Private Sub LayoutChanged()
End Sub
```

VBA

```
Private Sub LayoutChanged()
End Sub
```

VFP

```
LPARAMETERS nop
```

Xbas...

```
PROCEDURE OnLayoutChanged(oGantt)
RETURN
```

Syntax for LayoutChanged event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="LayoutChanged()" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function LayoutChanged()
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComLayoutChanged
    Forward Send OnComLayoutChanged
End_Procedure
```

METHOD OCX\_LayoutChanged() CLASS MainDialog

RETURN NIL

X++ void onEvent\_LayoutChanged()  
{  
}

XBasic function LayoutChanged as v ()  
end function

dBASE function nativeObject\_LayoutChanged()  
return

## **event MouseDown (Button as Integer, Shift as Integer, X as OLE\_XPOS\_PIXELS, Y as OLE\_YPOS\_PIXELS)**

Occurs when the user presses a mouse button.

Type	Description
Button as Integer	An integer that identifies the button that was pressed to cause the event
Shift as Integer	An integer that corresponds to the state of the SHIFT, CTRL, and ALT keys when the button specified in the button argument is pressed or released.
X as OLE_XPOS_PIXELS	A single that specifies the current X location of the mouse pointer. The X value is always expressed in container coordinates.
Y as OLE_YPOS_PIXELS	A single that specifies the current Y location of the mouse pointer. The Y value is always expressed in container coordinates.

Use a MouseDown or [MouseUp](#) event procedure to specify actions that will occur when a mouse button is pressed or released. Unlike the [Click](#) and [DblClick](#) events, MouseDown and MouseUp events lets you distinguish between the left, right, and middle mouse buttons. You can also write code for mouse-keyboard combinations that use the SHIFT, CTRL, and ALT keyboard modifiers. Use the [ItemFromPoint](#) property to get the item from point. Use the [ColumnFromPoint](#) property to get the column from point. Use the [DateFromPoint](#) property to specify the date from the cursor.

Syntax for MouseDown event, **/NET** version, on:

```
C# private void MouseDownEvent(object sender,short Button,short Shift,int X,int Y)
{
}
```

```
VB Private Sub MouseDownEvent(ByVal sender As System.Object, ByVal Button As
Short, ByVal Shift As Short, ByVal X As Integer, ByVal Y As Integer) Handles
MouseDownEvent
End Sub
```

Syntax for MouseDown event, **/COM** version, on:

```
C# private void MouseDownEvent(object sender,
AxEXGANTTLib._IGanttEvents_MouseDownEvent e)
```

```
{  
}
```

C++

```
void OnMouseDown(short Button,short Shift,long X,long Y)  
{  
}
```

C++  
Builder

```
void __fastcall MouseDown(TObject *Sender,short Button,short Shift,int X,int Y)  
{  
}
```

Delphi

```
procedure MouseDown(ASender: TObject; Button : Smallint;Shift : Smallint;X :  
Integer;Y : Integer);  
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure MouseDownEvent(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_MouseDownEvent);  
begin  
end;
```

Powe...

```
begin event MouseDown(integer Button,integer Shift,long X,long Y)  
end event MouseDown
```

VB.NET

```
Private Sub MouseDownEvent(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_MouseDownEvent) Handles MouseDownEvent  
End Sub
```

VB6

```
Private Sub MouseDown(Button As Integer,Shift As Integer,X As Single,Y As Single)  
End Sub
```

VBA

```
Private Sub MouseDown(ByVal Button As Integer, ByVal Shift As Integer, ByVal X As  
Long, ByVal Y As Long)  
End Sub
```

VFP

```
LPARAMETERS Button,Shift,X,Y
```

Xbas...

PROCEDURE OnMouseDown(oGantt,Button,Shift,X,Y)

RETURN

Syntax for MouseDown event, /COM version (others), on:

Java... <SCRIPT EVENT="MouseDown(Button,Shift,X,Y)" LANGUAGE="JScript">  
</SCRIPT>

VBS... <SCRIPT LANGUAGE="VBScript">  
Function MouseDown(Button,Shift,X,Y)  
End Function  
</SCRIPT>

Visual Data... Procedure OnComMouseDown Short ||Button Short ||Shift OLE\_XPOS\_PIXELS ||X  
OLE\_YPOS\_PIXELS ||Y  
Forward Send OnComMouseDown ||Button ||Shift ||X ||Y  
End\_Procedure

Visual Objects METHOD OCX\_MouseDown(Button,Shift,X,Y) CLASS MainDialog  
RETURN NIL

X++ void onEvent\_MouseDown(int \_Button,int \_Shift,int \_X,int \_Y)  
{  
}

XBasic function MouseDown as v (Button as N,Shift as N,X as  
OLE::Exontrol.Gantt.1::OLE\_XPOS\_PIXELS,Y as  
OLE::Exontrol.Gantt.1::OLE\_YPOS\_PIXELS)  
end function

dBASE function nativeObject\_MouseDown(Button,Shift,X,Y)  
return

The following VB sample prints the cell's caption that has been clicked:

Private Sub Gantt1\_MouseDown(Button As Integer, Shift As Integer, X As Single, Y As

Single)

```
' Converts the container coordinates to client coordinates
X = X / Screen.TwipsPerPixelX
Y = Y / Screen.TwipsPerPixelY
Dim h As HITEM
Dim c As Long
Dim hit As EXGANTTLibCtl.HitTestInfoEnum
' Gets the item from (X,Y)
h = Gantt1.ItemFromPoint(X, Y, c, hit)
If Not (h = 0) Then
    Debug.Print Gantt1.Items.CellCaption(h, c) & " HT = " & hit
End If
End Sub
```

If you need to add a context menu based on the item you can use the [MouseUp](#) event, like in the following VB sample ( the sample uses the [Exontrol's ExPopupMenu Component](#) ):

```
Private Sub Gantt1_MouseUp(Button As Integer, Shift As Integer, X As Single, Y As Single)
If (Button = 2) Then
    ' Converts the container coordinates to client coordinates
    X = X / Screen.TwipsPerPixelX
    Y = Y / Screen.TwipsPerPixelY
    Dim h As HITEM
    Dim c As Long, hit as Long
    ' Gets the item from (X,Y)
    h = Gantt1.ItemFromPoint(X, Y, c, hit)
    If Not (h = 0) Then
        Dim i As Long
        PopupMenu1.Items.Add Gantt1.Items.CellCaption(h, c)
        i = PopupMenu1.ShowAtCursor
    End If
End If
End Sub
```

The following VC sample displays the caption of the cell being clicked:

```
#include "Items.h"
```

```

static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return szDefault;

        COleVariant vt;
        vt.ChangeType( VT_BSTR, pv );
        return V_BSTR( &vt );
    }

    return szDefault;
}

void OnMouseDownGantt1(short Button, short Shift, long X, long Y)
{
    int c = 0, hit = 0, hItem = m_gantt.GetItemFromPoint( X, Y, &c, &hit );
    if ( ( hItem != 0 ) || ( c != 0 ) )
    {
        CItems items = m_gantt.GetItems();
        COleVariant vtItem( hItem ), vtColumn( c );
        CString strCaption = V2S( &items.GetCellCaption( vtItem, vtColumn ) ), strOutput;
        strOutput.Format( "Cell: '%s', Hit = %08X\n", strCaption, hit );
        OutputDebugString( strOutput );
    }
}

```

The following VB.NET sample displays the caption from the cell being clicked:

```

Private Sub AxGantt1_MouseDownEvent(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_MouseDownEvent) Handles AxGantt1.MouseDownEvent
With AxGantt1
    Dim i As Integer, c As Integer, hit As EXGANTTLib.HitTestInfoEnum
    i = .get_ItemFromPoint(e.x, e.y, c, hit)
    If (Not (i = 0) Or Not (c = 0)) Then
        Debug.WriteLine("Cell: " & .Items.CellCaption(i, c) & " Hit: " & hit.ToString())
    End If
End With

```

```
End With  
End Sub
```

The following C# sample displays the caption from the cell being clicked:

```
private void axGantt1_MouseDownEvent(object sender,  
AxEXGANTTLib._IGanttEvents_MouseDownEvent e)  
{  
    int c = 0;  
    EXGANTTLib.HitTestInfoEnum hit;  
    int i = axGantt1.get_ItemFromPoint( e.x, e.y, out c,out hit );  
    if ( ( i != 0 ) || ( c != 0 ) )  
    {  
        string s = axGantt1.Items.get_CellCaption( i,c ).ToString();  
        s = "Cell: " + s + ", Hit: " + hit.ToString();  
        System.Diagnostics.Debug.WriteLine( s );  
    }  
}
```

The following VFP sample displays the caption from the cell being clicked:

```
*** ActiveX Control Event ***  
LPARAMETERS button, shift, x, y  
  
local c, hit  
c = 0  
hit = 0  
with thisform.Gantt1  
    .Items.DefaultItem = .ItemFromPoint( x, y, @c, @hit )  
    if ( .Items.DefaultItem <> 0 ) or ( c <> 0 )  
        wait window nowait .Items.CellCaption( 0, c ) + " " + Str( hit )  
    endif  
endwith
```

## event MouseMove (Button as Integer, Shift as Integer, X as OLE\_XPOS\_PIXELS, Y as OLE\_YPOS\_PIXELS)

Occurs when the user moves the mouse.

Type	Description
Button as Integer	An integer that corresponds to the state of the mouse buttons in which a bit is set if the button is down.
Shift as Integer	An integer that corresponds to the state of the SHIFT, CTRL, and ALT keys.
X as OLE_XPOS_PIXELS	A single that specifies the current X location of the mouse pointer. The x values is always expressed in container coordinates.
Y as OLE_YPOS_PIXELS	A single that specifies the current Y location of the mouse pointer. The y values is always expressed in container coordinates.

The MouseMove event is generated continually as the mouse pointer moves across objects. Unless another object has captured the mouse, an object recognizes a MouseMove event whenever the mouse position is within its borders. Use the [ItemFromPoint](#) property to get the item from cursor. Use the [ColumnFromPoint](#) property to get the column from point. Use the [DateFromPoint](#) property to specify the date from the cursor. Use the [DrawDateTicker](#) property to draw a ticker as cursor hovers the chart's area. Use the [LevelFromPoint](#) property to retrieve the index of the level from the cursor.

Syntax for MouseMove event, /NET version, on:

C#

```
private void MouseMoveEvent(object sender,short Button,short Shift,int X,int Y)
{
}
```

VB

```
Private Sub MouseMoveEvent(ByVal sender As System.Object, ByVal Button As
Short, ByVal Shift As Short, ByVal X As Integer, ByVal Y As Integer) Handles
MouseMoveEvent
End Sub
```

Syntax for MouseMove event, /COM version, on:

C#

```
private void MouseMoveEvent(object sender,
AxEXGANTTLib._IGanttEvents_MouseMoveEvent e)
```

```
{  
}
```

C++

```
void OnMouseMove(short Button,short Shift,long X,long Y)  
{  
}
```

C++  
Builder

```
void __fastcall MouseMove(TObject *Sender,short Button,short Shift,int X,int Y)  
{  
}
```

Delphi

```
procedure MouseMove(ASender: TObject; Button : Smallint;Shift : Smallint;X :  
Integer;Y : Integer);  
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure MouseMoveEvent(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_MouseMoveEvent);  
begin  
end;
```

Powe...

```
begin event MouseMove(integer Button,integer Shift,long X,long Y)  
end event MouseMove
```

VB.NET

```
Private Sub MouseMoveEvent(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_MouseMoveEvent) Handles MouseMoveEvent  
End Sub
```

VB6

```
Private Sub MouseMove(Button As Integer,Shift As Integer,X As Single,Y As Single)  
End Sub
```

VBA

```
Private Sub MouseMove(ByVal Button As Integer, ByVal Shift As Integer, ByVal X As  
Long, ByVal Y As Long)  
End Sub
```

VFP

```
LPARAMETERS Button,Shift,X,Y
```

Xbas...

PROCEDURE OnMouseMove(oGantt,Button,Shift,X,Y)

RETURN

Syntax for MouseMove event, /COM version (others), on:

Java... <SCRIPT EVENT="MouseMove(Button,Shift,X,Y)" LANGUAGE="JScript">  
</SCRIPT>

VBS... <SCRIPT LANGUAGE="VBScript">  
Function MouseMove(Button,Shift,X,Y)  
End Function  
</SCRIPT>

Visual Data... Procedure OnComMouseMove Short ||Button Short ||Shift OLE\_XPOS\_PIXELS ||X  
OLE\_YPOS\_PIXELS ||Y  
Forward Send OnComMouseMove ||Button ||Shift ||X ||Y  
End\_Procedure

Visual Objects METHOD OCX\_MouseMove(Button,Shift,X,Y) CLASS MainDialog  
RETURN NIL

X++ void onEvent\_MouseMove(int \_Button,int \_Shift,int \_X,int \_Y)  
{  
}

XBasic function MouseMove as v (Button as N,Shift as N,X as  
OLE::Exontrol.Gantt.1::OLE\_XPOS\_PIXELS,Y as  
OLE::Exontrol.Gantt.1::OLE\_YPOS\_PIXELS)  
end function

dBASE function nativeObject\_MouseMove(Button,Shift,X,Y)  
return

The following VB sample prints the cell's caption from the cursor ( if the control contains no inner cells. Use the [SplitCell](#) property to insert inner cells ) :

```
Private Sub Gantt1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As Single)
On Error Resume Next
' Converts the container coordinates to client coordinates
X = X / Screen.TwipsPerPixelX
Y = Y / Screen.TwipsPerPixelY
Dim h As HITEM
Dim c As Long
Dim hit As EXGANTTLibCtl.HitTestInfoEnum
' Gets the item from (X,Y)
h = Gantt1.ItemFromPoint(X, Y, c, hit)
If Not (h = 0) Then
    Debug.Print Gantt1.Items.CellCaption(h, c) & " HT = " & hit
End If
End Sub
```

The following VB sample displays the cell's caption from the cursor ( if the control contains inner cells ):

```
Private Sub Gantt1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As Single)
On Error Resume Next
' Converts the container coordinates to client coordinates
X = X / Screen.TwipsPerPixelX
Y = Y / Screen.TwipsPerPixelY
Dim h As HITEM
Dim c As Long
Dim hit As EXGANTTLibCtl.HitTestInfoEnum
' Gets the item from (X,Y)
h = Gantt1.ItemFromPoint(X, Y, c, hit)
If Not (h = 0) Or Not (c = 0) Then
    Debug.Print Gantt1.Items.CellCaption(h, c) & " HT = " & hit
End If
End Sub
```

The following VB sample displays the date from the cursor:

```
Private Sub Gantt1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As
```

Single)

With Gantt1.Chart

Dim d As Date

d = .DateFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY)

Debug.Print .FormatDate(d, "<%m%>/<%d%>/<%yyyy%>")

End With

End Sub

The following C++ sample displays the cell's from the point:

```
#include "Items.h"
```

```
static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
```

```
{
```

```
    if ( pv )
```

```
{
```

```
    if ( pv->vt == VT_ERROR )
```

```
        return szDefault;
```

```
    COleVariant vt;
```

```
    vt.ChangeType( VT_BSTR, pv );
```

```
    return V_BSTR( &vt );
```

```
}
```

```
    return szDefault;
```

```
}
```

```
void OnMouseMoveGantt1(short Button, short Shift, long X, long Y)
```

```
{
```

```
    long c = 0, hit = 0, hItem = m_gantt.GetItemFromPoint( X, Y, &c, &hit );
```

```
    if ( ( hItem != 0 ) || ( c != 0 ) )
```

```
{
```

```
    CItems items = m_gantt.GetItems();
```

```
    COleVariant vtItem( hItem ), vtColumn( c );
```

```
    CString strCaption = V2S( &items.GetCellCaption( vtItem, vtColumn ) ), strOutput;
```

```
    strOutput.Format( "Cell: '%s', Hit = %08X\n", strCaption, hit );
```

```
    OutputDebugString( strOutput );
```

```
}
```

```
}
```

The following C++ sample displays the date from the point:

```
void OnMouseMoveGantt1(short Button, short Shift, long X, long Y)
{
    CChart chart = m_gantt.GetChart();
    DATE d = chart.GetDateFromPoint( X, Y );
    CString strFormat = chart.GetFormatDate( d, "<%m%>/<%d%>/<%yyyy%>" );
    OutputDebugString( strFormat );
}
```

The following VB.NET sample displays the cell's from the point:

```
Private Sub AxGantt1_MouseMoveEvent(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_MouseMoveEvent) Handles AxGantt1.MouseMoveEvent
With AxGantt1
    Dim i As Integer, c As Integer, hit As EXGANTTLib.HitTestInfoEnum
    i = .get_ItemFromPoint(e.x, e.y, c, hit)
    If (Not (i = 0) Or Not (c = 0)) Then
        Debug.WriteLine("Cell: " & .Items.CellCaption(i, c) & " Hit: " & hit.ToString())
    End If
End With
End Sub
```

The following VB.NET sample displays the date from the point:

```
Private Sub AxGantt1_MouseMoveEvent(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_MouseMoveEvent) Handles AxGantt1.MouseMoveEvent
With AxGantt1.Chart
    Dim d As Date
    d = .DateFromPoint(e.x, e.y)
    Debug.Write(.FormatDate(d, "<%m%>/<%d%>/<%yyyy%>"))
End With
End Sub
```

The following C# sample displays the cell's from the point:

```
private void axGantt1_MouseMoveEvent(object sender,
```

```

AxEXGANTTLib._IGanttEvents_MouseMoveEvent e)
{
    int c = 0;
    EXGANTTLib.HitTestInfoEnum hit;
    int i = axGantt1.get_ItemFromPoint( e.x, e.y, out c,out hit );
    if ( ( i != 0 ) || ( c != 0 ) )
    {
        object cap = axGantt1.Items.get_CellCaption(i, c);
        string s = cap != null ? cap.ToString() : "";
        s = "Cell: " + s + ", Hit: " + hit.ToString();
        System.Diagnostics.Debug.WriteLine(s);
    }
}

```

The following C# sample displays the date from the point:

```

private void axGantt1_MouseMoveEvent(object sender,
AxEXGANTTLib._IGanttEvents_MouseMoveEvent e)
{
    DateTime d = axGantt1.Chart.get_DateFromPoint(e.x, e.y);
    System.Diagnostics.Debug.WriteLine(axGantt1.Chart.get_FormatDate(d, "
<%m%>/<%d%>/<%yyyy%>"));
}

```

The following VFP sample displays the cell's from the point:

```

*** ActiveX Control Event ***
LPARAMETERS button, shift, x, y

local c, hit
c = 0
hit = 0
with thisform.Gantt1
    .Items.DefaultItem = .ItemFromPoint( x, y, @c, @hit )
    if ( .Items.DefaultItem <> 0 ) or ( c <> 0 )
        wait window nowait .Items.CellCaption( 0, c ) + " " + Str( hit )
    endif
endwith

```

The following VFP sample displays the date from the point:

```
*** ActiveX Control Event ***
LPARAMETERS button, shift, x, y

with thisform.Gantt1.Chart
  d = .DateFromPoint(x,y)
  wait window nowait .FormatDate(d, "<%m%>/<%d%>/<%yyyy%> ")
endwith
```

## event MouseUp (Button as Integer, Shift as Integer, X as OLE\_XPOS\_PIXELS, Y as OLE\_YPOS\_PIXELS)

Occurs when the user releases a mouse button.

Type	Description
Button as Integer	An integer that identifies the button that was pressed to cause the event.
Shift as Integer	An integer that corresponds to the state of the SHIFT, CTRL, and ALT keys when the button specified in the button argument is pressed or released.
X as OLE_XPOS_PIXELS	A single that specifies the current X location of the mouse pointer. The x values is always expressed in container coordinates.
Y as OLE_YPOS_PIXELS	A single that specifies the current Y location of the mouse pointer. The y values is always expressed in container coordinates.

Use a [MouseDown](#) or MouseUp event procedure to specify actions that will occur when a mouse button is pressed or released. Unlike the [Click](#) and [DblClick](#) events, MouseDown and MouseUp events lets you distinguish between the left, right, and middle mouse buttons. You can also write code for mouse-keyboard combinations that use the SHIFT, CTRL, and ALT keyboard modifiers. Use the [ItemFromPoint](#) property to get the item from point. Use the [ColumnFromPoint](#) property to get the column from point. Use the [DateFromPoint](#) property to specify the date from the cursor.

Syntax for MouseUp event, **.NET** version, on:

```
C# private void MouseUpEvent(object sender,short Button,short Shift,int X,int Y)
{
}
```

```
VB Private Sub MouseUpEvent(ByVal sender As System.Object, ByVal Button As
Short, ByVal Shift As Short, ByVal X As Integer, ByVal Y As Integer) Handles
MouseUpEvent
End Sub
```

Syntax for MouseUp event, **COM** version, on:

```
C# private void MouseUpEvent(object sender,
AxEXGANTTLib._IGanttEvents_MouseUpEvent e)
```

```
{  
}
```

C++

```
void OnMouseUp(short Button,short Shift,long X,long Y)  
{  
}
```

C++  
Builder

```
void __fastcall MouseUp(TObject *Sender,short Button,short Shift,int X,int Y)  
{  
}
```

Delphi

```
procedure MouseUp(ASender: TObject; Button : Smallint;Shift : Smallint;X :  
Integer;Y : Integer);  
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure MouseUpEvent(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_MouseUpEvent);  
begin  
end;
```

Powe...

```
begin event MouseUp(integer Button,integer Shift,long X,long Y)  
end event MouseUp
```

VB.NET

```
Private Sub MouseUpEvent(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_MouseUpEvent) Handles MouseUpEvent  
End Sub
```

VB6

```
Private Sub MouseUp(Button As Integer,Shift As Integer,X As Single,Y As Single)  
End Sub
```

VBA

```
Private Sub MouseUp(ByVal Button As Integer, ByVal Shift As Integer, ByVal X As  
Long, ByVal Y As Long)  
End Sub
```

VFP

```
LPARAMETERS Button,Shift,X,Y
```

Xbas...

PROCEDURE OnMouseUp(oGantt,Button,Shift,X,Y)

RETURN

Syntax for MouseUp event, /COM version (others), on:

Java... <SCRIPT EVENT="MouseUp(Button,Shift,X,Y)" LANGUAGE="JScript">  
</SCRIPT>

VBS... <SCRIPT LANGUAGE="VBScript">  
Function MouseUp(Button,Shift,X,Y)  
End Function  
</SCRIPT>

Visual Data... Procedure OnComMouseUp Short ||Button Short ||Shift OLE\_XPOS\_PIXELS IIX  
OLE\_YPOS\_PIXELS IIY  
Forward Send OnComMouseUp ||Button ||Shift IIX IIY  
End\_Procedure

Visual Objects METHOD OCX\_MouseUp(Button,Shift,X,Y) CLASS MainDialog  
RETURN NIL

X++ void onEvent\_MouseUp(int \_Button,int \_Shift,int \_X,int \_Y)  
{  
}

XBasic function MouseUp as v (Button as N,Shift as N,X as  
OLE::Exontrol.Gantt.1::OLE\_XPOS\_PIXELS,Y as  
OLE::Exontrol.Gantt.1::OLE\_YPOS\_PIXELS)  
end function

dBASE function nativeObject\_MouseUp(Button,Shift,X,Y)  
return

The following VB sample prints the cell's caption where the mouse has been released:

Private Sub Gantt1\_MouseUp(Button As Integer, Shift As Integer, X As Single, Y As Single)

```

' Converts the container coordinates to client coordinates
X = X / Screen.TwipsPerPixelX
Y = Y / Screen.TwipsPerPixelY
Dim h As HITEM
Dim c As Long, hit as Long
' Gets the item from (X,Y)
h = Gantt1.ItemFromPoint(X, Y, c, hit)
If Not (h = 0) Then
    Debug.Print Gantt1.Items.CellCaption(h, c)
End If
End Sub

```

If you need to add a context menu based on the item you can use the MouseUp event, like in the following VB sample ( the sample uses the [Exontrol's ExPopupMenu Component](#) ):

```

Private Sub Gantt1_MouseUp(Button As Integer, Shift As Integer, X As Single, Y As Single)
If (Button = 2) Then
    ' Converts the container coordinates to client coordinates
    X = X / Screen.TwipsPerPixelX
    Y = Y / Screen.TwipsPerPixelY
    Dim h As HITEM
    Dim c As Long, hit as Long
    ' Gets the item from (X,Y)
    h = Gantt1.ItemFromPoint(X, Y, c, hit)
    If Not (h = 0) Then
        Dim i As Long
        PopupMenu1.Items.Add Gantt1.Items.CellCaption(h, c)
        i = PopupMenu1.ShowAtCursor
    End If
End If
End Sub

```

The following VC sample displays the caption of the cell where the mouse is released:

```

#include "Items.h"

static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{

```

```

if ( pv )
{
    if ( pv->vt == VT_ERROR )
        return szDefault;

    COleVariant vt;
    vt.ChangeType( VT_BSTR, pv );
    return V_BSTR( &vt );
}

return szDefault;
}

void OnMouseUpGantt1(short Button, short Shift, long X, long Y)
{
    long c = 0, hit = 0, hItem = m_gantt.GetItemFromPoint( X, Y, &c, &hit );
    if ( ( hItem != 0 ) || ( c != 0 ) )
    {
        CItems items = m_gantt.GetItems();
        COleVariant vtItem( hItem ), vtColumn( c );
        CString strCaption = V2S( &items.GetCellCaption( vtItem, vtColumn ) ), strOutput;
        strOutput.Format( "Cell: '%s', Hit = %08X\n", strCaption, hit );
        OutputDebugString( strOutput );
    }
}

```

The following VB.NET sample displays the caption of the cell where the mouse is released:

```

Private Sub AxGantt1_MouseUpEvent(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_MouseUpEvent) Handles AxGantt1.MouseUpEvent
With AxGantt1
    Dim i As Integer, c As Integer, hit As EXGANTTLib.HitTestInfoEnum
    i = .get_ItemFromPoint(e.x, e.y, c, hit)
    If (Not (i = 0) Or Not (c = 0)) Then
        Debug.WriteLine("Cell: " & .Items.CellCaption(i, c) & " Hit: " & hit.ToString())
    End If
End With
End Sub

```

The following C# sample displays the caption of the cell where the mouse is released:

```
private void axGantt1_MouseUpEvent(object sender,
AxEXGANTTLib._IGanttEvents_MouseUpEvent e)
{
    int c = 0;
    EXGANTTLib.HitTestInfoEnum hit;
    int i = axGantt1.get_ItemFromPoint( e.x, e.y, out c,out hit );
    if ( ( i != 0 ) || ( c != 0 ) )
    {
        string s = axGantt1.Items.get_CellCaption( i,c ).ToString();
        s = "Cell: " + s + ", Hit: " + hit.ToString();
        System.Diagnostics.Debug.WriteLine( s );
    }
}
```

The following VFP sample displays the caption of the cell where the mouse is released:

```
*** ActiveX Control Event ***
LPARAMETERS button, shift, x, y

local c, hit
c = 0
hit = 0
with thisform.Gantt1
    .Items.DefaultItem = .ItemFromPoint( x, y, @c, @hit )
    if ( .Items.DefaultItem <> 0 ) or ( c <> 0 )
        wait window nowait .Items.CellCaption( 0, c ) + " " + Str( hit )
    endif
endwith
```

# event OffsetChanged (Horizontal as Boolean, NewVal as Long)

Occurs when the scroll position has been changed.

Type	Description
Horizontal as Boolean	A boolean expression that indicates whether the horizontal scroll bar has changed.
NewVal as Long	A long value that indicates the new scroll bar value in pixels.

If the control has no scroll bars the OffsetChanged and [OversizeChanged](#) events are not fired. Use the [ScrollBars](#) property of the control to determine which scroll bars are visible within the control.

Syntax for OffsetChanged event, **/NET** version, on:

```
c# private void OffsetChanged(object sender,bool Horizontal,int NewVal)
{
}
```

```
VB Private Sub OffsetChanged(ByVal sender As System.Object, ByVal Horizontal As
Boolean, ByVal NewVal As Integer) Handles OffsetChanged
End Sub
```

Syntax for OffsetChanged event, **/COM** version, on:

```
c# private void OffsetChanged(object sender,
AxEXGANTTLib._IGanttEvents_OffsetChangedEventArgs e)
{}
```

```
c++ void OnOffsetChanged(BOOL Horizontal,long NewVal)
{}
```

```
C++ Builder void __fastcall OffsetChanged(TObject *Sender,VARIANT_BOOL Horizontal,long
NewVal)
{}
```

Delphi

```
procedure OffsetChanged(ASender: TObject; Horizontal : WordBool;NewVal : Integer);  
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure OffsetChanged(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_OffsetChangedEventArgs);  
begin  
end;
```

Powe...

```
begin event OffsetChanged(boolean Horizontal,long newVal)  
end event OffsetChanged
```

VB.NET

```
Private Sub OffsetChanged(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_OffsetChangedEventArgs) Handles OffsetChanged  
End Sub
```

VB6

```
Private Sub OffsetChanged(ByVal Horizontal As Boolean,ByVal newVal As Long)  
End Sub
```

VBA

```
Private Sub OffsetChanged(ByVal Horizontal As Boolean,ByVal newVal As Long)  
End Sub
```

VFP

```
L PARAMETERS Horizontal,NewVal
```

Xbas...

```
PROCEDURE OnOffsetChanged(oGantt,Horizontal,NewVal)  
RETURN
```

Syntax for OffsetChanged event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="OffsetChanged(Horizontal,NewVal)" LANGUAGE="JScript">  
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">  
Function OffsetChanged(Horizontal,NewVal)  
End Function  
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComOffsetChanged Boolean ||Horizontal Integer ||NewVal
    Forward Send OnComOffsetChanged ||Horizontal ||NewVal
End_Procedure
```

Visual  
Objects

```
METHOD OCX_OffsetChanged(Horizontal,NewVal) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_OffsetChanged(boolean _Horizontal,int _NewVal)
{}
```

XBasic

```
function OffsetChanged as v (Horizontal as L,NewVal as N)
end function
```

dBASE

```
function nativeObject_OffsetChanged(Horizontal,NewVal)
return
```

The following VB sample displays the new scroll position when user scrolls horizontally the control:

```
Private Sub Gantt1_OffsetChanged(ByVal Horizontal As Boolean, ByVal NewVal As Long)
If (Horizontal) Then
    Debug.Print "The horizontal scroll bar has been moved to " & NewVal
End If
End Sub
```

The following VC sample displays the new scroll position when the user scrolls vertically the control:

```
void OnOffsetChangedGantt1(BOOL Horizontal, long NewVal)
{
    if ( !Horizontal )
    {
        CString strFormat;
        strFormat.Format( "NewPos = %i\n", NewVal );
        OutputDebugString( strFormat );
    }
}
```

```
}
```

The following VB.NET sample displays the new scroll position when the user scrolls vertically the control:

```
Private Sub AxGantt1_OffsetChanged(ByVal sender As Object, ByVal e As AxEXGANTTLib._IGanttEvents_OffsetChangedEventArgs) Handles AxGantt1.OffsetChanged
    If (Not e.horizontal) Then
        Debug.WriteLine(e.newVal)
    End If
End Sub
```

The following C# sample displays the new scroll position when the user scrolls vertically the control:

```
private void axGantt1_OffsetChanged(object sender,
AxEXGANTTLib._IGanttEvents_OffsetChangedEventArgs e)
{
    if ( !e.horizontal )
        System.Diagnostics.Debug.WriteLine(e.newVal);
}
```

The following VFP sample displays the new scroll position when the user scrolls vertically the control:

```
*** ActiveX Control Event ***
LPARAMETERS horizontal, newval

if ( 0 # horizontal )
    wait window nowait str( newval )
endif
```

## event OLECompleteDrag (Effect as Long)

Occurs when a source component is dropped onto a target component, informing the source component that a drag action was either performed or canceled

Type	Description
Effect as Long	A long set by the source object identifying the action that has been performed, thus allowing the source to take appropriate action if the component was moved (such as the source deleting data if it is moved from one component to another)

The OLECompleteDrag event is the final event to be called in an OLE drag/drop operation. This event informs the source component of the action that was performed when the object was dropped onto the target component. The target sets this value through the effect parameter of the [OLEDragDrop](#) event. Based on this, the source can then determine the appropriate action it needs to take. For example, if the object was moved into the target (exDropEffectMove), the source needs to delete the object from itself after the move. The control supports only manual OLE drag and drop events. In order to enable OLE drag and drop feature into control you have to set the [OLEDropMode](#) and [OLEDrag](#) properties.

The settings for Effect are:

- exOLEDropEffectNone (0), Drop target cannot accept the data, or the drop operation was cancelled
- exOLEDropEffectCopy (1), Drop results in a copy of data from the source to the target. The original data is unaltered by the drag operation.
- exOLEDropEffectMove (2), Drop results in data being moved from drag source to drop source. The drag source should remove the data from itself after the move.

Syntax for OLECompleteDrag event, **/NET** version, on:

C# // OLECompleteDrag event is not supported. Use the DragEnter, DragLeave, DragOver, DragDrop ... events.

VB // OLECompleteDrag event is not supported. Use the DragEnter, DragLeave, DragOver, DragDrop ... events.

Syntax for OLECompleteDrag event, **/COM** version, on:

C# private void OLECompleteDrag(object sender,  
AxEXGANTTLib.\_IGanttEvents\_OLECompleteDragEvent e)  
{

```
}
```

**C++**

```
void OnOLECompleteDrag(long Effect)
{
}
```

**C++ Builder**

```
void __fastcall OLECompleteDrag(TObject *Sender,long Effect)
{}
```

**Delphi**

```
procedure OLECompleteDrag(ASender: TObject; Effect : Integer);
begin
end;
```

**Delphi 8  
(.NET  
only)**

```
procedure OLECompleteDrag(sender: System.Object; e:
AxEXGANTTLib._IGanttEvents_OLECompleteDragEvent);
begin
end;
```

**Powe...**

```
begin event OLECompleteDrag(long Effect)
end event OLECompleteDrag
```

**VB.NET**

```
Private Sub OLECompleteDrag(ByVal sender As System.Object, ByVal e As
AxEXGANTTLib._IGanttEvents_OLECompleteDragEvent) Handles
OLECompleteDrag
End Sub
```

**VB6**

```
Private Sub OLECompleteDrag(ByVal Effect As Long)
End Sub
```

**VBA**

```
Private Sub OLECompleteDrag(ByVal Effect As Long)
End Sub
```

**VFP**

```
LPARAMETERS Effect
```

**Xbas...**

```
PROCEDURE OnOLECompleteDrag(oGantt,Effect)
RETURN
```

Syntax for OLECompleteDrag event, /COM version (others), on:

Java... <SCRIPT EVENT="OLECompleteDrag(Effect)" LANGUAGE="JScript">  
</SCRIPT>

VBS... <SCRIPT LANGUAGE="VBScript">  
Function OLECompleteDrag(Effect)  
End Function  
</SCRIPT>

Visual Data... Procedure OnComOLECompleteDrag Integer lIEffect  
    Forward Send OnComOLECompleteDrag lIEffect  
End\_Procedure

Visual Objects METHOD OCX\_OLECompleteDrag(Effect) CLASS MainDialog  
RETURN NIL

X++ // OLECompleteDrag event is not supported. Use the  
    DragEnter, DragLeave, DragOver, DragDrop ... events.

XBasic function OLECompleteDrag as v (Effect as N)  
end function

dBASE function nativeObject\_OLECompleteDrag(Effect)  
return

## **event OLEDragDrop (Data as ExDataObject, Effect as Long, Button as Integer, Shift as Integer, X as OLE\_XPOS\_PIXELS, Y as OLE\_YPOS\_PIXELS)**

Occurs when a source component is dropped onto a target component when the source component determines that a drop can occur.

Type	Description
Data as <a href="#">ExDataObject</a>	An ExDataObject object containing formats that the source will provide and, in addition, possibly the data for those formats. If no data is contained in the ExDataObject, it is provided when the control calls the GetData method. The SetData and Clear methods cannot be used here.
Effect as Long	A Long set by the target component identifying the action that has been performed (if any), thus allowing the source to take appropriate action if the component was moved (such as the source deleting the data). The possible values are listed in Remarks.
Button as Integer	An integer which acts as a bit field corresponding to the state of a mouse button when it is depressed. The left button is bit 0, the right button is bit 1, and the middle button is bit 2. These bits correspond to the values 1, 2, and 4, respectively. It indicates the state of the mouse buttons; some, all, or none of these three bits can be set, indicating that some, all, or none of the buttons are depressed.
Shift as Integer	An integer which acts as a bit field corresponding to the state of the SHIFT, CTRL, and ALT keys when they are depressed. The SHIFT key is bit 0, the CTRL key is bit 1, and the ALT key is bit 2. These bits correspond to the values 1, 2, and 4, respectively. The shift parameter indicates the state of these keys; some, all, or none of the bits can be set, indicating that some, all, or none of the keys are depressed. For example, if both the CTRL and ALT keys were depressed, the value of shift would be 6.
X as OLE_XPOS_PIXELS	A single that specifies the current X location of the mouse pointer. The X value is always expressed in container coordinates
Y as OLE_YPOS_PIXELS	A single that specifies the current Y location of the mouse pointer. The Y value is always expressed in container coordinates.

In the /NET Assembly, you have to use the DragDrop event as explained here:

- <https://www.exontrol.com/sg.jsp?content=support/faq/net/#dragdrop>

The OLEDragDrop event is fired when the user has dropped files or clipboard information into the control. Use the [OLEDropMode](#) property on exOLEDropManual to enable OLE drop and drop support. Use the [ItemFromPoint](#) property to get the item from point. Use the [ColumnFromPoint](#) property to get the column from point. Use the [AddItem](#) method to add a new item to the control. Use the [InsertItem](#) method to insert a new child item. Use the [ItemPosition](#) property to specify the item's position.

The settings for Effect are:

- exOLEDropEffectNone (0), Drop target cannot accept the data, or the drop operation was cancelled
- exOLEDropEffectCopy (1), Drop results in a copy of data from the source to the target. The original data is unaltered by the drag operation.
- exOLEDropEffectMove (2), Drop results in data being moved from drag source to drop source. The drag source should remove the data from itself after the move.

Syntax for OLEDragDrop event, **/NET** version, on:

C# // OLEDragDrop event is not supported. Use the DragEnter,DragLeave,DragOver, DragDrop ... events.

VB // OLEDragDrop event is not supported. Use the DragEnter,DragLeave,DragOver, DragDrop ... events.

Syntax for OLEDragDrop event, **/COM** version, on:

C# private void OLEDragDrop(object sender,  
AxEXGANTTLib.\_IGanttEvents\_OLEDragDropEvent e)  
{  
}

C++ void OnOLEDragDrop(LPDISPATCH Data,long FAR\* Effect,short Button,short Shift,long X,long Y)  
{  
}

```
void __fastcall OLEDragDrop(TObject *Sender,Exgantlib_tlb::IExDataObject *Data,long *Effect,short Button,short Shift,int X,int Y)
{
}
```

```
procedure OLEDragDrop(ASender: TObject; Data : IExDataObject;var Effect : Integer;Button : Smallint;Shift : Smallint;X : Integer;Y : Integer);
begin
end;
```

```
procedure OLEDragDrop(sender: System.Object; e: AxEXGANTTLib._IGanttEvents_OLEDragDropEvent);
begin
end;
```

```
begin event OLEDragDrop(oleobject Data,long Effect,integer Button,integer Shift,long X,long Y)
end event OLEDragDrop
```

```
Private Sub OLEDragDrop(ByVal sender As System.Object, ByVal e As AxEXGANTTLib._IGanttEvents_OLEDragDropEvent) Handles OLEDragDrop
End Sub
```

```
Private Sub OLEDragDrop(ByVal Data As EXGANTTLibCtl.IExDataObject,Effect As Long,ByVal Button As Integer,ByVal Shift As Integer,ByVal X As Single,ByVal Y As Single)
End Sub
```

```
Private Sub OLEDragDrop(ByVal Data As Object,Effect As Long,ByVal Button As Integer,ByVal Shift As Integer,ByVal X As Long,ByVal Y As Long)
End Sub
```

```
L PARAMETERS Data,Effect,Button,Shift,X,Y
```

```
PROCEDURE OnOLEDragDrop(oGantt,Data,Effect,Button,Shift,X,Y)
```

Syntax for OLEDragDrop event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="OLEDragDrop(Data,Effect,Button,Shift,X,Y)"  
LANGUAGE="JScript">  
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">  
Function OLEDragDrop(Data,Effect,Button,Shift,X,Y)  
End Function  
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComOLEDragDrop Variant ||Data Integer ||Effect Short ||Button  
Short ||Shift OLE_XPOS_PIXELS ||X OLE_YPOS_PIXELS ||Y  
    Forward Send OnComOLEDragDrop ||Data ||Effect ||Button ||Shift ||X ||Y  
End_Procedure
```

Visual  
Objects

```
METHOD OCX_OLEDragDrop(Data,Effect,Button,Shift,X,Y) CLASS MainDialog  
RETURN NIL
```

X++

```
// OLEDragDrop event is not supported. Use the DragEnter,DragLeave,DragOver,  
DragDrop ... events.
```

XBasic

```
function OLEDragDrop as v (Data as OLE::Exontrol.Gantt.1::IExDataObject,Effect as  
N,Button as N,Shift as N,X as OLE::Exontrol.Gantt.1::OLE_XPOS_PIXELS,Y as  
OLE::Exontrol.Gantt.1::OLE_YPOS_PIXELS)  
end function
```

dBASE

```
function nativeObject_OLEDragDrop(Data,Effect,Button,Shift,X,Y)  
return
```

The following VB sample adds a new item when the user drags a file ( Open the Windows Explorer, click and drag a file to the control ) :

```
Private Sub Gantt1_OLEDragDrop(Index As Integer, ByVal Data As  
EXGANTTLibCtl.IExDataObject, Effect As Long, ByVal Button As Integer, ByVal Shift As
```

```
Integer, ByVal X As Single, ByVal Y As Single)
```

```
If Data.GetFormat(exCFFiles) Then
```

```
    Data.GetData (exCFFiles)
```

```
    Dim strFile As String
```

```
    strFile = Data.Files(0)
```

```
'Adds a new item to the control
```

```
Gantt1(Index).Visible = False
```

```
With Gantt1(Index)
```

```
.BeginUpdate
```

```
    Dim i As HITEM
```

```
    i = .Items.AddItem(strFile)
```

```
    .Items.EnsureVisibleItem i
```

```
.EndUpdate
```

```
End With
```

```
Gantt1(Index).Visible = True
```

```
End If
```

```
End Sub
```

The following VC sample inserts a child item for each file that user drags:

```
#import <exgantt.dll> rename( "GetItems", "exGetItems" )
```

```
#include "Items.h"
```

```
void OnOLEDragDropGantt1(LPDISPATCH Data, long FAR* Effect, short Button, short Shift,  
long X, long Y)
```

```
{
```

```
    EXGANTTLib::IExDataObjectPtr spData( Data );
```

```
    if ( spData != NULL )
```

```
        if ( spData->GetFormat( EXGANTTLib::exCFFiles ) )
```

```
{
```

```
        CItems items = m_gantt.GetItems();
```

```
        // Gets the handle of the item where the files will be inserted
```

```
        long c = 0, h = 0, nParentItem = m_gantt.GetItemFromPoint( X, Y, &c, &h );
```

```
        if ( nParentItem == 0 )
```

```
            if ( c != 0 )
```

```
                nParentItem = items.GetCellItem( c );
```

```
        EXGANTTLib::IExDataObjectFilesPtr spFiles( spData->Files );
```

```

if ( spFiles->Count > 0 )
{
    m_gantt.BeginUpdate();
    COleVariant vtMissing; vtMissing.vt = VT_ERROR;
    for ( long i = 0; i < spFiles->Count; i++ )
        items.InsertItem( nParentItem, vtMissing, COleVariant( spFiles->GetItem( i
).operator const char *() ) );
    if ( nParentItem )
        items.SetExpandItem( nParentItem, TRUE );
    m_gantt.EndUpdate();
}

}
}

```

The #import statement imports definition for the [ExDataObject](#) and [ExDataObjectFiles](#) objects. If the exgantt.dll file is located in another folder than the system folder, the path to the file must be specified. The sample gets the item where the files were dragged and insert all files in that position, as child items, if case.

The following VB.NET sample inserts a child item for each file that user drags:

```

Private Sub AxGantt1_OLEDragDrop(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_OLEDragDropEvent) Handles AxGantt1.OLEDragDrop
If e.data.GetFormat(EXGANTTLib.exClipboardFormatEnum.exCFFiles) Then
    If (e.data.Files.Count > 0) Then
        AxGantt1.BeginUpdate()
        With AxGantt1.Items
            Dim iParent As Integer, c As Integer, hit As EXGANTTLib.HitTestInfoEnum
            iParent = AxGantt1.get_ItemFromPoint(e.x, e.y, c, hit)
            If iParent = 0 Then
                If Not c = 0 Then
                    iParent = .CellItem(c)
                End If
            End If
            Dim i As Long
            For i = 0 To e.data.Files.Count - 1
                .InsertItem(iParent, , e.data.Files(i))
            Next
        End With
    End If
End If

```

```

Next
If Not (iParent = 0) Then
    .ExpandItem(iParent) = True
End If
End With
AxGantt1.EndUpdate()
End If
End If
End Sub

```

The following C# sample inserts a child item for each file that user drags:

```

private void axGantt1_OLEDragDrop(object sender,
AxEXGANTTLib._IGanttEvents_OLEDragDropEvent e)
{
    if ( e.data.GetFormat( Convert.ToInt16(EXGANTTLib.exClipboardFormatEnum.exCFFiles)
) )
        if ( e.data.Files.Count > 0 )
        {
            EXGANTTLib.HitTestInfoEnum hit;
            int c = 0, iParent = axGantt1.get_ItemFromPoint( e.x, e.y, out c, out hit );
            if ( iParent == 0 )
                if ( c != 0 )
                    iParent = axGantt1.Items.get_CellItem( c );

            axGantt1.BeginUpdate();
            for ( int i = 0; i < e.data.Files.Count; i++ )
                axGantt1.Items.InsertItem( iParent, "", e.data.Files[i].ToString() );
            if ( iParent != 0 )
                axGantt1.Items.set_ExpandItem( iParent, true );
            axGantt1.EndUpdate();
        }
}

```

The following VFP sample inserts a child item for each file that user drags:

```

*** ActiveX Control Event ***
LPARAMETERS data, effect, button, shift, x, y

```

```
local c, hit, iParent
c = 0
hit = 0
if ( data.GetFormat( 15 ) ) && exCFFiles
    if ( data.Files.Count() > 0 )
        with thisform.Gantt1.Items
            iParent = thisform.Gantt1.ItemFromPoint( x, y, @c, @hit )

            thisform.Gantt1.BeginUpdate()
            for i = 0 to data.files.Count() - 1
                .InsertItem( iParent, "", data.files(i) )
            next
            if ( iParent != 0 )
                .DefaultItem = iParent
                .ExpandItem( 0 ) = .t.
            endif
            thisform.Gantt1.EndUpdate()
        endwith
    endif
endif
```

## event OLEDragOver (Data as ExDataObject, Effect as Long, Button as Integer, Shift as Integer, X as OLE\_XPOS\_PIXELS, Y as OLE\_YPOS\_PIXELS, State as Integer)

Occurs when one component is dragged over another.

Type	Description
Data as <a href="#">ExDataObject</a>	An ExDataObject object containing formats that the source will provide and, in addition, possibly the data for those formats. If no data is contained in the ExDataObject, it is provided when the control calls the GetData method. The SetData and Clear methods cannot be used here
Effect as Long	A Long set by the target component identifying the action that has been performed (if any), thus allowing the source to take appropriate action if the component was moved (such as the source deleting the data). The possible values are listed in Remarks.
Button as Integer	An integer which acts as a bit field corresponding to the state of a mouse button when it is depressed. The left button is bit 0, the right button is bit 1, and the middle button is bit 2. These bits correspond to the values 1, 2, and 4, respectively. It indicates the state of the mouse buttons; some, all, or none of these three bits can be set, indicating that some, all, or none of the buttons are depressed.
Shift as Integer	An integer which acts as a bit field corresponding to the state of the SHIFT, CTRL, and ALT keys when they are depressed. The SHIFT key is bit 0, the CTRL key is bit 1, and the ALT key is bit 2. These bits correspond to the values 1, 2, and 4, respectively. The shift parameter indicates the state of these keys; some, all, or none of the bits can be set, indicating that some, all, or none of the keys are depressed. For example, if both the CTRL and ALT keys were depressed, the value of shift would be 6.
X as OLE_XPOS_PIXELS	A single that specifies the current X location of the mouse pointer. The X value is always expressed in container coordinates.
Y as OLE_YPOS_PIXELS	A single that specifies the current Y location of the mouse pointer. The Y value is always expressed in container coordinates.

## State as Integer

An integer that corresponds to the transition state of the control being dragged in relation to a target form or control. The possible values are listed in Remarks.

---

The settings for effect are:

- exOLEDropEffectNone (0), Drop target cannot accept the data, or the drop operation was cancelled
- exOLEDropEffectCopy (1), Drop results in a copy of data from the source to the target. The original data is unaltered by the drag operation.
- exOLEDropEffectMove (2), Drop results in data being moved from drag source to drop source. The drag source should remove the data from itself after the move.

The settings for state are:

- exOLEDragEnter (0), Source component is being dragged within the range of a target.
- exOLEDragLeave (1), Source component is being dragged out of the range of a target.
- exOLEOLEDragOver (2), Source component has moved from one position in the target to another.

Note If the state parameter is 1, indicating that the mouse pointer has left the target, then the x and y parameters will contain zeros.

The source component should always mask values from the effect parameter to ensure compatibility with future implementations of ActiveX components. As a precaution against future problems, drag sources and drop targets should mask these values appropriately before performing any comparisons.

For example, a source component should not compare an effect against, say, exOLEDropEffectCopy, such as in this manner:

If Effect = exOLEDropEffectCopy...

Instead, the source component should mask for the value or values being sought, such as this:

If Effect And exOLEDropEffectCopy = exOLEDropEffectCopy...

-or-

If (Effect And exOLEDropEffectCopy)...

This allows for the definition of new drop effects in future versions while preserving backwards compatibility with your existing code.

The control supports only manual OLE drag and drop events.

Syntax for OLEDragOver event, /NET version, on:

c#

```
// OLEDragOver event is not supported. Use the DragEnter, DragLeave, DragOver,  
DragDrop ... events.
```

VB

```
// OLEDragOver event is not supported. Use the DragEnter,DragLeave,DragOver,  
DragDrop ... events.
```

Syntax for OLEDragOver event, /COM version, on:

C#

```
private void OLEDragOver(object sender,  
AxEXGANTTLib._IGanttEvents_OLEDragOverEvent e)  
{  
}
```

C++

```
void OnOLEDragOver(LPDISPATCH Data,long FAR* Effect,short Button,short  
Shift,long X,long Y,short State)  
{  
}
```

C++  
Builder

```
void __fastcall OLEDragOver(TObject *Sender,Exgantlib_tlb::IExDataObject  
*Data,long * Effect,short Button,short Shift,int X,int Y,short State)  
{  
}
```

Delphi

```
procedure OLEDragOver(ASender: TObject; Data : IExDataObject;var Effect :  
Integer;Button : Smallint;Shift : Smallint;X : Integer;Y : Integer;State : Smallint);  
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure OLEDragOver(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_OLEDragOverEvent);  
begin  
end;
```

Powe...

```
begin event OLEDragOver(oleobject Data,long Effect,integer Button,integer  
Shift,long X,long Y,integer State)  
end event OLEDragOver
```

VB.NET

```
Private Sub OLEDragOver(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_OLEDragOverEvent) Handles OLEDragOver  
End Sub
```

VB6

```
Private Sub OLEDragOver(ByVal Data As EXGANTLibCtl.IExDataObject, Effect As Long, ByVal Button As Integer, ByVal Shift As Integer, ByVal X As Single, ByVal Y As Single, ByVal State As Integer)
End Sub
```

VBA

```
Private Sub OLEDragOver(Data As Object, Effect As Long, Button As Integer, Shift As Integer, X As Long, Y As Long, State As Integer)
End Sub
```

VFP

```
LPARAMETERS Data,Effect,Button,Shift,X,Y,State
```

Xbas... PROCEDURE OnOLEDragOver(oGantt,Data,Effect,Button,Shift,X,Y,State)
RETURN

Syntax for OLEDragOver event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="OLEDragOver(Data,Effect,Button,Shift,X,Y,State)"
LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function OLEDragOver(Data,Effect,Button,Shift,X,Y,State)
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComOLEDragOver Variant ||Data Integer ||Effect Short ||Button Short
||Shift OLE_XPOS_PIXELS ||X OLE_YPOS_PIXELS ||Y Short ||State
    Forward Send OnComOLEDragOver ||Data ||Effect ||Button ||Shift ||X ||Y ||State
End_Procedure
```

Visual  
Objects

```
METHOD OCX_OLEDragOver(Data,Effect,Button,Shift,X,Y,State) CLASS MainDialog
RETURN NIL
```

X++

```
// OLEDragOver event is not supported. Use the DragEnter,DragLeave,DragOver,
```

DragDrop ... events.

XBasic

```
function OLEDragOver as v (Data as OLE::Exontrol.Gantt.1::IExDataObject,Effect as N,Button as N,Shift as N,X as OLE::Exontrol.Gantt.1::OLE_XPOS_PIXELS,Y as OLE::Exontrol.Gantt.1::OLE_YPOS_PIXELS,State as N)
end function
```

dBASE

```
function nativeObject_OLEDragOver(Data,Effect,Button,Shift,X,Y,State)
return
```

## event OLEGiveFeedback (Effect as Long, DefaultCursors as Boolean)

Allows the drag source to specify the type of OLE drag-and-drop operation and the visual feedback.

Type	Description
Effect as Long	A long integer set by the target component in the OLEDragOver event specifying the action to be performed if the user drops the selection on it. This allows the source to take the appropriate action (such as giving visual feedback). The possible values are listed in Remarks.
DefaultCursors as Boolean	Boolean value that determines whether to use the default mouse cursor, or to use a user-defined mouse cursor. True (default) = use default mouse cursor. False = do not use default cursor. Mouse cursor must be set with the MousePointer property of the Screen object.

The settings for Effect are:

- exOLEDropEffectNone (0), Drop target cannot accept the data, or the drop operation was cancelled
- exOLEDropEffectCopy (1), Drop results in a copy of data from the source to the target. The original data is unaltered by the drag operation.
- exOLEDropEffectMove (2), Drop results in data being moved from drag source to drop source. The drag source should remove the data from itself after the move.

If there is no code in the OLEGiveFeedback event, or if the defaultcursors parameter is set to True, the mouse cursor will be set to the default cursor provided by the control. The source component should always mask values from the effect parameter to ensure compatibility with future implementations of ActiveX components. As a precaution against future problems, drag sources and drop targets should mask these values appropriately before performing any comparisons.

For example, a source component should not compare an effect against, say, exOLEDropEffectCopy, such as in this manner:

If Effect = exOLEDropEffectCopy...

Instead, the source component should mask for the value or values being sought, such as this:

If Effect And exOLEDropEffectCopy = exOLEDropEffectCopy...

-or-

If (Effect And exOLEDropEffectCopy)...

This allows for the definition of new drop effects in future versions while preserving backwards compatibility with your existing code.

The control supports only manual OLE drag and drop events.

Syntax for OLEGiveFeedback event, **/NET** version, on:

C# // OLEGiveFeedback event is not supported. Use the DragEnter,DragLeave,DragOver, DragDrop ... events.

VB // OLEGiveFeedback event is not supported. Use the DragEnter,DragLeave,DragOver, DragDrop ... events.

Syntax for OLEGiveFeedback event, **/COM** version, on:

C# private void OLEGiveFeedback(object sender,  
AxEXGANTTLib.\_IGanttEvents\_OLEGiveFeedbackEvent e)  
{  
}

C++ void OnOLEGiveFeedback(long Effect,BOOL FAR\* DefaultCursors)  
{  
}

C++ Builder void \_\_fastcall OLEGiveFeedback(TObject \*Sender,long Effect,VARIANT\_BOOL \* DefaultCursors)  
{  
}

Delphi procedure OLEGiveFeedback(ASender: TObject; Effect : Integer;var DefaultCursors : WordBool);  
begin  
end;

Delphi 8 (.NET only) procedure OLEGiveFeedback(sender: System.Object; e: AxEXGANTTLib.\_IGanttEvents\_OLEGiveFeedbackEvent);  
begin  
end;

Powe... begin event OLEGiveFeedback(long Effect,boolean DefaultCursors)  
end event OLEGiveFeedback

VB.NET

```
Private Sub OLEGiveFeedback(ByVal sender As System.Object, ByVal e As AxEXGANTTLib._IGanttEvents_OLEGiveFeedbackEvent) Handles OLEGiveFeedback
End Sub
```

VB6

```
Private Sub OLEGiveFeedback(Effect As Long,DefaultCursors As Boolean)
End Sub
```

VBA

```
Private Sub OLEGiveFeedback(Effect As Long,DefaultCursors As Boolean)
End Sub
```

VFP

```
LPARAMETERS Effect,DefaultCursors
```

Xbas...

```
PROCEDURE OnOLEGiveFeedback(oGantt,Effect,DefaultCursors)
RETURN
```

Syntax for OLEGiveFeedback event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="OLEGiveFeedback(Effect,DefaultCursors)"
LANGUAGE="JScript">
</SCRIPT>
```

VBS...

```
<SCRIPT LANGUAGE="VBScript">
Function OLEGiveFeedback(Effect,DefaultCursors)
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComOLEGiveFeedback Integer IIEffect Boolean IIDefaultCursors
    Forward Send OnComOLEGiveFeedback IIEffect IIDefaultCursors
End_Procedure
```

Visual  
Objects

```
METHOD OCX_OLEGiveFeedback(Effect,DefaultCursors) CLASS MainDialog
RETURN NIL
```

X++

```
// OLEGiveFeedback event is not supported. Use the
DragEnter,DragLeave,DragOver, DragDrop ... events.
```

XBasic

```
function OLEGiveFeedback as v (Effect as N,DefaultCursors as L)
end function
```

dBASE

```
function nativeObject_OLEGiveFeedback(Effect,DefaultCursors)
return
```

## event OLESetData (Data as ExDataObject, Format as Integer)

Occurs on a drag source when a drop target calls the GetData method and there is no data in a specified format in the OLE drag-and-drop DataObject.

Type	Description
Data as <a href="#">ExDataObject</a>	An ExDataObject object in which to place the requested data. The component calls the SetData method to load the requested format.
Format as Integer	An integer specifying the format of the data that the target component is requesting. The source component uses this value to determine what to load into the ExDataObject object.

The OLESetData is not currently supported.

Syntax for OLESetData event, **/NET** version, on:

C# // OLESetData event is not supported. Use the DragEnter,DragLeave,DragOver, DragDrop ... events.

VB // OLESetData event is not supported. Use the DragEnter,DragLeave,DragOver, DragDrop ... events.

Syntax for OLESetData event, **/COM** version, on:

C# private void OLESetData(object sender,  
AxEXGANTTLib.\_IGanttEvents\_OLESetDataEvent e)  
{  
}

C++ void OnOLESetData(LPDISPATCH Data,short Format)  
{  
}

C++ Builder void \_\_fastcall OLESetData(TObject \*Sender,Exganttlb\_tlb::IExDataObject  
\*Data,short Format)  
{  
}

Delphi

```
procedure OLESetData(ASender: TObject; Data : IExDataObject;Format : Smallint);
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure OLESetData(sender: System.Object; e:
AxEXGANTTLib._IGanttEvents_OLESetDataEvent);
begin
end;
```

Powe...

```
begin event OLESetData(oleobject Data,integer Format)
end event OLESetData
```

VB.NET

```
Private Sub OLESetData(ByVal sender As System.Object, ByVal e As
AxEXGANTTLib._IGanttEvents_OLESetDataEvent) Handles OLESetData
End Sub
```

VB6

```
Private Sub OLESetData(ByVal Data As EXGANTTLibCtl.IExDataObject, ByVal
Format As Integer)
End Sub
```

VBA

```
Private Sub OLESetData(ByVal Data As Object, ByVal Format As Integer)
End Sub
```

VFP

```
L PARAMETERS Data,Format
```

Xbas...

```
PROCEDURE OnOLESetData(oGantt,Data,Format)
RETURN
```

Syntax for OLESetData event, /COM version (others), on:

```
Java...
<SCRIPT EVENT="OLESetData(Data,Format)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function OLESetData(Data,Format)
End Function
```

```
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComOLESetData Variant IIData Short IIFormat
    Forward Send OnComOLESetData IIData IIFormat
End_Procedure
```

Visual  
Objects

```
METHOD OCX_OLESetData(Data,Format) CLASS MainDialog
RETURN NIL
```

X++

```
// OLESetData event is not supported. Use the DragEnter,DragLeave,DragOver,
DragDrop ... events.
```

XBasic

```
function OLESetData as v (Data as OLE::Exontrol.Gantt.1::IExDataObject,Format as
N)
end function
```

dBASE

```
function nativeObject_OLESetData(Data,Format)
return
```

## event OLEStartDrag (Data as ExDataObject, AllowedEffects as Long)

Occurs when the OLEDrag method is called.

Type	Description
Data as <a href="#">ExDataObject</a>	An ExDataObject object containing formats that the source will provide and, optionally, the data for those formats. If no data is contained in the ExDataObject, it is provided when the control calls the GetData method. The programmer should provide the values for this parameter in this event. The SetData and Clear methods cannot be used here.
AllowedEffects as Long	A long containing the effects that the source component supports. The possible values are listed in Settings. The programmer should provide the values for this parameter in this event

In the /NET Assembly, you have to use the DragEnter event as explained here:

- <https://www.exontrol.com/sg.jsp?content=support/faq/net/#dragdrop>

Use the [Background\(exDragDropBefore\)](#) property to specify the visual appearance for the dragging items, before painting the items. Use the [Background\(exDragDropAfter\)](#) property to specify the visual appearance for the dragging items, after painting the items. Use the [Background\(exDragDropList\)](#) property to specify the graphic feedback for the item from the cursor, while the OLE drag and drop operation is running.

The settings for AllowEffects are:

- exOLEDropEffectNone (0), Drop target cannot accept the data, or the drop operation was cancelled
- exOLEDropEffectCopy (1), Drop results in a copy of data from the source to the target. The original data is unaltered by the drag operation.
- exOLEDropEffectMove (2), Drop results in data being moved from drag source to drop source. The drag source should remove the data from itself after the move.

The source component should logically Or together the supported values and places the result in the AllowedEffects parameter. The target component can use this value to determine the appropriate action (and what the appropriate user feedback should be). You may wish to defer putting data into the ExDataObject object until the target component requests it. This allows the source component to save time. If the user does not load any formats into the ExDataObject, then the drag/drop operation is canceled. Use [exCFFiles](#) and [Files](#) property to add files to the drag and drop data object.

The idea of drag and drop in exGantt control is the same as in other controls. To start accepting drag and drop sources the exGantt control should have the [OLEDropMode](#) to exOLEDropManual. Once that is set, the exGantt starts accepting any drag and drop sources.

The first step is if you want to be able to drag items from your exGantt control to other controls the idea is to handle the OLE\_StartDrag event. The event passes an object ExDataObject (Data) as argument. The Data and AllowedEffects can be changed only in the OLEStartDrag event. The OLE\_StartDrag event is fired when user is about to drag items from the control. **The AllowedEffect parameter and [SetData](#) property must be set to continue drag and drop operation, as in the following samples:**

Syntax for OLEStartDrag event, **/NET** version, on:

C# // OLEStartDrag event is not supported. Use the DragEnter,DragLeave,DragOver, DragDrop ... events.

VB // OLEStartDrag event is not supported. Use the DragEnter,DragLeave,DragOver, DragDrop ... events.

Syntax for OLEStartDrag event, **/COM** version, on:

C# private void OLEStartDrag(object sender,  
AxEXGANTTLib.\_IGanttEvents\_OLEStartDragEvent e)  
{  
}

C++ void OnOLEStartDrag(LPDISPATCH Data,long FAR\* AllowedEffects)  
{  
}

C++ Builder void \_\_fastcall OLEStartDrag(TObject \*Sender,Exgantlib\_tlb::IExDataObject  
\*Data,long \* AllowedEffects)  
{  
}

Delphi procedure OLEStartDrag(ASender: TObject; Data : IExDataObject;var  
AllowedEffects : Integer);  
begin  
end;

Delphi 8  
(.NET  
only)

```
procedure OLEStartDrag(sender: System.Object; e:  
AxEXGANTTLib._IGanttEvents_OLEStartDragEvent);  
begin  
end;
```

Powe...

```
begin event OLEStartDrag(oleobject Data,long AllowedEffects)  
end event OLEStartDrag
```

VB.NET

```
Private Sub OLEStartDrag(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_OLEStartDragEvent) Handles OLEStartDrag  
End Sub
```

VB6

```
Private Sub OLEStartDrag(ByVal Data As  
EXGANTTLibCtl.IExDataObject, AllowedEffects As Long)  
End Sub
```

VBA

```
Private Sub OLEStartDrag(ByVal Data As Object, AllowedEffects As Long)  
End Sub
```

VFP

```
L PARAMETERS Data, AllowedEffects
```

Xbas...

```
PROCEDURE OnOLEStartDrag(oGantt, Data, AllowedEffects)  
RETURN
```

Syntax for OLEStartDrag event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="OLEStartDrag(Data,AllowedEffects)" LANGUAGE="JScript">  
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">  
Function OLEStartDrag(Data,AllowedEffects)  
End Function  
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComOLEStartDrag Variant IIData Integer IIAllowedEffects  
    Forward Send OnComOLEStartDrag IIData IIAllowedEffects  
End_Procedure
```

Visual  
Objects

METHOD OCX\_OLEStartDrag(Data,AllowedEffects) CLASS MainDialog  
RETURN NIL

X++

// OLEStartDrag event is not supported. Use the DragEnter,DragLeave,DragOver,  
DragDrop ... events.

XBasic

```
function OLEStartDrag as v (Data as  
OLE::Exontrol.Gantt.1::IExDataObject, AllowedEffects as N)  
end function
```

dBASE

```
function nativeObject_OLEStartDrag(Data,AllowedEffects)  
return
```

The following VB sample drags data from a control to another, by registering a new clipboard format:

```
Private Sub Gantt1_OLEStartDrag(Index As Integer, ByVal Data As  
EXGANTTLibCtl.IExDataObject, AllowedEffects As Long)
```

' We are going to add two clipboard formats: text and "EXGANTT" clipboard format.

' We need to use RegisterClipboardFormat API function in order to register our  
' clipboard format. One clipboard format is enough, but the sample shows  
' how to filter in OLEDragDrop event the other clipboard formats

' Builds a string that contains each cell's caption on a new line

```
Dim n As Long
```

```
Dim s As String
```

```
With Gantt1(Index)
```

```
    s = Index & vbCrLf ' Saves the source
```

```
    For n = 0 To .Columns.Count - 1
```

```
        s = s & .Items.CellCaption(.Items.SelectedItem(0), n) & vbCrLf
```

```
    Next
```

```
End With
```

AllowedEffects = 0

' Checks whether the selected item has a parent

```
If (Gantt1(Index).Items.ItemParent(Gantt1(Index).Items.SelectedItem(0)) <> 0) Then
```

```

    AllowedEffects = 1
End If
' Sets the text clipboard format
Data.SetData s, exCFText

' Builds an array of bytes, and copy there all characters in the s string.
' Passes the array to the SetData method.
ReDim v(Len(s)) As Byte
For n = 0 To Len(s) - 1
    v(n) = Asc(Mid(s, n + 1, 1))
Next
Data.SetData v, RegisterClipboardFormat("EXGANTT")

End Sub

```

The code fills data for two types of clipboard formats: text ( CF\_TEXT ) and "EXGANTT" registered clipboard format. The registered clipboard format must be an array of bytes. As you can see we have used the RegisterClipboardFormat API function, and it should be declared like:

```

Private Declare Function RegisterClipboardFormat Lib "user32" Alias
"RegisterClipboardFormatA" (ByVal lpString As String) As Integer

```

The second step is accepting OLE drag and drop source objects. That means, if you would like to let your control accept drag and drop objects, you have to handle the [OLEDragDrop](#) event. It gets as argument an object Data that stores the drag and drop information. The next sample shows how handle the OLEDragDrop event:

```

Private Sub Gantt1_OLEDragDrop(Index As Integer, ByVal Data As
EXGANTTLibCtl.IExDataObject, Effect As Long, ByVal Button As Integer, ByVal Shift As
Integer, ByVal X As Single, ByVal Y As Single)
    ' Checks whether the clipboard format is our. Since we have registered the clipboard in
the
    ' OLEStartData format we now its format, so we can handle this type of clip formats.
    If (Data.GetFormat(RegisterClipboardFormat("EXGANTT"))) Then
        ' Builds the saved string from the array passed
        Dim s As String
        Dim v() As Byte
        Dim n As Integer

```

```

v = Data.GetData(RegisterClipboardFormat("EXGANTT"))
For n = LBound(v) To UBound(v)
    s = s + Chr(v(n))
Next
Debug.Print s

'Adds a new item to the control, and sets the cells captions like we saved, line by line
Gantt1(Index).Visible = False
With Gantt1(Index)
    .BeginUpdate
    Dim i As HITEM
    Dim item As String
    Dim nCur As Long
    i = .Items.AddItem()
    nCur = InStr(1, s, vbCrLf) + Len(vbCrLf) ' Jumps the source
    For n = 0 To .Columns.Count - 1
        Dim nnCur As Long
        nnCur = InStr(nCur, s, vbCrLf)
        .Items.CellCaption(i, n) = Mid(s, nCur, nnCur - nCur)
        nCur = nnCur + Len(vbCrLf)
    Next
    .Items.CellImage(i, "EmployeeID") = Int(.Items.CellCaption(i, "EmployeeID"))
    .Items.SetParent i, h(Index, Int(.Items.CellCaption(i, "EmployeeID")) - 1)
    .Items.EnsureVisibleItem i
    .EndUpdate
End With
Gantt1(Index).Visible = True
End If
End Sub

```

The following VC sample copies the selected items to the clipboard, as soon as the user starts dragging the items:

```

#import <exgantt.dll> rename( "GetItems", "exGetItems" )

#include "Items.h"
#include "Columns.h"

```

```

static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return szDefault;

        COleVariant vt;
        vt.ChangeType( VT_BSTR, pv );
        return V_BSTR( &vt );
    }

    return szDefault;
}

```

```

void OnOLEStartDragGantt1(LPDISPATCH Data, long FAR* AllowedEffects)
{
    CItems items = m_gantt.GetItems();
    long nCount = items.GetSelectCount(), nColumnCount =
m_gantt.GetColumns().GetCount();
    if ( nCount > 0 )
    {
        *AllowedEffects = /*exOLEDropEffectCopy */ 1;
        EXGANTTLib::IExDataObjectPtr spData( Data );
        if ( spData !=NULL )
        {
            CString strData;
            for ( long i = 0; i < nCount; i++ )
            {
                COleVariant vtItem( items.GetSelectedItem( i ) );
                for ( long j = 0; j < nColumnCount; j++ )
                    strData += V2S( &items.GetCellCaption( vtItem, COleVariant(j) ) ) + "\t";
            }
            strData += "\r\n";
            spData->SetData( COleVariant( strData ), COleVariant( (long)EXGANTTLib::exCFText) );
        }
    }
}

```

}

The sample saves data as CF\_TEXT format ( EXGANTTLib::exCFText ). The data is a text, where each item is separated by "\r\n" ( new line ), and each cell is separated by "\t" ( TAB character ). Of course, data can be saved as you want. The sample only gives an idea of what and how it could be done. The sample uses the #import statement to import the control's type library, including definitions for [ExDataObject](#) and [ExDataObjectFiles](#) that are required to fill data to be dragged. If your exgantt.dll file is located in another place than your system folder, the path to the exgantt.dll file needs to be specified, else compiler errors occur.

The following VB.NET sample copies the selected items to the clipboard, as soon as the user starts dragging the items:

```
Private Sub AxGantt1_OLEStartDrag(ByVal sender As Object, ByVal e As AxEXGANTTLib._IGanttEvents_OLEStartDragEvent) Handles AxGantt1.OLEStartDrag
    With AxGantt1.Items
        If (.SelectCount > 0) Then
            e.allowedEffects = 1 'exOLEDropEffectCopy
            Dim i As Integer, j As Integer, strData As String, nColumnCount As Long =
AxGantt1.Columns.Count
            For i = 0 To .SelectCount - 1
                For j = 0 To nColumnCount - 1
                    strData = strData + .CellCaption(.SelectedItem(i), j) + Chr(Keys.Tab)
                Next
            Next
            strData = strData + vbCrLf
            e.data.SetData(strData, EXGANTTLib.exClipboardFormatEnum.exCFText)
        End If
    End With
End Sub
```

The following C# sample copies the selected items to the clipboard, as soon as the user starts dragging the items:

```
private void axGantt1_OLEStartDrag(object sender,
AxEXGANTTLib._IGanttEvents_OLEStartDragEvent e)
{
    int nCount = axGantt1.Items.SelectCount;
    if ( nCount > 0 )
```

```

{
    int nColumnCount = axGantt1.Columns.Count;
    e.allowedEffects = /*exOLEDropEffectCopy*/ 1;
    string strData = "";
    for ( int i =0 ; i < nCount; i++ )
    {
        for ( int j = 0; j < nColumnCount; j++ )
        {
            object strCell =
axGantt1.Items.get_CellCaption(axGantt1.Items.get_SelectedItem(i), j);
            strData += ( strCell != null ? strCell.ToString() : "" ) + "\t";
        }
        strData += "\r\n";
    }
    e.data.SetData( strData, EXGANTTLib.exClipboardFormatEnum.exCFText );
}
}

```

The following VFP sample copies the selected items to the clipboard, as soon as the user starts dragging the items:

```

*** ActiveX Control Event ***
LPARAMETERS data, allowedeffects

local sData, nColumnCount, i, j
with thisform.Gantt1.Items
if ( .SelectCount() > 0 )
    allowedeffects = 1 && exOLEDropEffectCopy
    sData = ""
    nColumnCount = thisform.Gantt1.Columns.Count
    for i = 0 to .SelectCount - 1
        for j = 0 to nColumnCount
            sData = sData + .CellCaption( .SelectedItem(i), j ) + chr(9)
        next
        sData = sData + chr(10)+ chr(13)
    next
    data.SetData( sData, 1 ) && exCFText
endif

```

endwith

# event OversizeChanged (Horizontal as Boolean, NewVal as Long)

Occurs when the right range of the scroll has been changed.

Type	Description
Horizontal as Boolean	A boolean expression that indicates whether the horizontal scroll bar has changed.
NewVal as Long	A long value that indicates the new scroll bar value.

If the control has no scroll bars the [OffsetChanged](#) and [OversizeChanged](#) events are not fired. When the scroll bar range is changed the [OversizeChanged](#) event is fired. Use the [ScrollBars](#) property of the control to determine which scroll bars are visible within the control. The control fires the [LayoutChanged](#) event when the user resizes a column, or change its position.

Syntax for [OversizeChanged](#) event, **/NET** version, on:

C#      private void OversizeChanged(object sender,bool Horizontal,int NewVal)  
{  
}

VB      Private Sub OversizeChanged(ByVal sender As System.Object, ByVal Horizontal As Boolean, ByVal NewVal As Integer) Handles OversizeChanged  
End Sub

Syntax for [OversizeChanged](#) event, **/COM** version, on:

C#      private void OversizeChanged(object sender,  
AxEXGANTTLib.\_IGanttEvents\_OversizeChangedEvent e)  
{  
}

C++      void OnOversizeChanged(BOOL Horizontal,long NewVal)  
{  
}

C++  
Builder      void \_\_fastcall OversizeChanged(TObject \*Sender,VARIANT\_BOOL Horizontal,long NewVal)  
{  
}

Delphi

```
procedure OversizeChanged(ASender: TObject; Horizontal : WordBool;NewVal : Integer);
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure OversizeChanged(sender: System.Object; e:
AxEXGANTTLib._IGanttEvents_OversizeChangedEvent);
begin
end;
```

Powe...

```
begin event OversizeChanged(boolean Horizontal,long newVal)
end event OversizeChanged
```

VB.NET

```
Private Sub OversizeChanged(ByVal sender As System.Object, ByVal e As
AxEXGANTTLib._IGanttEvents_OversizeChangedEvent) Handles OversizeChanged
End Sub
```

VB6

```
Private Sub OversizeChanged(ByVal Horizontal As Boolean,ByVal newVal As Long)
End Sub
```

VBA

```
Private Sub OversizeChanged(ByVal Horizontal As Boolean,ByVal newVal As Long)
End Sub
```

VFP

```
L PARAMETERS Horizontal,NewVal
```

Xbas...

```
PROCEDURE OnOversizeChanged(oGantt,Horizontal,NewVal)
RETURN
```

Syntax for OversizeChanged event, **/COM** version (others), on:

Java...

```
<SCRIPT EVENT="OversizeChanged(Horizontal,NewVal)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function OversizeChanged(Horizontal,NewVal)
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComOversizeChanged Boolean ||Horizontal Integer ||NewVal
    Forward Send OnComOversizeChanged ||Horizontal ||NewVal
End_Procedure
```

Visual  
Objects

```
METHOD OCX_OversizeChanged(Horizontal,NewVal) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_OversizeChanged(boolean _Horizontal,int _NewVal)
{
}
```

XBasic

```
function OversizeChanged as v (Horizontal as L,NewVal as N)
end function
```

dBASE

```
function nativeObject_OversizeChanged(Horizontal,NewVal)
return
```

## event OverviewZoom ()

Occurs once the user selects a new time scale unit in the overview zoom area.

### Type

### Description

The OverviewZoom event notifies your application once the user clicks or select a new time-scale in the overview-zoom area. The [UnitScale](#) property specifies the new selected time scale. Use the [UnitWidth](#) property to specify the width of the units in the chart area. Use the [OverviewVisible](#) property to show the control's overview area. Use the [AllowOverviewZoom](#) property to specify how the zoom scale is displayed on the control's overview area.



Syntax for OverviewZoom event, **/NET** version, on:

```
C# private void OverviewZoom(object sender)
{
}
```

```
VB Private Sub OverviewZoom(ByVal sender As System.Object) Handles
OverviewZoom
End Sub
```

Syntax for OverviewZoom event, **/COM** version, on:

```
C# private void OverviewZoom(object sender, EventArgs e)
{}
```

```
C++ void OnOverviewZoom()
{}
```

```
C++ Builder void __fastcall OverviewZoom(TObject *Sender)
{}
```

Delphi

```
procedure OverviewZoom(ASender: TObject; );  
begin  
end;
```

Delphi 8  
(.NET  
only)

```
procedure OverviewZoom(sender: System.Object; e: System.EventArgs);  
begin  
end;
```

Powe...

```
begin event OverviewZoom()  
end event OverviewZoom
```

VB.NET

```
Private Sub OverviewZoom(ByVal sender As System.Object, ByVal e As  
System.EventArgs) Handles OverviewZoom  
End Sub
```

VB6

```
Private Sub OverviewZoom()  
End Sub
```

VBA

```
Private Sub OverviewZoom()  
End Sub
```

VFP

```
L PARAMETERS nop
```

Xbas...

```
PROCEDURE OnOverviewZoom(oGantt)  
RETURN
```

Syntax for OverviewZoom event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="OverviewZoom()" LANGUAGE="JScript">  
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">  
Function OverviewZoom()  
End Function  
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComOverviewZoom
    Forward Send OnComOverviewZoom
End_Procedure
```

Visual  
Objects

```
METHOD OCX_OverviewZoom() CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_OverviewZoom()
{}
```

XBasic

```
function OverviewZoom as v ()
end function
```

dBASE

```
function nativeObject_OverviewZoom()
return
```

## event RClick ()

Fired when right mouse button is clicked.

Type	Description
------	-------------

Use the RClick event to add your context menu. The RClick event notifies your application when the user right clicks the control. Use the [Click](#) event to notify your application that the user clicks the control ( using the left mouse button ). Use the [MouseDown](#) or [MouseUp](#) event if you require the cursor position during the RClick event. Use the [RClickSelect](#) property to specify whether the user can select items by right clicking the mouse. Use the [ItemFromPoint](#) property to get the item from point. Use the [ColumnFromPoint](#) property to get the column from point. Use the [AllowOverviewZoom](#) property to specify whether the control displays the zooming scale on the overview area, when the user right clicks the overview area.

Syntax for RClick event, **/NET** version, on:

C#

```
private void RClick(object sender)
{
}
```

VB

```
Private Sub RClick(ByVal sender As System.Object) Handles RClick
End Sub
```

Syntax for RClick event, **/COM** version, on:

C#

```
private void RClick(object sender, EventArgs e)
{
}
```

C++

```
void OnRClick()
{
}
```

C++ Builder

```
void __fastcall RClick(TObject *Sender)
{
}
```

Delphi

```
procedure RClick(ASender: TObject);
begin
```

end;

Delphi 8  
(.NET  
only)

```
procedure RClick(sender: System.Object; e: System.EventArgs);
begin
end;
```

Powe...

```
begin event RClick()
end event RClick
```

VB.NET

```
Private Sub RClick(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles RClick
End Sub
```

VB6

```
Private Sub RClick()
End Sub
```

VBA

```
Private Sub RClick()
End Sub
```

VFP

```
LPARAMETERS nop
```

Xbas...

```
PROCEDURE OnRClick(oGantt)
RETURN
```

Syntax for RClick event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="RClick()" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function RClick()
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComRClick
    Forward Send OnComRClick
End_Procedure
```

Visual  
Objects

METHOD OCX\_RClick() CLASS MainDialog  
RETURN NIL

X++

```
void onEvent_RClick()
{
}
```

XBasic

```
function RClick as v ()
end function
```

dBASE

```
function nativeObject_RClick()
return
```

The following VB sample use [Exontrol's ExPopupMenu Component](#) to display a context menu when user has clicked the right mouse button in the control's client area:

```
Private Sub Gantt1_RClick()
    Dim i As Long
    i = PopupMenu1.ShowAtCursor
End Sub
```

If you need to add a context menu based on the item you can use the MouseUp event, like in the following VB sample:

```
Private Sub Gantt1_MouseUp(Button As Integer, Shift As Integer, X As Single, Y As Single)
    If (Button = 2) Then
        ' Converts the container coordinates to client coordinates
        X = X / Screen.TwipsPerPixelX
        Y = Y / Screen.TwipsPerPixelY
        Dim h As HITEM
        Dim c As Long, hit as Long
        ' Gets the item from (X,Y)
        h = Gantt1.ItemFromPoint(X, Y, c, hit)
        If Not (h = 0) Then
            Dim i As Long
            PopupMenu1.Items.Add Gantt1.Items.CellCaption(h, c)
            i = PopupMenu1.ShowAtCursor
        End If
    End If
End Sub
```

```
End If  
End Sub
```

The following VC sample displays the caption of the cell where the mouse is released:

```
#include "Items.h"

static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return szDefault;

        COleVariant vt;
        vt.ChangeType( VT_BSTR, pv );
        return V_BSTR( &vt );
    }
    return szDefault;
}

void OnMouseUpGantt1(short Button, short Shift, long X, long Y)
{
    long c = 0, hit = 0, hItem = m_gantt.GetItemFromPoint( X, Y, &c, &hit );
    if ( ( hItem != 0 ) || ( c != 0 ) )
    {
        CItems items = m_gantt.GetItems();
        COleVariant vtItem( hItem ), vtColumn( c );
        CString strCaption = V2S( &items.GetCellCaption( vtItem, vtColumn ) ), strOutput;
        strOutput.Format( "Cell: '%s', Hit = %08X\n", strCaption, hit );
        OutputDebugString( strOutput );
    }
}
```

The following VB.NET sample displays the caption of the cell where the mouse is released:

```
Private Sub AxGantt1_MouseUpEvent(ByVal sender As Object, ByVal e As
AxEXGANTTLib._IGanttEvents_MouseUpEvent) Handles AxGantt1.MouseUpEvent
```

## With AxGantt1

```
Dim i As Integer, c As Integer, hit As EXGANTTLib.HitTestInfoEnum
i = .get_ItemFromPoint(e.x, e.y, c, hit)
If (Not (i = 0) Or Not (c = 0)) Then
    Debug.WriteLine("Cell: " & .Items.CellCaption(i, c) & " Hit: " & hit.ToString())
End If
End With
End Sub
```

The following C# sample displays the caption of the cell where the mouse is released:

```
private void axGantt1_MouseUpEvent(object sender,
AxEXGANTTLib._IGanttEvents_MouseUpEvent e)
{
    int c = 0;
    EXGANTTLib.HitTestInfoEnum hit;
    int i = axGantt1.get_ItemFromPoint( e.x, e.y, out c,out hit );
    if ( ( i != 0 ) || ( c != 0 ) )
    {
        string s = axGantt1.Items.get_CellCaption( i,c ).ToString();
        s = "Cell: " + s + ", Hit: " + hit.ToString();
        System.Diagnostics.Debug.WriteLine( s );
    }
}
```

The following VFP sample displays the caption of the cell where the mouse is released:

```
*** ActiveX Control Event ***
LPARAMETERS button, shift, x, y

local c, hit
c = 0
hit = 0
with thisform.Gantt1
    .Items.DefaultItem = .ItemFromPoint( x, y, @c, @hit )
    if ( .Items.DefaultItem <> 0 ) or ( c <> 0 )
        wait window nowait .Items.CellCaption( 0, c ) + " " + Str( hit )
    endif
endif
```

endwith

## event RemoveColumn (Column as Column)

Fired before deleting a column.

Type	Description
Column as <a href="#">Column</a>	A Column object being removed.

The RemoveColumn event is invoked when the control is about to remove a column. Use the RemoveColumn event to release any extra data associated to the column. Use the [Remove](#) method to remove a specific column from Columns collection. Use the [Clear](#) method to clear the columns collection. Use the [RemoveItem](#) method to remove an item. Use the [RemoveAllItems](#) method to remove all items. Use the [CellData](#) property to assign an extra data to a cell. Use the [ItemData](#) property to assign an extra data to an item. Use the [Data](#) property to assign an extra data to a column.

Syntax for RemoveColumn event, **/NET** version, on:

```
C# private void RemoveColumn(object sender, exontrol.EXGANTTLib.Column Column)
{
}
```

```
VB Private Sub RemoveColumn(ByVal sender As System.Object, ByVal Column As
exontrol.EXGANTTLib.Column) Handles RemoveColumn
End Sub
```

Syntax for RemoveColumn event, **/COM** version, on:

```
C# private void RemoveColumn(object sender,
AxEXGANTTLib._IGanttEvents_RemoveColumnEvent e)
{}
```

```
C++ void OnRemoveColumn(LPDISPATCH Column)
{}
```

```
C++ Builder void __fastcall RemoveColumn(TObject *Sender, Exganttlib_tlb::IColumn *Column)
{}
```

Delphi

```
procedure RemoveColumn(ASender: TObject; Column : IColumn);
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure RemoveColumn(sender: System.Object; e:
AxEXGANTTLib._IGanttEvents_RemoveColumnEvent);
begin
end;
```

Powe...

```
begin event RemoveColumn(oleobject Column)
end event RemoveColumn
```

VB.NET

```
Private Sub RemoveColumn(ByVal sender As System.Object, ByVal e As
AxEXGANTTLib._IGanttEvents_RemoveColumnEvent) Handles RemoveColumn
End Sub
```

VB6

```
Private Sub RemoveColumn(ByVal Column As EXGANTTLibCtl.IColor)
End Sub
```

VBA

```
Private Sub RemoveColumn(ByVal Column As Object)
End Sub
```

VFP

```
L PARAMETERS Column
```

Xbas...

```
PROCEDURE OnRemoveColumn(oGantt,Column)
RETURN
```

Syntax for RemoveColumn event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="RemoveColumn(Column)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function RemoveColumn(Column)
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComRemoveColumn Variant IIColumn
    Forward Send OnComRemoveColumn IIColumn
End_Procedure
```

Visual  
Objects

```
METHOD OCX_RemoveColumn(Column) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_RemoveColumn(COM _Column)
{}
```

XBasic

```
function RemoveColumn as v (Column as OLE::Exontrol.Gantt.1::IColumn)
end function
```

dBASE

```
function nativeObject_RemoveColumn(Column)
return
```

## event RemoveItem (Item as HITEM)

Occurs before removing an Item.

Type	Description
Item as HITEM	A long expression that indicates the handle of the item being removed.

Use the RemoveItem to release any extra data that you might have used. The control fires the RemoveItem event before removing the item. Use the [RemoveItem](#) method to remove an item from Items collection. Use the [RemoveAllItems](#) method to clear the items collection. Use the [Remove](#) method to remove a column. Use the [Clear](#) method to clear the columns collection. Use the [CellData](#) property to assign an extra data to a cell. Use the [ItemData](#) property to assign an extra data to an item. Use the [Data](#) property to assign an extra data to a column.

Syntax for RemoveItem event, **/NET** version, on:

C#      private void RemoveItem(object sender,int Item)  
        {  
        }  
    }

VB      Private Sub RemoveItem(ByVal sender As System.Object, ByVal Item As Integer)  
Handles RemoveItem  
End Sub

Syntax for RemoveItem event, **/COM** version, on:

C#      private void RemoveItem(object sender,  
                 AxEXGANTTLib.\_IGanttEvents\_RemoveItemEvent e)  
        {  
        }  
    }

C++      void OnRemoveItem(long Item)  
        {  
        }  
    }

C++ Builder      void \_\_fastcall RemoveItem(TObject \*Sender,Exgantlib\_tlb::HITEM Item)  
        {  
        }  
    }

Delphi

```
procedure RemoveItem(ASender: TObject; Item : HITEM);
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure RemoveItem(sender: System.Object; e:
AxEXGANTTLib._IGanttEvents_RemoveItemEvent);
begin
end;
```

Powe...

```
begin event RemoveItem(long Item)
end event RemoveItem
```

VB.NET

```
Private Sub RemoveItem(ByVal sender As System.Object, ByVal e As
AxEXGANTTLib._IGanttEvents_RemoveItemEvent) Handles RemoveItem
End Sub
```

VB6

```
Private Sub RemoveItem(ByVal Item As EXGANTTLibCtl.HITEM)
End Sub
```

VBA

```
Private Sub RemoveItem(ByVal Item As Long)
End Sub
```

VFP

```
L PARAMETERS Item
```

Xbas...

```
PROCEDURE OnRemoveItem(oGantt,Item)
RETURN
```

Syntax for RemoveItem event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="RemoveItem(Item)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function RemoveItem(Item)
End Function
</SCRIPT>
```

Visual  
Data...

Procedure OnComRemoveItem HITEM lIItem  
    Forward Send OnComRemoveItem lIItem  
End\_Procedure

Visual  
Objects

METHOD OCX\_RemoveItem(Item) CLASS MainDialog  
RETURN NIL

X++

```
void onEvent_RemoveItem(int _Item)
{
}
```

XBasic

```
function RemoveItem as v (Item as OLE::Exontrol.Gantt.1::HITEM)
end function
```

dBASE

```
function nativeObject_RemoveItem(Item)
return
```

## event ScrollButtonClick (ScrollBar as ScrollBarEnum, ScrollPart as ScrollPartEnum)

Occurs when the user clicks a button in the scrollbar.

Type	Description
ScrollBar as <a href="#">ScrollBarEnum</a>	A ScrollBarEnum expression that specifies the scroll bar being clicked.
ScrollPart as <a href="#">ScrollPartEnum</a>	A ScrollPartEnum expression that indicates the part of the scroll being clicked.

Use the ScrollButtonClick event to notify your application that the user clicks a button in the control's scrollbar. The ScrollButtonClick event is fired when the user clicks and releases the mouse over an enabled part of the scroll bar. Use the [ScrollBars](#) property to specify the visible scrollbars in the control. Use the [ScrollPartVisible](#) property to add or remove buttons/parts in the control's scrollbar. Use the [ScrollPartEnable](#) property to specify enable or disable parts in the control's scrollbar. Use the [ScrolPartCaption](#) property to specify the caption of the scroll's part. Use the [OffsetChanged](#) event to notify your application that the scroll position is changed. Use the [OversizeChanged](#) event to notify your application whether the range for a specified scroll bar is changed. Use the [ScrollPos](#) property to specify the position for the control's scroll bar. Use the [Background](#) property to change the visual appearance for any part in the control's scroll bar.

Syntax for ScrollButtonClick event, **/NET** version, on:

C#

```
private void ScrollButtonClick(object sender, exontrol.EXGANTTLib.ScrollBarEnum  
    ScrollBar, exontrol.EXGANTTLib.ScrollPartEnum ScrollPart)  
{  
}
```

VB

```
Private Sub ScrollButtonClick(ByVal sender As System.Object, ByVal ScrollBar As  
    exontrol.EXGANTTLib.ScrollBarEnum, ByVal ScrollPart As  
    exontrol.EXGANTTLib.ScrollPartEnum) Handles ScrollButtonClick  
End Sub
```

Syntax for ScrollButtonClick event, **/COM** version, on:

C#

```
private void ScrollButtonClick(object sender,  
    AxEXGANTTLib._IGanttEvents_ScrollButtonClickEvent e)  
{  
}
```

C++

```
void OnScrollButtonClick(long ScrollBar,long ScrollPart)
{
}
```

C++ Builder

```
void __fastcall ScrollButtonClick(TObject *Sender,Exgantlib_tlb::ScrollBarEnum
ScrollBar,Exgantlib_tlb::ScrollPartEnum ScrollPart)
{
```

Delphi

```
procedure ScrollButtonClick(ASender: TObject; ScrollBar :
ScrollBarEnum;ScrollPart : ScrollPartEnum);
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure ScrollButtonClick(sender: System.Object; e:
AxEXGANTTLib._IGanttEvents_ScrollButtonClickEvent);
begin
end;
```

Powe...

```
begin event ScrollButtonClick(long ScrollBar,long ScrollPart)
end event ScrollButtonClick
```

VB.NET

```
Private Sub ScrollButtonClick(ByVal sender As System.Object, ByVal e As
AxEXGANTTLib._IGanttEvents_ScrollButtonClickEvent) Handles ScrollButtonClick
End Sub
```

VB6

```
Private Sub ScrollButtonClick(ByVal ScrollBar As
EXGANTTLibCtl.ScrollBarEnum,ByVal ScrollPart As EXGANTTLibCtl.ScrollPartEnum)
End Sub
```

VBA

```
Private Sub ScrollButtonClick(ByVal ScrollBar As Long,ByVal ScrollPart As Long)
End Sub
```

VFP

```
LPARAMETERS ScrollBar,ScrollPart
```

Xbas...

```
PROCEDURE OnScrollButtonClick(oGantt,ScrollBar,ScrollPart)
RETURN
```

Syntax for ScrollButtonClick event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="ScrollButtonClick(ScrollBar,ScrollPart)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function ScrollButtonClick(ScrollBar,ScrollPart)
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComScrollButtonClick OLEScrollBarEnum IIScrollBar
OLEScrollPartEnum IIScrollPart
    Forward Send OnComScrollButtonClick IIScrollBar IIScrollPart
End_Procedure
```

Visual  
Objects

```
METHOD OCX_ScrollButtonClick(ScrollBar,ScrollPart) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_ScrollButtonClick(int _ScrollBar,int _ScrollPart)
{
}
```

XBasic

```
function ScrollButtonClick as v (ScrollBar as
OLE::Exontrol.Gantt.1::ScrollBarEnum,ScrollPart as
OLE::Exontrol.Gantt.1::ScrollPartEnum)
end function
```

dBASE

```
function nativeObject_ScrollButtonClick(ScrollBar,ScrollPart)
return
```

The following VB sample displays the identifier of the scroll's button being clicked:

With Gantt1

```
.BeginUpdate
.ScrollBars = exDisableBoth
.ScrollPartVisible(exVScroll, exLeftB1Part Or exRightB1Part) = True
.ScrollPartCaption(exVScroll, exLeftB1Part) = "<img></img>1"
```

```
.ScrollPartCaption(exVScroll, exRightB1Part) = "<img></img>2"  
.EndUpdate  
End With
```

```
Private Sub Gantt1_ScrollButtonClick(ByVal ScrollPart As EXGANTTLibCtl.ScrollPartEnum)  
    MsgBox (ScrollPart)  
End Sub
```

The following VB.NET sample displays the identifier of the scroll's button being clicked:

With AxGantt1

```
.BeginUpdate()  
.ScrollBars = EXGANTTLib.ScrollBarsEnum.exDisableBoth  
.set_ScrollPartVisible(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exLeftB1Part Or EXGANTTLib.ScrollPartEnum.exRightB1Part,  
True)  
.set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exLeftB1Part, "<img></img>1")  
.set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exRightB1Part, "<img></img>2")  
.EndUpdate()  
End With
```

```
Private Sub AxGantt1_ScrollButtonClick(ByVal sender As System.Object, ByVal e As  
AxEXGANTTLib._IGanttEvents_ScrollButtonClickEvent) Handles AxGantt1.ScrollButtonClick  
    MessageBox.Show( e.scrollPart.ToString())  
End Sub
```

The following C# sample displays the identifier of the scroll's button being clicked:

```
axGantt1.BeginUpdate();  
axGantt1.ScrollBars = EXGANTTLib.ScrollBarsEnum.exDisableBoth;  
axGantt1.set_ScrollPartVisible(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exLeftB1Part | EXGANTTLib.ScrollPartEnum.exRightB1Part,  
true);  
axGantt1.set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exVScroll,  
EXGANTTLib.ScrollPartEnum.exLeftB1Part , "<img></img>1");  
axGantt1.set_ScrollPartCaption(EXGANTTLib.ScrollBarEnum.exVScroll,
```

```
EXGANTTLib.ScrollPartEnum.exRightB1Part, "<img></img>2");
axGantt1.EndUpdate();
```

```
private void axGantt1_ScrollButtonClick(object sender,
AxEXGANTTLib._IGanttEvents_ScrollButtonClickEvent e)
{
    MessageBox.Show(e.scrollPart.ToString());
}
```

The following C++ sample displays the identifier of the scroll's button being clicked:

```
m_gantt.BeginUpdate();
m_gantt.SetScrollBars( 15 /*exDisableBoth*/ );
m_gantt.SetScrollPartVisible( 0 /*exVScroll*/, 32768 /*exLeftB1Part*/ | 32
/*exRightB1Part*/, TRUE );
m_gantt.SetScrollPartCaption( 0 /*exVScroll*/, 32768 /*exLeftB1Part*/ , _T("<img>
</img>1" ) );
m_gantt.SetScrollPartCaption( 0 /*exVScroll*/, 32 /*exRightB1Part*/ , _T("<img>
</img>2" ) );
m_gantt.EndUpdate();
```

```
void OnScrollButtonClickGantt1(long ScrollPart)
{
    CString strFormat;
    strFormat.Format( _T("%i"), ScrollPart );
    MessageBox( strFormat );
}
```

The following VFP sample displays the identifier of the scroll's button being clicked:

```
With thisform.Gantt1
.BeginUpdate
.ScrollBars = 15
.ScrollPartVisible(0, bitor(32768,32)) = .t.
.ScrollPartCaption(0,32768) = "<img></img>1"
.ScrollPartCaption(0, 32) = "<img></img>2"
.EndUpdate
EndWith
```

\*\*\* ActiveX Control Event \*\*\*

LPARAMETERS scrollpart

wait window nowait ltrim(str(scrollpart))

## event SelectionChanged ()

Fired after a new item has been selected.

Type	Description
------	-------------

Use the SelectionChanged event to notify your application that the user selects an item (that's selectable). Use the [SelectableItem](#) property to specify the user can select an item. The control supports single or multiple selection as well. When an item is selected or unselected the control fires the SelectionChanged event. Use the [SingleSel](#) property to specify if your control supports single or multiple selection. Use the [SelectCount](#) property to get the number of selected items. Use the [SelectedItem](#) property to get the selected item. Use the [SelectItem](#) to select or unselect a specified item. Use the [FocusItem](#) property to get the focused item. If the control supports only single selection, you can use the FocusItem property to get the selected/focused item because they are always the same. Use the [SelForeColor](#) and [SelBackColor](#) properties to specify colors for selected items.

Syntax for SelectionChanged event, /NET version, on:

C#

```
private void SelectionChanged(object sender)
{
}
```

VB

```
Private Sub SelectionChanged(ByVal sender As System.Object) Handles
SelectionChanged
End Sub
```

Syntax for SelectionChanged event, /COM version, on:

C#

```
private void SelectionChanged(object sender, EventArgs e)
{}
```

C++

```
void OnSelectionChanged()
{}
```

C++ Builder

```
void __fastcall SelectionChanged(TObject *Sender)
{}
```

Delphi

```
procedure SelectionChanged(ASender: TObject; );
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure SelectionChanged(sender: System.Object; e: System.EventArgs);
begin
end;
```

Powe...

```
begin event SelectionChanged()
end event SelectionChanged
```

VB.NET

```
Private Sub SelectionChanged(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles SelectionChanged
End Sub
```

VB6

```
Private Sub SelectionChanged()
End Sub
```

VBA

```
Private Sub SelectionChanged()
End Sub
```

VFP

```
L PARAMETERS nop
```

Xbas...

```
PROCEDURE OnSelectionChanged(oGantt)
RETURN
```

Syntax for SelectionChanged event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="SelectionChanged()" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function SelectionChanged()
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComSelectionChanged
    Forward Send OnComSelectionChanged
End_Procedure
```

Visual  
Objects

```
METHOD OCX_SelectionChanged() CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_SelectionChanged()
{}
```

XBasic

```
function SelectionChanged as v ()
end function
```

dBASE

```
function nativeObject_SelectionChanged()
return
```

The following VB sample displays the selected items:

```
Private Sub Gantt1_SelectionChanged()
On Error Resume Next
Dim h As HITEM
Dim i As Long, j As Long, nCols As Long, nSels As Long
nCols = Gantt1.Columns.Count
With Gantt1.Items
nSels = .SelectCount
For i = 0 To nSels - 1
    Dim s As String
    For j = 0 To nCols - 1
        s = s + .CellCaption(.SelectedItem(i), j) + Chr(9)
    Next
    Debug.Print s
Next
End With
End Sub
```

The following VB sample expands programmatically items when the selection is changed:

```
Private Sub Gantt1_SelectionChanged()
    Gantt1.Items.ExpandItem(Gantt1.Items.SelectedItem()) = True
End Sub
```

The following VB sample displays the selected items:

```
Private Sub Gantt1_SelectionChanged()
    Dim i As Long
    With Gantt1.Items
        For i = 0 To .SelectCount - 1
            Debug.Print .CellCaption(.SelectedItem(i), 0)
        Next
    End With
End Sub
```

The following VC sample displays the selected items:

```
#include "Items.h"

static CString V2S( VARIANT* pv, LPCTSTR szDefault = _T("") )
{
    if ( pv )
    {
        if ( pv->vt == VT_ERROR )
            return szDefault;

        COleVariant vt;
        vt.ChangeType( VT_BSTR, pv );
        return V_BSTR( &vt );
    }
    return szDefault;
}

void OnSelectionChangedGantt1()
{
    CItems items = m_gantt.GetItems();
    for ( long i = 0; i < items.GetSelectCount(); i++ )
    {
```

```
COleVariant vtItem( items.GetSelectedItem( i ) );
CString strOutput;
strOutput.Format( "%s\n", V2S( &items.GetCellCaption( vtItem, COleVariant( (long)0 )
) ) );
    OutputDebugString( strOutput );
}
}
```

The following VB.NET sample displays the selected items:

```
Private Sub AxGantt1_SelectionChanged(ByVal sender As Object, ByVal e As
System.EventArgs) Handles AxGantt1.SelectionChanged
    With AxGantt1.Items
        Dim i As Integer
        For i = 0 To .SelectCount - 1
            Debug.WriteLine(.CellCaption(.SelectedItem(i), 0))
        Next
    End With
End Sub
```

The following C# sample displays the selected items:

```
private void axGantt1_SelectionChanged(object sender, System.EventArgs e)
{
    for ( int i = 0; i < axGantt1.Items.SelectCount - 1; i++ )
    {
        object cell = axGantt1.Items.get_CellCaption( axGantt1.Items.get_SelectedItem( i ), 0 );
        System.Diagnostics.Debug.WriteLine( cell != null ? cell.ToString() : "" );
    }
}
```

The following VFP sample displays the selected items:

```
*** ActiveX Control Event ***

with thisform.Gantt1.Items
    for i = 0 to .SelectCount - 1
        .DefaultItem = .SelectedItem( i )
        wait window nowait .CellCaption( 0, 0 )
```

next

endwith

## event Sort ()

Occurs when the control sorts a column.

Type	Description
------	-------------

The control fires the Sort event when the control sorts a column ( the user clicks the column's head ) or when the sorting position is changed in the control's sort bar. Use the [SortOnClick](#) property to specify the action that control executes when the user clicks the column's head. Use the [SortBarVisible](#) property to show the control's sort bar. Use the [SortOrder](#) property to sorts a column at runtime. Use the [SortPosition](#) property to determine the position of the column in the sorting columns collection. Use the ItemBySortPosition property to access a column giving its position in the sorting columns collection. Use the Sort event to sort the data when the SortOnClk property is [exUserSort](#). Use the [SingleSort](#) property to allow sorting by single or multiple columns.

Syntax for Sort event, **/NET** version, on:

C#      private void Sort(object sender)  
        {  
        }

VB      Private Sub Sort(ByVal sender As System.Object) Handles Sort  
        End Sub

Syntax for Sort event, **/COM** version, on:

C#      private void Sort(object sender, EventArgs e)  
        {  
        }

C++      void OnSort()  
        {  
        }

C++ Builder      void \_\_fastcall Sort(TObject \*Sender)  
        {  
        }

Delphi      procedure Sort(ASender: TObject);  
begin

end;

Delphi 8  
(.NET  
only)

```
procedure Sort(sender: System.Object; e: System.EventArgs);
begin
end;
```

Powe...

```
begin event Sort()
end event Sort
```

VB.NET

```
Private Sub Sort(ByVal sender As System.Object, ByVal e As System.EventArgs)
Handles Sort
End Sub
```

VB6

```
Private Sub Sort()
End Sub
```

VBA

```
Private Sub Sort()
End Sub
```

VFP

```
LPARAMETERS nop
```

Xbas...

```
PROCEDURE OnSort(oGantt)
RETURN
```

Syntax for Sort event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="Sort()" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function Sort()
End Function
</SCRIPT>
```

Visual  
Data...

```
Procedure OnComSort
    Forward Send OnComSort
End_Procedure
```

Visual  
Objects

METHOD OCX\_Sort() CLASS MainDialog  
RETURN NIL

X++

```
void onEvent_Sort()
{
}
```

XBasic

```
function Sort as v ()
end function
```

dBASE

```
function nativeObject_Sort()
return
```

The following VB sample displays the list of columns being sorted:

```
Private Sub Gantt1_Sort()
    Dim s As String, i As Long, c As Column
    i = 0
    With Gantt1.Columns
        Set c = .ItemBySortPosition(i)
        While (Not c Is Nothing)
            s = s + "      " & c.Caption & "      " & IIf(c.SortOrder = SortAscending, "A", "D") & " "
            i = i + 1
            Set c = .ItemBySortPosition(i)
        Wend
    End With
    s = "Sort: " & s
    Debug.Print s
End Sub
```

The following VC sample displays the list of columns being sorted:

```
void OnSortGantt1()
{
    CString strOutput;
    CColumns columns = m_gantt.GetColumns();
    long i = 0;
    CColumn column = columns.GetItemBySortPosition( COleVariant( i ) );
```

```

while ( column.m_lpDispatch )
{
    strOutput += "\"" + column.GetCaption() + " " + ( column.GetSortOrder() == 1 ?
"A" : "D" ) + " ";
    i++;
    column = columns.GetItemBySortPosition( COleVariant( i ) );
}
OutputDebugString( strOutput );
}

```

The following VB.NET sample displays the list of columns being sorted:

```

Private Sub AxGantt1_Sort(ByVal sender As Object, ByVal e As System.EventArgs) Handles AxGantt1.Sort
    With AxGantt1
        Dim s As String, i As Integer, c As EXGANTTLib.Column
        i = 0
        With AxGantt1.Columns
            c = .ItemBySortPosition(i)
            While (Not c Is Nothing)
                s = s + " " & c.Caption & " " & If(c.SortOrder =
EXGANTTLib.SortOrderEnum.SortAscending, "A", "D") & " "
                i = i + 1
                c = .ItemBySortPosition(i)
            End While
        End With
        s = "Sort: " & s
        Debug.WriteLine(s)
    End With
End Sub

```

The following C# sample displays the list of columns being sorted:

```

private void axGantt1_Sort(object sender, System.EventArgs e)
{
    string strOutput = "";
    int i = 0;
    EXGANTTLib.Column column = axGantt1.Columns.get_ItemBySortPosition( i );
}

```

```

while ( column != null )
{
    strOutput += column.Caption + " " + ( column.SortOrder ==
EXGANTTLib.SortOrderEnum.SortAscending ? "A" : "D" ) + " ";
    column = axGantt1.Columns.get_ItemBySortPosition( ++i );
}
Debug.WriteLine( strOutput );
}

```

The following VFP sample displays the list of columns being sorted ( the code is listed in the Sort event ) :

```

local s, i, c
i = 0
s = ""
With thisform.Gantt1.Columns
    c = .ItemBySortPosition(i)
    do While (!isnull(c))
        with c
            s = s + "" + .Caption
            s = s + " " + IIf(.SortOrder = 1, "A", "D") + " "
            i = i + 1
        endwith
        c = .ItemBySortPosition(i)
    enddo
endwith
s = "Sort: " + s
wait window nowait s

```

## event ToolTip (Item as HITEM, CollIndex as Long, Visible as Boolean, X as Long, Y as Long, CX as Long, CY as Long)

Fired when the control prepares the object's tooltip.

Type	Description
Item as HITEM	A long expression that indicates the item's handle or 0 if the cursor is not over the cell.
CollIndex as Long	A long expression that indicates the column's index.
Visible as Boolean	A boolean expression that indicates whether the object's tooltip is visible.
X as Long	A long expression that indicates the left location of the tooltip window. The x values is always expressed in screen coordinates.
Y as Long	A long expression that indicates the top location of the tooltip window. The y values is always expressed in screen coordinates.
CX as Long	A long expression that indicates the width of the tooltip window.
CY as Long	A long expression that indicates the height of the tooltip window.

The ToolTip event notifies your application that the control prepares the tooltip for a cell or column. Use the ToolTip event to change the default position of the tooltip window. Use the [CellToolTip](#) property to specify the cell's tooltip. Use the [Tooltip](#) property to assign a tooltip to a column. Use the [ToolTipWidth](#) property to specify the width of the tooltip window.

Syntax for ToolTip event, /NET version, on:

c#

```
private void ToolTip(object sender,int Item,int CollIndex,ref bool Visible,ref int X,ref int Y,int CX,int CY)
{
}
```

VB

```
Private Sub ToolTip(ByVal sender As System.Object, ByVal Item As Integer, ByVal
CollIndex As Integer, ByRef Visible As Boolean, ByRef X As Integer, ByRef Y As
Integer, ByVal CX As Integer, ByVal CY As Integer) Handles ToolTip
End Sub
```

## Syntax for ToolTip event, /COM version, on:

C#

```
private void ToolTip(object sender, AxEXGANTTLib._IGanttEvents_ToolTipEvent e)
{
}
```

C++

```
void OnToolTip(long Item,long CollIndex,BOOL FAR* Visible,long FAR* X,long FAR*
Y,long CX,long CY)
{
}
```

C++  
Builder

```
void __fastcall ToolTip(TObject *Sender,Exgantlib_tlb::HITEM Item,long
CollIndex,VARIANT_BOOL * Visible,long * X,long * Y,long CX,long CY)
{
}
```

Delphi

```
procedure ToolTip(ASender: TObject; Item : HITEM;CollIndex : Integer;var Visible :
WordBool;var X : Integer;var Y : Integer;CX : Integer;CY : Integer);
begin
end;
```

Delphi 8  
(.NET  
only)

```
procedure ToolTip(sender: System.Object; e:
AxEXGANTTLib._IGanttEvents_ToolTipEvent);
begin
end;
```

Powe...

```
begin event ToolTip(long Item,long CollIndex,boolean Visible,long X,long Y,long
CX,long CY)
end event ToolTip
```

VB.NET

```
Private Sub ToolTip(ByVal sender As System.Object, ByVal e As
AxEXGANTTLib._IGanttEvents_ToolTipEvent) Handles ToolTip
End Sub
```

VB6

```
Private Sub ToolTip(ByVal Item As EXGANTTLibCtl.HITEM, ByVal CollIndex As
Long,Visible As Boolean,X As Long,Y As Long,ByVal CX As Long,ByVal CY As Long)
End Sub
```

VBA

```
Private Sub ToolTip(ByVal Item As Long,ByVal CollIndex As Long,Visible As
```

```
Boolean,X As Long,Y As Long,ByVal CX As Long,ByVal CY As Long)
End Sub
```

VFP

```
LPARAMETERS Item,CollIndex,Visible,X,Y,CX,CY
```

Xbas...

```
PROCEDURE OnToolTip(oGantt,Item,CollIndex,Visible,X,Y,CX,CY)
RETURN
```

Syntax for ToolTip event, /COM version (others), on:

Java...

```
<SCRIPT EVENT="ToolTip(Item,CollIndex,Visible,X,Y,CX,CY)"
LANGUAGE="JScript">
</SCRIPT>
```

VBSc...

```
<SCRIPT LANGUAGE="VBScript">
Function ToolTip(Item,CollIndex,Visible,X,Y,CX,CY)
End Function
</SCRIPT>
```

Visual Data...

```
Procedure OnComToolTip HIITEM IIItem Integer IICollIndex Boolean IIVisible Integer
IIX Integer IIY Integer IICX Integer IIICY
    Forward Send OnComToolTip IIItem IICollIndex IIVisible IIIX IIY IICX IIICY
End_Procedure
```

Visual Objects

```
METHOD OCX_ToolTip(Item,CollIndex,Visible,X,Y,CX,CY) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_ToolTip(int _Item,int _CollIndex,COMVariant /*bool*/
_Visible,COMVariant /*long*/ _X,COMVariant /*long*/ _Y,int _CX,int _CY)
{
```

XBasic

```
function ToolTip as v (Item as OLE::Exontrol.Gantt.1::HITEM,CollIndex as N,Visible as
L,X as N,Y as N,CX as N,CY as N)
end function
```

dBASE

```
function nativeObject_ToolTip(Item,CollIndex,Visible,X,Y,CX,CY)
```

```
| return
```

# Expressions

An expression is a string which defines a formula or criteria, that's evaluated at runtime. The expression may be a combination of variables, constants, strings, dates and operators/functions. For instance `1000 format ``` gets `1,000.00` for US format, while `1.000,00` is displayed for German format.

The Exontrol's **eXpression** component is a syntax-editor that helps you to define, view, edit and evaluate expressions. Using the eXpression component you can easily view or check if the expression you have used is syntactically correct, and you can evaluate what is the result you get giving different values to be tested. The Exontrol's eXpression component can be used as an user-editor, to configure your applications.

Usage examples:

- `100 + 200`, adds numbers and returns `300`
- `"100" + 200`, concatenates the strings, and returns `"100200"`
- `currency(1000)` displays the value in currency format based on the current regional setting, such as `">$1,000.00` for US format.
- `1000 format ``` gets `1,000.00` for English format, while `1.000,00` is displayed for German format
- `1000 format `2|.|3|,`` always gets `1,000.00` no matter of settings in the control panel.
- `upper("string")` converts the giving string in uppercase letters, such as `"STRING"`
- `date(dateS('3/1/' + year(9:=#1/1/2018#)) + ((1:=(((255 - 11 * (year(=:9) mod 19)) - 21) mod 30) + 21) + (=:1 > 48 ? -1 : 0) + 6 - ((year(=:9) + int(year(=:9) / 4)) + =:1 + (=:1 > 48 ? -1 : 0) + 1) mod 7))` returns the date the Easter Sunday will fall, for year 2018. In this case the expression returns `#4/1/2018#`. If `#1/1/2018#` is replaced with `#1/1/2019#`, the expression returns `#4/21/2019#`.

Listed bellow are all predefined constants, operators and functions the general-expression supports:

*The constants can be represented as:*

- numbers in **decimal** format ( where dot character specifies the decimal separator ). For instance: `-1`, `100`, `20.45`, `.99` and so on
- numbers in **hexa-decimal** format ( preceded by `0x` or `0X` sequence ), uses sixteen distinct symbols, most often the symbols 0-9 to represent values zero to nine, and A, B, C, D, E, F (or alternatively a, b, c, d, e, f) to represent values ten to fifteen. Hexadecimal numerals are widely used by computer system designers and programmers. As each hexadecimal digit represents four binary digits (bits), it allows a more human-friendly representation of binary-coded values. For instance, `0xFF`,

[0x00FF00](#), and so so.

- **date-time** in format `#mm/dd/yyyy hh:mm:ss#`, For instance, `#1/31/2001 10:00#` means the [January 31th, 2001, 10:00 AM](#)
- **string**, if it starts / ends with any of the ' or ` or " characters. If you require the starting character inside the string, it should be escaped ( preceded by a \ character ). For instance, `'Mihai'`, `"Filimon"`, `'has'`, `"\"a quote\""`, and so on

*The predefined constants are:*

- **bias** ( BIAS constant ), defines the difference, in minutes, between Coordinated Universal Time (UTC) and local time. For example, Middle European Time (MET, GMT+01:00) has a time zone bias of "-60" because it is one hour ahead of UTC. Pacific Standard Time (PST, GMT-08:00) has a time zone bias of "+480" because it is eight hours behind UTC. For instance, `date(value - bias/24/60)` converts the UTC time to local time, or `date(date('now') + bias/24/60)` converts the current local time to UTC time. For instance, `"date(value - bias/24/60)"` converts the value date-time from UTC to local time, while `"date(value + bias/24/60)"` converts the local-time to UTC time.
- **dpi** ( DPI constant ), specifies the current DPI setting. and it indicates the minimum value between **dpix** and **dpiy** constants. For instance, if current DPI setting is 100%, the dpi constant returns 1, if 150% it returns 1.5, and so on. For instance, the expression `value * dpi` returns the value if the DPI setting is 100%, or `value * 1.5` in case, the DPI setting is 150%
- **dpix** ( DPIX constant ), specifies the current DPI setting on x-scale. For instance, if current DPI setting is 100%, the dpix constant returns 1, if 150% it returns 1.5, and so on. For instance, the expression `value * dpix` returns the value if the DPI setting is 100%, or `value * 1.5` in case, the DPI setting is 150%
- **dpiy** ( DPIY constant ), specifies the current DPI setting on x-scale. For instance, if current DPI setting is 100%, the dpiy constant returns 1, if 150% it returns 1.5, and so on. For instance, the expression `value * dpiy` returns the value if the DPI setting is 100%, or `value * 1.5` in case, the DPI setting is 150%

*The supported binary arithmetic operators are:*

- `*` ( multiplicity operator ), priority 5
- `/` ( divide operator ), priority 5
- **mod** ( reminder operator ), priority 5
- `+` ( addition operator ), priority 4 ( concatenates two strings, if one of the operands is of string type )
- `-` ( subtraction operator ), priority 4

*The supported unary boolean operators are:*

- **not** ( not operator ), priority 3 ( high priority )

*The supported binary boolean operators are:*

- **or** ( or operator ), priority 2
- **and** ( or operator ), priority 1

*The supported binary boolean operators, all these with the same priority 0, are :*

- < ( less operator )
- <= ( less or equal operator )
- = ( equal operator )
- != ( not equal operator )
- >= ( greater or equal operator )
- > ( greater operator )

*The supported binary range operators, all these with the same priority 5, are :*

- a **MIN** b ( min operator ), indicates the minimum value, so a **MIN** b returns the value of a, if it is less than b, else it returns b. For instance, the expression **value MIN 10** returns always a value greater than 10.
- a **MAX** b ( max operator ), indicates the maximum value, so a **MAX** b returns the value of a, if it is greater than b, else it returns b. For instance, the expression **value MAX 100** returns always a value less than 100.

*The supported binary operators, all these with the same priority 0, are :*

- **:= (Store operator)**, stores the result of expression to variable. The syntax for := operator is

*variable := expression*

where variable is a integer between 0 and 9. You can use the **=:** operator to restore any stored variable ( please make the difference between **:=** and **=:** ). For instance, **(0:=dbl(value)) = 0 ? "zero" : :=0**, stores the value converted to double, and prints zero if it is 0, else the converted number. Please pay attention that the **:=** and **=:** are two distinct operators, the first for storing the result into a variable, while the second for restoring the variable

- **=: (Restore operator)**, restores the giving variable ( previously saved using the store operator ). The syntax for **=:** operator is

*=: variable*

where variable is a integer between 0 and 9. You can use the **:=** operator to store the value of any expression ( please make the difference between **:=** and **=:** ). For

instance, `(0:=dbl(value)) = 0 ? "zero" : :=0`, stores the value converted to double, and prints zero if it is 0, else the converted number. Please pay attention that the `:=` and `=` are two distinct operators, the first for storing the result into a variable, while the second for restoring the variable

The supported ternary operators, all these with the same priority 0, are :

- **? ( Immediate If operator )**, returns and executes one of two expressions, depending on the evaluation of an expression. The syntax for `?` operator is

*expression ? true\_part : false\_part*

, while it executes and returns the `true_part` if the expression is true, else it executes and returns the `false_part`. For instance, the `%0 = 1 ? 'One' : (%0 = 2 ? 'Two' : 'not found')` returns 'One' if the value is 1, 'Two' if the value is 2, and 'not found' for any other value. A n-ary equivalent operation is the `case()` statement, which is available in newer versions of the component.

The supported n-ary operators are (with priority 5):

- **array (at operator)**, returns the element from an array giving its index ( 0 base ). The `array` operator returns empty if the element is found, else the associated element in the collection if it is found. The syntax for `array` operator is

*expression array (c1,c2,c3,...cn)*

, where the `c1, c2, ...` are constant elements. The constant elements could be numeric, date or string expressions. For instance the `month(value)-1 array ('J','F','M','A','M','Jun','J','A','S','O','N','D')` is equivalent with `month(value)-1 case (default:"; 0:'J';1:'F';2:'M';3:'A';4:'M';5:'Jun';6:'J';7:'A';8:'S';9:'O';10:'N';11:'D')`.

- **in (include operator)**, specifies whether an element is found in a set of constant elements. The `in` operator returns -1 ( True ) if the element is found, else 0 (false) is retrieved. The syntax for `in` operator is

*expression in (c1,c2,c3,...cn)*

, where the `c1, c2, ...` are constant elements. The constant elements could be numeric, date or string expressions. For instance the `value in (11,22,33,44,13)` is equivalent with `(expression = 11) or (expression = 22) or (expression = 33) or (expression = 44) or (expression = 13)`. The `in` operator is not a time consuming as the equivalent or version is, so when you have large number of constant elements it is recommended using the `in` operator. Shortly, if the collection of elements has 1000 elements the `in` operator could take up to 8 operations in order to find if an element fits the set, else if the `or`

statement is used, it could take up to 1000 operations to check, so by far, the *in* operator could save time on finding elements within a collection.

- **switch** (*switch operator*), returns the value being found in the collection, or a predefined value if the element is not found (default). The syntax for *switch* operator is

*expression switch (default,c1,c2,c3,...,cn)*

, where the c1, c2, ... are constant elements, and the default is a constant element being returned when the element is not found in the collection. The constant elements could be numeric, date or string expressions. The equivalent syntax is "%0 = c 1 ? c 1 : ( %0 = c 2 ? c 2 : ( ... ? . : default ) )". The *switch* operator is very similar with the *in* operator excepts that the first element in the switch is always returned by the statement if the element is not found, while the returned value is the value itself instead -1. For instance, the *%0 switch ('not found',1,4,7,9,11)* gets 1, 4, 7, 9 or 11, or 'not found' for any other value. As the *in* operator the *switch* operator uses binary searches for fitting the element, so it is quicker than *iif* (immediate if operator) alterative.

- **case()** (*case operator*) returns and executes one of n expressions, depending on the evaluation of the expression ( IIF - immediate IF operator is a binary case() operator ). The syntax for *case()* operator is:

*expression case ([default : default\_expression ; ] c1 : expression1 ; c2 : expression2 ; c3 : expression3 ;....)*

If the default part is missing, the *case()* operator returns the value of the expression if it is not found in the collection of cases ( c1, c2, ...). For instance, if the value of expression is not any of c1, c2, .... the *default\_expression* is executed and returned. If the value of the expression is c1, then the *case()* operator executes and returns the *expression1*. The *default*, *c1*, *c2*, *c3*, ... must be constant elements as numbers, dates or strings. For instance, the *date(shortdate(value)) case (default:0 ; #1/1/2002#:1 ; #2/1/2002#:1; #4/1/2002#:1; #5/1/2002#:1)* indicates that only #1/1/2002#, #2/1/2002#, #4/1/2002# and #5/1/2002# dates returns 1, since the others returns 0. For instance the following sample specifies the hour being non-working for specified dates: *date(shortdate(value)) case(default:0;#4/1/2009# : hour(value) >= 6 and hour(value) <= 12 ; #4/5/2009# : hour(value) >= 7 and hour(value) <= 10 or hour(value) in(15,16,18,22); #5/1/2009# : hour(value) <= 8)* statement indicates the working hours for dates as follows:

- #4/1/2009#, from hours 06:00 AM to 12:00 PM
- #4/5/2009#, from hours 07:00 AM to 10:00 AM and hours 03:00PM, 04:00PM, 06:00PM and 10:00PM
- #5/1/2009#, from hours 12:00 AM to 08:00 AM

The `in`, `switch` and `case()` use binary search to look for elements so they are faster than using `iif` and `or` expressions. Obviously, the priority of the operations inside the expression is determined by ( ) parenthesis and the priority for each operator.

*The supported conversion unary operators are:*

- **type** (unary operator) retrieves the type of the object. The type operator may return any of the following: 0 - empty ( not initialized ), 1 - null, 2 - short, 3 - long, 4 - float, 5 - double, 6 - currency, 7 - date, 8 - string, 9 - object, 10 - error, 11 - boolean, 12 - variant, 13 - any, 14 - decimal, 16 - char, 17 - byte, 18 - unsigned short, 19 - unsigned long, 20 - long on 64 bits, 21 - unsigned long on 64 bites. For instance `type(%1) = 8` specifies the cells ( on the column with the index 1 ) that contains string values.
- **str** (unary operator) converts the expression to a string. The str operator converts the expression to a string. For instance, the `str(-12.54)` returns the string "-12.54".
- **dbl** (unary operator) converts the expression to a number. The dbl operator converts the expression to a number. For instance, the `dbl("12.54")` returns 12.54
- **date** (unary operator) converts the expression to a date, based on your regional settings. For instance, the `date(``)` gets the current date ( no time included ), the `date(`now`)` gets the current date-time, while the `date("01/01/2001")` returns #1/1/2001#
- **dateS** (unary operator) converts the string expression to a date using the format MM/DD/YYYY HH:MM:SS. For instance, the `dateS("01/01/2001 14:00:00")` returns #1/1/2001 14:00:00#
- **hex** (unary operator) converts the giving string from hexa-representation to a numeric value, or converts the giving numeric value to hexa-representation as string. For instance, `hex(`FF`)` returns 255, while the `hex(255)` or `hex(0xFF)` returns the `FF` string. The `hex(hex(`FFFFFF`))` always returns `FFFFFF` string, as the second hex call converts the giving string to a number, and the first hex call converts the returned number to string representation (hexa-representation).

*The bitwise operators for numbers are:*

- a **bitand** b (binary operator) computes the AND operation on bits of a and b, and returns the unsigned value. For instance, `0x01001000 bitand 0x10111000` returns `0x00001000`.
- a **bitor** b (binary operator) computes the OR operation on bits of a and b, and returns the unsigned value. For instance, `0x01001000 bitor 0x10111000` returns `0x11111000`.
- a **bitxor** b (binary operator) computes the XOR ( exclusive-OR ) operation on bits of a and b, and returns the unsigned value. For instance, `0x01110010 bitxor 0x10101010` returns `0x11011000`.
- a **bitshift** (b) (binary operator) shifts every bit of a value to the left if b is negative, or to the right if b is positive, for b times, and returns the unsigned value. For instance, `128 bitshift 1` returns `64` ( dividing by 2 ) or `128 bitshift (-1)` returns `256` ( multiplying by

2 )

- **bitnot** ( unary operator ) flips every bit of x, and returns the unsigned value. For instance, `bitnot(0x00FF0000)` returns `0xFF00FFFF`.

The operators for numbers are:

- **int** (unary operator) retrieves the integer part of the number. For instance, the `int(12.54)` returns 12
- **round** (unary operator) rounds the number ie 1.2 gets 1, since 1.8 gets 2. For instance, the `round(12.54)` returns 13
- **floor** (unary operator) returns the largest number with no fraction part that is not greater than the value of its argument. For instance, the `floor(12.54)` returns 12
- **abs** (unary operator) retrieves the absolute part of the number ie -1 gets 1, 2 gets 2. For instance, the `abs(-12.54)` returns 12.54
- **sin** (unary operator) returns the sine of an angle of x radians. For instance, the `sin(3.14)` returns 0.001593.
- **cos** (unary operator) returns the cosine of an angle of x radians. For instance, the `cos(3.14)` returns -0.999999.
- **asin** (unary operator) returns the principal value of the arc sine of x, expressed in radians. For instance, the `2*asin(1)` returns the value of PI.
- **acos** (unary operator) returns the principal value of the arc cosine of x, expressed in radians. For instance, the `2*acos(0)` returns the value of PI
- **sqrt** (unary operator) returns the square root of x. For instance, the `sqrt(81)` returns 9.
- **currency** (unary operator) formats the giving number as a currency string, as indicated by the control panel. For instance, `currency(value)` displays the value using the current format for the currency ie, 1000 gets displayed as \$1,000.00, for US format.
- value **format** 'flags' (binary operator) formats the value with specified flags. If flags is empty, the number is displayed as shown in the field "Number" in the "Regional and Language Options" from the Control Panel. For instance the `1000 format "` displays 1,000.00 for English format, while 1.000,00 is displayed for German format. `1000 format '2|.|3|,'` will always displays 1,000.00 no matter of settings in the control panel. If formatting the number fails for some invalid parameter, the value is displayed with no formatting.

The ' flags' for format operator is a list of values separated by | character such as '`NumDigits|DecimalSep|Grouping|ThousandSep|NegativeOrder|LeadingZero`' with the following meanings:

- *NumDigits* - specifies the number of fractional digits, If the flag is missing, the field "No. of digits after decimal" from "Regional and Language Options" is using.
- *DecimalSep* - specifies the decimal separator. If the flag is missing, the field "Decimal symbol" from "Regional and Language Options" is using.
- *Grouping* - indicates the number of digits in each group of numbers to the left of

the decimal separator. Values in the range 0 through 9 and 32 are valid. The most significant grouping digit indicates the number of digits in the least significant group immediately to the left of the decimal separator. Each subsequent grouping digit indicates the next significant group of digits to the left of the previous group. If the last value supplied is not 0, the remaining groups repeat the last group. Typical examples of settings for this member are: 0 to group digits as in 123456789.00; 3 to group digits as in 123,456,789.00; and 32 to group digits as in 12,34,56,789.00. If the flag is missing, the field "Digit grouping" from "Regional and Language Options" indicates the grouping flag.

- *ThousandSep* - specifies the thousand separator. If the flag is missing, the field "Digit grouping symbol" from "Regional and Language Options" is using.
- *NegativeOrder* - indicates the negative number mode. If the flag is missing, the field "Negative number format" from "Regional and Language Options" is using. The valid values are 0, 1, 2, 3 and 4 with the following meanings:
  - 0 - Left parenthesis, number, right parenthesis; for example, (1.1)
  - 1 - Negative sign, number; for example, -1.1
  - 2 - Negative sign, space, number; for example, - 1.1
  - 3 - Number, negative sign; for example, 1.1-
  - 4 - Number, space, negative sign; for example, 1.1 -
- *LeadingZero* - indicates if leading zeros should be used in decimal fields. If the flag is missing, the field "Display leading zeros" from "Regional and Language Options" is using. The valid values are 0, 1

The operators for strings are:

- **len** (unary operator) retrieves the number of characters in the string. For instance, the `len("Mihai")` returns 5.
- **lower** (unary operator) returns a string expression in lowercase letters. For instance, the `lower("MIHAI")` returns "mihai"
- **upper** (unary operator) returns a string expression in uppercase letters. For instance, the `upper("mihai")` returns "MIHAI"
- **proper** (unary operator) returns from a character expression a string capitalized as appropriate for proper names. For instance, the `proper("mihai")` returns "Mihai"
- **ltrim** (unary operator) removes spaces on the left side of a string. For instance, the `ltrim(" mihai ")` returns "mihai"
- **rtrim** (unary operator) removes spaces on the right side of a string. For instance, the `rtrim("mihai ")` returns "mihai"
- **trim** (unary operator) removes spaces on both sides of a string. For instance, the `trim(" mihai ")` returns "mihai"
- **reverse** (unary operator) reverses the order of the characters in the string a. For instance, the `reverse("Mihai")` returns "iahiM"
- a **startswith** b (binary operator) specifies whether a string starts with specified string (

0 if not found, -1 if found ). For instance "*Mihai*" **startwith** "Mi" returns -1

- a **endwith** b (binary operator) specifies whether a string ends with specified string ( 0 if not found, -1 if found ). For instance "*Mihai*" **endwith** "ai" returns -1
- a **contains** b (binary operator) specifies whether a string contains another specified string ( 0 if not found, -1 if found ). For instance "*Mihai*" **contains** "ha" returns -1
- a **left** b (binary operator) retrieves the left part of the string. For instance "*Mihai*" **left** 2 returns "Mi".
- a **right** b (binary operator) retrieves the right part of the string. For instance "*Mihai*" **right** 2 returns "ai"
- a **Ifind** b (binary operator) The a Ifind b (binary operator) searches the first occurrence of the string b within string a, and returns -1 if not found, or the position of the result ( zero-index ). For instance "*ABCABC*" **Ifind** "C" returns 2
- a **rfind** b (binary operator) The a rfind b (binary operator) searches the last occurrence of the string b within string a, and returns -1 if not found, or the position of the result ( zero-index ). For instance "*ABCABC*" **rfind** "C" returns 5.
- a **mid** b (binary operator) retrieves the middle part of the string a starting from b ( 1 means first position, and so on ). For instance "*Mihai*" **mid** 2 returns "hai"
- a **count** b (binary operator) retrieves the number of occurrences of the b in a. For instance "*Mihai*" **count** "i" returns 2.
- a **replace** b **with** c (double binary operator) replaces in a the b with c, and gets the result. For instance, the "*Mihai*" **replace** "i" **with** "" returns "Mha" string, as it replaces all "i" with nothing.
- a **split** b (binary operator) splits the a using the separator b, and returns an array. For instance, the **weekday(value)** **array** 'Sun Mon Thu Wed Thu Fri Sat' **split** '' gets the weekday as string. This operator can be used with the array.
- a **like** b (binary operator) compares the string a against the pattern b. The pattern b may contain wild-characters such as \*, ?, # or [] and can have multiple patterns separated by space character. In order to have the space, or any other wild-character inside the pattern, it has to be escaped, or in other words it should be preceded by a \ character. For instance **value like `F\*e`** matches all strings that start with F and ends on e, or **value like `a\* b\*`** indicates any strings that start with a or b character.
- a **lpad** b (binary operator) pads the value of a to the left with b padding pattern. For instance, **12 lpad "0000"** generates the string "0012".
- a **rpad** b (binary operator) pads the value of a to the right with b padding pattern. For instance, **12 lpad "\_\_\_"** generates the string "12\_\_".
- a **concat** b (binary operator) concatenates the a (as string) for b times. For instance, "*x*" **concat** 5, generates the string "xxxxx".

The operators for dates are:

- **time** (unary operator) retrieves the time of the date in string format, as specified in the control's panel. For instance, the **time(#1/1/2001 13:00#)** returns "1:00:00 PM"

- **timeF** (unary operator) retrieves the time of the date in string format, as "HH:MM:SS". For instance, the `timeF(#1/1/2001 13:00#)` returns "13:00:00"
- **shortdate** (unary operator) formats a date as a date string using the short date format, as specified in the control's panel. For instance, the `shortdate(#1/1/2001 13:00#)` returns "1/1/2001"
- **shortdateF** (unary operator) formats a date as a date string using the "MM/DD/YYYY" format. For instance, the `shortdateF(#1/1/2001 13:00#)` returns "01/01/2001"
- **dateF** (unary operator) converts the date expression to a string expression in "MM/DD/YYYY HH:MM:SS" format. For instance, the `dateF(#01/01/2001 14:00:00#)` returns #01/01/2001 14:00:00#
- **longdate** (unary operator) formats a date as a date string using the long date format, as specified in the control's panel. For instance, the `longdate(#1/1/2001 13:00#)` returns "Monday, January 01, 2001"
- **year** (unary operator) retrieves the year of the date (100,...,9999). For instance, the `year(#12/31/1971 13:14:15#)` returns 1971
- **month** (unary operator) retrieves the month of the date ( 1, 2,...,12 ). For instance, the `month(#12/31/1971 13:14:15#)` returns 12.
- **day** (unary operator) retrieves the day of the date ( 1, 2,...,31 ). For instance, the `day(#12/31/1971 13:14:15#)` returns 31
- **yearday** (unary operator) retrieves the number of the day in the year, or the days since January 1st ( 0, 1,...,365 ). For instance, the `yearday(#12/31/1971 13:14:15#)` returns 365
- **weekday** (unary operator) retrieves the number of days since Sunday ( 0 - Sunday, 1 - Monday,..., 6 - Saturday ). For instance, the `weekday(#12/31/1971 13:14:15#)` returns 5.
- **hour** (unary operator) retrieves the hour of the date ( 0, 1, ..., 23 ). For instance, the `hour(#12/31/1971 13:14:15#)` returns 13
- **min** (unary operator) retrieves the minute of the date ( 0, 1, ..., 59 ). For instance, the `min(#12/31/1971 13:14:15#)` returns 14
- **sec** (unary operator) retrieves the second of the date ( 0, 1, ..., 59 ). For instance, the `sec(#12/31/1971 13:14:15#)` returns 15

The expression supports also **immediate if** ( similar with iif in visual basic, or ? : in C++ ) ie cond ? value\_true : value\_false, which means that once that cond is true the value\_true is used, else the value\_false is used. Also, it supports variables, up to 10 from 0 to 9. For instance, `0:="Abc"` means that in the variable 0 is "Abc", and `=:0` means retrieves the value of the variable 0. For instance, the `len(%0) ? ( 0:=(%1+%2) ? currency(=:0) else `` ) : ``` gets the sum between second and third column in currency format if it is not zero, and only if the first column is not empty. As you can see you can use the variables to avoid computing several times the same thing ( in this case the sum %1 and %2 ).

OrderID	EmployeeID	OrderDate	RequiredDate	ShippedDate	ShipVia	Freight	ShipName
102485		8/4/1994	9/1/1994	8/16/1994	3	32.38	Vins et alcools Chevalier
102496		8/5/1994	9/16/1994	8/10/1994	1	11.61	Toms Spezialitäten
102504		8/8/1994	9/5/1994	8/12/1994	2	65.83	Hanari Carnes
102513		8/8/1994	9/5/1994	8/15/1994	1	41.34	Victuailles en stock
102524		8/9/1994	9/6/1994	8/11/1994	2	51.3	Suprèmes délices
102533		8/10/1994	8/24/1994	8/16/1994	2	58.17	Hanari Carnes
102545		8/11/1994	9/8/1994	8/23/1994	2	22.98	Chop-suey Chinese
102559		8/12/1994	9/9/1994	8/15/1994	3	148.33	Richter Supermarkt
102563		8/15/1994	9/12/1994	8/17/1994	2	13.97	Wellington Importadora
102574		8/16/1994	9/13/1994	8/22/1994	3	81.91	HILARIÓN-Abastos
102581		8/17/1994	9/14/1994	8/23/1994	1	140.51	Ernst Handel
102594		8/18/1994	9/15/1994	8/25/1994	3	3.25	Centro comercial Moctezuma
102604		8/19/1994	9/16/1994	8/29/1994	1	55.09	Ottilies Käseladen
102614		8/19/1994	9/16/1994	8/30/1994	2	3.05	Que Delícia
102628		8/22/1994	9/19/1994	8/25/1994	3	48.29	Rattlesnake Canyon Grocery
102639		8/23/1994	9/20/1994	8/31/1994	3	146.06	Ernst Handel
102646		8/24/1994	9/21/1994	9/23/1994	3	3.67	Folk och fä HB
102652		8/25/1994	9/22/1994	9/12/1994	1	55.28	Blondel pčre et fils
102663		8/26/1994	10/7/1994	8/31/1994	3	25.73	Wartian Herkku
102674		8/29/1994	9/26/1994	9/6/1994	1	208.58	Frankenversand
102688		8/30/1994	9/27/1994	9/2/1994	3	66.29	GROSELLA-Restaurant
102695		8/31/1994	9/14/1994	9/9/1994	1	4.56	White Clover Markets
102701		9/1/1994	9/29/1994	9/2/1994	1	136.54	Wartian Herkku
102716		9/1/1994	9/29/1994	9/30/1994	2	4.54	Split Rail Beer & Ale
102726		9/2/1994	9/30/1994	9/6/1994	2	98.03	Rattlesnake Canyon Grocery
102733		9/5/1994	10/3/1994	9/12/1994	3	76.07	QUICK-Stop
102746		9/6/1994	10/4/1994	9/16/1994	1	6.01	Vins et alcools Chevalier
102751		9/7/1994	10/5/1994	9/9/1994	1	26.93	Magazzini Alimentari Riva
102768		9/8/1994	9/22/1994	9/14/1994	3	13.84	Tortuga Restaurante
102772		9/9/1994	10/7/1994	9/13/1994	3	125.77	Morgenstern Gesundkos
102788		9/12/1994	10/10/1994	9/16/1994	2	92.69	Berglunds snabbköp
102798		9/13/1994	10/11/1994	9/16/1994	2	25.83	Lehmans Marktstand
102802		9/14/1994	10/12/1994	10/13/1994	1	8.98	Berglunds snabbköp
102814		9/14/1994	9/28/1994	9/21/1994	1	2.94	Romero y tomillo
102824		9/15/1994	10/13/1994	9/21/1994	1	12.69	Romero y tomillo
102833		9/16/1994	10/14/1994	9/23/1994	3	84.81	LILA-Supermercado
102844		9/19/1994	10/17/1994	9/27/1994	1	76.56	Lehmans Marktstand
102851		9/20/1994	10/18/1994	9/26/1994	2	76.83	QUICK-Stop

102868	9/21/1994	10/19/1994	9/30/1994	3	229.24	QUICK-Stop
102878	9/22/1994	10/20/1994	9/28/1994	3	12.76	Ricardo Adocicados
102884	9/23/1994	10/21/1994	10/4/1994	1	7.45	Reggiani Caseifaci
102897	9/26/1994	10/24/1994	9/28/1994	3	22.77	B's Beverages
102908	9/27/1994	10/25/1994	10/4/1994	1	79.7	Comércio Mineiro
102916	9/27/1994	10/25/1994	10/5/1994	2	6.4	Que Delícia
102921	9/28/1994	10/26/1994	10/3/1994	2	1.35	Tradição Hipermercado
102931	9/29/1994	10/27/1994	10/12/1994	3	21.18	Tortuga Restaurante
102944	9/30/1994	10/28/1994	10/6/1994	2	147.26	Rattlesnake Canyon Gr
102952	10/3/1994	10/31/1994	10/11/1994	2	1.15	Vins et alcools Chevalie
102966	10/4/1994	11/1/1994	10/12/1994	1	0.12	LILA-Supermercado
102975	10/5/1994	11/16/1994	10/11/1994	2	5.74	Blondel père et fils
102986	10/6/1994	11/3/1994	10/12/1994	2	168.22	Hungry Owl All-Night C
102994	10/7/1994	11/4/1994	10/14/1994	2	29.76	Ricardo Adocicados
103002	10/10/1994	11/7/1994	10/19/1994	2	17.68	Magazzini Alimentari R
103018	10/10/1994	11/7/1994	10/18/1994	2	45.08	Die Wandernde Kuh
103024	10/11/1994	11/8/1994	11/9/1994	2	6.27	Suprêmes délices
103037	10/12/1994	11/9/1994	10/19/1994	2	107.83	Godos Cocina Típica
103041	10/13/1994	11/10/1994	10/18/1994	2	63.79	Tortuga Restaurante
103058	10/14/1994	11/11/1994	11/9/1994	3	257.62	Old World Delicatessen
103061	10/17/1994	11/14/1994	10/24/1994	3	7.56	Romero y tomillo
103072	10/18/1994	11/15/1994	10/26/1994	2	0.56	Lonesome Pine Restaura
103087	10/19/1994	11/16/1994	10/25/1994	3	1.61	Ana Trujillo Emparedad
103093	10/20/1994	11/17/1994	11/23/1994	1	47.3	Hungry Owl All-Night C
103108	10/21/1994	11/18/1994	10/28/1994	2	17.52	The Big Cheese
103111	10/21/1994	11/4/1994	10/27/1994	3	24.69	Du monde entier

## method

### Items.RemoveItem

• a **Item**

specific  
item.  
**HITEM)**

Type

Description

A long expression that indicates the handle of the item being removed

Item as HITEM

The RemoveItem

following

removes

The sample

following

removes

The

recursively

following

RemoveItem

removes

Method

recursively

following

removes

Item:

recursively

contains

an

child

item

items.

The

removeitemrec

following

method

sample

): removes

the

first

item:

Gantt1.Items.RemoveItem

Gantt1.Items(0).

Use

the

[RemoveAllItems](#)

method

to

remove

all

items

in

the

control.

Use

the

[BeginUpdate](#)

and

[EndUpdate](#)

methods

to

maintain

performance

while

removing

the

items. The

RemoveItem

method

can't

remove

an

item

that's

locked.

Instead

you

can

use

the

[LockedItemCount](#)

property

to

add  
or  
remove  
locked  
items.  
Use  
the  
[IsItemLocked](#)  
property  
to  
check  
whether  
an  
item  
is  
locked.  
The  
[RemoveSelection](#)  
method  
removes  
the  
selected  
items  
(including  
the  
descendents).

## method

### Items.UnselectAll

all

items.

Type

Description

Use  
the  
UnselectAll  
method  
to  
unselect  
all  
items  
in  
the  
list.

The  
UnselectAll  
method  
has  
effect  
only  
if  
the

[SingleSel](#)

property  
is  
False,  
if  
the  
control  
supports  
multiple  
items  
selection.

Use  
the  
[SelectAll](#)  
method  
to  
select  
all

items  
in  
the  
list.  
Use  
the  
[SelectItem](#)  
property  
to  
select  
or  
unselect  
a  
specified  
item.  
Use  
the  
[SelectedItem](#)  
property  
to  
retrieve  
a  
value  
that  
indicates  
whether  
the  
item  
is  
selected  
or  
unselected.  
Use  
the  
[SelectCount](#)  
property  
to  
retrieve  
the  
number  
of  
selected  
items.

The

## RemoveSelection

method

removes

the

selected

items

(including

the

descendents)

•

## method

### Items.RemoveAllItems

• a()

items from

Type

Description

the  
Use  
control.  
the

RemoveAllItems

method

to

remove

all

items

in

the

control.

Use

the

[Clear](#)

method

to

remove

all

columns

in

the

control.

Use

the

[RemoveItem](#)

method

to

remove

a

single

item

in

the

control.

## method

### Cant BeginUpdate

performance

when

Type

Description

are  
This  
added  
method  
to  
following  
the  
control  
control  
following  
elements  
The  
The  
following

VB.NET  
The

sample

following

events

The

refreshing

following

events

refreshing

and

add

new

items

new

for

ding

columns

each

and

record.

items:

You

can

venting

use

ting

the

[DataSource](#)

property

to

bind

lers

anv

recordset

to

nce

the

that

```
control.Update  
The code  
#import  
statement  
imports  
definitions  
for  
ADODB  
type  
library,  
that's update  
used od  
to fill  
fill  
the led  
control.
```



control.  
The  
#import  
statement  
imports  
definitions  
for  
ADODB  
type  
library,  
that's  
used  
to  
fill  
the  
control.

## property

Stems.LockedItemCount(Alignment)

as

number  
of  
items  
fixed  
on  
the  
top  
or  
bottom

as

Long

on

the

top

or

bottom

Alignment as [VAlignmentEnum](#)

side

of

the

control.

## Description

A VAlignmentEnum expression that specifies the top or bottom side of the control.

A long expression that indicates the number of items locked to the top or bottom side of the control.

Long

A locked or fixed item

is  
always  
displayed  
on  
the  
top  
or  
bottom  
side  
of  
the  
control  
no  
matter  
if  
the  
control's  
list  
is  
scrolled  
up  
or  
down.  
Use  
the  
LockedItemCount  
property  
to  
add  
or  
remove  
items  
fixed/locked  
to  
the  
top  
or  
bottom  
side  
of  
the  
control.  
Use

the

### LockedItem

property  
to  
access  
a  
locked  
item  
by  
its  
position.

Use

the

### ShowLockedItems

property  
to  
show  
or  
hide  
the  
locked  
items.

Use

the

### CellCaption

property  
to  
specify  
the  
caption  
for  
a  
cell.

Use

the

### CountLockedColumns

property  
to  
lock  
or  
unlock  
columns  
in

the control.  
Use the [ItemBackColor](#) property to specify the item's background color.  
Use the [ItemDivider](#) property to merge the cells.  
Use the [MergeCells](#) method to combine two or multiple cells in a single cell.

The following VB sample adds the two sample items

NET  
following  
parts  
The  
marked  
following  
that's  
VIP  
sample  
titled  
adds  
titles  
an  
locked  
item  
control,  
that's  
locked:  
locked  
top  
side  
the  
control:  
top  
locked  
side  
control:  
of  
the  
bottom:  
control:  
side  
of  
the  
control:

## property

Items \$ IsItemLocked

## a) Item

value

as  
that  
**ITEM**)  
indicates

Indicates  
as  
whether  
Boolean

the

## item

is

lock

LOCK

or

unlock

**locked.**

## Type

## Descript

A long expression that indicates the handle of the item.

A boolean expression that indicates whether the item is locked or unlocked

## Boolean

- Use  
the  
`IsItemLocked`  
property

to

to  
check

check  
- 11

whe-

an

item

item

IS

locked

or

10

# unlock

item  
is  
always  
displayed  
on  
the  
top  
or  
bottom  
side  
of  
the  
control  
no  
matter  
if  
the  
control's  
list  
is  
scrolled  
up  
or  
down.

Use  
the

### LockedItemCount

property  
to  
add  
or  
remove  
items  
fixed/locked  
to  
the  
top  
or  
bottom  
side  
of  
the  
control.

Use  
the  
[LockedItem](#)

property  
to  
access  
a  
locked  
item  
by  
its  
position.

Use  
the  
[ShowLockedItems](#)

property  
to  
show  
or  
hide  
the  
locked  
items.

The  
following

VB  
The  
sample  
following  
prints

The  
sample  
following  
locked  
items

VB  
The  
sample  
following  
locked  
items

VB  
The  
sample  
following  
locked  
items

VB  
The  
sample  
locked  
prints

VB  
The  
cursor:  
from  
locked  
the

VB  
The  
cursor:  
from

VB  
The

cursor:

## method

### Items.RemoveSelection

the

selected

Type

Description

items

(including

the

RemoveSelection

descendants).

method

removes

the

selected

items

(including

the

descendants).

The

### RemoveItem

method

removes

an

item

(if

the

item

has

no

descendants).

The

### UnselectAll

method

unselects

all

items

in

the

list.

•

## property

### CanSingleSel

as

#### **Boolean Type**

a value that indicates whether the control supports single or multiple selection.

**Description**

A boolean expression that indicates whether the control supports single or multiple selection.

Use the SingleSel property to enable multiple selection.

Use the

### SelectCount

property to get the number of selected items.

Use the

### SelectedItem

property to

get  
the  
selected  
item.

Use  
the

[SelectItem](#)

to  
select  
or  
unselect  
a  
specified  
item.

Use  
the

[FocusItem](#)

property  
to  
get  
the  
focused  
item.

If  
the  
control  
supports  
only  
single  
selection,  
you  
can  
use  
the

[FocusItem](#)

property  
to  
get  
the  
selected/focused  
item  
because  
they

are  
always  
the  
same.

The  
control  
fires  
the

[SelectionChanged](#)

event

when

user

selects  
an  
item.

Use

the

[SelForeColor](#)

and

[SelBackColor](#)

properties

to

specify  
colors  
for  
selected  
items.

Use

the

[SelectableItem](#)

property

to

specify  
the  
user  
can  
select  
an  
item.

The

[FullRowSelect](#)

property  
specifies

whether  
the  
selection  
spans  
the  
entire  
width  
of  
the  
control.

## method

### Items.SelectAll

all

items.

Type

Description

Use  
the  
SelectAll  
method  
to  
select  
all  
visible  
items  
in  
the  
gantt.

The  
SelectAll  
method  
has  
effect  
only  
if  
the

SingleSel

property  
is  
False,  
if  
the  
control  
supports  
multiple  
items  
selection.

Use  
the  
UnselectAll  
method  
to  
unselect

all  
items  
in  
the  
list.

Use  
the

### SelectItem

property  
to  
select  
or  
unselect  
a  
specified  
item.

Use  
the

### SelectedItem

property  
to  
retrieve  
a  
value  
that  
indicates  
whether  
the  
item  
is  
selected  
or  
unselected.

Use  
the

### SelectCount

property  
to  
retrieve  
the  
number  
of  
selected

items

•

## property

Items.SelectItem(Item)

as

HITEM Type

as

Boolean  
item.

Item as HITEM

Description

A long expression that indicates the item's handle that is selected or unselected.

A boolean expression that indicates the item's state.

True if the item is selected and False if the item is not selected.

Boolean

The  
following  
sample  
shows  
following  
code:  
The  
the select  
following  
enumerates  
table  
the sample  
removing  
selected  
table).  
unless

Gantt1.Items.SelectedItem(Gant1.Items(0))

following  
this selects  
ValueTableItem

following  
selected  
the .NET  
the  
sample  
following  
as selects  
visible.  
sample  
following  
selects  
the  
select  
sample  
following  
deselects  
visible.  
sample  
following  
selects  
the

SampleCount

the  
property  
control.  
Visible

item:  
items  
the  
number  
of control:  
selected  
items.

Use  
the

SelectedItem

property  
to  
get  
the  
selected  
item.

Use  
the  
FocusItem

property  
to  
get  
the  
focused  
item.

If  
the  
control  
supports  
only  
single  
selection,

you  
can  
use  
the

FocusItem  
property

to  
get  
the  
selected/focused  
item

because  
they  
are  
always  
the  
same.

The  
control  
fires  
the

SelectionChanged

event  
when  
user  
selects  
an

item.

Use

the

[SelForeColor](#)

and

[SelBackColor](#)

properties

to

specify

colors

for

selected

items.

Use

the

[SingleSel](#)

property

to

allow

multiple

selection.

Use

the

[SelectPos](#)

property

to

select

an

item

giving

its

position.

Use

the

[EnsureVisibleItem](#)

property

to

ensure

that

an

item

is

visible.

## property

### Items.SelectCount

has

number

Type

of  
items  
that  
are  
selected  
into  
control.

Long

Description

A long expression that identifies the number of selected items.

The SelectCount

property

the item's

control Sel

The supports

following multiple

The selection

sample following

then unselects

the following

all sample

following int

items enumerate

the sample

following selected

samples

adv sample

following

items enumerate

the sample

following selected

samples

adv sample

following

items enumerate

the supports

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selected  
items  
are  
the  
items

[SingleSel](#)  
property  
of control:  
the  
control  
to  
allow  
multiple  
selection.  
Use

the  
[SelectedItem](#)

property  
to  
retrieve  
the  
handle  
of  
the  
selected  
item(s).

The  
control  
fires  
the

[SelectionChanged](#)

event  
when  
user  
changes  
the  
selection  
in  
the  
control.

Use  
the  
[SelectItem](#)  
property

to  
select  
programmatically  
an  
item.  
Use  
the  
[SelForeColor](#)  
and  
[SelBackColor](#)  
properties  
to  
specify  
colors  
for  
selected  
items.

If  
the  
control  
supports  
only  
single  
selection  
(  
SingleSel  
property  
is  
True  
(  
),  
the  
[FocusItem](#)  
retrieves  
the  
selected  
item  
too.

## method

### Columns.Clear

all

objects  
in

Type

Description

a  
Use  
collection.  
the

#### Remove

method

when

you

need

to

remove

only

a

column.

Use

the

Clear

method

to

remove

all

columns

in

the

control.

The

Clear

method

removes

all

items,

too.

Use

the

#### RemoveAllItems

method

to

remove

all

items  
in  
the  
control.

## property

### CreateDataSource

as

Object	Type	Description
a value that indicates the data source for object.	Object	An ADO or DAO Records object used to fill data from.

The

### /COM

version provides ADO, ADODB and DAO database support.

The

DataSource

property

takes

a

recordset

and

add

a

column

for

each

field

found,

and

add

a new item for each record in the recordset.

Use the

[Visible](#)

property to hide a column.

Use the

[CellCaption](#)

property to retrieves the value of the cell.

Use the

[PutItems](#)

to load an array to the control. Use the

[DetectAddNew](#)

property to allow

adding  
new  
items  
to  
the  
control  
when  
the  
user  
adds  
new  
records  
to  
the  
table  
that's  
linked  
with  
the  
control.

Use  
the

### ConditionalFormats

method  
to  
apply  
formats  
to  
a  
cell  
or  
range  
of  
cells,  
and  
have  
that  
formatting  
change  
depending  
on  
the  
value

of  
the  
cell  
or  
the  
value  
of  
a  
formula.

Use  
the

### DefaultItemHeight

property  
before  
setting  
a  
DataSource  
property  
to  
specify  
the

The

/NET 1.0  
version  
DataTaskEnd,  
version  
DataTaskEnd  
never  
DataTaskStart  
the  
property  
to  
following  
Watch  
methods  
a  
for  
gets  
moves  
data  
on  
DataSource  
binding  
how  
specific  
to  
control  
is  
assign  
the  
a  
displaying  
data  
datacontrol.  
source  
source  
to  
Default  
Indicate  
the  
Indicate  
control  
property  
in  
starting  
design  
point  
mode  
empty  
or

for inheritance,  
/NET added  
asset. ~~Source~~  
property  
The missing  
following:  
VB. ~~DataTable~~,  
sample View,  
DataSource  
binds ~~Table~~,  
following  
an ~~Table~~ViewManager,  
The ~~Table~~  
#import ~~component~~  
statement ~~using~~.  
imports ~~elements~~  
definitions  
for ~~table~~  
ADODB. ~~interface~~,  
type ~~has~~ indicates  
library, ~~ended~~.  
that's ~~development~~  
used ~~parent~~,  
to ~~implements~~  
fill ~~the~~ indicates  
the ~~third~~  
control.  
your ~~source~~ interface.  
list ~~the~~  
a ~~starting~~  
hierarchy. ~~point~~  
newly  
batch  
~~task~~,  
it  
indicates  
the record.  
This is  
a member  
the  
task automatically  
filled  
with  
the  
first  
DATE

`DeltaTaskEnd`  
from  
the  
`DataSource`,  
`DataTaskBegin`,  
a  
one-  
day  
task  
is member  
added  
automatically  
filled  
record  
band,  
flushing  
DiA~~T~~eg.  
`Field`  
from member  
the  
automatically  
service  
(with  
`DataSource/DataMember`  
second  
`DATE`  
field  
from  
the  
`DataSource`  
collection.

*This  
member  
can  
be  
of  
`DATE`  
type,  
which  
indicates  
the  
`exBarEnd`  
property*

of  
any  
bar  
in  
the  
collection,  
or  
a  
*DOUBLE*,  
when  
it  
indicates  
the  
*length/duration*  
of  
the  
bar  
to  
be  
added.

## constants

### SAffinityEnum

how

the cell's caption is vertically aligned.	Name	Value	Description
Use the <a href="#">CellVAlignment</a> property to align vertically the cell's caption.	TopAlignment	0	The caption is aligned to top of the cell
	MiddleAlignment	1	The cell's caption is vertical centered
	BottomAlignment	2	The caption is aligned to bottom of the cell
	exVOutside	16	The object is display outside of the source

## property

Items.LockedItem

(Alignment

handle  
of  
the  
locked  
item.

as Type

VAlignmentEnum,

Index  
as

Long)

as

HITEM

Alignment as [VAlignmentEnum](#)

A VAlignmentEnum expression that indicates whether the locked item requested is on the top or bottom side of the control.

Index as Long

A long expression that indicates the position of item being requested.

HITEM

A long expression that indicates the

handle  
of  
the  
locked  
item

A  
locked  
or  
fixed  
item  
is  
always  
displayed  
on  
the  
top  
or  
bottom  
side  
of  
the  
control  
no  
matter  
if  
the  
control's  
list  
is  
scrolled  
up  
or  
down.  
Use  
the  
`LockedItem`  
property  
to  
access  
a  
locked  
item

by  
its  
position.

Use  
the

[LockedItemCount](#)

property

to

add

or

remove

items

fixed/locked

to

the

top

or

bottom

side

of

the

control.

Use

the

[ShowLockedItems](#)

property

to

show

or

hide

the

locked

items.

Use

the

[IsItemLocked](#)

property

to

check

whether

an

item

is

**locked**  
or  
**unlocked**

Use  
the

## CellCaption

property  
to  
specify  
the  
caption  
for  
a  
cell.

Use  
the

## InsertControlItem

property  
to  
assign  
an  
ActiveX  
control  
to  
a  
locked  
item  
only

there's

Infected:

that's

**infected:**

tbe

~~thick~~ control:

bfp

slide

оѓн

the

control:

**property**

~~ReadOnly~~ **ShowLockedItems**

**as**

**Boolean** Type

a value that indicates whether the locked items are visible or hidden.

Boolean

**Description**

A boolean expression that specifies whether the locked items are shown or hidden.

A locked or fixed item is always displayed on the top or bottom side of the control no matter if the control's list is

scrolled  
up  
or  
down.  
Use  
the  
ShowLockedItems  
property  
to  
show  
or  
hide  
the  
locked  
items.

Use  
the  
[LockedItemCount](#)  
property  
to  
add  
or  
remove  
items  
fixed/locked  
to  
the  
top  
or  
bottom  
side  
of  
the  
control.

Use  
the  
[LockedItem](#)  
property  
to  
access  
a  
locked  
item

by  
its  
position.  
Use  
the  
[CellCaption](#)  
property  
to  
specify  
the  
caption  
for  
a  
cell.

•

## property

### ItemsCellCaption([Item

as

Variant], Type

[ColIndex

text

as

displayed

Variant])

on

as

a Variant Item as Variant

specific

cell.

Description

A long expression that indicates the item's handle.

A long expression that indicates the column's index, or the handle to the cell, if the Item parameter is 0, a string expression that indicates the column's caption or

ColIndex as Variant

the column's key.

A variant expression that indicates the cell's caption. The cell's caption supports built-in HTML format.

## Variant

The `CellCaption` property specifies the cell's caption. To associate item user data for a column.

All properties that has use `CellData` property. Use the `CellIndex` `CellCaptionFormat` parameters.

property  
referring  
use  
HTML  
tags  
The  
them  
parameter  
captures  
the  
handle  
[ItemData](#)

property  
item,  
associate  
the  
ExIndex  
datameter  
indicates  
an  
index

To  
aide  
numerical  
values

see  
[Column.Index](#)

property  
use  
[Visible](#)

property  
of column  
the

[Column](#)

object's  
Caption

[AddItem](#)

method  
specifies  
value,

the  
[Caption.Caption](#)  
property

the  
first  
cell  
handle  
the  
item. Use  
the

### [SplitCell](#)

property  
ItemCell  
property  
a  
The  
CellCaption  
property  
indicates  
the  
formula  
properties  
used  
Item  
and  
CellIndex  
parameters:  
if  
the

### [CellCaptionFormat](#)

property  
is  
exComputedField.

The

### [ComputedField](#)

property  
specifies  
the  
formula  
to  
compute  
the  
entire  
column.  
Use  
the

## ConditionalFormats

method  
to  
apply  
formats  
to  
a  
cell  
or  
range  
of  
cells,  
and  
have  
that  
formatting  
change  
depending  
on  
the  
value  
of  
the  
cell  
or  
the  
value  
of  
a  
formula.

## property

### GanttCountLockedColumns

as

long	Type	Description
a value indicating the number of locked columns.	Long	A long expression indicating the number of locked columns.

A locked

column

The

Ex Gantt

Not Active.

Control

can

group

the

columns

into

two

categories:

locked

and

unlocked.

The

Locked

category

contains

all

the

columns

that

are

fixed

to

the

left

area

of  
the  
client  
area.  
These  
columns  
cannot  
be  
scrolled  
horizontally.

Use  
the  
CountLockedColumns  
to  
specify  
the  
number  
of  
locked  
columns.

The  
unlocked  
are  
contains  
the  
columns  
that  
can  
be  
scrolled  
horizontally.

Use  
the  
[BackColorLock](#)  
property  
to  
change  
the  
control's  
background  
color  
for  
the

locked  
area.  
Use  
the  
[LockedItemCount](#)  
property  
to  
add  
or  
remove  
items  
locked  
(  
fixed  
)  
to  
the  
top  
or  
bottom  
side  
of  
the  
control.

## property

### Items.ItemBackColor(Item)

• as

HITEM) Type

a background

Color

for

a

specific

item.

Description

A long expression that indicates the handle of the item. If the Item

is

0,

the

ItemBackColor changes the background color for all items.

Item as HITEM

A

color expression that

indicates the item's background color.

Color

The

ItemBackColor

PROPERTY

You

The **Specifies**  
Following  
**Background**  
The  
following  
following  
the **NET**  
following  
following  
following  
background  
appearance  
changes  
Under  
the  
sample  
following  
background  
messages  
other  
the background  
background  
messages  
following  
color  
provide  
Focused  
background/item  
sample  
second  
changes  
focused  
the  
Item:  
the  
background  
**PulseColor**  
color  
property  
for  
the  
change  
cells  
the  
in  
cell's  
the  
background  
first  
color  
To  
When  
change  
adding  
the  
new  
background  
items.  
color  
of  
the  
entire  
control  
you  
can  
call  
**BackColor**  
property  
of  
the  
control. Use  
the

## [ClearItemBackColor](#)

property  
to  
clear  
the  
item's  
background  
color,  
after  
setting  
using  
the  
ItemBackColor  
property.

Use  
the

## [ConditionalFormats](#)

method  
to  
apply  
formats  
to  
a  
cell  
or  
range  
of  
cells,  
and  
have  
that  
formatting  
change  
depending  
on  
the  
value  
of  
the  
cell  
or  
the  
value

of  
a  
formula.

The

[ItemBackColor](#)

property  
of  
the  
Chart  
object  
specifies  
the  
item's  
background  
or  
visual  
appearance  
for  
the  
chart  
area.

## property

### String ItemDivider(Item

• specifies

whether

as

HITEM) Type

item

as

Long

like

a divider item.

Item as HITEM

The value indicates

the index of

column used

Long

to define the

divider's title.

divider item uses

the item's client area

to display

a single

cell.

The ItemDivider

property

specifies

the index of

the

Descripti

A long expression that indicates the item's handle.

A long expression that indicates the column's index.

cell  
being  
displayed.  
In  
other  
words,  
the  
divider  
item  
merges  
the  
item  
cells  
into  
a  
single  
cell.

Use  
the  
[ItemDividerLine](#)  
property  
to  
define  
the  
line  
that  
underlines  
the  
divider  
item.  
Use  
the

[LockedItemCount](#)  
property  
to  
lock  
items  
on  
the  
top  
or  
bottom  
side

of  
the  
control.

Use  
the  
[MergeCells](#)

method  
to  
combine  
two  
or  
multiple  
cells  
in  
a  
single  
cell.

Use  
the  
[SelectableItem](#)

property  
to  
specify  
the  
user  
can  
select  
an  
item.

A  
divider  
item  
has  
sense  
for  
a  
control  
with  
multiple  
columns.

The  
following

VB  
Saluting  
Gads  
The  
sample  
following  
divider  
The  
item  
sample  
following  
divider  
The  
item  
selected  
Sample  
following  
divider  
More  
Hem,  
selectable  
header  
titles  
Not  
Hem,  
etc.  
selectable  
header  
too.  
Not  
control  
selectable  
that's  
too.  
Before  
selectable  
this:  
sample  
please  
make  
sure  
that  
your  
control  
has  
columns  
):

## method

### ~~Items~~.MergeCells

• a([Cell1

list  
of  
cells,

[Cell2

as

Variant],

[Options

as

Variant])

Type

Description

A long expression that indicates the handle of the cell being merged, or a safe array that holds a collection of handles for the cells being merged. Use the [ItemCell](#) property to retrieves the handle of the cell.

Cell1 as Variant

The first cell (in the list, if exists) specifies the cell being displayed in the new larger cell.

A long expression that indicates the handle of the cell being merged, or a safe array that holds a collection of handles for the

## Cell2 as Variant

cells being merged. Use the [ItemCell](#) property to retrieves the handle of the cell. The first cell in the list specifies the cell being displayed in the new larger cell.

---

## Options as Variant

Reserved

The MergeCells method combines two or more cells into one cell.

The  
data  
in  
the  
**first**  
**specified**  
**cell**  
is  
displayed  
in  
the  
new  
larger  
cell.  
All  
the  
other  
cells'  
data  
is  
not  
lost.  
Use  
the  
[CellMerge](#)  
property  
to  
merge  
or  
unmerge  
a  
cell  
with  
another  
cell  
in  
the  
same  
item.  
Use  
the  
[ItemDivider](#)  
property

to display a single cell in the entire item ( merging all cells in the item ). Use the [UnmergeCells](#) method to unmerge the merged cells. Use the [CellCaption](#) property to specify the cell's caption. Use the [ItemCell](#) property to retrieves the handle

of  
the  
cell.

Use  
the

[BeginMethod](#)

and

[EndUpdate](#)

methods

to

maintain

performance,

when

merging

multiple

cells

in

the

same

time.

The

[MergeCells](#)

methods

creates

a

list

of

cells

from

Cell1

and

Cell2

parameters

that

need

to

be

merged,

and

the

first

cell

in

the  
list  
specifies  
the  
displayed  
cell  
in  
the  
merged  
cell.

Use  
the  
[SplitCell](#)  
property  
to  
split  
a  
cell. Use  
the  
[SelectableItem](#)  
property  
to  
specify  
the  
user  
can  
select  
an  
item.

The  
following  
VB  
sample  
adds  
and  
three  
it  
columns,  
looks  
like  
the  
root  
follows  
item  
merging  
and  
notice  
the  
merge  
that

following  
merging  
of sample  
The P  
handles  
following  
the toges  
THE NET  
freen  
sample  
merges  
the treated  
sample  
following  
edges  
with  
name  
the  
sample  
cells.  
merges  
question  
following  
cells.  
the mads:  
what  
three  
should  
cells:

use  
in  
my  
program  
in  
order  
to  
merge  
some  
cells?  
For  
instance,  
if  
you  
are  
using  
handle  
to  
cells  
(  
HCELL  
type  
( ),  
we  
would  
recommend  
using

the  
MergeCells  
method,  
else  
you  
could  
use  
as  
well  
the  
CellMerge  
property.

## property

### Items.SelectedItem

• Removes the selected item.

selected item's

handle as

given its

index in

selected items

collection.

Type

Index as Long

Description

Identifies the index of the selected item into the selected items collection.

A long expression that indicates the handle of the selected item.

HITEM

## Use

the

following Item

property

to write

The property

applies

following

the

handle

variable

following

the

enumerates

variable

and

selected

items.

Selected

following

Displays  
BodyPrint

Gantt1.Items.CellCaption(Gantt1.Items.SelectedItem(0),

The  
Binds  
following  
SelectCount

the  
property  
following  
selected

item:  
Protocol:

all  
sample

following  
display

new  
the  
sample

following  
selected

control:  
Items:

are  
following  
selected

displays  
in

the  
sample

selected  
Selected

control: The  
all  
control

items  
fires

in  
the

the  
SelectionChanged

control:  
event

when  
user

changes  
the

selection  
in

the  
control.

Use  
the

SelectItem

property  
to

select  
programmatically

an  
item.

If  
the

control  
supports

only  
single  
selection,  
you  
can  
use  
the

### [FocusItem](#)

property  
to  
get  
the  
selected/focused  
item  
because  
they  
are  
always  
the  
same.

Use  
the

### [SingleSel](#)

property  
to  
enable  
single  
or  
multiple  
selection. Use  
the

### [SelForeColor](#)

and  
[SelBackColor](#)  
properties  
to  
specify  
colors  
for  
selected  
items.

## property

### Items.FocusItem

• has

HITEM

Type

Description

of item that has the focus.

HITEM

A long expression that indicates the handle of the focused item.

The FocusItem property specifies the handle of the focused item.

If there is no focused item the FocusItem property retrieves 0.

At one moment, only one

item  
can  
be  
focused.  
When  
the  
selection  
is  
changed  
the  
focused  
item  
is  
changed  
too.

Use  
the  
SelectCount

property  
to  
get  
the  
number  
of  
selected  
items.

Use  
the  
SelectedItem

property  
to  
get  
the  
selected  
item.

Use  
the  
SelectItem  
to  
select  
or  
unselect  
a

specified item.  
If the control supports only single selection, you can use the FocusItem property to get the selected/focused item because they are always the same.  
Use the [ShowFocusRect](#) property to indicate whether the control draws a marking rectangle around the focused item.

You  
can  
change  
the  
focused  
item,  
by  
selecting  
a  
new  
item  
using  
the  
SelectItem  
method.

If  
the  
items  
is  
not  
selectable,  
it  
is  
not  
focusable  
as  
well.

Use  
the  
SelectableItem  
property  
to  
specify  
whether  
an  
item  
is  
selectable/focusable.

## event

### SelectionChanged

after

a

Type

Description

new

item

Use

has

the

been

SelectionChanged

selected.

For

to

SelectionChanged

event,

/NET

application

that

on:

the

user

Syntax

selects

for

an

SelectionChanged

private

event

That's

COM

version,

use

on:

SelectionChanged(object

property

Syntax

Private

Event

specify

SelectionChanged

private

event,

COM

version

SelectionChanged(ByVal

(others),

an

SelectionChanged(object

sender

The

void

Other

s

imports

On SelectionChanged()

<System.Object>

The

example

showing

VB

vb example

showing

LISP

Specified

"SelectionChanged">

This is grammatically  
incorrect.  
It displays  
the  
example  
showing  
< ?  
SUBROUTINE  
procedure  
sample  
allowing  
LASTLINE  
LANGUAGE="VBScript">  
#  
SelectionChanged(ASender:  
Example  
Following  
Selection  
Me  
Topic;  
Sample  
Prevented  
SelectionChanged()  
procedure  
Me.  
Object  
End  
SelectionChanged(sender:  
SingleSel  
Function  
System.Object;  
end;  
METHOD  
~~ASYNCT~~  
begin  
  
OCX:SelectionChanged()  
Send  
event  
System.EventArgs);  
Supports  
OnComSelectionChanged  
SelectChanged()  
begin  
if  
andDialog  
multiple  
itemProcedure  
Event SelectionChanged()  
RETURN  
Sub  
SelectCount  
Property  
SelectionChanged(ByVal  
function  
private  
Index  
number  
SelectionChanged  
Sub  
As  
selected  
as  
Items.  
SelectionChanged()  
System.Object  
function  
private  
SelectedItem  
Property  
nativeObject\_SelectionChanged()  
Sub  
get  
return  
End  
Sub  
End

the  
selected  
item.

I Use  
LPARAMETERS

SelectItem

to  
select  
or  
unselect

PROCEDURE  
specified  
em.

QJS  
SelectionChanged(oGantt)  
the

FocusItem

RETURN  
property  
to  
get  
the  
focused  
item.

If  
the  
control  
supports  
only  
single  
selection,

you  
can  
use  
the

FocusItem  
property  
to

get  
the  
selected/focused  
item  
because  
they  
are

always  
the  
same.  
Use  
the  
[SelForeColor](#)  
and  
[SelBackColor](#)  
properties  
to  
specify  
colors  
for  
selected  
items.

## property

### ~~Color~~ SelForeColor

as

sets

Type

a  
value  
that  
indicates  
the  
selection Color  
foreground  
color.

Descript

A  
color  
expression  
that  
indicates  
the  
selection  
foreground  
color.

By  
default,  
the  
SelForeColor  
property  
is  
applied  
ONLY  
to  
selected  
items  
being  
displayed  
in  
the  
list  
area.  
Use  
the

SelForeColor

property  
to  
change  
the  
foreground  
color  
of  
selected

items  
being  
displayed  
in  
the  
chart  
area.

Use  
the  
SelForeColor  
and

[SelBackColor](#)

properties  
to  
change  
the  
colors  
used  
for  
selected  
items.

The  
control  
highlights  
the  
selected  
items  
only  
if  
the  
SelBackColor  
and

[BackColor](#)

properties  
have  
different  
values,  
and  
the

SelForeColor  
and

[ForeColor](#)

properties

have  
different  
values.

Use  
the  
[SelectCount](#)

property  
to  
get  
the  
number  
of  
selected  
items.

Use  
the  
[SelectedItem](#)

property  
to  
get  
the  
selected  
item.

Use  
the  
[SelectItem](#)

to  
select  
or  
unselect  
a  
specified  
item.

Use  
the  
[FocusItem](#)

property  
to  
get  
the  
focused  
item.

The

control  
fires  
the  
[SelectionChanged](#)  
event  
when  
user  
changes  
the  
selection.

Use  
the  
[SelectableItem](#)  
property  
to  
specify  
the  
user  
can  
select  
an  
item.

## property

### ~~ControlSelBackColor~~

as

Color	Type	Description
a value that indicates the selection background color.	Color	A color expression that indicates the selection background color. Use the <a href="#">Add</a> method to add new skins to the control. If you need to remove the skin appearance from a part of the control you need to reset

Color

the last 7 bits in the high significant byte of the color being applied to the background part.

By default, the `Color` property applies sample `White` to the background. The following sample code changes the sample `White` to `Black`. The sample `new` creates a new `Image` object following the `appleste` template. The `Color` property is set to `#2560`. However, the `Color` property does not support `appleste` styling. It is supported by `appleste` parts.

of **SelectedColor**  
the **Property**.  
**Color**, **Color**  
including 60  
the  
**Item?**  
selected is  
#00000000  
**RedBackColor**  
hexadecimal.  
**Appearance**  
properties  
using  
the **Identifier**  
and  
the **Color**,  
also  
being  
selected  
items.  
**The**  
**Appearance**  
**LightColors**  
is  
the  
selected  
items  
they  
**RedBackColor**  
significant  
**RedBackColor**  
indicates  
**Property** or  
properties  
have  
different  
types,  
that  
the  
**ForeColor**  
and  
**KnownColor**  
The  
Properties  
have  
**SpelunkColor**

the property  
changes  
the  
Background  
property  
for  
Selected  
item(s):  
selected  
item  
This  
is selected  
items.  
Use  
the  
SelectedItem  
property  
to  
get  
the  
selected  
item  
to  
change  
SelectItem  
to usual  
appearance  
for  
the select  
selected  
specified  
item.  
Use  
the means  
Changing  
property  
background  
get or  
the  
be used  
selected  
item.  
Control  
files

following

CollectionChanged

event

when

use

changes

the changes

the selection.

disappearance

the

be

SelectableItem

property

item:

specify

the

Please

the

select

this

code

say "Open

File

New Project

Code

New Project

Save

Save

Save As

Save All

File

Project

Properties

Toolbox

Component

Value

Value

Short Name

You Used

Not Perfect

Wait

Show Menu

Specified

Add

Component

Value

specifications.  
that encompasses  
the enhanced,  
SelfSkin color  
property and  
the picture  
file and  
then background  
skin selected  
it is inclusion.  
by selected,  
to change  
the black  
the others.  
visual background.  
RGB(0,0,0).  
file  
the  
Selected  
path  
After  
position  
hatice  
selected  
then  
Skin.  
Value  
that  
skinned  
made  
indeed  
that  
significant  
file,  
motor.  
Example,  
Appearance  
position,  
for  
enhance,  
the 00000000,  
following  
sample

appearance  
followed  
parts  
skin  
when  
displaying  
that  
sets  
skinning.  
**Usually**  
**the**ans  
**properties**  
**that**  
**changes**t  
**the**e  
**background**  
**color**  
**for**or  
**a**xpression.  
**part**'  
**of**  
**the**  
**control**,  
**supports**  
**skinning**  
**as**en  
**well.**  
how  
we  
are  
creating  
skins?  
or  
EBN  
files?  
The  
Exontral's  
[exbutton](#)  
component  
includes  
a  
builder

tool  
that  
saves  
skins  
to  
EBN  
files.  
So,  
if  
you  
want  
to  
create  
new  
skin  
files,  
you  
need  
to  
download  
and  
install  
the  
exbutton  
component  
from  
our  
web  
site.  
Once  
that  
the  
exbutton  
component  
is  
installed,  
please  
follow  
the  
steps.

## property

Stems>SelectableItem(Item

whether

as

HITEM) Type

user

as

Boolean

select

the

item.

Item as HITEM

Boolean

Descript

A long expression that indicates the handle of the item being selectab

A boolean expression that specifies whether the item is selectab

By default, all items are selectable, excepts the locked items that are not selectable.

A

selectable  
item  
is  
an  
item  
that  
user  
can  
select  
using  
the  
keys  
or  
the  
mouse.

The  
SelectableItem  
property  
specifies  
whether  
the  
user  
can  
select  
an  
item.

The  
SelectableItem  
property  
doesn't  
change  
the  
item's  
appearance.

The  
[LockedItemCount](#)  
property  
specifies  
the  
number  
of  
locked  
items

to  
the  
top  
or  
bottom  
side  
of  
the  
control.

Use  
the

**ItemDivider**

property  
to  
define  
a  
divider  
item.

Use  
the

**ItemForeColor**

property  
to  
specify  
the  
item's  
foreground  
color.

Use  
the

**ItemBackColor**

property  
to  
specify  
the  
item's  
background  
color.

Use  
the

**ItemFont**,

**ItemBold**,

**ItemItalic**,

[ItemUnderline](#)

or

[ItemStrikeOut](#)

property  
to  
assign  
a  
different  
font  
to  
the  
item.

Use  
the

[EnableItem](#)

property  
to  
disable  
an  
item.

A  
disabled  
item  
looks  
grayed,  
but  
it  
is  
selectable.

For  
instance,  
the  
user  
can't  
change  
the  
check  
box  
state  
in  
a  
disabled  
item.

Use  
the  
[SelectItem](#)

property  
to  
select  
an  
item.

The  
[ItemFromPoint](#)

property  
gets  
the  
item  
from  
point.

For  
instance,

if  
the  
user  
clicks  
a  
non  
selectable  
item  
the

[SelectionChanged](#)

event  
is  
not  
fired.

A  
non  
selectable  
item  
is  
not  
focusable  
as  
well.

It  
means

that  
if  
the  
incremental  
searching  
is  
on,  
the  
non  
selectable  
items  
are  
ignored.

Use  
the

[SelectCount](#)

property  
to  
get  
the  
number  
of  
selected  
items.

Use  
the

[SelForeColor](#)

and

[SelBackColor](#)

properties  
to  
customize  
the  
colors  
for  
selected  
items.

•

The  
following  
VB  
sample  
following

akes  
belowing  
valuetable  
The  
temple  
following  
selectable  
the  
temple  
following  
selectable  
ypes  
visible  
not  
sample  
selectable  
names  
visible  
not  
item:  
first  
selectable  
visible  
the  
item:  
first  
visible  
item:

## property

### CanFullRowSelect

false

#### Boolean Type

selection

in

the

control.

Boolean

#### Description

A boolean expression that indicates whether the control supports full-row selection.

The FullRowSelect property specifies whether the selection spans the entire width of the control.

The column pointed by the

#### SelectColumnIndex

specifies the column where the

selected

cell

is

marked.

Use

the

[SelectItem](#)

property

to

select

programmatically

an

item.

Use

the

[SingleSel](#)

property

to

allow

multiple

items

selection.

## property

### Items.SelectPos

items

as

Variant Type

position.

Description

A long expression that indicates the position of item being selected or a safe array that holds a collection of position of items being selected

Variant

Use  
the  
SelectPos  
property  
to  
select  
items  
by  
position.

Use  
the  
[SelectItem](#)

property  
to  
select  
an  
item  
giving  
its  
handle.

The  
SelectPos  
property  
selects  
an  
item  
giving  
its  
general  
position.

The  
[ItemPosition](#)  
property  
gives  
the  
relative  
position,  
or  
the  
position  
of  
the  
item  
in  
the  
child  
items  
collection.

The  
following  
VB  
The  
sample  
following  
selects  
The  
sample  
following

Selects  
following  
item(s)  
The  
sample  
following  
first(s):  
the  
item  
sample  
following  
item(s):  
the  
item  
sample  
item(s):  
the  
item  
control:  
first  
the  
item  
control:  
in  
the  
control:

## method

### Items.EnsureVisibleItem

item

given

Type

HITEM)

is  
in  
the  
visible  
client  
area.

Item as HITEM

Description

A long expression that indicates the item's handle that fits the client area.

The  
Method  
following  
expand  
The  
parent  
following  
items  
Edit

that  
sample  
EnsuresVisibleItem

Method

that  
sample

following

first res

VISIBLE

then  
settings

following

different

VISIBLE.

then  
sample

that  
ensures

VISIBLE.

that

is  
first

visible:

item

Use

is  
the

visible:

IsItemVisible

to

check

if

an item fits the control's client area. Use the

[Scroll](#)

method to scroll programmatically the control.

Use the

[EnsureVisibleColumn](#)

method to ensure that a specified column fits the control's client area.

## method

### Columns.Remove

#### a(Index

Removes a specific member from the Columns collection.

Type

Description

Variant)

A long expression that indicates the column's index, or a string expression that indicates the column's caption or the column's key.

Index as Variant

The Remove method removes a specific column in the Columns collection.

Use

[Clear](#)

method to remove

all  
Column  
objects.

The

[RemoveColumn](#)

event

is

fired

when

a  
column

is

about

to

be

removed.

Use

the

[Visible](#)

property

to

hide

a

column.

## property

### Column.Visible

• Returns

as

Boolean Type

a value indicating whether the column is visible or hidden.

Boolean

Descript

A boolean expression indicating whether the column is visible or hidden.

Use the Visible property to hide a column.

Use the [Width](#) property to resize the column.

The [ColumnAutoResize](#)

property specifies whether the visible columns fit the

control's  
client  
area.

Use  
the

### Position

property  
to  
specify  
the  
column's  
position.

Use  
the

### HeaderVisible

property  
to  
show  
or  
hide  
the  
control's  
header  
bar.

Use  
the

### ColumnFromPoint

property  
to  
get  
the  
column  
from  
point.

Use  
the

### Remove

method  
to  
remove  
a  
column.

## method

### AddGantt.PutItems

#### • **Items**

as

Type

Description

array  
of  
**Variant**,  
integer,  
[Parent  
long,  
date,  
string,  
double,  
float,  
or  
variant  
arrays  
to  
the  
control

An array that control uses to fill with. The array can be one or two-dimensional. If the array is one-dimensional the control requires one column being added before calling the PutItems method. If the Items parameter

Items as Variant

indicates  
a  
two-  
dimensional  
array,  
the  
first  
dimension  
defines  
the  
columns,  
while  
the  
second  
defines  
the  
number  
of  
items  
to  
be  
loaded.  
For  
instance,  
`a(2,100)`  
means  
2  
columns  
and  
100  
items.

A  
long  
expression  
that  
specifies  
the  
handle  
of  
the  
item  
where  
the

## Parent as Variant

array  
is  
being  
inserted,  
or  
0  
if  
missing.

The  
The  
following  
loads  
items  
of  
sample  
similar  
loads  
For  
same  
NET  
following  
Assembly  
They  
version:  
Parent  
sample  
parameter  
similar  
loads  
single  
the  
return  
following  
Assembly  
version:  
part  
specifies  
sample  
following  
loads  
value  
control  
the  
sample  
following  
status  
items  
where  
sample  
following  
loads  
They  
sample  
uses  
this  
reset  
the  
#import  
statement  
to  
use  
import  
ADODB  
recordset's

typesens  
library.d:  
The wing  
sample  
enumerates  
theh  
fields  
inems  
the  
recordset  
andtrol.  
adds  
ane  
newis  
columny  
for  
eachss  
field  
found.  
Also,ction.  
thee  
sample  
usestem  
thethod  
GetRows  
method  
ofms  
the  
ADODB  
recordset  
tose  
retrieves  
multipleurce  
recordsy  
of  
aind  
Recordset  
objectl  
into  
an  
safe)  
array.  
Please

consultset.  
the  
ADODB  
documentation:[size](#)  
forproperty  
the  
GetRows  
property  
specification.  
visible  
columns  
should  
fit  
the  
control's  
client  
area.  
Use  
the  
[ConditionalFormats](#)  
method  
to  
apply  
formats  
to  
a  
cell  
or  
range  
of  
cells,  
and  
have  
that  
formatting  
change  
depending  
on  
the  
value  
of  
the  
cell

or  
the  
value  
of  
a  
formula.

## property

### **CanItDetectAddNew**

whether

#### **Boolean Type**

control

detects

when

a

new

record

is

added

to

the

bounded Boolean

record

set.

#### Descript

A boolean expression that indicates whether the control detects when a new record is added to the bounded recordset.

The DetectAddNew

property

detects

adding

new

records

to

a

recordset.

Use

the

[DataSource](#)

property

to

bound

the

control

to  
a  
table.  
If  
the  
DetectAddNew  
property  
is  
True,  
and  
user  
adds  
a  
new  
record  
to  
the  
bounded  
recordset,  
the  
control  
automatically  
adds  
a  
new  
item  
to  
the  
control.

The  
DetectAddNew  
property  
has  
effect  
only  
if  
the  
control  
is  
bounded  
to  
an  
ADO,

ADODB  
recordset,  
using  
the  
DataSource  
property.

## property

### CreateConditionalFormats

the

### ConditionalFormats

conditional

formatting

collection.

### [ConditionalFormats](#)

### Descript

A  
Condition  
object  
that  
indicates  
the  
control's  
Condition  
collection

The  
conditional  
formatting  
feature  
allows  
you  
to  
apply  
formats  
to  
a  
cell  
or  
range  
of  
cells,  
and  
have  
that  
formatting  
change  
depending  
on  
the  
value  
of  
the  
cell

or  
the  
value  
of  
a  
formula.

Use  
the

[Add](#)

method  
to  
format  
cells  
or  
items  
based  
on  
a  
formula.

Use  
the

[Refresh](#)  
method  
to  
refresh  
the  
control,  
if  
a  
change  
occurs  
in  
the  
conditional  
format  
collection.

Use  
the

[CellCaption](#)  
property  
indicates  
the  
cell's

caption  
or  
value.

The  
conditio  
from  
feature  
conditio  
may  
the [BarOverviewColor](#)  
[ApplyTo](#) property  
they  
specifies  
and  
other  
items.  
should  
[ConditionalFormat](#)  
followed  
color applies  
is applied  
applies  
to bars,  
to different  
Items in  
using overview  
the portion  
[ConditionalFormat](#)  
feature  
Use control,  
the if  
[ApplyToBars](#)  
property  
conditional  
to expression  
specify  
the accomplished.  
list  
of  
bars  
that  
the  
current  
format  
is  
applied  
to.

## property

### DefaultItemHeight

as

long

Type

Description

a  
value  
that  
indicates  
the  
default  
item  
height.

Long

A  
long  
expression  
indicates  
the  
default  
item  
height.

The  
DefaultItemHeight  
property  
specifies  
the  
height  
of  
the  
items.

Changing  
the  
property  
fails  
if  
the  
control  
contains  
already  
items.

You  
can  
change  
the  
DefaultItemHeight  
property  
at  
design  
time,  
or

at runtime, before adding any new items to the [Items](#) collection.

Use the [ItemHeight](#) property to specify the height of a specified item.

Use the [ScrollBySingleLine](#) property when using the items with different heights.

Use the [CellSingleLine](#) property to specify whether the cell

displays  
the  
caption  
using  
multiple  
lines.

Use  
the

[ItemAllowSizing](#)

property  
to  
specify  
whether  
the  
user  
can  
resize  
the  
item  
at  
runtime.

Use  
the

[Height](#)

property  
to  
specify  
the  
height  
of  
the  
bars.

## method

### Items.SetParent

• Item

as

Type

of

HITEM,

NewParent

given

as

HITEM)

Item as HITEM

Description

A long expression that indicates the handle of the item being moved.

NewParent as HITEM

A long expression that indicates the handle of the new parent item.

• Use the SetParent property to change the parent item at runtime. Use

the

### [InsertItem](#)

property  
to  
insert  
child  
items.

Use  
the

### [InsertControlItem](#)

property  
to  
insert  
ActiveX  
controls.

Use

### [AcceptSetParent](#)

property  
to  
verify  
if  
the  
the  
parent  
of  
an  
item  
can  
be  
changed.

The  
following

VB

sample  
changes  
the  
parent  
item  
of  
the  
first  
item:

Gantt1.Items.SetParent

Gantt1.Items(0),  
Gantt1.Items(1).

Use  
the

[ItemParent](#)

property

to

retrieve

the

parent

of

the

item.

## property

### ItemsCellAlignment

[[Item

sets

Type

Description

a Variant],

A

long

expression

that

that

indicates

Variant]) Item as Variant

identifies

the

item's

handle

as

VAssignmentEnum

A

long

expression

that

indicates

the

column's

index

or

the

cell's

handle,

a

string

expression

that

indicates

the

column's

caption.

CollIndex as Variant

A

VAlignment

expression

that

indicates

the

cell's

vertically

alignmen

[VAlignmentEnum](#)

Use  
the  
[CellVAlignment](#)  
property

to  
specify  
following  
aligns  
vertically  
sample  
aligned  
the .NET  
code  
aligns  
example  
the  
aligns  
not used  
example  
following  
that  
and  
not used  
example  
[CellISingleLine](#)

right  
property  
aligns  
cell:  
the  
specify  
focused  
whether  
cell:  
a

cell  
uses  
single  
or  
multiple  
lines.

Use  
the  
[CellHAlignment](#)

property  
to  
align  
horizontally  
the  
cell.

The  
+/-  
button  
is  
aligned  
accordingly  
to

the  
cell's  
caption.  
Use  
the  
[Def\(exCellVAlignment\)](#)  
property  
to  
specify  
the  
same  
vertical  
alignment  
for  
the  
entire  
column.

## method

### Items.InsertControlItem

#### a(Parent)

new  
item  
as  
HITEM,  
of  
ControlItemID

ActiveX  
type

and  
returns  
as

[License

as  
Variant])

to

the

newly

created

item.

Type

Description

A long expression that indicates the handle of the parent item where the ActiveX will be inserted. If the argument is missing then the InsertControl property inserts the ActiveX control as a root item. If the Parent property

Parent as HITEM

is referring a locked item ( [ItemLoc](#) property ), the InsertCo property doesn't insert a new child ActiveX, instead insert the ActiveX control to the locked item that's specified by the Parent property.

A string expression that can be formatted as follows: a

ControlID as String

prog  
ID,  
a  
CLSID,  
a  
URL,  
a  
reference  
to  
an  
Active  
documen  
, a  
fragment  
of  
HTML.

---

License as Variant

A  
string  
expression  
that  
indicates  
the  
runtime  
license  
key,  
if it  
is  
required.  
An  
empty  
string,  
if  
the  
control  
doesn't  
require  
a  
runtime  
license  
key.

**Return**

**Description**

A long expression that indicates the handle of the newly created item.

## HITEM

Use the **Add** method of the **Item** class to add a new item to the document.

The following code creates a new item and adds it to the document:

```
Dim myItem As New Item("myfile.doc")  
myItem.Content = "This is a test file."  
myItem.Save("C:\temp\myfile.doc")
```

The file is saved in the current directory.

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The file is saved in the current directory.

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```
Dim myItem As New Item("myfile.doc")  
myItem.Content = "This is a test file."  
myItem.Save("C:\temp\myfile.doc")
```

The file is saved in the current directory.

Nextsoft  
step is SCROLL  
insertXs  
If  
addingSCROLL  
**someday**  
the bits  
AddItem  
eventOnScrollID  
**soent**  
handler:  
date  
following  
**ACTIVE**  
linesize  
**components**  
preceded  
**vegl**  
parent.  
**ACTIVE**  
while  
**located**  
BrowserID  
**seperly**  
extinction  
**WINDOWS**  
insease  
**platforms,**  
wanted  
and  
List1.Items.InsertControlItem(  
**me**  
mths://www.exontrol.com")  
**sample**  
won'talent  
**ISNOW**  
addheight  
**WING**  
scrolling  
bars, rated  
**gad**  
so me  
**use** **ACTIVE**  
new  
havenots  
**Microsoft**  
tour  
**RichText**  
**ActivX**  
the mberg  
following:  
**into**  
your  
**Form).**  
type  
dealing  
it  
the  
is  
control's  
recommended  
Runtime  
to  
license  
set  
Key.  
If  
ScrollBySingleLine  
property  
you  
of  
a  
Going  
to  
the

DEMO  
Events  
from  
testigned  
parponents  
goe  
floodt  
theredigh  
to  
yontime  
process  
being  
the  
exact  
same  
model  
used  
in  
VB6  
for  
components  
added  
at  
run  
time  
(  
See  
[ItemOleEvent](#)  
event,  
[OleEvent](#)  
and  
[OleEventParam](#)  
).  
For  
instance,  
when  
an  
ActiveX  
control  
fires  
an  
event,  
the

control  
forwards  
that  
event  
to  
your  
container  
using  
ItemOleEvent  
event  
of  
the  
exGantt  
control.

Use  
the

### ItemObject

property  
to  
access  
the  
object  
being  
created  
by  
the  
InsertControlItem  
property.

Use  
the

### ItemHeight

property  
to  
specify  
the  
height  
of  
the  
item  
when  
containing  
an  
ActiveX

control.  
Use  
the  
[ItemWidth](#)  
property  
to  
specify  
the  
width  
of  
the  
ActiveX  
control.  
Use  
the  
[BeginUpdate](#)  
and  
[EndUpdate](#)  
methods  
to  
update  
the  
control's  
content  
when  
adding  
ActiveX  
controls  
on  
the  
fly.  
Use  
the  
[ItemControlID](#)  
property  
to  
retrieve  
the  
control's  
identifier.

## property

Items CellData([Item

as

Variant], Type

[ColIndex

extra

as

data

Variant])

for

as

a Variant Item as Variant

specific

cell.

Description

A long expression that indicates the item's handle.

A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.

A variant expression that indicates the cell's user data.

ColIndex as Variant

Variant

Use  
Note:  
CellData  
tell  
associate  
the  
intersection  
data  
to  
your  
cell  
with  
use  
**ColumnData**  
When  
properties  
that  
has  
associate  
item  
extra  
data  
WithIndex  
parameters  
item.  
item.  
Referring  
CellData  
value  
cell.  
The  
used  
parameter  
represents  
the  
control,  
Handle  
is  
only  
from,  
under  
the.  
WithIndex  
the  
**Data**  
property

index  
assign  
an  
numerical  
data,  
see  
Column.Index  
property

Use  
the

### [SortUserData](#)

column  
[SortUserDataString](#)

type  
column's

caption

the  
column

string  
value,

see

CellDataCaption  
property

Use  
the

### [CellCaption](#)

property  
to

specify  
the

cell's  
caption.

ItemCell  
property

).

Here's

few  
hints

how  
to

use  
properties

with

Item  
and  
CollIndex  
parameters:

## property

String CellCaptionFormat([Item

• how

as Variant], Type

[ColIndex

caption

as

Variant])

displayed:

as

Item as Variant

**CaptionFormatEnum**

Descripti

A long expression that indicates the item's handle.

A long expression that indicates the column's index or cell's handle, or a string expression that specifies the column's caption

A CaptionFormatEnum expression that defines the way how the

ColIndex as Variant

[CaptionFormatEnum](#)

cell's  
caption  
is  
displayed

The component supports built-in HTML format. That means that you can use HTML tags when displays the cell's caption.

By default, the CellCaptionFormat property is exText.

If the CellCaptionFormat is exText, the cell displays the [CellCaption](#)

property  
like  
it  
is.  
If  
the  
CellCaptionFormat  
is  
exHTML,  
the  
cell  
displays  
the  
CellCaption  
property  
using  
the  
HTML  
tags  
specified  
in  
the  
CaptionFormatEnum  
type.  
If  
the  
CellCaptionFormat  
property  
is  
exComputedField,  
the  
CellCaption  
property  
indicates  
the  
formula  
to  
calculate  
the  
cell,  
based  
on  
the

other  
cells.  
Use  
the  
[Def](#)  
property  
to  
specify  
that  
all  
cells  
in  
the  
column  
display  
HTML  
format.

Use  
[ItemBold](#),  
[ItemItalic](#),  
[ItemUnderline](#)  
or  
[ItemStrikeOut](#)  
property  
to  
apply  
different  
font  
attributes  
to  
the  
item.

Use  
the  
[CellItalic](#),  
[CellUnderline](#),  
[CellBold](#)  
or  
[CellStrikeOut](#)  
property  
to  
apply  
different

font  
attributes  
to  
the  
cell.

Use  
the

[FormatColumn](#)

property

to

format

the

column.

## property

### Items.ItemData(Item)

Returns

as

HITEM) Type

the

extra

Variant

data

for

a

specific

item.

Item as HITEM

Description

A long expression that indicates the item's handle that has associated some extra data.

A variant value that indicates the item's extra data.

Variant

Use the ItemData property to assign an extra value to an item. Use

## CellData

property  
to  
associate  
an  
extra  
data  
with  
a  
cell.

The  
ItemData  
and  
CellData  
are  
of  
Variant  
type,  
so  
you  
will  
be  
able  
to  
save  
here  
what  
ever  
you  
want:  
numbers,  
objects,  
strings,  
and  
so  
on.

The  
user  
data  
is  
only  
for  
user

use.  
The  
control  
doesn't  
use  
this  
value.

Use  
the  
[Data](#)  
property  
to  
assign  
an  
extra  
data  
to  
a  
column.

For  
instance,  
you  
can  
use  
the

[RemoveItem](#)  
event  
to  
release  
any  
extra  
data  
that  
is  
associated  
to  
the  
item.

## Column

### Object

ExGantt

component **Name**

supports

multiple

columns.

The

Columns

object

contains

[Alignment](#)

a

collection

of

Column

objects.

By

default,

the

control

doesn't

add

any

default

column,

so

[AllowDragging](#)

the

user

has

to

add

at

least

one

column,

before

inserting

any

new

items.

The

Column

object

### Description

Retrieves or sets the alignment of the caption into the column's header.

Retrieves or sets a value indicating whether the user will be able to drag the column.

Retrieves or sets a value indicating whether the user

will  
be  
able  
to  
change  
the  
width  
of  
the  
visible  
columns  
by  
dragging

Returns  
or  
sets  
a  
value  
that  
indicates  
whether  
the  
user  
can  
sort  
the  
column  
by  
clicking  
the  
column's  
header.

Specifies  
the  
kind  
of  
searching  
while  
user  
types  
characte  
within

holds  
information [AllowSizing](#)  
about  
a  
control's  
column  
like:  
Alignment,  
Caption,  
Position  
and  
so  
on.

---

The  
Column  
object  
supports  
the  
following  
properties  
and  
methods:

[AllowSort](#)

[AutoSearch](#)

the  
columns.

---

Computes  
the  
column's  
width  
required  
to  
fit  
the  
entire  
column's  
content.

---

Retrieves  
or  
sets  
the  
text  
displayed  
to  
the  
column's  
header.

---

Retrieves  
or  
sets  
a  
value  
that  
indicates  
the  
formula  
of  
the  
compute  
column.

---

Retrieves  
or  
sets  
a  
value  
that

## [AutoWidth](#)

## [Caption](#)

## [ComputedField](#)

## CustomFilter

indicates the list of custom filters.

## Data

Associates an extra data to the column.

## Def

Retrieves or sets a value that indicates the default value of given properties for all cells in the same column.

## DefaultSortOrder

Specifies whether the default sort order is ascending.

or  
descend

---

Shows  
or  
hides  
the  
expandir  
button  
in  
the  
column's  
header.

---

Specifies  
whether  
the  
column's  
header  
displays  
the  
filter  
button.

---

Specifies  
whether  
the  
drop  
down  
filter  
window  
displays  
a  
date  
selector  
to  
specify  
the  
interval  
dates  
to  
filter  
for.

[DisplayExpandButton](#)

[DisplayFilterButton](#)

[DisplayFilterDate](#)

Specifies

whether  
the  
dropdown  
filter  
bar  
contains  
a  
textbox  
for  
editing  
the  
filter  
as  
pattern.

---

Retrieves  
or  
sets  
a  
value  
indicating  
whether  
the  
sort  
icon  
is  
visible  
on  
column's  
header,  
while  
the  
column  
is  
sorted.

Returns  
or  
sets  
a  
value  
that  
determines  
whether

## [DisplayFilterPattern](#)

## [DisplaySortIcon](#)

## Enabled

a column's header can respond to user-generated events.

---

## ExpandColumns

Specifies the list of columns to be shown when the current column is expanded.

---

## Expanded

Expands or collapses the column.

---

## Filter

Specifies the column's filter when filter type is exFilter, exPatter or exDate.

Specifies

the width of the drop down filter window proportionally with the width of the column.

---

Specifies whether the drop down filter list includes visible or all items.

---

Filters the column as user types characters in the drop down filter window.

Specifies the

### FilterBarDropDownWidth

### FilterList

### FilterOnType

## FilterType

column's filter type.

## FireFormatColumn

Retrieves or sets a value that indicates whether the control fires FormatC to format the caption of a cell hosted by column.

## FormatColumn

Specifies the format to display the cells in the column.

## HeaderAlignment

Specifies the alignment of the column's caption.

Retrieves or sets a value that indicates whether the column's caption should appear in bold.

---

### [HeaderBold](#)

Retrieves or sets a value indicating the index of an Image in the Images collection which is displayed to the column's header.

### [HeaderImage](#)

Retrieves or sets the

alignmer  
of  
the  
image  
into  
the  
column's  
header.

---

Retrieves  
or  
sets  
a  
value  
that  
indicates  
whether  
the  
column's  
caption  
should  
appear  
in  
italic.

---

Retrieves  
or  
sets  
a  
value  
that  
indicates  
whether  
the  
column's  
caption  
should  
appear  
in  
strikeout

---

Retrieves  
or  
sets  
a

## [HeaderImageAlignment](#)

### [HeaderItalic](#)

### [HeaderStrikeOut](#)

value  
that  
indicates  
whether  
the  
column's  
caption  
should  
appear  
in  
underline

---

## HeaderUnderline

Retrieves  
or  
sets  
the  
text  
in  
HTML  
format  
displayed  
in  
the  
column's  
header.

---

## HTMLCaption

Returns  
a  
value  
that  
represents  
the  
index  
of  
an  
object  
in  
a  
collection

---

## Index

Retrieves  
or  
sets  
the

---

## Key

column's key.

---

### LevelKey

Retrieves or sets a value that indicates the key of the column's level.

---

### MaxWidthAutoResize

Retrieves or sets a value that indicates the maximum column's width when the WidthAuto is True.

### MinWidthAutoResize

width  
when  
the  
WidthAuto  
is  
True.

---

### PartialCheck

Specifies  
whether  
the  
column  
supports  
partial  
check  
feature.

---

### Position

Retrieves  
or  
sets  
a  
value  
that  
indicates  
the  
position  
of  
the  
column  
in  
the  
header  
bar  
area.

---

### ShowFilter

Shows  
the  
column's  
filter  
window.

---

### SortOrder

Specifies  
the  
column's  
sort  
order.

Returns  
or  
sets  
a  
value  
that  
indicates  
the  
position  
of  
the  
column  
in  
the  
sorting  
columns  
collection

---

### SortPosition

Returns  
or  
sets  
a  
value  
that  
indicates  
the  
way  
a  
control  
sorts  
the  
values  
for  
a  
column.

---

### SortType

Specifies  
the  
column's  
tooltip  
description

---

### ToolTip

Retrieves  
or  
sets

a value indicating whether the column is visible or hidden.

---

Retrieves or sets the column's width.

---

Retrieves or sets a value that indicates whether the column is

WidthAutoResize automatically resized according to the width of the contents within the column.

Visible

Width

## method

### Items.AddItem

#### • a([Caption

new item, Type

Variant])

and  
returns  
a  
handle  
to  
the  
newly  
created  
item.

Caption as Variant

Descripti

A  
string  
expression  
that  
indicates  
the  
cell's  
caption  
for  
the  
first  
column.  
or  
a  
safe  
array  
that  
contains  
the  
captions  
for  
each  
column.  
The  
Caption  
accepts  
HTML  
format,  
if  
the  
[CellCapt](#)  
property  
is  
exHTML.

Return

Descripti

A

long expression that indicates the handle of the newly created item.

## HITEM

Use the [AddItem](#) method property to add items using columns. The [PutItems](#) example, following control contains the equivalent code. It adds new items, then adds them to the collection, adds a new property item to the collection, and then adds the [AddItem](#) control items to the [PutItems](#) sample. The following shows:

control.  
contains  
there  
[HeaderBar](#)  
method  
to column  
as a  
thus  
[CellCaption](#)  
property  
item.  
The  
thus  
add's  
options.  
shown  
there  
the  
obart  
columns  
[AddItem](#)  
the method  
[FalseWidth](#)  
property  
to  
specify  
the  
width  
of  
the  
chart.  
Use  
[InsertItem](#)  
method  
to  
insert  
child  
items  
to  
the  
list.  
Use  
the

## [InsertControlItem](#)

property  
to  
insert  
and  
ActiveX  
control.

Use  
the

## [LockedItemCount](#)

property  
to  
add  
or  
remove  
items  
locked  
to  
the  
top  
or  
bottom  
side  
of  
the  
control. Use  
the

## [MergeCells](#)

method  
to  
combine  
two  
or  
multiple  
cells  
in  
a  
single  
cell. Use  
the

## [SplitCell](#)

property  
to

split  
a  
cell. Use  
the  
[BeginUpdate](#)  
and  
[EndUpdate](#)  
methods  
to  
maintain  
performance  
while  
adding  
new  
columns  
and  
items. Use  
the  
[ConditionalFormats](#)  
method  
to  
apply  
formats  
to  
a  
cell  
or  
range  
of  
cells,  
and  
have  
that  
formatting  
change  
depending  
on  
the  
value  
of  
the  
cell  
or

the  
value  
of  
a  
formula.

Use  
the  
[LoadXML/SaveXML](#)

methods  
to  
load/save  
the  
control's  
data  
from/to  
XML  
files.

## property

### Stems.SplitCell

a([Item

cell,

and

Variant],

[ColIndex

the

as

Variant])

as

**Variant**

Type

Description

A long expression that indicates the handle of the item where a cell is being divided, or 0. If the Item parameter is 0, the ColIndex parameter must indicate the handle of the cell.

Item as Variant

A long expression

that indicates the index of the column where a cell is divided, or a long expression that indicates the handle of the cell being divided, if the Item parameter is missing or it is zero.

## ColIndex as Variant

Variant

A long expression that indicates the handle of

the  
cell  
being  
created.

- The SplitCell method splits a cell in two cells.

- The newly created cell is called inner cell.

- The SplitCell method always returns the handle of the inner cell.

- If the cell is already divided using the SplitCell

method,  
it  
returns  
the  
handle  
of  
the  
inner  
cell  
without  
creating  
a  
new  
inner  
cell.  
You  
can  
split  
an  
inner  
cell  
too,  
and  
so  
you  
can  
have  
a  
master  
cell  
divided  
in  
multiple  
cells.  
Use  
the  
[CellWidth](#)  
property  
to  
specify  
the  
width  
of

the  
inner  
cell.

Use  
the

[CellCaption](#)

property

to

assign

a

caption

to

a

cell.

Use

the

[InnerCell](#)

property

to

access

an

inner

cell

giving

its

index.

Use

the

[CellParent](#)

property

to

get

the

parent

of

the

inner

cell.

Use

the

[CellItem](#)

property

to

get  
the  
owner  
of  
the  
cell.  
Use  
the  
[UnsplitCell](#)  
method  
to  
remove  
the  
inner  
cell  
if  
it  
exists.  
Use  
the  
[MergeCells](#)  
property  
to  
combine  
two  
or  
more  
cells  
in  
a  
single  
cell.  
Use  
the  
[SelectableItem](#)  
property  
to  
specify  
the  
user  
can  
select  
an

item.  
Include  
the  
exIncludeInnerCells  
flag  
in  
the  
[FilterList](#)  
property  
and  
so  
the  
drop  
down  
filter  
window  
lists  
the  
inner  
cells  
too.

(  
"Merge"  
means  
multiple  
cells  
The  
sample  
following  
splits  
the  
single  
sample  
following  
six  
NET  
example  
the  
sample  
following  
multiple  
visible  
cells  
sample  
following  
visible  
before  
sample  
single  
cells  
visible  
the  
two  
following  
cells:  
sample,  
visible  
cell  
make  
in

Since  
that's:  
your  
control  
contains  
columns,  
and  
at  
least  
an  
item  
):

## property

### Column.ComputedField

as

Type	Description
String	A String expression that indicates the formula of the computed column.

String

A

computed  
field

or  
cell  
displays  
the  
result  
of  
an  
arithmetic  
formula  
that  
may  
include  
operators,  
variables  
and  
constants.

By  
default,  
the  
ComputedField  
property  
is  
empty.

If  
the  
the  
ComputedField  
property  
is  
empty,  
the  
property  
have  
no  
effect.

If  
the  
ComputedField  
property  
is  
not  
empty,  
all

cells  
in  
the  
column,  
that  
have  
the  
[CellCaptionFormat](#)  
property  
on  
exText,  
uses  
the  
same  
formula  
to  
display  
their  
content.  
For  
instance,  
you  
can  
use  
the  
CellCaptionFormat  
property  
on  
exHTML,  
for  
cells  
in  
the  
column,  
that  
need  
to  
display  
other  
things  
than  
column's  
formula,

or  
you  
can  
use  
the  
CellCaptionFormat  
property  
on  
exComputedField,  
to  
change  
the  
formula  
for  
a  
particular  
cell.

Use  
the

### [FormatColumn](#)

property  
to  
format  
the  
column.

Use  
the

CellCaptionFormat  
property  
to  
change  
the  
type  
for  
a  
particular  
cell.

Use  
the

### [CellCaption](#)

property  
to  
specify

the  
cell's  
content.  
For  
instance,  
if  
the  
CellCaptionFormat  
property  
is  
exComputedField,  
the  
Caption  
property  
indicates  
the  
formula  
to  
compute  
the  
cell's  
content.

The  
Def(exCellCaptionFormat)  
property  
is  
changed  
to  
exComputedField,  
each  
time  
the  
ComputeField  
property  
is  
changed  
to  
a  
not  
empty  
value.  
If  
the

ComputedField  
property  
is  
set  
to  
an  
empty  
string,  
the  
[Def](#)(exCellCaptionFormat)  
property  
is  
set  
to  
exText.  
Call  
the  
[Refresh](#)  
method  
to  
force  
refreshing  
the  
control.

*The  
expression  
\$t1%0;  
samples:  
sample 1  
predicad  
and  
operator  
as  
desc  
here  
= initializing  
displays  
0 hours/  
?ound(24\*  
"date(%1)-  
.late(%2)  
:MMETIC  
str(:1)  
+oor(date(%1)-  
simply/blank*

```
'date(%2)))  
day(s')  
+1" tends.  
(represents.  
3:=round(24*  
(=:0-teen  
floor(:0)))  
?args  
?property  
(len(:2)  
?args  
?re  
?no  
?cell's  
?sums  
and  
?is  
?or  
?mrd  
:instance,  
?no  
")?0  
?with  
+formats  
?units.  
=:3  
+formats  
'he  
hour(s')  
:on  
"?e  
)?"/  
displays  
the  
interval  
between  
two  
dates  
current  
as  
regional  
x  
setting,  
day(s)  
while  
[and  
"int(%1)"  
y  
converts  
hour(s)],  
the  
where  
value  
the  
of  
x  
the  
indicates  
column  
the  
with  
number  
the  
of
```

index  
and  
to  
the integer.  
number  
of  
hours.  
The  
hour  
part  
is  
missing,  
if  
0  
hours  
is  
displayed,  
or  
nothing  
is  
displayed  
if  
dates  
are  
identical.

## property

### Gantt.BackColorLock

as

Color

Type

Description

a  
value  
that  
indicates  
the  
control's  
background  
color      Color  
for  
the  
locked  
area.

A  
boolean  
expression  
that  
indicates  
the  
control's  
background  
color  
for  
the  
locked  
area.

The  
ExGantt  
ActiveX  
Control  
can  
group  
the  
columns  
into  
two  
categories:  
locked  
and  
unlocked.

The  
Locked  
category  
contains  
all  
the  
columns  
that  
are  
fixed

to  
the  
left  
area  
of  
the  
client  
area.

These  
columns  
cannot  
be  
scrolled  
horizontally.

Use  
the  
[CountLockedColumns](#)  
to  
specify  
the  
number  
of  
locked  
columns.

The  
unlocked  
are  
contains  
the  
columns  
that  
can  
be  
scrolled  
horizontally.

To  
change  
the  
background  
color  
of  
the  
control's

unlocked  
area  
use  
BackColor  
property

## property

Items.CellBackColor([Item

as

Variant], Type

[ColIndex

cell's

as

background

Variant])

as

Color Item as Variant

Description

A long expression that indicates the item's handle.

A long expression that indicates the column's index,

a string expression that indicates the column's caption or the column's key.

A color expression that indicates the cell's background color.

ColIndex as Variant

Color



parameter  
represents  
[the mForeColor](#)  
property  
to  
specify  
them,  
each's  
foreground  
ColorIndex  
parameter  
represents  
[Def\(exCellBackColor\)](#)  
property  
to  
specify  
the numerical  
background  
color  
Column.Index  
property  
cells  
of  
the  
column. Use  
the  
[The ConditionalFormats](#)  
methods  
Caption  
apply  
formats  
String  
value,  
set  
Column.Caption  
property  
of  
cells,  
and  
handle  
that  
formatting  
change

depending  
see  
themCell  
property  
of  
there's  
few  
bints  
the  
value  
use  
properties  
formula.  
Item  
and  
CollIndex  
parameters:

## property

### Gantt.BackColor

• as

Color

Type

Description

a value that indicates the control's background color.

A color expression that indicates the control's background color.

The ExGantt ActiveX Control can group the columns into two categories: locked and unlocked.

The Locked category contains all the columns that are fixed to the left area

of  
the  
client  
area.  
These  
columns  
cannot  
be  
scrolled  
horizontally.

Use  
the  
[CountLockedColumns](#)  
to  
specify  
the  
number  
of  
locked  
columns.

The  
unlocked  
are  
contains  
the  
columns  
that  
can  
be  
scrolled  
horizontally.

To  
change  
the  
background  
color  
of  
the  
control's  
locked  
area  
use  
[BackColorLock](#)

property.

Use

the

[SelBackColor](#)

property

to

specify

the

background

color

for

selected

items.

Use

the

[CellBackColor](#)

property

to

assign

a

different

background

color

for

a

specified

cell.

Use

the

[ItemBackColor](#)

property

to

specify

the

item's

background

color.

Use

the

[BackColorAlternate](#)

property

to

specify

the  
background  
color  
used  
to  
display  
alternate  
items  
in  
the  
control.

Use  
the

### **Picture**

property  
to  
assign  
a  
picture  
to  
the  
control's  
background.

Use  
the

### **BackColor**

property  
to  
specify  
the  
chart's  
background  
color.

## method

### Items.ClearItemBackColor

the  
**Item**

item's

background

color.

Type

**HITEM**

Descripti

A long expression that indicates the item's handle. If the Item is 0, the ClearItemBackColor method clears the background color for all items.

Item as HITEM

The

ClearItemBackColor

method

clears

the

item's

background

color

when

ItemBackColor

property

is

used

(

columns/items

part  
only).

The

[ClearItemBackColor](#)

method

clears

the

item's

background

color

when

[ItemBackColor](#)

property

is

used

(

chart

part

only

).

## property

### ChartItemBackColor(Item)

as

sets  
a  
HITEM) Type

as  
background  
color

for  
a

specific item, Item as HITEM  
in the chart area.

### Description

A long expression that indicates the handle of the item.

A color expression that indicates the item's background color.

The last 7 bits in the high significant byte of the color to indicates the identifier of the

Color

skin  
being  
used.  
Use  
the  
[Add](#)  
method  
to  
add  
new  
skins  
to  
the  
control.  
If  
you  
need  
to  
remove  
the  
skin  
appearan  
from  
a  
part  
of  
the  
control  
you  
need  
to  
reset  
the  
last  
7  
bits  
in  
the  
high  
significan  
byte  
of  
the

color  
being  
applied  
to  
the

By default, the ItemBackColor property is the same as Chart's [BackColor](#) property.

The ItemBackColor property specifies the background or the visual appearance for the item's background on the chart area.

The [ItemBackColor](#) property specifies the item's background

color  
for  
the  
list  
area  
(  
columns  
part  
of  
the  
control  
).  
The

### [ClearItemBackColor](#)

method  
clears  
the  
item's  
background  
on  
the  
chart  
part  
of  
the  
control.

The  
following  
screen  
shot  
shows  
samples  
of changes  
VB.NET  
Chart  
Control  
background  
color  
using  
the  
VB.NET  
ItemBackColor  
property  
of  
the  
chart  
control.

Object:  
for  
COM  
Delphi  
8  
(.NET  
Delphi  
only)  
(standard)

VFP  
  
.

## property

### `Items.ItemDividerLine(Item`

as

type  
of  
line  
in  
the  
divider  
item.

`HITEM`) Type

`as`

`DivideLineEnum`

`Item as HITEM`

`Descript`

A  
long  
expression  
that  
indicates  
the  
item's  
handle.

A  
DivideLi  
exprESSI  
that  
indicates  
the  
type  
of  
the  
line  
in  
the  
divider  
item.

[DivideLineEnum](#)

By  
default,  
the  
ItemDividerLine  
property  
is  
SingleLine.

The  
ItemDividerLine  
property  
specifies  
the  
type  
of  
line

that  
underlines  
a  
divider  
item.

Use  
the  
[ItemDivider](#)

property  
to  
define  
a  
divider  
item.

Use  
the  
ItemDividerLine  
and

[ItemDividerAlignment](#)

properties  
to  
define  
the  
style  
of  
the  
line  
into  
the  
divider  
item.

Use  
the

[CellMerge](#)

property  
to  
merge  
two  
or  
more  
cells.

## property

### Items.ItemCell

• Item

call's

handle  
based  
on  
as  
a  
Variant)

specific  
as  
column.

**HITEM**  
**CollIndex**  
**as**  
**HCELL**

Type

Item as HITEM

Description

A long expression that indicates the item's handle.

A long expression that indicates the column's index or the cell's handle, a string expression that indicates the column's caption.

CollIndex as Variant

A long expression that indicates the handle of the

HCELL

A  
cell  
is  
the  
intersection  
of  
an  
item  
with  
a  
column.

All  
properties  
that  
has  
an  
Item  
and  
a  
CollIndex  
parameters  
are  
referring  
to  
a  
cell.

The  
Item  
parameter  
represents  
the  
handle  
of  
an  
item,  
and  
the  
CollIndex  
parameter  
indicates  
an

index  
(  
a  
numerical  
value,  
see  
Column.Index  
property  
)  
of  
a  
column  
,  
the  
column's  
caption  
(  
a  
string  
value,  
see  
Column.Caption  
property  
,  
or  
a  
handle  
to  
a  
cell.  
Here's  
few  
hints  
how  
to  
use  
properties  
with  
Item  
and  
CollIndex  
parameters:

## property

Items CellMerge([Item

as

Variant], Type

[ColIndex

value

as

Variant])

indicates

the

index

of

the

cell

that's

merged

to.

Item as Variant

## Description

A long expression that indicates the item's handle.

ColIndex as Variant

A long expression that indicates the column's index, a string expression that indicates the column's caption or the column's key.

A long expression that indicates the index of the

## Variant

cell  
that's  
merged  
with,  
a  
safe  
array  
that  
holds  
the  
indexes  
of  
the  
cells  
being  
merged.

- Use the CellMerge property to combine two or more cells in the same item in a single cell. The data of the source cell is displayed

in  
the  
new  
larger  
cell.  
All  
the  
other  
cells'  
data  
is  
not  
lost.  
Use  
the  
[ItemDivider](#)  
property  
to  
display  
a  
single  
cell  
in  
the  
entire  
item  
(  
merging  
all  
cells  
in  
the  
same  
item  
).  
Use  
the  
[UnmergeCells](#)  
method  
to  
unmerge  
the  
merged

cells.  
Use  
the  
CellMerge  
property  
to  
unmerge  
a  
single  
cell. Use  
the

### [MergeCells](#)

method  
to  
combine  
one  
or  
more  
cells  
in  
a  
single  
cell.

Use  
the

### [Add](#)

method  
to  
add  
new  
columns  
to  
the  
control.

Use  
the

### [SplitCell](#)

property  
to  
split  
a  
cell.

You can merge the following first three cells using the same methods following the three sample merging merges. Insert the sample following three cells. Following three sample methods: then either the first three merged cells, or the first three rows of cells now focused to item: the display focused the item: first cell using the space occupied by three cells.

## method

### ItemsUnmergeCells

a([Cell

list  
of  
Variant])  
cells.

Type

Description

A long expression that indicates the handle of the cell being unmerge or a safe array that holds a collection of handles for the cells being unmerge. Use the [ItemCell](#) property to retrieves the handle of the cell.

Cell as Variant

Use  
the  
UnmergeCells  
method  
to  
unmerge  
merged  
cells.

Use  
the  
[MergeCells](#)  
method  
or  
[CellMerge](#)  
property  
to  
combine  
(  
merge  
)  
two  
or  
more  
cells  
in  
a  
single  
one.

The  
UnmergeCells  
method  
unmerges  
all  
the  
cells  
that  
was  
merged.

The  
CellMerge  
property  
unmerges  
only

a single cell. The rest of merged cells remains combined.

The following samples show a few methods to unmerge cells:

## Items

### Object

Items

object contains a collection of items.

Each item is identified by a handle HITEM.

The HITEM is of long type.

Each item contains a collection of cells.

The number of cells is determined by the

number of Column objects in

#### Name

#### Description

Retrieves a value indicating whether the SetParent method can be accomplished.

Adds a bar to an item.

Adds a new item, and returns a handle to the newly created item.

Links a bar to another.

Retrieves

[AcceptSetParent](#)

[AddBar](#)

[AddItem](#)

[AddLink](#)

or  
sets  
the  
cell's  
background  
color.

---

Retrieves  
or  
sets  
a  
value  
that  
indicates  
whether  
the  
cell's  
caption  
should  
appear  
in  
bold.

---

Retrieves  
or  
sets  
a  
value  
indicating  
whether  
the  
cell's  
button  
fits  
the  
cell's  
caption.

---

Retrieves  
or  
sets  
the  
text  
displayed  
on

the  
control.  
To  
access  
the  
Items  
collection  
use  
Items  
property  
of  
the  
control.

Using [CellBackColor](#)

the  
Items  
collection  
you  
can  
add,  
remove  
or  
change  
the  
control  
items.

The  
Items  
collection [CellBold](#)

can  
be  
organized  
as  
a  
hierarchy  
or  
as  
a  
tabular  
data.  
The  
Items  
collection

[CellCaption](#)

a  
specific  
cell.

Specifies  
how  
the  
cell's  
caption  
is  
displayed

Retrieves  
the  
cell's  
handle  
that  
is  
checked  
on  
a  
specific  
radio  
group.

Retrieves  
or  
sets  
the  
extra  
data  
for  
a  
specific  
cell.

Returns  
or  
sets  
a  
value  
that  
determines  
whether  
a  
cell

supports  
the  
following  
properties  
and  
methods:

[CellCaptionFormat](#)

[CellChecked](#)

[CellData](#)

[CellEnabled](#)

can respond to user-generated events.

---

Retrieves or sets the cell's font.

---

Retrieves or sets the cell's foreground color.

---

Retrieves or sets a value that indicates the alignment of the cell's caption.

Retrieves or sets a value indicating whether the cell

### [CellFont](#)

### [CellForeColor](#)

### [CellHAlignment](#)

### [CellHasButton](#)

has  
associat  
a  
push  
button  
or  
not.

---

Retrieves  
or  
sets  
a  
value  
indicating  
whether  
the  
cell  
has  
associat  
a  
checkbox  
or  
not.

---

Retrieves  
or  
sets  
a  
value  
indicating  
whether  
the  
cell  
has  
associat  
a  
radio  
button  
or  
not.

---

### [CellHasCheckBox](#)

Specifies  
whether  
the  
cell's

is highlighted when the cursor mouse is over the cell.

---

Retrieves or sets an Image that is displayed on the cell's area.

---

Specifies an additional list of icons shown in the cell.

Retrieves or sets a value that indicates whether the cell's

## CellHyperLink

## CellImage

## CellImages

## CellItalic

*caption  
should  
appear  
in  
italic.*

---

*Retrieves  
the  
handle  
of  
item  
that  
is  
the  
owner  
of  
a  
specific  
cell.*

---

*Retrieves  
or  
sets  
a  
value  
that  
indicates  
the  
index  
of  
the  
cell  
that's  
merged  
to.*

---

*Retrieves  
the  
parent  
of  
an  
inner  
cell.*

---

### [CellItem](#)

### [CellMerge](#)

### [CellParent](#)

*Retrieves*

or  
sets  
a  
value  
that  
indicates  
the  
Picture  
object  
displayed  
by  
the  
cell.

---

Retrieves  
or  
sets  
a  
value  
that  
indicates  
the  
height  
of  
the  
cell's  
picture.

---

Retrieves  
or  
sets  
a  
value  
that  
indicates  
the  
width  
of  
the  
cell's  
picture.

Retrieves  
or  
sets

### [CellPicture](#)

### [CellPictureHeight](#)

### [CellPictureWidth](#)

## CellRadioGroup

a value indicating the radio group where the cell is contained.

---

## CellSingleLine

Retrieves or sets a value indicating whether the cell's caption is painted using one or more lines.

---

## CellState

Retrieves or sets the cell's state. Has effect only for check and radio cells.

Retrieves or sets a value that indicates whether the cell's caption should appear in strikeout

---

### CellStrikeOut

Retrieves or sets a text that is used to show the tooltip's cell.

### CellToolTip

Retrieves or sets a value that indicates whether the cell's caption should appear in

### CellUnderline

underline  
Retrieves  
or  
sets  
a  
value  
that  
indicates  
how  
the  
cell's  
caption  
is  
vertically  
aligned.

### CellVAlignment

Retrieves  
or  
sets  
a  
value  
that  
indicates  
the  
width  
of  
the  
inner  
cell.

### CellWidth

Retrieves  
the  
number  
of  
children  
items.

### ChildCount

Clears  
the  
bars  
from  
the  
item.

### ClearBars

[ClearCellBackColor](#)

Clears  
the  
cell's  
background  
color.

[ClearCellForeColor](#)

Clears  
the  
cell's  
foreground  
color.

[ClearCellHAlignment](#)

Clears  
the  
cell's  
alignment.

[ClearItemBackColor](#)

Clears  
the  
item's  
background  
color.

[ClearItemForeColor](#)

Clears  
the  
item's  
foreground  
color.

[ClearLinks](#)

Clears  
all  
links  
in  
the  
chart.

[DefaultItem](#)

Retrieves  
or  
sets  
the  
default  
item.

[Edit](#)

Edits  
a  
cell.

Returns or sets a value that determines whether a item can respond to user-generated events.

---

### EnableItem

Ensures the given item is in the visible client area.

---

### EnsureVisibleItem

Expands or collapses the child items of the specified item.

### ExpandItem

Finds an item, looking for Caption

in  
CollIndex  
colum.  
The  
searching  
starts  
at  
StartIndex  
item.

---

Finds  
the  
item  
giving  
its  
data.

---

Finds  
the  
item,  
given  
its  
path.

---

The  
control  
searches  
the  
path  
on  
the  
SearchC  
olumn.

---

Gets  
the  
key  
of  
the  
first  
bar  
in  
the  
item.

Gets

## FindItem

## FindItemData

## FindPath

## FirstItemBar

the  
key  
of  
the  
first  
link.

---

### FirstLink

Retrieves  
the  
handle  
of  
the  
first  
visible  
item  
into  
control.

Retrieves  
the  
handle  
of  
item  
that  
has  
the  
focus.

Specifies  
the  
custom  
format  
to  
display  
the  
cell's  
content.

---

### FocusItem

---

### FormatCell

Returns  
the  
fully  
qualified  
path  
of  
the

reference item in the control. The caption is taken from the column SearchC

---

Retrieves the inner cell.

---

Inserts a new item of ActiveX type, and returns a handle to the newly created item.

Inserts a new item, and returns a handle to

## FullPath

## InnerCell

## InsertControlItem

## InsertItem

the  
newly  
created  
item.

---

Returns  
a  
value  
that  
indicates  
whether  
the  
item  
is  
locked  
or  
unlocked

### IsItemLocked

Checks  
if  
the  
specific  
item  
is  
in  
the  
visible  
client  
area.

### IsItemVisible

Retrieves  
or  
sets  
a  
value  
that  
indicates  
whether  
a  
user  
can  
resize  
the  
item

### ItemAllowSizing

at  
run-  
time.

---

Specifies  
the  
item's  
appearan-  
ce when  
the  
item  
hosts  
an  
ActiveX  
control.

---

Retrieves  
or  
sets  
a  
background  
color  
for  
a  
specific  
item.

---

Gets  
or  
sets  
a  
bar  
property.

---

Retrieves  
or  
sets  
a  
value  
that  
indicates  
whether  
the  
item  
should

### ItemAppearance

### ItemBackColor

### ItemBar

### ItemBold

appear  
in  
**bold**.

---

Retrieves  
the  
handle  
of  
the  
item  
given  
its  
index  
in  
Items  
collection.

---

Retrieves  
the  
cell's  
handle  
based  
on  
a  
specific  
column.

---

Retrieves  
the  
child  
of  
a  
specified  
item.

---

Retrieves  
the  
item's  
control  
identifier  
that  
was  
used  
by  
InsertCo

### [ItemByIndex](#)

### [ItemCell](#)

### [ItemChild](#)

### [ItemControlID](#)

Retrieves  
the  
number  
of  
items.

---

Retrieves  
or  
sets  
the  
extra  
data  
for  
a  
specific  
item.

---

Specifies  
whether  
the  
item  
acts  
like  
a  
divider  
item.

The  
value  
indicates  
the  
index  
of  
column  
used  
to  
define  
the  
divider's  
title.

---

Defines  
the  
type  
of

## ItemCount

## ItemData

## ItemDivider

## ItemDividerLine

line  
in  
the  
divider  
item.

## ItemDividerLineAlignment

Specifies  
the  
alignmen  
of  
the  
line  
in  
the  
divider  
item.

## ItemFont

Retrieves  
or  
sets  
the  
item's  
font.

## ItemForeColor

Retrieves  
or  
sets  
a  
foregrou  
color  
for  
a  
specific  
item.

## ItemHasChildren

Adds  
an  
expand  
button  
to  
left  
side  
of  
the  
item  
even

if  
the  
item  
has  
no  
child  
items.

---

### ItemHeight

Retrieves  
or  
sets  
the  
item's  
height.

---

### ItemItalic

Retrieves  
or  
sets  
a  
value  
that  
indicates  
whether  
the  
item  
should  
appear  
in  
italic.

### ItemMaxHeight

Retrieves  
or  
sets  
a  
value  
that  
indicates  
the  
maximum  
height  
when  
the  
item's  
height

is variable.  
Retrieves or sets a value that indicates the minimum height when the item's height is sizing.

---

### [ItemMinHeight](#)

Retrieves the ActiveX object associated if the item was created using InsertCo method.

---

### [ItemObject](#)

Returns the handle of parent item.

---

### [ItemParent](#)

Retrieves or sets a

### ItemPosition

value  
that  
indicates  
the  
item's  
position  
in  
the  
children  
list.

---

### ItemStrikeOut

Retrieves  
or  
sets  
a  
value  
that  
indicates  
whether  
the  
item  
should  
appear  
in  
strikeout

---

### ItemToIndex

Retrieves  
the  
index  
of  
item  
into  
Items  
collection  
given  
its  
handle.

Retrieves  
or  
sets  
a  
value  
that

## ItemUnderline

indicates whether the item should appear in underline

---

## ItemWidth

Retrieves or sets a value that indicates the item's width while it contains an ActiveX control.

## ItemWindowHost

Retrieves the window's handle that hosts an ActiveX control when the item was created using InsertCo

Retrieves

or  
sets  
a  
value  
that  
indicates  
a  
combinati  
of  
window  
styles  
used  
to  
create  
the  
ActiveX  
window  
host.

---

Retrieves  
the  
handle  
of  
the  
last  
visible  
item.

---

Gets  
or  
sets  
a  
property  
for  
a  
link.

---

Retrieves  
the  
handle  
of  
the  
locked/fi  
item.

### [ItemWindowHostCreateStyle](#)

### [LastVisibleItem](#)

### [Link](#)

### [LockedItem](#)

Specifies  
the  
number  
of  
items  
fixed  
on  
the  
top  
or  
bottom  
side  
of  
the  
control.

---

### LockedItemCount

Retrieves  
the  
number  
of  
items  
that  
match  
the  
filter.

---

### MatchItemCount

Merges  
a  
list  
of  
cells.

---

### MergeCells

Gets  
the  
key  
of  
the  
next  
bar  
in  
the  
item.

---

### NextItemBar

Gets  
the

## [NextLink](#)

key  
of  
the  
next  
link.

---

## [NextSiblingItem](#)

Retrieves  
the  
next  
sibling  
of  
the  
item  
in  
the  
parent's  
child  
list.

---

## [NextVisibleItem](#)

Retrieves  
the  
handle  
of  
next  
visible  
item.

---

## [PathSeparator](#)

Returns  
or  
sets  
the  
delimiter  
character  
used  
for  
the  
path  
returned  
by  
the  
FullPath  
property.

---

Retrieves  
the

previous sibling of the item in the parent's child list.

---

### PrevSiblingItem

Retrieves the handle of previous visible item.

---

### PrevVisibleItem

Removes all items from the control.

---

### RemoveAllItems

Removes a bar from an item.

---

### RemoveBar

Removes a specific item.

---

### RemoveItem

Removes a link.

---

### RemoveLink

Removes the selected items

### RemoveSelection

(including  
the  
descend  
ants)

Retrieves  
the  
number  
of  
root  
objects  
into  
Items  
collection

Retrieves  
the  
handle  
of  
the  
root  
item  
giving  
its  
index  
into  
the  
root  
items  
collection

Specifies  
whether  
the  
user  
can  
select  
the  
item.

Selects  
all  
items.

Retrieves  
the  
handle

## [RootCount](#)

## [RootItem](#)

## [SelectableItem](#)

## [SelectAll](#)

of selected item giving its index in selected items collection

---

Retrieves the selected item's handle given its index in selected items collection

---

Selects or unselects a specific item.

---

Selects items by position.

---

Changes the parent of the given item.

Specifies

## SelectCount

## SelectedItem

## SelectItem

## SelectPos

## SetParent

## SortableItem

whether  
the  
item  
is  
sortable.

---

## SortChildren

Sorts  
the  
child  
items  
of  
the  
given  
parent  
item  
in  
the  
control.  
SortChildren  
will  
not  
recurse  
through  
the  
tree,  
only  
the  
immediate  
children  
of  
Item  
will  
be  
sorted.

## SplitCell

Splits  
a  
cell,  
and  
returns  
the  
inner  
created

cell.  
Unmerge  
a  
list  
of  
cells.

### UnmergeCells

Select  
all  
items.

### UnselectAll

Unsplits  
a  
cell.

### UnsplitCell

Retrieves  
the  
number  
of  
visible  
items.

### VisibleCount

Retrieves  
the  
number  
of  
visible  
items.

### VisibleItemCount

**property**

~~Control~~ **ShowFocusRect**

**as**

**Boolean Type**

a  
value  
indicating  
whether  
the  
control  
draws  
a  
thin  
rectangle  
around  
the  
focused  
item.

Boolean

**Description**

A  
boolean  
expression  
that  
indicates  
whether  
the  
control  
draws  
a  
thin  
rectangle  
around  
the  
focused  
item.

**Use**

the  
**ShowFocusRect**

property  
to  
hide  
the  
rectangle  
drawn  
around  
the  
focused  
item.

The

[\*\*FocusItem\*\*](#)

property  
specifies  
the  
handle  
of  
the

focused item.  
If there is no focused item the FocusItem property retrieves 0.  
At one moment, only one item can be focused.  
When the selection is changed the focused item is changed too.  
Use the [SelectCount](#) property to get the number of selected

items.

Use  
the

[SelectedItem](#)

property

to

get

the

selected

item.

Use

the

[SelectItem](#)

to

select

or

unselect

a

specified

item.

If

the

control

supports

only

single

selection,

you

can

use

the

[FocusItem](#)

property

to

get

the

selected/focused

item

because

they

are

always

the

same.

## property

### ChartSelForeColor

as

sets

**Color** Type

a  
value  
that  
indicates  
the  
selection  
foreground  
color.

Color

Descript

A  
color  
expression  
that  
specifies  
the  
foreground  
color  
for  
selected  
items  
that's  
displayed  
on  
the  
chart  
area.

By default, the SelForeColor property is the same as chart's foreground color that's specified by [ForeColor](#) property of the Chart

object.  
In  
other  
words,  
by  
default,  
the  
chart  
does  
not  
display  
a  
different  
foreground  
color  
for  
selected  
items  
in  
the  
chart  
area.

The  
SelForeColor  
property  
of  
the  
Chart  
object  
changes  
the  
foreground  
for  
the  
selected  
items  
**in  
the  
chart  
area.**  
Use  
the  
SelForeColor

property  
to  
change  
the  
selection  
foreground  
color  
in  
the  
list  
area.  
Use  
the

### SelBackColor

property  
to  
change  
the  
foreground  
color  
of  
the  
selected  
items  
in  
the  
chart  
area.

*The*

### SelForeColor

*property*

*is*

*applied*

*ONLY*

*if*

*the*

### SelForeColor

*property*

*is*

*different*

*that*

*the*

*ForeColor  
property.*

•

## property

### Gantt.ForeColor

as

Color

Type

Description

a  
value  
that  
indicates  
the  
control's  
foreground  
color.

A  
color  
expression  
that  
indicates  
the  
control's  
foreground  
color.

The  
ForeColor  
property  
changes  
the  
foreground  
color  
of  
the  
control's  
scrolled  
area.

The  
ExGantt  
control  
can  
group  
the  
columns  
into  
two  
categories:  
locked  
and  
unlocked.

The  
Locked  
category

contains  
all  
the  
columns  
that  
are  
fixed  
to  
the  
left  
area  
of  
the  
client  
area.

These  
columns  
cannot  
be  
scrolled  
horizontally.

Use  
the

### [CountLockedColumns](#)

to  
specify  
the  
number  
of  
locked  
columns.

The  
unlocked  
are  
contains  
the  
columns  
that  
can  
be  
scrolled  
horizontally.

To

change  
the  
background  
color  
of  
the  
control's  
locked  
area  
use

[BackColorLock](#)

property.

Use  
the

[CellForeColor](#)

property

to  
specify  
the  
cell's  
foreground  
color.

Use  
the

[ItemForeColor](#)

property

to  
specify  
the  
item's  
foreground  
color.

## method

### Appearance.Add

• qID

replaces

Type

a Long,

skin

object

to

the Variant)

control.

as

as

Variant)

control.

ID as Long

Description

A Long expression that indicates the index of the skin being added or replaced. The value must be between 1 and 126, so

Appearance collection should holds no more than 126 elements.

The Skin parameter of the

Add  
method  
can  
a  
STRING  
as  
explained  
below,  
a  
BYTE[]  
/  
safe  
arrays  
of  
VT\_I1  
or  
VT\_UI1  
expression  
that  
indicates  
the  
content  
of  
the  
[EBN](#)  
file.  
You  
can  
use  
the  
BYTE[]  
/  
safe  
arrays  
of  
VT\_I1  
or  
VT\_UI1  
option  
when  
using  
the  
[EBN](#)

## Skin as Variant

file directly in the resource of the project. For instance, the VB6 provides the LoadRes to get the safe array o bytes for specified resource while in VB/.NET or C# the internal class Resource provides definition for all files being inserted. ( Resource

resource  
)

If  
the  
● A  
Skin  
method  
parameter  
points  
to a  
portion  
of a skin  
Description  
String  
Expression  
String  
Boolean  
method  
expressed  
as a star  
that  
indicates  
whether  
the  
control  
uses  
the  
using  
following  
skins:  
VR  
was  
added  
Weight  
or 10  
was  
replaced  
with  
CP  
Or  
the  
control  
is  
the  
method  
in  
it's  
simplest  
form,

## Return

Boolean

Use  
the  
Add  
method  
to  
add  
or  
replace  
skins  
to  
the  
control.  
The  
skin  
method,  
in  
it's  
simplest  
form,

skin  
page  
is:  
"XP  
Start  
Stop  
pane  
tier  
Area  
Defin  
this  
optic  
glas  
nam  
disp  
the  
Skin  
EBN  
The  
the  
Bord  
prosi  
a  
king  
expr  
that  
dash  
the  
paint  
and  
the  
Start  
panie  
the  
"CP  
Left  
Top  
Righ  
Bott  
the  
the  
AD  
know

uses  
a  
single  
graphic  
file  
(\*.ebn)  
assigned  
to  
a  
part  
of  
the  
control.  
By  
using  
a  
collection  
of  
objects  
laid  
over  
the  
graphic,  
it  
is  
possible  
to  
define  
which  
sections  
of  
the  
graphic  
will  
be  
used  
as  
borders,  
corners  
and  
other  
possible  
elements,

fixing them to their proper position regardless of the size of the part.

Use the

### Remove

method to remove a specific skin from the control.

Use the

### Clear

method to remove all skins in the control. Use the

### BeginUpdate

and

### EndUpdate

methods to maintain



CBS\_CHECKED = 2  
CBS\_MIXEDNORMAL = 1  
CBS\_MIXEDHOT = 2  
CBS\_MIXEDPRESSED = 3  
CBS\_MIXEDDISABLED = 4  
GBS\_NORMAL = 1  
GBS\_DISABLED = 2  
PBS\_NORMAL = 1  
= 2 PBS\_PRESSED = 2  
PBS\_DISABLED = 3  
PBS\_DEFAULTED = 4  
RBS\_UNCHECKED = 1  
1 RBS\_UNCHECKED = 2  
RBS\_UNCHECKED = 3  
= 3 RBS\_UNCHECKED = 4  
= 4 RBS\_CHECKED = 5  
5 RBS\_CHECKED = 6  
RBS\_CHECKEDPRESSED = 7  
RBS\_CHECKEDDISABLED = 8  
RBS\_CHECKEDDDI = 9  
the  
CLS\_NORMAL = 1  
CLP\_TIME = 1  
CBXS\_NORMAL = 1  
CBXS\_HOT = 2  
CBXS\_PRESSED = 3  
CBXS\_DISABLED = 4  
EP\_CARET = 2  
EP\_EDITTEXT = 1  
EBP\_HEADERBACKGROUND = 1  
EBP\_HEADERCLOSE = 2  
EBP\_HEADERPIN = 3  
ETS\_NORMAL = 1  
2 ETS\_SELECTED = 2  
ETS\_DISABLED = 3  
ETS\_FOCUSED = 4  
ETS\_READONLY = 5  
ETS\_ASSIST = 6  
ETS\_ASSIST = 7  
ETS\_ASSIST = 8  
ETS\_ASSIST = 9  
ETS\_ASSIST = 10  
EBHC\_NORMAL = 1  
EBHC\_HOT = 2  
EBHC\_PRESSED = 3  
EBHC\_DISABLED = 4  
EBHP\_NORMAL = 1  
EBHP\_HOT = 2  
EBHP\_PRESSED = 3  
EBHP\_DISABLED = 4  
EBHP\_SELECTED = 5  
EBHP\_SELECTED = 6  
EBHP\_SELECTED = 7  
EBHP\_SELECTED = 8  
EBHP\_SELECTED = 9  
EBHP\_SELECTED = 10

test  
the  
selected  
item(s)  
the  
index  
of  
the  
system  
color  
being  
used.  
So,  
we  
use  
the  
last  
7  
bits  
in  
the  
high  
significant

byte **HEADER**

of  
the  
color  
to  
indicates  
the  
identifier

of **LISTVIEW**  
the  
skin  
being  
used.  
So,

since  
the  
7  
bits  
can  
cover

EBP\_IEBARMENU = 4  
EBP\_NORMALGROUPBACKGROUND = 5  
EBP\_NORMALGROUCCOLLAPSE = 6  
EBP\_NORMALGROUPEXPAND = 7  
EBP\_NORMALGROUPHEAD = 8  
EBP\_SPECIALGROUPBACKGROUND = 9  
EBP\_SPECIALGROUPCOLLAPSE = 10  
EBP\_SPECIALGROUPEXPAND = 11  
EBP\_SPECIALGROUPHEAD = 12  
HP\_HEADERITEM = 1  
HP\_HEADERITEMLEFT = 2  
HP\_HEADERITEMRIGHT = 3  
HP\_HEADERSORTARROW = 4  
LVP\_EMPTYTEXT = 5  
LVP\_LISTDETAIL = 3  
LVP\_LISTGROUP = 2  
LVP\_LISTITEM = 1  
LVP\_LISTSORTEDDETAIL = 4

4 EBHP\_SELECT  
EBHP\_SELECTED  
6 on  
EBM\_NORMAL =  
= 2 EBM\_PRESS  
3 pixels  
wide rect  
if DPI  
EBNCG\_NORMAL  
EBNCG\_HOT = 2  
EBNCG\_PRESSED  
EBNGC\_NORMAL  
EBNGC\_HOT = 2  
EBNGC\_PRESSED  
150

EBSGC\_NORMAL  
EBSGC\_HOT = 2  
EBSGC\_PRESSED  
EBSGE\_NORMAL  
EBSGE\_HOT = 2  
EBSGE\_PRESSED

HIS\_NORMAL = 1  
2 HIS\_PRESSED =  
HILS\_NORMAL =  
= 2 HILS\_PRESSED  
HIRS\_NORMAL =  
= 2 HIRS\_PRESSED  
HSAS\_SORTEDUP  
HSAS\_SORTEDDOWN

LIS\_NORMAL = 1  
2 LIS\_SELECTED  
LIS\_DISABLED =  
LIS\_SELECTEDNONE  
5

MS\_NORMAL = 1  
MS\_SELECTED =

127 MENU MP\_MENUBARDROPDOWN = 4 MS\_DEMOTED =  
values,  
excluding  
0,  
we  
have  
126  
possibilities  
to  
store  
an  
identifier  
in  
that  
byte.  
This  
way,  
a  
DWORD  
expression  
indicates  
the **MENUBAND** background  
color  
stored  
in  
RRGGBB **PAGE** MDP\_NEWAPPBUTTON = 1 MDS\_NORMAL =  
format  
and  
the  
index  
of  
the  
skin  
(  
ID  
parameter  
)  
in  
the last **PROGRESS** PGRP\_DOWN = 2 DNS\_NORMAL =  
bits 7 PP\_BAR = 1 MS\_NORMAL = 1  
PP\_BARVERT = 2 MS\_SELECTED =  
PP\_CHUNK = 3 MS\_DEMOTED =  
MP\_MENUBARITEM = 3 MS\_NORMAL = 1  
MP\_CHEVRON = 5 MS\_SELECTED =  
MP\_MENUDropdown = 2 MS\_DEMOTED =  
MP\_MENUITEM = 1 MS\_NORMAL = 1  
MP\_SEPARATOR = 6 MS\_SELECTED =  
MDP\_SEPERATOR = 2 MS\_DEMOTED =  
DNS\_DISABLED =  
DNHZS\_NORMAL =  
DNHZS\_HOT = 2  
DNHZS\_PRESSED =  
DNHZS\_DISABLED =  
UPS\_NORMAL = 1  
= 2 UPS\_PRESSE  
UPS\_DISABLED =  
UPHZS\_NORMAL =  
UPHZS\_HOT = 2  
UPHZS\_PRESSED =  
UPHZS\_DISABLED =

in the **REBAR** high significant byte of the color. For instance, the BackColor = BackColor Or &H2000000 indicates that **SCROLLBAR** we apply the skin with the index 2 using the old color, to the object that BackColor is applied.

PP\_CHUNKVERT = 4  
RP\_BAND = 3  
RP\_CHEVRON = 4  
RP\_CHEVRONVERT = 5  
RP\_GRIPPER = 1  
RP\_GRIPPERVERT = 2  
SBP\_ARROWBTN = 1  
SBP\_GRIPPERHORZ = 8  
SBP\_GRIPPERVERT = 9  
SBP\_LOWERTRACKHORZ = 4  
SBP\_LOWERTRACKVERT = 6  
SBP\_THUMBBTNHORZ = 2  
SBP\_THUMBBTNVERT = 3  
CHEVS\_NORMAL  
CHEVS\_HOT = 2  
CHEVS\_PRESSED  
ABS\_DOWNDISABE  
ABS\_DOWNHOT,  
ABS\_DOWNNORM  
ABS\_DOWNPRES  
ABS\_UPDISABLEI  
ABS\_UPHOT,  
ABS\_UPNORMAL,  
ABS\_UPPRESSED  
ABS\_LEFTDISABL  
ABS\_LEFTHOT,  
ABS\_LEFTNORMA  
ABS\_LEFTPRESS  
ABS\_RIGHTDISAB  
ABS\_RIGHTHOT,  
ABS\_RIGHTNORM  
ABS\_RIGHTPRES  
SCRBS\_NORMAL  
SCRBS\_HOT = 2  
SCRBS\_PRESSED  
SCRBS\_DISABLEI  
SCRBS\_NORMAL  
SCRBS\_HOT = 2  
SCRBS\_PRESSED

	SBP_UPPERTRACKHORZ = 5	SCRBS_DISABLE SCRBS_NORMAL SCRBS_HOT = 2 SCRBS_PRESSED SCRBS_DISABLE
	SBP_UPPERTRACKVERT = 7	SCRBS_NORMAL SCRBS_HOT = 2 SCRBS_PRESSED SCRBS_DISABLE
	SBP_SIZEBOX = 10	SZB_RIGHTALIGN SZB_LEFTALIGN :
<b>SPIN</b>	SPNP_DOWN = 2	DNS_NORMAL = 1 = 2 DNS_PRESSED DNS_DISABLED =
	SPNP_DOWNHORZ = 4	DNHZS_NORMAL DNHZS_HOT = 2 DNHZS_PRESSED DNHZS_DISABLE
	SPNP_UP = 1	UPS_NORMAL = 1 = 2 UPS_PRESSED UPS_DISABLED =
	SPNP_UPHORZ = 3	UPHZS_NORMAL UPHZS_HOT = 2 UPHZS_PRESSED UPHZS_DISABLE
<b>STARTPANEL</b>	SPP_LOGOFF = 8	SPLS_NORMAL =
	SPP_LOGOFFBUTTONS = 9	SPLS_HOT = 2 SPLS_PRESSED :
	SPP_MOREPROGRAMS = 2	
	SPP_MOREPROGRAMSARROW = 3	SPS_NORMAL = 1 = 2 SPS_PRESSED
	SPP_PLACESLIST = 6	
	SPP_PLACESLISTSEPARATOR = 7	
	SPP_PREVIEW = 11	
	SPP_PROGLIST = 4	
	SPP_PROGLISTSEPARATOR = 5	
	SPP_USERPANE = 1	
	SPP_USERPICTURE = 10	
<b>STATUS</b>	SP_GRIPPER = 3	

SP\_PANE = 1  
SP\_GRIPPERPANE = 2  
**TAB**  
TABP\_BODY = 10  
TABP\_PANE = 9  
TABP\_TABITEM = 1  
TABP\_TABITEMBOTHEDGE = 4  
TABP\_TABITEMLEFTEDGE = 2  
TABP\_TABITEMRIGHTEDGE = 3  
TABP\_TOPTABITEM = 5  
TABP\_TOPTABITEMBOTHEDGE = 8  
TABP\_TOPTABITEMLEFTEDGE = 6  
TABP\_TOPTABITEMRIGHTEDGE = 7  
TIS\_NORMAL = 1  
2 TIS\_SELECTED  
TIS\_DISABLED =  
TIS\_FOCUSED =  
TIBES\_NORMAL =  
TIBES\_HOT = 2  
TIBES\_SELECTED  
TIBES\_DISABLED  
TIBES\_FOCUSED  
TILES\_NORMAL =  
TILES\_HOT = 2  
TILES\_SELECTED  
TILES\_DISABLED  
TILES\_FOCUSED  
TIRES\_NORMAL =  
TIRES\_HOT = 2  
TIRES\_SELECTED  
TIRES\_DISABLED  
TIRES\_FOCUSED  
TTIS\_NORMAL =  
= 2 TTIS\_SELECT  
TTIS\_DISABLED =  
TTIS\_FOCUSED =  
TTIBES\_NORMAL  
TTIBES\_HOT = 2  
TTIBES\_SELECTED  
TTIBES\_DISABLE  
TTIBES\_FOCUS  
TTILES\_NORMAL  
TTILES\_HOT = 2  
TTILES\_SELECTED  
TTILES\_DISABLE  
TTILES\_FOCUS  
TTIRES\_NORMAL  
TTIRES\_HOT = 2  
TTIRES\_SELECTED

TTIRES\_DISABLE  
TTIRES\_FOCUS

<b>TASKBAND</b>	TDP_GROUPCOUNT = 1 TDP_FLASHBUTTON = 2 TDP_FLASHBUTTONONGROUPMENU = 3	
<b>TASKBAR</b>	TBP_BACKGROUNDBOTTOM = 1 TBP_BACKGROUNDLEFT = 4 TBP_BACKGROUNDRIGHT = 2 TBP_BACKGROUNDTOP = 3 TBP_SIZINGBARBOTTOM = 5 TBP_SIZINGBARBOTTOMLEFT = 8 TBP_SIZINGBARRIGHT = 6 TBP_SIZINGBARTOP = 7	
<b>TOOLBAR</b>	TP_BUTTON = 1  TP_DROPDOWNBUTTON = 2  TP_SPLITBUTTON = 3  TP_SPLITBUTTONONDROPDOWN = 4  TP_SEPARATOR = 5	TS_NORMAL = 1 TS_PRESSED = 3 TS_DISABLED = 4 TS_CHECKED = 5 TS_HOTCHECKED = 6  TS_NORMAL = 1 TS_PRESSED = 3 TS_DISABLED = 4 TS_CHECKED = 5 TS_HOTCHECKED = 6  TS_NORMAL = 1 TS_PRESSED = 3 TS_DISABLED = 4 TS_CHECKED = 5 TS_HOTCHECKED = 6  TS_NORMAL = 1 TS_PRESSED = 3 TS_DISABLED = 4 TS_CHECKED = 5 TS_HOTCHECKED = 6  TS_NORMAL = 1 TS_PRESSED = 3 TS_DISABLED = 4 TS_CHECKED = 5 TS_HOTCHECKED = 6

	TP_SEPARATORVERT = 6	TS_DISABLED = 4 TS_CHECKED = 5 TS_HOTCHECKED = 6
<b>TOOLTIP</b>	TTP_BALLOON = 3  TTP_BALLOONTITLE = 4  TTP_CLOSE = 5  TTP_STANDARD = 1  TTP_STANDARDTITLE = 2	TTBS_NORMAL = 0 TTBS_LINK = 2  TTCS_NORMAL = 0 TTCS_HOT = 2 TTCS_PRESSED = 1  TTSS_NORMAL = 0 TTSS_LINK = 2  TUS_NORMAL = 1 2 TUS_PRESSED TUS_FOCUSED = 3 TUS_DISABLED = 4
<b>TRACKBAR</b>	TKP_THUMB = 3  TKP_THUMBBOTTOM = 4  TKP_THUMBLEFT = 7  TKP_THUMBRIGHT = 8  TKP_THUMBTOP = 5  TKP_THUMBVERT = 6	TUBS_NORMAL = 0 TUBS_HOT = 2 TUBS_PRESSED = 1 TUBS_FOCUSED = 3 TUBS_DISABLED = 4  TUVLS_NORMAL = 0 TUVLS_HOT = 2 TUVLS_PRESSED = 1 TUVLS_FOCUSED = 3 TUVLS_DISABLED = 4  TUVRS_NORMAL = 0 TUVRS_HOT = 2 TUVRS_PRESSED = 1 TUVRS_FOCUSED = 3 TUVRS_DISABLED = 4  TUTS_NORMAL = 0 TUTS_HOT = 2 TUTS_PRESSED = 1 TUTS_FOCUSED = 3 TUTS_DISABLED = 4  TUVS_NORMAL = 0 TUVS_HOT = 2 TUVS_PRESSED = 1

		TUVS_FOCUSED = 1
		TUVS_DISABLED = 2
		TSS_NORMAL = 1
		TSVS_NORMAL = 1
		TRS_NORMAL = 1
		TRVS_NORMAL = 1
<b>TRAYNOTIFY</b>	TNP_ANIMBACKGROUND = 2	
	TNP_BACKGROUND = 1	
<b>TREEVIEW</b>	TVP_BRANCH = 3	
	TVP_GLYPH = 2	
	TVP_TREEITEM = 1	
<b>WINDOW</b>	WP_CAPTION = 1	GLPS_CLOSED = 1
	WP_CAPTIONSIZINGTEMPLATE = 30	GLPS_OPENED = 2
	WP_CLOSEBUTTON = 18	TREIS_NORMAL = 1
	WP_DIALOG = 29	TREIS_HOT = 2
	WP_FRAMEBOTTOM = 9	TREIS_SELECTED = 3
	WP_FRAMEBOTTOMSIZINGTEMPLATE = 36	TREIS_DISABLED = 4
	WP_FRAMELEFT = 7	TREIS_SELECTED = 5
	WP_FRAMELEFTSIZINGTEMPLATE = 32	CS_ACTIVE = 1 CS_INACTIVE = 2 CS_DISABLED = 3
	WP_FRAMERIGHT = 8	CBS_NORMAL = 1 CBS_PUSHED = 2 CBS_DISABLED = 3
	WP_FRAMERIGHTSIZINGTEMPLATE = 34	FS_ACTIVE = 1 FS_INACTIVE = 2
	WP_HELPBUTTON = 23	FS_ACTIVE = 1 FS_INACTIVE = 2
	WP_HORZSCROLL = 25	HBS_NORMAL = 1 HBS_PUSHED = 2 HBS_DISABLED = 3
		HSS_NORMAL = 1 HSS_PUSHED = 2 HSS_DISABLED = 3

WP\_HORZTHUMB = 26

HTS\_NORMAL = 1  
2 HTS\_PUSHED =  
HTS\_DISABLED =  
MAXBS\_NORMAL  
MAXBS\_HOT = 2  
MAXBS\_PUSHED  
MAXBS\_DISABLE

WP\_MAX\_BUTTON

WP\_MAXCAPTION = 5

WP\_MDICLOSEBUTTON = 20

WP\_MDIHELPBUTTON = 24

WP\_MDIMINBUTTON = 16

WP\_MDIRESTOREBUTTON = 22

WP\_MDISYSBUTTON = 14

WP\_MINBUTTON = 15

WP\_MINCAPTION = 3

WP\_RESTOREBUTTON = 21

WP\_SMALLCAPTION = 2

WP\_SMALLCAPTIONSIZINGTEMPLATE = 31

MXCS\_ACTIVE =  
MXCS\_INACTIVE  
MXCS\_DISABLED =  
CBS\_NORMAL = 1  
= 2 CBS\_PUSHED  
CBS\_DISABLED =  
HBS\_NORMAL = 1  
= 2 HBS\_PUSHED  
HBS\_DISABLED =  
MINBS\_NORMAL  
MINBS\_HOT = 2  
MINBS\_PUSHED =  
MINBS\_DISABLED  
RBS\_NORMAL = 1  
= 2 RBS\_PUSHED  
RBS\_DISABLED =  
SBS\_NORMAL = 1  
= 2 SBS\_PUSHED  
SBS\_DISABLED =  
MINBS\_NORMAL  
MINBS\_HOT = 2  
MINBS\_PUSHED =  
MINBS\_DISABLED  
MNCS\_ACTIVE =  
MNCS\_INACTIVE  
MNCS\_DISABLED =  
RBS\_NORMAL = 1  
= 2 RBS\_PUSHED  
RBS\_DISABLED =  
CS\_ACTIVE = 1 C  
= 2 CS\_DISABLED  
CBS\_NORMAL = 1

WP_SMALLCLOSEBUTTON = 19	= 2 CBS_PUSHED CBS_DISABLED =
WP_SMALLFRAMEBOTTOM = 12	FS_ACTIVE = 1 FS = 2
WP_SMALLFRAMEBOTTOMSIZINGTEMPLATE = 37	FS_ACTIVE = 1 FS = 2
WP_SMALLFRAMELEFT = 10	FS_ACTIVE = 1 FS = 2
WP_SMALLFRAMELEFTSIZINGTEMPLATE = 33	FS_ACTIVE = 1 FS = 2
WP_SMALLFRAMERIGHT = 11	FS_ACTIVE = 1 FS = 2
WP_SMALLFRAMERIGHTSIZINGTEMPLATE = 35	FS_ACTIVE = 1 FS = 2
WP_SMALLHELPBUTTON	HBS_NORMAL = 1 = 2 HBS_PUSHED HBS_DISABLED = MAXBS_NORMAL MAXBS_HOT = 2 MAXBS_PUSHED MAXBS_DISABLE MXCS_ACTIVE = MXCS_INACTIVE MXCS_DISABLED MNCS_ACTIVE = MNCS_INACTIVE MNCS_DISABLED RBS_NORMAL = 1 = 2 RBS_PUSHED RBS_DISABLED = SBS_NORMAL = 1 = 2 SBS_PUSHED SBS_DISABLED = SBS_NORMAL = 1 = 2 SBS_PUSHED SBS_DISABLED = VSS_NORMAL = 1 = 2 VSS_PUSHED VSS_DISABLED = VTS_NORMAL = 1
WP_SMALLMAXBUTTON	
WP_SMALLMAXCAPTION = 6	
WP_SMALLMINCAPTION = 4	
WP_SMALLRESTOREBUTTON	
WP_SMALLSYSBUTTON	
WP_SYSBUTTON = 13	
WP_VERTSCROLL = 27	

WP\_VERTTHUMB = 28

2 VTS\_PUSHED =  
VTS\_DISABLED =

## property

### ChartSelBackColor

as

sets

a

value

that

indicates

the

selection

background

color.

Type

Color

Description

A color expression that indicates the background color to display the selected items in the chart area. Use the [Add](#) method to add new skins to the control. If you need to remove the skin appearance from a

part  
of  
the  
control  
you  
need  
to  
reset  
the  
last  
7  
bits  
in  
the  
high  
significan  
byte  
of  
the  
color  
being  
applied  
to  
the  
backgrou  
part.

By  
default,  
the  
SelBackColor  
property  
is  
the  
same  
as  
chart's  
background  
color  
that's  
specified  
by  
BackColor

property  
of  
the  
Chart  
object.  
In  
other  
words,  
by  
default,  
the  
chart  
does  
not  
display  
a  
different  
background  
color  
for  
selected  
items  
in  
the  
chart  
area.  
The  
SelBackColor  
property  
of  
the  
Chart  
object  
changes  
the  
background  
for  
the  
selected  
items  
in  
the  
chart

area.  
Use  
the  
**SelBackColor**  
property  
to  
change  
the  
selection  
background  
color  
in  
the  
list  
area.  
Use  
the  
**SelForeColor**  
property  
to  
change  
the  
foreground  
color  
of  
the  
selected  
items  
in  
the  
chart  
area.

*The*

**SelBackColor**  
**property**  
**is**  
**applied**  
**ONLY**  
**if**  
**the**  
**SelBackColor**  
**property**  
**is**

*different  
that  
the  
BackColor  
property.*



## property

### ControlTemplate

as

String Type

template.

Description

A string expression that indicates the control's template

String

The

control's

template

uses the

the

control's

properties

and

dimensions.

Dim

Dim

The

template

string

Also

string

, nay,

the

CreateObject(mogID)

temp

property

or pr

creates

x-

and

snt,

script

retrieves

code

om

may

single

sup

uninitializ

gen

object

ent

funct

of m

w

as the

SE64

follow

class

any

intia

or at

retest

by with

amber

char

returns

The

specified

new Picture'

program  
char identifier.  
may be declared  
be at the end. Add("Column1").HeaderBackColor  
avail picture  
only properties.), 0),  
for colors per.  
newer agents.  
version specified.  
of the For example.  
then instance,  
communicates the  
page following  
String code's  
the changes  
that the text.  
the control's plate  
the background  
Temp color  
page "ments"  
a red.  
temp BackColor  
editp="values  
and RGB(255, 0, 0)  
display values  
they're separated  
use by  
write commas.  
the (

initial Sample:  
code h  
The =  
cont InsertItem(0, "New  
look Child")  
and )  
feel  
is  
automatically  
updated  
as  
soon  
as

the user types new instructions. The Template script is saved to the container persistence (when Apply button is pressed ), and it is executed when the control is initialized at runtime. Any component that provides a WYSWYG Template page, provides a Template

property.  
The  
Template  
property  
executes  
code  
from  
a  
string  
(  
template  
string  
).

## property

### Items.ItemForeColor(Item)

Returns

as

HITEM)

Type

as

foreground

Color

color

for

a specific item.

Item as HITEM

Description

A long expression that indicates the item's handle.

A color expression that defines the item's foreground color.

Color

Use

the

following

property

to make

changes

to the

foreground

color

background

color

following

changes

to the

foreground

color

background

color

following

changes

to the

foreground

color

~~Item~~: Use

~~focused~~

[Item:ItemForeColor](#)

~~focused~~

~~item:~~

clear

the

item's

foreground

color.

## property

### Item::ItemFont

item

sets

the

HITEM)

item's

as

font.

**IFontDisp**

Type

Description

A long expression that specifies the item's handle.

A Font object that specifies the item's font.

**IFontDisp**

By default, the following ItemFont property changes the item's font. Following changes the item's font where specified. The class has nothing to do with the control's font defined sample like this:

be used  
~~ItemFont~~  
property  
the  
~~defined~~  
item:  
different  
font  
for  
the  
item.

Use  
the

[CellFont](#)

and  
ItemFont  
properties  
to  
specify  
different  
fonts  
for  
cells  
or  
items.

Use  
the

[CellBold](#),

[CellItalic](#),

[CellUnderline](#),

[CellStrikeout](#),

[ItemBold](#),

[ItemUnderline](#),

[ItemStrikeout](#),

[ItemItalic](#)

or

[CellCaptionFormat](#)

to  
specify  
different  
font  
attributes.  
Use

the

[ItemHeight](#)

property

to

specify

the

height

of

the

item.

Use

the

[Refresh](#)

method

to

refresh

the

control's

content

on

the

fly.

Use

the

[BeginUpdate](#)

and

[EndUpdate](#)

methods

if

you

are

doing

multiple

changes,

so

no

need

for

an

update

each

time

a

change  
is  
done.

## property

### Items.ItemBold(Item)

Returns

as

HITEM)

Type

as

value

Boolean

that

indicates

whether

the

Item as HITEM

item

should

appear

in

bold.

Description

A long expression that indicates the handle of the item.

A boolean expression that indicates whether the item should appear in bold.

Boolean

Use

ItemBold,

following,

VBUnderline

sample

The

holds

StrikeOut

following

property

VB

selected

sample

following

holds

different

the

sample

following

and uses

Item:

the

sample

following

the used

bolds

VB.NET  
C#  
WEB  
WORKS  
[Sample](#),  
[Focused](#),  
[ThenBold](#)  
focused  
[ItemStrikeOut](#)  
property  
to  
apply  
different  
font  
attributes  
to  
the  
cell.  
Use  
the  
[CellCaptionFormat](#)  
property  
to  
specify  
an  
HTML  
caption.  
Use  
the  
[ConditionalFormats](#)  
method  
to  
apply  
formats  
to  
a  
cell  
or  
range  
of  
cells,  
and  
have  
that

formatting  
change  
depending  
on  
the  
value  
of  
the  
cell  
or  
the  
value  
of  
a  
formula.

# property

# Items ItemItalic(Items Retrieves

as

**sets** **ITEM)** **Type**

a  
as  
value  
**Boolean**

that  
indicates  
whether  
the

the  
item  
should  
appear  
in  
italic.

Item as HITEM

## Boolean

A long expression that indicates the item's handle that uses italic font attribute.

A boolean expression that indicates whether the item should appear in italic.

Use

**The ItemBold,**

following,

## ItemUnderline

# The @m

## Following ItemStrik

WIKESTIK  
The...cont'd

## Property Bubbles

## **following makes**

## **Mark's Selected**

# Sample Statement

## the akes

**focused**

With this example, we will learn how to apply different styles to a cell or range of cells.

The `CellFormat` class provides several properties to change the appearance of a cell:

- `FontColor`: Changes the color of the text.
- `FontSize`: Changes the size of the font.
- `FontStyle`: Changes the style of the font (e.g., bold, italic).
- `FontName`: Changes the name of the font.
- `FontWeight`: Changes the weight of the font (e.g., normal, bold).
- `TextColor`: Changes the color of the text.
- `Underline`: Adds an underline to the text.
- `StrikeOut`: Adds a strike-through effect to the text.
- `VerticalAlign`: Changes the vertical alignment of the text (e.g., top, middle, bottom).
- `HorizontalAlign`: Changes the horizontal alignment of the text (e.g., left, center, right).
- `TextOrientation`: Changes the orientation of the text (e.g., vertical, rotated).
- `TextPosition`: Changes the position of the text relative to the cell's boundaries.
- `TextWrap`: Changes the wrap behavior of the text (e.g., wrap, no wrap).
- `TextHanging`: Changes the hanging behavior of the text (e.g., none, center, both).
- `TextIndent`: Changes the indent of the text.
- `TextBaseline`: Changes the baseline of the text.
- `TextScale`: Changes the scale of the text.
- `TextEffect`: Changes the effect of the text (e.g., shadow, glow).
- `TextOutline`: Changes the outline of the text.
- `TextShadow`: Changes the shadow of the text.
- `TextGlow`: Changes the glow of the text.
- `TextHatch`: Changes the hatch of the text.
- `TextImage`: Changes the image of the text.
- `TextImageX`: Changes the X position of the text image.
- `TextImageY`: Changes the Y position of the text image.
- `TextImageWidth`: Changes the width of the text image.
- `TextImageHeight`: Changes the height of the text image.
- `TextImageAngle`: Changes the angle of the text image.
- `TextImageOffsetX`: Changes the X offset of the text image.
- `TextImageOffsetY`: Changes the Y offset of the text image.
- `TextImageSize`: Changes the size of the text image.
- `TextImageType`: Changes the type of the text image.
- `TextImageX2`: Changes the X2 position of the text image.
- `TextImageY2`: Changes the Y2 position of the text image.
- `TextImageWidth2`: Changes the width2 of the text image.
- `TextImageHeight2`: Changes the height2 of the text image.
- `TextImageAngle2`: Changes the angle2 of the text image.
- `TextImageOffsetX2`: Changes the X offset2 of the text image.
- `TextImageOffsetY2`: Changes the Y offset2 of the text image.
- `TextImageSize2`: Changes the size2 of the text image.
- `TextImageType2`: Changes the type2 of the text image.
- `TextImageX3`: Changes the X3 position of the text image.
- `TextImageY3`: Changes the Y3 position of the text image.
- `TextImageWidth3`: Changes the width3 of the text image.
- `TextImageHeight3`: Changes the height3 of the text image.
- `TextImageAngle3`: Changes the angle3 of the text image.
- `TextImageOffsetX3`: Changes the X offset3 of the text image.
- `TextImageOffsetY3`: Changes the Y offset3 of the text image.
- `TextImageSize3`: Changes the size3 of the text image.
- `TextImageType3`: Changes the type3 of the text image.
- `TextImageX4`: Changes the X4 position of the text image.
- `TextImageY4`: Changes the Y4 position of the text image.
- `TextImageWidth4`: Changes the width4 of the text image.
- `TextImageHeight4`: Changes the height4 of the text image.
- `TextImageAngle4`: Changes the angle4 of the text image.
- `TextImageOffsetX4`: Changes the X offset4 of the text image.
- `TextImageOffsetY4`: Changes the Y offset4 of the text image.
- `TextImageSize4`: Changes the size4 of the text image.
- `TextImageType4`: Changes the type4 of the text image.
- `TextImageX5`: Changes the X5 position of the text image.
- `TextImageY5`: Changes the Y5 position of the text image.
- `TextImageWidth5`: Changes the width5 of the text image.
- `TextImageHeight5`: Changes the height5 of the text image.
- `TextImageAngle5`: Changes the angle5 of the text image.
- `TextImageOffsetX5`: Changes the X offset5 of the text image.
- `TextImageOffsetY5`: Changes the Y offset5 of the text image.
- `TextImageSize5`: Changes the size5 of the text image.
- `TextImageType5`: Changes the type5 of the text image.
- `TextImageX6`: Changes the X6 position of the text image.
- `TextImageY6`: Changes the Y6 position of the text image.
- `TextImageWidth6`: Changes the width6 of the text image.
- `TextImageHeight6`: Changes the height6 of the text image.
- `TextImageAngle6`: Changes the angle6 of the text image.
- `TextImageOffsetX6`: Changes the X offset6 of the text image.
- `TextImageOffsetY6`: Changes the Y offset6 of the text image.
- `TextImageSize6`: Changes the size6 of the text image.
- `TextImageType6`: Changes the type6 of the text image.
- `TextImageX7`: Changes the X7 position of the text image.
- `TextImageY7`: Changes the Y7 position of the text image.
- `TextImageWidth7`: Changes the width7 of the text image.
- `TextImageHeight7`: Changes the height7 of the text image.
- `TextImageAngle7`: Changes the angle7 of the text image.
- `TextImageOffsetX7`: Changes the X offset7 of the text image.
- `TextImageOffsetY7`: Changes the Y offset7 of the text image.
- `TextImageSize7`: Changes the size7 of the text image.
- `TextImageType7`: Changes the type7 of the text image.
- `TextImageX8`: Changes the X8 position of the text image.
- `TextImageY8`: Changes the Y8 position of the text image.
- `TextImageWidth8`: Changes the width8 of the text image.
- `TextImageHeight8`: Changes the height8 of the text image.
- `TextImageAngle8`: Changes the angle8 of the text image.
- `TextImageOffsetX8`: Changes the X offset8 of the text image.
- `TextImageOffsetY8`: Changes the Y offset8 of the text image.
- `TextImageSize8`: Changes the size8 of the text image.
- `TextImageType8`: Changes the type8 of the text image.
- `TextImageX9`: Changes the X9 position of the text image.
- `TextImageY9`: Changes the Y9 position of the text image.
- `TextImageWidth9`: Changes the width9 of the text image.
- `TextImageHeight9`: Changes the height9 of the text image.
- `TextImageAngle9`: Changes the angle9 of the text image.
- `TextImageOffsetX9`: Changes the X offset9 of the text image.
- `TextImageOffsetY9`: Changes the Y offset9 of the text image.
- `TextImageSize9`: Changes the size9 of the text image.
- `TextImageType9`: Changes the type9 of the text image.

and  
have  
that  
formatting  
change  
depending  
on  
the  
value  
of  
the  
cell  
or  
the  
value  
of  
a  
formula.

## property

### Items.ItemUnderline(Item)

Returns

as

ITEM)

Type

as

value

Boolean

that

indicates

whether

Item as HITEM

the

item

should

appear

in

underline.

Boolean

Description

A long expression that indicates the item's handle.

A boolean expression that indicates whether the item should appear in underline

## Use

[ItemBold](#),

[ItemItalic](#),

[ItemUnderline](#)

The

sample

following

[UnderlinesOut](#)

The

property

handles

following

selected

underlines

apply

The

sample

following

focused

underlines

The

sample

following

focused

underlines

The

sample

following

underline

The

sample

Shaded,  
Underlines,  
CellUnderline,  
Focused  
item:  
CellStrikeOut  
property  
to  
apply  
different  
font  
attributes  
to  
the  
cell.  
Use  
the  
CellCaptionFormat  
property  
to  
specify  
an  
HTML  
caption.  
Use  
the  
ConditionalFormats  
method  
to  
apply  
formats  
to  
a  
cell  
or  
range  
of  
cells,  
and  
have  
that  
formatting  
change

depending  
on  
the  
value  
of  
the  
cell  
or  
the  
value  
of  
a  
formula.

## property

### Items.ItemStrikeOut(Item)

• as

HITEM) Type

as

value

Boolean

that

indicates

whether

Item as HITEM

the

item

should

appear

in

strikeout.

Boolean

If  
the  
ItemStrikeOut  
property  
is  
True,  
the  
cell's  
font  
is  
displayed  
with  
a  
horizontal  
line  
through

Descripti

A long expression that indicates the item's handle.

A boolean expression that indicates whether the item should appear in strikeout

it.

Use

[ItemBold](#),

[ItemItalic](#),

[ItemUnderline](#)

or

ItemStrikeOut

property

to

apply

different

font

attributes

to

the

item.

Use

the

[CellItalic](#),

[CellUnderline](#),

[CellBold](#)

or

[CellStrikeOut](#)

property

to

apply

different

font

attributes

to

the

cell.

Use

the

[CellCaptionFormat](#)

property

to

specify

an

HTML

caption.

Use

the

## ConditionalFormats

method  
to  
apply  
formats  
to  
a  
cell  
or  
range  
of  
cells,  
and  
have  
that  
formatting  
change  
depending  
on  
the  
value  
of  
the  
cell  
or  
the  
value  
of  
a  
formula.

The  
following  
VB  
The  
sample  
following  
draws  
The  
a  
sample  
following  
horizontal  
draws  
Title  
Sample  
following  
horizontal  
draws  
Title  
Selected  
following  
horizontal  
draws  
Title  
VB.NET

~~Stationing~~  
~~WERNER~~  
~~Scrapped~~  
~~the original~~  
~~the~~  
~~flourished~~  
~~then:~~  
~~focused~~  
~~them:~~  
focused  
item:

## property

### Items.EnableItem(Item)

Returns

as

HITEM) Type

as

value

Boolean

that

determines

whether

a

item

can

Item as HITEM

respond

to

user-

generated

events.

Boolean

Description

A long expression that indicates the item's handle that is enabled or disabled.

A boolean expression that indicates whether the item is enabled or disabled.

Use the EnableItem property to disable an item. A disabled item

looks  
grayed  
and  
it  
is  
selectable.

Use  
the

### [SelectableItem](#)

property  
to  
specify  
the  
user  
can  
select  
an  
item.

Once  
that  
an  
item  
is  
disabled  
all  
the  
cells  
of  
the  
item  
are  
disabled,  
so

### [CellEnabled](#)

property  
has  
no  
effect.

To  
disable  
a  
column  
you

can  
use  
Enabled  
property  
of  
a  
Column  
object.

## property

### GetItemFromPoint

Replaces

the

item

Type

OLE\_XPOS\_PIXELS,

the

cursor.

as

OLE\_YPOS\_PIXELS,

CollIndex

as

Long,

HitTestInfo

as

HitTestInfoEnum)

X as OLE\_XPOS\_PIXELS

as

HITEM

Description

A single that specifies the current X location of the mouse pointer. The X values is always expressed in client coordinates.

A single that specifies the current Y location of the mouse pointer. The y values is

Y as OLE\_YPOS\_PIXELS

always  
expressed  
in  
client  
coordina

---

A  
long  
expression  
that  
indicates  
on  
return,  
the  
column  
where  
the  
point  
belongs.

If  
the  
return  
value  
is  
zero,  
the  
CollIndex  
may  
indicate  
the  
handle  
of  
the  
cell  
(  
inner  
cell  
).

## CollIndex as Long

A  
HitTestIn  
expression  
that  
determin

on  
return,  
the  
position  
of  
the  
cursor  
within  
the  
cell.

A  
long  
expression  
that  
indicates  
the  
item's  
handle  
where  
the  
point  
is.

## HITEM

Use  
the  
following  
property

The  
sample

following  
gets

The  
sample

following  
cells

and  
displays

function

example

following  
index

and  
displays

the  
sample

following  
functions

DISPKEYS

dispkey

function

display

control

sample

following

displays

mixed  
bulletpoint  
highlighted  
the property  
determines,  
being  
mixed:  
conversion  
being  
blocked  
done  
the  
case  
should  
beordinates  
are  
relative  
Gantt1.MouseDown  
then  
screen  
or  
to  
other  
window.  
**If**  
**the**  
**X**  
**parameter**  
**is**  
**-1**  
**and**  
**Y**  
**parameter**  
**is**  
**-1**  
**the**  
**ItemFromPoint**  
**property**  
**determines**  
**the**  
**handle**  
**of**

the  
item  
from  
the  
**cursor.**

Use  
the  
[ColumnFromPoint](#)  
property  
to  
retrieve  
the  
column  
from  
cursor. Use  
the

[DateFromPoint](#)

property  
to  
specify  
the  
date  
from  
the  
cursor.

Use  
the

[SelectableItem](#)

property  
to  
specify  
the  
user  
can  
select  
an  
item.

Use  
the

[LevelFromPoint](#)

property  
to  
retrieve

the  
index  
of  
the  
level  
from  
the  
cursor.

## property

### RowIndexSelectColumnIndex

as

long	Type	Description
a value that indicates the column's index where the user can select an item by clicking.	Long	A long expression that indicates the column's index where the user can select the item.

The property has effect only if the

### FullRowSelect

property is False.

Use the

### SelectedItem

property to determine the selected items.

Use the

## SelectColumnInner

property  
to  
get  
the  
index  
of  
the  
inner  
cell  
that's  
selected  
or  
focused.

Use  
the

## SplitCell

property  
to  
split  
a  
cell. Use  
the

## SelectableItem

property  
to  
specify  
the  
user  
can  
select  
an  
item.

## property

### Items.ItemPosition(Item

or

as

sets

a

value

Long

that

indicates

the

item's

position

in

the

children

list.

Item as HITEM

Long

## Description

A long expression that indicates the item's handle.

A long expression that indicates the item's position in the children list.

The ItemPosition property gets the item's position in the children items list. You can use the

ItemPosition

property

to

change

the

item's

position

after

it

been

added

to

collection.

When

the

control

sorts

the

tree,

the

item

for

each

position

can

be

changed,

so

you

can

use

the

item's

handle

or

item's

index

to

identify

an

item.

Use

the

## SortChildren

method  
to  
sort  
the  
child  
items.

Use  
the

## SortOrder

property  
to  
sort  
a  
column.

## property

### Items.IsItemVisible

• if Item

as	Type	Description
ITEM	Handle	A long expression that indicates the handle of the item that fits the client area.
Boolean	Boolean	A boolean expression that indicates whether the item fits the client area.

To

make

following

that

The

example

following

item enumerates

the

sample

following

item enumerates

the

ITEM

the

~~Helping~~  
~~Elements~~  
~~VisibleItem~~  
~~Updates~~  
~~Updates~~  
then  
IsVisibleItem,  
NextVisibleItem  
client  
internalVisible  
properties  
treat  
get:  
the  
items  
that  
fit  
the  
client  
area.  
Use  
the  
NextVisibleItem  
property  
to  
get  
the  
next  
visible  
item.  
Use  
the  
IsVisibleItem  
property  
to  
check  
whether  
an  
item  
fits  
the  
control's  
client

area.

method

ScalableControl.Scroll

(Type

control's

Type

content

ScrollEnum,

[ScrollTo

as

Variant])

Type as [ScrollEnum](#)

ScrollTo as Variant

Description

A  
ScrollEnum  
expression  
that  
indicates  
the  
type  
of  
scrolling  
being  
performed.

A  
long  
expression  
that  
indicates  
the  
position  
where  
the  
control  
is  
scrolled  
when  
Type  
is  
exScrollY  
or  
exScrollH  
If  
the  
ScrollTo  
parameter  
is  
missing,  
0  
value  
is

Use  
the  
Scroll  
method  
to  
scroll  
the  
control's  
content  
by  
code.

Use  
the  
[EnsureVisibleItem](#)

method  
to  
ensure  
that  
a  
specified  
item  
fits  
the  
control's  
client  
area.

Use  
the  
[ScrollPos](#)  
property  
to  
get  
the  
control's  
scroll  
position.  
Use  
the  
[EnsureVisibleColumn](#)  
method  
to

ensure  
that  
a  
specified  
column  
fits  
the  
control's  
client  
area.

If  
the  
Type  
parameter  
is  
exScrollLeft,  
exScrollRight  
or  
exScrollHTo  
the  
Scroll  
method  
scrolls  
horizontally  
the  
control's  
content  
pixel  
by  
pixel,  
if  
the

#### [ContinueColumnScroll](#)

property  
is  
False,  
else  
the  
Scroll  
method  
scrolls  
horizontally  
the

control's  
content  
column  
by  
column.

The  
following

VB  
The  
sample  
following  
scrolls

the  
following  
controls  
scrolls

## method

### ~~Scan~~.EnsureVisibleColumn

the column

as control's content to

ensure

that

the column

fits

the

client

area.

Type

Description

A long expression that indicates the index of the column, a string expression that indicates the column's caption or the column's key.

Column as Variant

The

EnsureVisibleColumn

method

ensures

that

the

given

column

fits

the

control's

client

area.

The

EnsureVisibleColumn

method  
has  
no  
effect  
if  
the  
column  
is  
hidden.

Use  
the  
[Visible](#)  
property  
to  
show  
or  
hide  
a  
column.

Use  
the  
[Position](#)  
property  
to  
change  
the  
column's  
position.

Use  
the  
[EnsureVisibleItem](#)  
method  
to  
ensure  
that  
an  
item  
fits  
the  
control's  
client  
area. Use  
the

## ScrollBars

property  
to  
hide  
the  
control's  
scroll  
bars.  
Use  
the  
[Scroll](#)  
method  
to  
programmatically  
scroll  
the  
control's  
content.