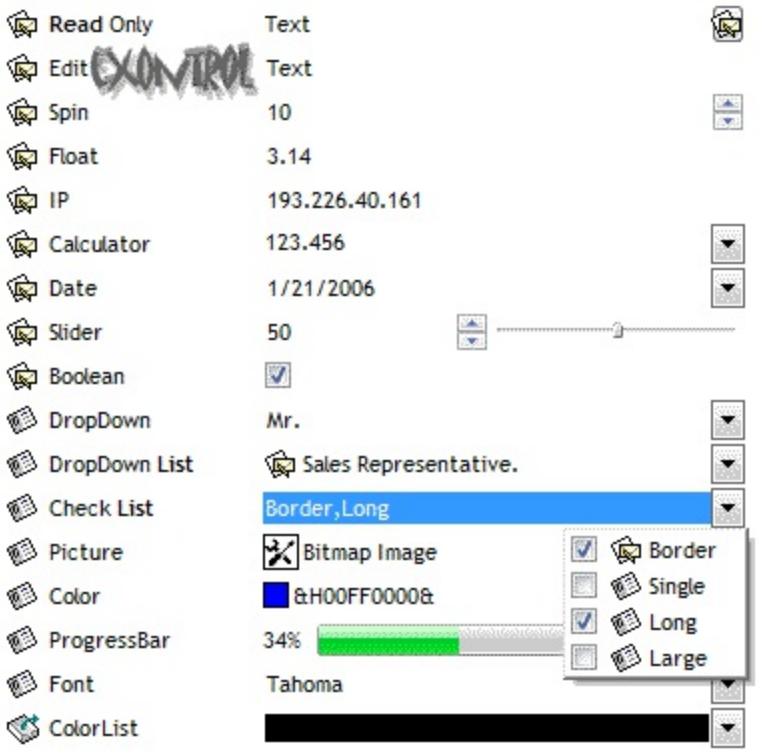
ExRecord

Exontrol's new exRecord control is a container component that displays a set of editors added manually or bounded to a table in a database. The exRecord name comes from the record, that's a set of fields that contain related information, in database type systems. The exRecord significantly reduces development time of data components.

Features include:

- Skinnable Interface support (ability to apply a skin to any background part)
- **ADO** and **DAO** data binding support
- **WYSWYG Template/Layout Editor** support
- It includes editors like: mask, date, drop down list, check box list, memo fields, spin, slider, OLE Object viewer, color, buttons and more.
- Ability to use custom **ActiveX** control as built-in **editors**
- **ActiveX hosting** (you can place any ActiveX component in any field of the control).
- Arranging fields from left to right, from top to bottom or custom layout as well.
- Ability to load icons and pictures from BASE64 encoded strings.
- Multi-lines HTML tooltip support



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 (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

constants AlignmentEnum

Specifies the object's alignment.

Name	Value	Description
LeftAlignment	0	The object is left aligned.
CenterAlignment	1	The object is centered.
RightAlignment	2	The object is right aligned.

constants AppearanceEnum

Specifies the object's appearance.

Name	Value	Description
None2	0	The source has no borders.
Flat	1	Flat border
Sunken	2	Sunken border
Raised	3	Raised border
Etched	4	Etched border
Bump	5	Bump border

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.

Name	Value	Description
exDropDownButtonUp	4	Specifies the visual appearance for the drop down button, when it is up.
exDropDownButtonDown	5	Specifies the visual appearance for the drop down button, when it is down.
exButtonUp	6	Specifies the visual appearance for the button inside the editor, when it is up.
exButtonDown	7	Specifies the visual appearance for the button inside the editor, when it is down.
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.
exSliderRange	15	Specifies the visual appearance for the slider's bar.
exSliderThumb	16	Specifies the visual appearance for the thumb of the slider.
exSpinUpButtonUp	22	Specifies the visual appearance for the up spin button when it is not pressed.

exSpinUpButtonDown	23	Specifies the visual appearance for the up spin button when it is pressed.
exSpinDownButtonUp	24	Specifies the visual appearance for the down spin button when it is not pressed.
exSpinDownButtonDown	25	Specifies the visual appearance for the down spin button when it is pressed.
exToolTipAppearance	64	Specifies the visual appearance of the borders of the tooltips.
exToolTipBackColor	65	Specifies the tooltip's background color.
exToolTipForeColor	66	Specifies the tooltip's foreground color.
exCheckBoxState0	70	Specifies the visual appearance for the check box in 0 state (unchecked).
exCheckBoxState1	71	Specifies the visual appearance for the check box in 1 state (checked).
exCheckBoxState2	72	Specifies the visual appearance for the check box in 2 state (partial, not used).

constants CheckStateEnum

Specifies the check-box's states. Use the CheckImage property to assign new icons for check-box states. Use the CheckValueType editor to assign a check box to a field.

Name	Value	Description
Unchecked	0	The check box is unchecked.
Checked	1	The check box is checked.
PartialChecked	2	The check box looks partially checked.

constants EditorOptionEnum

Specifies different options for a built-in editor. The Option property specifies the editor's options.

Name	Value	Description
exMemoHScrollBar	1	Adds the horizontal scroll bar to a MemoType or MemoDropDownType editor. By default, the Editor.Option(exMemoHScrollBar) is False. (boolean expression)
exMemoVScrollBar	2	Adds the vertical scroll bar to a MemoType or MemoDropDownType editor. By default, the Editor.Option(exMemoVScrollBar) is False. (boolean expression)
exMemoAutoSize	3	Specifies whether the MemoType editor is resized when user alters the text. By default, the Editor.Option(exMemoAutoSize) is True. (boolean expression)
exColorListShowName	4	Specifies whether a ColorListType editor displays the name of the color. By default, the Editor.Option(exColorListShowName) is False. (boolean expression)
exColorShowPalette	5	Specifies whether the ColorList editor displays the palette colors list. By default, the Editor.Option(exColorShowPalette) is True. (boolean expression)
exColorShowSystem	6	Specifies whether the ColorType editor shows the system colors list. By default, the Editor.Option(exColorShowSystem) is True. (boolean expression)
exMemoDropDownWidth	7	Specifies the width for a MemoDropDownType editor. (long expression)
exMemoDropDownHeight	8	Specifies the height for a MemoDropDownType editor. (long expression)
exMemoDropDownAcceptReturn	9	Specifies whether the Return key is used to add new lines into a MemoDropDownType editor. (boolean expression)
exEditRight	10	Right-aligns text in a single-line or multiline edit control. (boolean expression)

exProgressBarBackColor	11	Specifies the background color for a progress bar editor. (color expression)
exProgressBarAlignment	12	Specifies the alignment of the caption inside of a progress bar editor. (AlignmentEnum expression)
exProgressBarMarkTicker	13	Retrieves or sets a value that indicates whether the ticker of a progress bar editor is visible or hidden. (boolean expression)
exDateAllowNullDate	14	Allows you to specify an empty date to a DateType editor. (boolean expression)
exCheckValue0	15	Specifies the check box state being displayed for unchecked state. (long expression, valid values are 0, 1 or 2)
exCheckValue1	16	Specifies the check box state being displayed for checked state. (long expression, valid values are 0, 1 or 2)
exCheckValue2	17	Specifies the check box state being displayed for partial checked state. (long expression, valid values are 0, 1 or 2)
exEditPassword	18	Specifies a value that indicates whether an edit control displays all characters as an asterisk (*) as they are typed (passwords). (boolean expression)
exEditPasswordChar	19	Specifies a value that indicates the password character. (character expression)
exLeftArrow	20	(VK_LEFT) Specifies whether the left arrow key is handled by the control or by the current editor. By default, the Option(exLeftArrow) property is True. Use the exLeftArrow option to disable focusing a new editor if the user presses the left arrow key while editing. The option is valid for all editors. (boolean expression)
exRightArrow	21	(VK_RIGHT) Specifies whether the right arrow key is handled by the control or by the current editor. By default, the Option(exRightArrow) property is True. Use the exRightArrow option to disable focusing a new editor if the user presses the right arrow key while editing. The option is valid for all editors. (boolean expression)
		(VK_UP) Specifies whether the up arrow key is handled by the control or by the current editor. By

exUpArrow	22	default, the Option(exUpArrow) property is True. Use the exUpArrow option to disable focusing a new editor if the user presses the up arrow key while editing. The option is valid for all editors. (boolean expression)
exDownArrow	23	(VK_DOWN) Specifies whether the down arrow key is handled by the control or by the current editor. By default, the Option(exDownArrow) property is True. Use the exDownArrow option to disable focusing a new editor if the user presses the down arrow key while editing. The option is valid for all editors.
exHomeKey	24	(VK_HOME) Specifies whether the home key is handled by the control or by the current editor. By default, the Option(exHomeKey) property is True. Use the exHomeKey option to disable focusing a new editor if the user presses the home key while editing. The option is valid for all editors. (boolean expression)
exEndKey	25	(VK_END) Specifies whether the end key is handled by the control or by the current editor. By default, the Option(exEndKey) property is True. Use the exEndKey option to disable focusing a new editor if the user presses the end key while editing. The option is valid for all editors. (boolean expression)
exPageUpKey	26	(VK_PRIOR) Specifies whether the page up key is handled by the control or by the current editor. By default, the Option(exPageUpKey) property is True. Use the exPageUpKey option to disable focusing a new editor if the user presses the page up key while editing. The option is valid for all editors. (boolean expression)
exPageDownKey	27	(VK_NEXT) Specifies whether the page down key is handled by the control or by the current editor. By default, the Option(exPageDownKey) property is True. Use the exPageDownKey option to disable focusing a new editor if the user presses the page down key while editing. The option is valid for all editors. (boolean expression)
		Displays the predefined icon in the control's editor, if the user selects an item from a drop down editor.

exDropDownImage	28	By default, the exDropDownImage property is True. The option is valid for DropDownListType, PickEdit and ColorListType editors. (boolean expression)
exDateTodayCaption	29	Specifies the caption for the 'Today' button in a DateType editor. By default, the Editor.Option(exDateTodayCaption) is "Today". (string expression)
exDateMonths	30	Specifies the name for months to be displayed in a DateType editor. The list of months should be delimitated by spaces. By default, the Editor.Option(exDateMonths) = "January February March April May June July August September October November December". (string expression)
exDateWeekDays	31	Specifies the shortcut for the weekdays to be displayed in a DateType editor. The list of shortcut for the weekdays should be separated by spaces. By default, the Editor.Option(exDateWeekDays) = "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. (string expression)
exDateFirstWeekDay	32	Specifies the first day of the week in a DateType editor. By default, the Editor.Option(exDateFirstWeekDay) = 0. The valid values for the Editor.Option(exDateFirstWeekDay) property are like follows: 0 - Sunday, 1 - Monday, 2 - Tuesday, 3 - Wednesday, 4 - Thursday, 5 - Friday and 6 - Saturday. (long expression, valid values are 0 to 6)
exDateShowTodayButton	33	Specifies whether the 'Today' button is visible or hidden in a DateType editor. By default, the Editor.Option(exDateShowTodayButton) property is True. (boolean expression)
exDateMarkToday	34	Gets or sets a value that indicates whether the today date is marked in a DateType editor. By default, Editor.Option(exDateMarkToday) property is False. (boolean expression)
exDateShowScroll	35	Specifies whether the years scroll bar is visible or hidden in a DateType editor. By default, the Editor.Option(exDateShowScroll) property is

		True. (boolean expression)
exEditLimitText	36	Limits the length of the text that the user may enter into an edit control. By default, the Editor.Option(exEditLimitText) is zero, and so no limit is applied to the edit control. (long expression)
exAutoDropDownList	37	The exAutoDropDownList has no effect Editor.Option(exAutoDropDownList) property is 0 (default). Automatically shows the drop down list when user starts typing characters into a DropDownList editor, if the Editor.Option(exAutoDropDownList) property is -1. If the Editor.Option(exAutoDropDownList) property is +1, the control selects a new item that matches typed characters without opening the drop down portion of the editor. (long expression, valid values are -1, 0 and +1)
exExpandOnSearch	38	Expands items while user types characters into a drop down editor. The exExpandOnSearch type has effect for drop down type editors. (boolean expression)
exAutoSearch	39	Only for future use.
exSpinStep	40	Specifies the proposed change when user clicks a spin control. The exSpinStep should be a positive number, else clicking the spin has no effect. By default, the exSpinStep option is 1. Integer or floating points allowed as well. he exSliderTickFrequency property specifies the frequency to display ticks on a slider control. For instance, if the exSpinStep is 0.01, the proposed change when user clicks the spin is 0.01. If the exSpinStep property is 0, the spin control is hidden (useful if you have a slider control).
exSliderWidth	41	Specifies the width in pixels of the slider control. The exSliderWidth value could be 0, when the slider control is hidden, a positive value that indicates the width in pixels of the slider in the control, a negative number when its absolute value indicates the percent of the editor's size being used by the slider. For instance, Option(exSliderWidth) = 0, hides the slider, Option(exSliderWidth) = 100, shows a slider of 100 pixels width, Option(exSliderWidth) = -50,

		uses half of the editor's client area to display a slider control. By default the Option(exSliderWidth) property is 64 pixels. Use the exSpinStep to hide the spin control. (long expression)
exSliderStep	42	Specifies a value that represents the proposed change in the slider control's position. (double expression , by default it is 1)
exSliderMin	43	Specifies the slider's minimum value. (double expression, by default it is 0)
exSliderMax	44	Specifies the slider's maximum value. (double expression, by default it is 100)
exKeepSelBackColor	45	Keeps the selection background color while the editor is visible. The exKeepSelBackColor option is valid for all editors. By default, the Option(exKeepSelBackColor) property is False. Use the exKeepSelBackColor to let the editor to display the control's selection background color when it is visible. (boolean expression)
exEditDecimalSymbol	46	Specifies the symbol that indicates the decimal values while editing a floating point number. By default, the exEditDecimalSymbol value is the "Decimal symbol" settings as in the Regional Options, in your control panel. Use the exEditDecimaSymbol option to assign a different symbol for floating point numbers, when Numeric property is exFloat. (long expression, that indicates the ASCII code for the character being used as decimal symbol.)
exDateWeeksHeader	47	Sets or gets a value that indicates whether the weeks header is visible or hidden in a DateType editor. By default, Editor.Option(exDateWeeksHeader) property is False. (boolean expression).
exEditSelStart	48	Sets the starting point of text selected, when an EditType editor is opened.
exEditSelLength	49	Sets the number of characters selected, when an EditType editor is opened.
exEditLockedBackColor	50	Specifies the background color for a locked edit control.

exEditLockedForeColor	51	Specifies the foreground color for a locked edit control.
exSliderTickFrequency	53	Gets or sets the interval between tick marks slider types. By default, the exSliderTickFrequency property is 0 which makes the slider to display no ticks. The exSliderTickFrequency property specifies the frequency to display ticks on a slider control. The exSliderStep proposed change in the slider control's position. The exSliderMin and exSliderMax determines the range of values for the slider control. The exSliderWidth option specifies the width of the slider within the cell. (double expression, by default it is 0)
exPickAllowEmpty	54	Specifies whether the editor of PickEditType supports empty value.
exDropDownBackColor	55	Specifies the drop down's background color.
exDropDownForeColor	56	Specifies the drop down's foreground color.
exDropDownColumnCaption	57	Specifies the HTML caption for each column within the drop down list, separated by Ś character (vertical broken bar, ALT + 221).
exDropDownColumnWidth	58	Specifies the width for each column within the drop down list, separated by Ś character (vertical broken bar, ALT + 221).
exDropDownColumnPosition	59	Specifies the position for each column within the drop down list, separated by Ś character (vertical broken bar, ALT + 221).
exDropDownColumnAutoResize	60	Specifies whether the drop down list resizes automatically its visible columns to fit the drop down width.
exSliderTickStyle	63	Gets or sets the style to display the slider' ticks.
exCalcExecuteKeys	100	Specifies whether the calculator editor executes the keys while focused and the drop down portion is hidden. (boolean expression, by default it is True).
exCalcCannotDivideByZero	101	Specifies the message whether a division by zero occurs in a calendar editor. (string expression, by default it is "Cannot divide by zero.").
exCalcButtonWidth	102	Specifies the width in pixels of the buttons in the calculator editor. (long expression, by default it is

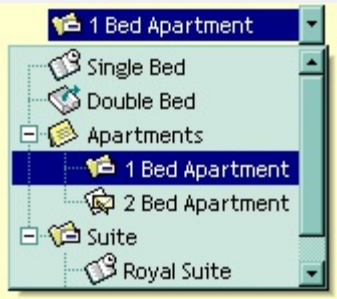
		24).
exCalcButtonHeight	103	Specifies the height in pixels of the buttons in the calculator editor. (long expression, by default it is 24).
exCalcButtons	104	Specifies buttons in a calendar editor. The property specifies the buttons and the layout of the buttons in the control. A string expression that indicates the list of buttons being displayed. The rows are separated by chr(13)+chr(10) (vbCrLf) sequence, and the buttons inside the row are separated by ';' character. (string expression)
exCalcPictureUp	105	Specifies the picture when the button is up in a drop down calendar editor. A Picture object that indicates the node's picture. (A Picture object implements IPicture interface), a string expression that indicates the base64 encoded string that holds a picture object. Use the eximages tool to save your picture as base64 encoded format.
exCalcPictureDown	106	Specifies the picture when the button is down in a drop down calendar editor. A Picture object that indicates the node's picture. (A Picture object implements IPicture interface), a string expression that indicates the base64 encoded string that holds a picture object. Use the eximages tool to save your picture as base64 encoded format.
exEditAllowOverType	200	Specifies whether the editor supports overtype mode. The option is valid for EditType and MemoType editors. (boolean expression, by default it is False).
exEditOverType	201	Retrieves or sets a value that indicates whether the editor is in insert or overtype mode. The option is valid for EditType and MemoType editors. (boolean expression, by default it is False).
exEditAllowContextMenu	202	exEditAllowContextMenu. Specifies whether the editor displays the edit's default context menu when the user right clicks the field.

constants EditTypeEnum

Use the EditType property to specify the type of the editor. Use the Add method to add a new editor to the control. Use the AddItem, InsertItem method to add new items to a drop down list editor. Use the AddButton method to add the buttons to the editor. Use the Option property to assign different options for a given editor. The exRecord component supports the following type of editors:

Name	Value	Description
ReadOnly	0	The editor is not ediatble.
EditType	1	The editor supports the following options: • **exEditRight**, Right-aligns text in a single-line or multiline edit control. • **exEditPassword**, Specifies a value that indicates whether an edit control displays all characters as an asterisk (*) as they are typed (passwords). • **exEditPasswordChar**, Specifies a value that indicates the password character. The Numeric property specifies whether the editor enables numeric values only.
DropDownType	2	 It provides an intuitive interface for your users to select values from pre-defined lists presented in a drop-down window, but it accepts new values at runtime too. The DropDownType editor has associated a standard text edit field too. Use AddItem method to add predefined values to the drop down list. Use the InsertItem method to insert child items to the editor's predefined list. The DropDownRows property specifies the maximum number of visible rows into the drop-down list. The editor displays the Value value. The following sample adds a DropDownType editor: ``` With Record1 .BeginUpdate With .Add("DropDownType", ```

```
EXRECORDLibCtl.DropDownType)
        .AddItem 0, "Single Bed", 1
        .AddItem 1, "Double Bed", 2
        .AddItem 2, "Apartment", 3
        .AddItem 3, "Suite", 4
        .AddItem 4, "Royal Suite", 5
        .Value = "Apartment"
    End With
    .EndUpdate
End With
```

DropDownListType	3	It provides an intuitive interface for your users to select values from pre-defined lists presented in a drop-down window. The DropDownListType editor has no standard edit field associated. Use AddItem method to add predefined values to the drop down list. Use InsertItem method to insert child predefined values to the drop down list. The DropDownRows property specifies the maximum number of visible rows into the drop-down list. The editor displays the caption of the item that matches the Value value. The item's icon is also displayed if it exists.  The following sample adds a DropDownListType editor: With Record1 .BeginUpdate With .Add("DropDownType", EXRECORDLibCtl.DropDownListType) .DropDownAutoWidth = False .AddItem 0, "Single Bed", 1 .AddItem 1, "Double Bed", 2 .AddItem 2, "Apartments", 3 .InsertItem 3, "1 Bed Apartment", 4, 2 .InsertItem 4, "2 Bed Apartment", 5, 2

```
        .AddItem 5, "Suite", 4
        .InsertItem 6, "Royal Suite", 1, 5
        .InsertItem 7, "Deluxe Suite", 2, 5
        .ExpandAll
        .Value = 3
    End With
    .EndUpdate
End With
```

SpinType	4	The SpinType allows your users to view and change numeric values using a familiar up/down button (spin control) combination. The AddItem or InsertItem method has no effect, if the EditType is SpinType. Use the exSpinStep option to specify the proposed change when user clicks the spin button. The Numeric property specifies whether the editor enables numeric values only. Use the SliderType to specify minimum and maximum values for the spin. The following sample adds a SpinType editor:

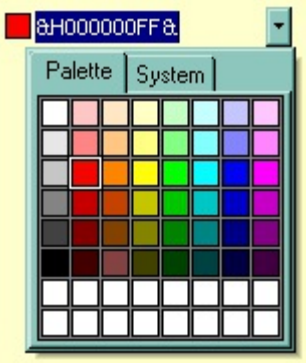
```
With Record1
    .BeginUpdate
     With .Add("Spin", EXRECORDLibCtl.SpinType)
        .Numeric = exFloat
        .Option(exSpinStep) = 0.1
        .Value = 3.14
    End With
    .EndUpdate
End With
```

MemoType	5	The MemoType is designed to provide a unique and intuitive interface, which you can implement within your application to assist users in working with textual information. If all information does not fit within the edit box, the window of the editor is enlarged. The AddItem or InsertItem method has no effect, if the EditType is SpinType. You can use options like exMemoHScrollBar, exMemoVScrollBar and so on.

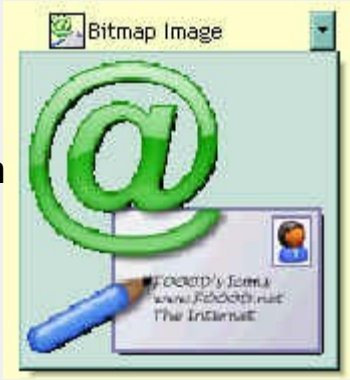
CheckListType	6	It provides an intuitive interface for your users to check values from pre-defined lists presented in a drop-down window. Each item has a check box associated. The editor displays the list of item captions, separated by comma, that is OR combination of the Value expression. The AddItem method adds new predefined values to the drop down portion of the editor. The DropDownRows property specifies the maximum number of visible rows into the drop-down list. Use the CheckImage property to assign a different icons for check box states. The following sample adds a CheckListType editor: With Record1 .BeginUpdate With .Add("CheckListType", EXRECORDLibCtl.CheckListType) .AddItem 1, "Single Bed", 1 .AddItem 2, "Double Bed", 2 .AddItem 4, "Apartment", 3 .AddItem 8, "Suite", 4 .AddItem 16, "Royal Suite", 5 .Value = 5 End With .EndUpdate End With
		The DateType editor is a date/calendar control (not the Microsoft Calendar Control). The dropdown calendar provides an efficient and appealing way to edit dates at runtime. The DateType editor has a standard edit control associated. The user can easy select a date by selecting a date from the drop down calendar, or

DateType	7	by typing directly the date. The editor displays the Value value as date. The AddItem or InsertItem method has no effect, if the EditType is DateType. The following sample adds a DateType editor: ``` With Record1 .BeginUpdate With .Add("DateType", EXRECORDLibCtl.DateType) .Value = Date End With .EndUpdate End With ```
MaskType	8	You can use the MaskType to enter any data that includes literals and requires a mask to filter the characters during data input. You can use this control to control the entry of many types of formatted information such as telephone numbers, social security numbers, IP addresses, license keys etc. The Mask property specifies the editor's mask. The MaskChar property specifies the masking character. The AddItem or InsertItem method has no effect, if the EditType is MaskType. The Mask property can use one or more literals: #,x,X,A,? <,>,*,\,{nMin,nMax},[...]. The following sample shows how to mask the "MaskType" column for input telephone numbers. The following sample adds a MaskType editor: ``` With Record1 .BeginUpdate With .Add("MaskType", EXRECORDLibCtl.MaskType) .Mask = "(###) ### - ####" .Value = "(074) 728 - 2121" End With .EndUpdate ```

```
End With
```

ColorType	9	 You can include a color selection control in your applications via the ColorType editor. Check the ColorListType also. The editor has a standard edit control and a color drop-down window. The color drop-down window contains two tabs that can be used to select colors, the "Pallette" tab shows a grid of colors, while the "System" tab shows the current windows color constants. The AddItem or InsertItem method has no effect, if the EditType is ColorType. The following sample adds a ColorType editor: With Record1 .BeginUpdate With .Add("ColorType", EXRECORDLibCtl.ColorType) .Value = RGB(255, 0, 0) End With .EndUpdate End With
FontType	10	 Provides an intuitive way for selecting fonts. The FontType editor contains a standard edit control and a font drop-down window. The font drop-down window contains a list with all system fonts. The AddItem or InsertItem method has no effect, if the EditType is FontType. The Value property indicates the name of the font. The DropDownRows property specifies the maximum number of visible rows into the drop-down list. The following sample adds a FontType editor:

```
With Record1
  .BeginUpdate
   With .Add("FontType",
EXRECORDLibCtl.FontType)
      .Value = "Tahoma"
  End With
  .EndUpdate
End With
```

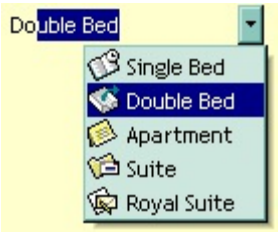
PictureType	11	 The PictureType provides an elegant way for displaying the fields of OLE Object type and cells that have a reference to an IPicture interface. An OLE Object field can contain a picture, a Microsoft Clip Gallery, a package, a chart, PowerPoint slide, a word document, a WordPad documen, a wave file, an so on. In MS Access you can specify the field type to OLE Object. The DropDownMinWidth property specifies the minimum width for the drop=down window. The drop-down window is scaled based on the picture size. The AddItem or InsertItem method has no effect, if the EditType is PictureType. If your control is bounded to a recordset, it automatically detects the OLE Object fields, so setting the editor's type to PictureType is not necessary. The Value property specifies the source of the picture being displayed, and it can be • a Picture object (A Picture object implements IPicture interface) • a string expression that indicates the path to the picture file • a string expression that indicates the base64 encoded string that holds a picture object. Use the eximages tool to save your picture as base64 encoded format • an array of bytes that holds an OLE object field

The following sample adds a PictureType editor:

```
With Record1
  .BeginUpdate
   With .Add("PictureType",
EXRECORDLibCtl.PictureType)
      .Value = App.Path & "\xfmail.gif"
  End With
  .EndUpdate
End With
```

ButtonType	12	The ButtonType editor consists  into a standard edit field and a "..." button. The ButtonClick event is fired if the user has clicked the button. The AddItem or InsertItem method has no effect, if the EditType is ButtonType. The ButtonWidth property specifies the width of the button. The Value property specifies the editor's caption.
		
		The following sample adds a ButtonType editor:
		
		`With Record1`
		`  .BeginUpdate`
		`  With .Add("ButtonType",`
		`EXRECORDLibCtl.ButtonType)`
		`  .Value = "<path>"`
		`  .AddButton "A", 1`
		`  .AddButton "B", 2, RightAlignment`
		`  .ButtonWidth = 20`
		`  End With`
		`  .EndUpdate`
		`End With`

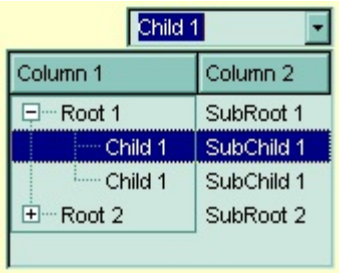
		The ProgressBarType editor  displays a progress bar. The Value property indicates the percent value being displayed. The options like **exProgressBarBackColor**, **exProgressBarAlignment** or

ProgressBarType	13	**exProgressBarMarkTicker** may be used for a ProgressBarType editor.
		
		The following sample adds a ProgressBarType editor:
		
		``
		With Record1
		  .BeginUpdate
		  With .Add("ProgressBarType", EXRECORDLibCtl.ProgressBarType)
		  .Value = 34
		  End With
		  .EndUpdate
		End With
		``
		
		 

PickEditType	14	It provides an intuitive interface for your users to select values from pre-defined lists presented in a drop-down window. The PickEditType editor has a standard edit field associated, that useful for searching items. The DropDownRows property specifies the maximum number of visible rows into the drop=down list. Use AddItem, InsertItem method to add predefined values to the drop down list. The editor displays the caption of the item that matches Value value. The item's icon is also displayed if it exists.
		
		The following sample adds a PickEditType editor:
		
		``
		With Record1
		  .BeginUpdate
		  With .Add("DropDownType", EXRECORDLibCtl.PickEditType)
		  .AddItem 0, "Single Bed", 1
		  .AddItem 1, "Double Bed", 2
		  .AddItem 2, "Apartment", 3
		  .AddItem 3, "Suite", 4
		  .AddItem 4, "Royal Suite", 5
		``
		
		``
		With Record1
		  .BeginUpdate
		  With .Add("DropDownType", EXRECORDLibCtl.PickEditType)
		  .DropDownRows = 5
		  .Value = 1
		  End With
		  .EndUpdate
		End With
		``
		
		The following sample adds a PickEditType editor with a standard edit field associated:
		
		``
		With Record1
		  .BeginUpdate
		  With .Add("DropDownType", EXRECORDLibCtl.PickEditType)
		  .DropDownRows = 5
		  .Value = 1
		  End With
		  .EndUpdate
		End With
		``
		
		The PickEditType editor supports the following keyboard shortcuts:
		
		- Alt+Down Arrow: Displays the drop down list.
		- Esc: Hides the drop down list.
		- Up Arrow: Moves the focus up.
		- Down Arrow: Moves the focus down.
		- Enter: Selects the focused item.

```
        .Value = "Apartment"
    End With
    .EndUpdate
End With
```

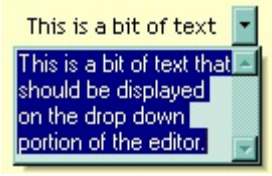
LinkEditType	15	The LinkEditType control allows your application to edit and display hyperlink addresses.

UserEditorType	16	The control support ActiveX hosting. An UserEditorType editor can host an ActiveX control. Use the UserEditor method to create the inner ActiveX control. The UserEditorOleEvent event is fired each time when an inner ActiveX control fires an event. Use the UserEditorObject property to access the inner ActiveX control.
		 
		
		The following sample adds an UserEditorType editor (the sample adds an inner Exontrol.ComboBox control):
		`With Record1`
		`.BeginUpdate`
		`With .Add("UserEditorType", EXRECORDLibCtl.UserEditorType)`
		`.UserEditor "Exontrol.ComboBox", ""`
		`With .UserEditorObject()`
		`Dim h As Long`
		`.BeginUpdate`
		`.IntegralHeight = True`
		`.LinesAtRoot = -1`
		`.ColumnAutoResize = True`
		`.MinWidthList = 164`
		`.MinHeightList = 164`
		`.Columns.Add "Column 1"`
		`.Columns.Add "Column 2"`
		`h = .Items.AddItem(Array("Root 1", "SubRoot 1"))`

```
        .Items.InsertItem h, , Array("Child 1",
"SubChild 1")
        .Items.InsertItem h, , Array("Child 1",
"SubChild 1")
        .Items.ExpandItem(h) = True
        h = .Items.AddItem(Array("Root 2",
"SubRoot 2"))
        .Items.InsertItem h, , Array("Child 1",
"SubChild 1")
        .EndUpdate
      End With
   End With
   .EndUpdate
End With
```

ColorListType	17	You can include a color selection control in your applications via the ColorListType editor, also. The editor hosts a predefined list of colors. By default. the following colors are added: Black, White, Dark Red, Dark Green, Dark Yellow, Dark Blue, Dark Magenta, Dark Cyan, Light Grey, Dark Grey, Red, Green, Yellow, Blue, Magenta, Cyan. The AddItem method adds a new color to your color list editor. You can the **exColorListShowName** to allow the editor displays the color's name.  The following sample adds a ColorListType editor:

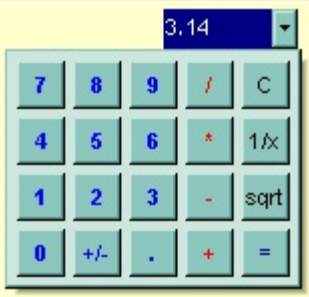
```
With Record1
   .BeginUpdate
    With .Add("ColorListType",
EXRECORDLibCtl.ColorListType)
      .Option(exColorListShowName) = True
      .Value = RGB(0, 0, 255)
   End With
   .EndUpdate
End With
```

MemoDropDownType	18	It provides a multiple lines edit control that's displayed into a drop down window. The AddItem, InsertItem method has no effect, if the EditType is MemoDropDownType.  • The Editor.Option(**exMemoDropDownWidth**) specifies the width (in pixels) of the MemoDropDownType editor when it is dropped. • The Editor.Option(**exMemoDropDownHeight**) specifies the height (in pixels) of the MemoDropDownType editor when it is dropped. • The Editor.Option(**exMemoDropDownAcceptReturn**) specifies whether the user closes the MemoDropDownType editor by pressing the ENTER key. If the Editor.Option(exMemoDropDownAcceptReturn) is True, the user inserts new lines by pressing the ENTER key. The user can close the editor by pressing the CTRL + ENTER key. If the Editor.Option(**exMemoDropDownAcceptReturn**) is False, the user inserts new lines by pressing the CTRL + ENTER key. The user can close the editor by pressing the ENTER key. • The Editor.Option(**exMemoHScrollBar**) adds the horizontal scroll bar to a MemoType or MemoDropDownType editor. • The Editor.Option(**exMemoVScrollBar**) adds the vertical scroll bar to a MemoType or MemoDropDownType editor The following sample adds a MemoDropDownType editor: ``` With Record1 .BeginUpdate With .Add("MemoDropDownType", EXRECORDLibCtl.MemoDropDownType) ```

```
        .Option(exMemoVScrollBar) = True
        .Value = "This is a bit of text that should be
displayed on the drop down portion of the
editor."
    End With
    .EndUpdate
End With
```

CheckValueType	19	The CheckValueType editor displays a check box based on the Value property. Use the CheckImage property to assign a different icons for check box states. You can use the following options:
		
		• **exCheckValue0**, Specifies the check box state being displayed for unchecked state. (long expression, valid values are 0, 1 or 2)
		• **exCheckValue1**, Specifies the check box state being displayed for checked state. (long expression, valid values are 0, 1 or 2)
		• **exCheckValue2**, Specifies the check box state being displayed for partial checked state. (long expression, valid values are 0, 1 or 2)
		
		The following sample adds a CheckValueType editor:
		
		`With Record1`
		`  .BeginUpdate`
		`  With .Add("Boolean", EXRECORDLibCtl.CheckValueType)`
		`  .Option(exCheckValue2) = 1`
		`  .Value = True`
		`  End With`
		`  .EndUpdate`
		`End With`

		Adds a slider control to an editor. Use the **exSliderWidth, exSliderStep, exSliderMin, exSliderMax** options to control the slider

SliderType	20	properties. Use the **exSpinStep** option to hide the spin control. The following sample adds a SliderType editor: ``` With Record1 .BeginUpdate With .Add("Slider", EXRECORDLibCtl.SliderType) .Option(exSpinStep) = 0.1 .Option(exSliderMax) = 50 .Value = 34 End With .EndUpdate End With ```
CalculatorType	21	Adds a drop down calculator to an editor. Use the **exCalcExecuteKeys, exCalcCannotDivideByZero, exCalcButtonWidth, exCalcButtonHeight, exCalcButtons, exCalcPictureUp, exCalcPictureDown** to specify different options for calculator editor.  ``` With Record1 .BeginUpdate With .Add("Calculator", EXRECORDLibCtl.CalculatorType) .Value = 3.14 End With .EndUpdate End With ```

All editors support the following options:

- **exLeftArrow**, Disables focusing a new cell if the user presses the left arrow key while editing.

- **exRightArrow**, Disables focusing a new cell if the user presses the right arrow key while editing.
- **exUpArrow**, Disable focusing a new cell if the user presses the up arrow key while editing.
- **exDownArrow**, Disable focusing a new cell if the user presses the down arrow key while editing.
- **exHomeKey**, Disable focusing a new cell if the user presses the home key while editing.
- **exEndKey**, Disables focusing a new cell if the user presses the end key while editing.
- **exPageUpKey**, Disable focusing a new cell if the user presses the page up key while editing.
- **exKeepSelBackColor**. Keeps the selection background color while editor is visible

constants LayoutEnum

The LayoutEnum expression specifies how the fields are arranged in the control's client area. Use the Layout property to arrange the fields in the control. Use the LabelSize property to specify the width of the label. Use the FieldWidth, FieldHeight properties to specify the size of the fields.

Name	Value	Description
exLeftToRight	0	Arranges the fields from the left to the right side of the control.
exTopToBottom	1	Arranges the fields from the top to the bottom side of the control.
exCustomLayout	61440	Customizes the position of fields on the page. The CustomLayout property appends relative position of the fields, when Layout property is exCustomLayout.

constants InplaceAppearanceEnum

Defines the editor's appearance. Use the Appearance property to change the editor's appearance. Use the PopupAppearance property to define the appearance of the editor's drop-down window, if it exists.

Name	Value	Description
NoApp	0	No border
FlatApp	1	Flat
SunkenApp	2	Sunken
RaisedApp	3	Raised
EtchedApp	4	Etched
BumpApp	5	Bump
ShadowApp	6	Shadow
InsetApp	7	Inset
SingleApp	8	Single

constants NumericEnum

Use the Numeric property to specify the format of numbers when editing a field.

Name	Value	Description
exInteger	-1	Allows editing numbers of integer type. The format of the integer number is: **[+/-]digit**, where **digit** is any combination of digit characters. This flag can be combined with exDisablePlus, exDisableMinus or exDisableSigns flags. For instance, the 0x3FF (hexa representation, 1023 decimal) value indicates an integer value with no +/- signs.
exAllChars	0	Allows all characters. No filtering.
exFloat	1	Allows editing floating point numbers. The format of the floating point number is: **[+/-]digit[.digit[[e/E/d/D][+/-]digit]]**, where digit is any combination of **digit** characters. Use the exEditDecimalSymbol option to assign a new symbol for '**.**' character (decimal values). This flag can be combined with exDisablePlus, exDisableMinus or exDisableSigns flags.
exFloatInteger	2	Allows editing floating point numbers without exponent characters such as e/E/d/D, so the accepted format is **[+/-]digit[.digit]**. Use the exEditDecimalSymbol option to assign a new symbol for '**.**' character (decimal values). This flag can be combined with exDisablePlus, exDisableMinus or exDisableSigns flags.
exDisablePlus	256	Prevents using the + sign when editing numbers. If this flag is included, the user can not add any + sign in front of the number.
exDisableMinus	512	Prevents using the - sign when editing numbers. If this flag is included, the user can not add any - sign in front of the number.
exDisableSigns	768	Prevents using the +/- signs when editing numbers. If this flag is included, the user can not add any +/- sign in front of the number. For instance exFloatInteger + exDisableSigns allows editing floating points numbers without using the exponent and plus/minus characters, so the allowed format is

digit[.digit]

constants PictureDisplayEnum

Specifies how a picture object is displayed.

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 ScrollBarsEnum

The ScrollBarsEnum type indicates whether the control displays the horizontal or the vertical scroll bar. The ScrollBars property specifies whether the control adds scrollbars to the control.

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.

constants UIVisualThemeEnum

The UIVisualThemeEnum expression specifies the UI parts that the control can shown 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
exButtonsVisualTheme	4	exButtonsVisualTheme
exCalendarVisualTheme	8	exCalendarVisualTheme
exSliderVisualTheme	16	exSliderVisualTheme
exSpinVisualTheme	32	exSpinVisualTheme
exCheckBoxVisualTheme	64	exCheckBoxVisualTheme
exProgressVisualTheme	128	exProgressVisualTheme
exCalculatorVisualTheme	256	exCalculatorVisualTheme

Appearance 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
Add	Adds or replaces a skin object to the control.
Clear	Removes all skins in the control.
Remove	Removes a specific skin from the control.

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.
Skin as Variant	A string expression that indicates: • an Windows XP Theme part, it should start with "XP:". 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. In this case the format of the Skin parameter should be: "XP: Control/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 like listed at the end of the document. This option is available only on Windows XP that supports Themes API. • copy of another skin with different coordinates, if it begins with "CP:" . For instance, you may need to display a specified skin on a smaller rectangle. In this case, the string starts with "CP:", and contains the following "CP:n l t r b", where the n is the identifier being copied, the l, t, r, and b indicate the left, top, right and bottom coordinates being used to adjust the rectangle where the skin is displayed. For instance, the "**CP:1 4 0 -4 0**", indicates that the skin is displayed on a smaller rectangle like follows. Let's say that the control requests painting the {10, 10, 30, 20} area, a rectangle with the width of 20 pixels, and the height of 10 pixels, the skin will be displayed on the {14,10,26,20} as each coordinates in the "CP" syntax is added to the displayed rectangle, so the skin looks smaller. This way you can apply different effects to your objects in your control. The following screen shot shows the control's header when using a "CP:1 -6 -6 6 6", that displays the original skin on larger rectangles.

- the path to the skin file (*.ebn). The Exontrol's exButton component installs a skin builder that should be used to create new skins
- the BASE64 encoded string that holds a skin file (*.ebn). Use the Exontrol's exImages tool to build BASE 64 encoded strings on the skin file (*.ebn) you have created. Loading the skin from a file (eventually uncompressed file) is always faster then loading from a BASE64 encoded string

A byte[] or safe arrays of VT_I1 or VT_UI1 expression that indicates the content of the EBN file. You can use this 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)).

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, when the "XP:" prefix is not specified in the Skin parameter (available for Windows XP systems). 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 do multiple changes to 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 bellow. 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 indicates 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.

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.

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.

Editor object

The Editor object holds information about an editor. Use the Add or DataSource method to add new editors to the control. The Editor object may display an icon, a custom size picture, an HTML label and window editor.

The Editor object supports the following properties and methods:

Name	Description
AddButton	Adds a new button to the editor with specified key and aligns it to the left or right side of the editor.
AddItem	Adds a new item to the editor's list.
Appearance	Retrieves or sets the editor's appearance.
BackColor	Specifies the editor's background color.
ButtonWidth	Specifies the width of the buttons in the editor.
Caption	Retrieves the caption of the field.
ClearButtons	Clears the buttons collection.
ClearItems	Clears the items collection.
DropDown	Displays the drop down list.
DropDownAlignment	Retrieves or sets a value that indicates the item's alignment in the editor's drop-down list.
DropDownAutoWidth	Retrieves or sets a value that indicates whether the editor's drop-down window list is automatically computed to fit the entire list.
DropDownMinWidth	Specifies the minimum drop-down list width if the DropDownAutoWidth is False.
DropDownRows	Retrieves or sets a value that indicates the maximum number of visible rows in the editor's drop- down list.
DropDownVisible	Retrieves or sets a value that indicates whether the editor's drop down button is visible or hidden.
EditType	Retrieves or sets a value that indicates the type of the editor.
ExpandAll	Expands all items in the editor's list.
ExpandItem	Expands or collapses an item in the editor's list.
FindItem	Finds an item given its value or caption.
ForeColor	Specifies the editor's foreground color.

Image	Retrieves or sets a value that indicates the index of the editor's icon.
Index	Retrieves the index of the editor.
InsertItem	Inserts a child item to the editor's list.
ItemToolTip	Gets or sets the text displayed when the mouse pointer hovers over a predefined item.
Key	Retrieves the editor's key.
Label	Specifies the editor's label.
LabelAlignment	Specifies the alignment of the label relative to the field.
LabelBackColor	Specifies the label's background color.
LabelForeColor	Specifies the label's foreground color.
Locked	Determines whether the editor is locked or unlocked.
Mask	Retrieves or sets a value that indicates the mask used by the editor.
MaskChar	Retrieves or sets a value that indicates the character used for masking.
Numeric	Specifies whether the editor enables numeric values only.
Option	Specifies an option for the editor.
PartialCheck	Retrieves or sets a value that indicates whether the associated check box has two or three states.
Picture	Assigns a custom size picture to an editor.
PopupAppearance	Retrieves or sets a value that indicates the drop-down window's appearance.
Position	Retrieves or sets a value that indicates the editor's position.
RemoveButton	Removes a button given its key.
RemoveItem	Removes an item from the editor's predefined values list.
SortItems	Sorts the list of items in the editor.
ToolTip	Specifies a tooltip being displayed when the cursor hover the editor's label.
UserData	Gets or sets the user-definable data for the current editor.
UserEditor	Specifies the control's identifier and the control's runtime license key when EditType is UserEditor.
UserEditorObject	Gets the user editor object when EditType is UserEditor.

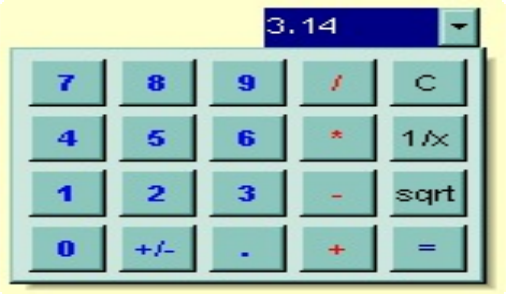
Value	Retrieves or sets the field's value.
Visible	Retrieves or sets a value that indicates whether the editor is visible or hidden.

method Editor.AddButton (Key as Variant, [Image as Variant], [Align as Variant], [ToolTip as Variant], [ToolTipTitle as Variant], [ShortcutKey as Variant])

Adds a new button to the editor with specified key and aligns it to the left or right side of the editor.

Type	Description
Key as Variant	A Variant value that indicates the button's key. The ButtonClick event passes this value to Key parameter
Image as Variant	A long expression that indicates the index of button's icon. The index is valid for Images collection. By default the button has no icon associated. Use the Images property to assign a list of icons to the control.
Align as Variant	An AlignmentEnum expression that defines the button's alignment.
ToolTip as Variant	A string expression that indicates the the button's tooltip description. The tooltip shows up when cursor hovers the button. The ToolTip parameter may include built-in HTML tags.
ToolTipTitle as Variant	A string expression that indicates the tooltip's title.
ShortcutKey as Variant	A short expression that indicates the shortcut key being used to simulate clicking the button. The lower byte indicates the code of the virtual key, and the higher byte indicates the states for SHIFT, CTRL and ALT keys (last insignificant bits in the higher byte). The ShortcutKey expression could be 256 *((shift ? 1 : 0) + (ctrl ? 2 : 0) + (alt ? 4 : 0)) + vbKeyCode, For instance, a combination like CTRL + F3 is 256 * 2 + vbKeyF3, SHIFT + CTRL + F2 is 256 *(1 + 2) + vbKeyF2, and SHIFT + CTRL + ALT + F5 is 256 * (1 + 2 + 4) + vbKeyF5.

Use the AddButton method to add multiple buttons to the editor. Make sure that you are using unique keys for the buttons in the same editor, else the previous button is replaced. The editor doesn't allow two buttons with the same key. Use the ButtonWidth property to set the button's width. If the user clicks on one of the editor buttons, the ButtonClick event is fired. Use the RemoveButton method to remove a button that was previously added using the AddButton method. Use the ClearButtons method to clear the entire collection of buttons added with AddButton method. Use the Images property to assign a list of icons to the control.



The following VB sample adds some buttons to a CalculatorType editor:

```
With Record1
   .BeginUpdate
   .FieldHeight = 20
   .Images
"gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEaIEaEEaAIAkcbk0oIUrlktl0vmExm

   .BackColor = vbWhite
   With .Add("Calculator", CalculatorType)
      .Value = 3.14
      .ButtonWidth = 20
      .AddButton "A", 1, LeftAlignment
      .AddButton "B", 2, LeftAlignment
      .AddButton "C", 1, RightAlignment
      .AddButton "D", 2, RightAlignment
   End With
   .EndUpdate
End With
```

The following VC sample adds some buttons to a CalculatorType editor:

```
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
m_record.Images( COleVariant(
"gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEaIEaEEaAIAkcbk0oIUrlktl0vmExm
 ) );
CEditor editor = m_record.Add(COleVariant("Calculator"), /*CalculatorType*/ 21, vtMissing
);
editor.SetValue( COleVariant( 3.14 ) );
editor.SetButtonWidth(18);
editor.AddButton( COleVariant( "A" ), COleVariant( (long) 1 ), COleVariant( (long) 0 ),
vtMissing, vtMissing, vtMissing );
```

```
editor.AddButton( COleVariant( "B" ), COleVariant( (long) 2 ), COleVariant( (long) 1 ),
vtMissing, vtMissing, vtMissing );
editor.AddButton( COleVariant( "C" ), COleVariant( (long) 1 ), COleVariant( (long) 1 ),
vtMissing, vtMissing, vtMissing );
editor.AddButton( COleVariant( "D" ), COleVariant( (long) 2 ), vtMissing, vtMissing,
vtMissing, vtMissing );
```

method Editor.AddItem (Value as Long, Caption as String, [Image as Variant])

Adds a new item to the editor's list.

Type	Description
Value as Long	A long expression that defines a predefined value.
Caption as String	A string expression that indicates the caption for the Value. The Caption supports HTML format.
Image as Variant	A long expression that indicates the index of the item's icon.

Use the AddItem method to add new items to the editor's predefined list. Use the InsertItem method to insert child items to the editor's predefined list (**DropDownListType** editor). If the AddItem method uses a Value already defined, the old item is replaced. The AddItem method has effect for the following type of editors: **DropDownType, DropDownListType, PickEditType,** and **CheckListType**. Check each EditType value for what Value argument should contain. Use the RemoveItem method to remove a particular item from the predefined list. Use the ClearItems method to clear the entire list of predefined values. Use the SortItems to sort the items. Use the ItemToolTip property to assign a tooltip to a predefined item into a drop down list. Call the Refresh method to update the editor's value, if it depends on a predefined list of items (drop down editors). Use the ItemToolTip property to assign a tooltip to the item.

The Caption property supports the following built-in HTML tags:

- ** ... ** displays the text in **bold**
- ** ... ** displays the text in *italics*
- **<u> ... </u>** underlines the text
- **<s> ... </s>** ~~Strike~~-through text
- **<a id;options> ... ** 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.
- ** ... ** displays portions of text with a different font and/or different size. For instance, the "bit" 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, "bit" 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
- **
** 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 **&** (&), **<** (<), **>** (>), **&qout;** (") and **&#number;** (the character with specified code), For instance, the € 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 bold in HTML caption you can use bold
- **<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 to define a smaller or a larger font to be displayed. For instance: "Text with <**off** 6>subscript" displays the text such as: Text with $_{\text{subscript}}$ The "Text with <**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 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 "<**gra** FFFFFF;1;1>gradient-center</**gra**>" 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 HTML tag can be used to define the height of the font. For instance the "<**out** 000000> <fgcolor=FFFFFF>outlined</fgcolor></**out**>" 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 HTML tag can be used to define the height of the font. For instance the "<**sha**>shadow</**sha**>" generates the following picture:

  shadow

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

  outline anti-aliasing

The following VB sample adds some checks to a CheckListType editor:

```
With Record1
  .BeginUpdate
  With .Add("CheckListType", CheckListType)
```

```
        .AddItem &H1, "ReadOnly", 1
        .AddItem &H2, "Hidden", 2
        .AddItem &H4, "System", 3
        .AddItem &H10, "Directory", 4
        .AddItem &H20, "Archive", 5
        .AddItem &H80, "Normal", 7
        .AddItem &H100, "Temporary", 8
        .Value = &H1 + &H2
    End With
    .EndUpdate
End With
```

The following VC sample add some checks to a CheckListType editor:

```
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
CEditor editor = m_record.Add(COleVariant("CheckListType"), /*CheckListType*/ 6,
vtMissing );
editor.AddItem( 0x01, "ReadOnly", vtMissing );
editor.AddItem( 0x02, "Hidden", vtMissing );
editor.AddItem( 0x04, "System", vtMissing );
editor.AddItem( 0x10, "Directory", vtMissing );
editor.AddItem( 0x20, "Archive", vtMissing );
editor.AddItem( 0x80, "Normal", vtMissing );
editor.AddItem( 0x100, "Temporary", vtMissing );
editor.SetValue( COleVariant( (long)(0x01 + 0x02) ) );
m_record.Refresh();
```

property Editor.Appearance as InplaceAppearanceEnum

Retrieves or sets the editor's appearance.

Type	Description
InplaceAppearanceEnum	An InplaceAppearanceEnum expression that defines the editor's appearance

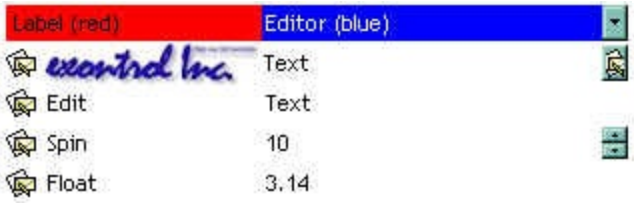
Use the Appearance property to change the editor's border style. Use the PopupAppearance property to define the appearance for editor's drop-down window, if it exists. By default, the editor's Appearance is NoApp.

property Editor.BackColor as Color

Specifies the editor's background color.

Type	Description
Color	A color expression that indicates the background color of the editor.

Use the BackColor property to change the editor's background color. Use the LabelBackColor property to change the background color of the label of the editor. Use the ForeColor property to change the editor's foreground color. Use the <bgcolor> HTML tag to specify a background color for parts of the editor's label. Use the Label property to specify the editor's label. Use the BackColor property to specify the control's background color.



The following sample assign different background colors for label and the editor as seeing in the screen shot:

```
With Record1
   .BeginUpdate
   With .Add("Label (red)", DropDownType)
      .Value = "Editor (blue)"
      .BackColor = vbBlue
      .LabelBackColor = vbRed
      .ForeColor = vbWhite
      .Position = 0
   End With
   .EndUpdate
End With
```

property Editor.ButtonWidth as Long

Specifies the width of the buttons in the editor.

Type	Description
Long	A long expression that indicates the width of the buttons in pixels.

Use the ButtonWidth property to change the button's width. By default, the ButtonWidth property is 13 pixels. Use the AddButton method to add multiple buttons to the editor. Use the ClearButtons method to clear the editor's buttons collection. If the ButtonWidth property is 0, the editor displays no buttons. The FieldHeight property specifies the height of the label/editor/field. Use the DropDownVisible property to hide the editor's drop-down button.

property Editor.Caption as String

Retrieves the caption of the field.

Type	Description
String	A string expression that specifies the editor's caption.

Use the Caption property to get the editor's caption. Use the Value property to get the editor's value. The Caption property of the editor may be different than the Value property like follows. For instance, if we have a DropDownListType editor, the Caption property gets the caption of the item being selected, and the Value property gets a long expression that identifies the value of the item. The Label property gets the editor's label. Use the FindItem property to find an item based on its value.

The following VB sample prints the label, caption and the value of the editor from the cursor:

```
Private Sub Record1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As Single)
   Dim e As EXRECORDLibCtl.Editor
   Set e = Record1.EditorFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY)
   If Not e Is Nothing Then
      Debug.Print "Label: " & e.Label & " Caption: """ & e.Caption & """ Value: " & e.Value
   End If
End Sub
```

The following VC sample prints the label, caption and the value of the editor from the cursor:

```
void OnMouseMoveRecord1(short Button, short Shift, long X, long Y)
{
   CEditor editor = m_record.GetEditorFromPoint( X, Y );
   if ( editor.m_lpDispatch != NULL )
   {
      TCHAR szOutput[1024];
      wsprintf( szOutput, "Label: %s Caption: \"%s\" Value: %s\n",
(LPCTSTR)editor.GetLabel(), (LPCTSTR)editor.GetCaption(), (LPCTSTR)V2S(
&editor.GetValue() ) );
      OutputDebugString( szOutput );
   }
```

```
}
```

method Editor.ClearButtons ()

Clears the buttons collection.

Type	Description

Use the ClearButtons property to clear the editor's collection of buttons. Use the AddButton method to add multiple buttons to the editor. Use the ButtonWidth property to specify the width of the buttons. Use the RemoveButton method to remove a single button. The control fires the ButtonClick event when user clicks a button.

method Editor.ClearItems ()

Clears the items collection.

Type	Description

The ClearItems method clears the predefined values added using AddItem, InsertItem methods. Use the RemoveItem method to remove a particular item. Use the DropDownVisible property to hide the drop-down window. Use the Refresh method to update the editor's content, if it depends on predefined values. Use the Value property to update the editor's value.

method Editor.DropDown ()

Displays the drop down list.

Type	Description

The DropDown method shows the drop down portion of the editor. The method has effect for editors like: **DropDownType, DropDownListType, PickEditType,** and **CheckListType**.

The following VB sample shows the drop down portion of the current editor if the user releases the F2 key:

```
Private Sub Record1_KeyUp(KeyCode As Integer, Shift As Integer)
   If (KeyCode = vbKeyF2) Then
      With Record1
         If Not .Focus Is Nothing Then
            .Focus.DropDown
         End If
      End With
   End If
End Sub
```

The following VC sample shows the drop down portion of the current editor if the user releases the F2 key:

```
void OnKeyUpRecord1(short FAR* KeyCode, short Shift)
{
   if ( *KeyCode == VK_F2 )
   {
      CEditor editor = m_record.GetFocus();
      editor.DropDown();
   }
}
```

property Editor.DropDownAlignment as AlignmentEnum

Retrieves or sets a value that indicates the item's alignment in the editor's drop-down list.

Type	Description
AlignmentEnum	An AlignmentEnum expression that indicates the item's alignment into the editor's drop-down list.

Use the DropDownAlignment property to align the items in the editor's drop-down list. The property has effect only for editors of drop down type. By default, the items in the drop down portion of the editor are left aligned. Use the DropDownAlignment property to right align the items in the drop down portion of the editor.

property Editor.DropDownAutoWidth as Boolean

Retrieves or sets a value that indicates whether the editor's drop-down window list is automatically computed to fit the entire list.

Type	Description
Boolean	A boolean expression that indicates whether the editor's drop- down list width is automatically computed to fit the entire list.

Use the DropDownAutoWidth property to specify when you let the control computes the drop-down list width, or whenever the width is specified by the DropDownMinWidth property. By default, the DropDownAutoWidth property is True.

property Editor.DropDownMinWidth as Long

Specifies the minimum drop-down list width if the DropDownAutoWidth is False.

Type	Description
Long	A long expression that specifies the minimum drop- down list width if the DropDownAutoWidth is False

The DropDownMinWidth property has no effect if the DropDownAutoWidth property is True.

property Editor.DropDownRows as Long

Retrieves or sets a value that indicates the maximum number of visible rows in the editor's drop- down list.

Type	Description
Long	A long expression that indicates the maximum number of visible rows in the editor's drop- down list.

Use the DropDownRows property to specify the maximum number of visible rows in the editor's drop-down list. By default, the DropDownRows property is set to 7. The DropDownRows property has effect for the following types: DropDownType, DropDownListType, PickEditType, CheckListType and FontType.

property Editor.DropDownVisible as Boolean

Retrieves or sets a value that indicates whether the editor's drop down button is visible or hidden.

Type	Description
Boolean	A boolean value that indicates whether the editor's drop down button is visible or hidden.

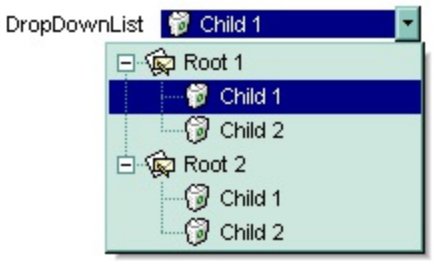
By default, the DropDownVisible property is True. Use the DropDownVisible property to hide the editor's drop-down button. Use the ButtonWidth property to hide the editor buttons.

property Editor.EditType as EditTypeEnum

Retrieves or sets a value that indicates the type of the editor.

Type	Description
EditTypeEnum	An EditTypeEnum expression that specifies the type of the editor.

Use the EditType property to set the editor's type. Use the Add method to specify the editor's type when adding the editor to the control. The EditType property is set when using the DataSource property according to the record set field's type. For instance, if we have a record set field of date type, the EditType property is set to DateType. Use the UserEditor method to specify the program identifier when EditType property is UserEditorType. Use the UserEditorObject property to access the inner ActiveX control when EditType property is UserEditorType. Use the Value property to specify the editor's value. Use the Option property to define options for a specific type of editor. Use the AddItem and InsertItem methods to add new items to the drop down portion of the editor. Use the AddButton method to add new buttons to the editor.



The following VB sample adds an editor of drop down list type:

```
With Record1
   .BeginUpdate
   .BackColor = vbWhite
   .LabelSize = 80
   .Images
"gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEaIEaEEaAIAkcbk0oIUrlktl0vmExm

   With .Add("DropDownList", EXRECORDLibCtl.DropDownListType)
      .DropDownAutoWidth = False
      .AddItem 0, "Root 1", 1
      .InsertItem 1, "Child 1", 2, 0
      .InsertItem 2, "Child 2", 2, 0
```

```
        .AddItem 3, "Root 2", 1
        .InsertItem 4, "Child 1", 2, 3
        .InsertItem 5, "Child 2", 2, 3
        .ExpandAll
    End With
    .EndUpdate
End With
```

The following VC sample adds an editor of drop down list type:

```
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
m_record.Images(COleVariant("gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEaII

CEditor editor = m_record.Add(COleVariant("DropDownList"), /*DropDownListType*/ 3,
vtMissing );
editor.SetDropDownAutoWidth( FALSE );
editor.AddItem( 0, "Root 1", COleVariant((long)1)  );
editor.InsertItem(1, "Child 1", COleVariant((long)2), COleVariant( long(0) ) );
editor.InsertItem(2, "Child 2", COleVariant((long)2), COleVariant( long(0) ) );
editor.AddItem( 3, "Root 2", COleVariant((long)1)  );
editor.InsertItem(4, "Child 1", COleVariant((long)2), COleVariant( long(3) ) );
editor.InsertItem(5, "Child 2", COleVariant((long)2), COleVariant( long(3) ) );
editor.ExpandAll();
m_record.Refresh();
```

The following VC sample adds an Exontrol.ComboBox ActiveX control:

```
#import "c:\winnt\system32\ExComboBox.dll"
#import "c:\winnt\system32\ExRecord.dll"

BOOL sInstalled(BSTR strProgID)
{
    CLSID clsid = CLSID_NULL;
    HRESULT hResult = E_POINTER;
    if (SUCCEEDED( hResult = CLSIDFromProgID( strProgID, &clsid; ) ))
    {
        IDispatch* pObject = NULL;
        if ( SUCCEEDED( hResult = CoCreateInstance( clsid, NULL, CLSCTX_ALL, IID_IDispatch,
```

```
reinterpret_cast(&pObject;) ) ) )
        {
            pObject->Release();
            return TRUE;
        }
    }
    return FALSE;
}

#define v(x) _variant_t( x )

    CString strObject( "Exontrol.ComboBox" );
    COleVariant vtMissing; vtMissing.vt = VT_ERROR;
    m_record.BeginUpdate();
    m_record.SetLabelSize( 110 );
    CEditor editor = m_record.Add( COleVariant( "ActiveX" ),
EXRECORDLib::UserEditorType, vtMissing );
    editor.SetPosition( 2 );
    if ( !isInstalled( strObject.AllocSysString() ) )
    {
        CString strFormat;
        strFormat.Format( "\"%s\" is not installed.", (LPCSTR)strObject );
        editor.SetValue( COleVariant( strFormat ) );
        editor.SetForeColor( RGB( 255, 0, 0 ) );
    }
    else
    {
        // Creates the exComboBox control. https://www.exontrol.com/excombobox.jsp
        editor.UserEditor( strObject, "" );
        if ( EXCOMBOBOXLib::IComboBoxPtr spComboBox = editor.GetUserEditorObject() )
        {
            spComboBox->BeginUpdate();
            spComboBox->BackColorEdit = GetSysColor( COLOR_MENU );
            spComboBox->IntegralHeight = true;
            spComboBox->ColumnAutoResize = true;
            spComboBox->LinesAtRoot = EXCOMBOBOXLib::exLinesAtRoot;
            spComboBox->MinHeightList = 164;
```

```
spComboBox->MinWidthList = 264;
spComboBox->MarkSearchColumn = false;
spComboBox->DrawGridLines = EXCOMBOBOXLib::exAllLines;
spComboBox->FilterBarDropDownHeight = -150;
spComboBox->Alignment = EXCOMBOBOXLib::RightAlignment;
EXCOMBOBOXLib::IColumnsPtr spColumns = spComboBox->Columns;
spColumns->Add("Column 1");
spColumns->Add("Column 2");
EXCOMBOBOXLib::IColumnPtr spColumn = spColumns->Add("Column 3");
spColumn->DisplayFilterButton = true;
EXCOMBOBOXLib::IItemsPtr spItems = spComboBox->Items;
long h = spItems->AddItem( v( "Root 1" ) );
spItems->CellCaption[v(h)][v((long)1)] = v("SubChild 1");
spItems->CellCaption[v(h)][v((long)2)] = v("SubChild 2");
long h1 = spItems->InsertItem( h, vtMissing, v( "Child 1" ) );
spItems->CellCaption[v(h1)][v((long)1)] = v("SubChild 1.1");
spItems->CellCaption[v(h1)][v((long)2)] = v("SubChild 1.2");
spItems->CellHasCheckBox[v(h1)][v((long)0)] = true;
spItems->CellMerge[v(h1)][v((long)0)] = v((long)1);
h1 = spItems->InsertItem( h, vtMissing, v( "Child 2" ) );
spItems->CellCaption[v(h1)][v((long)1)] = v("SubChild 2.1");
spItems->CellCaption[v(h1)][v((long)2)] = v("SubChild 2.2");
spItems->CellHasCheckBox[v(h1)][v((long)0)] = true;
spItems->CellMerge[v(h1)][v((long)0)] = v((long)1);
spItems->put_ExpandItem( h, TRUE );

h = spItems->AddItem( v( "Root 2" ) );
spItems->CellCaption[v(h)][v((long)1)] = v("SubChild 1");
spItems->CellCaption[v(h)][v((long)2)] = v("SubChild 2");
h1 = spItems->InsertItem( h, vtMissing, v( "Child 1" ) );
spItems->CellCaption[v(h1)][v((long)1)] = v("SubChild 1.1");
spItems->CellCaption[v(h1)][v((long)2)] = v("SubChild 1.2");
spItems->CellHasCheckBox[v(h1)][v((long)0)] = true;
spItems->CellMerge[v(h1)][v((long)0)] = v((long)1);
h1 = spItems->InsertItem( h, vtMissing, v( "Child 2" ) );
spItems->CellCaption[v(h1)][v((long)1)] = v("SubChild 2.1");
spItems->CellCaption[v(h1)][v((long)2)] = v("SubChild 2.2");
```

```
        spItems->CellHasCheckBox[v(h1)][v((long)0)] = true;
        spItems->CellMerge[v(h1)][v((long)0)] = v((long)1);
        spItems->put_ExpandItem( h, TRUE );

        spComboBox->Value = "Root 1";
        spComboBox->EndUpdate();

      }
    }
    m_record.EndUpdate();
```

The following VB sample adds a Forms.ComboBox ActiveX control:

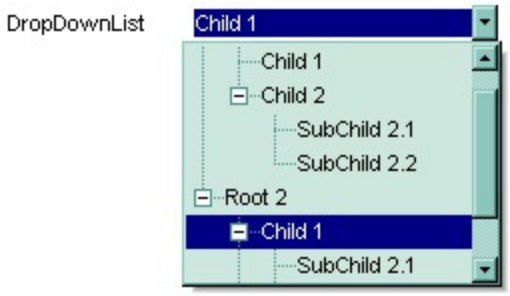
```
 With Record1
   .BeginUpdate
   With .Add("ActiveX", EXRECORDLibCtl.UserEditorType)
      .UserEditor "Forms.ComboBox.1", ""
      With .UserEditorObject()
         .AddItem "Item 1"
         .AddItem "Item 2"
      End With
   End With
   .EndUpdate
End With
```

method Editor.ExpandAll ()

Expands all items in the editor's list.

Type	Description

The ExapndAll method expands all items in the editor's drop down list. Use the InsertItem method to insert child items to the editor's drop down list. Use the ExpandItem method to expand programmatically an item. The ExpandAll method has effect only if the EditType property is **DropDownListType**. Use the DropDownAutoWidth property to let the control computes the width of the drop down portion so all items hit the drop down client's area.



The following VB sample expands all items in the DropDownListType editor:

```
With Record1
   .BeginUpdate
   With .Add("DropDownList", EXRECORDLibCtl.DropDownListType)
      .DropDownAutoWidth = False
      .AddItem 0, "Root 1"
      .InsertItem 1, "Child 1", , 0
      .InsertItem 2, "Child 2", , 0
      .InsertItem 3, "SubChild 2.1", , 2
      .InsertItem 4, "SubChild 2.2", , 2
      .AddItem 5, "Root 2"
      .InsertItem 6, "Child 1", , 5
      .InsertItem 7, "Child 2", , 5
      .InsertItem 8, "SubChild 2.1", , 6
      .InsertItem 9, "SubChild 2.2", , 6
      .ExpandAll
      .Value = 6
   End With
   .EndUpdate
End With
```

The following VC sample expands all items in a DropDownListType editor:

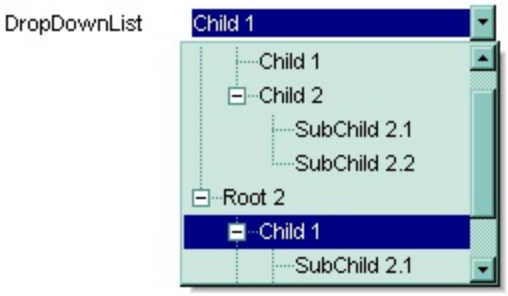
```
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
CEditor editor = m_record.Add(COleVariant("DropDownList"), /*DropDownListType*/ 3,
vtMissing );
editor.SetDropDownAutoWidth( FALSE );
editor.AddItem( 0, "Root 1", vtMissing );
editor.InsertItem( 1, "Child 1", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 2, "Child 2", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 3, "SubChild 2.1", vtMissing, COleVariant( long(2) ) );
editor.InsertItem( 4, "SubChild 2.2", vtMissing, COleVariant( long(2) ) );
editor.AddItem( 5, "Root 2", vtMissing );
editor.InsertItem( 6, "Child 1", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 7, "Child 2", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 8, "SubChild 1.1", vtMissing, COleVariant( long(6) ) );
editor.InsertItem( 9, "SubChild 1.2", vtMissing, COleVariant( long(6) ) );
editor.SetValue( COleVariant( (long)6 ) );
editor.ExpandAll();
```

property Editor.ExpandItem(Value as Variant) as Boolean

Expandes or collapses an item in the editor's list.

Type	Description
Value as Variant	A long expression that indicates the value of the item being expanded, a string expression that indicates the caption of the item being expanded.
Boolean	A boolean expression that indicates whether the item is expanded or collapsed.

By default, the items are collapsed. Use the ExpandItem to expand a specified item. Use the ExpandAll method to expand all items in the editor. Use the InsertItem method to insert a child item to your drop down editor. The ExpandItem property has effect only if the EditType property is DropDownListType.



The following VB sample expands all items in the DropDownListType editor:

```
With Record1
  .BeginUpdate
  With .Add("DropDownList", EXRECORDLibCtl.DropDownListType)
    .DropDownAutoWidth = False
    .AddItem 0, "Root 1"
    .InsertItem 1, "Child 1", , 0
    .InsertItem 2, "Child 2", , 0
    .InsertItem 3, "SubChild 2.1", , 2
    .InsertItem 4, "SubChild 2.2", , 2
    .AddItem 5, "Root 2"
    .InsertItem 6, "Child 1", , 5
    .InsertItem 7, "Child 2", , 5
    .InsertItem 8, "SubChild 2.1", , 6
    .InsertItem 9, "SubChild 2.2", , 6
    .ExpandAll
```

```
    .Value = 6
  End With
  .EndUpdate
End With
```

The following VC sample expands all items in a DropDownListType editor:

```
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
CEditor editor = m_record.Add(COleVariant("DropDownList"), /*DropDownListType*/ 3,
vtMissing );
editor.SetDropDownAutoWidth( FALSE );
editor.AddItem( 0, "Root 1", vtMissing );
editor.InsertItem( 1, "Child 1", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 2, "Child 2", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 3, "SubChild 2.1", vtMissing, COleVariant( long(2) ) );
editor.InsertItem( 4, "SubChild 2.2", vtMissing, COleVariant( long(2) ) );
editor.AddItem( 5, "Root 2", vtMissing );
editor.InsertItem( 6, "Child 1", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 7, "Child 2", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 8, "SubChild 1.1", vtMissing, COleVariant( long(6) ) );
editor.InsertItem( 9, "SubChild 1.2", vtMissing, COleVariant( long(6) ) );
editor.SetValue( COleVariant( (long)6 ) );
editor.ExpandAll();
```

property Editor.FindItem (Value as Variant) as Variant

Finds an item given its value or caption.

Type	Description
Value as Variant	A long expression that indicates the value of the item being searched, a string expression that indicates the caption of the item being searched.
Variant	A string expression that indicates the caption of the item, if the Value is a long expression, a long expression that indicates the item's value if Value is a string expression.

Use the FindItem property look for an item in the drop down list editor. The FindItem property retrieves an empty (VT_EMPTY) value if no item is found. Use the AddItem or InsertItem method to add new items to the drop down list editor.

The following VB sample prints the caption of the item with the value 6:

```
With Record1
  .BeginUpdate
  With .Add("DropDownList", EXRECORDLibCtl.DropDownListType)
    .DropDownAutoWidth = False
    .AddItem 0, "Root 1"
    .InsertItem 1, "Child 1", , 0
    .InsertItem 2, "Child 2", , 0
    .InsertItem 3, "SubChild 2.1", , 2
    .InsertItem 4, "SubChild 2.2", , 2
    .AddItem 5, "Root 2"
    .InsertItem 6, "Child 1", , 5
    .InsertItem 7, "Child 2", , 5
    .InsertItem 8, "SubChild 2.1", , 6
    .InsertItem 9, "SubChild 2.2", , 6
    Debug.Print .FindItem(6)
  End With
  .EndUpdate
End With
```

The sample displays the "Child 1" string that's the caption for the item with the value 6.

The following VB sample displays the value of the item with the caption "SubChild 2.1":

```
With Record1
   .BeginUpdate
   With .Add("DropDownList", EXRECORDLibCtl.DropDownListType)
      .DropDownAutoWidth = False
      .AddItem 0, "Root 1"
      .InsertItem 1, "Child 1", , 0
      .InsertItem 2, "Child 2", , 0
      .InsertItem 3, "SubChild 2.1", , 2
      .InsertItem 4, "SubChild 2.2", , 2
      .AddItem 5, "Root 2"
      .InsertItem 6, "Child 1", , 5
      .InsertItem 7, "Child 2", , 5
      .InsertItem 8, "SubChild 2.1", , 6
      .InsertItem 9, "SubChild 2.2", , 6
      Debug.Print .FindItem("SubChild 2.1")
   End With
   .EndUpdate
End With
```

The sample displays 3 as being the value of the "SubChild 2.1" item.

The following VC sample looks for the item with the value 6:

```
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;
}
```

```
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
```

```
CEditor editor = m_record.Add(COleVariant("DropDownList"), /*DropDownListType*/ 3,
vtMissing );
editor.SetDropDownAutoWidth( FALSE );
editor.AddItem( 0, "Root 1", vtMissing );
editor.InsertItem( 1, "Child 1", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 2, "Child 2", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 3, "SubChild 2.1", vtMissing, COleVariant( long(2) ) );
editor.InsertItem( 4, "SubChild 2.2", vtMissing, COleVariant( long(2) ) );
editor.AddItem( 5, "Root 2", vtMissing );
editor.InsertItem( 6, "Child 1", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 7, "Child 2", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 8, "SubChild 1.1", vtMissing, COleVariant( long(6) ) );
editor.InsertItem( 9, "SubChild 1.2", vtMissing, COleVariant( long(6) ) );

COleVariant vtItem = editor.GetFindItem( COleVariant( (long)6 ) );
OutputDebugString( V2S( &vtItem ) );
```

The sample displays in the output window the "Child 1" string that indicates the caption of the item with the value 6.

The following VC sample looks for an item given its caption:

```
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
CEditor editor = m_record.Add(COleVariant("DropDownList"), /*DropDownListType*/ 3,
vtMissing );
editor.SetDropDownAutoWidth( FALSE );
editor.AddItem( 0, "Root 1", vtMissing );
editor.InsertItem( 1, "Child 1", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 2, "Child 2", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 3, "SubChild 2.1", vtMissing, COleVariant( long(2) ) );
editor.InsertItem( 4, "SubChild 2.2", vtMissing, COleVariant( long(2) ) );
editor.AddItem( 5, "Root 2", vtMissing );
editor.InsertItem( 6, "Child 1", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 7, "Child 2", vtMissing, COleVariant( long(0) ) );
editor.InsertItem( 8, "SubChild 1.1", vtMissing, COleVariant( long(6) ) );
editor.InsertItem( 9, "SubChild 1.2", vtMissing, COleVariant( long(6) ) );

COleVariant vtItem = editor.GetFindItem( COleVariant( "SubChild 2.2" ) );
```

```
OutputDebugString( V2S( &vtItem ) );
```

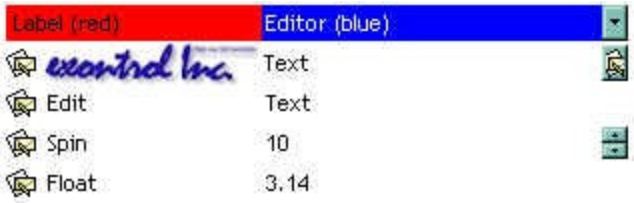
The sample displays in the output window the 4 value that corresponds to the "SubChild 2.2" item.

property Editor.ForeColor as Color

Specifies the editor's foreground color.

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

Use the ForeColor property to specify the editor's foreground color. Use the LabelForeColor property to specify the label's foreground color. Use the ForeColor property to specify the foreground color for the entire control. Use the <fgcolor> HTML tag to specify a foreground color for parts of the editor's label. Use the Label property to specify the editor's label.



The following sample assign different background colors for label and the editor as seeing in the screen shot:

```
With Record1
   .BeginUpdate
   With .Add("Label (red)", DropDownType)
      .Value = "Editor (blue)"
      .BackColor = vbBlue
      .LabelBackColor = vbRed
      .ForeColor = vbWhite
      .Position = 0
   End With
   .EndUpdate
End With
```

property Editor.Image as Long

Retrieves or sets a value that indicates the index of the editor's icon.

Type	Description
Long	A long expression that indicates the index of the icon being displayed in the editor's label. The control's list of icons is 1 based.

Use the Image property to assign a 16x16 icon to the editor. Use the Images method to assign a list of icons to the control. By default, the Image property is 0, no icon is displayed. Use the Picture property to assign a custom size picture to the editor. Use the Value property to assign a value to the editor. Use the Label property to specify the label of the editor. Use the <img> tag to insert icons or custom size pictures inside the field's label.

The following VB sample loads a list of icons from a BASE64 encoded string:

```
Dim s As String
s =
"gD/bD/cAACBKIxJIwAAIBAEMiAAf7bABDAADAQCjEaAcdAkeAoIAoFAgEAoKA4HAwIBgKB

s = s +
"jjmVZuG4JBrHiTJuj4Z4YHoNICDiNoUFWSBnHIOouFeTw8HWexLHwWJxD6LYrHgTxEnETovG

s = s +
"jB6jRBeNkc4VAHDWBsLEFw6R3B2E8DIAIChSDwAyIEEA4wKjiB8DRZwghDD4GWOIOoIxDC

s = s +
"BAIIgagHgEBvEwGQAACQQBXFcH4ZwPwJD8DmOMKguwPgRFYPQJoIwti6DCHUNYoB0iM

s = s +
"IUYqx3iWCEKcOwdhABGBwBwBgAAVjqDmNIVI6RfjqDKs4VwjQogMGGBcJoRhOAVBkgSBq

s = s +
"hPh9gbBth2gHASBPgwBvB1hoBNBbADACghv6gAAPA4FnBcAfhKgngvAkRIhsiAg=="

With Record1
   .BeginUpdate
```

```
    .BackColor = vbWhite
    .LabelSize = 166
    .Images
"gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEaIEaEEaAIAkcbk0oIUrlktl0vmExm

    With .Add("Label", EXRECORDLibCtl.ReadOnly)
        .Image = 1
        .Picture = s
        .Value = "Editor"
    End With
    .EndUpdate
End With
```

The following VC sample loads a list of icons from a BASE64 encoded string:

```
CString s(
"gD/bD/cAACBKIxJIwAAIBAEMiAAf7bABDAADAQCjEaAcdAkeAoIAoFAgEAoKA4HAwIBgKB
 );
s = s +
"jjmVZuG4JBrHiTJuj4Z4YHoNICDiNoUFWSBnHIOouFeTw8HWexLHwWJxD6LYrHgTxEnETovG

s = s +
"jB6jRBeNkc4VAHDWBsLEFw6R3B2E8DIAIChSDwAyIEEA4wKjiB8DRZwghDD4GWOIOoIxDC8

s = s +
"BAIIgagHgEBvEwGQAACQQBXFcH4ZwPwJD8DmOMKguwPgRFYPQJoIwti6DCHUNYoB0iM

s = s +
"IUYqx3iWCEKcOwdhABGBwBwBgAAVjqDmNIVI6RfjqDKs4VwjQogMGGBcJoRhOAVBkgSBq

s = s +
"hPh9gbBth2gHASBPgwBvB1hoBNBbADACghv6gAAPA4FnBcAfhKgngvAkRIhsiAg==";

m_record.BeginUpdate();
m_record.Images( COleVariant(
"gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEaIEaEEaAIAkcbk0oIUrlktl0vmExm
 ) );
```

```
m_record.SetBackColor( RGB(255,255,255) );
m_record.SetLabelSize(166);
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
CEditor editor = m_record.Add(COleVariant("Label"), /*ReadOnly*/ 0, vtMissing );
editor.SetImage( 1 );
editor.SetValue( COleVariant( "Editor" ) );
editor.SetPicture( COleVariant( (LPCTSTR)s ) );
m_record.EndUpdate();
```

property Editor.Index as Long

Retrieves the index of the editor.

Type	Description
Long	A long expression that specifies the index of the editor.

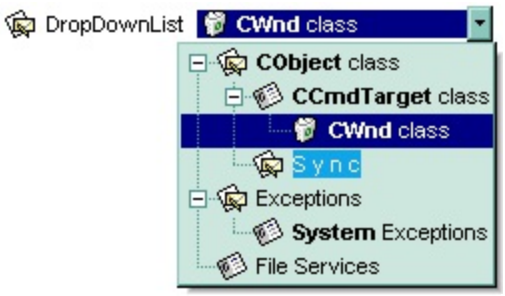
Use the Index property to retrieve the index of the editor in the control's collection of Editor objects. Use the Key property to identify an editor. Use the Position property to specify the editor's position. Use the Visible property to hide an editor. By default, the first editor added has the Index property on 0. The Index property of the editor is updated as soon as an editor is removed. Use the Item property to access an editor by index or by key. Use the ItemByPosition property to access an editor giving its position.

method Editor.InsertItem (Value as Long, Caption as String, [Image as Variant], [Parent as Variant])

Inserts a child item to the editor's list.

Type	Description
Value as Long	A long expression that indicates the value of the item
Caption as String	A string expression that indicates the caption of the item. The Caption parameter may include built-in HTML tags like explained bellow.
Image as Variant	A long expression that indicates the index of the icon being displayed.
Parent as Variant	A long expression that defines the value of the parent item.

Use the InsertItem to insert child items to the editor's predefined list. Use the AddItem method to add new items to the editor's drop down list. Use the ExpandItem property to expand an item. Use the ExpandAll items to expand all items. Use the ItemTooltip property to assign a tooltip to a predefined item into a drop down editor. Use the RemoveItem method to remove an item.



The following VB sample inserts few items to a drop down list editor:

```
With Record1
   .BeginUpdate
   .BackColor = vbWhite
   .Images
("gBJJgBggAAwAAgACEKAD/hz/EMNh8TIRNGwAjEZAEXjAojJAjIgjIBAEijUIk8pIUrlktl0vmEx

   .Images
("gBJJgBggAAwAAgACEKAD/hz/EMNh8TIRNGwAjEZAEXjAojJAjIgjIBAEijUIk8pIUrlktl0vmEx

    .Images
```

```
("gBJJgBggAAwAAgACEKAD/hz/EMNh8TIRNGwAjEZAEXjAojJAjIgjIBAEijUlk8pIUrlktl0vmExn

    With .Add("DropDownList", EXRECORDLibCtl.DropDownListType)
        .Image = 1
        .DropDownAutoWidth = False
        .AddItem 1, "CObject class", 1
        .InsertItem 2, "CCmdTarget class", 2, 1
        .InsertItem 3, "CWnd class", 3, 2
        .InsertItem 6, "S y n c", 1, 1
        .AddItem 4, "Exceptions", 1
        .InsertItem 7, "System Exceptions", 2, 4
        .AddItem 5, "File Services", 2
        .ExpandAll
        .Value = 3
    End With
    .EndUpdate
End With
```

The following VC sample inserts some items to a drop down list editor:

```
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
m_record.BeginUpdate();
m_record.Images( COleVariant(
"gBJJgBggAAwAAgACEKAD/hz/EMNh8TIRNGwAjEZAEXjAojJAjIgjIBAEijUlk8pIUrlktl0vmExn
 ) );
m_record.Images( COleVariant(
"gBJJgBggAAwAAgACEKAD/hz/EMNh8TIRNGwAjEZAEXjAojJAjIgjIBAEijUlk8pIUrlktl0vmExn
 ) );
m_record.Images( COleVariant(
"gBJJgBggAAwAAgACEKAD/hz/EMNh8TIRNGwAjEZAEXjAojJAjIgjIBAEijUlk8pIUrlktl0vmExn
 ) );
m_record.SetBackColor( RGB(255,255,255) );
CEditor editor = m_record.Add(COleVariant("DropDownList"), /*DropDownListType*/ 3,
vtMissing );
editor.SetDropDownAutoWidth( FALSE );
editor.AddItem(1, "CObject class", COleVariant( (long)1 ) );
editor.InsertItem( 2, "CCmdTarget class", COleVariant( (long)2 ), COleVariant( (long)1 ) );
```

```
editor.InsertItem( 3, "CWnd class", COleVariant( (long)3 ), COleVariant( (long)2 ) );
editor.InsertItem( 6, "S y n c", COleVariant( (long)1 ), COleVariant( (long)1 ) );
editor.AddItem(4, "Exceptions", COleVariant( (long)1 ) );
editor.InsertItem(7, "System Exceptions", COleVariant( (long)2 ), COleVariant( (long)4 ) );
editor.AddItem(5, "File Services", COleVariant( (long)2 ) );
editor.ExpandAll();
editor.SetValue( COleVariant( (long)3 ) );
m_record.EndUpdate();
```

The Caption parameter may include the following built-in HTML tags:

- ** ... ** displays the text in **bold**
- ** ... ** displays the text in *italics*
- **<u> ... </u>** underlines the text
- **<s> ... </s>** ~~Strike~~-through text
- **<a id;options> ... ** 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.
- ** ... ** displays portions of text with a different font and/or different size. For instance, the "bit" 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, "bit" 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
- **
** 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 **&** (&), **<** (<), **>** (>), **&qout;** (") and **&#number;** (the character with specified code), For instance, the € 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 bold in HTML caption you can use bold
- **<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 to define a smaller or a larger font to be displayed. For instance: "Text with <**off** 6>subscript" displays the text such as: Text with $_{\text{subscript}}$ The "Text with <**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 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 "<**gra** FFFFFF;1;1>gradient-center</**gra**>" 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 HTML tag can be used to define the height of the font. For instance the "<**out** 000000> <fgcolor=FFFFFF>outlined</fgcolor></**out**>" 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 HTML tag can be used to define the height of the font. For instance the "<**sha**>shadow</**sha**>" generates the following picture:

shadow

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

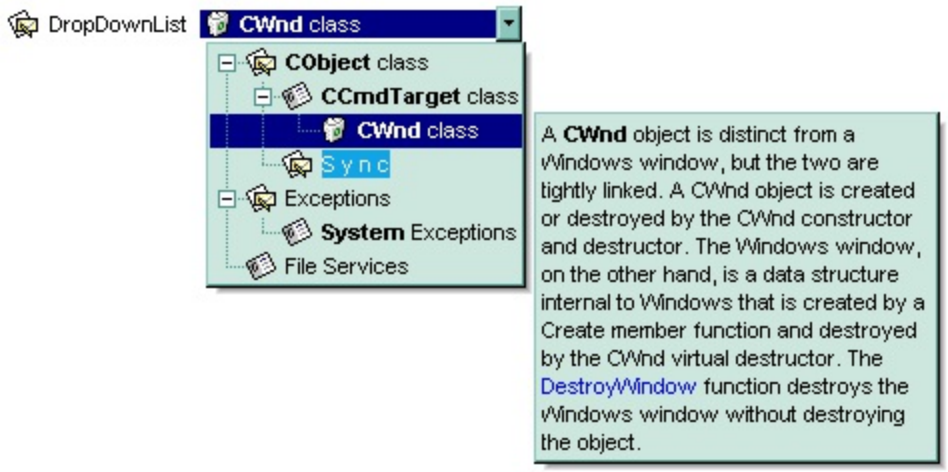
outline anti-aliasing

property Editor.ItemToolTip(Value as Variant) as String

Gets or sets the text displayed when the mouse pointer hovers over a predefined item.

Type	Description
Value as Variant	A long expression that indicates the value of the item whose tooltip is accessed, a string expression that indicates the caption of the item whose tooltip is accessed.
String	A string expression that may include HTML tags, that indicates the text being displayed when the mouse hovers the item.

Use the ItemToolTip property to assign a tooltip for a drop down list value. Use the AddItem or InsertItem methods to insert new items to the drop down predefined list. Use the ToolTip property to assign a tooltip to an editor.



The following VB sample adds a tooltip for a predefined value:

```
With Record1
   .BeginUpdate
   .BackColor = vbWhite
   .Images
("gBJJgBggAAwAAgACEKAD/hz/EMNh8TIRNGwAjEZAEXjAojJAjIgjIBAEijUlk8pIUrlktI0vmEx

   .Images
("gBJJgBggAAwAAgACEKAD/hz/EMNh8TIRNGwAjEZAEXjAojJAjIgjIBAEijUlk8pIUrlktI0vmEx

   .Images
("gBJJgBggAAwAAgACEKAD/hz/EMNh8TIRNGwAjEZAEXjAojJAjIgjIBAEijUlk8pIUrlktI0vmEx
```

```
    With .Add("DropDownList", EXRECORDLibCtl.DropDownListType)
        .Image = 1
        .DropDownAutoWidth = False
        .AddItem 1, "CObject class", 1
        .InsertItem 2, "CCmdTarget class", 2, 1
        .InsertItem 3, "CWnd class", 3, 2
        .ItemToolTip(3) = "A CWnd object is distinct from a Windows window, but the two
are tightly linked. A CWnd object is created or destroyed by the CWnd constructor and
destructor. The Windows window, on the other hand, is a data structure internal to
Windows that is created by a Create member function and destroyed by the CWnd virtual
destructor. The DestroyWindow function destroys the Windows window without
destroying the object. "
        .InsertItem 6, "S y n c", 1, 1
        .AddItem 4, "Exceptions", 1
        .InsertItem 7, "System Exceptions", 2, 4
        .AddItem 5, "File Services", 2
        .ExpandAll
        .Value = 3
    End With
    .EndUpdate
End With
```

The following VC sample adds a tooltip to a predefined value:

```
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
m_record.BeginUpdate();
m_record.Images( COleVariant(
"gBJJgBggAAwAAgACEKAD/hz/EMNh8TIRNGwAjEZAEXjAojJAjIgjIBAEijUlk8pIUrlktl0vmExn
 ) );
m_record.Images( COleVariant(
"gBJJgBggAAwAAgACEKAD/hz/EMNh8TIRNGwAjEZAEXjAojJAjIgjIBAEijUlk8pIUrlktl0vmExn
 ) );
m_record.Images( COleVariant(
"gBJJgBggAAwAAgACEKAD/hz/EMNh8TIRNGwAjEZAEXjAojJAjIgjIBAEijUlk8pIUrlktl0vmExn
 ) );
m_record.SetBackColor( RGB(255,255,255) );
```

```
CEditor editor = m_record.Add(COleVariant("DropDownList"), /*DropDownListType*/ 3,
vtMissing );
editor.SetDropDownAutoWidth( FALSE );
editor.AddItem(1, "CObject class", COleVariant( (long)1 ) );
editor.InsertItem( 2, "CCmdTarget class", COleVariant( (long)2 ), COleVariant( (long)1 ) );
editor.InsertItem( 3, "CWnd class", COleVariant( (long)3 ), COleVariant( (long)2 ) );
editor.SetItemToolTip( COleVariant( (long)3 ), "A CWnd object is distinct from a Windows
window, but the two are tightly linked. A CWnd object is created or destroyed by the
CWnd constructor and destructor. The Windows window, on the other hand, is a data
structure internal to Windows that is created by a Create member function and destroyed
by the CWnd virtual destructor. The DestroyWindow function destroys the Windows
window without destroying the object. " );
editor.InsertItem( 6, "S y n c", COleVariant( (long)1 ), COleVariant( (long)1 ) );
editor.AddItem(4, "Exceptions", COleVariant( (long)1 ) );
editor.InsertItem(7, "System Exceptions", COleVariant( (long)2 ), COleVariant( (long)4 ) );
editor.AddItem(5, "File Services", COleVariant( (long)2 ) );
editor.ExpandAll();
editor.SetValue( COleVariant( (long)3 ) );
m_record.EndUpdate();
```

The ItemToolTip property may include the following built-in HTML tags:

- ** ... ** displays the text in **bold**
- ** ... ** displays the text in *italics*
- **<u> ... </u>** underlines the text
- **<s> ... </s>** ~~Strike~~-through text
- **<a id;options> ... ** 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.
- ** ... ** displays portions of text with a different font and/or different size. For instance, the "bit" 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, "bit" 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
- **
** 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 **&** (&), **<** (<), **>** (>), **&qout;** (") and **&#number;** (the character with specified code), For instance, the € 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 bold in HTML caption you can use bold
- **<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 to define a smaller or a larger font to be displayed. For instance: "Text with <**off** 6>subscript" displays the text such as: Text with $_{\text{subscript}}$ The "Text with <**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 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 "<**gra** FFFFFF;1;1>gradient-center</**gra**>" 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 HTML tag can be used to define the height of the font. For instance the "<**out** 000000> <fgcolor=FFFFFF>outlined</fgcolor></**out**>" 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 HTML tag can be used to define the height of the font. For instance the "<**sha**>shadow</**sha**>" generates the following picture:

shadow

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

outline anti-aliasing

property Editor.Key as String

Retrieves the editor's key.

Type	Description
String	A string expression that specifies the editor's key.

The Key property specifies the editor's key. The Key property is read only. The Key parameter of the Add method indicates the key of the editor being added. Use the Item property to access an editor by key or by its index. The Index property retrieves the index of the editor. Use the Position property to specify the position of the editor.

property Editor.Label as String

Specifies the editor's label.

Type	Description
String	A string expression that indicates the label of the editor.

The Label property specifies the editor's label. Use the Label property to change the editor's label. Use the LabelSize property to specify the width of the label. Use the Value property to specify the value of the editor. Use the Caption property to retrieve the caption of the editor. Use the Add method to specify the editor's label at adding time. Use the Image property to assign an icon to an editor. Use the <img> tag to insert icons inside the field's label. Use the Picture property to assign a picture to an editor. Use the LabelForeColor property to specify the label's foreground color. Use the LabelBackColor property to specify the label's background color. Use the LabelAlignment property to align the label.

The Label property may include built-in HTML tags like follows:

- ** ... ** displays the text in **bold**
- ** ... ** displays the text in *italics*
- **<u> ... </u>** underlines the text
- **<s> ... </s>** ~~Strike~~-through text
- **<a id;options> ... ** 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.
- ** ... ** displays portions of text with a different font and/or different size. For instance, the "bit" 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, "bit" 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
- **
** 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 **&** (&), **<** (<), **>** (>), **&qout;** (") and **&#number;** (the character with specified code), For instance, the € 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 bold in HTML caption you can use bold
- **<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 to define a smaller or a larger font to be displayed. For instance: "Text with <**off** 6>subscript" displays the text such as: Text with $_{\text{subscript}}$ The "Text with <**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 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 "<**gra**

FFFFFF;1;1>gradient-center</**gra**>" 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 HTML tag can be used to define the height of the font. For instance the "<**out** 000000> <fgcolor=FFFFFF>outlined</fgcolor></**out**>" 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 HTML tag can be used to define the height of the font. For instance the "<**sha**>shadow</**sha**>" generates the following picture:

shadow

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

outline anti-aliasing

property Editor.LabelAlignment as AlignmentEnum

Specifies the alignment of the label relative to the field.

Type	Description
AlignmentEnum	An AlignmentEnum expression that indicates the label's alignment.

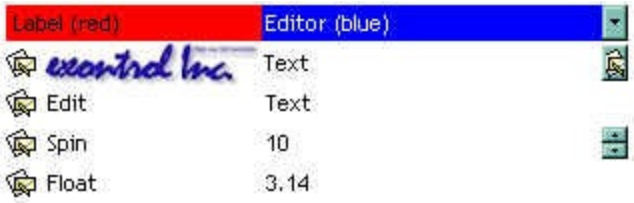
Use the LabelAlignment property to align the label. By default, the label is aligned to the left.

property Editor.LabelBackColor as Color

Specifies the label's background color.

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

Use the LabelBackColor property to change the background color of the label of the editor. Use the BackColor property to change the editor's background color. Use the ForeColor property to change the editor's foreground color. Use the <bgcolor> HTML tag to specify a background color for parts of the editor's label. Use the Label property to specify the editor's label. Use the BackColor property to specify the control's background color.



The following sample assign different background colors for label and the editor as seeing in the screen shot:

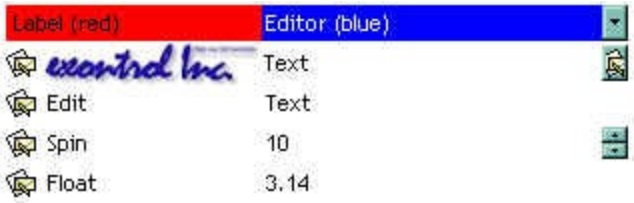
```
With Record1
   .BeginUpdate
   With .Add("Label (red)", DropDownType)
      .Value = "Editor (blue)"
      .BackColor = vbBlue
      .LabelBackColor = vbRed
      .ForeColor = vbWhite
      .Position = 0
   End With
   .EndUpdate
End With
```

property Editor.LabelForeColor as Color

Specifies the label's foreground color.

Type	Description
Color	A color expression that specifies the editor's label foreground color.

Use the LabelForeColor property to specify the label's foreground color. Use the ForeColor property to specify the editor's foreground color. Use the ForeColor property to specify the foreground color for the entire control. Use the <fgcolor> HTML tag to specify a foreground color for parts of the editor's label. Use the Label property to specify the editor's label. Use the LabelBackColor property to specify the background color of the editor's label.



The following sample assign different background colors for label and the editor as seeing in the screen shot:

```
With Record1
   .BeginUpdate
   With .Add("Label (red)", DropDownType)
      .Value = "Editor (blue)"
      .BackColor = vbBlue
      .LabelBackColor = vbRed
      .ForeColor = vbWhite
      .Position = 0
   End With
   .EndUpdate
End With
```

property Editor.Locked as Boolean

Determines whether the editor is locked or unlocked.

Type	Description
Boolean	A boolean expression that indicates whether the editor is locked.

Use the Locked property to lock an editor. By default, the Locked property is False. If the Locked property is True, the editor is locked. For instance, if the EditType property is EditType, and Locked property is True, the edit control is read-only, and so the user can type new text inside. Use the Visible property to hide the editor. Use the Enabled property to disable the control.

property Editor.Mask as String

Retrieves or sets a value that indicates the mask used by the editor.

Type	Description
String	A string expression that defines the editor's mask.

Use the Mask property to filter characters during data input. Use the Mask property to control the entry of many types of formatted information such as telephone numbers, social security numbers, IP addresses, license keys etc. The Mask property has effect for the following edit types: DropDownType, SpinType, DateType, MaskType, FontType, PickEditType. Call the Refresh method to update the editor's mask.

Use the MaskChar property to change the masking character. If the Mask property is empty no filter is applied. The Mask property is composed by a combination of regular characters, literal escape characters, and masking characters. The Mask property can contain also alternative characters, or range rules. A literal escape character is preceded by a \ character, and it is used to display a character that is used in masking rules. Here's the list of all rules and masking characters:

Rule	Name	Description
#	Digit	Masks a digit character. [0-9]
x	Hexa Lower	Masks a lower hexa character. [0-9],[a-f]
X	Hexa Upper	Masks a upper hexa character. [0-9],[A-F]
A	AlphaNumeric	Masks a letter or a digit. [0-9], [a-z], [A-Z]
?	Alphabetic	Masks a letter. [a-z],[A-Z]
<	Alphabetic Lower	Masks a lower letter. [a-z]
>	Alphabetic Upper	Masks an upper letter. [A-Z]
*	Any	Mask any combination of characters.
\	Literal Escape	Displays any masking characters. The following combinations are valid: \#,\x,\X,\A,\?,\<,\>,\\,\{,\[
{nMin,nMax}	Range	Masks a number in a range. The nMin and nMax values should be numbers. For instance the mask {0,255} will mask any number between 0 and 255.
[...]	Alternative	Masks any characters that are contaied by brackets []. For instance, the [abcA-C] mask any character: a,b,c,A,B,C

The following VB sample adds an IP editor:

```
With Record1
   .BeginUpdate
    With .Add("IP", EXRECORDLibCtl.MaskType)
       .Mask = "{0,255}\.{0,255}\.{0,255}\.{0,255}"
       .Value = "193.226.40.161"
   End With
   .EndUpdate
End With
```

The following VC sample adds a Phone editor:

```
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
CEditor editor = m_record.Add(COleVariant("Phone"), /*MaskType*/ 8, vtMissing );
editor.SetMask("(###) ### - ####");
editor.SetValue( COleVariant( "(0744) 845 - 2835" ) );
m_record.Refresh();
```

property Editor.MaskChar as Long

Retrieves or sets a value that indicates the character used for masking.

Type	Description
Long	A long expression that indicates the ASCII code for the masking character.

Use the MaskChar property to change the default masking character, which is '_'. The MaskChar property has effect only if the Mask property is not empty, and the mask is applicable to the editor's type. Use the Mask property to specify the editor's mask.

property Editor.Numeric as NumericEnum

Specifies whether the editor enables numeric values only.

Type	Description
NumericEnum	A NumericEnum expression that indicates whether integer or floating point numbers are allowed.

The Numeric property has effect only if the editor contains an edit box. Use the Numeric property to add intelligent input filtering for integer, or floating points numbers. Use the exSpinStep option to specify the proposed change when user clicks a spin control, if the cell's editor is of SpinType type. Use the exEditDecimaSymbol option to specify the symbol being used by decimal value while editing a floating point number.

property Editor.Option(Name as EditorOptionEnum) as Variant

Specifies an option for the editor.

Type	Description
Name as EditorOptionEnum	An EditorOptionEnum expression that indicates the editor's option being changed.
Variant	A Variant expression that indicates the value for editor's option

Use the Option property to change the options for an editor.

The following VB sample adds a password editor:

```
 With Record1
   .BeginUpdate
    With .Add("Password", EXRECORDLibCtl.EditType)
      .Option(exEditPassword) = True
      .Value = "pass"
   End With
   .EndUpdate
End With
```

The following VC sample adds a password editor:

```
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
CEditor editor = m_record.Add(COleVariant("Password"), /*EditType*/ 1, vtMissing );
editor.SetOption( /*exEditPassword*/ 18, COleVariant( (long)TRUE ) );
editor.SetValue( COleVariant( "pass" ) );
```

property Editor.PartialCheck as Boolean

Retrieves or sets a value that indicates whether the associated check box has two or three states.

Type	Description
Boolean	A boolean expression that indicates whether the associated check box has two or three states.

property Editor.Picture as Variant

Assigns a custom size picture to an editor.

Type	Description
Variant	A Picture object that indicates the picture being assigned, a string expression that may indicate the path to a picture file or a string expression that indicates the base64 encoded string that holds a picture object. Use the eximages tool to save your picture as base64 encoded format.

The Picture property assigns a custom size picture to an editor. Use the Image property to assign an icon to the editor. The picture is displayed on the editor's label, if it's width is less that the label's width. Use the LabelSize property to enlarge the label's size. Use the Picture property to display a picture to the control's background. You can load a transparent picture (a GIF file with transparency but set) in order to display a transparent picture.

The following VB sample loads a list of icons from a BASE64 encoded string:

```
Dim s As String
s =
"gD/bD/cAACBKIxJIwAAIBAEMiAAf7bABDAADAQCjEaAcdAkeAoIAoFAgEAoKA4HAwIBgKB

s = s +
"jjmVZuG4JBrHiTJuj4Z4YHoNICDiNoUFWSBnHIOouFeTw8HWexLHwWJxD6LYrHgTxEnETovG

s = s +
"jB6jRBeNkc4VAHDWBsLEFw6R3B2E8DIAIChSDwAyIEEA4wKjiB8DRZwghDD4GWOIOolxDC

s = s +
"BAIIgagHgEBvEwGQAACQQBXFcH4ZwPwJD8DmOMKguwPgRFYPQJoIwti6DCHUNYoB0iM

s = s +
"IUYqx3iWCEKcOwdhABGBwBwBgAAVjqDmNIVI6RfjqDKs4VwjQogMGGBcJoRhOAVBkgSBq

s = s +
"hPh9gbBth2gHASBPgwBvB1hoBNBbADACghv6gAAPA4FnBcAfhKgngvAkRIhsiAg=="
```

```
With Record1
   .BeginUpdate
   .BackColor = vbWhite
   .LabelSize = 166
   .Images
"gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEaIEaEEaAIAkcbk0oIUrlktl0vmExm

   With .Add("Label", EXRECORDLibCtl.ReadOnly)
      .Image = 1
      .Picture = s
      .Value = "Editor"
   End With
   .EndUpdate
End With
```

The following VC sample loads a list of icons from a BASE64 encoded string:

```
CString s(
"gD/bD/cAACBKIxJIwAAIBAEMiAAf7bABDAADAQCjEaAcdAkeAoIAoFAgEAoKA4HAwIBgKB
 );
s = s +
"jjmVZuG4JBrHiTJuj4Z4YHoNICDiNoUFWSBnHIOouFeTw8HWexLHwWJxD6LYrHgTxEnETovG

s = s +
"jB6jRBeNkc4VAHDWBsLEFw6R3B2E8DIAIChSDwAyIEEA4wKjiB8DRZwghDD4GWOIOoIxDC8

s = s +
"BAIIgagHgEBvEwGQAACQQBXFcH4ZwPwJD8DmOMKguwPgRFYPQJoIwti6DCHUNYoB0iM

s = s +
"IUYqx3iWCEKcOwdhABGBwBwBgAAVjqDmNIVI6RfjqDKs4VwjQogMGGBcJoRhOAVBkgSBq

s = s +
"hPh9gbBth2gHASBPgwBvB1hoBNBbADACghv6gAAPA4FnBcAfhKgngvAkRIhsiAg==";

m_record.BeginUpdate();
```

```
m_record.Images( COleVariant(
"gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEaIEaEEaAIAkcbk0oIUrlktl0vmExm
 ) );
m_record.SetBackColor( RGB(255,255,255) );
m_record.SetLabelSize(166);
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
CEditor editor = m_record.Add(COleVariant("Label"), /*ReadOnly*/ 0, vtMissing );
editor.SetImage( 1 );
editor.SetValue( COleVariant( "Editor" ) );
editor.SetPicture( COleVariant( (LPCTSTR)s ) );
m_record.EndUpdate();
```

property Editor.PopupAppearance as InplaceAppearanceEnum

Retrieves or sets a value that indicates the drop-down window's appearance.

Type	Description
InplaceAppearanceEnum	An InplaceAppearanceEnum expression that defines the drop-down window's border style.

Use the PopupAppearance property to change the drop-down window's border style. Use the Appearance property to define the editor's appearance.

property Editor.Position as Long

Retrieves or sets a value that indicates the editor's position.

Type	Description
Long	A long expression that indicates the position of the editor.

Use the Position property to change the editor's position. Use the ItemByPosition property to access an Editor by its position. Use the Visible property to hide an editor. Use the Key property to identify an editor.

method Editor.RemoveButton (Key as Variant)

Removes a button given its key.

Type	Description
Key as Variant	A string expression that indicates the key of the button being removed.

Use the RemoveButton method to remove a single button. Use the AddButton method to add multiple buttons to the editor. Use the ButtonWidth property to specify the width of the buttons. The control fires the ButtonClick event when user clicks a button. Use the ClearButtons property to clear the editor's collection of buttons.

method Editor.RemoveItem (Value as Long)

Removes an item from the editor's predefined values list.

Type	Description
Value as Long	A long expression that indicates the index of the item being removed, or a string expression that indicates the caption of the item being removed.

Use the RemoveItem method to remove an item from the editor's predefined values list. Use the ClearItems method to clear the entire list of editor items. Use the DropDownVisible property to hide the editor's drop-down window. Use the Remove method to remove an editor.

method Editor.SortItems ([Ascending as Variant], [Reserved as Variant])

Sorts the list of items in the editor.

Type	Description
Ascending as Variant	A boolean expression that indicates the sort order of the items.
Reserved as Variant	For future use only

Use the SortItems method to sort the items in a drop down editor. Use the AddItem or InsertItem method to add new items to the control. Use the RemoveItem method to remove an item. Use the ClearItems method to clear the items. Use the ExpandAll method to expand all items.

property Editor.ToolTip as String

Specifies a tooltip being displayed when the cursor hover the editor's label.

Type	Description
String	A string expression that specifies the editor's tooltip.

The ToolTip property specifies the editor's tooltip. The editor's tooltip shows up when the cursor hovers the editor. By default, the ToolTip property is "...". If the ToolTip property is "..." the tooltip appears only if the Label property is not fully visible.

The ToolTip property may include built-in HTML tags like follows:

- ** ... ** displays the text in **bold**
- ** ... ** displays the text in *italics*
- **<u> ... </u>** underlines the text
- **<s> ... </s>** ~~Strike~~-through text
- **<a id;options> ... ** 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.
- ** ... ** displays portions of text with a different font and/or different size. For instance, the "bit" 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, "bit" 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
- **
** 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 **&** (&), **<** (<), **>** (>), **&qout;** (") and **&#number;** (the character with specified code), For instance, the € 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 bold in HTML caption you can use bold
- **<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 to define a smaller or a larger font to be displayed. For instance: "Text with <**off** 6>subscript" displays the text such as: Text with $_{\text{subscript}}$ The "Text with <**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 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 "<**gra** FFFFFF;1;1>gradient-center</**gra**>" 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 HTML tag can be used to define the height of the font. For instance the "<**out** 000000> <fgcolor=FFFFFF>outlined</fgcolor></**out**>" 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 HTML tag can be used to define the height of the font. For instance the "<**sha**>shadow</**sha**>" generates the following picture:

shadow

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

outline anti-aliasing

property Editor.UserData as Variant

Gets or sets the user-definable data for the current editor.

Type	Description
Variant	A Variant expression that specifies the editor's extra data.

Use the UserData property to associate an extra data to an editor. Use the Value property to change the editor's value. Use the Label property to specify the editor's label. Use the Caption property to get the editor's caption.

method Editor.UserEditor (ControlID as String, License as String)

Specifies the control's identifier and the control's runtime license key when EditType is UserEditor.

Type	Description
ControlID as String	A string expression that indicates the control's program identifier. For instance, if you want to use a multiple column combobox as an user editor, the control's identifier could be: "Exontrol.ComboBox".
License as String	Optional. A string expression that indicates the runtime license key in case is it required. It depends on what control are you using.

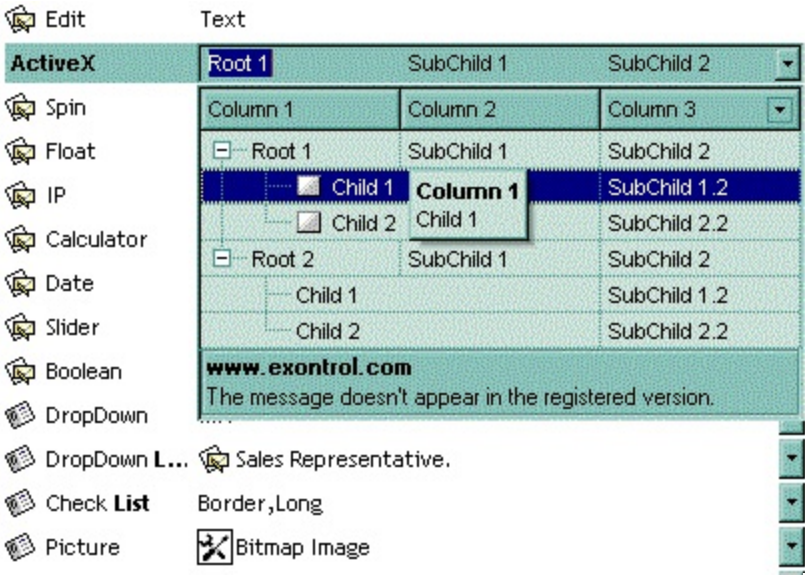
The UserEditor property creates an editor that hosts an inner ActiveX control, based on the ControlID parameter. The UserEditor property has effect only if the EditType property if UserEditorType. Use the UserEditorObject property to access the newly created object. The UserEditorObject property is nothing if the control wasn't able to create the user editor based on the ControlID. Also, if the user control requires a runtime license key, and the License parameter is empty or doesn't match, the UserEditorObject property is nothing. The control fires the UserEditorOleEvent event each time when an user editor fires an event.

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.ComboBox"
- A CLSID such as "{8E27C92B-1264-101C-8A2F-040224009C02}"
- 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 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 exRecord control. Unfortunately, You need to contact the vendor for particular ActiveX controls, because we can't provide documentation for any ActiveX control you might use. We can provide documentation only for our components.

Use the UserEditor method to create an inner ActiveX control.



The following VB sample adds an Exontrol.ComboBox control and displays the events being fired by inner ActiveX control:

```
Option Explicit

Private Function isInstalled(ByVal s As String) As Boolean
On Error GoTo Error
   CreateObject (s)
   isInstalled = True
   Exit Function
Error:
   isInstalled = False
End Function

Private Sub Form_Load()
   With Record1
      .BeginUpdate
         With .Add("ActiveX", UserEditorType)
            .Position = 2
            Dim progID As String
            progID = "Exontrol.ComboBox"
            If Not (isInstalled(progID)) Then
               .Value = """" & progID & """ is not installed."
               .ToolTip = .Value
               .ForeColor = vbRed
            Else
```

```
            .UserEditor progID, ""
            .LabelBackColor = SystemColorConstants.vbMenuBar
            ' Accesses the inside ActiveX control, in our case an ExComboBox control.
https://www.exontrol.com/excombobox.jsp
            With .UserEditorObject()
              .BeginUpdate
                .BackColorEdit = SystemColorConstants.vbMenuBar
                .IntegralHeight = True
                .ColumnAutoResize = True
                .LinesAtRoot = True
                .MinHeightList = 164
                .MinWidthList = 264
                .MarkSearchColumn = False
                .FilterBarDropDownHeight = -150
                .DrawGridLines = True
                .Alignment = 0
                With .Columns
                  .Add "Column 1"
                  .Add "Column 2"
                  With .Add("Column 3")
                    .DisplayFilterButton = True
                  End With
                End With
                With .Items
                  Dim h, h1
                  h = .AddItem(Array("Root 1", "SubChild 1", "SubChild 2"))
                  h1 = .InsertItem(h, , Array("Child 1", "SubChild 1.1", "SubChild 1.2"))
                  .CellMerge(h1, 0) = 1
                  .CellHasCheckBox(h1, 0) = True
                  h1 = .InsertItem(h, , Array("Child 2", "SubChild 2.1", "SubChild 2.2"))
                  .CellMerge(h1, 0) = 1
                  .CellHasCheckBox(h1, 0) = True
                  .ExpandItem(h) = True
                  h = .AddItem(Array("Root 2", "SubChild 1", "SubChild 2"))
                  h1 = .InsertItem(h, , Array("Child 1", "SubChild 1.1", "SubChild 1.2"))
                  .CellMerge(h1, 0) = 1
                  h1 = .InsertItem(h, , Array("Child 2", "SubChild 2.1", "SubChild 2.2"))
```

```
                    .CellMerge(h1, 0) = 1
                    .ExpandItem(h) = True
                  End With
                  .Value = "Root 1"
                .EndUpdate
              End With
            End If
          End With
        .EndUpdate
    End With
End Sub

Private Sub Record1_UserEditorOleEvent(ByVal Object As Object, ByVal Ev As
EXRECORDLibCtl.IOleEvent, ByVal Ed As EXRECORDLibCtl.IEditor)
On Error Resume Next
    Debug.Print "Event name: " & Ev.Name
    If (Ev.CountParam = 0) Then
      Debug.Print vbTab & "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 vbTab & Ev(i).Name; " = " & Ev(i).Value
      Next
    End If
End Sub
```

The following VC sample adds an Exontrol.ComboBox control and displays the events being fired by inner ActiveX control:

```
#import "c:\winnt\system32\ExComboBox.dll"
#import "c:\winnt\system32\ExRecord.dll"

CString strObject( "Exontrol.ComboBox" );
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
m_record.BeginUpdate();
m_record.SetLabelSize( 110 );
CEditor editor = m_record.Add( COleVariant( "ActiveX" ), EXRECORDLib::UserEditorType,
```

```
vtMissing );
editor.SetPosition( 2 );
if ( !isInstalled( strObject.AllocSysString() ) )
{
   CString strFormat;
   strFormat.Format( "\"%s\" is not installed.", (LPCSTR)strObject );
   editor.SetValue( COleVariant( strFormat ) );
   editor.SetForeColor( RGB( 255, 0, 0 ) );
}
else
{
   // Creates the exComboBox control. https://www.exontrol.com/excombobox.jsp
   editor.UserEditor( strObject, "" );
   if ( EXCOMBOBOXLib::IComboBoxPtr spComboBox = editor.GetUserEditorObject() )
   {
      spComboBox->BeginUpdate();
      spComboBox->BackColorEdit = GetSysColor( COLOR_MENU );
      spComboBox->IntegralHeight = true;
      spComboBox->ColumnAutoResize = true;
      spComboBox->LinesAtRoot = EXCOMBOBOXLib::exLinesAtRoot;
      spComboBox->MinHeightList = 164;
      spComboBox->MinWidthList = 264;
      spComboBox->MarkSearchColumn = false;
      spComboBox->DrawGridLines = EXCOMBOBOXLib::exAllLines;
      spComboBox->FilterBarDropDownHeight = -150;
      spComboBox->Alignment = EXCOMBOBOXLib::RightAlignment;
      EXCOMBOBOXLib::IColumnsPtr spColumns = spComboBox->Columns;
      spColumns->Add("Column 1");
      spColumns->Add("Column 2");
      EXCOMBOBOXLib::IColumnPtr spColumn = spColumns->Add("Column 3");
      spColumn->DisplayFilterButton = true;
      EXCOMBOBOXLib::IItemsPtr spItems = spComboBox->Items;
      long h = spItems->AddItem( v( "Root 1" ) );
      spItems->CellCaption[v(h)][v((long)1)] = v("SubChild 1");
      spItems->CellCaption[v(h)][v((long)2)] = v("SubChild 2");
      long h1 = spItems->InsertItem( h, vtMissing, v( "Child 1" ) );
      spItems->CellCaption[v(h1)][v((long)1)] = v("SubChild 1.1");
```

```
        spItems->CellCaption[v(h1)][v((long)2)] = v("SubChild 1.2");
        spItems->CellHasCheckBox[v(h1)][v((long)0)] = true;
        spItems->CellMerge[v(h1)][v((long)0)] = v((long)1);
        h1 = spItems->InsertItem( h, vtMissing, v( "Child 2" ) );
        spItems->CellCaption[v(h1)][v((long)1)] = v("SubChild 2.1");
        spItems->CellCaption[v(h1)][v((long)2)] = v("SubChild 2.2");
        spItems->CellHasCheckBox[v(h1)][v((long)0)] = true;
        spItems->CellMerge[v(h1)][v((long)0)] = v((long)1);
        spItems->put_ExpandItem( h, TRUE );

        h = spItems->AddItem( v( "Root 2" ) );
        spItems->CellCaption[v(h)][v((long)1)] = v("SubChild 1");
        spItems->CellCaption[v(h)][v((long)2)] = v("SubChild 2");
        h1 = spItems->InsertItem( h, vtMissing, v( "Child 1" ) );
        spItems->CellCaption[v(h1)][v((long)1)] = v("SubChild 1.1");
        spItems->CellCaption[v(h1)][v((long)2)] = v("SubChild 1.2");
        spItems->CellHasCheckBox[v(h1)][v((long)0)] = true;
        spItems->CellMerge[v(h1)][v((long)0)] = v((long)1);
        h1 = spItems->InsertItem( h, vtMissing, v( "Child 2" ) );
        spItems->CellCaption[v(h1)][v((long)1)] = v("SubChild 2.1");
        spItems->CellCaption[v(h1)][v((long)2)] = v("SubChild 2.2");
        spItems->CellHasCheckBox[v(h1)][v((long)0)] = true;
        spItems->CellMerge[v(h1)][v((long)0)] = v((long)1);
        spItems->put_ExpandItem( h, TRUE );

        spComboBox->Value = "Root 1";
        spComboBox->EndUpdate();

    }
}
m_record.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 OnUserEditorOleEventRecord1(LPDISPATCH Object, LPDISPATCH Ev, LPDISPATCH Ed)
{
  EXRECORDLib::IOleEventPtr spEvent = Ev;
  CString strOutput = "Event name: ";
  strOutput += spEvent->Name;
  strOutput += "\r\n";
  if ( spEvent->CountParam == 0 )
  {
    strOutput += "\tThe event has no arguments.";
  }
  else
  {
    strOutput += "\tThe event has no arguments.\r\n";
    for ( long i = 0; i < spEvent->CountParam; i++ )
    {
      strOutput += spEvent->GetParam( v(i) )->Name;
      strOutput += " = ";
      strOutput += V2S( &spEvent-;>GetParam( v(i) )->Value);
      strOutput += "\r\n";
    }

  }
  OutputDebugString( strOutput );
}
```

In C++, the **#import "path-to-ExRecord.dll"** adds a new EXRECORDLib namespace that includes definition for OleEvent and OleEventParam classes.

property Editor.UserEditorObject as Object

Gets the user editor object when EditType is UserEditor.

Type	Description
Object	An ActiveX object being used as an user editor.

Use the UserEditorOpen property to access to the inner ActiveX user editor. Use the UserEditor property to initialize the inner ActiveX user editor. The UserEditorObject property retrieves the ActiveX control created by the UserEditor method. The type of object returned by the UserEditorObject depends on the ControlID parameter of the UserEditor method. For instance, the type of the created object when UserEditor("Exontrol.ComboBox") is called, is EXCOMBOBOXLibCtl.ComboBox. The UserEditorObject property gets nothing if the UserEditor method fails to create the inner ActiveX control. The control fires the UserEditorOleEvent event each time when an user editor fires an event.

property Editor.Value as Variant

Retrieves or sets the field's value.

Type	Description
Variant	A Variant expression that specifies the editor's value.

Use the Value property to get the editor's value. Use the Caption property to get the editor's caption. The Caption property of the editor may be different than the Value property like follows. For instance, if we have a DropDownListType editor, the Caption property gets the caption of the item being selected, and the Value property gets a long expression that identifies the value of the item. The Label property gets the editor's label. Use the FindItem property to find an item based on its value. The Change event is fired when the user alters the editor's content. Use the AddItem property to add predefined items to a drop down editor (**DropDownType, DropDownListType, PickEditType,** and **CheckListType)**. Use the EditType property to change the type of the editor. Call the Refresh method to update the editor's value, if it depends on a predefined list of items (drop down editors). The Change event is called when the uses changes the value for an editor. If the control is bounded to a recordset (DataSource property), the value of the field is automatically updated in the recodset too.

The following VB sample prints the label, caption and the value of the editor from the cursor:

```
Private Sub Record1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As
Single)
   Dim e As EXRECORDLibCtl.Editor
   Set e = Record1.EditorFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY)
   If Not e Is Nothing Then
      Debug.Print "Label: " & e.Label & " Caption: """ & e.Caption & """ Value: " & e.Value
   End If
End Sub
```

The following VC sample prints the label, caption and the value of the editor from the cursor:

```
void OnMouseMoveRecord1(short Button, short Shift, long X, long Y)
{
   CEditor editor = m_record.GetEditorFromPoint( X, Y );
   if ( editor.m_lpDispatch != NULL )
   {
```

```
        TCHAR szOutput[1024];
        wsprintf( szOutput, "Label: %s Caption: \"%s\" Value: %s\n",
(LPCTSTR)editor.GetLabel(), (LPCTSTR)editor.GetCaption(), (LPCTSTR)V2S(
&editor.GetValue() ) );
        OutputDebugString( szOutput );
    }
}
```

property Editor.Visible as Boolean

Retrieves or sets a value that indicates whether the editor is visible or hidden.

Type	Description
Boolean	A boolean expression that indicates whether the editor is visible or hidden.

Use the Visible property to hide an editor. Use the Position property to change the order of the editors.

The following VB sample hides the "Handler" editor:

```
Record1("Handler").Visible = False
```

The following VC sample hides the "Handler" editor:

```
m_record.GetItem(COleVariant("Handler")).SetVisible( FALSE )
```

OleEvent object

The OleEvent object holds information about an event fired by an inner ActiveX control hosted by an UserEditorType editor. The UserEditorOleEvent event is fired when an inner ActiveX control fires an event.

Name	Description
CountParam	Retrieves the count of the OLE event's arguments.
ID	Retrieves a long expression that specifies the identifier of the event.
Name	Retrieves the original name of the fired event.
Param	Retrieves an OleEventParam object given either the index of the parameter, or its name.
ToString	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 VB sample shows how to enumerate the arguments of an OLE event:

```
Private Sub Record1_UserEditorOleEvent(ByVal Object As Object, ByVal Ev As
EXRECORDLibCtl.IOleEvent, ByVal Ed As EXRECORDLibCtl.IEditor)
On Error Resume Next
   Debug.Print "Event name: " & Ev.Name
   If (Ev.CountParam = 0) Then
      Debug.Print vbTab & "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 vbTab & Ev(i).Name; " = " & Ev(i).Value
      Next
   End If
End Sub
```

The following VC sample enumerates the arguments of an OLE event:

```
void OnUserEditorOleEventRecord1(LPDISPATCH Object, LPDISPATCH Ev, LPDISPATCH Ed)
{
   EXRECORDLib::IOleEventPtr spEvent = Ev;
   CString strOutput = "Event name: ";
   strOutput += spEvent->Name;
   strOutput += "\r\n";
   if ( spEvent->CountParam == 0 )
   {
      strOutput += "\tThe event has no arguments.";
   }
   else
   {
```

```
        strOutput += "\tThe event has no arguments.\r\n";
        for ( long i = 0; i < spEvent->CountParam; i++ )
        {
            strOutput += spEvent->GetParam( v(i) )->Name;
            strOutput += " = ";
            strOutput += V2S( &spEvent->GetParam( v(i) )->Value);
            strOutput += "\r\n";
        }

    }
    m_output = strOutput;
    UpdateData( FALSE );
}
```

The #import "c:\winnt\system32\ExRecord.dll" generates the EXRECORDLib namespace that includes definitions for OleEvent and OleEventParam objects.

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 indicates the name of the event. Use the ID property to specify a specified even 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 VB sample shows how to enumerate the arguments of an OLE event:

```
Private Sub Record1_UserEditorOleEvent(ByVal Object As Object, ByVal Ev As
EXRECORDLibCtl.IOleEvent, ByVal Ed As EXRECORDLibCtl.IEditor)
On Error Resume Next
  Debug.Print "Event name: " & Ev.Name
  If (Ev.CountParam = 0) Then
    Debug.Print vbTab & "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 vbTab & Ev(i).Name; " = " & Ev(i).Value
    Next
  End If
End Sub
```

The following VC sample enumerates the arguments of an OLE event:

```
void OnUserEditorOleEventRecord1(LPDISPATCH Object, LPDISPATCH Ev, LPDISPATCH Ed)
{
  EXRECORDLib::IOleEventPtr spEvent = Ev;
  CString strOutput = "Event name: ";
  strOutput += spEvent->Name;
  strOutput += "\r\n";
  if ( spEvent->CountParam == 0 )
```

```
    {
        strOutput += "\tThe event has no arguments.";
    }
    else
    {
        strOutput += "\tThe event has no arguments.\r\n";
        for ( long i = 0; i < spEvent->CountParam; i++ )
        {
            strOutput += spEvent->GetParam( v(i) )->Name;
            strOutput += " = ";
            strOutput += V2S( &spEvent->GetParam( v(i) )->Value);
            strOutput += "\r\n";
        }

    }
    m_output = strOutput;
    UpdateData( FALSE );
}
```

The #import "c:\winnt\system32\ExRecord.dll" generates the EXRECORDLib namespace that includes definitions for OleEvent and OleEventParam objects.

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 a string expression that indicates the argument's name.
OleEventParam	An OleEventParam object that contains the name and the value for the argument.

The following VB sample shows how to enumerate the arguments of an OLE event:

```
Private Sub Record1_UserEditorOleEvent(ByVal Object As Object, ByVal Ev As
EXRECORDLibCtl.IOleEvent, ByVal Ed As EXRECORDLibCtl.IEditor)
On Error Resume Next
  Debug.Print "Event name: " & Ev.Name
  If (Ev.CountParam = 0) Then
    Debug.Print vbTab & "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 vbTab & Ev(i).Name; " = " & Ev(i).Value
    Next
  End If
End Sub
```

The following VC sample enumerates the arguments of an OLE event:

```
void OnUserEditorOleEventRecord1(LPDISPATCH Object, LPDISPATCH Ev, LPDISPATCH Ed)
{
  EXRECORDLib::IOleEventPtr spEvent = Ev;
  CString strOutput = "Event name: ";
  strOutput += spEvent->Name;
  strOutput += "\r\n";
  if ( spEvent->CountParam == 0 )
  {
```

```
        strOutput += "\tThe event has no arguments.";
    }
    else
    {
        strOutput += "\tThe event has no arguments.\r\n";
        for ( long i = 0; i < spEvent->CountParam; i++ )
        {
            strOutput += spEvent->GetParam( v(i) )->Name;
            strOutput += " = ";
            strOutput += V2S( &spEvent->GetParam( v(i) )->Value);
            strOutput += "\r\n";
        }

    }
    m_output = strOutput;
    UpdateData( FALSE );
}
```

The #import "c:\winnt\system32\ExRecord.dll" generates the EXRECORDLib namespace that includes definitions for OleEvent and OleEventParam objects.

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. The UserEditorOleEvent event is fired when an inner ActiveX control fires an event.

Name	Description
Name	Retrieves the name of the event's parameter.
Value	Retrieves 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 VB sample shows how to enumerate the arguments of an OLE event:

```
Private Sub Record1_UserEditorOleEvent(ByVal Object As Object, ByVal Ev As
EXRECORDLibCtl.IOleEvent, ByVal Ed As EXRECORDLibCtl.IEditor)
On Error Resume Next
  Debug.Print "Event name: " & Ev.Name
  If (Ev.CountParam = 0) Then
    Debug.Print vbTab & "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 vbTab & Ev(i).Name; " = " & Ev(i).Value
    Next
  End If
End Sub
```

The following VC sample enumerates the arguments of an OLE event:

```
void OnUserEditorOleEventRecord1(LPDISPATCH Object, LPDISPATCH Ev, LPDISPATCH Ed)
{
  EXRECORDLib::IOleEventPtr spEvent = Ev;
  CString strOutput = "Event name: ";
  strOutput += spEvent->Name;
  strOutput += "\r\n";
  if ( spEvent->CountParam == 0 )
  {
    strOutput += "\tThe event has no arguments.";
  }
  else
  {
```

```
        strOutput += "\tThe event has no arguments.\r\n";
        for ( long i = 0; i < spEvent->CountParam; i++ )
        {
            strOutput += spEvent->GetParam( v(i) )->Name;
            strOutput += " = ";
            strOutput += V2S( &spEvent->GetParam( v(i) )->Value);
            strOutput += "\r\n";
        }

    }
    m_output = strOutput;
    UpdateData( FALSE );
}
```

The #import "c:\winnt\system32\ExRecord.dll" generates the EXRECORDLib namespace that includes definitions for OleEvent and OleEventParam objects.

property OleEventParam.Value as Variant

Specifies the value of the event's parameter.

Type	Description
Variant	A variant value that indicates the value of the event's parameter.

The following VB sample shows how to enumerate the arguments of an OLE event:

```
Private Sub Record1_UserEditorOleEvent(ByVal Object As Object, ByVal Ev As
EXRECORDLibCtl.IOleEvent, ByVal Ed As EXRECORDLibCtl.IEditor)
On Error Resume Next
  Debug.Print "Event name: " & Ev.Name
  If (Ev.CountParam = 0) Then
    Debug.Print vbTab & "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 vbTab & Ev(i).Name; " = " & Ev(i).Value
    Next
  End If
End Sub
```

The following VC sample enumerates the arguments of an OLE event:

```
void OnUserEditorOleEventRecord1(LPDISPATCH Object, LPDISPATCH Ev, LPDISPATCH Ed)
{
  EXRECORDLib::IOleEventPtr spEvent = Ev;
  CString strOutput = "Event name: ";
  strOutput += spEvent->Name;
  strOutput += "\r\n";
  if ( spEvent->CountParam == 0 )
  {
     strOutput += "\tThe event has no arguments.";
  }
  else
  {
```

```
        strOutput += "\tThe event has no arguments.\r\n";
        for ( long i = 0; i < spEvent->CountParam; i++ )
        {
            strOutput += spEvent->GetParam( v(i) )->Name;
            strOutput += " = ";
            strOutput += V2S( &spEvent->GetParam( v(i) )->Value);
            strOutput += "\r\n";
        }

    }
    m_output = strOutput;
    UpdateData( FALSE );
}
```

The #import "c:\winnt\system32\ExRecord.dll" generates the EXRECORDLib namespace that includes definitions for OleEvent and OleEventParam objects.

Record 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: {656D66AF-1E46-45E3-B1B5-FFE9FB353AC7}. The object's program identifier is: "Exontrol.Record". The /COM object module is: "ExRecord.dll"

Exontrol's new exRecord control is a container component that displays a set of editors added manually or bounded to a table in a database. The exRecord name comes from the record, that's a set of fields that contain related information, in database type systems. The exRecord significantly reduces development time of data components. The Record object supports the following properties and methods:

Name	Description
Add	Adds an editor and returns a reference to the newly created object.
Appearance	Retrieves or sets the control's appearance.
AttachTemplate	Attaches a script to the current object, including the events, from a string, file, a safe array of bytes.
BackColor	Specifies the control's background color.
Background	Returns or sets a value that indicates the background color for parts in the control.
BeginUpdate	Maintains performance when editors are added to the control one at a time. This method prevents the control from painting until the EndUpdate method is called.
BorderHeight	Sets or retrieves a value that indicates the border height of the control.
BorderWidth	Sets or retrieves a value that indicates the border width of the control.
CheckImage	Retrieves or sets a value that indicates the index of the image for the checkbox fields.
Count	Returns the number of editors in a control.
CustomLayout	Specifies an array of relative positions that are used when the control arranges the fields on the page.
DataSource	Retrieves or sets a value that indicates the data source for object.
EditorFromPoint	Retrieves the editor from point.
Enabled	Enables or disables the control.
EndUpdate	Resumes painting the control after painting is suspended by the BeginUpdate method.

EnsureVisible	Ensures that a field fits the control's client area.
ExecuteTemplate	Executes a template and returns the result.
FieldHeight	Retrieves or sets a value that indicates the height of the field.
FieldWidth	Retrieves or sets a value that indicates the width of the field.
Focus	Specifies the editor that gets the focus.
Font	Retrieves or sets the control's font.
ForeColor	Specifies the control's foreground color.
HBorderField	Returns or sets a value that indicates the distance between two fields on the horizontal axis.
HFieldCount	Sets or gets a value that indicates the number of fields on the horizontal axis.
HTMLPicture	Adds or replaces a picture in HTML captions.
hWnd	Retrieves the control's window handle.
Images	Sets at runtime the control's image list. The Handle should be a handle to an Images List Control.
ImageSize	Retrieves or sets the size of icons the control displays..
item	Returns an editor based on its index.
ItemByPosition	Returns an editor based on its position.
LabelAlignment	Specifies the alignment of the label relative to the field.
LabelSize	Retrieves or sets a value that indicates the size of the label.
LastError	Retrieves the description for the last error.
Layout	Retrieves or sets a value that indicates the way how fields are arranged.
LayoutHeight	Retrieves a value that indicates the height that's required so all editors fit the control's client area.
LayoutWidth	Retrieves a value that indicates the width that's required so all editors fit the control's client area.
Picture	Retrieves or sets a graphic to be displayed in the control.
PictureDisplay	Retrieves or sets a value that indicates the way how the graphic is displayed on the control's background
	Retrieves or sets a value that indicates the index of the

RadioImage	image for the radio button fields.
Refresh	Refreshes the control.
Remove	Removes an editor.
RemoveAll	Removes all the editors in the control.
ReplaceIcon	Adds a new icon, replaces an icon or clears the control's image list.
ScrollBars	Specifies the type of scroll bars that control adds.
SelBackColor	Retrieves or sets a value that indicates the selection background color.
SelForeColor	Retrieves or sets a value that indicates the selection foreground color.
ShowImageList	Specifies whether the control's image list window is visible or hidden.
ShowToolTip	Shows the specified tooltip at given position.
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.
UseTabKey	Retrieves or sets a value that indicates whether the Tab key navigate through the control's fields.
UseVisualTheme	Specifies whether the control uses the current visual theme to display certain UI parts.
VBorderField	Returns or sets a value that indicates the distance between two fields on the vertical axis.
Version	Retrieves the control's version.
VFieldCount	Sets or gets a value that indicates the number of fields on

	the vertical axis.
VisualAppearance	Retrieves the control's appearance.

method Record.Add (Label as Variant, Type as EditTypeEnum, [Key as Variant])

Adds an editor and returns a reference to the newly created object.

Type	Description
Label as Variant	A string expression that indicates the label of the editor. The Label paramater may include built-in HTML format like described bellow.
Type as EditTypeEnum	An EditTypeEnum expression that indicates the type of the editor being added.
Key as Variant	A Variant expression that indicates the key of the editor being added. If missing, the editor's key is the editor's label.

Return	Description
Editor	An Editor object being created.

The Add method adds a new editor to the control. Use the DataSource property to bind a recordset to the control. The Value property indicates the editor's value. Use the UserEditor method to create an inner ActiveX control, if the Type parameter is UserEditorType. Use the Label property to get the editor's label. Use the Item property to access an editor by its key or by its index. Use the Layout property to arrange fields in the control. Use the BeginUpdate and EndUpdate methods to maintain the performance while adding multiple editors. Use the EnsureVisible method to ensures that an editor fits the control's client area. Use the EditType property to change the editor's type at runtime. Use the Remove method to remove an editor. Use the UserData property to associate an extra data to an editor.

The following VB sample adds an editor to mask a phone number:

```
With Record1
  .BeginUpdate
   With .Add("Phone", EXRECORDLibCtl.MaskType)
      .Mask = "(###) ### - ####"
      .Value = "(245) 282 - 1290"
  End With
  .EndUpdate
End With
```

The following VC sample adds a password editor:

```
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
CEditor editor = m_record.Add(COleVariant("Password"), /*EditType*/ 1, vtMissing );
editor.SetOption( /*exEditPassword*/ 18, COleVariant( (long)TRUE ) );
editor.SetValue( COleVariant( "pass" ) );
```

The Label parameter may include built-in HTML tags like follows:

- ** ... ** displays the text in **bold**
- ** ... ** displays the text in *italics*
- **<u> ... </u>** underlines the text
- **<s> ... </s>** ~~Strike~~-through text
- **<a id;options> ... ** 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.
- ** ... ** displays portions of text with a different font and/or different size. For instance, the "bit" 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, "bit" 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
- **
** 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 **&** (&), **<** (<), **>** (>), **&qout;** (") and **&#number;** (the character with specified code), For instance, the € 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 bold in HTML caption you can use bold
- **<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 to define a smaller or a larger font to be displayed. For instance: "Text with <**off** 6>subscript" displays the text such as: Text with $_{\text{subscript}}$ The "Text with <**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 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 "<**gra** FFFFFF;1;1>gradient-center</**gra**>" 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 HTML tag can be used to define the height of the font. For instance the "<**out** 000000> <fgcolor=FFFFFF>outlined</fgcolor></**out**>" 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 HTML tag can be used to define the height of the font. For instance the "<**sha**>shadow</**sha**>" generates the following picture:

  shadow

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

  outline anti-aliasing

property Record.Appearance as AppearanceEnum

Retrieves or sets the control's appearance.

Type	Description
AppearanceEnum	An AppearanceEnum expression that indicates the control's appearance.

Use the Appearance property to remove the borders of the control. Use the BackColor property to specify the control's background color. Use the ForeColor property to specify the control's foreground color. Use the Layout property to arrange the fields in the control.

method Record.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 Record1_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 Record.BackColor as Color

Specifies the control's background color.

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

Use the BackColor property to specify the control's background color. Use the Picture property to put a picture in the control's background. Use the BackColor property to change the editor's background color. Use the LabelBackColor property to specify the background color for the editor's label. Use the ForeColor property to specify the control's foreground color.

property Record.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 BackgroundPartEnum	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 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.

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.

method Record.BeginUpdate ()

Maintains performance when editors are added to the control one at a time.

Type	Description

This method prevents the control from painting until the EndUpdate method is called. Use the DataSource property to bind a recordset to the control.

The following VB sample adds 10 EditType editors in the control:

```
With Record1
  .BeginUpdate
  Dim i As Long
  For i = 1 To 10
   .Add "Editor <b>" & i & "</b>", EditType
  Next
  .EndUpdate
End With
```

The following VC sample adds 10 EditType editors in the control:

```
m_record.BeginUpdate();
for ( long i = 1; i < 10; i++ )
{
   COleVariant vtMissing; vtMissing.vt = VT_ERROR;
   CString strLabel;
   strLabel.Format( "Editor <b>%i</b>", i );
   CEditor editor = m_record.Add( COleVariant(strLabel), /*EditType*/ 1, vtMissing );
   editor.SetValue( COleVariant( i ) );
}
m_record.EndUpdate();
```

property Record.BorderHeight as Long

Sets or retrieves a value that indicates the border height of the control.

Type	Description
Long	A long expression that indicates the height of the control's border.

The BorderHeight property specifies the height of the control's border. By default, the BorderHeight property is 2 pixels. Use the BorderWidth property to specify the width of the control's border. The control's client area excludes the borders. The fields are arranged in the control's client area. The HBorderField property specifies a value that indicates the distance between two fields on the horizontal axis. The VBorderField property specifies a value that indicates the distance between two fields on the vertical axis.

property Record.BorderWidth as Long

Sets or retrieves a value that indicates the border width of the control.

Type	Description
Long	A long expression that indicates the width of the control's border.

The BorderWidth property specifies the width of the control's border. By default, the BorderWidth property is 2 pixels. Use the BorderHeight property to specify the height of the control's border. The control's client area excludes the borders. The fields are arranged in the control's client area. The HBorderField property specifies a value that indicates the distance between two fields on the horizontal axis. The VBorderField property specifies a value that indicates the distance between two fields on the vertical axis.

property Record.CheckImage(State as Long) as Long

Retrieves or sets a value that indicates the index of the image for the checkbox fields.

Type	Description
State as Long	A long expression that defines the state of the check box being changed. 0 - unchecked, 1 - checked, 2 - partial checked.
Long	A long expression that indicates the index of the icon used. If the index is not valid the default icon is used.

Use the CheckImage property to change the appearance of the check boxes in the control. Use the Images method to add a list of icons to the control. Use the CheckValueType editor to add a check box editor.

The following VB sample changes the appearance for the check boxes:

```
With Record1
   .BeginUpdate
   .Images
"gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEaIEaEEaAIAkcbk0oIUrlktl0vmExm

   .CheckImage(0) = 1
   .CheckImage(1) = 2
   With .Add("Boolean", EXRECORDLibCtl.CheckValueType)
      .Option(exCheckValue2) = 1
      .Value = True
   End With
   .EndUpdate
End With
```

The following VC sample changes the appearance for the check boxes:

```
m_record.BeginUpdate();
CString s(
"gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEaIEaEEaAIAkcbk0oIUrlktl0vmExm
 );
s = s +
```

"cWnO9B1pZ1Mz/ctpWpc1KV88Ftp5brct43bbXvfT5WfP183/e2AXw3F53pUqptnfqqMvgq

```
m_record.Images(COleVariant( s ));
m_record.SetCheckImage( 0, 1 );
m_record.SetCheckImage( 1, 2 );
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
CEditor editor = m_record.Add( COleVariant("Boolean"), /*CheckValueType*/ 19, vtMissing
);
editor.SetOption( /*exCheckValue2*/ 17, COleVariant( long(1) ) );
COleVariant vtValue;
vtValue.vt = VT_BOOL;
V_BOOL( &vtValue; ) = VARIANT_TRUE;
editor.SetValue( vtValue );
m_record.EndUpdate();
```

property Record.Count as Long

Returns the number of editors in a control.

Type	Description
Long	A long expression that indicates the number editors in the control.

The Count property counts the number of editors in the control. Use the Add method to add new editors to the control. Use the DataSource property to bind a recordset to the control. Use the Item property to access an editor by its index or by its index. Use the ItemByPosition property to access an editor by its position.

The following VB sample enumerates the visible editors in the control, as they are created:

```
Dim i As Long
With Record1
   For i = 0 To .Count - 1
      Dim e As EXRECORDLibCtl.Editor
      Set e = .Item(i)
      If (e.Visible) Then
         Debug.Print e.Label
      End If
   Next
End With
```

The following VB sample enumerates all editors in the control:

```
Dim e As EXRECORDLibCtl.Editor
For Each e In Record1
   Debug.Print e.Label
Next
```

The following VC sample enumerates all editors in the control:

```
for ( long i = 0; i < m_record.GetCount(); i++ )
{
   CEditor editor = m_record.GetItem( COleVariant( i ) );
   TCHAR szOutput[1024];
   wsprintf( szOutput, "%s\n", (LPCTSTR)editor.GetLabel() );
```

```
    OutputDebugString( szOutput );
}
```

method Record.CustomLayout (X as Variant, Y as Variant)

Specifies an array of relative positions that are used when the control arranges the fields on the page.

Type	Description
X as Variant	A safe array of numeric values that indicates the x coordinate, a numeric value that indicates the x position being inserted. A positive value means the absolute position. A negative value means a relative position, For instance, the 100 means that the field will be positioned at 100 pixels from the left side of the control's client area. The -.5 means that the field will be positioned at the center of the control's client area.
Y as Variant	A safe array of numeric values that indicates the y coordinate, a numeric value that indicates the y position being inserted. A positive value means the absolute position. A negative value means a relative position, For instance, the 100 means that the field will be positioned at 100 pixels from the top side of the control's client area. The -.5 means that the field will be positioned at the center of the control's client area.

The CustomLayout method adds new coordinates for arranging the fields when Layout property is exCustomLayout. The CustomLayout method has effect only if the Layout property is exCustomLayout. Use the CustomLayout property to arrange the fields in a custom order. Use the Position property to change the position of the editor. Please be aware that calling the Layout property erases all previous position being added by the CustomLayout method. The CustomLayout method must be called after calling the Layout property. Use the FieldWidth property to specify the width of the fields/editors.

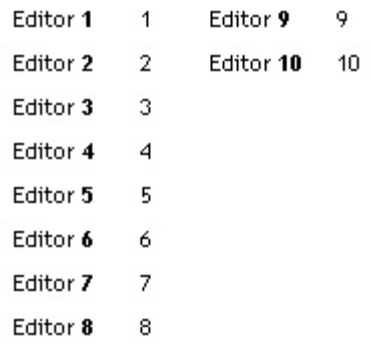
The following VB sample arranges the fields from the left to the right:

```
With Record1
  .BeginUpdate
  .FieldWidth = 96
  .Layout = exLeftToRight
  Dim i As Long
  For i = 1 To 10
   With .Add("Editor <b>" & i & "</b>", EditType)
      .Value = i
   End With
```

```
  Next
  .EndUpdate
End With
```

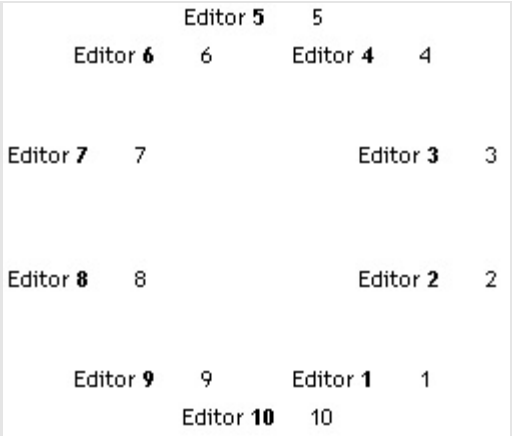
The following VB sample arranges the fields from the top to the bottom:

```
With Record1
  .BeginUpdate
  .FieldWidth = 96
  .Layout = exTopToBottom
  Dim i As Long
  For i = 1 To 10
   With .Add("Editor <b>" & i & "</b>", EditType)
      .Value = i
   End With
  Next
  .EndUpdate
End With
```



The following VB sample arranges the fields in a circle:

```
Dim n As Long, pi As Double
pi = 3.1415
n = 10
With Record1
  .BeginUpdate
  .FieldWidth = 96
  .Layout = exCustomLayout
  Dim i As Long
  For i = 1 To n
   With .Add("Editor <b>" & i & "</b>", EditType)
      .Value = i
      ' If negative numbers are used, the absolute value represents the coordinate
proportionally with the control's size. In this case the control is consider as being 0..1
      Record1.CustomLayout -(0.5 + Sin(i * 2 * pi / n) / 2), -(0.5 + Cos(i * 2 * pi / n) / 2)
   End With
  Next
  .EndUpdate
```



End With

property Record.DataSource as Object

Retrieves or sets a value that indicates the data source for object.

Type	Description
Object	An Object that defines the control's data. Currently, the control supports ADO.Recordset, ADODB.Recordset objects, DAO recordsets

use the DataSource property to bind a recordset to a control. The DataSource property clears the editors collection and add a new editor for each field found in the recordset. The Key property specifies the field's name. The Value property is updated as soon as the cursor is moving in the recordset. Use the Refresh method to update the values for the editors, in case an DAO recordset is used. The EditType property specifies the type of the editor being inserted. For instance, if the recordset includes a Date/Time field editor, the EditType property is set to DateType. Use the AddItem or InsertItem methods to add new predefined values to a drop down list editor. Use the Item property to access an editor giving its key. Use the Visible property to hide an editor. Use the Add method to add new editors to the control. The Change event is called when the uses changes the value for an editor. If the control is bounded to a recordset, the value of the field is automatically updated in the recodset too. The LastError property gets the description of the last error, if occurs.

The following VB sample binds the "Employees" table in the "NWIND.MDB" database to the component, using an ADODB recordset:


```
Dim rs As Object, strNWIND As String
strNWIND = "D:\Program Files\Microsoft Visual
Studio\VB98\NWIND.MDB"
Set rs = CreateObject("ADODB.Recordset")
rs.Open "Employees",
"Provider=Microsoft.Jet.OLEDB.4.0;Data Source= " &
strNWIND, 3, 3 ' Opens the table using static mode
With Record1
   .BeginUpdate
    Set .DataSource = rs
   With .Item("ReportsTo")
      .EditType = DropDownListType
      Dim i As Long
      i = 1
      .AddItem 0, "- <b>unspecified</b> -"
```

```
        While Not rs.EOF
            .AddItem rs("EmployeeID").Value,
rs("FirstName").Value & " <b>" & rs("LastName").Value & "
</b>"
            i = i + 1
            rs.MoveNext
        Wend
        rs.MoveFirst
    End With
    .EndUpdate
End With
```

The following VC sample binds the "Employees" table in the "NWIND.MDB" database to the component, using an ADODB recordset:

```
#import  rename ( "EOF", "adoEOF" )
using namespace ADODB;

BOOL isInstalled(BSTR strProgID, IDispatch** ppObject )
{
    CLSID clsid = CLSID_NULL;
    HRESULT hResult = E_POINTER;
    if (SUCCEEDED( hResult = CLSIDFromProgID( strProgID, &clsid; ) ))
    {
        IDispatch* pObject = NULL;
        if ( SUCCEEDED( hResult = CoCreateInstance( clsid, NULL, CLSCTX_ALL, IID_IDispatch,
reinterpret_cast(&pObject;) ) ) )
        {
            if ( ppObject )
                (*ppObject = pObject)->AddRef();
            pObject->Release();
            return TRUE;
        }
    }
    return FALSE;
}

    COleVariant vtMissing; vtMissing.vt = VT_ERROR;
```

```
   CString strDatabase = "D:\\Program Files\\Microsoft Visual
Studio\\VB98\\NWIND.MDB";

   CString strError = "";
   IDispatch* pObject = NULL;
   if ( isInstalled( L"ADODB.Recordset", &pObject; ) )
   {
      _RecordsetPtr spRecordSet;
      if ( spRecordSet = pObject )
      {
         CString strConnection("Provider=Microsoft.Jet.OLEDB.4.0;Data Source= ");
         strConnection += strDatabase;
         try
         {
            if ( SUCCEEDED( spRecordSet->Open( v("Employees"), v(strConnection),
adOpenStatic, adLockOptimistic, 0 ) ) )
            {
               CEditor editor;

               m_record.BeginUpdate();
               m_record.SetLabelSize(96);
               m_record.SetHBorderField( 6 );
               m_record.SetDataSource( spRecordSet );

               editor = m_record.GetItem(v("ReportsTo"));
               editor.SetEditType( /*DropDownListType*/ 3 );
               editor.AddItem(0, "- unspecified -", vtMissing );
               while ( !spRecordSet->adoEOF )
               {
                  CString strName = V2S( &spRecordSet-;>Fields->GetItem( v("FirstName") )-
>Value );
                  strName += " ";
                  strName += V2S( &spRecordSet-;>Fields->GetItem( v("LastName") )->Value
);;
                  editor.AddItem( spRecordSet->Fields->GetItem( v("EmployeeID") )->Value,
strName, vtMissing );
                  spRecordSet->MoveNext();
```

```
                }
                spRecordSet->MoveFirst();
                m_record.EndUpdate();
            }
        }
        catch (...)
        {
            strError = "The sample database is missing. The 'SAMPLE.MDB' file is not found,
or doesn't contain an 'Employees' table.";
        };
    }
    pObject->Release();
  }
  else
    strError = "Microsoft ADODB namepsace, 'MSADO15.DLL' file is not installed. ";
```

property Record.EditorFromPoint (X as OLE_XPOS_PIXELS, Y as OLE_YPOS_PIXELS) as Editor

Retrieves the editor from point.

Type	Description
X as OLE_XPOS_PIXELS	A long expression that indicates the X position where the editor is located.
Y as OLE_YPOS_PIXELS	A long expression that indicates the Y position where the editor is located.
Editor	An Editor object that's found at the specified position.

use the EditorFromPoint property to get the editor from the point. Use the Focus property to get the focused editor. Use the EnsureVisible method to ensures that an editor fits the control's client area.

The following VB sample prints the editor from the point:

```
Private Sub Record1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As
Single)
   Dim e As EXRECORDLibCtl.Editor
   Set e = Record1.EditorFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY)
   If Not e Is Nothing Then
      Debug.Print e.Label & " = " & e.Value
   End If
End Sub
```

The following VC sample prints the editor from the point:

```
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;
}
```

property Record.Enabled as Boolean

Enables or disables the control.

Type	Description
Boolean	A boolean expression that indicates whether the editor is enabled or disabled.

Use the Enabled property to enable or disable the control. Use the ForeColor property to change the control's foreground color. Use the Locked property to lock a specified editor. By default, the Enabled property is True.

method Record.EndUpdate ()

Resumes painting the control after painting is suspended by the BeginUpdate method.

Type	Description

Use the BeginUpdate method to maintain performance when editors are added to the control one at a time. Use the DataSource property to bind a recordset to the control.

The following VB sample adds 10 EditType editors in the control:

```
With Record1
  .BeginUpdate
  Dim i As Long
  For i = 1 To 10
   .Add "Editor <b>" & i & "</b>", EditType
  Next
  .EndUpdate
End With
```

The following VC sample adds 10 EditType editors in the control:

```
m_record.BeginUpdate();
for ( long i = 1; i < 10; i++ )
{
   COleVariant vtMissing; vtMissing.vt = VT_ERROR;
   CString strLabel;
   strLabel.Format( "Editor <b>%i</b>", i );
   CEditor editor = m_record.Add( COleVariant(strLabel), /*EditType*/ 1, vtMissing );
   editor.SetValue( COleVariant( i ) );
}
m_record.EndUpdate();
```

method Record.EnsureVisible (Index as Variant)

Ensures that a field fits the control's client area.

Type	Description
Index as Variant	A long expression that indicates the index of the editor being requested, a string expression that indicates the key of the editor being accessed.

Use the EnsureVisible method to ensure that a specified editor fits the control's client area. The Index property specifies the index of the editor. The Key property specifies the key of the editor. The ScrollBars property specifies whether the control adds scroll bars when required. The EnsureVisible method scrolls the control's content if is is necessary. If the control has no scroll bars, the EnsureVisible method has no effect.

method Record.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 number of editors in the data control:

```
Debug.Print Record1.ExecuteTemplate("Count")
```

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 script is composed by lines of instructions. Instructions are separated by "\n\r" (newline) characters.

An instruction 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 Template supports the following general functions:

- **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)*
- **CreateObject(**progID**)** *property creates and retrieves a single uninitialized object of the class associated with a specified program identifier.*

property Record.FieldHeight as Long

Retrieves or sets a value that indicates the height of the field.

Type	Description
Long	A long expression that specifies the height of the fields.

The FieldHeight property specifies the height of the fields, in pixels. By default, the FieldHeight property is -1. If the FieldHeight property is negative, the field's height is determined by the control's font. Use the Font property to specify the control's font. Use the FieldWidth property to specify the width of the fields. Use the VBorderField property to specify the distance between two fields on the vertical axis. Use the BorderHeight property to specify the control's border. Use the VFieldCount property to specify the number of fields on the vertical axis.

property Record.FieldWidth as Long

Retrieves or sets a value that indicates the width of the field.

Type	Description
Long	A long expression that specifies the width of the fields.

The FieldWidth property specifies the width of the fields, in pixels. By default, the FieldWidth property is -1. If the FieldWidth property is negative, the field's width is the width of the control's client area. The control's client area excludes the control's border. Use the Font property to specify the control's font. Use the FieldHeight property to specify the height of the fields. Use the HBorderField property to specify the distance between two fields on the horizontal axis. Use the BorderWidth property to specify the control's border. Use the HFieldCount property to specify the number of fields on the horizontal axis. Use the LabelSize property to specify the width of the label.

property Record.Focus as Editor

Specifies the editor that gets the focus.

Type	Description
Editor	An editor that gets the focus.

Use the Focus property to get the editor that has the focus.

property Record.Font as IFontDisp

Retrieves or sets the control's font.

Type	Description
IFontDisp	A Font object that specifies the control's font.

Use the Font property to specify the control's font. Use the FieldHeight property to specify the height of the fields. The Font property updates the height of the fields, if the FieldHeight property is less than zero. Use the built-in HTML tags like <b>, <u>, <i>, <s> to change the font attributes for parts of the editor's Label.

property Record.ForeColor as Color

Specifies the control's foreground color.

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

Use the ForeColor property to specify the control's foreground color. Use the BackColor property to specify the control's background color. Use the ForeColor property to change the editor's foreground color. Use the LabelForeColor property to specify the foreground color for the editor's label.

property Record.HBorderField as Long

Returns or sets a value that indicates the distance between two fields on the horizontal axis.

Type	Description
Long	A long expression that indicates the distance between two fields on the horizontal axis.

The HBorderField property specifies a value that indicates the distance between two fields on the horizontal axis. The BorderWidth property specifies the width of the control's border. By default, the HBorderField property is 2 pixels. Use the BorderHeight property to specify the height of the control's border. The control's client area excludes the borders. The fields are arranged in the control's client area. The VBorderField property specifies a value that indicates the distance between two fields on the vertical axis

property Record.HFieldCount as Long

Sets or gets a value that indicates the number of fields on the horizontal axis.

Type	Description
Long	A long expression that indicates the number of fields on the horizontal axis.

Use the HFieldCount property to specify the number of fields on the horizontal axis. By default, the HFieldCount property is -1. If the HFieldCount property is -1, the control puts the fields as much as they fit the control's client area. The HFieldCount property has effect only if the Layout property is exLeftToRight or exTopToBottom. The HFieldCount property has no effect if the Layout property is exCustomLayout. Use the FieldWidth property to specify the width of the fields. Use the HBorderField property to specify the distance between two fields on the horizontal axis. Use VFieldCount property to specify the number of fields on the vertical axis.

property Record.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	The HTMLPicture specifies the picture being associated to a key. It can be one of the followings: • a string expression that indicates the path to the picture file, being loaded. • a string expression that indicates the base64 encoded string that holds a picture object, Use the eximages tool to save your picture as base64 encoded format. • A Picture object that indicates the picture being added or replaced. (A Picture object implements IPicture interface), 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

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 Record.hWnd as Long

Retrieves the control's window handle.

Type	Description
Long	A long expression that indicates 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.

method Record.Images (Handle as Variant)

Sets at runtime the control's image list. The Handle should be a handle to an Images List Control.

Type	Description
Handle as Variant	The Handle parameter can be: • 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, Images("c:\temp\copy.ico") method adds the sync.ico file to the control's Images collection *(string, loads the icon using its path)* • A string expression that indicates the BASE64 encoded string that holds the icons list. Use the Exontrol's ExImages tool to save/load your icons as BASE64 encoded format. In this case the string may begin with "gBJJ..." *(string, loads icons using base64 encoded string)* • A reference to a Microsoft ImageList control (mscomctl.ocx, MSComctlLib.ImageList type) that holds the icons to add *(object, loads icons from a Microsoft ImageList control)* • A reference to a Picture (IPictureDisp implementation) that holds the icon to add. For instance, the VB's LoadPicture (Function LoadPicture([FileName], [Size], [ColorDepth], [X], [Y]) As IPictureDisp) or LoadResPicture (Function LoadResPicture(id, restype As Integer) As IPictureDisp) returns a picture object (object, loads icon from a Picture object) • 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 llVal field, as VT_I8 type. The LONGLONG / LONG_PTR is __int64, a 64-bit integer. For instance, in C++ you can use as Images(COleVariant((LONG_PTR)hImageList)) or Images(COleVariant(

(LONGLONG)hImageList)), where hImageList is of HIMAGELIST type. The GetSafeHandle() method of the CImageList gets the HIMAGELIST handle (long, loads icon from HIMAGELIST type)

The control provides an image list window, that's displayed at design time. The ImageSize property defines the size (width/height) of the icons within the control's Images collection. Use the ShowImageList property to hide the image list window, at design time. At design time, the user can add new icons to the control's Images collection, by dragging icon files, exe files, etc, to the images list window. At runtime, the user can use the Images and ReplaceIcon method to change the Images collection. The Images collection is 1 based. The Image property assigns an icon to an editor.

The following VB sample changes the appearance for the check boxes:

```
With Record1
   .BeginUpdate
   .Images
"gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEaIEaEEaAIAkcbk0oIUrlktl0vmExm

   .CheckImage(0) = 1
   .CheckImage(1) = 2
   With .Add("Boolean", EXRECORDLibCtl.CheckValueType)
      .Option(exCheckValue2) = 1
      .Value = True
   End With
   .EndUpdate
End With
```

The following VC sample changes the appearance for the check boxes:

```
m_record.BeginUpdate();
CString s(
"gBJJgBAICAAGAAEAAQhYAf8Pf4hh0QihCJo2AEZjQAjEZFEaIEaEEaAIAkcbk0oIUrlktl0vmExm
 );
s = s +
"cWnO9B1pZ1Mz/ctpWpc1KV88Ftp5brct43bbXvfT5WfP183/e2AXw3F53pUqptnfqqMvgq
```

```
m_record.Images(COleVariant( s ));
m_record.SetCheckImage( 0, 1 );
m_record.SetCheckImage( 1, 2 );
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
CEditor editor = m_record.Add( COleVariant("Boolean"), /*CheckValueType*/ 19, vtMissing
);
editor.SetOption( /*exCheckValue2*/ 17, COleVariant( long(1) ) );
COleVariant vtValue;
vtValue.vt = VT_BOOL;
V_BOOL( &vtValue ) = VARIANT_TRUE;
editor.SetValue( vtValue );
m_record.EndUpdate();
```

property Record.ImageSize as Long

Retrieves or sets the size of icons the control displays..

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.

property Record.item (Index as Variant) as Editor

Returns an editor based on its index.

Type	Description
Index as Variant	A long expression that indicates the index of the editor being requested, or a string expression that indicates the key of the editor being requested.
Editor	An Editor object being accessed.

Use the Item property to access an editor by index or by key. Use the Index property to retrieve the index of the editor in the control's collection of Editor objects. Use the Key property to identify an editor. Use the Position property to specify the editor's position. Use the Visible property to hide an editor. By default, the first editor added has the Index property on 0. The Index property of the editor is updated as soon as an editor is removed. Use the ItemByPosition property to access an editor giving its position.

The following VB sample enumerates the visible editors in the control, as they are created:

```
Dim i As Long
With Record1
   For i = 0 To .Count - 1
      Dim e As EXRECORDLibCtl.Editor
      Set e = .Item(i)
      If (e.Visible) Then
         Debug.Print e.Label
      End If
   Next
End With
```

The following VB sample enumerates all editors in the control:

```
Dim e As EXRECORDLibCtl.Editor
For Each e In Record1
   Debug.Print e.Label
Next
```

The following VC sample enumerates all editors in the control:

```
for ( long i = 0; i < m_record.GetCount(); i++ )
{
```

```
    CEditor editor = m_record.GetItem( COleVariant( i ) );
    TCHAR szOutput[1024];
    wsprintf( szOutput, "%s\n", (LPCTSTR)editor.GetLabel() );
    OutputDebugString( szOutput );
}
```

property Record.ItemByPosition (Position as Variant) as Editor

Returns an editor based on its position.

Type	Description
Position as Variant	A long expression that indicates the position of the editor being requested.
Editor	An Editor object being requested.

Use the ItemByPosition property to access an editor giving its position. Use the Position property to specify the editor's position. Use the Item property to access an editor by index or by key. Use the Index property to retrieve the index of the editor in the control's collection of Editor objects. Use the Key property to identify an editor. Use the Visible property to hide an editor. By default, the first editor added has the Index property on 0. The Index property of the editor is updated as soon as an editor is removed.

The following VB sample enumerates the visible editors in the control, as they are displayed:

```
Dim i As Long
With Record1
   For i = 0 To .Count - 1
      Dim e As EXRECORDLibCtl.Editor
      Set e = .ItemByPosition(i)
      If (e.Visible) Then
         Debug.Print e.Label
      End If
   Next
End With
```

The following VC sample enumerates the visible editors in the control, as they are displayed:

```
for ( long i = 0; i < m_record.GetCount(); i++ )
{
   CEditor editor = m_record.GetItemByPosition( COleVariant( i ) );
   if ( editor.GetVisible() )
   {
      TCHAR szOutput[1024];
      wsprintf( szOutput, "%s\n", (LPCTSTR)editor.GetLabel() );
```

```
        OutputDebugString( szOutput );
    }
}
```

property Record.LabelAlignment as AlignmentEnum

Specifies the alignment of the label relative to the field.

Type	Description
AlignmentEnum	An AlignmentEnum expression that indicates the alignment of the label relative to their editors.

Use the LabelAlignment property to right align the labels. Use the LabelAlignment property to align the label for a specified editor.

property Record.LabelSize as Long

Retrieves or sets a value that indicates the size of the label.

Type	Description
Long	A long expression that indicates the size of the label.

The LabelSize property specifies the size of the label in the editors. By default, the LabelSize property is 64 pixels. Use the Label property to specify the editor's label. Use the FieldWidth property to specify the width of the fields. A field contains the label and the editor. Use the HBorderField property to specify the distance between two fields on the horizontal axis. Use the BorderWidth property to specify the control's border.

property Record.LastError as String

Retrieves the description for the last error.

Type	Description
String	A string expression that indicates the description of the last error.

The LastError property gets the description of the last database error that occurs. Use the DataSource property to bind a recordset to the control. For instance, the LastError property could get "The field is too small to accept the amount of data you attemted to add. Try inserting or pasting less data", if you are trying to type more characters in a bounded field.

property Record.Layout as LayoutEnum

Retrieves or sets a value that indicates the way how fields are arranged.

Type	Description
LayoutEnum	A LayoutEnum expression that indicates how the fields are arranged in the control's client area.

The Layout property specifies how the fields are arranged in the control's client area. By default, the Layout property is exLeftToRight. Use the CustomLayout method to add new positions for the fields, when the Layout property is exCustomLayout. Use the FieldWidth property to specify the width of the fields. Use the FieldHeight property to specify the height of the fields. Use the VFieldCount property to specify the number of fields on the vertical axis. Use HFieldCount property to specify the number of fields on the horizontal axis.

property Record.LayoutHeight as Long

Retrieves a value that indicates the height that's required so all editors fit the control's client area.

Type	Description
Long	A long expression that specifies the height that's required so all editors fit the control's client area.

The LayoutHeight property specifies the height, in pixels that's required so all editors fit the control's client area. Use the Layout property to arrange the fields in the page. Use the LayoutWidth property specifies the width, in pixels that's required so all editors fit the control's client area.

property Record.LayoutWidth as Long

Retrieves a value that indicates the width that's required so all editors fit the control's client area.

Type	Description
Long	A long expression that specifies the height that's required so all editors fit the control's client area.

Use the LayoutWidth property specifies the width, in pixels that's required so all editors fit the control's client area. Use the Layout property to arrange the fields in the page. The LayoutHeight property specifies the height, in pixels that's required so all editors fit the control's client area

property Record.Picture as IPictureDisp

Retrieves or sets a graphic to be displayed in the control.

Type	Description
IPictureDisp	A Picture object being displayed in the control's background.

Use the Picture property to put a picture in the control's background. Use the PictureDisplay property to specify how the picture is displayed on the control's background. Use the BackColor property to specify the control's background color. Use the BackColor property to change the editor's background color. Use the LabelBackColor property to specify the background color for the editor's label. Use the Picture property to assign a custom size to an editor.

property Record.PictureDisplay as PictureDisplayEnum

Retrieves or sets a value that indicates the way how the graphic is displayed on the control's background

Type	Description
PictureDisplayEnum	A PictureDisplayEnum expression that specifies how the picture is displayed on the control's background.

Use the PictureDisplay property to specify how the picture is displayed on the control's background. Use the Picture property to put a picture in the control's background. Use the BackColor property to specify the control's background color. Use the BackColor property to change the editor's background color. Use the LabelBackColor property to specify the background color for the editor's label. Use the Picture property to assign a custom size to an editor.

property Record.RadioImage(Checked as Boolean) as Long

Retrieves or sets a value that indicates the index of the image for the radio button fields.

Type	Description
Checked as Boolean	A boolean expression that specifies whether the image is requested for checked/un-checked items
Long	A long expression that specifies the index of the icon to display

method Record.Refresh ()

Refreses the control.

Type	Description

Use the Refresh method to update the values for all editors. The BeginUpdate method maintains performance when editors are added to the control one at a time. The EndUpdate method resumes painting the control after painting is suspended by the BeginUpdate method.

method Record.Remove (Index as Variant)

Removes an editor.

Type	Description
Index as Variant	A long expression that indicates the index of the editor being removed, a string expression that indicates the key of the editor being removed.

Use the Remove method to remove an editor. Use the RemoveAll method to remove all editors in the control. Use the Add method to add new editors to the control. Use the RemoveItem property to remove a predefined value from a drop down list editor. Use the RemoveButton method to remove a button from an editor.

method Record.RemoveAll ()

Removes all the editors in the control.

Type	Description

Use the RemoveAll method to remove all editors in the control. Use the Remove method to remove an editor. Use the Add method to add new editors to the control. Use the ClearItems method to remove all predefined values from a drop down list editor. Use the ClearButtons method to remove all buttons in the editor.

method Record.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 an image list to the control.

The following sample shows how to add a new icon to control's images list:

i = Record1.ReplaceIcon(LoadPicture("d:\icons\help.ico").Handle), in this case the i specifies the index where the icon was added

The following sample shows how to replace an icon into control's images list::

i = Record1.ReplaceIcon(LoadPicture("d:\icons\help.ico").Handle, 0), in this case the i is zero, because the first icon was replaced.

The following sample shows how to remove an icon from control's images list:

Record1.ReplaceIcon 0, i, in this case the i must be the index of the icon that follows to be removed

The following sample shows how to clear the control's icons collection:

Record1.ReplaceIcon 0, -1

property Record.ScrollBars as ScrollBarsEnum

Specifies the type of scroll bars that control adds.

Type	Description
ScrollBarsEnum	A ScrollBarsEnum expression that indicates which scroll bars will be visible in the control.

Use the ScrollBars property to specify what scroll bars the control adds. By default, the control adds scroll bars when they are required. Use the LayoutWidth property to get the width in pixels that's required so no horizontal scroll bar is required. Use the LayoutHeight property to get the height in pixels that's required so no vertical scroll bar is required.

property Record.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 SelBackColor property to specify the selection background color. Use the SelForeColor property to specify the selection foreground color. Use the BackColor property to specify the control's background color. Use the ForeColor property to specify the control's foreground color.

property Record.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.

Use the SelForeColor property to specify the selection foreground color. Use the SelBackColor property to specify the selection background color. Use the ForeColor property to specify the control's foreground color. Use the BackColor property to specify the control's background color.

property Record.ShowImageList as Boolean

Specifies whether the control's image list window is visible or hidden.

Type	Description
Boolean	A boolean expression that indicates whether the control's images list window is visible or hidden.

The property has effect only at design time. Use the Images method to assign a list of icons at runtime. Use the ReplaceIcon method to update the control's list of icons. At design time, the user can add new icons to the control's Images collection, by dragging icon files, exe files, etc, to the images list panel.

method Record.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	The ToolTip parameter can be any of the following: • NULL(BSTR) or "<null>"(string) to indicate that the tooltip for the object being hovered is not changed • A String expression that indicates the description of the tooltip, that supports built-in HTML format (adds, replaces or changes the object's tooltip)
Title as Variant	The Title parameter can be any of the following: • missing (VT_EMPTY, VT_ERROR type) or "<null>" (string) the title for the object being hovered is not changed. • A String expression that indicates the title of the tooltip (no built-in HTML format) (adds, replaces or changes the object's title)
Alignment as Variant	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. The Alignment parameter can be one of the following: • 0 - exTopLeft • 1 - exTopRight • 2 - exBottomLeft • 3 - exBottomRight • 0x10 - exCenter • 0x11 - exCenterLeft • 0x12 - exCenterRight • 0x13 - exCenterTop • 0x14 - exCenterBottom By default, the tooltip is aligned relative to the top-left corner (0 - exTopLeft).

X as Variant	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)
Y as Variant	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)

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:

- ** ... ** displays the text in **bold**
- ** ... ** displays the text in *italics*
- **<u> ... </u>** underlines the text
- **<s> ... </s>** ~~Strike~~-through text
- **<a id;options> ... ** 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.
- ** ... ** displays portions of text with a different font and/or different size. For instance, the "bit" 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, "bit" 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
- **
** 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 **&** (&), **<** (<), **>** (>), **&qout;** (") and **&#number;** (the character with specified code), For instance, the € 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 bold in HTML caption you can use bold
- **<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 to define a smaller or a larger font to be displayed. For instance: "Text with <**off** 6>subscript" displays the text such as: Text with $_{\text{subscript}}$ The "Text with <**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 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 "<**gra** FFFFFF;1;1>gradient-center</**gra**>" 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 HTML tag can be used to define the

height of the font. For instance the "<**out** 000000><fgcolor=FFFFFF>outlined</fgcolor></**out**>" 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 HTML tag can be used to define the height of the font. For instance the "<**sha**>shadow</**sha**>" generates the following picture:

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

property Record.Template as String

Specifies the control's template.

Type	Description
String	A string expression that defines 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 script is composed by lines of instructions. Instructions are separated by "\n\r" (newline) characters.

An instruction 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 Template supports the following general functions:

- **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)*
- **CreateObject(**progID**)** *property creates and retrieves a single uninitialized object of the class associated with a specified program identifier.*

property Record.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 Record.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 Record.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. Use the ToolTipPopDelay property specifies the period in ms of time the ToolTip remains visible if the mouse pointer is stationary within a control.

property Record.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.

property Record.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. Use the ToolTipDelay property specifies the time in ms that passes before the ToolTip appears.

property Record.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 ToolTipFont property to assign a font for the control's tooltip.

property Record.UseTabKey as Boolean

Retrieves or sets a value that indicates whether the Tab key navigates through the control's fields.

Type	Description
Boolean	A Boolean expression that indicates whether the Tab key navigates through the control's fields.

By default, the UseTabKey property is True. If the user presses the Tab key, while the UseTabKey property is True, the focus is moved to the next visible editor. If the user presses the SHIFT + Tab key, while the UseTabKey property is True, the focus is moved to the previous visible editor. If the UseTabKey property is False, and user presses the Tab key the control loses the focus, and the next visible control in the form gets the focus.

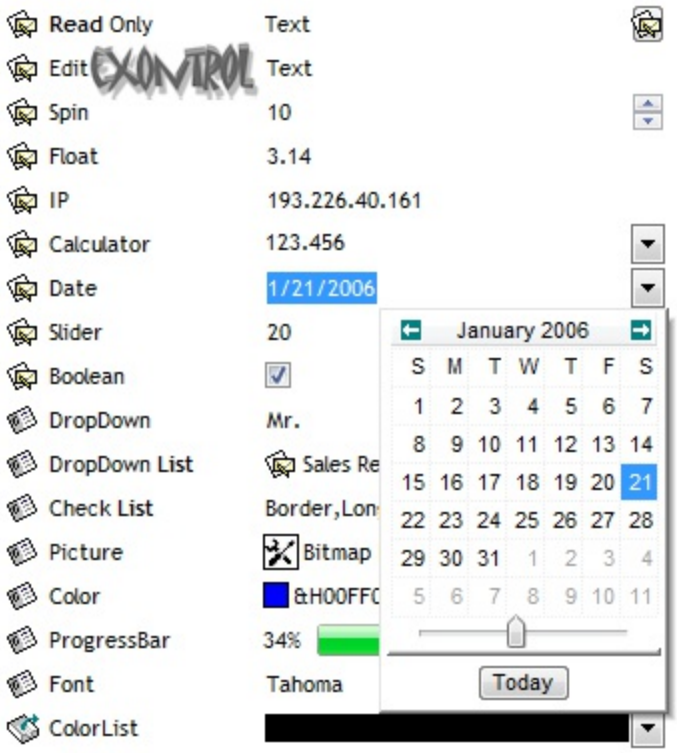
property Record.UseVisualTheme as UIVisualThemeEnum

Specifies whether the control uses the current visual theme to display certain UI parts.

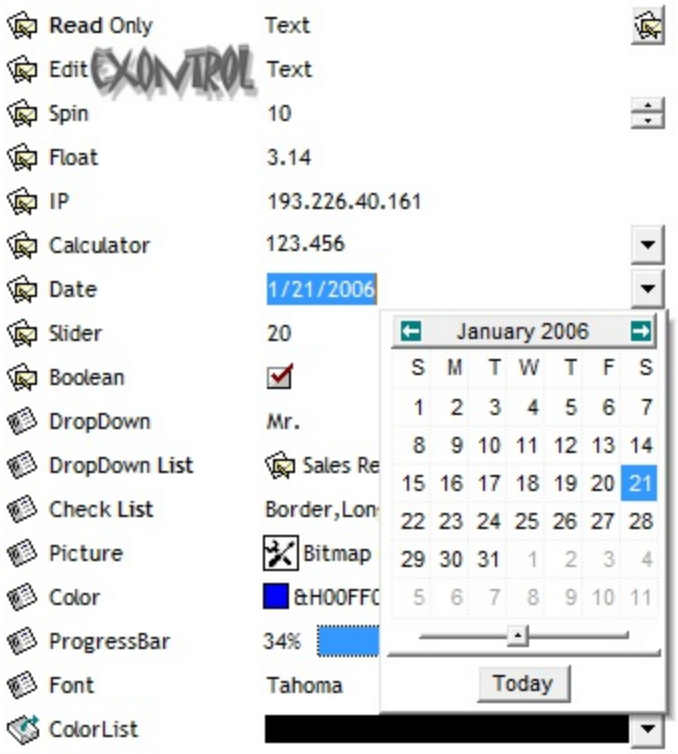
Type	Description
UIVisualThemeEnum	An UIVisualThemeEnum expression that specifies which UI parts of the control are shown using the current visual theme.

By default, the UseVisualTheme property is exDefaultVisualTheme, which means that all known UI parts are shown as in the current theme. The UseVisualTheme 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 UseVisualTheme property has effect only a current theme is selected for your desktop. The UseVisualTheme 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 UseVisualTheme property is exDefaultVisualTheme:



since the second screen shot shows the same data as the UseVisualTheme property is exNoVisualTheme:


Read Only
Text
Edit
Text
Spin
10
Float
3.14
IP
193.226.40.161
Calculator
123.456
Date
1/21/2006
Slider
20
Boolean
DropDown
Mr.
DropDown List
Sales Re
Check List
Border,Lon
Picture
Bitmap
Color
&H00FF0
ProgressBar
34%
Font
Tahoma
ColorList
January 2006
S M T W T F S
1 2 3 4 5 6 7
8 9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31 1 2 3 4
5 6 7 8 9 10 11
Today

property Record.VBorderField as Long

Returns or sets a value that indicates the distance between two fields on the vertical axis.

Type	Description
Long	A long expression that indicates the distance in pixels between two fields on the vertical axis.

The VBorderField property specifies a value that indicates the distance between two fields on the vertical axis. The BorderWidth property specifies the width of the control's border. By default, the VBorderField property is 2 pixels. Use the BorderHeight property to specify the height of the control's border. The control's client area excludes the borders. The fields are arranged in the control's client area. The HBorderField property specifies a value that indicates the distance between two fields on the horizontal axis.

property Record.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 version number of the control you have installed.

property Record.VFieldCount as Long

Sets or gets a value that indicates the number of fields on the vertical axis, when the control displays a vertical scroll bar.

Type	Description
Long	A long expression that indicates the number of fields on the horizontal axis.

Use the VFieldCount property to specify the number of fields on the vertical axis. By default, the VFieldCount property is -1. If the VFieldCount property is -1, the control puts the fields as much as they fit the control's client area. The VFieldCount property has effect only if the Layout property is exLeftToRight or exTopToBottom. The VFieldCount property has no effect if the Layout property is exCustomLayout. Use the FieldHeight property to specify the height of the fields. Use the VBorderField property to specify the distance between two fields on the vertical axis. Use HFieldCount property to specify the number of fields on the horizontal axis.

property Record.VisualAppearance as Appearance

Retrieves the control's appearance.

Type	Description
Appearance	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

ExRecord events

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: {656D66AF-1E46-45E3-B1B5-FFE9FB353AC7}. The object's program identifier is: "Exontrol.Record". The /COM object module is: "ExRecord.dll"

The ExRecord component supports the following events:

Name	Description
ButtonClick	Occurs when the user clicks the editor's button.
Change	Occurs when the user changes the editor's content.
Click	Occurs when the user presses and then releases the left mouse button over the control.
DblClick	Occurs when the user dblclk the left mouse button over an object.
KeyDown	Occurs when the user presses a key while an object has the focus.
KeyPress	Occurs when the user presses and releases an ANSI key.
KeyUp	Occurs when the user releases a key while an object has the focus.
MouseDown	Occurs when the user presses a mouse button.
MouseMove	Occurs when the user moves the mouse.
MouseUp	Occurs when the user releases a mouse button.
RClick	Fired when right mouse button is clicked.
UserEditorOleEvent	Occurs when an user editor fires an event.

event ButtonClick (Ed as Editor, Key as Variant)

Occurs when the user clicks the editor's button.

Type	Description
Ed as Editor	An Editor object where the event occurs.
Key as Variant	A string expression that indicates the key of the button being pressed.

The ButtonClick event notifies your application that the user clicks a button. The AddButton method inserts new buttons to the editor. Use the RemoveButton method to remove a button. The ButtonClick event is fired if the user presses the drop down button of an editor. In this case, the Key parameter is empty. Use the Change event to notify your application that the editor's content is altered. If the editor hosts an ActiveX control use the UserEditorOleEvent event to monitor the events that inside ActiveX object fires.

Syntax for ButtonClick event, **/NET** version, on:

C#

```
private void ButtonClick(object sender,exontrol.EXRECORDLib.Editor Ed,object Key)
{
}
```

VB

```
Private Sub ButtonClick(ByVal sender As System.Object,ByVal Ed As exontrol.EXRECORDLib.Editor,ByVal Key As Object) Handles ButtonClick
End Sub
```

Syntax for ButtonClick event, **/COM** version, on:

C#

```
private void ButtonClick(object sender, AxEXRECORDLib._IRecordEvents_ButtonClickEvent e)
{
}
```

C++

```
void OnButtonClick(LPDISPATCH Ed,VARIANT Key)
{
}
```

C++ Builder

```
void __fastcall ButtonClick(TObject *Sender,Exrecordlib_tlb::IEditor *Ed,Variant Key)
{
}
```

Delphi

```
procedure ButtonClick(ASender: TObject; Ed : IEditor;Key : OleVariant);
begin
end;
```

Delphi 8 (.NET only)

```
procedure ButtonClick(sender: System.Object; e:
AxEXRECORDLib._IRecordEvents_ButtonClickEvent);
begin
end;
```

Powe…

```
begin event ButtonClick(oleobject Ed,any Key)
end event ButtonClick
```

VB.NET

```
Private Sub ButtonClick(ByVal sender As System.Object, ByVal e As
AxEXRECORDLib._IRecordEvents_ButtonClickEvent) Handles ButtonClick
End Sub
```

VB6

```
Private Sub ButtonClick(ByVal Ed As EXRECORDLibCtl.IEditor,ByVal Key As Variant)
End Sub
```

VBA

```
Private Sub ButtonClick(ByVal Ed As Object,ByVal Key As Variant)
End Sub
```

VFP

```
LPARAMETERS Ed,Key
```

Xbas…

```
PROCEDURE OnButtonClick(oRecord,Ed,Key)
RETURN
```

Syntax for ButtonClick event, **/COM** version (others), on:

Java…

```
<SCRIPT EVENT="ButtonClick(Ed,Key)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc…

```
<SCRIPT LANGUAGE="VBScript">
Function ButtonClick(Ed,Key)
End Function
</SCRIPT>
```

Visual Data...

```
Procedure OnComButtonClick Variant llEd Variant llKey
    Forward Send OnComButtonClick llEd llKey
End_Procedure
```

Visual Objects

```
METHOD OCX_ButtonClick(Ed,Key) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_ButtonClick(COM _Ed,COMVariant _Key)
{
}
```

XBasic

```
function ButtonClick as v (Ed as OLE::Exontrol.Record.1::IEditor,Key as A)
end function
```

dBASE

```
function nativeObject_ButtonClick(Ed,Key)
return
```

The following VB sample displays the key of the button being clicked:

```
Private Sub Form_Load()
   With Record1
      With .Add("Calc", CalculatorType)
         .Value = 3.14
         .AddButton "AKey", , 1
         .AddButton "BKey", , 2
      End With
   End With
End Sub

Private Sub Record1_ButtonClick(ByVal Ed As EXRECORDLibCtl.IEditor, ByVal Key As
Variant)
   Debug.Print Ed.Label & ", Key = """ & Key & """"
End Sub
```

The following VC sample displays the key of the button being clicked:

```
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
CEditor editor = m_record.Add(COleVariant("Calc"), /*CalculatorType*/ 21, vtMissing );
```

```
editor.SetValue( COleVariant( 3.14 ) );
editor.AddButton( COleVariant( "AKey" ), vtMissing, COleVariant( (long) 1 ), vtMissing,
vtMissing, vtMissing );
editor.AddButton( COleVariant( "BKey" ), vtMissing, COleVariant( (long) 1 ), vtMissing,
vtMissing, vtMissing );

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 OnButtonClickRecord1(LPDISPATCH Ed, const VARIANT FAR& Key)
{
   CEditor editor( Ed );
   editor.m_bAutoRelease = FALSE;

   TCHAR szOutput[1024];
   wsprintf( szOutput, "%s, Key = \"%s\"\n", (LPCTSTR)editor.GetLabel(), (LPCTSTR)V2S( &
(VARIANT&)Key ) );
   OutputDebugString( szOutput );

}
```

event Change (Ed as Editor, NewValue as Variant)

Occurs when the user changes the editor's content.

Type	Description
Ed as Editor	An Editor object whose value is changed.
NewValue as Variant	A Variant expression that indicates the newly editor's value.

The Change event notifies your application that the user changes the editor's value. Use the ButtonClick event to notify your application that the user clicks the editor's button. If the editor hosts an ActiveX control use the UserEditorOleEvent event to monitor the events inside the ActiveX object. If the control is bounded to a database using the DataSource property, the control automatically updates the database. If failed, the LastError property gets the description of the last error. The Change event is fired just before changing the Value property. The Value property specifies the value of the editor. The field's value depends on the type of the editor that's assigned to the field. For instance, if the field has assigned a DropDownListType editor, the Value property indicates a long expression that indicates the index of the predefined item being selected. Use the Caption property to retrieve the caption of the editor. Use the Label property to retrieve the label of the editor.

Syntax for Change event, **/NET** version, on:

C#

```
private void Change(object sender,exontrol.EXRECORDLib.Editor Ed,ref object
NewValue)
{
}
```

VB

```
Private Sub Change(ByVal sender As System.Object,ByVal Ed As
exontrol.EXRECORDLib.Editor,ByRef NewValue As Object) Handles Change
End Sub
```

Syntax for Change event, **/COM** version, on:

C#

```
private void Change(object sender, AxEXRECORDLib._IRecordEvents_ChangeEvent
e)
{
}
```

C++

```
void OnChange(LPDISPATCH Ed,VARIANT FAR* NewValue)
{
```

```
}
```

C++ Builder

```
void __fastcall Change(TObject *Sender,Exrecordlib_tlb::IEditor *Ed,Variant *
NewValue)
{
}
```

Delphi

```
procedure Change(ASender: TObject; Ed : IEditor;var NewValue : OleVariant);
begin
end;
```

Delphi 8 (.NET only)

```
procedure Change(sender: System.Object; e:
AxEXRECORDLib._IRecordEvents_ChangeEvent);
begin
end;
```

Powe…

```
begin event Change(oleobject Ed,any NewValue)
end event Change
```

VB.NET

```
Private Sub Change(ByVal sender As System.Object, ByVal e As
AxEXRECORDLib._IRecordEvents_ChangeEvent) Handles Change
End Sub
```

VB6

```
Private Sub Change(ByVal Ed As EXRECORDLibCtl.IEditor,NewValue As Variant)
End Sub
```

VBA

```
Private Sub Change(ByVal Ed As Object,NewValue As Variant)
End Sub
```

VFP

```
LPARAMETERS Ed,NewValue
```

Xbas…

```
PROCEDURE OnChange(oRecord,Ed,NewValue)
RETURN
```

Syntax for Change event, **/COM** version (others), on:

Java…

```
<SCRIPT EVENT="Change(Ed,NewValue)" LANGUAGE="JScript">
```

```
</SCRIPT>
```

VBSc…

```
<SCRIPT LANGUAGE="VBScript">
Function Change(Ed,NewValue)
End Function
</SCRIPT>
```

Visual Data…

```
Procedure OnComChange Variant llEd Variant llNewValue
   Forward Send OnComChange llEd llNewValue
End_Procedure
```

Visual Objects

```
METHOD OCX_Change(Ed,NewValue) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_Change(COM _Ed,COMVariant /*variant*/ _NewValue)
{
}
```

XBasic

```
function Change as v (Ed as OLE::Exontrol.Record.1::IEditor,NewValue as A)
end function
```

dBASE

```
function nativeObject_Change(Ed,NewValue)
return
```

The following VB sample displays the editor's value as soon as the user changes the control's content:

```
Private Sub Record1_Change(ByVal Ed As EXRECORDLibCtl.IEditor, NewValue As Variant)
   Debug.Print Ed.Label & " = " & NewValue
End Sub
```

The following VC sample displays the editor's value as soon as the user changes the control's content:

```
void OnChangeRecord1(LPDISPATCH Ed, VARIANT FAR* NewValue)
{
   CEditor editor( Ed );
   editor.m_bAutoRelease = FALSE;
```

```
    TCHAR szOutput[1024];
    wsprintf( szOutput, "%s, = %s", (LPCTSTR)editor.GetLabel(), (LPCTSTR)V2S( NewValue ) );
    OutputDebugString( szOutput );
}
```

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. The ButtonClick event notifies your application that the user clicks a button. The RClick event notifies your application when user right clicks the control.

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(oRecord)
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 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 the user dbl clicks on the control. Use the DblClick event to notify your application that a cell has been double-clicked. Use the EditorFromPoint property to get the editor from the 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,
AxEXRECORDLib._IRecordEvents_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:
AxEXRECORDLib._IRecordEvents_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
AxEXRECORDLib._IRecordEvents_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(oRecord,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 llShift OLE_XPOS_PIXELS llX OLE_YPOS_PIXELS llY
   Forward Send OnComDblClick llShift llX llY
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::Exontrol.Record.1::OLE_XPOS_PIXELS,Y as OLE::Exontrol.Record.1::OLE_YPOS_PIXELS)
end function
```

dBASE

```
function nativeObject_DblClick(Shift,X,Y)
return
```

The following VB sample displays the editor being double clicked:

```
Private Sub Record1_DblClick(Shift As Integer, X As Single, Y As Single)
   Dim e As EXRECORDLibCtl.Editor
   Set e = Record1.EditorFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY)
   If Not e Is Nothing Then
      Debug.Print e.Label
   End If
End Sub
```

The following VC sample displays the editor being double clicked:

```
void OnDblClickRecord1(short Shift, long X, long Y)
{
```

```
    CEditor editor = m_record.GetEditorFromPoint( X, Y );
    if ( editor.m_lpDispatch != NULL )
    {
        TCHAR szOutput[1024];
        wsprintf( szOutput, "%s", (LPCTSTR)editor.GetLabel() );
        OutputDebugString( szOutput );
    }
}
```

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. 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,
AxEXRECORDLib._IRecordEvents_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:
AxEXRECORDLib._IRecordEvents_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
AxEXRECORDLib._IRecordEvents_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(oRecord,KeyCode,Shift)
RETURN
```

Syntax for KeyDown event, **/COM** version (others), on:

Java…
```
<SCRIPT EVENT="KeyDown(KeyCode,Shift)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc…
```
<SCRIPT LANGUAGE="VBScript">
Function KeyDown(KeyCode,Shift)
End Function
</SCRIPT>
```

Visual Data…
```
Procedure OnComKeyDown Short llKeyCode Short llShift
   Forward Send OnComKeyDown llKeyCode llShift
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,
AxEXRECORDLib._IRecordEvents_KeyPressEvent 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:
AxEXRECORDLib._IRecordEvents_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
AxEXRECORDLib._IRecordEvents_KeyPressEvent) Handles KeyPressEvent
End Sub
```

VB6

```
Private Sub KeyPress(KeyAscii As Integer)
End Sub
```

VBA

```
Private Sub KeyPress(KeyAscii As Integer)
End Sub
```

VFP

```
LPARAMETERS KeyAscii
```

Xbas…

```
PROCEDURE OnKeyPress(oRecord,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 llKeyAscii
    Forward Send OnComKeyPress llKeyAscii
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,
AxEXRECORDLib._IRecordEvents_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:
AxEXRECORDLib._IRecordEvents_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
AxEXRECORDLib._IRecordEvents_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

```
LPARAMETERS KeyCode,Shift
```

Xbas…

```
PROCEDURE OnKeyUp(oRecord,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 llKeyCode Short llShift
    Forward Send OnComKeyUp llKeyCode llShift
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 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 EditorFromPoint property to get the editor from point.

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,
AxEXRECORDLib._IRecordEvents_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:
AxEXRECORDLib._IRecordEvents_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
AxEXRECORDLib._IRecordEvents_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(oRecord,Button,Shift,X,Y)
RETURN
```

Syntax for MouseDown event, **/COM** version (others), on:

Java...
```
<SCRIPT EVENT="MouseDown(Button,Shift,X,Y)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...
```
<SCRIPT LANGUAGE="VBScript">
Function MouseDown(Button,Shift,X,Y)
End Function
</SCRIPT>
```

Visual Data...
```
Procedure OnComMouseDown Short llButton Short llShift OLE_XPOS_PIXELS llX
OLE_YPOS_PIXELS llY
   Forward Send OnComMouseDown llButton llShift llX llY
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.Record.1::OLE_XPOS_PIXELS,Y as
OLE::Exontrol.Record.1::OLE_YPOS_PIXELS)
end function
```

dBASE
```
function nativeObject_MouseDown(Button,Shift,X,Y)
return
```

The following VB sample displays the editor from the point when user clicks the control:

```
Private Sub Record1_MouseDown(Button As Integer, Shift As Integer, X As Single, Y As
Single)
   Dim e As EXRECORDLibCtl.Editor
   Set e = Record1.EditorFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY)
   If Not e Is Nothing Then
```

```
    MsgBox e.Label
  End If
End Sub
```

The following VC sample displays the editor from the point when user clicks the control:

```
void OnMouseDownRecord1(short Button, short Shift, long X, long Y)
{
  CEditor editor = m_record.GetEditorFromPoint( X, Y );
  if ( editor.m_lpDispatch != NULL )
  {
    TCHAR szOutput[1024];
    wsprintf( szOutput, "%s", (LPCTSTR)editor.GetLabel() );
    ::MessageBox( NULL, szOutput, NULL, NULL );
  }
}
```

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 EnsureVisible method to ensures that an editor fits the control's client area. Use the EditorFromPoint property to get the editor 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,
AxEXRECORDLib._IRecordEvents_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:
AxEXRECORDLib._IRecordEvents_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
AxEXRECORDLib._IRecordEvents_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(oRecord,Button,Shift,X,Y)
RETURN
```

Syntax for MouseMove event, **/COM** version (others), on:

Java...
```
<SCRIPT EVENT="MouseMove(Button,Shift,X,Y)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...
```
<SCRIPT LANGUAGE="VBScript">
Function MouseMove(Button,Shift,X,Y)
End Function
</SCRIPT>
```

Visual Data...
```
Procedure OnComMouseMove Short llButton Short llShift OLE_XPOS_PIXELS llX
OLE_YPOS_PIXELS llY
   Forward Send OnComMouseMove llButton llShift llX llY
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.Record.1::OLE_XPOS_PIXELS,Y as
OLE::Exontrol.Record.1::OLE_YPOS_PIXELS)
end function
```

dBASE
```
function nativeObject_MouseMove(Button,Shift,X,Y)
return
```

The following VB sample prints the editor from the point:

```
Private Sub Record1_MouseMove(Button As Integer, Shift As Integer, X As Single, Y As
Single)
   Dim e As EXRECORDLibCtl.Editor
   Set e = Record1.EditorFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY)
   If Not e Is Nothing Then
```

```
    Debug.Print e.Label & " = " & e.Value
  End If
End Sub
```

The following VC sample prints the editor from the point:

```
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 OnMouseMoveRecord1(short Button, short Shift, long X, long Y)
{
   CEditor editor = m_record.GetEditorFromPoint( X, Y );
   if ( editor.m_lpDispatch != NULL )
   {
      TCHAR szOutput[1024];
      wsprintf( szOutput, "%s = %s\n", (LPCTSTR)editor.GetLabel(), (LPCTSTR)V2S(
&editor.GetValue() ) );
      OutputDebugString( szOutput );
   }

}
```

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 EditorFromPoint method to retrieve the item from point.

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,
AxEXRECORDLib._IRecordEvents_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:
AxEXRECORDLib._IRecordEvents_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
AxEXRECORDLib._IRecordEvents_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(oRecord,Button,Shift,X,Y)
RETURN
```

Syntax for MouseUp event, **/COM** version (others), on:

Java...
```
<SCRIPT EVENT="MouseUp(Button,Shift,X,Y)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc...
```
<SCRIPT LANGUAGE="VBScript">
Function MouseUp(Button,Shift,X,Y)
End Function
</SCRIPT>
```

Visual Data...
```
Procedure OnComMouseUp Short llButton Short llShift OLE_XPOS_PIXELS llX
OLE_YPOS_PIXELS llY
   Forward Send OnComMouseUp llButton llShift llX llY
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.Record.1::OLE_XPOS_PIXELS,Y as
OLE::Exontrol.Record.1::OLE_YPOS_PIXELS)
end function
```

dBASE
```
function nativeObject_MouseUp(Button,Shift,X,Y)
return
```

The following VB sample displays a message when user right clicks the control:

```
Private Sub Record1_MouseUp(Button As Integer, Shift As Integer, X As Single, Y As Single)
   If (Button = vbRightButton) Then
      Dim e As EXRECORDLibCtl.Editor
      Set e = Record1.EditorFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY)
      If Not e Is Nothing Then
```

```
        MsgBox e.Label
      End If
    End If
End Sub
```

The following VC sample displays a message when user right clicks the control:

```
void OnMouseUpRecord1(short Button, short Shift, long X, long Y)
{
    if ( Button == 2 )
    {
        CEditor editor = m_record.GetEditorFromPoint( X, Y );
        if ( editor.m_lpDispatch != NULL )
        {
            TCHAR szOutput[1024];
            wsprintf( szOutput, "%s", (LPCTSTR)editor.GetLabel() );
            ::MessageBox( NULL, szOutput, NULL, NULL );
        }
    }
}
```

event RClick ()

Fired when right mouse button is clicked.

Type	Description

The RClick event is fired each time the user releases the right mouse button over the control. Use the MouseUp event in case you need the position of the cursor when right clicking the control.

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(oRecord)
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 displays a message when user right clicks the control:

```
Private Sub Record1_MouseUp(Button As Integer, Shift As Integer, X As Single, Y As Single)
   If (Button = vbRightButton) Then
      Dim e As EXRECORDLibCtl.Editor
      Set e = Record1.EditorFromPoint(X / Screen.TwipsPerPixelX, Y / Screen.TwipsPerPixelY)
      If Not e Is Nothing Then
         MsgBox e.Label
      End If
   End If
End Sub
```

The following VC sample displays a message when user right clicks the control:

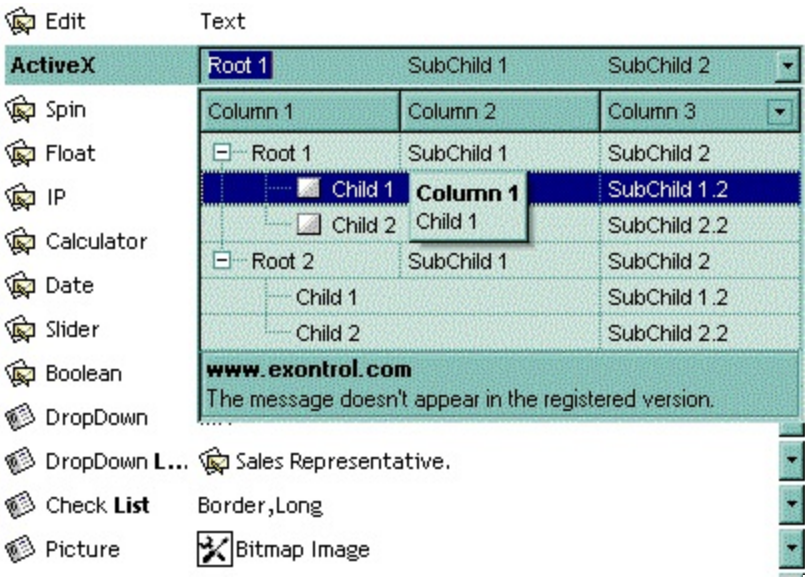
```
void OnMouseUpRecord1(short Button, short Shift, long X, long Y)
{
   if ( Button == 2 )
   {
      CEditor editor = m_record.GetEditorFromPoint( X, Y );
      if ( editor.m_lpDispatch != NULL )
      {
         TCHAR szOutput[1024];
         wsprintf( szOutput, "%s", (LPCTSTR)editor.GetLabel() );
         ::MessageBox( NULL, szOutput, NULL, NULL );
      }
   }
}
```

event UserEditorOleEvent (Object as Object, Ev as OleEvent, Ed as Editor)

Occurs when an user editor fires an event.

Type	Description
Object as Object	An Object that fires the event.
Ev as OleEvent	An OleEvent object that holds information about fired event.
Ed as Editor	An Editor object whose inner ActiveX control fires the event.

The UserEditorOleEvent event notifies your application when an inner ActiveX control fires an event. The UserEditorType type specifies an editor that may host an ActiveX control. Use the Add method to insert an editor that hosts an ActiveX control. Use the UserEditor method to create an inner ActiveX control.



Syntax for UserEditorOleEvent event, **/NET** version, on:

C#

```
private void UserEditorOleEvent(object sender,object
Obj,exontrol.EXRECORDLib.OleEvent Ev,exontrol.EXRECORDLib.Editor Ed)
{
}
```

VB

```
Private Sub UserEditorOleEvent(ByVal sender As System.Object,ByVal Obj As
Object,ByVal Ev As exontrol.EXRECORDLib.OleEvent,ByVal Ed As
exontrol.EXRECORDLib.Editor) Handles UserEditorOleEvent
End Sub
```

Syntax for UserEditorOleEvent event, **/COM** version, on:

C#

```
private void UserEditorOleEvent(object sender,
AxEXRECORDLib._IRecordEvents_UserEditorOleEventEvent e)
{
}
```

C++

```
void OnUserEditorOleEvent(LPDISPATCH Object,LPDISPATCH Ev,LPDISPATCH Ed)
{
}
```

C++ Builder

```
void __fastcall UserEditorOleEvent(TObject *Sender,IDispatch
*Object,Exrecordlib_tlb::IOleEvent *Ev,Exrecordlib_tlb::IEditor *Ed)
{
}
```

Delphi

```
procedure UserEditorOleEvent(ASender: TObject; Object : IDispatch;Ev :
IOleEvent;Ed : IEditor);
begin
end;
```

Delphi 8 (.NET only)

```
procedure UserEditorOleEvent(sender: System.Object; e:
AxEXRECORDLib._IRecordEvents_UserEditorOleEventEvent);
begin
end;
```

Powe…

```
begin event UserEditorOleEvent(oleobject Object,oleobject Ev,oleobject Ed)
end event UserEditorOleEvent
```

VB.NET

```
Private Sub UserEditorOleEvent(ByVal sender As System.Object, ByVal e As
AxEXRECORDLib._IRecordEvents_UserEditorOleEventEvent) Handles
UserEditorOleEvent
End Sub
```

VB6

```
Private Sub UserEditorOleEvent(ByVal Object As Object,ByVal Ev As
EXRECORDLibCtl.IOleEvent,ByVal Ed As EXRECORDLibCtl.IEditor)
End Sub
```

VBA

```
Private Sub UserEditorOleEvent(ByVal Object As Object,ByVal Ev As Object,ByVal Ed As Object)
End Sub
```

VFP

```
LPARAMETERS Object,Ev,Ed
```

Xbas…

```
PROCEDURE OnUserEditorOleEvent(oRecord,Object,Ev,Ed)
RETURN
```

Syntax for UserEditorOleEvent event, **/COM** version (others), on:

Java…

```
<SCRIPT EVENT="UserEditorOleEvent(Object,Ev,Ed)" LANGUAGE="JScript">
</SCRIPT>
```

VBSc…

```
<SCRIPT LANGUAGE="VBScript">
Function UserEditorOleEvent(Object,Ev,Ed)
End Function
</SCRIPT>
```

Visual Data…

```
Procedure OnComUserEditorOleEvent Variant llObject Variant llEv Variant llEd
    Forward Send OnComUserEditorOleEvent llObject llEv llEd
End_Procedure
```

Visual Objects

```
METHOD OCX_UserEditorOleEvent(Object,Ev,Ed) CLASS MainDialog
RETURN NIL
```

X++

```
void onEvent_UserEditorOleEvent(COM _Object,COM _Ev,COM _Ed)
{
}
```

XBasic

```
function UserEditorOleEvent as v (Object as P,Ev as OLE::Exontrol.Record.1::IOleEvent,Ed as OLE::Exontrol.Record.1::IEditor)
end function
```

dBASE

```
function nativeObject_UserEditorOleEvent(Object,Ev,Ed)
return
```

The following VB sample adds an Exontrol.ComboBox control and displays the events being fired by inner ActiveX control:

```
Option Explicit

Private Function isInstalled(ByVal s As String) As Boolean
On Error GoTo Error
   CreateObject (s)
   isInstalled = True
   Exit Function
Error:
   isInstalled = False
End Function

Private Sub Form_Load()
   With Record1
      .BeginUpdate
         With .Add("ActiveX", UserEditorType)
            .Position = 2
            Dim progID As String
            progID = "Exontrol.ComboBox"
            If Not (isInstalled(progID)) Then
               .Value = """" & progID & """ is not installed."
               .ToolTip = .Value
               .ForeColor = vbRed
            Else
               .UserEditor progID, ""
               .LabelBackColor = SystemColorConstants.vbMenuBar
               ' Accesses the inside ActiveX control, in our case an ExComboBox control.
https://www.exontrol.com/excombobox.jsp
               With .UserEditorObject()
                  .BeginUpdate
                     .BackColorEdit = SystemColorConstants.vbMenuBar
                     .IntegralHeight = True
                     .ColumnAutoResize = True
                     .LinesAtRoot = True
```

```
                .MinHeightList = 164
                .MinWidthList = 264
                .MarkSearchColumn = False
                .FilterBarDropDownHeight = -150
                .DrawGridLines = True
                .Alignment = 0
                With .Columns
                    .Add "Column 1"
                    .Add "Column 2"
                    With .Add("Column 3")
                        .DisplayFilterButton = True
                    End With
                End With
                With .Items
                    Dim h, h1
                    h = .AddItem(Array("Root 1", "SubChild 1", "SubChild 2"))
                    h1 = .InsertItem(h, , Array("Child 1", "SubChild 1.1", "SubChild 1.2"))
                    .CellMerge(h1, 0) = 1
                    .CellHasCheckBox(h1, 0) = True
                    h1 = .InsertItem(h, , Array("Child 2", "SubChild 2.1", "SubChild 2.2"))
                    .CellMerge(h1, 0) = 1
                    .CellHasCheckBox(h1, 0) = True
                    .ExpandItem(h) = True
                    h = .AddItem(Array("Root 2", "SubChild 1", "SubChild 2"))
                    h1 = .InsertItem(h, , Array("Child 1", "SubChild 1.1", "SubChild 1.2"))
                    .CellMerge(h1, 0) = 1
                    h1 = .InsertItem(h, , Array("Child 2", "SubChild 2.1", "SubChild 2.2"))
                    .CellMerge(h1, 0) = 1
                    .ExpandItem(h) = True
                End With
                .Value = "Root 1"
            .EndUpdate
        End With
    End If
  End With
.EndUpdate
End With
```

```
End Sub

Private Sub Record1_UserEditorOleEvent(ByVal Object As Object, ByVal Ev As
EXRECORDLibCtl.IOleEvent, ByVal Ed As EXRECORDLibCtl.IEditor)
On Error Resume Next
   Debug.Print "Event name: " & Ev.Name
   If (Ev.CountParam = 0) Then
      Debug.Print vbTab & "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 vbTab & Ev(i).Name; " = " & Ev(i).Value
      Next
   End If
End Sub
```

The following VC sample adds an Exontrol.ComboBox control and displays the events being fired by inner ActiveX control:

```
#import "c:\winnt\system32\ExComboBox.dll"
#import "c:\winnt\system32\ExRecord.dll"

CString strObject( "Exontrol.ComboBox" );
COleVariant vtMissing; vtMissing.vt = VT_ERROR;
m_record.BeginUpdate();
m_record.SetLabelSize( 110 );
CEditor editor = m_record.Add( COleVariant( "ActiveX" ), EXRECORDLib::UserEditorType,
vtMissing );
editor.SetPosition( 2 );
if ( !isInstalled( strObject.AllocSysString() ) )
{
   CString strFormat;
   strFormat.Format( "\"%s\" is not installed.", (LPCSTR)strObject );
   editor.SetValue( COleVariant( strFormat ) );
   editor.SetForeColor( RGB( 255, 0, 0 ) );
}
else
```

```
{
   // Creates the exComboBox control. https://www.exontrol.com/excombobox.jsp
   editor.UserEditor( strObject, "" );
   if ( EXCOMBOBOXLib::IComboBoxPtr spComboBox = editor.GetUserEditorObject() )
   {
      spComboBox->BeginUpdate();
      spComboBox->BackColorEdit = GetSysColor( COLOR_MENU );
      spComboBox->IntegralHeight = true;
      spComboBox->ColumnAutoResize = true;
      spComboBox->LinesAtRoot = EXCOMBOBOXLib::exLinesAtRoot;
      spComboBox->MinHeightList = 164;
      spComboBox->MinWidthList = 264;
      spComboBox->MarkSearchColumn = false;
      spComboBox->DrawGridLines = EXCOMBOBOXLib::exAllLines;
      spComboBox->FilterBarDropDownHeight = -150;
      spComboBox->Alignment = EXCOMBOBOXLib::RightAlignment;
      EXCOMBOBOXLib::IColumnsPtr spColumns = spComboBox->Columns;
      spColumns->Add("Column 1");
      spColumns->Add("Column 2");
      EXCOMBOBOXLib::IColumnPtr spColumn = spColumns->Add("Column 3");
      spColumn->DisplayFilterButton = true;
      EXCOMBOBOXLib::IItemsPtr spItems = spComboBox->Items;
      long h = spItems->AddItem( v( "Root 1" ) );
      spItems->CellCaption[v(h)][v((long)1)] = v("SubChild 1");
      spItems->CellCaption[v(h)][v((long)2)] = v("SubChild 2");
      long h1 = spItems->InsertItem( h, vtMissing, v( "Child 1" ) );
      spItems->CellCaption[v(h1)][v((long)1)] = v("SubChild 1.1");
      spItems->CellCaption[v(h1)][v((long)2)] = v("SubChild 1.2");
      spItems->CellHasCheckBox[v(h1)][v((long)0)] = true;
      spItems->CellMerge[v(h1)][v((long)0)] = v((long)1);
      h1 = spItems->InsertItem( h, vtMissing, v( "Child 2" ) );
      spItems->CellCaption[v(h1)][v((long)1)] = v("SubChild 2.1");
      spItems->CellCaption[v(h1)][v((long)2)] = v("SubChild 2.2");
      spItems->CellHasCheckBox[v(h1)][v((long)0)] = true;
      spItems->CellMerge[v(h1)][v((long)0)] = v((long)1);
      spItems->put_ExpandItem( h, TRUE );
```

```
        h = spItems->AddItem( v( "Root 2" ) );
        spItems->CellCaption[v(h)][v((long)1)] = v("SubChild 1");
        spItems->CellCaption[v(h)][v((long)2)] = v("SubChild 2");
        h1 = spItems->InsertItem( h, vtMissing, v( "Child 1" ) );
        spItems->CellCaption[v(h1)][v((long)1)] = v("SubChild 1.1");
        spItems->CellCaption[v(h1)][v((long)2)] = v("SubChild 1.2");
        spItems->CellHasCheckBox[v(h1)][v((long)0)] = true;
        spItems->CellMerge[v(h1)][v((long)0)] = v((long)1);
        h1 = spItems->InsertItem( h, vtMissing, v( "Child 2" ) );
        spItems->CellCaption[v(h1)][v((long)1)] = v("SubChild 2.1");
        spItems->CellCaption[v(h1)][v((long)2)] = v("SubChild 2.2");
        spItems->CellHasCheckBox[v(h1)][v((long)0)] = true;
        spItems->CellMerge[v(h1)][v((long)0)] = v((long)1);
        spItems->put_ExpandItem( h, TRUE );

        spComboBox->Value = "Root 1";
        spComboBox->EndUpdate();

    }
}
m_record.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 OnUserEditorOleEventRecord1(LPDISPATCH Object, LPDISPATCH Ev, LPDISPATCH Ed)
```

```
{
   EXRECORDLib::IOleEventPtr spEvent = Ev;
   CString strOutput = "Event name: ";
   strOutput += spEvent->Name;
   strOutput += "\r\n";
   if ( spEvent->CountParam == 0 )
   {
      strOutput += "\tThe event has no arguments.";
   }
   else
   {
      strOutput += "\tThe event has no arguments.\r\n";
      for ( long i = 0; i < spEvent->CountParam; i++ )
      {
         strOutput += spEvent->GetParam( v(i) )->Name;
         strOutput += " = ";
         strOutput += V2S( &spEvent-;>GetParam( v(i) )->Value);
         strOutput += "\r\n";
      }

   }
   OutputDebugString( strOutput );
}
```

In C++, the **#import "path-to-ExRecord.dll"** adds a new EXRECORDLib namespace that includes definition for OleEvent and OleEventParam classes.