

Graphic Object Manipulation Functions

Graphic object manipulation functions

For the purpose of communication with individual graphic objects, there are implemented functions, which look like functions commonly used in the expressions of eval tags or scripts. Function names are created by the prefix **%HI_**.

For example:

```
%HI_SetVisible(_Button1, @FALSE)
```

or

```
BOOL _visible  
_visible := %HI_GetVisible(_Button1)
```

The first example controls the visibility of the graphic object with the reference variable **_Button1**.
The second example detects the current state of the graphic object visibility.

The examples imply that functions are used in two contexts:

1. To set a graphic object property (visibility in this case). It is a so-called [Control function](#).
2. To detect the state of the graphic object property.

Functions to set properties of graphic objects do not get values and they can not be used in [expressions](#). Functions to detect the state (value) of graphic object properties get values and they can be used in [expressions](#).

Let's call the first set of functions **GET** functions and the second set **SET** functions.

The first parameter of **GET** and **SET** functions is the value of the **reference variable** of the particular graphic object. It is usually the reference variable (e. g. Button1). When such a function is executed, it is always checked whether the graphic object (connected to the reference variable) exists. If the graphic object doesn't exist, the script interpreter generates the error **_ERR_UNKNOWN_REFID**, which is standardly processed by the error handler (see the action [ON ERROR](#)).

Each function can control only some types of graphic objects. If the script interpreter detects an illegal use of a function for a specific type of graphic object during the function execution, the interpreter generates the error **_ERR_INVALID_REFID_TYPE**.

%HIX_ functions

Some %HI_ functions are also available in the **%HIX_** version. These functions are able to redirect the function executing to another picture (through the first two parameters).

Example: Function `%HI_ClosePicture()` is available in `%HIX_ClosePictur (IN HBJ _picHBJ, IN INT _KInstance)`. `%HI_ClosePicture` closes the picture in which it has been called. `%HIX_ClosePicture` closes the picture defined by HOBJ (internal object identifier) and instance. Meaning of HOBJ and instance is the same as it is in the case of [RPC CALL](#) (parameters *objIdent* and *instanceExpr*).

If function %HIX_ is applied, the ESL script must be implemented to the picture (it must be an [Active picture](#)).

Types of functions:

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List of graphic object manipulation functions

Graphic objects manipulation functions:

- [%HI_EDADebugCalcFunctionRec](#)
- [%HI_EDADebugClose](#)
- [%HI_EDADebugOpen](#)
- [%HI_EDADebugVectorRec](#)
- [%HI_GetActiveTab](#)
- [%HI_GetBackColor](#)
- [%HI_GetBackColor2](#)
- [%HI_GetDistX](#)
- [%HI_GetDistY](#)
- [%HI_GetEnable](#)
- [%HI_GetFontStyle](#)
- [%HI_GetForeColor](#)
- [%HI_GetMandatoryMode](#)
- [%HI_GetMetadata, %HIX_GetMetadata](#)
- [%HI_GetMetadataMulti, %HIX_GetMetadataMulti](#)
- [%HI_GetPaintEffects](#)
- [%HI_GetPosX](#)
- [%HI_GetPosY](#)
- [%HI_GetSizeX](#)
- [%HI_GetSizeY](#)
- [%HI_GetText](#)
- [%HI_GetTextColor](#)
- [%HI_GetValue](#)
- [%HI_GetVisible, %HIX_GetVisible](#)
- [%HI_LockUpdate](#)
- [%HI_SetBackColor](#)
- [%HI_SetBackColor2](#)
- [%HI_SetBmp](#)
- [%HI_SetBmpFile](#)
- [%HI_SetBmpTheme](#)
- [%HI_SetEnable](#)
- [%HI_SetFocus](#)
- [%HI_SetFontStyle](#)
- [%HI_SetForeColor](#)
- [%HI_SetDistX](#)
- [%HI_SetDistY](#)
- [%HI_SetDraggable](#)
- [%HI_SetDragRangeX](#)
- [%HI_SetDragRangeY](#)
- [%HI_SetMandatoryMode](#)
- [%HI_SetMetadata, %HIX_SetMetadata](#)
- [%HI_SetMetadataMulti, %HIX_SetMetadataMulti](#)
- [%HI_SetPaintEffects](#)
- [%HI_SetPosX](#)
- [%HI_SetPosY](#)
- [%HI_SetSizeX](#)
- [%HI_SetSizeY](#)
- [%HI_SetText](#)
- [%HI_SetTextColor](#)
- [%HI_SetToolTipText](#)
- [%HI_SetValue](#)
- [%HI_SetVisible](#)
- [%HI_SetWinCtrlBmp](#)

List box manipulation functions:

- [%HI_AddItem](#)
- [%HI_GetDynamicSearching](#)
- [%HI_SetDynamicSearching](#)

List box and Tree view manipulation functions:

- [%HI_DeleteItem](#)
- [%HI_DeleteAll](#)
- [%HI_GetItemText](#)
- [%HI_SetItemText](#)

Tree view manipulation functions:

- %HI_AddTreeItem
- %HI_EditTreeViewItem
- %HI_ExpandItem
- %HI_FindItemData
- %HI_GetItemData
- %HI_GetTreeItemBackColor
- %HI_GetTreeItemTextColor
- %HI_GetTreeItemToolTip
- %HI_SetTreeItemBackColor
- %HI_SetTreeItemTextColor
- %HI_SetTreeItemToolTip
- %HI_SetItemData
- %HI_SetItemExpandable
- %HI_SetItemImage

List box, Tree view and Browser manipulation functions:

- %HI_GetSelectedItem
- %HI_SetSelectedItem

Text entry field and List box manipulation functions:

- %HI_GetTextLimit
- %HI_SetTextLimit

Text entry field manipulation functions:

- %HI_GetRowColEF
- %HI_GetSelEF
- %HI_GoToLine
- %HI_InsertTextEF
- %HI_SetSelEF
- %HI_ShowAutoCompleteList

Text entry field -RichEdit manipulation functions:

- %HI_FontSizeAddRE
- %HI_GetFontBoldRE
- %HI_GetFontColorRE
- %HI_GetFontCharSetRE
- %HI_GetFontItalicRE
- %HI_GetFontNameRE
- %HI_GetFontSizeRE
- %HI_GetFontUnderlineRE
- %HI_GetFormatRE
- %HI_GetFormattedText
- %HI_SetFontBoldRE
- %HI_SetFontColorRE
- %HI_SetFontCharSetRE
- %HI_SetFontItalicRE
- %HI_SetFontNameRE
- %HI_SetFontSizeRE
- %HI_SetFontUnderlineRE
- %HI_SetFormatRE
- %HI_SetFormattedText

Browser (displayer) manipulation functions:

- %HI_EditItem
- %HI_GetBrowserAutoRefresh
- %HI_GetBrowserBackColor
- %HI_GetBrowserCountVisibleRows
- %HI_GetBrowserFont
- %HI_GetBrowserForeColor
- %HI_GetBrowserFormatMask, %HIX_GetBrowserFormatMask
- %HI_GetBrowserItemImage
- %HI_GetBrowserModifyFlag
- %HI_GetBrowserMultiselect

- %HI_GetBrowserRowCount
- %HI_GetCellToolTipText
- %HI_GetCellToolTipTitle
- %HI_GetColumnAlign
- %HI_GetColumnMask
- %HI_GetColumnMetadata, %HIX_GetColumnMetadata
- %HI_GetColumnOrder
- %HI_GetColumnText
- %HI_GetColumnVisible
- %HI_GetColumnWidth
- %HI_GetColumnsProperties
- %HI_GetEditEnable
- %HI_HideColumn
- %HI_RefreshData
- %HI_SetBrowserAutoRefresh
- %HI_SetBrowserBackColor
- %HI_SetBrowserFont
- %HI_SetBrowserForeColor
- %HI_SetBrowserFormatMask
- %HI_SetBrowserItemImage, %HIX_SetBrowserFormatMask
- %HI_SetBrowserMultiselect
- %HI_SetBrowserStText, %HIX_SetBrowserStText
- %HI_SetCellToolTip
- %HI_SetColumnAlign
- %HI_SetColumnMask
- %HI_SetColumnMetadata, %HIX_SetColumnMetadata
- %HI_SetColumnOrder
- %HI_SetColumnText
- %HI_SetColumnVisible
- %HI_SetColumnWidth
- %HI_SetColumnsProperties
- %HI_SetEditEnable
- %HI_SetHeaderToolTip

Report(displayer) manipulation functions:

- %HI_RefreshData
- %HI_ReportNumPar
- %HI_ReportPar
- %HI_ReportPrint
- %HI_ReportStrPar
- %HI_ReportTimPar

Graph (displayer) manipulation functions and actions:

- %HI_AddGraphData
- %HI_GetEmptyIntervalDuration
- %HI_GetEmptyIntervalsVisible
- %HI_GraphCorrectionStart
- %HI_GraphCorrectionStop
- %HI_GraphGetLineData
- %HI_GraphLineRefresh
- %HI_GraphTimeZoneRemove
- %HI_SetEmptyIntervalDuration
- %HI_SetEmptyIntervalsVisible
- %HI_SetGraphAxisDesc
- %HI_SetGraphData
- %HI_SetGraphDigitDesc
- %HI_SetGraphLineStat
- %HI_SetGraphRowNr
- %HI_SetGraphTick
- %HI_SetGraphTimes
- %HI_SetGraphTimeZone
- %HI_SetGraphTimeZoneColor
- %HI_SetGraphTimeZoneVisible
- %HI_SetGraphTimeZoom
- HI_SETDT_LINEOBJ

Graph and Picture/Component (displayer) manipulation functions:

- %HI_PrintGO

[Graph](#) (displayer) and [XY Graph](#) manipulation functions:

- [%HI_GetGraphAxis](#)
- [%HI_HideLine](#)
- [%HI_ResetGraphZoom](#)
- [%HI_SetGraphAxis](#)
- [%HI_SetGraphAxisRange](#)
- [%HI_SetGraphBackColor](#)
- [%HI_SetGraphBarWidth](#)
- [%HI_SetGraphButtons](#)
- [%HI_SetGraphButtonsToolTip](#)
- [%HI_SetGraphGrid](#)
- [%HI_SetGraphInfo](#)
- [%HI_SetGraphLinePeriod](#)
- [%HI_SetGraphPrintTitle](#)
- [%HI_ShowLine](#)

[XY Graph](#) manipulation functions:

- [%HI_SetGraphXY_Data](#)
- [%HI_SetGraphXY_XAxisDesc](#)
- [%HI_SetGraphXYText](#)
- [%HI_SetGraphXYTextParams](#)
- [%HI_SetGraphXYToolTipText](#)

[Logging](#) manipulation functions:

- [%HI_SetLogDBByMask](#)
- [%HI_SetLogDBForObject](#)
- [%HI_SetFormatMask](#)

[Alarms](#) manipulation functions:

- [%HI_SetAlarmConfig](#)
- [%HI_SetAlarmData](#)

[WebFrame](#) (displayer) manipulation functions:

- [%HI_GetURL](#)
- [%HI_SetURL](#)

Functions supporting Drag&Drop:

- [%HI_DoDragDrop](#)
- [%HI_IsDragData](#)
- [%HI_LVQueryDnDItem](#)
- [%HI_TVQueryDnDItem](#)
- [%GetDragDataFileList](#)
- [%GetDragDataIPs](#)
- [%GetDragDataText](#)
- [%SetDragDataFileList](#)
- [%SetDragDataIPs](#)
- [%SetDragDataText](#)

Other functions:

- [%HI_GetConnectedHBJ](#)
- [%HI_GetConnectedInstance](#)
- [%HI_SetConnectedObj](#)
- [%HI_GetOBJURL](#)
- [%HI_SetOBJURL](#)

Note

- Functions, whose names begin with the string **%HL_Get...** get values and they can be used in [expressions](#).
- The other functions are the so-called [Control functions](#).



Related pages:

[Active picture - functions](#)
[Graphic objects](#)