

Advanced GUI Code Example

This code example demonstrates how to create an advanced graphical user interface (GUI) in PowerBuilder, using native PowerBuilder objects as well as third-party controls implemented using the PowerBuilder Native Interface (PBNI).

This application consists of a workspace containing a standard PowerBuilder (Win32) target. The target contains three PBLs: advguisample.pbl, advguicontrols.pbl, and advguiobjects.pbl.

This application contains examples of the following types of objects:

- Button List Bar
- Shortcut Bar
- Static Text Control
- Tab Strip
- Toolbar Strip
- XP List Bar

Information on how to use each control is provided below.

Button List Bar

Usage

Add the following library to your application library list:

advguicontrols.pbl

Place u_cst_buttonlistbar from advguicontrols.pbl on your window.

Distribution

You need to distribute the canvas.pbx PowerBuilder extension file with your application

Functions

of_additem (string as_text, string as_image)

- Add an item to the list

of_setsize (integer ai_size)

- Set button size
 - for 16x16 pass SMALL
 - for 24x24 pass MEDIUM
 - for 32x32 pass LARGE
 - for 48x48 pass XLARGE

of_selectbutton (long al_selected)

of_selectbutton (string as_text)

- Select a button by index or text

of_setenabled (long al_index, boolean ab_enabled)

of_setenabled (string as_text, boolean ab_enabled)

- Set buttons enabled property by index or text

of_gettext (long al_index)

- Get Button text by index

of_setscrollspeed (long al_speed)

- Set the speed that the object scrolls at.

Events

ue_selectionchanged (oldindex, newindex)

- Occurs when an item is selected.

ShortcutBar

Usage

Add the following library to your application library list:

advguicontrols.pbl

Place u_cst_shortcutbar from advguicontrols.pbl on your window.

Distribution

You need to distribute the canvas.pbx PowerBuilder extension file with your application

Functions

of_selectitem (string as_text)

of_selectitem (long al_item)

- Selects an item by text or index

of_hideitem (string as_text)

of_hideitem (long al_item)

- Hide item by text or index

of_showitem (string as_text)

of_showitem (long al_item)

- Show item by text or index

of_additem (dragobject a_object, string as_text, string as_image)

- Adds an object to the control.

of_setini (string as_ini)

- Specify the ini or registry entry that will store user settings

of_hideall ()

- Hide all items

of_showall ()

- Show all items

of_displayheaderimage (boolean ab_switch)

- Display image in header (True display, False do not display)

of_setstyle (integer ai_style)

- Set the shortcut bar style (XP, VISTAEMBOSSED, VISTAORIGINAL, VISTAGLASS, CUSTOM)

of_setshadowtext (boolean ab_switch)

- Display shadow text (TRUE display, False do not display)

of_setpattern (long al_pattern)

- Set the shortcut bar pattern (NOPATTERN, SOLIDCIRCLE, HOLLOWCIRCLE, SOLIDSQUARE, HOLLOW SQUARE, STAR, WAVE, BAR, DIAMOND)

of_displayclosebutton (boolean ab_display)

- Display close button on shortcut items (TRUE display, False do not display)

of_setenabled (long al_item, boolean ab_enabled)

of_setenabled (string as_text, boolean ab_enabled)

- Enable a shortcut item by text or index

Events

ue_selectionchanged (string as_text, string as_image)

- Occurs when an items is selected.

StaticText

Usage

Add the following library to your application library list:

advguicontrols.pbl

Place u_cst_statictext from advguicontrols.pbl on your window.

You can set properties from the IDE. If you need to set properties at run time, use the corresponding object function.

For example: of_Text(...)

of_AlignLeft()

of_AlignRight()

etc.

Distribution

You need to distribute the canvas.pbx PowerBuilder extension file with your application

Functions

of_italic (boolean ab_italic)

of_bold (boolean ab_bold)

of_underline (boolean ab_underline)

of_strikeout (boolean ab_strikeout)

of_escapement (long al_escapement)

of_ellipsis (boolean ab_ellipsis)

of_wrap (boolean ab_wrap)

of_alignleft ()

of_aligncenter ()

of_alignright ()

of_valigntop ()
of_valigncenter ()
of_valignbottom ()

of_backcolor (long al_color)
of_backcolor2 (long al_color)

of_vgradient (boolean ab_vgradient)
of_hgradient (boolean ab_hgradient)
of_transparent (boolean ab_transparent)

of_text (string as_text)

of_fontname (string as_font)
of_fontsize (long al_size)
of_fontcolor (long al_color)

Events

None

TabStrip

Usage

Add the following library to your application library list:

advguicontrol.pbl

Place u_cst_tabcontrol from advguicontrols.pbl on your window.

If you are going to use images in the of_OpenTab function you need to add the images to the controls image list.

This is done using the of_AddImage function:

For example:

```
of_AddImage('custom001!') //Image index 1  
of_AddImage('custom002!') //Image index 2  
of_AddImage('custom003!') //Image index 3
```

```
of_OpenTab(iuo_1, 'Tab1', 1)  
of_OpenTab(iuo_2, 'Tab2', 2)  
of_OpenTab(iuo_3, 'Tab3', 3)
```

Distribution

You need to distribute the canvas.pbx PowerBuilder extension file with your application

Functions

of_selecttab (long al_selected)
of_selecttab (dragobject ad_object)
- Selects tab based on index or object

of_addimage (string as_image)

- Add an image to the tab controls image list
- Returns image index

of_setstyle (long al_style)

- Set tab style (REGULAR, EXCEL, VS2005)

of_settabposition (long al_position)

- Sets the tab position (TOP, BOTTOM)

of_setenabled (long al_index, boolean ab_switch)

of_setenabled (dragobject ad_object, boolean ab_switch)

- Enables or disables the tab by index or object

of_isenabled (long al_index)

of_isenabled (dragobject ad_object)

- Returns the enable state of an item by index or object

of_setvisible (long al_index, boolean ab_switch)

of_setvisible (dragobject ad_object, boolean ab_switch)

- Makes a tab visible or invisible by index or object

of_isvisible (long al_index)

of_isvisible (dragobject ad_object)

- Returns the visible state of an item by index or object

of_boldselected (boolean ab_bold)

- Bolds the selected tab text (True bold, False don't bold)

of_closetab (long al_index)

of_closetab (dragobject ad_object)

- Close a tab by index or object

of_closesselectedtab ()

- Close the selected tab

of_closealltabs ()

- Close all tabs

of_getselectedtab ()

- Returns the index of the selected tab

of_gettabcount ()

- Returns the number of open tabs

of_getobject (long al_index)

- Returns the object for tab index provided

of_settext (long al_index, string as_text)

of_settext (dragobject ad_object, string as_text)

- Set tab text by index or object

of_settextcolor (long al_index, Long al_color)

of_settextcolor (dragobject ad_object, al_color)

- Set tab text color by index or object

of_settiptext (long al_index, string as_text)

of_settiptext (dragobject ad_object, string as_text)

- Set tabs tooltip text by index or object

of_opentab (ref dragobject a_object, string as_text, long al_picindex)

- Open a tab object

of_gettext (long al_index)

of_gettext (dragobject ad_object)

- Get text for index or object

of_gettiptext (long al_index)

- Get text for index or object

of_setimage (long al_index, long al_image)

of_setimage (dragobject ad_object, long al_image)

- Set tab image by index or object

of_hideclosebutton ()

- Hide the close button

of_showclosebutton ()

- Show the close button

of_hidearrows ()

- Hide the arrow buttons

of_showarrows ()

- Show the arrow buttons

Events

event type long selectionchanging (long oldindex, long newindex)

- Occurs before a tab is selected.
- Return 0 to prevent tab from changing
- Return 1 to allow tab to change

event selectionchanged (long oldindex, long newindex)

- Occurs when a tab has changed

event type long tabclosing (long index)

- Occurs before a tab is closed
- Return 0 to prevent the tab from closing
- Return 1 to allow the tab to close

event tabclosed (long index)

- Occurs when a tab has been closed

Toolbar Strip

Add the following library to your application library list:

advguicontrols.pbl

Place u_cst_toolbarstrip from advguicontrols.pbl on your window.

Distribution

You need to distribute the canvas.pbx PowerBuilder extension file with your application

Functions

of_additem (string as_text, string as_image)

- Add a toolbar item to the strip

of_addobject (string as_text, dragobject ado_object)

- Add an object to the toolbar strip

of_addseparator ()

- Add a separator to the toolbar strip

of_displaytext (boolean ab_display)

- Display text (True display, False do not display)

of_displayborder (boolean ab_border)

- Display border (True display, False do not display)

of_setenabled (string as_item, boolean ab_switch)

- Disable or enable a toolbar item (True enable, False, disable)

of_setimage (string as_item, string as_image)

- Set an items image

of_getimage (string as_item)

- Get an items image

Events

ue_buttonclicked (string as_button)

- Triggered when a button item is clicked

XPListBar

Usage

Add the following library to your application library list:

advguicontrols.pbl

Place u_cst_xplistbar from advguicontrols.pbl on your window.

Distribution

You need to distribute the canvas.pbx PowerBuilder extension file with your application

Functions

of_addgroup (string as_label, string as_picture, long al_style)

of_addgroup (string as_label, string as_picture)

- Add a group to the list bar.
- Returns handle for the other of_Add... functions
- Optional style argument allows you to set the group headers style
 - SPECIAL
 - ORIGINAL (default)
 - NOARROW

of_addline (long al_parent)

- Add a line to the specified group

of_addlink (string as_label, string as_picture, long al_parent)

- Add a link to the specified group
- Links are clickable

of_addlabel (string as_label, string as_picture, long al_parent)

- Add a label to the specified group
- Labels are not clickable

of_addobject (ref dragobject a_object, string as_picture, long al_parent)

- Add a PB object to the specified group

of_collapseitem (long al_item)

of_collapseitem (string as_item)

- Collapse a group by index or name

of_collapseall ()

- Collapse all groups

of_expanditem (long al_item)

of_expanditem (string as_item)

- Expand a group by index or name

of_expandall ()

- Expand all groups

of_setsmoothexpand(boolean ab_smooth)

- Sets the group expand and collapse style
- Default is TRUE, smooth expand and collapse

Events

itemselected (string as_group, string as_item)

- Triggered when a link item is clicked.

Special Contributions

The following was contributed by Serge Samson:

- PB Objects in group functionality.
- Group header styles.
- Smooth expanding and collapsing.

Acknowledgements

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- Gabriel Abulencia Dela Torre (Yeyi)
- Roland Smith
- Brad Wery
- Serge Samson

For more information

For more information about using advanced GUI controls please visit:

<http://kodigo.sourceforge.net/>

or

<https://advanced-gui-development.codexchange.sybase.com/>