
Subject: Widget_event and a TLB object !!!

Posted by [Antonio Santiago](#) on Mon, 13 Jun 2005 14:55:33 GMT

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Hi I am very desperated with a widget object based I'm writting.
This is the situation:

I want to create an object that in its INIT method creates a WIDGET_BASE with some buttons a text widgets. I want to collect some values, then the user close (unmap) the widget_base, recollect the values with some object method (GetProperty) and destroy the object.

Well, the problems comes with event handler. I can use XMANAGER because it cant bring the use of methods, then I tried to use WIDGET_EVENT, but I had a lot of problems to resolve the situation. Now I know where it fails but no why it fails :(

Initialy, I assoociated to the WIDGET_BASE an EVENT_PRO procedure (extracted from this <http://www.rsinc.com/codebank/search.asp?FID=209> from JP). This procedure is responsible to send ocurred events into the widget_Base to a method of my object (MyObject::Event_Handler). Well this is part of the code (I attach all it):

```
FUNCTION NewProcess::Init
```

```
    base = WIDGET_BASE(/COLUMN, $
        TITLE='New Process Wizard', UVALUE=self, $
        EVENT_PRO='GenericClassEventHandler')
```

```
;;Create widgets
```

```
content = WIDGET_BASE(base, XSIZE=cxsize, YSIZE=cysize, $
    X_SCROLL_SIZE=cxsize, Y_SCROLL_SIZE=cysize)
text = WIDGET_TEXT(content, XSIZE=20, YSIZE=30)
```

```
line = WIDGET_BASE(base, XSIZE=500, YSIZE=0, /FRAME)
```

```
buttons = WIDGET_BASE(base, /ROW)
```

```
previous = WIDGET_BUTTON(buttons, VALUE='< Previous', $
    UVALUE='PREVIOUS', SENSITIVE=0)
```

```
next = WIDGET_BUTTON(buttons, VALUE='Next >', UVALUE='NEXT', $
    SENSITIVE=1)
```

```
finish = WIDGET_BUTTON(buttons, VALUE='Finish', UVALUE='FINISH', $
    SENSITIVE=0)
```

```
cancel = WIDGET_BUTTON(buttons, VALUE='Cancel', UVALUE='CANCEL')
```

```
;;Store references
```

```
self.base = base
```

```
self.content = content
```

```

self.previous = previous
self.next = next
self.finish = finish
self.cancel = cancel

WIDGET_CONTROL, self.base, /REALIZE

event = WIDGET_EVENT(self.base)
print, 'Never shows this line'

;;Event Loop
; WHILE NOT self.destroy DO BEGIN
;   event = WIDGET_EVENT(base)
;   self->EventHandler, event
; ENDWHILE

RETURN, 1
END

```

Why WIDGET_EVENT call never returns ??? I dont know if I misunderstand the doc, but I though WIDGET_EVENT gets the event, call the EVENT_PRO associated with my WIDGET_BASE and returns.

To test it execute:

```
p = OBJ_NEW('NewProcess')
```

and press NEXT button and later CANCEL button.

Finally, I had removed the EVENT_PRO from the WIDGET_BASE, uncomment the above comment code and comment the line "event=WIDGET_EVENT...".

Thanks in advice,
Antonio (a little upset :()

--

```

-----
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```

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```

-----
;+
; @FILE_COMMENTS Answer the information needed to create a new
;   process.
;
;
; @AUTHOR
;   Antonio Santiago
;   http://www.grahi.upc.edu/santiago - <santiago\@grahi.upc.edu>
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;
;
; @HISTORY
;   Fri Jun 10 13:31:13 2005, Antonio Santiago
;   (santiago\@grahi.upc.edu - asantiagop\@gmail.com)
;-

```

```

;+
; Event handler
;
; @PRIVATE
;
; @PARAM event {in}{required}{type=event struct} Event structure with
;   produced information.
;-

```

```

PRO NewProcess::EventHandler, event

```

```

    WIDGET_CONTROL, event.id, GET_UVALUE=uval

```

```

    IF ~N_ELEMENTS(uval) THEN RETURN

```

```

    CASE uval OF

```

```

        'NEXT': BEGIN

```

```

            print, 'next'

```

```

        END

```

```

        'CANCEL': BEGIN

```

```

            ;self.destroy = 1

```

```

            WIDGET_CONTROL, self.base, /DESTROY

```

```

        END

```

```

        ELSE:           ;Nothing

```

```

    ENDCASE

```

```

END

```

```

;+
; @FILE_COMMENTS This routine is called when an event occurs in any

```

```

;      object-based TLB (Top-Level Bases). The 'EventHandler'
;      method of the
;      class whose object reference is stored in the
;      'event.handler's UVALUE is called.</br></br>
;      <i>This is a personal modification of the
;      'generic_class_event.pro' procedure created by Jim
;      Pendleton (jimp\@rsinc.com). You can find the original
;      code in the RSI User Contribution page.</i>
;
;
; @PARAM event {in}{required}{type=structure} The widget event produced.
;
; @EXAMPLES
; Inside your object-based TLB use WIDGET_CONTROL to associate this
; procedure as the events occurred in the widget:
; <pre>
;     ...
;     WIDGET_CONTROL, the_widget, SET_UVALUE = self,
;     EVENT_PRO='Generic_Class_Event'<br>
;     ...
; </pre>
;-
PRO GenericClassEventHandler, Event
    WIDGET_CONTROL, event.handler, GET_UVALUE=oSelf
    IF (N_ELEMENTS(oSelf) EQ 1) THEN BEGIN
        IF (OBJ_VALID(oSelf)) THEN BEGIN
            ;; A class that uses this routine must have a method
            ;; named "EventHandler".
            oSelf->EventHandler, event
        ENDIF
    ENDIF
END

;+
; Show plugin informacion stored in a PluginInfo object.
;
; @PARAM wbase {in}{required}{type=long} Widget base where to put the
;      information.
;-
FUNCTION NewProcess::Init

    base = WIDGET_BASE(/COLUMN, $
        TITLE='New Process Wizard', UVALUE=self, $
        EVENT_PRO='GenericClassEventHandler')

    ;;Create widgets
    content = WIDGET_BASE(base, XSIZE=cxsize, YSIZE=cysize, $
        X_SCROLL_SIZE=cxsize, Y_SCROLL_SIZE=cysize)

```

```

text = WIDGET_TEXT(content, XSIZE=20, YSIZE=30)

line = WIDGET_BASE(base, XSIZE=500, YSIZE=0, /FRAME)

buttons = WIDGET_BASE(base, /ROW)
previous = WIDGET_BUTTON(buttons, VALUE='< Previous', $
                        UVALUE='PREVIOUS', SENSITIVE=0)
next = WIDGET_BUTTON(buttons, VALUE='Next >', UVALUE='NEXT', $
                    SENSITIVE=1)
finish = WIDGET_BUTTON(buttons, VALUE='Finish', UVALUE='FINISH', $
                    SENSITIVE=0)
cancel = WIDGET_BUTTON(buttons, VALUE='Cancel', UVALUE='CANCEL')

;;Store references
self.base = base
self.content = content
self.previous = previous
self.next = next
self.finish = finish
self.cancel = cancel

WIDGET_CONTROL, self.base, /REALIZE

event = WIDGET_EVENT(self.base)

print, 'Never shows this line'

;;Event Loop
; WHILE NOT self.destroy DO BEGIN
;     event = WIDGET_EVENT(base)
;     self->EventHandler, event
; ENDWHILE

RETURN, 1
END

;+
; Frees the memory used by the object.
;-
PRO NewProcess::Cleanup
    WIDGET_CONTROL, self.base, /DESTROY
END

;+
; Newprocess class definition.
;

```

```
; @PRIVATE
;-
PRO NewProcess__define

    struct = {NewProcess, $
        base: 0L, $
        content: 0L, $
        previous: 0L, $
        next: 0L, $
        finish: 0L, $
        cancel: 0L, $
        destroy: 0B $
    }
END
```

File Attachments

1) [newprocess__define.pro](#), downloaded 125 times

Subject: Re: Widget_event and a TLB object !!!
Posted by [Robert Moss](#) on Tue, 14 Jun 2005 11:06:41 GMT
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Antonio Santiago wrote:

> Hi I am very desperated with a widget object based I'm writting.
> This is the situation:

This seems to me like a problem that is screaming for a modal widget. If this object widget is supposed to pop up, get used, then go away, a modal widget will do the trick nicely. I use this type of modal object widget all the time to get input parameters for complicated procedures.

r

Robert Moss, PhD
