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Subject: Re: Widget event handlers

Posted by [marc schellens\[1\]](#) on Fri, 02 Mar 2001 04:36:18 GMT

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Joe Means wrote:

>  
> In a widget program [TranslateAxes] I am writing I specify an event  
> handler function for each widget that can generate an event. I specify  
> event handlers for each text and button widget but not for base and  
> label widgets [no bases are resizable]. No base widgets can be  
> resized. The GUI includes text boxes for user input. When I ran the  
> program initially, put text in any box and clicked enter, I always got  
> the error:  
> Attempt to call undefined procedure/function: 'TRANSLATEAXIES\_EVENT'.  
>  
> So I put a do-nothing procedure with this name in the  
> TranslateAxes\_EventCB file. Now I do not get the error. Also, all the  
> text widgets and their event functions seem to run fine [when I click  
> return after entering a value in the text field], because their values  
> in the info structure are updated OK.  
>  
> It does not seem like I need this do-nothing procedure. Can anyone  
> tell me why it is needed?  
>  
> Also, when I type text in a text widget it will not call the event  
> function to update the value in the info structure if I click tab to  
> move out of the field. Why is this?

You probably use EVENT\_FUNC and return the event at the end, in which  
case the next  
eventhandler in the eventhandler-tree is called (and so on, earlier or  
later  
'TRANSLATEAXIES\_EVENT').

So use EVENT\_PRO or don't return anything from  
your EVENT\_FUNC (even the latter is not best style, but works).

Regarding your second question, just set /ALL\_EVENTS keyword in your  
widget\_text function. Then the eventhandler is called after every change  
in the widget, keeping your info structure always up to date.

cheers,  
marc

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Subject: Re: Widget event handlers

Posted by [davidf](#) on Fri, 02 Mar 2001 05:19:39 GMT

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Joe Means (means@fsl.orst.edu) writes:

> In a widget program [TranslateAxes] I am writing I specify an event  
> handler function for each widget that can generate an event. I specify  
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> tell me why it is needed?

No, no one will be able to tell you why it is needed. :-)

It's not needed. Somehow events from this text widget are not getting sent to the text widget's event handler. Instead, they are "bubbling up" to the top-level base event handler, which you have not written, but which would be named 'TRANSLATEAXIES\_EVENT'. In the absence of other information (e.g., a different name assigned with the EVENT\_HANDLER keyword to XMANAGER) IDL uses the register name ("translateaxies", in this case) and appends the \_EVENT to it, and assigns this to the top-level base.

I'd guess this was a programming error. (Maybe EVENT\_PRO is mis-spelled, or something like that.) But widgets that have event handlers assigned to them, \*always\* send their events to the proper event handlers. I've never known it to fail.

And, of course, I'm totally skeptical that the program is actually "working". :-)

It is often the case in widget programs that we don't want to deal with text widget events. In other words, most of my programs are written in such a way that I totally ignore text widget events until the user hits the DOIT button, or whatever. If your program has that kind of design, I can well believe it appears to work, even when you are sending text events to a NULL

event handler. That's a design technique I use all the time. But, in general, it's better to use this design by choice, rather than by necessity.

> Also, when I type text in a text widget it will not call the event  
> function to update the value in the info structure if I click tab to  
> move out of the field. Why is this?

You probably have your text widget set up to only return Carriage Return events (EDITABLE=1, ALL\_EVENTS=0). A carriage return is the character String(13B). A tab is character String(9B). A character return is not a tab. It's pretty much as simple as that.

Or, another reason this might fail, is that you are running IDL on a Mac. There, I don't think it is even possible to trap tabs if you have ALL\_EVENTS=1, since the MacOS has already decided it's going to do something spiffy with TAB events. (On more mundane machines, we have to \*make\* our TAB characters move to the next input field. What a bother! But one of the nice features of FSC\_FIELD, by the way.)

Sounds like you have almost de-mystified this widget programming stuff, Joe. :-)

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>  
Toll-Free IDL Book Orders: 1-888-461-0155

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Subject: Re: Widget event handlers  
Posted by [Joe Means](#) on Fri, 02 Mar 2001 21:26:56 GMT  
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Thanks to Marc and David for your helpfull ideas. I was indeed identifying the event handler with Event\_func keyword, so using Event\_pro solved my first problem. I found the /Kbrd\_focus\_events keyword met my needs better than /All\_events. Now the info structure is being updated but I do not need the TRANSLATEAXIES\_EVENT procedure.  
Joe Means

Marc Schellens wrote:

> Joe Means wrote:

>

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> marc

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