
Subject: Re: Unable to get the user value of the top level base after a draw widget expose event

Posted by [Pavel Romashkin](#) on Thu, 14 Aug 2003 15:31:40 GMT

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It seems you are losing your State structure. To check, get rid of /no_copy everywhere and try again. If it works, comb through your code and find where do you forget to put State back in. Typically this happens when you put your widget_control, event.top, set_uvalue = state, /no_copy in an IF statement that gets skipped in the code. Also, check if you don't forget to retrieve it in the pro in question. It should work just fine.

Good luck,
Pavel

Johan Marais wrote:

```
>
> I keep on getting behaviour that I do not understand and as far as I
> understand it, should not happen. I use draw widgets and objects graphics
> with the EXPOSE_EVENTS from the draw widgets enabled. Here is an example:
>
> pro image_Expose, event
>   widget_control, event.top, get_uvalue = state, /no_copy
>   for i=0,7 do state.combWindow[i]->Draw, state.combView[i]
>   widget_control, event.top, set_uvalue = state, /no_copy
> end
>
> pro setThresOf, event
>   widget_control, event.top, get_uvalue = state, /no_copy
>   state.ThresOf = event.value
>   widget_control, event.top, set_uvalue = state, /no_copy
> end
>
> where image_Expose the event handler for the draw widget's expose event is.
> After a call to image_expose has been made and when I try to get the user
> value of the top level base, (for example in setThresOf) I receive the
> following error message:
>
> % Expression must be a structure in this context: STATE.
>
> When I issued the help statement, I receive the following:
> IDL> help, state, /STRUCT
> STATE      UNDEFINED = <Undefined>
>
> It seems to me that the program are unable to get the top levels base user
> value once an expose event was executed.
>
```

> Did anyone ever come across this? I do not know whether any other part of
> the program can have an influence as well.
> --
> Johan Marais

Subject: Re: Unable to get the user value of the top level base after a draw widget expose event

Posted by [MKatz843](#) on Fri, 15 Aug 2003 03:03:11 GMT

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I had this same problem for a while. Your event handler "checks-out" the state variable (like a library book), and while it's checked-out, some other event comes along looking for it.

If you take Pavel's advice and drop the /no_copy, you might run into a problem in which two different routines are setting values of the state and they may conflict or lose information somehow. You know that there is some kind of conflict going on where two routines are already reaching for the same state value.

The very best solution to all of this, a la Prof. Coyote, is to use a pointer for the state. You don't need to change much, just instead of state, the first time you set the uvalue use ptr_new(state, /no_copy). Then every time you get the uvalue, you'll be getting a pointer to a structure that only lives in memory once.

Your code becomes:

```
widget_control, event.top, get_uvalue = state  
(*state).ThresOf = event.value
```

The line that re-sets the uvalue with state when you're done is no longer necessary, since you never "checked it out."

In this way, multiple events can access and interact with the state with less fear of conflict.

One extra bit of advice. If *state is large, or you use many widgets, you should make sure to clean up properly when the widget is killed. Set a widget cleanup routine to free the pointer (if it's valid) before destroying the widget and losing the pointer reference. You'll avoid a potential memory leak.

I hope this helps.

M. Katz

Pavel Romashkin <pavel_romashkin@hotmail.com> wrote in message news:<3F3BAB5C.77984022@hotmail.com>...

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 - > Good luck,
 - > Pavel
 - >
-