Subject: Re: widget cleanup problem
Posted by David Fanning on Tue, 28 Nov 2006 19:52:26 GMT
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Paul van Delst writes:

> I'm having a bit of issue with cleaning up after myself in a widget program.
>
> I have a main GUI that, alongside "regular widgets" also contains a bunch of standalone
> compound widgets. The main GUI info structure and loading looks something like:
>
> Info = { Debug : Debug , $
> cw1Id : cw1Id , $; compound widget 1 base id
> cw2Id : cw2Id , $; compound widget 2 base id
> cw3Id : cw3Id , $; compound widget 3 base id
> .....etc....
> cwNId : cwNId } ; compound widget N base id
> InfoPtr = PTR_NEW(Info)
> WIDGET_CONTROL, tlBaseId, SET_UVALUE = InfoPtr
>
> To get a look at the compound widgets info structure I do the following:
>
> WIDGET_CONTROL, Info.cw3Id, GET_UVALUE = cw3_InfoPtr
>
> My problem is that when an exit event occurs and the cleanup routine is called, the child
> compound widgets are cleared first so the reference to their top-level-based is gone and I
> now have dangling pointers.
>
> In my main "exit" event handler, all the various compound widget base ids are still valid.
> However, by the time the "cleanup" routine is called, they are not -- and thus I can't
> free the info pointers.
>
> I wanted the main "cleanup" routine to handle all the child compound widget pointer
> free'ing. Does it *have* to be done in the main "exit" event handler?
>
> I hope my explanation above makes sense.

People here are just entirely too optimistic today!

With these kind of compound widgets, what we usually do
is use KILL_NOTIFY to assign a callback to the TLB of the
compound widget. (This isn't really a TLB, but you know
what I mean.) When that base widget dies, you enter your
"cleanup" routine for that compound widget. (This means
you will have to write one for it.) This is where you
free your pointer.

This is *identical* to the CLEANUP routine you assign to

the application's TLB, except that you can't (supposedly)
use KILL_NOTIFY to assign a cleanup routine to a widget that
is being managed directly by XManager. You have to use the
CLEANUP keyword on XManager. (I see ITTVIS programmers break
this rule all the time, so I presume it's not enforced like
it used to be, but I still teach it this way. And it still
works.)

Cheers,

David
--
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Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")
