
Subject: Ghost Widgets!

Posted by [David Fanning](#) on Tue, 30 Aug 2011 14:31:58 GMT

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Folks,

I've run into an odd situation today: ghost widgets!

The problem concerns cgWindow, which is an "object widget". In other words, cgWindow is an object containing widgets, and in particular a top-level base widget. The program is set up so that if the user kills the top-level base widget in any way whatsoever, the top-level base (and its draw widget) and the object itself will be destroyed. This all happens in a clean-up call-back routine, triggered upon the death of the top-level base.

All this works great, except....

Except, if I am debugging a program that uses a cgWindow I have seen extremely strange things happen. (This is where the story gets weird. Those of you easily frightened by ghosts may want to stop reading here.) Suppose, for example, I put a breakpoint in my code and step through the lines that creates the cgWindow and loads it. The first time I do this, all is well. I see the window, I see the commands loading, etc.

But, suppose now I want to do this again. While my program is stopped and I am stepping through the lines in the file, I decide I want to start over. So I kill the cgWindow with the mouse, I re-compile my program that has the breakpoint in it, run it and step through the lines again. This time NOTHING! No window. No error. No nothing! What the ...!?

It turns out that the top-level base widget never actually got killed, even though it is clearly nowhere to be found on my display. If I go looking for the object widget, I can find it. If I inquire whether it has a valid top-level base, it tells me it does. And, in fact, the draw widget is a valid draw widget with a valid window index number! And, get this, I am writing graphics commands into a valid window that I can't possibly see! What the ...!?

OK, maybe I could just kill the object and all would be well. But I can't just go around willy-

nilly killing objects. I have to have some justification for doing so. (There are courts of law for this sort of thing.) And, there is NOTHING about this object that says it is deficient in any way. It just doesn't exist on my display!!!

You might think the solution would be to exit the stopped routine after I had killed the widget and before I compiled and ran the program again. But, even this doesn't work. I just can't figure out a way to get into my clean-up routine from within a stopped program.

Any ideas?

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thui. ("Perhaps thou speakest truth.")
