Subject: Re: IDL 5.0 forgets about open windows (?)
Posted by J.D. Smith on Thu, 31 Jul 1997 07:00:00 GMT
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J.D. Smith wrote:
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>>>
>>> David Foster wrote:
>>>>
>>>> Version: { sparc sunos unix 5.0 Apr 28 1997} (Solaris 2.5)
>>>>
>>>> Recently upon upgrading to IDL 5.0, we have noticed a strange
>>>> phenomenon regarding graphics windows. In one of our programs,
>>>> IDL seems to "forget" that there are any windows open, and the
>>>> next cursor operation results in window #0 being created. This
>>>> happens while the program has 4 visible windows displayed onscreen!
>>>>
>>>> The program is quite complex, and the problem occurs after various
>>>> operations involving setting and unsetting windows, so it is *possible*
>>>> that this is programmer error, but I don't think so because:
>>>>
>>>> 1) This problem did/does not occur under 4.0.1
>>>> 2) At a point in the program where the error occurs, and while
>>>> there are 4 visible windows onscreen, I include the commands:
>>>>
>>>> HELP, !D, /STRUCTURE
>>>> PRINT, '*****************'
>>>> PRINT, '** Windows: *****'
>>>> DEVICE, WINDOW_STATE=WINDOWS
>>>> PRINT, WINDOWS
>>>>
>>>> which result in:
>>>>
>>>> ** Structure !DEVICE, 17 tags, length=80:
>>>> NAME STRING 'X'
>>>> X_SIZE LONG 260
>>>> Y_SIZE LONG 120
>>>> X_VSIZE LONG 260
>>>> Y_VSIZE LONG 120
>>>> X_CH_SIZE LONG 6
>>>> Y_CH_SIZE LONG 10
>>>> FLOAT 40.0000
>>>> Y_PX_CM FLOAT 40.0000
>>>> N_COLORS LONG 214
>>>> TABLE_SIZE LONG 214
>>>> FILL_DIST LONG 1
>>>> WINDOW LONG -1

>>>> UNIT LONG 0
>>>> FLAGS LONG 65980
>>>> ORIGIN LONG Array[2]
>>>> ZOOM LONG Array[2]
>>>> **********
>>>> ** Windows: *****
>>>> 0 0 0 0 0 0 0 0 0 0 0 0 0
>>>> 0 0 0 0 0 0 0 0 0 0 0 0 0
>>>> 0 0 0 0 0 0 1 1 1 1 0 0 0
>>>>
>>>> Should this ever be possible, where !D.WINDOW = -1 but there are
>>>> four windows currently available? I have applied a workaround to
>>>> this program, in which I wset to one of the available windows,
>>>> but I'm wondering where else this behavior might pop up. Any ideas?
>>>>
>>>> Dave
>>>> --
>>>>
>>>> ~~~~~~ ~~~~~~~
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>>>> ~~~~~~ ~~~~~~~
>>>>
>>>> "I have this theory that if we're told we're bad,
>>>> then that's the only idea we'll ever have.
>>>> But maybe if we are surrounded in beauty,
>>>> someday we will become what we see." - Jewel Kilcher
>>>
>>>
>>> Although I don't have a solution to your window dilemma, I am interested
>>> in what gave rise to it. I have a situation in which I would like to
>>> set !D.WINDOW = -1 after a window has been opened. For instance, when
>>> opening a colormap editor with a draw window color-bar the general thing
>>> to do is:
>>>
>>> oldwin=!D.WINDOW
>>> wset,colobarwin
>>> ..... ;draw colorbar
>>> .....
>>> wset,oldwin
>>>
>>> but if oldwin=-1 you can't do this. If I could test for this, and then
>>> somehow "undefine" the present window, this would be ideal, and it
>>> sounds like this is just what's happening in your code. Anyway, if you
>>> do figure it out, I'd be very interested in knowing how it was

>>> accomplished.
>>>
>>> JD
>>>
>>
>> Maybe I don't understand your objective, but my point was that if
>> !D.WINDOW = -1 then by definition there should be no windows present.
>> If there are then this is a bug.
>>
>> Could you "undefine" the present window using WDELETE? Or do you mean
>> to set !D.WINDOW=-1 but still have the window available. I believe that
>> this should not be possible. In my case I think I have run into a bug.
>> I still don't quite understand why you would want such behavior to
>> be a feature.
>>
>> Dave
>
> You *could* delete the window, but I need the window open. The reason I
> would want this "feature" is the same reason that we save the old window
> and reset it. But the problems are magnified in IDLv5 where an active
> command line presents the possibility of graphics commands being
> executed while the undesired window is active. It's just like the
> familiar technique of setting to the "oldwin" -- i.e. you don't want any
> more graphics output directed to the colorbarwin (or whatever). But if
> oldwin is non-existant, there is no way to prevent new graphics commands
> from going to your colorbarwin, except for creating a new window, which
> is inelegant. For instance, suppose you launch a colormap editor as a
> non-blocking widget. No other windows are open. Now you enter a
> graphics command like tv,dist(100).   Where does the command send its
> output? To your widget_draw colorbar, unless you've created a new
> window for the command, which, as I've already said, I consider to be an
> undesireable solution.
>
> For now I use the code:
>
>   if oldwin eq -1 then window else wset,oldwin ;ensure cbar win isn't
> current

I think I've figured out what could be happening. The manual quotes,
for WSET:

Window_Index
This argument specifies the window index of the window to be made
current. If this argument is not specified, a default of 0 is used.

If you set Window_Index equal to -1, IDL will try to locate an existing
window to make current, ignoring any managed draw widgets that may

exist. If there is no window to make current, WSET changes the value of the WINDOW field of the !D system variable to -1, indicating that there are no current windows.

This is exactly the behaviour I want.. but you must use the call wset,oldwin *after* you've run xmanager, or IDL won't know the draw window is a widget window.

JD
>
> JD
