
Subject: Re: WINDOW, /PIXMAP Question
Posted by [Rick Towler](#) on Tue, 22 Oct 2002 19:02:16 GMT
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"Mostafa El-Kady" <mostafa@atmos.colostate.edu> wrote

> I have a program that draws some graphics to an off-screen buffer then
> grab the image and save it to JPEG file. It runs fine on my SGI machine
> with IRIX 6.5.17.
>
> When I telnet from to the SGI from a Windows machine at home and run the
> program, it works as long as I leave my account at the SGI is till open.
> If I have logged out from the SGI and tried the program by telnet from
> home, it crashes at the statement:
>
> WINDOW, /PIXMAP, /FREE
>
> and give the following error:
> % WINDOW: Unable to connect to X Windows display: 0.0
> % WINDOW: Unable to open X Windows display.
>
> Has anyone encountered similar problem and know a work-around?

I can't provide you with an overly technical explanation but even when drawing to a pixmap you need an X server in the mix. When you are logged in at the console of your SGI machine and you telnet in, IDL can happily use the X server running on the SGI machine. But, when you aren't logged in at the SGI machine you don't have an X server running so when the WINDOW statement is executed it fails.

The fix is to either always make sure you are logged in on your SGI when you leave for the day or pick up X server software for your PC. We use WebTerm X from PowerLan USA which works quite nicely. I think you might notice a real slow down in this second approach since I would guess your pixmap data would need to be transmitted to your local X server, then back when you grab the image. But someone who uses X more than once a year can probably clarify that.

-Rick

Subject: Re: WINDOW, /PIXMAP Question
Posted by [James Kuyper](#) on Tue, 22 Oct 2002 19:44:13 GMT
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Rick Towler wrote:

...

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> would need to be transmitted to your local X server, then back when you grab
> the image. But someone who uses X more than once a year can probably
> -Rick

My home machine is a Linux system, so the X support comes with the OS.
However, trying to do X over a 56K modem is horrible. I suspect you
would need DSL or a cable modem to do it adequately. If had to
telecommute very much, I'd have to upgrade to DSL.

Subject: Re: WINDOW, /PIXMAP Question
Posted by [R.Bauer](#) on Tue, 22 Oct 2002 19:51:31 GMT
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Mostafa El-Kady wrote:

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> Has anyone encountered similar problem and know a work-around?
>
> Thanks for the help.

I believe if you use the Z-Buffer Device
set_plot,'Z'
instead of
WINDOW, /PIXMAP, /FREE
you will not have this problem

You must try if it could be used as replacement,

because there are some differences in the coding.

regards

Reimar

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Forschungszentrum Juelich
email: R.Bauer@fz-juelich.de
<http://www.fz-juelich.de/icg/icg-i/>

=====

a IDL library at Forschungszentrum Juelich
http://www.fz-juelich.de/icg/icg-i/idl_icglib/idl_lib_intro.html

Subject: Re: WINDOW, /PIXMAP Question
Posted by [Mostafa El-Kady](#) on Tue, 22 Oct 2002 20:52:11 GMT
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I figured that this is a X server thing. I was just hoping for a simple work-around. I will try the Z-Buffer device as Reimar suggested. I haven't tried before, so if it doesn't work i may take Rick's advice and purchase an X emulator for Windows.

Thanks to everyone for the advice

Mostafa

Subject: Re: WINDOW, /PIXMAP Question
Posted by [William Daffer](#) on Wed, 23 Oct 2002 00:13:37 GMT
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Mostafa El-Kady <mostafa@atmos.colostate.edu> writes:

> Hello,
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I've had a similar problem. Your program needs access to the X server, but if you aren't logged on at work your account doesn't 'own' the X server. The X authentication protocols won't allow the non-owner of the server to connect. If the xdm prompt is up, I suspect that 'root' owns the display, although I don't know for sure and, of course, if some other user is logged in on console then that user owns the console.

One work around is to leave yourself logged on at work. Another may be to use a Z buffer, but this will restrict your work to 8-bit color. This isn't as bad as it sounds, you can still do true color, but you'll have to do the work one color plane at a time instead of all at once as you could working with an X window. There may be a third; go in and modify the appropriate system scripts to allow your account access to the X server whoever is logged on. This last alternative is something of a security hole. Finally another may be turning off X authentication altogether, which allow *anyone*, whether locally or via the network, to connect to the server. Most likely a bad idea.

I have a similar situation, I need to process images and make animations no matter who's logged in. I've written all my code so that it doesn't need to connect to the X server. My entire project is defeated, however, by a piece of SGI software, dmconvert, which I use to transform a series of images into a quicktime movie. That code makes a connection to the X server and I can't do without that software. So I leave myself logged in so that my account can always connect to the X server.

If anyone finds another way to do this, I'd appreciate a holler.

whd

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RASCALITY, n. Stupidity militant. The activity of a clouded intellect.

-- Ambrose Bierce: The Devil's Dictionary

Subject: Re: WINDOW, /PIXMAP Question
Posted by [K. Bowman](#) on Wed, 23 Oct 2002 13:59:00 GMT
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> that it doesn't need to connect to the X server. My entire project
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> use to transform a series of images into a quicktime movie. That
> code makes a connection to the X server and I can't do without that
> software. So I leave myself logged in so that my account can always
> connect to the X server.

Not surprisingly, if you have access to a Mac, there is a variety of software that will convert images into QT movies. One of the best is the professional-quality shareware program GraphicConverter. Write the images from IDL in your favorite format (GIF/JPEG/PNG/raw). I use raw or PNG. Convert the images to QT movies using the "graphics" or "animation" codecs. Those QT codecs can be set to do lossless compression; they are fast and simple; and they compress most scientific graphics well (i.e., line art, not photographs).

Of course, you need a raster device (e.g., X or Z) to create the original images in IDL.

Regards, Ken Bowman
