Subject: device,decomposed=0
Posted by R.Bauer on Thu, 04 Feb 1999 08:00:00 GMT
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Problem: true color display using pseudo color by device,decomposed=0

Result: pseudo color is enabled but !D.N_COLORS is 16777216
in previous Version idl 5.1 it was 256

Win NT

help, !version.os
** Structure !VERSION, 5 tags, length=40:
   ARCH   STRING   'x86'
   OS   STRING   'Win32'
   OS_FAMILY   STRING   'Windows'
   RELEASE   STRING   '5.2'
   BUILD_DATE   STRING   'Oct 30 1998'

R.Bauer

Subject: Re: device,decomposed=0
Posted by Nigel Wade on Tue, 09 Feb 1999 08:00:00 GMT
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David Fanning wrote:
>
> But, of course, what you *really* want to know is the
> type of color visual, the depth of the display, and
> whether color decomposition is turned on or off at this
> particular moment. All of this information is now available
> in IDL 5.2 via keywords to the DEVICE command. If everyone
> would just upgrade to IDL 5.2, we would have the color
> situation licked. :-)

I have not installed 5.2 yet but the only new keyword I can see in
the "What's New" guide is GET_DECOMPOSED, are there others?.

I'm presuming DEVICE still works in the same way and connects to the X
server if no connection is already open? IDL uses its default visual and
returns info on this - if the visual you ask for is not available IDL
will
silently choose another.

With X it is possible to determine what visuals are available, the colour
depths and all sorts of other information in exactly the same way that xdpyinfo does. It can be done independently of the IDL graphics window, so no connection is made by IDL to the X server. It's really just a question of querying the X server and asking it what visuals it supports.
What is required is to make this information available within IDL so you can then decide what visual you want in a request to DEVICE.

What I have done is to develop a DLM which returns the list of matching available visuals e.g. to find all the 8 bit visuals I can ask:

result=XVISUAL(depth=8)

or to get the list of 24 bit TrueColor visuals:

result=XVISUAL(depth=24,class='truecolor')

and it will return an array of structures, one per matching visual with the details of that visual - id, class, depth colormap_size etc.

So, you can tailor your code according to the visual, and use a DirectColor
or PseudoColor visual if one is available, otherwise use a TrueColor and a non-decomposed colour table, if that's how you want to use colour.

Of course, this only works for IDL 5.1 and above because that's when DLMs
were introduced, but the DSO can easily be used by LINKIMAGE (and it goes
without saying it requires X and UNIX).

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Nigel Wade, System Administrator, Space Plasma Physics Group,
University of Leicester, Leicester, LE1 7RH, UK
E-mail : nmw@ion.le.ac.uk
Phone : +44 (0)116 2523568, Fax : +44 (0)116 2523555