Subject: Re: clipboard objects and postscript (unix)
Posted by davidf on Mon, 02 Nov 1998 08:00:00 GMT
View Forum Message <> Reply to Message

Sean O'Sea (seanosea@my-dejanews.com) writes:

> Howdy, folks. I'm having difficulties with the Clipboard object in IDL on
> unix. This is pretty much my first time posting anywhere; I was so impressed
> by the helpfulness here that I decided to try it out.

Oh, it's a friendly place, alright. :-)

> First, IDL saves to the PostScript "native format" file with a bitmap rather
> than a "true" PostScript objecty-sort of "do this, do that" structure. That
> is, in a normal PS file, you'll see at some point all the words of text
> actually spelt out as "{X} goright {Axis}" or whatever, whereas IDL's PS just
> has 1's and 0's.
>
> Is there a way to output a graphics tree in normal non-bitmap PS form?

No, I'm afraid not. This has been a topic of discussion here in
the past. PostScript output is often considered the weak link
in the object graphics hierarchy. RSI has been considering
what trade-offs users would have to make to get "vectorized"
output. If you feel strongly, you should make sure they hear
from you about it.

> Second, supposing there isn't, the simplest X Window clipboard utility,
> xclipboard, can't seem to latch on to my attempts to increase the resolution
> and dimensions of the clipboard object. Drawing to the clipboard at the
> default res of 72dpi and default dim of 640x480 works fine: xclipboard
> "converts" it nicely to a PS image with bounding box 640x480, but it's too
> low of res for my purposes.
>
> When I increase the res from 72dpi, leaving the dim at the default 640x480,
> IDL adjusts the dim to keep res*dim constant. So if I double the res, IDL
> halves the dim, leaving the effective resolution (amount of information)
> constant. Finally, if I increase both the res and the dim, IDL hangs, and
> xclipboard complains "failure to convert clipboard data". When I kill
> xclipboard, IDL wakes up.
>
> Is there a way to increase the res, making the file much bigger but the image
> more detailed?

I am not familiar with XClipboard, but I have no
difficulty increasing both the resolution and
dimensions of the clipboard when I create the clipboard.
I am working in IDL 5.2 (beta 2).

```
clipboard = Obj_New('IDLgrClipboard', dimensions=[1200, 1200], $
  resolution=[0.0352778, 0.0352778]*10 )
```

How exactly are you trying to increase the resolution and the
dimensions?

Cheers,

David

David Fanning, Ph.D.
Fanning Software Consulting
E-Mail: davidf@dfanning.com
Phone: 970-221-0438, Toll-Free Book Orders: 1-888-461-0155
Coyote's Guide to IDL Programming: http://www.dfanning.com/

Subject: Re: clipboard objects and postscript (unix)
Posted by davidf on Tue, 03 Nov 1998 08:00:00 GMT
View Forum Message <> Reply to Message

Sean O'Sea (seanosea@my-dejanews.com) writes:

> I'm afraid the problem seems to be an unhappy xclipboard. RSI recommended
> using the buffer object, instead, to avoid an intervening clipboard utility
> entirely:
>
>> The best alternative for creating a PostScript file from Object Graphics
>> output is to render the graphics to an IDLgrBuffer object, which will,
>> of course contain raster data. Then, using the IMAGE_DATA keyword to the
>> GetProperty method of the IDLgrBuffer object, you can retrieve the
>> graphics data into an image array. Finally, you can switch to the
>> PostScript device (SET_PLOT, 'PS') and use the TV procedure to render
>> the extracted image array to a PostScript file.

Sigh...It's come to this, has it? Well, with True-type fonts
it just might work.

> The IMAGE_DATA keyword doesn't seem to be documented, at least in the 5.1
> docs.

Recent experience suggests you try keywords that are defined for
other objects. They seem to work more often than not. :-)

Cheers,

David

David Fanning, Ph.D.
Fanning Software Consulting
E-Mail: davidf@dfanning.com
Phone: 970-221-0438, Toll-Free Book Orders: 1-888-461-0155
Coyote's Guide to IDL Programming: http://www.dfanning.com/

Subject: Re: clipboard objects and postscript (unix)
Posted by seanosea on Tue, 03 Nov 1998 08:00:00 GMT
View Forum Message <> Reply to Message

In article <MPG.10a7c85bb7a5e42e9896f9@news.frii.com>,
  davidf@dfanning.com (David Fanning) wrote:

> No, I'm afraid not. This has been a topic of discussion here in
> the past. PostScript output is often considered the weak link
> in the object graphics hierarchy. RSI has been considering
> what trade-offs users would have to make to get "vectorized"
> output. If you feel strongly, you should make sure they hear
> from you about it.

Ah, I see how that could be a difficulty--light sources and hidden objects and all. However, since much of object graphics is still just nuts and bolts 2d plots, where there wouldn't be any trade-offs that I can see, vectorized graphics seem actually a more natural complement to objects than rastering... I emailed RSI.

> I am not familiar with XClipboard, but I have no
> difficulty increasing both the resolution and
> dimensions of the clipboard when I create the clipboard.
> I am working in IDL 5.2 (beta 2).
>
> How exactly are you trying to increase the resolution and the
> dimensions?

I'm afraid the problem seems to be an unhappy xclipboard. RSI recommended using the buffer object, instead, to avoid an intervening clipboard utility entirely:

> The best alternative for creating a PostScript file from Object Graphics
> output is to render the graphics to an IDLgrBuffer object, which will,
> of course contain raster data. Then, using the IMAGE_DATA keyword to the
> GetProperty method of the IDLgrBuffer object, you can retrieve the
> graphics data into an image array. Finally, you can switch to the
> PostScript device (SET_PLOT, 'PS') and use the TV procedure to render

> the extracted image array to a PostScript file.

The IMAGE_DATA keyword doesn't seem to be documented, at least in the 5.1 docs.

Thanks a lot!!!
Sean O'Sea