Subject: Re: Contour object quality

Posted by David Fanning on Thu, 12 Jun 2003 14:06:18 GMT

View Forum Message <> Reply to Message

Jacques Basson writes:

- > I just can't seem to get good quality PostScript from IDLgrContour. A
- > brief example is at the end of this post. The direct graphics gives nice
- > smooth polylines, but the object output produces pretty jagged lines. I
- > suspect that it is the contour routine that is the problem because the
- > axis numbers are pretty smooth.

>

- > I have tried playing with pretty much all of the keywords in
- > IDLgrContour and IDLgrClipboard, but nothing seems to improve the quality.

>

- > Is there some trick here that I am missing some magic keyword that
- > will sort out my plots?

The magic keyword is RESOLUTION. :-)

I set up your clipboard like this and got reasonable results:

contwindow = obj_new('IDLgrClipboard', Dimensions=[5,5], \$ Units=1, Resolution=[2.54/300., 2.54/300.])

You can learn more about this in this article:

http://www.dfanning.com/ographics tips/object eps.html

Cheers.

David

--

David W. Fanning, Ph.D.

Fanning Software Consulting, Inc.

Phone: 970-221-0438, E-mail: david@dfanning.com

Coyote's Guide to IDL Programming: http://www.dfanning.com/

Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: Contour object quality

Posted by Jacques Basson on Fri, 13 Jun 2003 07:06:19 GMT

View Forum Message <> Reply to Message

David Fanning wrote:

> Jacques Basson writes:

```
>
>> I just can't seem to get good quality PostScript from IDLgrContour. A
>> brief example is at the end of this post. The direct graphics gives nice
>> smooth polylines, but the object output produces pretty jagged lines. I
>> suspect that it is the contour routine that is the problem because the
>> axis numbers are pretty smooth.
>>
>> I have tried playing with pretty much all of the keywords in
>> IDLgrContour and IDLgrClipboard, but nothing seems to improve the quality.
>>
>> Is there some trick here that I am missing - some magic keyword that
>> will sort out my plots?
>
> The magic keyword is RESOLUTION. :-)
>
> I set up your clipboard like this and got reasonable
> results:
 contwindow = obj_new('IDLgrClipboard', Dimensions=[5,5], $
    Units=1, Resolution=[2.54/300., 2.54/300.])
  You can learn more about this in this article:
   http://www.dfanning.com/ographics_tips/object_eps.html
>
>
> Cheers,
>
> David
```

Thanks David, that put me on the right track! Although it does lead me to another question... According to the IDL documentation, the resolution for direct graphics is 1000 dots/cm. So when I said that I did try all the keywords to IDLgrClipboard, I had tried

```
contwindow = obj_new('IDLgrClipboard', dimensions=[17.8,12.7], $
              units=2, Resolution=[0.001, 0.001])
```

but got the error message

% OBJ_NEW: Window DIMENSION[0] exceeds maximum. Clamping to screen dimensions.

(the dimensions of 178mm X 127mm are taken from the direct graphics output). 292dpi (which is borderline for high quality printing of lines) is the maximum possible resolution that I could get with those

dimensions. And for your 5"x5" plot, the maximum is 409dpi.

So it seems like I can't get the direct graphics resolution. However, no-one *really* needs 2540dpi, but I can't even get 600dpi, which is a noticeable for my required A3 output.

Interestingly, the object eps file was twice the size of the direct graphics eps file (object at 292dpi - direct at 2540dpi).

Thanks, Jacques

>

>

>

>

Subject: Re: Contour object quality
Posted by David Fanning on Fri, 13 Jun 2003 13:57:29 GMT
View Forum Message <> Reply to Message

Jacques Basson writes:

- > Thanks David, that put me on the right track! Although it does lead me
- > to another question... According to the IDL documentation, the
- > resolution for direct graphics is 1000 dots/cm. So when I said that I
- > did try all the keywords to IDLgrClipboard, I had tried
- > contwindow = obj_new('IDLgrClipboard', dimensions=[17.8,12.7], \$
 > units=2, Resolution=[0.001, 0.001])
- but got the error message
- % OBJ_NEW: Window DIMENSION[0] exceeds maximum.Clamping to screen dimensions.
- > (the dimensions of 178mm X 127mm are taken from the direct graphics
- > output). 292dpi (which is borderline for high quality printing of lines)
- > is the maximum possible resolution that I could get with those
- > dimensions. And for your 5"x5" plot, the maximum is 409dpi.
- > So it seems like I can't get the direct graphics resolution. However,
- > no-one *really* needs 2540dpi, but I can't even get 600dpi, which is a
- > noticeable for my required A3 output.

I didn't notice a question in there, but you are correct that the resolution of the IDLgrClipboard is limited. I seem to recall a post from Karl Schultz that addressed this issue, but I haven't been able to find it in 15 minutes of searching. Maybe Karl could help us out again.

I suppose you could have better luck using the PRINTER device rather than the clipboard, but I don't have time to try it this morning. I have a truck-load of large rocks showing up in a half hour and my back is already getting sore. :-(

- > Interestingly, the object eps file was twice the size of the direct
- > graphics eps file (object at 292dpi direct at 2540dpi).

Only twice as large!? You must really be living right. :-)

Cheers.

David

David W. Fanning, Ph.D.

Fanning Software Consulting, Inc.

Phone: 970-221-0438, E-mail: david@dfanning.com

Coyote's Guide to IDL Programming: http://www.dfanning.com/

Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: Contour object quality Posted by basson on Wed, 18 Jun 2003 08:23:24 GMT View Forum Message <> Reply to Message

David Fanning <david@dfanning.com> wrote in message news:<MPG.19538635dc21919f989688@news.frii.com>...

> Jacques Basson writes:

- >> Thanks David, that put me on the right track! Although it does lead me
- >> to another question... According to the IDL documentation, the
- >> resolution for direct graphics is 1000 dots/cm. So when I said that I
- >> did try all the keywords to IDLgrClipboard, I had tried

>>

>> contwindow = obj_new('IDLgrClipboard', dimensions=[17.8,12.7], \$ >>

units=2, Resolution=[0.001, 0.001])

>>

>> but got the error message

>> % OBJ NEW: Window DIMENSION[0] exceeds maximum.

Clamping to screen dimensions. >>

>>

- >> (the dimensions of 178mm X 127mm are taken from the direct graphics
- >> output). 292dpi (which is borderline for high quality printing of lines)
- >> is the maximum possible resolution that I could get with those
- >> dimensions. And for your 5"x5" plot, the maximum is 409dpi.

>>

>> So it seems like I can't get the direct graphics resolution. However,

- >> no-one *really* needs 2540dpi, but I can't even get 600dpi, which is a
- >> noticeable for my required A3 output.

>

Damn news feed seems to be down (again), so hopefully this posting from google will get through.

- > I didn't notice a question in there, but you are
- > correct that the resolution of the IDLgrClipboard
- > is limited. I seem to recall a post from Karl Schultz
- > that addressed this issue, but I haven't been able
- > to find it in 15 minutes of searching. Maybe
- > Karl could help us out again.

Well, "why does it suck so bad?" seems a bit unfair for a question...

- > I suppose you could have better luck using the PRINTER
- > device rather than the clipboard, but I don't have time
- > to try it this morning. I have a truck-load of large
- > rocks showing up in a half hour and my back is already
- > getting sore. :-(

Except that the printer that I will be printing on is on a different machine - and last time I tried to setup a PostScript printer and use "print to file", IDL hung the machine :(I have since redone my routine using direct graphics (much quicker than trying to sort out this problem).

>

- >> Interestingly, the object eps file was twice the size of the direct
- >> graphics eps file (object at 292dpi direct at 2540dpi).

>

> Only twice as large!? You must really be living right. :-)

Right on the very edge!

Thanks for the help.

Jacques