
Subject: Re: Contour object quality

Posted by [David Fanning](#) on Thu, 12 Jun 2003 14:06:18 GMT

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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

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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
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> I set up your clipboard like this and got reasonable
> results:
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> contwindow = obj_new('IDLgrClipboard', Dimensions=[5,5], \$
> Units=1, Resolution=[2.54/300., 2.54/300.])
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> 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
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Jacques Basson writes:

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> to another question... According to the IDL documentation, the
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> `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)
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> 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

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Subject: Re: Contour object quality

Posted by [basson](#) on Wed, 18 Jun 2003 08:23:24 GMT

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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

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>>

>> but got the error message

>>

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>> (the dimensions of 178mm X 127mm are taken from the direct graphics
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>> 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
