Subject: Re: Contour object quality
Posted by Jacques Basson on Fri, 13 Jun 2003 07:06:19 GMT

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