Subject: Re: Problem writing SCATTERPLOT() with more than 4096 points to PDF file
Posted by lecacheux.alain on Fri, 14 Apr 2017 19:26:01 GMT
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Le lundi 10 avril 2017 20:18:40 UTC+2, Chris Torrence a écrit :
> On Thursday, June 11, 2015 at 5:26:22 PM UTC-6, Chris Torrence wrote:
>> On Thursday, June 11, 2015 at 1:00:50 PM UTC-6, Helder wrote:
>>> On Thursday, June 11, 2015 at 8:19:37 PM UTC+2, wlandsman wrote:
>>>> I am having problems writing a SCATTERPLOT() to a PDF file.
>>>>
>>>> The following plot displays correctly in a window.
>>>>
>>>> x = randomn(seed,4096)
>>>> y = randomn(seed,4096)
>>>> p = scatterplot(x,y,/sym_filled,sym_color='blue',symbol='circle')
>>>>
>>>> But when I then try to save to a PDF file, I get the error message:
>>>>
>>>> % SAVE: Error in PDF creation: INVALID_SHADING
>>>>
>>>> I have no problems when saving the plot in other data formats.
>>>>
>>>> There also is no problem if I plot less than 4096 points.
>>>>
>>>> Finally, the problem still exists if I first open a window with /BUFFER and write directly to a PDF file.
>>>>
>>>> Thanks, --Wayne
>>>>
>>>>
>>>> w = window(dimen=[800,1100],/buffer)
>>>> x = randomn(seed,4096)
>>>> y = randomn(seed,4096)
>>>>
>>>> p = scatterplot(x,y,/current,/sym_filled,sym_color='blue',symbol ='circle')
>>>> w.save,'test.pdf'
>>>>
>>>> IDL> print,!version
>>>> { x86_64 darwin unix Mac OS X 8.4 Sep 27 2014 64 64}
>>>
>>> Just to add some statistics: I get the same results.
>>> IDL> !version
>>> {
>>> "ARCH": "x86_64",
>>> "OS": "Win32",
>>> "OS_FAMILY": "Windows",
>>> "OS_NAME": "Microsoft Windows",

>>>   "RELEASE": "8.4.1",
>>>   "BUILD_DATE": "Feb 17 2015",
>>>   "MEMORY_BITS": 64,
>>>   "FILE_OFFSET_BITS": 64
>>> }
>>>
>>> Cheers,
>>> Helder
>>
>> I can confirm that this is indeed a bug. I doubt it will get fixed for IDL 8.5. As a workaround, you can use the /BITMAP keyword when saving to the PDF.
>>
>> Cheers,
>> Chris
>
> It's been a while, but I did some more digging. This is actually a limitation of the PDF 1.4 specification. You can only have up to 4095 shading elements. See the spec here:
> http://www.adobe.com/content/dam/Adobe/en/devnet/pdf/pdfs/pdf_reference_archives/PDFReference.pdf
>
> So unfortunately there's no way for us to fix this. The best workaround is to use /BITMAP.
>
> Cheers,
> Chris

In the meantime (IDL 8.7 ?), a simple solution would be to insert your plot, first saved in PNG format for instance, into some program like WORD or POWERPOINT, and then save it to a PDF file. Not a big task.
alx.
