Subject: format codes
Posted by sayaniforever on Tue, 27 Sep 2016 14:49:17 GMT
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I am working with with phase data that looks like 23568978.124578 in cycles.
I want to export the whole value in decimal format without rounding off. The problem while using E11.4 or a or G10.4 is, IDL is rounding my data like 2.3568e+007.. Which is leading to errors in consequent calculations.

Subject: Re: format codes
Posted by wlandsman on Tue, 27 Sep 2016 14:59:46 GMT
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On Tuesday, September 27, 2016 at 10:49:42 AM UTC-4, sayani ghosh wrote:
> I am working with with phase data that looks like 23568978.124578 in cycles.
> I want to export the whole value in decimal format without rounding off. The problem while using E11.4 or a or G10.4 is, IDL is rounding my data like 2.3568e+007.. Which is leading to errors in consequent calculations.

You are telling IDL that you want exactly 4 digits after the decimal point, so that is what it is giving you. If you want 5 digits than use E11.5
Better yet try the '(D)' format

Subject: Re: format codes
Posted by sayaniforever on Tue, 27 Sep 2016 16:19:47 GMT
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When I am using (D), some kind of overflow is occurring as a result IDL is printing **********.

I have realised IDL is reading the data as 2.3568e+007.. I can't seem to work around it.

Subject: Re: format codes
Posted by wlandsman on Tue, 27 Sep 2016 16:27:05 GMT
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On Tuesday, September 27, 2016 at 12:20:11 PM UTC-4, sayani ghosh wrote:
> When I am using (D), some kind of overflow is occurring as a result IDL is printing **********.
>
> I have realised IDL is reading the data as 2.3568e+007.. I can't seem to work around it.

Are you reading it as double precision?

Subject: Re: format codes
Posted by Markus Schmassmann on Wed, 28 Sep 2016 08:36:30 GMT
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On 09/27/2016 06:19 PM, sayani ghosh wrote:
> When I am using (D), some kind of overflow is occurring as a result IDL is printing **********.
>
> I have realised IDL is reading the data as 2.3568e+007.. I can't seem to work around it.

Try using format='(e12.4)'
or with more digits format='(e14.6)'
where the first number gives the width of the column and the second the number of digits after .

@ wayne: e11.5 doesn't work on windows, because it uses 3 digits in the exponent

Depending on how large the numbers you want to print, something like format='(d16.6)'
might also be an option. if you get **********, then you have to increase the width, e.g. format='(d20.6)'

More details you can find under [1],

I hope that helps, Markus

[1]:
http://www.harrisgeospatial.com/docs/format_codes.html#files _2839720996_168654

Subject: Re: format codes
Posted by Craig Markwardt on Wed, 28 Sep 2016 11:44:55 GMT
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On Tuesday, September 27, 2016 at 10:49:42 AM UTC-4, sayani ghosh wrote:
> I am working with with phase data that looks like 23568978.124578 in cycles.
> I want to export the whole value in decimal format without rounding off. The problem while using E11.4 or a or G10.4 is, IDL is rounding my data like 2.3568e+007.. Which is leading to errors in consequent calculations.

FORMAT='(G)'

will print the full double precision and include the exponent where necessary.

Subject: Re: format codes

Posted by Jim Pendleton on Wed, 28 Sep 2016 15:00:18 GMT
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On Wednesday, September 28, 2016 at 5:44:57 AM UTC-6, Craig Markwardt wrote:
> On Tuesday, September 27, 2016 at 10:49:42 AM UTC-4, sayani ghosh wrote:
>> I am working with with phase data that looks like 23568978.124578 in cycles.
>> I want to export the whole value in decimal format without rounding off. The problem while using E11.4 or a or G10.4 is, IDL is rounding my data like 2.3568e+007.. Which is leading to errors in consequent calculations.
>
> FORMAT='(G)'
>
> will print the full double precision and include the exponent where necessary.

For those reading this thread in the future with IDL 8.6 or later, be aware of the difference between "(G)" (FORTRAN-style) and "%g" (C_style) FORMAT specifiers because they are not equivalent.

```
IDL> print, a, format = '(G)'
  1.234567891011112E-066
IDL> print, a, format = '%g'
1.23457e-066
IDL> print, a, format = '%22g'
1.234567891011112e-066
```

Jim P.

Subject: Re: format codes
Posted by Helder Marchetto on Wed, 28 Sep 2016 15:22:05 GMT
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Interesting. I seem not to be able to travel forward in time... When is 8.6 appearing for non-time travelers?
Any further sneak preview info (apart from the c_style output formatting)?

Thanks,
h

On Wednesday, September 28, 2016 at 5:00:20 PM UTC+2, Jim P wrote:
> On Wednesday, September 28, 2016 at 5:44:57 AM UTC-6, Craig Markwardt wrote:
>> On Tuesday, September 27, 2016 at 10:49:42 AM UTC-4, sayani ghosh wrote:
>>> I am working with with phase data that looks like 23568978.124578 in cycles.
>>> I want to export the whole value in decimal format without rounding off. The problem while using E11.4 or a or G10.4 is, IDL is rounding my data like 2.3568e+007.. Which is leading to errors in consequent calculations.

>>
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>
> IDL> print, a, format = '(G)'
>   1.234567891011112E-066
> IDL> print, a, format = '%g'
> 1.23457e-066
> IDL> print, a, format = '%22g'
> 1.234567891011112e-066
>
> Jim P.

Subject: Re: format codes
Posted by Jim Pendleton on Wed, 28 Sep 2016 18:17:11 GMT
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On Wednesday, September 28, 2016 at 9:22:08 AM UTC-6, Helder wrote:
> Interesting. I seem not to be able to travel forward in time... When is 8.6 appearing for non-time travelers?
> Any further sneak preview info (apart from the c_style output formatting)?
>
> Thanks,
> h
>
>
>
> On Wednesday, September 28, 2016 at 5:00:20 PM UTC+2, Jim P wrote:
>> On Wednesday, September 28, 2016 at 5:44:57 AM UTC-6, Craig Markwardt wrote:
>>> On Tuesday, September 27, 2016 at 10:49:42 AM UTC-4, sayani ghosh wrote:
>>>> I am working with with phase data that looks like 23568978.124578 in cycles.
>>>> I want to export the whole value in decimal format without rounding off. The problem while using E11.4 or a or G10.4 is, IDL is rounding my data like 2.3568e+007.. Which is leading to errors in consequent calculations.
>>>
>>> FORMAT='(G)'
>>>
>>> will print the full double precision and include the exponent where necessary.
>>
>> For those reading this thread in the future with IDL 8.6 or later, be aware of the difference between "(G)" (FORTRAN-style) and "%g" (C_style) FORMAT specifiers because they are not equivalent.

>>
>> IDL> print, a, format = '(G)'
>>   1.2345678910111112E-066
>> IDL> print, a, format = '%g'
>> 1.23457e-066
>> IDL> print, a, format = '%22g'
>> 1.2345678910111112e-066
>>
>> Jim P.

Info on a few new features in 8.6 has been leaking out over the past months over on the IDL Data Point blog on the www.harrisgeospatial.com website. The time frame for release is still in the works as of September 28, 2016.

Subject: Re: format codes
Posted by sg26041991 on Sun, 02 Oct 2016 05:34:06 GMT
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I have tried entering the data as string input and reading them as double precision values. It's working that way..

Thanks a lot everybody for your suggestions.
