Subject: Re: Double precision
Posted by David Fanning on Thu, 19 Mar 2009 19:21:21 GMT
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plim.dreaming@gmail.com writes:

> Firstly say what is not the problem:
> the problem in not in comparing the numbers. I run one program which
> reads in the file and does some stuff to the numbers and then outputs
> to another file the selected array. Only after do I read in the
> selected array and perform separation comparisons. The problem
> already exists though in the output, since the numbers are truncated
> or rounded off there.
>
> And I really look at how I input the numbers and it seems fine. I
> read them in as double and then I print the numbers with 2f12.7 for
> example and they are still fully there, not truncated.
>
> I think the problem is in the printing to the output file.
>
> I have x,y and they are numbers such as 100.912498
> then I do a=strcompress(x)
> openw,1,'fds'
> printf,1,a

Ah, I see. Well, STRING (which is what StrCompress has
to call) is like PRINT: they have default formatting
rules. In particular, they format to eight significant
digits by default, unless they are told something different.

But, first of all. Why in the world are you converting these
to strings before you save them in the file!? That is a sure
way to get in trouble, as you have discovered. If you *had*
to do it, you could do it like this:

```
a = StrCompress(String(x, format='F0.10'), /Remove_all)
```

But a much better way would just be to write them into the
file without converting them to strings:

```
printf, x, Format='(F0.10)'
```

Or, whatever format it is you think you want.

Cheers,

David
--

David Fanning, Ph.D.
Coyote's Guide to IDL Programming (www.dfanning.com)
Sepore ma de ni thui. ("Perhaps thou speakest truth.")