Subject: Re: the precision of PRINT and HELP statements
Posted by Paul van Delst on Thu, 04 Oct 2001 17:24:56 GMT
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George McCabe wrote:
>
> hello,
>
> this one made me laugh when i realized what was going on -
>
> IDL> help, chkN
> CHKN LONG = 140486
> IDL> help, float(Nhb)/Nreq0
> <Expression> FLOAT = 140486.
> IDL> print, chkN - float(Nhb)/Nreq0
> -0.500000
>
> perhaps one should expect IDL's PRINT statement to act this way,
>
> IDL> print, float(Nhb)/Nreq0
> 140486.
> IDL> print, format='(g)', float(Nhb)/Nreq0
> 140486.5
>
> but, the HELP command i feel should show the actual value to the
> precision of the variable type.

Hmm. My personal opinion is that if you need to know the actual value of a variable to its precision (e.g. X number of significant digits, or 6 decimal places, or something else) then it is encumbent upon the programmer to tell exactly what he/she wants printed/displayed. Relying on default behaviour is means you don't care what the output format is. Why use HELP to print out number values when you know a PRINT, FORMAT=..etc.. will give you what you want? And the
online help states for the expression arguments to HELP:

HELP
Expression(s)
The arguments are interpreted differently depending on the keyword selected. If no keyword is selected, HELP displays basic information for its parameters. For example, to see the type and structure of the variable A, enter:
HELP, A

The important phrase being "basic information."

I actually find the truncation that occurs in cases like the one that you mention helpful as it has taught me to be careful when printing out numbers for inspection. The same applies in my Fortran code too.

paulv

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Religious and cultural
purity is a fundamentalist
fantasy
V.S.Naipaul