Subject: Re: printing floats/integer
Posted by Craig Markwardt on Thu, 08 Mar 2001 22:44:17 GMT
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"Sean Heukels" <sean77=cuthere=@dds.nl> writes:
> I wrote a small module for integers. The variable is formatted and returned.
>
> "1 " returns as "1"
>
> Now this doesn't work with floats. for example if I want to print "1.22221"
> I
> dont want to see it as "1.222221000000000000000" or
> "1.222222 "
>
> Does anyone know how I can solve this ??

The first thing to understand is that there are many real numbers which cannot be represented in floating point number system of computers. That's just the facts.

Second, if you simply don't want spaces around your numbers, why not try STRTRIM?

One of the most sophisticated answers might be found in the following paper by Burger and Dybvig, "Printing Floating-Point Numbers Quickly and Accurately:"

http://citeseer.nj.nec.com/28233.html

Unfortunately that's probably overkill, and too hard to implement in IDL.

You've seen Bob S's implementation. I have a program called INPUTFORM on my web page which prints a number as a string, such that it can be read again by the IDL parser. Like this:

IDL> print, inputform(1.22221)
1.22221E

You see the "E" indicates that it is a single-precision floating point number, to distinguish it unambiguously from double precision or integers. Just as Bob's code is not too pretty (sorry Bob), neither is the code in INPUTFORM. Basically it tries printing the number with both the "G" and "D" output formats and takes whichever is shorter.

Craig

INPUTFORM can be found at

http://cow.physics.wisc.edu/~craigm/idl/idl.html

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