Subject: Re: FORMAT FLOATS TO STRINGS WITH 3 DIGITS ONLY
Posted by Benjamin Hornberger on Mon, 23 May 2005 13:09:45 GMT
View Forum Message <> Reply to Message

Giorgos wrote:
> Hi
>
> I have the following problem....
> I have an array of float numbers consisting of many decimal points and
> I want to convert it to string ... I used the string command but how
> can I isolate and keep only the first 3 digits from each element of the
> array? I played with the format keyword but... a mess...
> can anyone help?
>

If you want to print 3 digits after the decimal point and don't want any leading spaces:

IDL> print, string(1.5345435435435, format='(f0.3)')

If you want only 3 significant digits and the number of digits before the decimal point is not constant, you should go for scientific notation:

IDL> print, string(3432432.4343, format='(e0.2)')

(meaning two digits after the decimal point, making 3 significant digits)

You can also try the G format code, which uses scientific notation only when necessary:

IDL> print, string(33432432.423423, format='(g0.3)')

(3 significant digits)

As far as I know, there is no format code which allows you to output only X significant digits without using scientific notation at all.

The 0 in the format codes above makes the string just as long as necessary (no leading spaces). If you want fixed width (padded with spaces), give the number of characters you want in the string instead of the 0 (which must include all the digits, the decimal point, the sign and in scientific notation also the 'e').

Read the IDL help again about format codes, section "F, D, E, and G format codes". It's quite confusing, but you'll need it all the time, so why not tackle it now?

Good luck,