Subject: Re: How do I prevent underflow errors?
Posted by davidf on Tue, 16 Feb 1999 08:00:00 GMT
View Forum Message <> Reply to Message

Phillip & Suzanne David (pdavid@earthling.net) writes:

> I have a large array of data that I'd like to plot with the contour routine.
> However, the dynamic range of the data is very large, with values as large as
> 1e36 and as small as 1e-40. I noticed that contour accepts float data, not
> double data. This data is outside the range of float data, so it needs to be
> scaled for the contour routine. I don't really care to differentiate the
> 1e-40 from 0, but would like to be able to handle values up to the 1e36. I
> was going to scale the data by the largest value (i.e.,
> PlotData=Float(Data/Max(Abs(Data)))). This puts the data in the range of -1.0
> to 1.0. This should be fine for Contour, but I get an underflow error when
> converting from double data to float data. I understand that the data will
> come out with a 0 instead of 1e-76, and don't really care. How do I get IDL
> to ignore the underflow and just convert the value?

I don't think it is possible to avoid underflow error messages
(although I would love to be proved wrong about this). It might
help to think of them not as *error* messages, but as helpful
informational messages from a concerned computer. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155