Subject: How do I prevent underflow errors?
Posted by Phillip & Suzanne on Tue, 16 Feb 1999 08:00:00 GMT
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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?

Phillip