Subject: Re: Bad data in structure (NaN HowTo?)
Posted by Randall Skelton on Thu, 23 Nov 2000 00:03:53 GMT
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Thanks to both Pavel and Craig for their help.

> In your case, I'd automate the search for numerical fields, because I
> wouldn't be able to go through 450 fields myself. None of my business,
> but are you sure this is the best way to organize the data?

I am certainly open to suggestions on how to organize this data... It is spectroscopic remote sensing data and during measurements I get a dump of all of the sensor data (every 2 seconds) and one high resolution spectrum of the atmosphere. The 400+ items in the structure correspond to instrument readings (i.e. exact GMT time, spacecraft orientation data, latitude, longitude, etc...) and different data-streams (i.e. point arrays for each useful spectral window, an oversampled pointing mirror array, gyro arrays, etc...). The real kicker is that I am grouping a series of these measurements together as an array of structures as it is then much easier to plot and manipulate this beastly data with 'plot, atcalc.ind_time, atrl.latitude'. My real problem here is that occasionally I get data drop out in key areas and I have to fiddle to fill my structure in C. At the moment, if a calculated string is garbled I fill with an empty string which is no problem. For all others (shorts, longs, floats and doubles) I am using '-12345' to indicate bad data. Although I can try and use data thresholds to flag this as bad data when plotting, it tends to make a mess of things when I write files or do analyses. What would people suggest I do for bad ints, shorts, longs, and floats? Should I try to handle this better in C so as to avoid the problem in IDL?

All of my structures are created in ANSI C from data which originates in SQL databases. I currently interface to IDL via call_external (I am looking at the alternatives to call_external but for the moment this works).

All of this begs the question, how much data can one person plot and interpret at one time? The answer is: you'd be surprised! but you do need a *big* monitor :) and an 11x17 printer.

Cheers,
Randall