## Subject: Re: IDL 4.0.1, best way to deal with missing/bad data Posted by rfinch on Wed, 14 Feb 1996 08:00:00 GMT

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- >> The question comes as to the best way to handle missing/bad data
- >> within IDL. By handle I mean don't use the data in computations, and
- >> don't plot it. I can think of three ways:

Mark> There is another way - use the IDL WHERE() function and the capability to Mark> subscript and array with another.

Mark> read, data, flag Mark> good = where(flag eq 0) Mark> data = data(good) Mark> plot, data

This doesn't fully do what I need, because the resulting plot doesn't show gaps where missing data was, as we need here.

I've talked to RSI about this problem; they think that the next release, all computational routines will recognize missing data with the /NAN keyword, so all you have to do is replace your missing values with NANs. For now I guess I will use the following construct:

a = [1, 2, 3, !VALUES.F\_NAN]
result = computation(where(a(finite(a) eq 1)))

Of course, the where command doesn't fail gracefully so I'll have to have a check above to make sure there are any good values.

Note to RSI: how about introducing the null matrix (like MATLAB), so that we don't have to have a separate WHERE test? In other words, instead of:

good\_ndx=where(a eq good\_val, count)
if count gt 0 then result=computation(a(good\_ndx))

just use:

result=computation(a(where(a eq good\_val)))

and if the WHERE returns null, it fails silently, and result is simply a null vector or matrix too.

"Nada burra la chamaca." A.G.

Opinions expressed are mine, not my employer or news host. rfinch@toe.cs.berkeley.edu