Subject: Re: IDL 4.0.1, best way to deal with missing/bad data
Posted by robert on Mon, 12 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:

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

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

Don't forget to test whether there is any good data at all! If there
isn't, then WHERE returns -1, which will break the data(good) array
subscript. Of course, for some this is not a problem, but maybe I have
worse data than others, and this caught me out at first.

Rob.
--
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Subject: Re: IDL 4.0.1, best way to deal with missing/bad data
Posted by rivers on Mon, 12 Feb 1996 08:00:00 GMT
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In article <c2gvilgp29e.fsf@toe.CS.Berkeley.EDU>, rfinch@toe.CS.Berkeley.EDU (Ralph Finch)
writes:
> IDL 4.0.1, Solaris.
>
> 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:

There is another way - use the IDL WHERE() function and the capability to
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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
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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
