
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.

--

Robert Bunting E-mail: robert@aurora.york.ac.uk
Space Geophysics Group Tel:(+44)1904-432277
Dept of Physics, University of York, Fax:(+44)1904-432214
York YO1 5DD U.K. WWW: <http://aurora.york.ac.uk/>

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.

>

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> don't plot it. I can think of three ways:

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Mark Rivers	(312) 702-2279 (office)
CARS	(312) 702-9951 (secretary)
Univ. of Chicago	(312) 702-5454 (FAX)
5640 S. Ellis Ave.	(708) 922-0499 (home)
Chicago, IL 60637	rivers@cars3.uchicago.edu (Internet)

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
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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
