Subject: Re: Using where() on slices of data cubes
Posted by David Fanning on Tue, 20 Oct 2009 13:03:22 GMT

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Conor writes:

> I feel like this should be an easy one, but I've never quite figured
> it out. Let's say I got a data cube and I want to do something on
> just a slice of it, say I want to turn certain values in a column into
> something else:
>
> w = where(cube[1,*,*] lt 0)
>
> It seems like you should be able to do something like this:
>
> cube[1,w] = 1e24
>
> But that doesn't work... Somehow I can't quite figure out the right
> way to do this.

It *seems* like there should be a simple way to do this,
but if there is, I haven't found it. What would make
sense to me is this:

    (cube[1,*,*])[w] = 1e24

But this gives the error message that you can't store into
a temporary variable. (The ol' pass by reference/pass by value
thing, I suppose.)

I have always resorted to making a subset of the data, like
this:

    sub = cube[1,*,*]
    w = where(sub lt 0)
    sub[w] = 1e24
    cube[1,*,*] = sub

Not at all elegant, I admit. :-(

Cheers,

David

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Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")