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Subject: Re: Using where() on slices of data cubes  
Posted by [JDS](#) on Wed, 21 Oct 2009 21:52:45 GMT  
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On Oct 20, 4:32 pm, David Fanning <n...@dfanning.com> wrote:

> JD Smith writes:

>> you should easily be able to generalize the above arguments to access  
>> these elements

>

> I think in this case the word "easily" might be  
> too subtly sarcastic to be easily appreciated by  
> the vast majority of this newsgroup. :-)

(Almost) no sarcasm was intended.

Suppose you have this:

```
w=where(cube[1,5:*,10:1024] lt 0)
```

The "slice" is no longer as large as the cube in the yz dimensions,  
and is offset by [5,10] too. So

```
y_full_cube = slice_column + 5  
z_full_cube = slice_row   + 10
```

and since the slice is smaller than the cube by 5 columns, to convert  
our WHERE index vector w into col,row in the slice, we use

```
slice_column = w mod (sz[1]-5)  
slice_row    = w/(sz[1]-5)
```

Putting it all together we have:

```
ind = 1 + sz[0] * (5 + w mod (sz[1]-5) + (10 + w/(sz[1]-5)) * sz[1])
```

JD

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