
Subject: Re: where help

Posted by [gunter](#) on Wed, 29 Jan 1997 08:00:00 GMT

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David Fanning (davidf@dfanning.com) wrote:

[snip...snip]

```
: data = FINDGEN(12)
: data = REFORM(data, 3, 4)
: PRINT, data
:   0.00000   1.00000   2.00000
:   3.00000   4.00000   5.00000
:   6.00000   7.00000   8.00000
:   9.00000  10.0000   11.0000
: s = SIZE(data)
```

```
: OK, suppose I now do this:
```

```
: index = WHERE(data EQ 6)
```

```
: The WHERE function returns the 1D index into the 2D array.
```

```
: PRINT, index
:   6
```

```
: So, the number 6 is located in index 6 (the 7th number in
: the array with zero-based subscripting). What is its
: 2D subscript? Well, if I divide index by how many columns
: there are in the array, and then take the whole part of that
: number, I will know its row number. In IDL terms:
```

```
: row = FIX(FLOAT(index)/s(1))
: PRINT, row
:   2
```

Is there a reason you wouldn't just write: $\text{row} = \text{index} / \text{s}(1)$? In this manner you will end up with the whole part automatically.

```
: To find the column number, I multiply the row number times
: the number of columns in the array, and subtract that value
: from the index. Again, in IDL terms:
```

```
: col = index - (row * s(1))
: PRINT, col
:   0
```

And you could just as well write: $\text{col} = \text{index} \bmod s(1)$, where the MOD function returns the remainder of the division ($\text{index}/s(1)$). Of course there may be extra time involved (looking up the MOD function, etc) versus the above line.

--

david gunter

<http://www.mcs.anl.gov/people/gunter/>

"When you are a Bear of Very Little Brain, and you Think of Things, you find sometimes that a Thing which seemed very Thingish inside you is quite different when it gets out into the open and has other people looking at it."

- A.A. Milne, "The House At Pooh Corner"
