Subject: Re: Array Subscripting Puzzle
Posted by Liam E. Gumley on Fri, 17 May 2002 18:30:06 GMT
View Forum Message <> Reply to Message

David Fanning wrote:
> Folks,
>
> I have a 24-bit image. You can interleave it anyway
> you like that will make the problem described below
> trackable. At the moment it is 800 by 600 by 3.
>
> I have the indices of something I want to draw on
> the image. Say they are the indices of the outlines
> of some continents. For example, like this:
>
>  window, xsize=800, ysize=600
>  map_set, /Cylindrical, position=[0,0,1,1]
>  map_continents, /fill
>  a = tvrd()
>  indices = where(a GT 0)
>
> I want to make all the outline pixels yellow.
> I *could* do this:
>
>  r = Reform((image[*,*,0]))
>  g = Reform((image[*,*,1]))
>  b = Reform((image[*,*,2]))
>  r[indices] = 255
>  g[indices] = 255
>  b[indices] = 0
>  image[*,*,0] = r
>  image[*,*,1] = g
>  image[*,*,2] = b
>
> That seems wasteful and inelegant. There must be
> a way to do this in one go. I'm sure it uses REBIN
> and REFORM, but I'm not sure in which order. :-(
>
> Can anyone help?

Here's a shorcut with no array rearrangment.
Note that the 24-bit image must be in [NCOL, NROW, 3] format:

```
dims = size(image, /dimensions)
ncol = dims[0]
nrow = dims[1]
chan = 0 ; red channel
image[indices + (chan * ncol * nrow)] = 255
```

chan = 1 ; green channel
image[indices + (chan * ncol * nrow)] = 255
chan = 2 ; blue channel
image[indices + (chan * ncol * nrow)] = 0

Cheers,
Liam.
Practical IDL Programming
http://www.gumley.com/

---