Subject: Re: Search and Replace in 2D Array (Image)
Posted by Jean H. on Thu, 28 May 2009 20:19:41 GMT
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vikramivatury@gmail.com wrote:
> Hello,
>
> I have an image "m" which is [1229 x 1229] pixels that contains 1's
> and 0's. I also have an image "img" which is [1229 x 1229] that
> contains pixel IDs. For every 1 in image "m" it corresponds to a
> certain pixel ID in image "img". I am trying to write a loop in IDL
> that scans through the pixels of image "m" and when its get to a 1,
> spit out its information from "img". I used the 'where' function (w =
> where m gt 1.........ids = img(w))

should be GE or EQ, not GT, or you will never have the ones selected

and that worked fine in outputting
> a 1D array of 1510441 pixels, but I am trying to do it for a 2D array
> using loops.
>
> img = read_tiff('NP.tif')
> ids = fltarr(1229,1229)
>
> for i = 0,1228 do begin
>   for j = 0,1228 do begin
>   if (m(i,j) eq 1.) then begin

Be careful here. Don't use a float if your data is byte/integer. If it
is of type float, you must do "where X-1.0 lt epsilon"... read David
Fanning's "the sky is falling" article

>   ids(i,j) = img(m(i,j))

This will always be equal to 1. Are you sure you want to subset m here?

>   endif
>   endfor
> endfor
>
> Any suggestions would be great.
>
> Thanks,
> Vikram

"where" remains your friend here.

```
img = read_tiff('NP.tif')
ids = fltarr(1229,1229)
OneIDX = where(m eq 1)
ids[oneIDX] = img[oneIDX]
```

If you really want, you can convert back the 1D index to 2D with
ARRAY_INDICES, but it changes nothing to the above.

Jean