Subject: set all elements in 2d array between some range to 1
Posted by havok2063 on Fri, 22 May 2015 21:14:43 GMT
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So I'm trying to set all elements of a 2d-array that are between some padding, based off elements in another vector, to 1. Creating a mask of 1's and 0's.

I want to turn this bit of code, which runs in 30 seconds, into a non-loop bit of code that runs faster.

wave = 2d array of floats - size [4112,709]
skywave = 1d array of floats - size [739]

```
 nx = 4112
 ny =709
 nlines = 739
 skylinemask = intarr(nx,ny)  ; output 2d array of 1's and 0's

 for j = 0, nlines-1 do begin
   index = where( (wave gt skywave[j]-3) and (wave lt skywave[j]+3), nindex)
   if (nindex gt 0) then skylinemask[index] = 1
 endfor
```

I've started tackling this with value_locate but I got stuck.

```
waved = wave[*]
uniwave = sort(waved)
minskywave = skywave - 3
maxskywave = skywave + 3

v1 = value_locate(minskywave, waved[uniwave])
v2 = value_locate(maxskywave, waved[uniwave])
```

Any ideas on how to finish this? Or a simpler way than what I'm attempting. Thanks.