Subject: Re: set all elements in 2d array between some range to 1
Posted by David Fanning on Fri, 22 May 2015 21:22:33 GMT
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Brian Cherinka writes:

>
> 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.

Two ideas:

http://www.idlcoyote.com/code_tips/valuelocate.html
http://www.idlcoyote.com/code_tips/partition.html

Cheers,

David

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Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")