Subject: Re: Non maxima supression
Posted by Jean H. on Mon, 27 Nov 2006 21:01:02 GMT
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Charudatta Phatak wrote:
> Hello,
>
> I want to do a non maxima supression on a 2d array within a specified
> neighborhood of pixels. The way i am doing it right now is looping over
> all the pixels and check if the value is max in the 5x5 neighborhood. if
> it is max then keep it or else set it to zero. Is there a IDL way to do
> it faster than 2 for loops?
>
> thanx
>
> cheers,
> -cd

You can vectorize this.

```
neighborhood = [-9,-1,1,9]   ;In this example, a Von Newman neighborhood
centered on the cell [0] of a 10 * x array. Do NOT keep the "central"
cell index.

data = ... ;your 2D array

neighborhoodIndices = neighborhood + indgen(n_elements(data))   ;If you
want to omit some pixels, like on the edge, put an array of valid
indices instead of the indgen().

neighborhoodValues = data[neighborhoodIndices]

sortedNeighbIndices = sort_ND(neighborhoodValues,1)   ;Get sort_ND from
the web or from JD..

highestValue =
 neighborhoodValues[sortedNeighbIndices[n_elements(neighborho od)-1, *]]

writeZeroAt = where(neighborhoodValues gt data)

data[writeZeroAt] = 0
```

Jean