Subject: Re: make a vector from all pixels in a moving window
Posted by Robin Wilson on Sat, 22 Jan 2011 23:59:21 GMT
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Hi Jenny,

I use the function below to do this for me. It might not be the most efficient way of doing it (my IDL code is often lacking in terms of efficiency), but it works:

```
FUNCTION GET_LOCAL_SUBSET, n, x, y, arr
  ; This gets the local n x n window around the given x and y values
  ; It will repeat edge values as needed to provide the correctly sized
  ; return array
  ;
  ; Altered from http://michaelgalloy.com/2006/10/10/local
  ; grid-points.html (Original Author: Michael Galloy)
  ;
  ; Calculate the offsets
  offsets = lindgen(n) - (n - 1) / 2

  ; Calculate the offsets from the given x and y values
  xoffsets = reform(rebin(offsets, n, n), n^2)
  yoffsets = reform(rebin(offsets, n^2), n^2)

  return, reform(arr[x + xoffsets, y + yoffsets],n,n)
END
```

See Michael's blog post (linked in the comments above) for more information on how it works.

Hope this helps,

Robin