Subject: faster convol on local subsets?
Posted by Andre on Mon, 05 Dec 2011 00:37:01 GMT
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Hello experts,

Maybe somebody has an easy solution for this?
I have a 2D array (img) and want the filter response from kernels that vary according to the image position. In a second array (loc, same dimensions as img) I have the information which kernel should be used at each pixel. My current approach is to first convolve the full image with the j-th kernel and take the response only at the positions with the current j indexed in the loc array:

```
for j=0, n do begin
    kernel=kernel_store[*,*,j]
    response_temp = convol(img, kernel, /edge_zero, /NAN)
    index=where(loc eq j)
    if (index[0] gt -1)then response[index]=response_temp[index]
endfor
```

I works fine, but it is relatively slow and I wonder if there is a smarter (faster) to apply only the convolutions that are really needed?

Thanks in advance for any help!