
Subject: using convol with 2D image and 1D kernel
Posted by [lunde](#) on Sat, 29 Nov 2003 17:08:44 GMT
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Hello, I was wondering what the convol(array, kernel) function does when it is given a 2D array and a 1D kernel ?

I have run through "Example 2" for the digital_filter() function, in which the 2D array "mandril" is convolved with the 1D array "filter" (in Reference Volume 1):

```
mandril = bytarr(512,512)
...
mandril = float(mandril)
filter = digital_filter(0.0,0.1,50,10)
filt_image = convol(mandril,filter)
```

I can see that the image is smoothed, but did convol()

1) take the 1D kernel of size 1x21 and run it over the image, where the result at each point is only influenced by points in the horizontal direction,

OR

2) take the 1D kernel and transform it into some 2D kernel of dimension 21x21, and run that over the image, where the result is now influenced by points in both the horizontal and vertical directions ?

Thanks for any insight, Bruce
