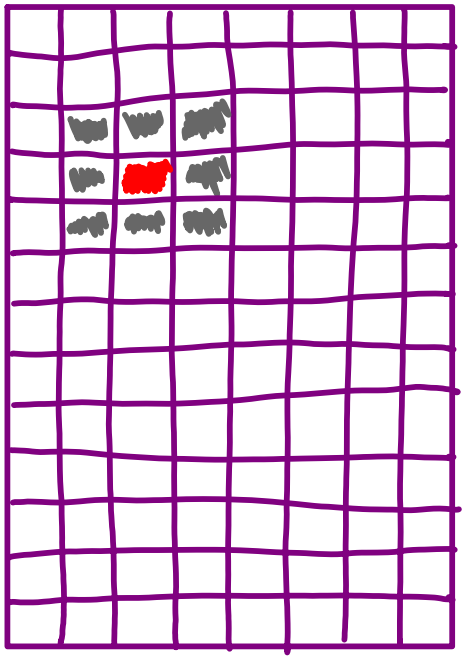
Filtering an image

Note Title 9/29/2006

$C_{0,0}$	$C_{1,0}$	$C_{2,0}$
$C_{0,1}$	$C_{1,1}$	$C_{2,1}$
$C_{0,2}$	$C_{1,2}$	$C_{2,2}$

3×3 filter mask

$C_{1,2}$ is coefs[1][2] etc.



8×13 image

Example:
To compute the value for pixel $P_{2,3}$ the filter coefficients are multiplied by the components of the corresponding pixels & then summed.

$$P'_{2,3} = C_{0,0} * P_{1,2} + C_{1,0} * P_{2,2} + C_{2,0} * P_{3,2} + C_{0,1} * P_{1,3} + C_{1,1} * P_{2,3} + C_{2,1} * P_{3,3} + C_{0,2} * P_{1,4} + C_{1,2} * P_{2,4} + C_{2,2} * P_{3,4}$$