



Filter Images Using `imfilter` and Predefined Filters (`fspecial`) in Spatial Domain (Convolution)

MATLAB functions	Example
<code>B = imfilter(A,h)</code>	Filters the multidimensional array <code>A</code> with the multidimensional filter <code>h</code> .
<code>h = fspecial(type, parameters)</code>	<p>Creates a 2-D filter <code>h</code> of the specified type. <code>fspecial</code> returns <code>h</code> as a correlation kernel, which is the appropriate form to use with <code>imfilter</code>. <code>type</code> is a string having one of these values.</p> <p>Example <code>h = fspecial('gaussian', hsize, sigma)</code> returns a rotationally symmetric Gaussian lowpass filter of size <code>hsize</code> with standard deviation <code>sigma</code> (positive).</p> <p style="text-align: center;"><code>h = fspecial('gaussian',[3 3],0.5);</code></p> <p><code>h = fspecial('average', hsize)</code> returns an averaging filter <code>h</code> of size <code>hsize</code>.</p> <p style="text-align: center;"><code>h = fspecial('average',[3 3]);</code></p>
<code>B = medfilt2(A)</code>	Performs median filtering of the matrix <code>A</code> using the default 3-by-3 neighborhood.
<code>B = medfilt2(A, [m n])</code>	Performs median filtering of the matrix <code>A</code> in two dimensions. Each output pixel contains the median value in the <code>m</code> -by- <code>n</code> neighborhood around the corresponding pixel in the input image.