# Help file for img2mesh('image.bmp'). Input: image filename & path, Output: an mcin.m mesh file.

First create your grayscale, 256 color, 8-bit or 24-bit image and save it in any format that Matlab recognizes including, gif, bmp, tif, jpg, etc. When designing your image, use the following facts. A black (color=0 or RGB=(0,0,0)) pixel is turned into 2 right triangle simplices and 4 vertices. When a black pixel has a while (color=255 or RGB=(255,255,255)) pixel neighbor, it receives a Neuman (type=2) boundary. A slightly off white ($255 >$ color ≥ 225) neighbor pixel creates a Dirichet boundary (type=1). A moderate off white ($225 >$ color ≥ 200) neighbor generates a Neuman (type=4) boundary. While a strong offwhite ($200 >$ color ≥ 175) neighbor is interpreted as a Neuman (type=6) border. Types 8, 10, and 12 follow the pattern. Here are two examples. Numbers on the blocks refer to that pixel's color where color=x is RGB=(x,x,x)
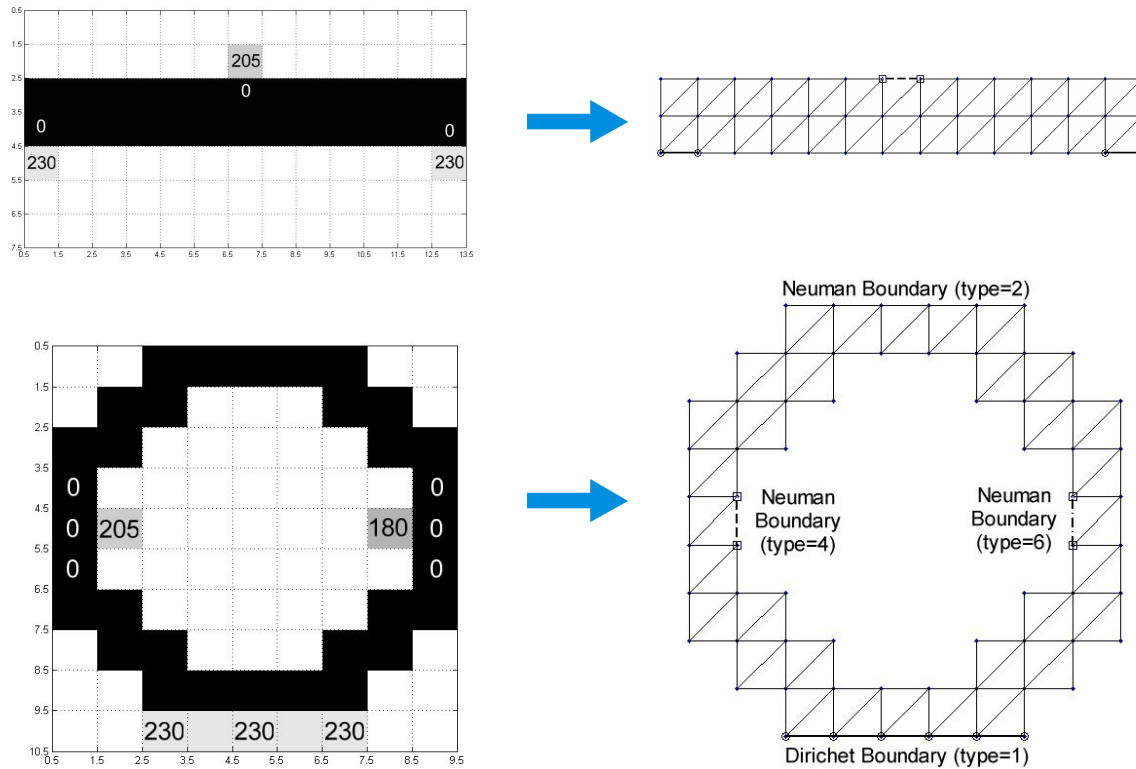
There are two special features. If an off white pixel touches more than one black interior pixel but you wish to limit the boundaries to be identified, you can indicate the boundaries you want by using off black ($10 <$ color < 100) for the interior pixels. And finally if you want diagonal edges without the staircase effect, use an interior pixel of color=1 instead of 0. To use both of these features together, set your interior pixel to off black=6. Also a diagonal's border type is interpreted from the pixel to its right of left.