

help in interpreting edge detection threshold criteria

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I'm referring AK Jain "Fundamentals of Digital Image Processing" to implement edge detection. The author first asks to compute the image gradient (g) by filtering with the (Sobel) filters. I've done this. The threshold is selected as follows "Typically, t may be selected using the cumulative histogram of g(m,n) so that 5 to 10% of pixels with largest gradients are declared as edges."

Can someone explain to me how the cum. histogram will help? I wrote the following code, but it's obviously wrong:

```
% gimg is the filtered img., while cumhist() returns the cumulative
% histogram (with 256 bins)
[gcumhist,x] = cumhist(gimg);
t = 0.9*max(max(gimg)); % threshold
```

```
% Find edges and make new edge img.
```

```
edimg = zeros(m,n,d);
```

```
i = find(gimg > t);
```

```
edimg(i) = 1;
```

PS: I'm not using the MATLAB edge function as I want to detect only the vertical/horizontal edges.

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