

Thresholding

Definition

In the context of greyscale images, a threshold is a grey value (i.e. an integer between 0 and 255) that can serve as a means to produce binary images, e.g. black (0) and white (255) images.

Everything below the threshold will be classified/manipulated differently ~~that~~ than the pixels above (and on) the threshold.

Finding the threshold: method 1

- ① Create a histogram of the source image
- ② Initialise threshold to zero, $\text{currentThreshold} = 0$
- ③ Calculate average grey-value to the left of the threshold.
- ④ Calculate average grey-value to the right of the threshold.
- ⑤ Calculate average of left-average (③) and right-average (④).
- ⑥ Check if the left-right-average (⑤) is —after rounding— equal to our current threshold. If it is, that's our final threshold, otherwise go to ⑦.
- ⑦ Increment current threshold and go to step ③.