Cleaning Noise from Binary Images

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NOISE CLEANING

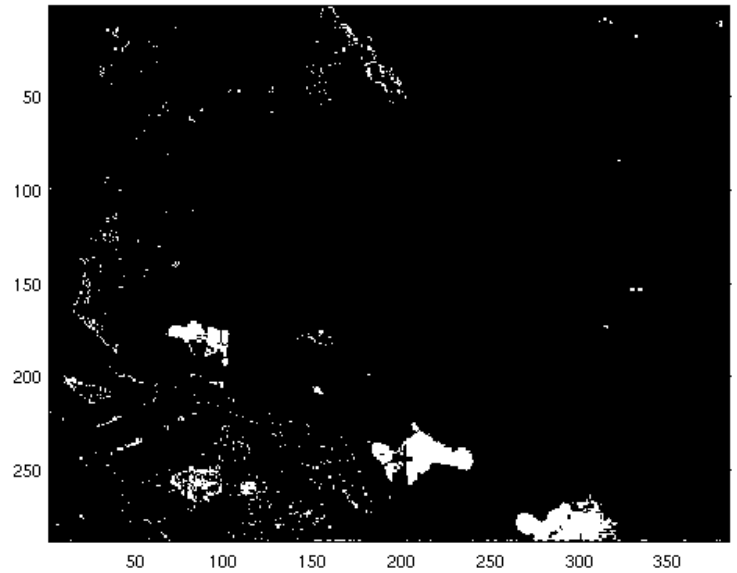
Final stage: remove noise in thresholded foreground image:

1. Collect into regions by 4-connectedness
2. Remove groups with less than 5 pixels
3. "Close" (dilate and then erode) to fill in gaps
4. Remove resulting groups still with less than 20 pixels

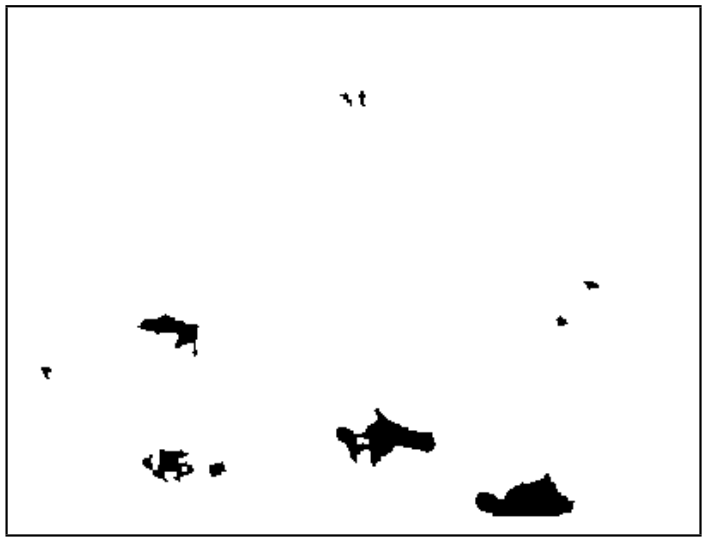
Future: remove groups whose bounding boxes do not overlap another in previous & next frame

Future: Track boxes thru time using Kalman filter

THRESHOLDED



CLEANED



NOISE CLEANING RESULTS URL

SEE: `homepages.inf.ed.ac.uk/rbf/...`

`...AVINVERTED/DEMOS/TRACK/demo2.html`

What We Have Learned

1. Basic Mathematical Morphology
2. A lot of single pixel noise in detection