

Bacteria Chain Analysis

Image Analysis Report 198b

Sample Description

Chains of bacteria.

Purpose of Analysis

Demonstrate the ability of the Clemex image analyzer to discriminate all bacteria, to reconstitute chains and to perform measurements on both.

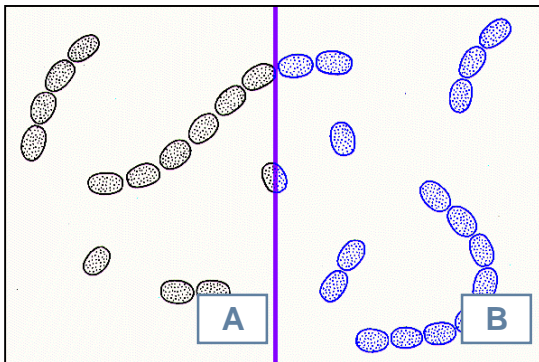


Figure 1: a) Original image after the application of a Sharpen gray instruction. b) Blue binarization of bacteria by Gray Thresholding.

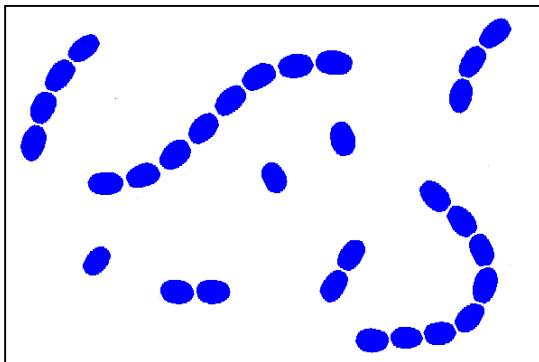


Figure 2: Objects were filled and artifacts were removed (Fill, Trap). Touching objects were separated using binary instructions (Erode, Zone).

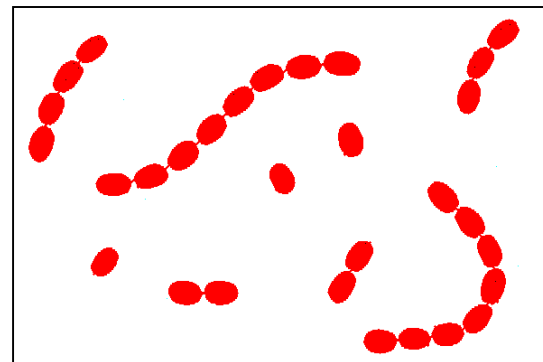


Figure 3: Chains of bacteria were restored into the red bitplane by using Copy, Closing, Thin and Boolean binary operations.

Results Summary

	Child Count
Minimum	1
Maximum	8
Mean	3
Standard Deviation	2

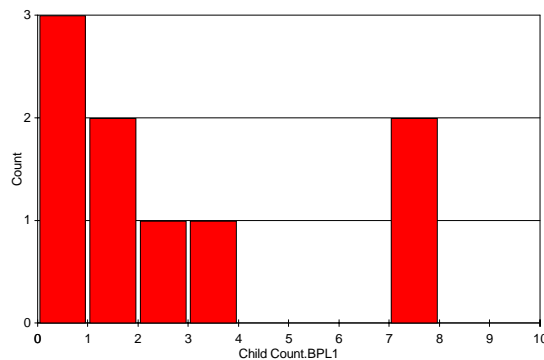


Figure 4: Child (blue) count distribution of chains (red). Gives the quantity of bacteria included in each chain.

Equipment

Image Analysis

System:

Clemex Vision PE

Scanner :

Epson ES-800C