

ROOT ANALYSIS

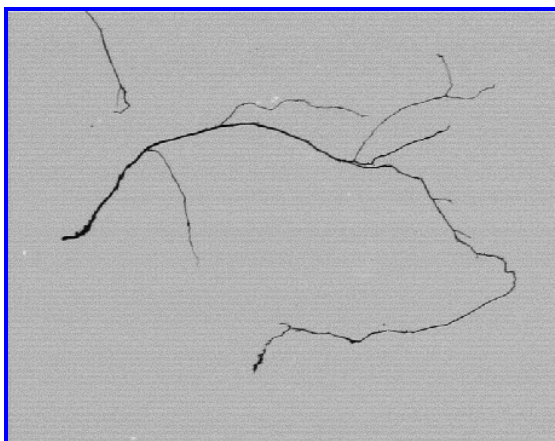


Figure 1: Original image.

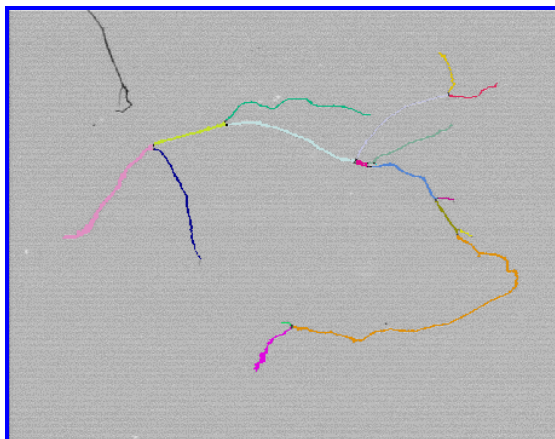


Figure 3: The blue bitplane was sectioned to measure root branches (Thin, Pruning, Closing, Opening, Zone, Boolean). The Labeling View mode shows each objects using a color index.

Sample Description

One root of domestic fern.

Purpose of Analysis

Demonstrate the ability of the image analyzer to discriminate and measure all parts of the root.

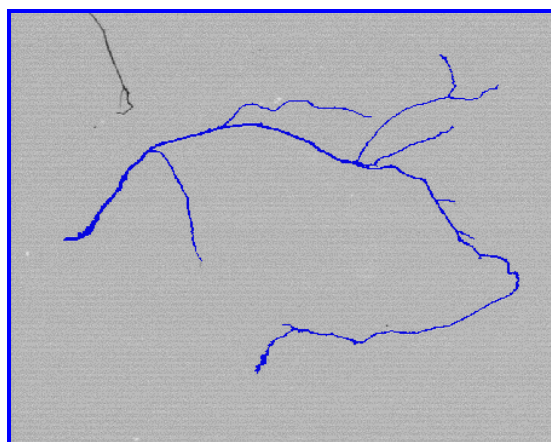


Figure 2: Blue binarization (Thresholding) of the original image. Bisected objects and artifacts were removed (Transfer by Contact, Trap).

Results Summary

	String Length (mm)
Minimum	0.091
Maximum	55.818
Mean	13.160
Standard Deviation	13.369

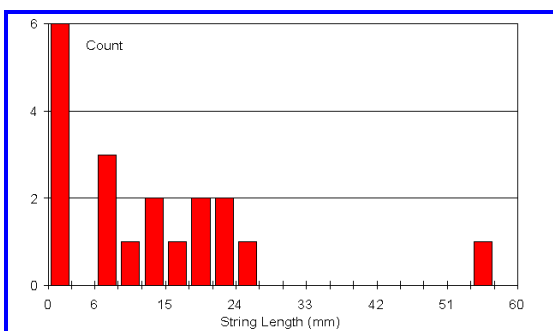


Figure 4: Length distribution of the root branches.

Apparatus

Image Analysis

System: Clemex IMPAK Software

Camera: Sony XC-77CE

Lens: Computar zoom lens (18-108 / 2.5)

Illumination: Logan Desk Top Light Box

Macro Stand: Kaiser (Germany)