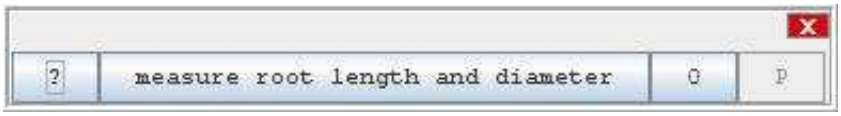
Operation: measure root length and diameter



Author:

Volker Bäcker

Example

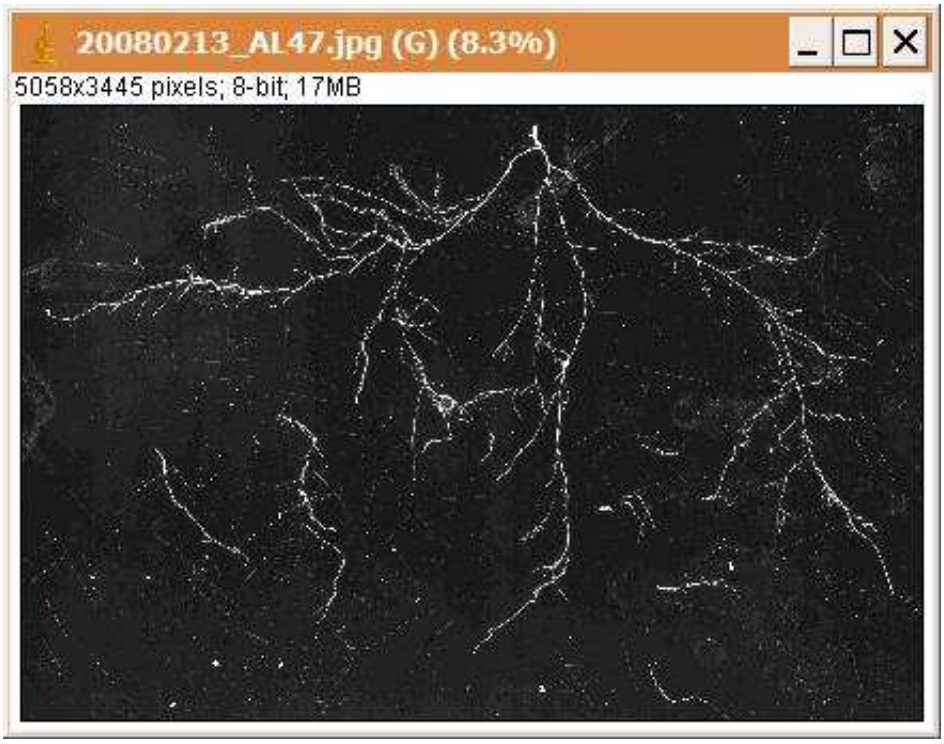


image	number of objects	length	mean thickness	folder
20080213_AL47.jpg	1	63281,01	5,05	Z:\baecker\muller\marie\

Description

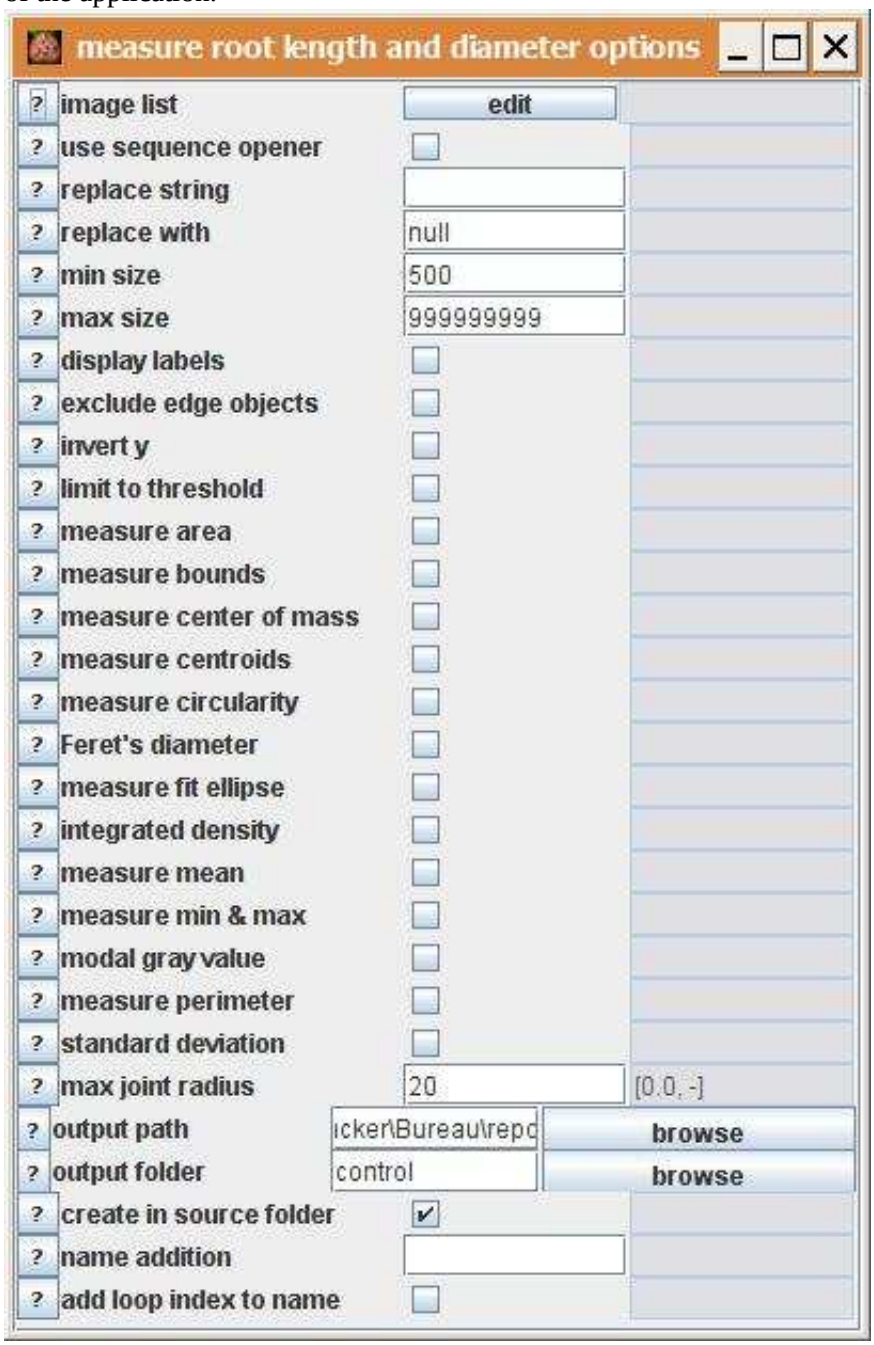
The application measures the total length and the average thickness of filament like structures.

When the application is started the list-editor is opened. Press the add button and select the files you want to measure. Press close on the list editor to start. You will be asked where to save the reult spreadsheet file. The image is opened and displayed. You might eventually need to inverse the contrast, so that high pixel values are bright. You can do this by activating the image and pressing SHIFT+i. Open the contrast-adjuster (SHIFT-t) and adjust the contrast. Press apply on the threshold-adjuster. You can now

clean up the image by making selections and using the fill or clear command from the menu Edit. When you finished cleaning up, press the continue button.

Options

To change options either press the O-button of the application or open the application (right click on the top of the application tile and select open from the context menu) and press the O-button of one operation of the application.



Important options are the min size and max size of the find objects operation. The min size should be smaller than the smallest object you want to keep. The max size must be bigger than the size of the biggest object you want to keep. Another important option is the max joint radius of the measure mean diameter operation. Set it to a value, so that branching areas are completly ignored for the calculation of the thickness.

Results

A control image showing the skeleton is saved in the subfolder control. Length and thickness will be written to a spreadsheet file. The length is calculated using the measure skeleton length operation.