**Name** — IJ_Rhizo

**Developers** — Alain Pierret @ Institut de Recherche pour le Développement

**Scientific article**

IJ_Rhizo: an open-source software to measure scanned images of root samples
Alain Pierret & Santi maintree Gonkhamdee & Christophe Jourdan & Jean-Luc Maeght
2013 Plant Soil

View at publisher | Download PDF
Gathering metrics now...

**Description**

IJ_Rhizo is an ImageJ macro for the batch processing of scanned images of root samples physically separated from soil by washing. IJ_Rhizo automatically generates root length and radius measurements. Being based on a public domain, Java image processing package, IJ_Rhizo is free of charge and platform-independent. IJ_Rhizo offers a simple GUI so that it can be used by end-users with limited computer literacy. This GUI allows to customize: image resolution; the size of image border to be excluded from processing; background particle cleaning; root length correction including the Kimura estimator; and the choice of automatic versus user-defined thresholding. In addition, the macro is also fully modifiable to accommodate the specific needs of more advanced users. IJ_Rhizo generates, in addition to the main “ResultAll.txt” output file and for each image analyzed, a root radius distribution file, stored as a text file and named using the input image name exclusive of the original extension.

**Screenshots**

![IJ_Rhizo Screenshot]

**Share this:**

Social buttons

**Additional information**

ImageJ must be installed prior to running the script as a macro. Morphological Operators for ImageJ must be installed (download as a single zip file from: http://www.dentistry.bham.ac.uk/landing/), and copy to ImageJ’s “plugins” directory.

**Similar software**

Other tools for the analysis of root-system:

- DART
- EZ-Rhizo
- Gia Roots