



## ImageJ user information

ImageJ is a free image analysis program that is an ongoing software development project of Wayne Rasband at the NIH. The program started out as the Macintosh “NIH Image” program, later it was ported to the PC as “Scion Image” and in the last several years has become ImageJ, a JAVA program that runs on Windows, Macintosh and Linux operating systems. If you have an older version of the software (i.e., anything that is pre-ImageJ), you should upgrade to the latest version of ImageJ (*current version is 1.37*). Here are some useful ImageJ resources:

ImageJ - home page - <http://rsb.info.nih.gov/ij/index.html>

(Includes program downloads, documentation and links to supplemental tools called plug-ins)

ImageJ Wiki - <http://imagejdocu.tudor.lu/imagej-documentation-wiki>

(Documentation for ImageJ written by users in a collaborative manner using a Wiki.)

McMaster ImageJ “bundle” - [http://www.macbiophotonics.ca/imagej/installing\\_imagej.htm](http://www.macbiophotonics.ca/imagej/installing_imagej.htm)

(The McMaster Biophotonics Facility of McMaster University in Hamilton, Ontario, Canada has created ImageJ software installation packages for Windows, Macintosh and/or Linux that include many useful microscopy-related plug-ins that are included as part of the installation package.)

McMaster ImageJ documentation - <http://www.macbiophotonics.ca/imagej/index.htm>

(Documentation for using the McMaster ImageJ bundle. The documentation contains instructions on using the included plug-ins.)

## Image analysis workstation upgrade

Using funds from the Cellular Imaging Core budget, we were able to purchase a computer and software upgrade for the Compix/SimplePCI image analysis workstation that is located in LSN 429. The upgrade replaces an aging computer with a system that includes an Intel Core Duo processor and high speed hard drives. The new computer will be particularly helpful to people rendering movies from captured time-lapse images. The newer version of the software includes a variety of added features as well as improved help files.

As part of the upgrade, we purchased the company’s Quantitative Fluorescence Analysis - FRET software module. The module “incorporates selection and customizing of algorithms based on published methods for accurate crosstalk correction, FRET measurement and visualization.”

**Why use this workstation, instead of doing analysis on your own with ImageJ?** The workstation can perform dozens of measurements (size, shape, intensity, counts, etc) quickly and simultaneously, often with little user intervention needed. The workstation can analyze any type of digital image (microscope images, gels, radiograms, etc), or acquire them from the attached microscope. All numerical data can be easily exported to Microsoft Excel files for further analysis. There are currently no fees for the use of this workstation. The Core can bring its decades of experience in image analysis to your research problem and help you configure the workstation software to quickly and accurately analyze your data.

## Ethical guidelines for the appropriate use and manipulation of scientific digital images

Doug Cromey recently submitted a paper to Science and Engineering Ethics on digital imaging ethics. In addition, he is collaborating with the Center for Ethics and Values in the Science (University of Alabama - Birmingham) on an interactive, case-study based website to teach students how to appropriately work with scientific digital image data. The website is funded by a small grant from the Office of Research Integrity (Health & Human Services), which has a real interest in this issue. The website should be available on-line in the next few months.

If you would like to discuss imaging ethics at a lab meeting or schedule a presentation on the topic, please contact Doug Cromey.