

# microObservatory Image

A simple to use, yet powerful astronomical image processing program that works with FITS and GIF files.

## **MicroObservatory Image 2.3:**

- Works on Macintosh, Windows platforms, and Linux.
- Opens and saves GIF and FITS files.

## **Basic Image Processing**

- Optimize an image's brightness/contrast automatically, by either linear or logarithmic scaling.
- Colorize images using several false color tables.
- Invert an image's color table.
- Increase image contrast and detail using "sharpen" filter.
- Reduce the noise in an image.
- Manipulate full screen magnification.
- Show image information for individual pixels by cursor placement.

## **Advanced Image Processing**

- Perform mathematical operations between two images.
- Perform an integer arithmetic operation to an image.
- Shift an image relative to another image.
- Manipulate an image stack that allows you to create RGB color images or animated GIF files.
- Crop portions of an image or image stack when an area is selected with the rectangle tool.
- Calculate brightness levels and image statistics of an area selected with the rectangle or circle tool.
- Show intensity histograms of the image data.
- Display the header of a FITS image.
- Place text or graphic lines on an 8 bit GIF file so one can annotate the image.

## **Ease of Use**

- Drag and Drop -- drag images, files, and links onto MicroObservatory Image to open them.

Thanks to Wayne Rasband, the author of ImageJ for color tables and MedianCut code, as well as look-and-feel ideas. <http://rsb.info.nih.gov/ij/>

## **MiroObservatory Image uses GifEncoder**

GifEncoder - writes out an image as a GIF.

Transparency handling and variable bit size courtesy of Jack Palevich.

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Visit the ACME Labs Java page for up-to-date versions of this and other fine Java utilities: **<http://www.acme.com/java/>**

## **Technical Notes**

### **PC Users (Windows) and Linux**

When you download MicroObservatory Image you also download Sun Microsystems' Java 1.4.1 implementation.

This is stored in a folder called Java. Leave the Java directory inside the MicroObservatory Image directory.

### **Mac Users (OS X)**

Works best with G4 processors and above. For OSX you must have Apple's MRJ 1.4.1 installed.

You can get this Java version by updating to OSX version 10.4

To update your system:

- 1) Choose System Preferences from the Apple Menu.
- 2) Choose Software Update from the View menu.
- 3) Click Check Now.
- 4) Select the items you want to install, then click Install.
- 5) Enter an Admin user name and password.
- 6) After the update is complete, restart the computer if necessary.

## **Development Team**

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This work supported by National Science Foundation grant #ESI-9730351  
Additional support from NASA's Office of Space Science grants #NCC5-261  
and #NCC5-706  
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