WormScanner Installation Notes: Setup for 1394 Cameras
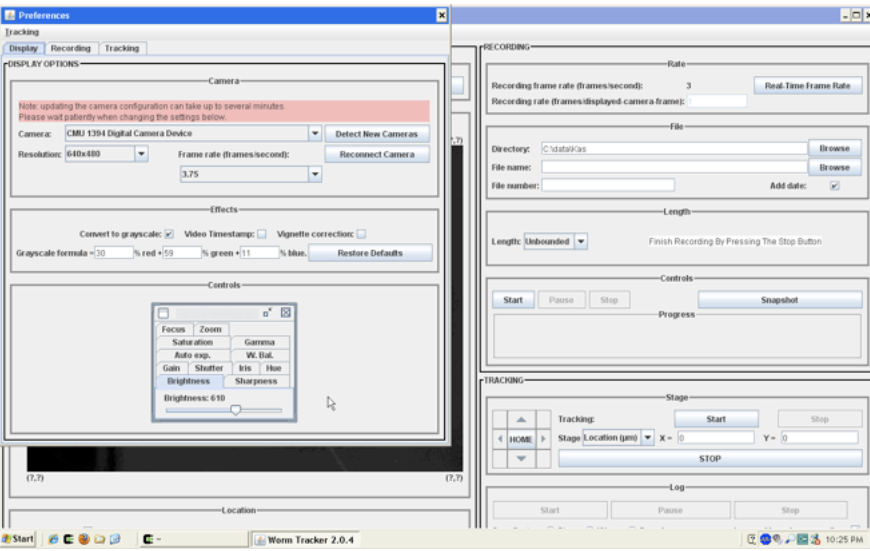
WormScanner is part of QuantWorm (a software package for automatic phenotyping in *C. elegans*).

Installation Instructions for 1394 Cameras

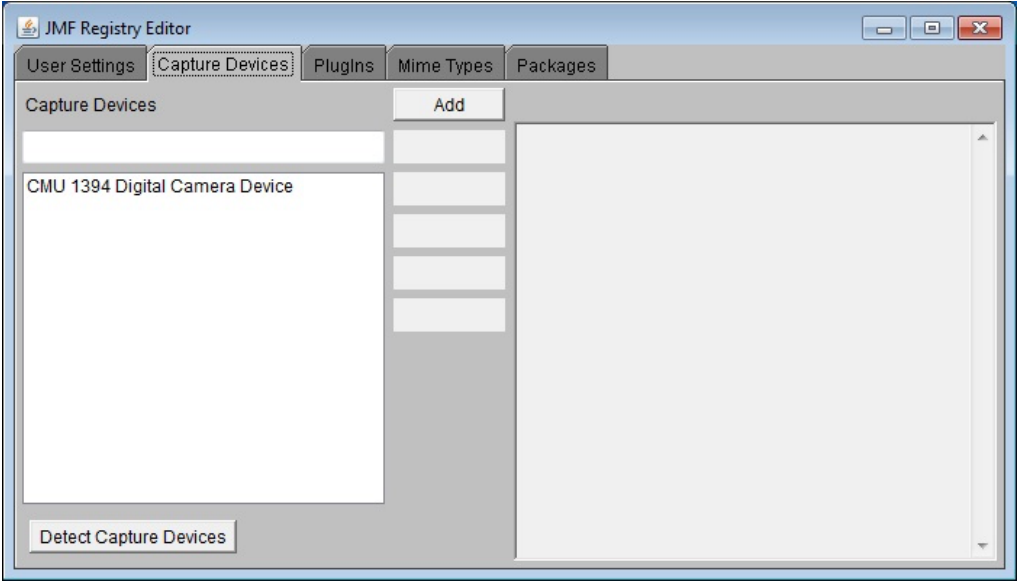Installing camera1394 and making it work with WormTracker:

1. If any camera driver is already installed, it must be removed before installing the CMU's driver.
2. Install CMU's 1394 driver version 6.3. More recent versions did not work in our tests. The 1394CameraDemo application should work independently of any Java stuff. Link: http://www.cs.cmu.edu/~iwan/1394/install.html
3. Get this jlibdc1394-1.0PR1.zip version because it includes source code. Other versions may work but they do not have documentation such as Java Interfaces. The DLL (net_sf_jlibdc1394_impl_cmu_JDC1394CamCMU.dll) included should be copied to c:\windows\system32\
4. Install or make sure you have JMF (link: JMF version 2.1.1e). Once that it is installed, JMF Registry is one application that lists the current JMF devices and other information
5. The camera must be "installed" into JMF, run InstallJ1394Cam to do so. It will install the camera and the package.
   This installation step can be verified by running JMFRegistry, the camera will be listed there as "CMU 1394 Digital Camera Device".
   If there is an exception such as "UnsatisfiedLinkError: no net_sf_jlibdc1394_impl_cmu_JDC1394CamCMU in library path", then it is a dll problem. Make sure that the file "net_sf_jlibdc1394_impl_cmu_JDC1394CamCMU.dll" is located in \WINDOWS\system32\
   Under Windows-7, one problem about not finding the camera was solved when jmf.jar was included in the classpath, but the one installed in the computer, not the one that comes in the 'lib' directory of the folders of WormTracker or WormScanner. That is, it was necessary to explicitly indicate that jmf.jar was the one in c:\JMF211e\lib\jmf.jar (assuming JMF was installed on folder c:\JMF211e)
   Again: The success of this step is when the "CMU 1394 Digital Camera Device" is listed in the "Capture Devices" in JMF Registry Editor. The following screenshot illustrates a successful installation of the camera into JMF registry

6. WormTracker will not find the 1394 camera on its own. (Unless they have updated it to do so).
7. If the computer is not connected to the internet, then you there may be a window indicating that it can not find updates. It is OK to ignore such window by simply clicking the OK button.
8. WormTracker will use the following directory to find the configuration files: \Documents and Settings\username\Application Data\Worm Tracker\Configuration (where 'username' is the user name). It will create such directory automatically. If you're re-using configuration files, then you can copy them there.