,

Setup *WrapScienceJ* into the *eclipse IDE*

Rémy Malgouyres

remy@malgouyres.org

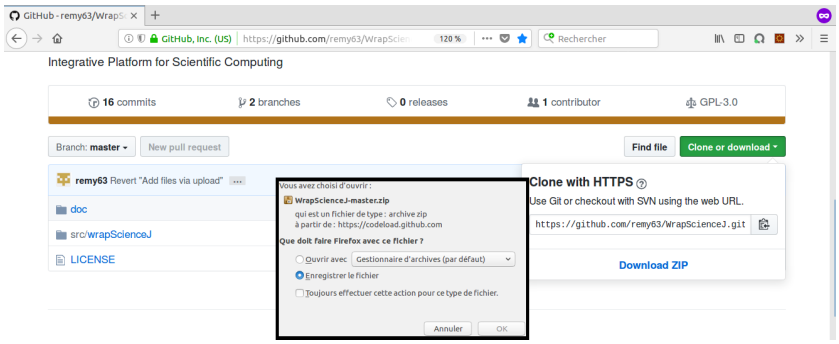
Contents

1 Download the source

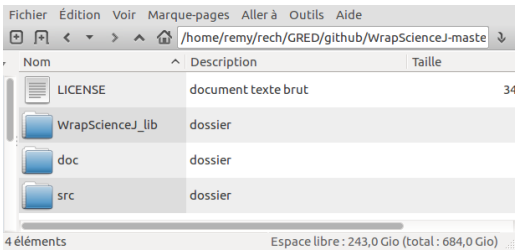
First go to the project's page on *Github.com* and click to download the source:

`https://github.com/remy63/WrapScienceJ`

Then unpack the archive and go to the directory.



(a) Download on *GitHub*

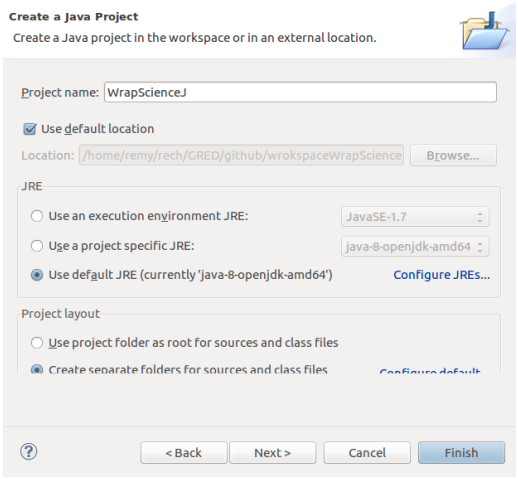


(b) The *WrapScienceJ* directory'scontent

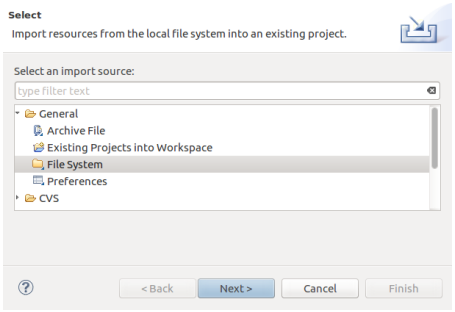
Figure 1 – Source code download and archive extraction

2 Create a project in the *Eclipse IDE*

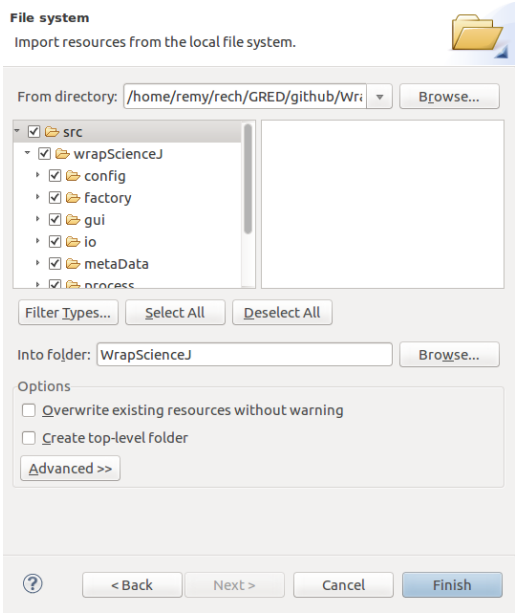
After installing the Eclipse Platform, create a *new Java Project* Named *WrapScienceJ*. Then import the *src* directory with the source into that project source. To do that, go to the Eclipse's "File" menu item, and chose "Import File System".



(a) Project Creation in *eclipse*



(b) Import the *WrapScienceJ/scr* source (1/2)

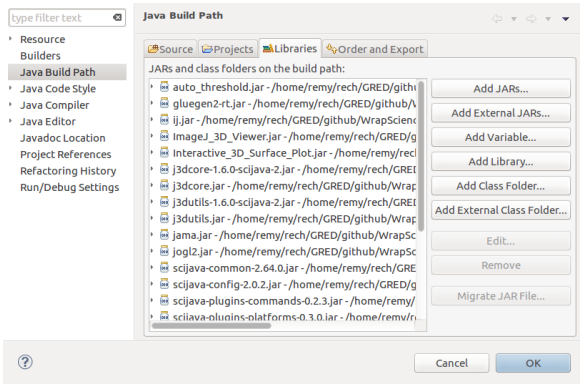


(c) Import the *WrapScienceJ/src* source (2/2)

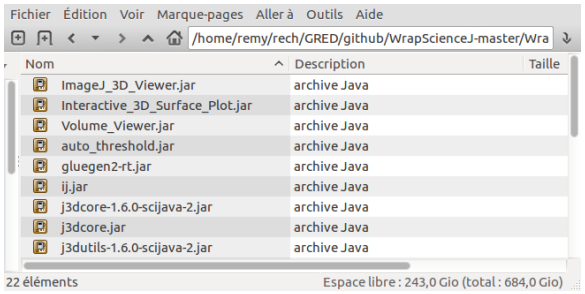
Figure 2 – Creation of a new project in the *Eclipse* and import of the *WrapScienceJ* source code

3 Add the Dependencies and Libraries

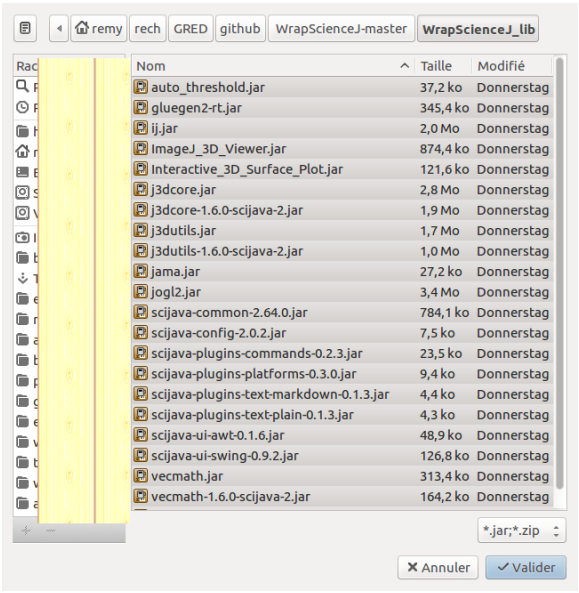
Consider the *WrapScienceJ_lib* Directory in the *WrapScience* archive from *GitHub*, and add all the corresponding *Jar Archives* in the *Build Path* configuration of the *WrapScience* project. To do that, right-click on the project, and chose *Build Path→Configure*.



(a) Add external *JAR*



(b) The *WrapScienceJ_lib* Directory

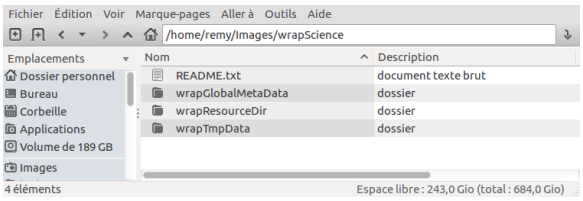


(c) Add External *Jars*: Select all *Jars* in the *WrapScienceJ_lib* Directory

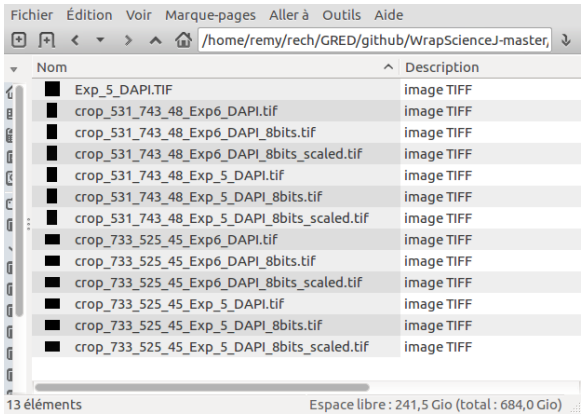
Figure 3 – Configuring the project's *Build Path* to Add the external *JAR* archives for *ImageJ* and *AUto Threshold* support in *Eclipse*

4 Setup Sample Data/Directories, Read and Run the Tests

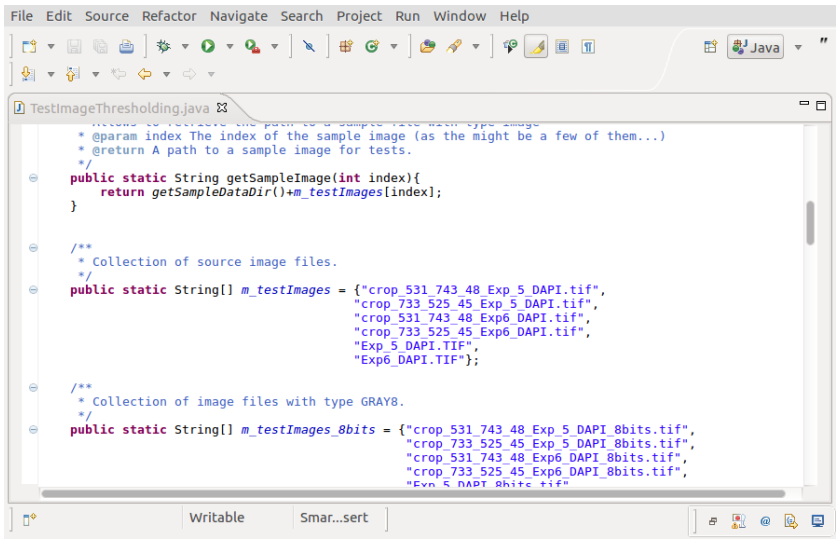
Place the *wrapScienceJ* directory, which contains sample data and default configurations, directly at the root of an *Images* directory, which is directly under your user home directory.



(a) The root of the *$HOME/Images/wrapScienceJ* Directory



(b) Sample Data in *wrapScienceJ/wrapResourceDir/wrapSampleData*

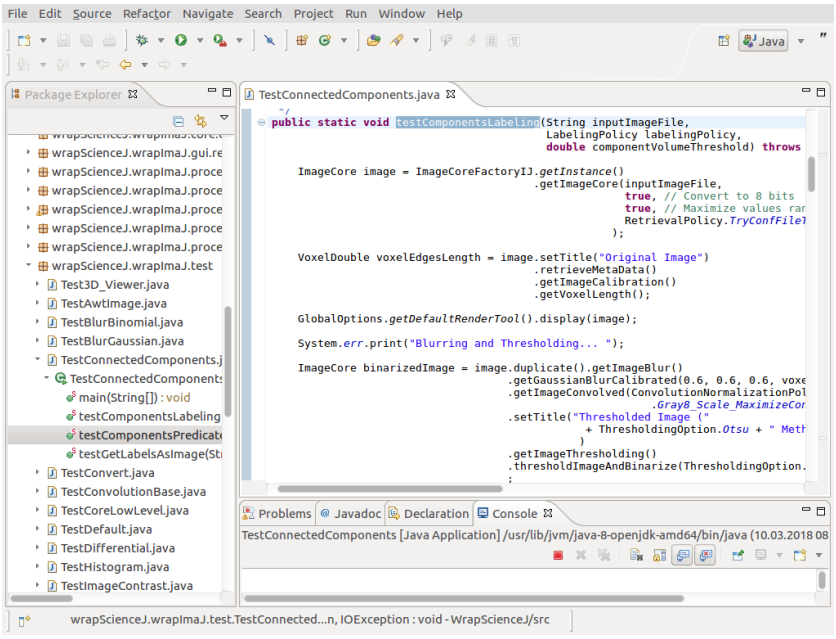


(c) Check the Sample Data for Sample Tests

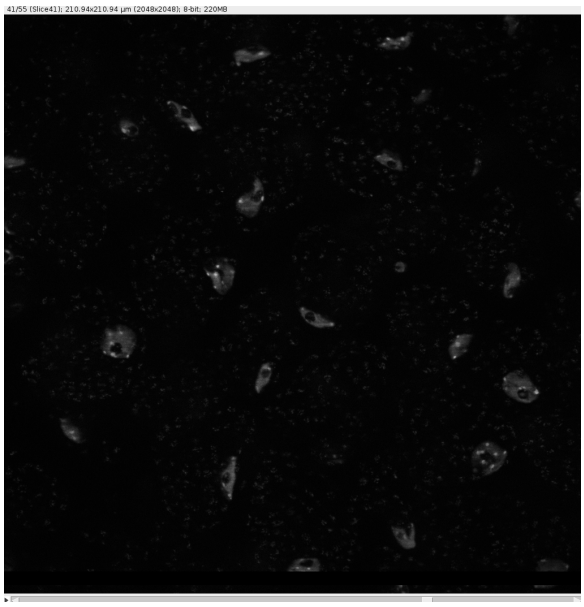
Figure 4 – The *wrapScienceJ* Directory with Sample Data and Temporary Directory

Within the *$HOME/Images/wrapScience* directory, there is a sub-directory named *wrapResourceDir/wrapSampleData* (see the corresponding *README*'s). Check the file which are there, and consider the piece of codes allowing to retrieve those sample images within the *test package* of the project.

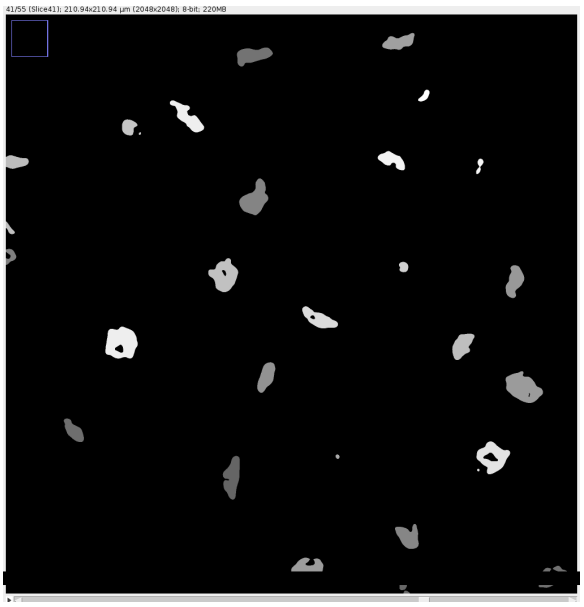
Explore the `wrapScienceJ.wrapImaJ.test` package. The classes contain the unit tests of the platform involving *Image Processing*. Chose a method and uncomment the method call in the `main` method of its class. The input image file appears generally as a parameter of the test method. Make sure the input file you use is one that is present in the sample data downloaded from *GitHub*.



(a) Run Sample Tests on Existing Sample Data



(b) Example of Test Input Image



(c) Results of a test

Figure 5 – The `TestConnectedComponents.testComponentsLabeling()` method.