Installation of the BioEmergences Fiji Tools

Revision 2, May 26th 2015

Fiji is an application based on ImageJ for biological image processing and visualization. The BioEmergences workflow does not require Fiji to be installed on your computer. However, you may want to edit or visualize the processed data with a software you are familiar with. It could also be that you are using an exotic file format not recognized by our file convertor, in which case these tools should be helpful.

We provide a set of plugins for Fiji to open and save VTK files in a format compatible with the BioEmergences workflow.
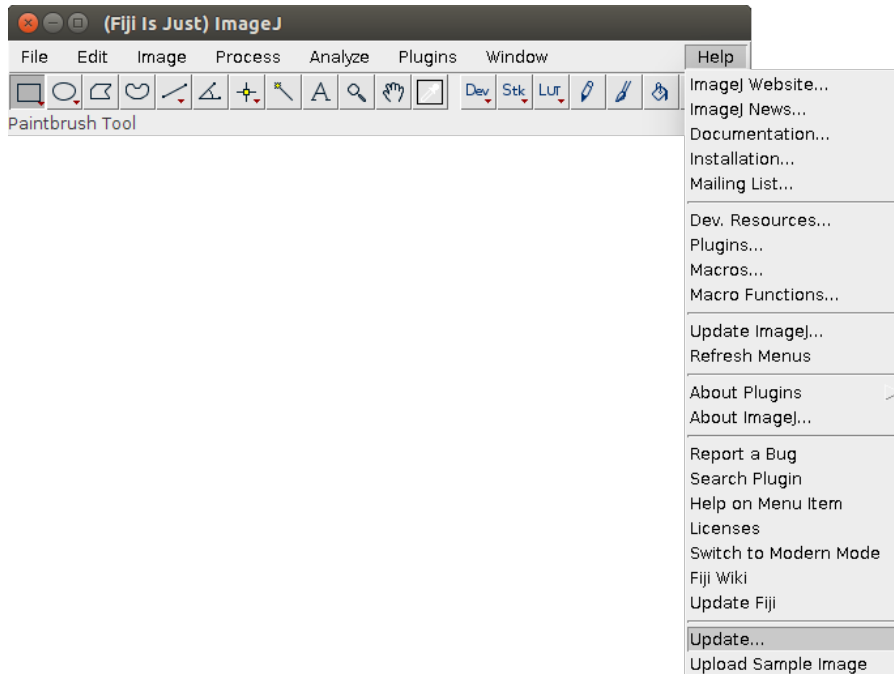
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Install Fiji

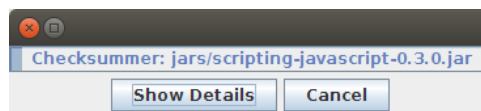If you do not have Fiji installed on your computer, please visit http://fiji.sc/.
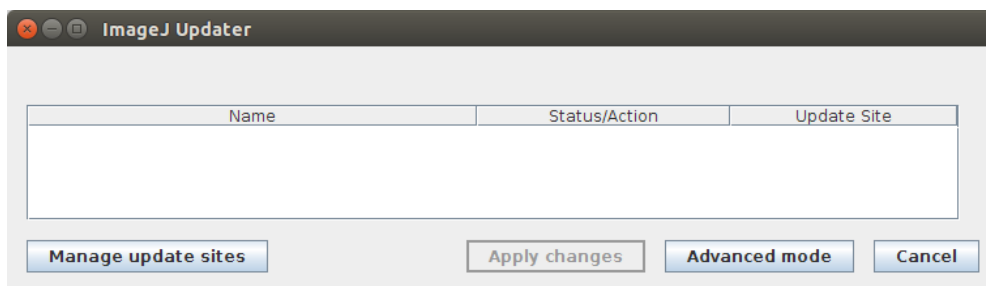
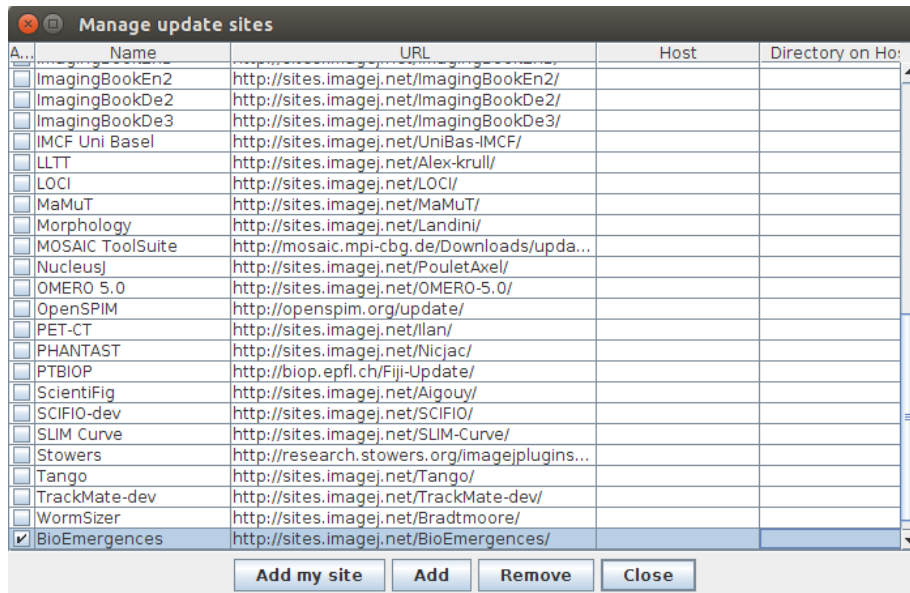# Install BioEmergences Plugins

Click on *Help > Update...*

Wait for the updater to finish

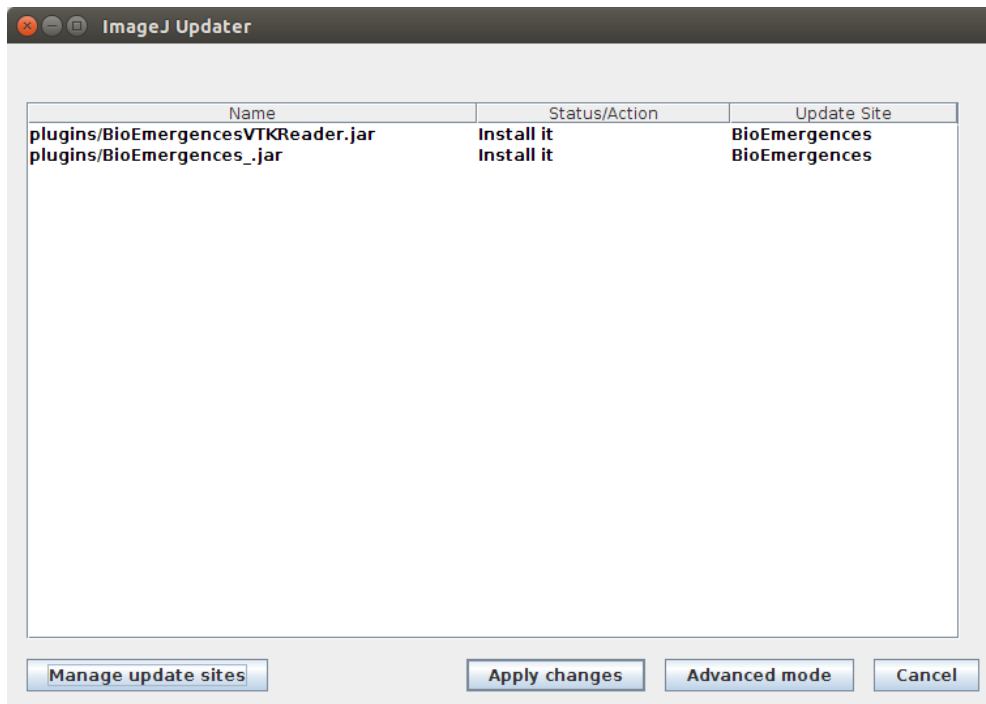Apply updates and restart Fiji. Repeat the process until the updater tells you that the Fiji application is up-to-date. Click *Ok* and *Manage update sites* in the lower-left corner of the window.

Scroll to the bottom of the window. Click *Add*. On the newly created line, set the first column to *BioEmergences* and the second column to *http://sites.imagej.net/BioEmergences/* (URL is case sensitive).

Click *Close* to close the window, then *Apply changes* to install the BioEmergences tools. Future updates will be automatically added to the Fiji updater.

Restart Fiji after updates.

Use BioEmergences Plugins

File > Import > BioEmergences VTK...

Opens a VTK file compatible with the BioEmergences workflow. Both regular (.vtk) and compressed (.vtk.gz) formats are recognized, based on file extension and magic bytes.

File > Save As > Save BioEmergences VTK...

Saves a VTK file compatible with the BioEmergences workflow. Both regular (.vtk) and compressed (.vtk.gz) formats are recognized, based on the file extension choosen.

Macro examples

How to write and run a macro?

In Fiji, click *Plugins > New > Macro*. Click on *Run* in the lower-left corner of the window to run the Macro.

Convert a set of files to BioEmergences VTKs

```
1.    // Choose a directory to open
2.    dir = getDirectory ("Select input directory");
3.
4.    // Choose a directory to save the VTKs
5.    out = getDirectory ("Select destination directory");
6.
7.    files = getFileList(dir);
8.    number = lengthOf(files);
9.
10.   // Hide open/close operations
11.   setBatchMode (true);
12.
13.   for (i = 0; i<number; i++)
14.   {
15.     filename = files[i];
16.     filepath = dir + filename;
17.     destination = out + filename + ".vtk.gz";
18.
19.     if (!File.isDirectory(filepath))
20.     {
21.       // Open the file with Fiji regular file manager
22.       open (filepath);
23.
24.       // Save as BioEmergences VTK
25.       run ("Save BioEmergences VTK...", "save=[" + destination + "]");
26.
27.       // Close the file
28.       close();
29.     }
30.
31.     showProgress ((i + 1) / number);
32.   }
33.
34.   // Quit batch mode to allow further operations
35.   setBatchMode(false);
```

Contact

Requests can be sent to bioemergences@inaf.cnrs-gif.fr.