**fiji u-net setup on Science Cloud server**

**Connection details**

Username:

ubuntu

IP:

172.23.48.110

key:

Y:\Info\Common\_Zurich\UNET\ScienceCloud\_key\id\_rsa

**Upload weight files**

Generally speaking, segmentation models (.modeldef.h5) are stored locally and weight files (.caffemodel.h5) are stored on the server. You’ll probably want to use pre-trained weight files, so you’ll need to upload them to the server before segmenting/finetuning (the in-fiji upload function doesn’t really work for me).

We have winSCP installed on the unicorn. You’ll need to log in using a key file instead of a password:

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Select the key file:

Y:\Info\Common\_Zurich\UNET\ScienceCloud\_key\id\_rsa.ppk

Click on login without entering a password.

You’ll see a folder with your name on /home/ubuntu/yourname after successful connection (if not, you can make one). In your folder, there is a subfolder called ‘process\_folder’ and one called ‘weights’ --> paste your weight files in there.

**First connection**

The first time you try to run something on the fiji plugin, a few messages will appear. Confirm that you trust the connection, let it make folders if it needs to, and when it asks you for the path to the caffe\_unet binary enter the following:

/home/ubuntu/u-net/bin/caffe\_unet

**Segmentation**

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Should look something like that.

**Finetuning**

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A few remarks on the settings:

Weight file: & Process folder: use your personal folders on the server for finetuning and saving your weights.

Tile shape (px): With the Tesla T4 graphics card that we use, we can process tile shapes up to max 840x840 px. Anything bigger will be split into tiles.

Network ID:the name of the newly trained model. that’s how it will appear in the dropdown menu in future trainings/finetunings.

Model definition: give the local path where the new model should be saved.

Weights: give the server path where the new weights should be saved.