

# Practicum 1 – Basic Linux

---

## Assignment Details

---

Assigned: January 21<sup>st</sup>, 2013. Due: January 24<sup>th</sup>, 2013 midnight.

## Connecting

---

First things first – you will need to be able to log in to your Multilab account. You should have, by now, received information about your Multilab account; if you have not, speak to your TA.

Basic information for connecting to the Multilab machines can be found here:

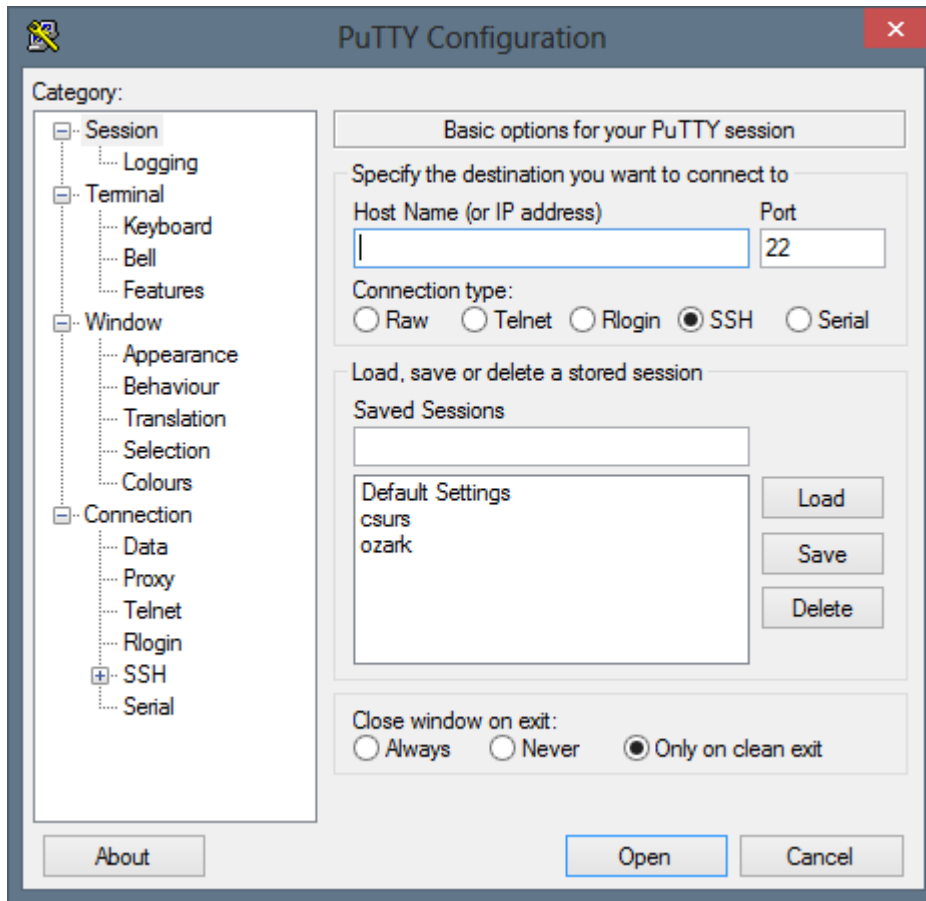
<http://www.cs.uky.edu/students/facilities/multilab/access>

But, just to keep things simple, we'll give instructions on how to connect in this document.

## SSH – Putty

---

The Windows machines in the computer lab all have Putty installed. When you run it, you should be greeted with a screen that looks something like this:



To connect to a Multilab machine, just enter its name (say, penstemon.cs.uky.edu) in the “Host Name (or IP address)” field. After doing that and hitting Open, you should be greeted with something like this:



From there, just enter your Multilab account and password.

## Basic Unix commands

---

So, now that you're connected, it would be nice to do something, so here are some basic Unix commands:

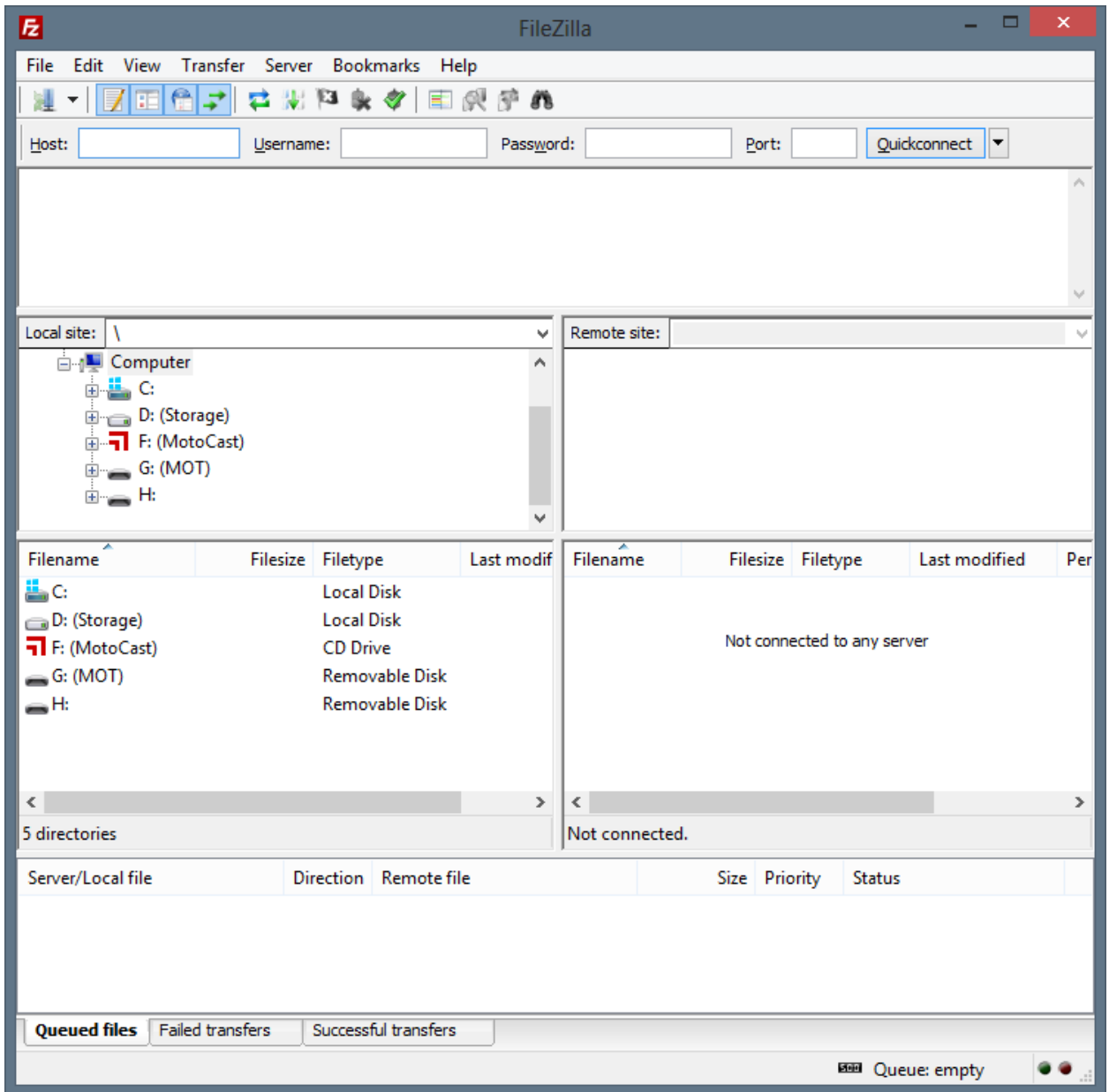
<b>ls</b>	List contents of the current directory
<b>cd</b>	Change directory; "cd .." takes you one directory up in the hierarchy. "cd ~" will always take you back to your home directory.
<b>mkdir</b>	Creates a new directory
<b>exit</b>	Logs out of the current session
<b>man</b>	Pulls up the manual page for whatever command you pass it, e.g., "man ls" gives you all of the options for the ls command in detail.
<b>more</b>	Displays the specified file one page at a time
<b>tail</b>	Shows the last few lines of the specified file (useful for logs)
<b>cp</b>	Copies a file from one location to another

There are, of course, *many* more commands, but this is a start. In later weeks we'll go over more Unix stuff (especially building programs on Unix!), but for today's practicum, we've got a couple more things to do...

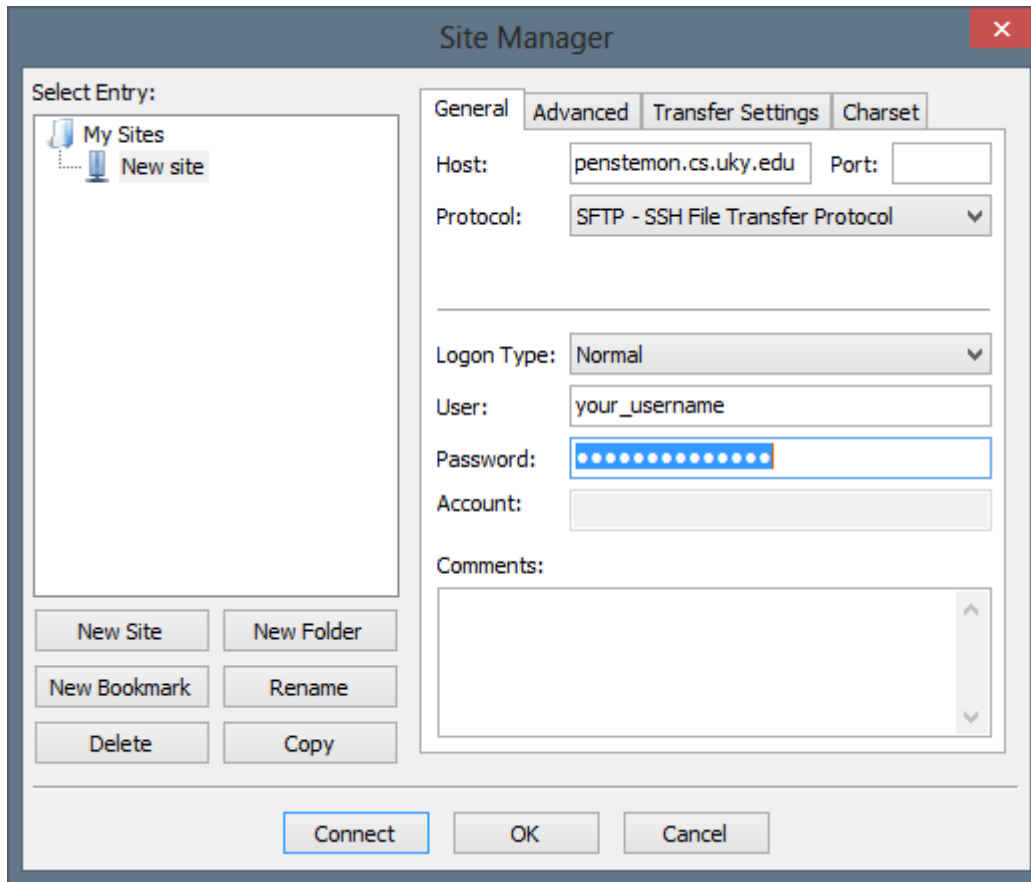
## File transfer to Multilab

---

There's another program on the lab computers that will be useful for this lab – Filezilla. Go ahead and launch it, you should see something like this:



Click the button in the upper left (“Open Site Manager”), hit New Site, and then enter the following into the dialog:



Make sure to enter in the host, change the Protocol to SFTP, and Logon Type to Normal. Hit connect, and then you should be set up to start moving files from the local computer (on the left) to your Multilab account (on the right). This is where your screenshot from the homework comes in – you can move it from your local machine to your Multilab account via Filezilla.

And once it's there...

## SVN

---

Students from a CS215 course in the last two semesters will be familiar with the idea of source control, albeit with the Tortoise client on the Windows platform. For this course, we'll be using the `svn` command line tool on Linux.

You should have received an email at some point on August 28<sup>th</sup> with instructions for setting up your source control account – if you did not, speak to your TA; he will have a login and temporary password for it (and make sure we have your *correct* email address!). Once you have your account activated and a password set, the next thing to do is check out the source control tree. Use the command:

```
svn checkout svn://progit.netlab.uky.edu -username=your_username sc
```

After entering the command, it should ask you for your password (and ask you if you want to save it), and then display a list of files checked out – all of which will be in the `sc` folder. It should look something like this:

```
dbrown@progit:~$ svn checkout svn://progit.netlab.uky.edu --username=██████████ sc
Authentication realm: <svn://progit.netlab.uky.edu:3690> UKCS Source Control
Password for '██████████':
-----
ATTENTION! Your password for authentication realm:
<svn://progit.netlab.uky.edu:3690> UKCS Source Control
can only be stored to disk unencrypted! You are advised to configure
your system so that Subversion can store passwords encrypted, if
possible. See the documentation for details.
-----
You can avoid future appearances of this warning by setting the value
of the 'store-plaintext-passwords' option to either 'yes' or 'no' in
'/home/dbrown/.subversion/servers'.
-----
Store password unencrypted (yes/no)? no
A ██████████/sc/CS216
A ██████████/sc/CS216/██████████
A ██████████/sc/CS216/██████████/la1
Checked out revision 15.
dbrown@progit:~$
```

Notable in the list of folders checked out is your personal folder – the one immediately under CS216, and the `la1` folder – which is where the practicum assignment will be collected...

## Finishing the assignment

So, make sure to get your screenshot from the first homework into the `la1` folder; you can do this either by moving it there directly via Filezilla, or by using the `cp` command to copy it from wherever you did put it via Filezilla into the `la1` folder. From there, a few more commands:

```
svn add screenshot.jpg
```

Or whatever the file is called, of course. This adds the file to be tracked in the source control system. But this doesn't yet submit it – you'll need to do one more thing:

```
svn commit -m "This comment is needed but won't get read"
```

Or whatever you feel like putting in quotes... And assuming that command executes successfully – you're done!