

CS 100 – Testing and Submitting Lab Exercises and Class Projects

Fall 2015

This document overviews four issues:

1. Why we have a separate server for grading CS 100 programs
2. Student use and access of this server
3. How to move your work back and forth between your laptop and this server
4. How to submit your projects via Blackboard

A Separate Server for Grading in CS 100

While one would like to think that a C compiler behaves exactly the same on all operating systems, this is not the case. When different software vendors write a compiler for a Mac or Windows system or Linux, there are some areas where the ANSI standard does not dictate exactly how to accomplish a given task. As a result, a program that runs on one system might not function the same on another system. This gets into the software engineering issue of portability of code. A common example of this is some compilers are designed so that integer variables have a default value of zero, while other compilers do not initialize variables (their initial value is unspecified).

In CS 100, we recognize that different students are developing in different environments. We want you to be able to use your own laptop and work on assignments whenever/wherever you have the opportunity. However, we also need a common platform for grading these assignments.

For the Fall 2015 semester, all laboratory exercises and programming assignments and exams will be graded using the server **cs-intro.ua.edu**. All students in the course have access to this server, so you can test your programs on our **cs-intro** server before submission.

Accessing the CS 100 Server

All students in CS 100 have access to cs-intro.ua.edu. From the command line prompt, in either a Cygwin window on a Windows system or a terminal window on a Mac, type **ssh username@cs-intro.ua.edu** where username is your myBama userid.

You should be able to log into the system using your myBama credentials. Once you are logged in, you should see a standard prompt and Unix environment.

Please note that if you are working from off-campus, then it is necessary to establish a VPN connection to UA. Information on this can be found at <http://oit.ua.edu/oit/services/virtual-private-network-information/>

Moving Files To and From the CS 100 Server

Obviously, one of the benefits to a laptop environment is that you can work on assignments anywhere at any time. Developing and debugging on your laptop is a perfectly acceptable way of handling the assignments in CS 100.

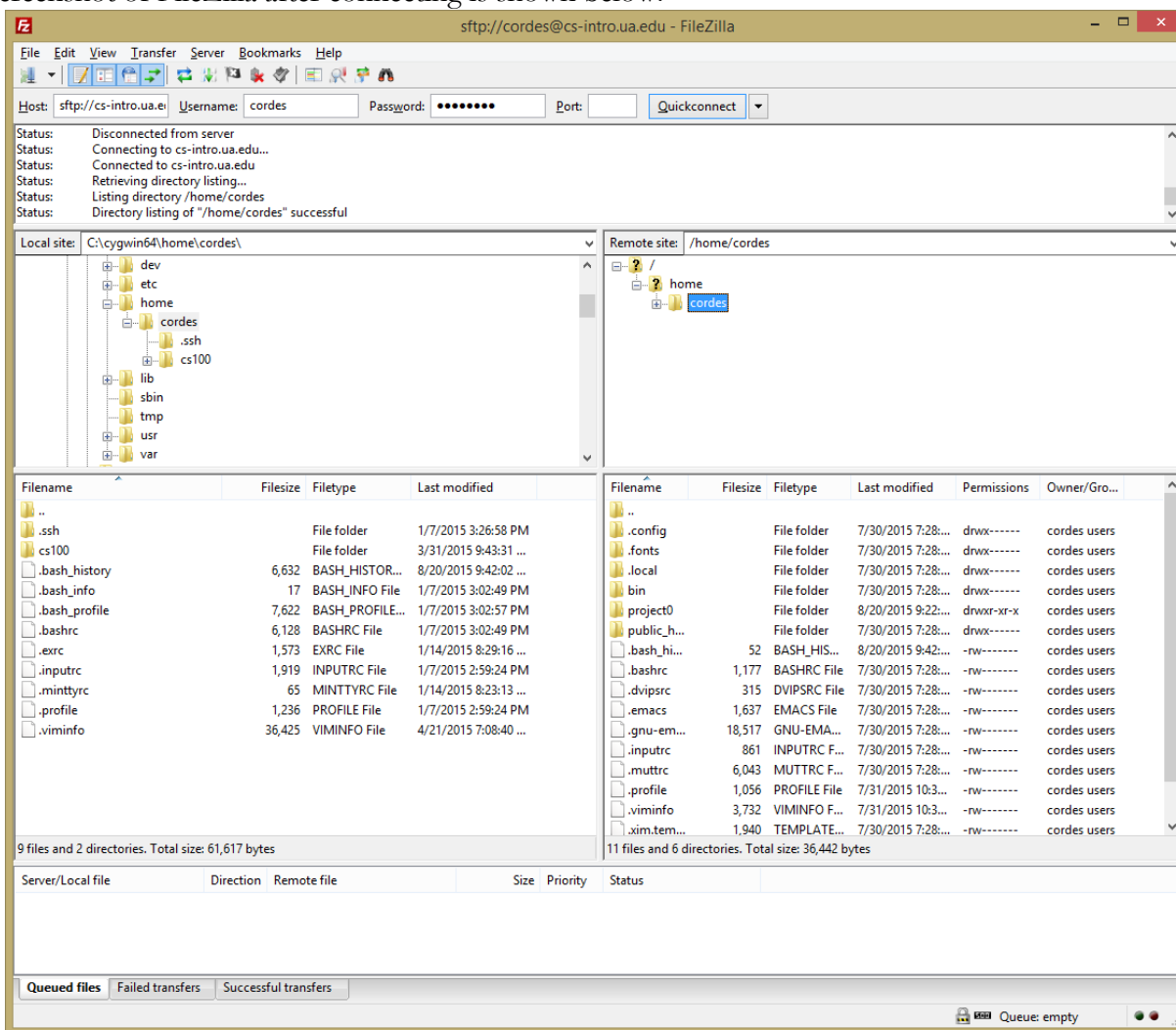
After you are comfortable with the state of your project, we recommend that you check your project on the **cs-intro** server. To encourage you to use this resource, we will place a number of test cases that will be used to grade your project on this server. These are not the only test cases that will be used when grading your assignments, but they are some of the test cases that we will be checking.

To move files back and forth between your laptop and the **cs-intro** server, we recommend the free program **FileZilla**. A list of all the FileZilla downloads can be found at https://filezilla-project.org/download.php?show_all=1

Once you have installed FileZilla, the program provides a clean, graphical image of both your local machine and a remote machine. To establish a connection to **cs-intro** as the remote machine, enter the following information at the top of the FileZilla window:

- Host cs-intro.ua.edu
- Username your myBama username
- Password your myBama password
- Port 22

Hit enter after inputting this information and FileZilla should then log you into the remote system. Once you have a connection to the remote system then you can simply drag-and-drop directories (folders) between systems. A sample screenshot of FileZilla after connecting is shown below.



Submitting Labs / Projects / Exams

Once you have completed your testing on **cs-intro**, you should transfer your files back to your local machine (using FileZilla). You then bundle all the files in that directory and submit a single (compressed) file. To do this:

Using Windows Explorer, right click on the directory and select "Send To" and then "Compressed (zipped) folder"

Using Finder, use a secondary click on the directory and then select "Compress *foldername*"

Once you have your compressed folder that contains your assignment, submit that compressed file to Blackboard.