

CS 1301

Lab 2 – Introduction to Webservers at GaTech

Notes:

- Do not wait until the last minute to do this assignment in case you run into problems.
- If you find an error in the homework assignment, let a TA know immediately.

Background:

Chances are that as you read this, you are using a computer running either Windows or Mac OS. However, what about other types of computer operating systems? In this lab, you will get a chance to interact with computers running the UNIX operating system that host the prism websites for students at Georgia Tech. .

Though you may not know it, the server where you get your e-mail, the server providing the website from which you downloaded this file, and countless others on the GT campus all run UNIX or some derivative thereof. Another interesting fact that you may not know: Georgia Tech provides a place for you to place a website, again on a UNIX machine.

By mounting your GaTech prism directory on your local computer, you can place files in a special folder called "public_html". Any files in this folder with the correct permissions will be visible to the entire world on the prism.gatech.edu webserver!

Your Mission, Should You Choose To Accept It (acceptance recommended)

- Connect to the Georgia Tech prism system (mount it as a remote drive or use an SCP tool)
- Create a public_html directory and lu.txt, containing information about yourself
- Place a copy of the CoC logo (logo.png) in your public Georgia Tech webspace. You can find this logo on the labs page of the class webpage (near where this file is posted).
- Note: **No T-Square submission** is needed for this lab!

Continue reading to see how easily these goals may be accomplished!

This message will *not* self-destruct in 10 seconds. Sorry to disappoint you, there.

Disclaimer

- You should not store any sensitive information in your public_html folder in your prism directory. Remember, any one can see this stuff on the web!!

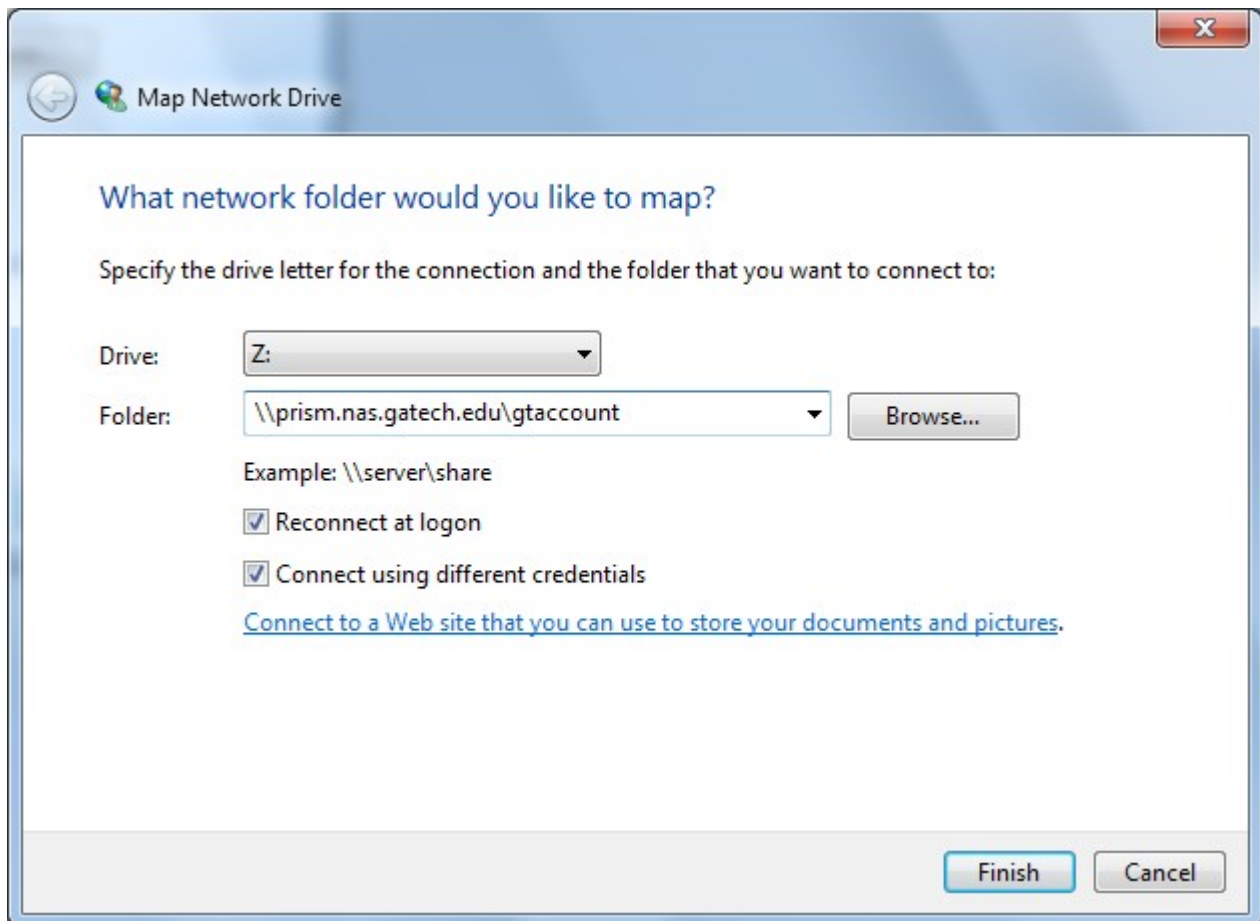
Windows Users:

In order to actually connect your computer to the Georgia Tech system it is pretty simple. If you are using Windows 8, do these steps:

1. Press the windows key (or CTRL+ESC)
2. Search for “Computer”
3. Right-click “Computer”
4. At the bottom of the screen, choose “Map Network Drive”

If you are using an earlier version of windows, follow these steps

1. Click the **start** button
2. **Right click computer**
3. Select **map a network drive**
4. A window should open that looks like this

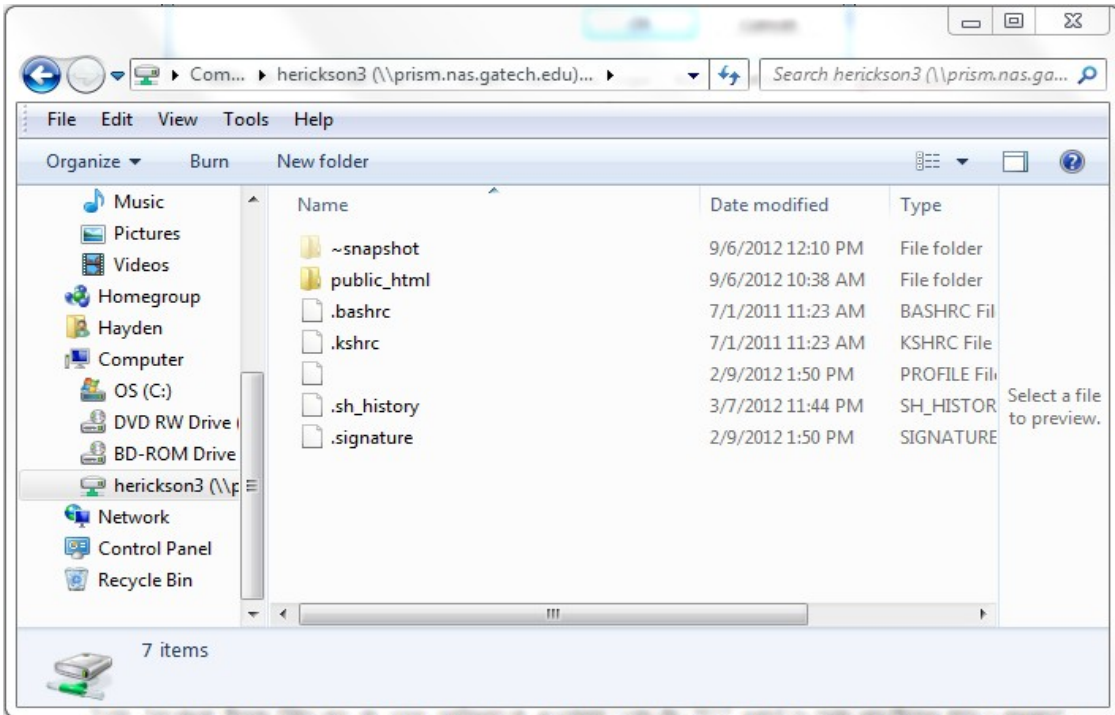


5. Type in the folder section:
\\prism.nas.gatech.edu\gtaccount (but **with your username instead of gtaccount!**)

6. You may select **reconnect at logon** (if your computer is usually connected to gt wifi) and be sure to select **connect using different credentials**
7. Click **finish** and a window should pop up that looks like this



8. **THIS IS IMPORTANT!** Make sure you type "AD\" before your gtaccount username, then type your normal gtaccount password that you would use to login to buzzport or t-square.
9. Finally a window should pop up that looks like your normal file browser that has your prism directory as its name. Now you're done connecting and you should be able to add or remove files and folders just like you would normally do on your computer!



note: since my **public_html** folder has already been created it is already there. However **yours will not have this** folder, which is what you need to create.

10. Now all you need to do is make a **public_html** folder and put the logo image and the text file inside it! **You must name it exactly public_html!**

After you have done this, you will probably need to give "others" or "Everyone" read permission on the files and execute permission on the **public_html** folder and your main home directory before you can view the files on the web. You must visit the following URL's to confirm that the files are visible!

50 points: <http://www.prism.gatech.edu/~yourusername/lu.txt>

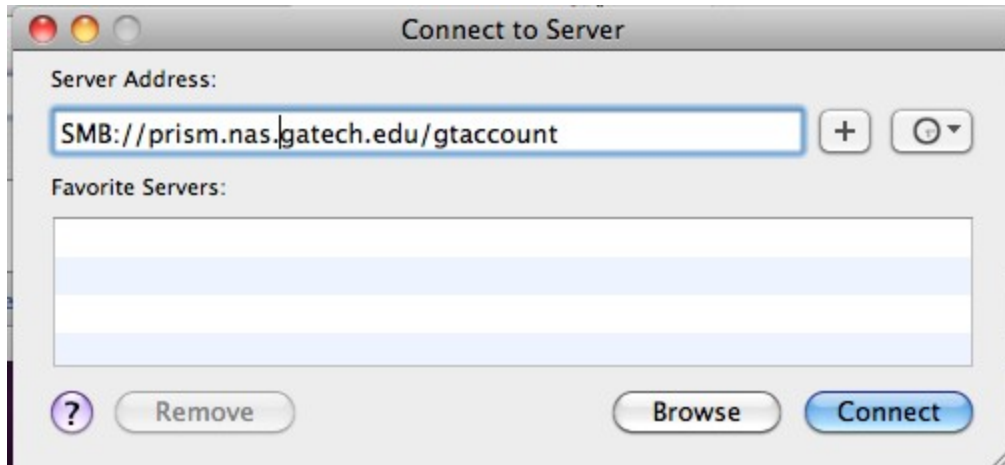
50 points: <http://www.prism.gatech.edu/~yourusername/logo.png>

If you have any problems with this guide and just think it isn't the best thing you've ever seen, then you can see how I learned it here:

<https://faq.oit.gatech.edu/content/how-do-i-mount-my-prism-home-directory-using-windows>

Mac Users:

1. Switch to the Mac OS X finder
2. Choose "**Connect to Server...**" from the "**Go**" menu, or press **command+k**
3. Enter **smb://prism.nas.gatech.edu/gtaccount** (enter **you gtaccount** in place of "gtaccount")



4. Click the + button if you want to add this address to the "**favorite servers**" list. Then click "Connect"

5. Enter you GT account username and password that you would normally use to login in to buzzport or t-square under the username and password sections. Leave the Workgroup/Domain blank. Click "ok"



6. A new finder window should open showing the contents of your prism home directory! Now your done connecting and you should be able to add or remove files and folders just like you would normally do on your computer! :) SUWAG

7. You should also see a new volume with your gtaccount username. To disconnect you can "**eject**" this volume like you would a CD or DVD.

8. Now all you need to do is make a `public_html` folder and put the logo image and the text file into it!

After you have done this, you will probably need to give "others" or "Everyone" read permission on the files and execute permission on the `public_html` folder and your main home directory before you can view the files on the web. You must visit the following URL's to confirm that the files are visible!

50 points: <http://www.prism.gatech.edu/~yourusername/lu.txt>

50 points: <http://www.prism.gatech.edu/~yourusername/logo.png>

Also if you have any problems with this guide and just think it isn't the best thing you've ever seen, then you can see how I learned it here: <https://faq.oit.gatech.edu/node/83>

lu.txt

Open a text editor (such as notepad) and use it to save a file named "lu.txt" inside of your `public_html` directory. Inside this `lu.txt` file, you must have the following information in this order:

1. Your full name
2. Your GT account name (t-square login name, NOT PASSWORD!)
3. Your GT Email address

Fixing The Permissions

By default, the Georgia Tech prism drive is set up so that nobody else can access your files. This is a GOOD THING! However, you want to publish some files on the web (from inside your `public_html` directory) so that people can put a special URL in their web browser and see your webpage. For example: <http://www.prism.gatech.edu/~yourusername/logo.png>

If you use the above URL (replacing "yourusername" with your actual username) it will probably give you a 403 Forbidden error message. This is because by default the GaTech webserver can't see your `lu.txt` and `logo.png` files and won't be able to serve them out to the web. To allow people on the web to see the files in the `public_html` directory, you need to change some permissions. Specifically, you need to allow "others" or "Everyone" to:

1. "enter" (or "execute" or "X") your personal directory (**yourusername**).
2. "enter" (or "execute" or "X") your **public_html** directory.
3. "Read" the files (**lu.txt** and **logo.png**)

CAUTION: Don't let others/groups/everybody WRITE to your personal directory or your public_html directory! If you do, anybody can change your files or website!

Although it is possible to change file and directory permissions using the windows file explorer or the mac finder, it is easier to use a third party SCP program, **SCP** is the **Secure Copy Protocol**. These programs allow you to connect to the server and upload/download files from it, as well as change permissions on files and directories. We recommend WinSCP for windows and either Fugu or cyberduck for the Mac.

Windows users can get it here: <http://www.winscp.net/> (download the latest “Installation Package” on the download page). WinSCP is also available from <http://software.oit.gatech.edu> (though it is an older version). WinSCP will be especially useful in a future lab.

Mac users can get Fugu here: <http://rsug.itd.umich.edu/software/fugu/> (You will need version pre1.2.1 if you have Mac OSX 10.7 or higher)

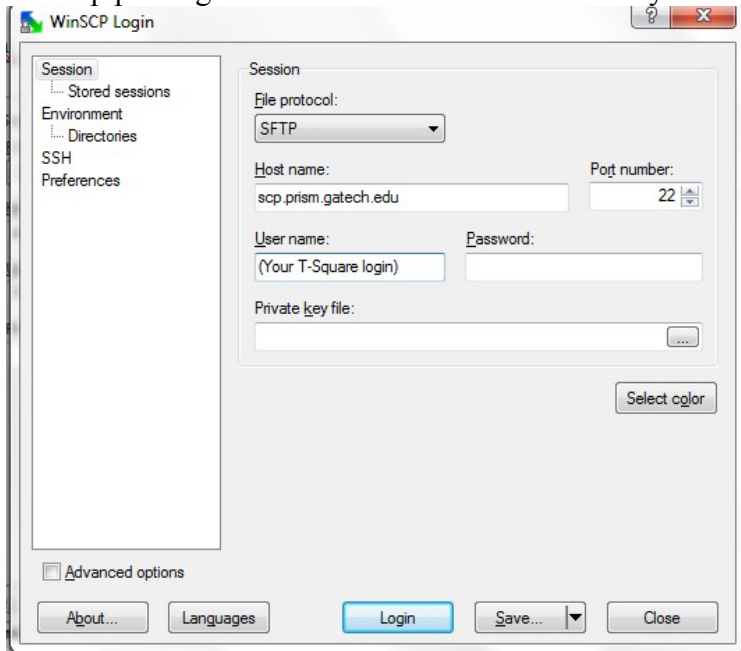
You can download Cyberduck from here: <http://cyberduck.ch/>

Short instructions on how to use a SCP program to change file permissions:

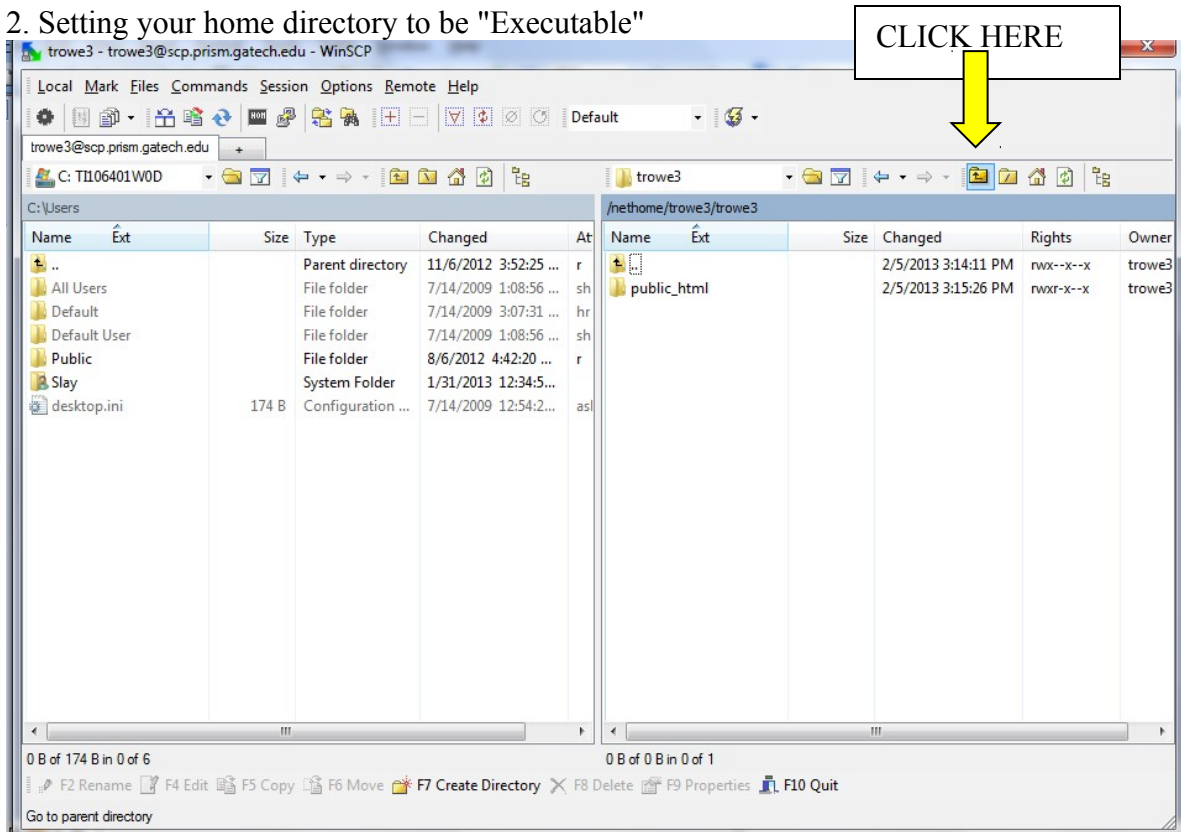
1. Log into the host: scp.prism.gatech.edu by supplying your OIT username and password. If asked to select a protocol you want to use either "SCP" or "SFTP" (SecureCopyProtocol or Secure File Transfer Protocol)
2. Navigate to the file or directory you want to modify. Right click on it to get a context menu, and select "Get Info" or "Permissions".
3. Check the "X" box (for eXecute) for "Others" on your home directory and the public_html directory inside it.
- 3a. Check the "R" box (for read) for "others" on the files you want the web server to be able to serve.

WinSCP (Windows) Screenshots: 1. Login

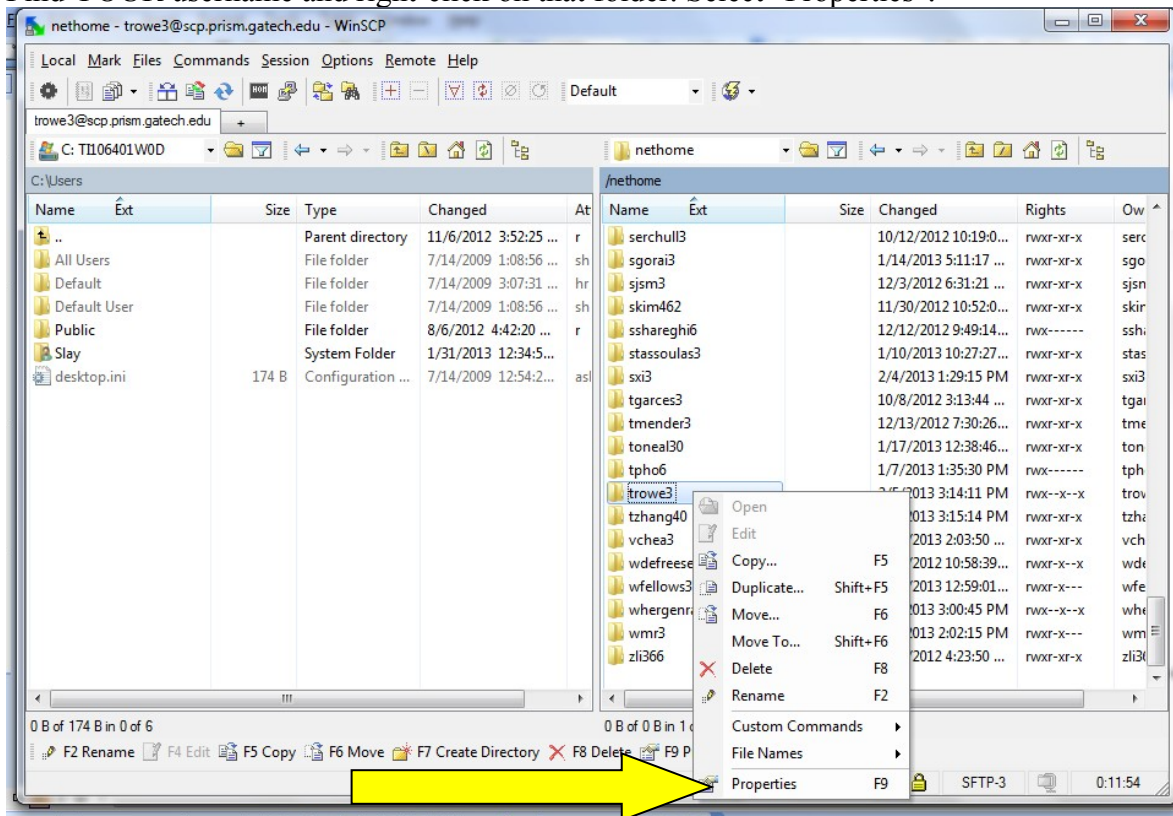
Use scp.prism.gatech.edu as the "Host name" and your T-Square/Buzzport credentials to "Login"



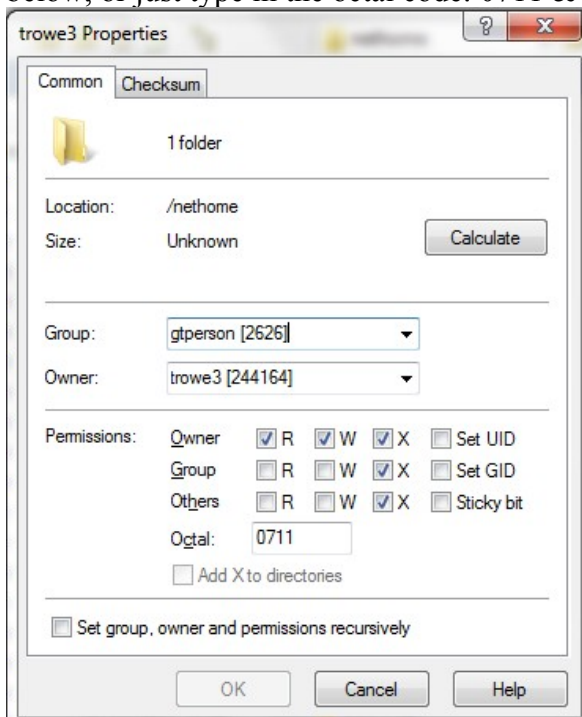
2. Setting your home directory to be "Executable"



Find YOUR username and right-click on that folder. Select "Properties".

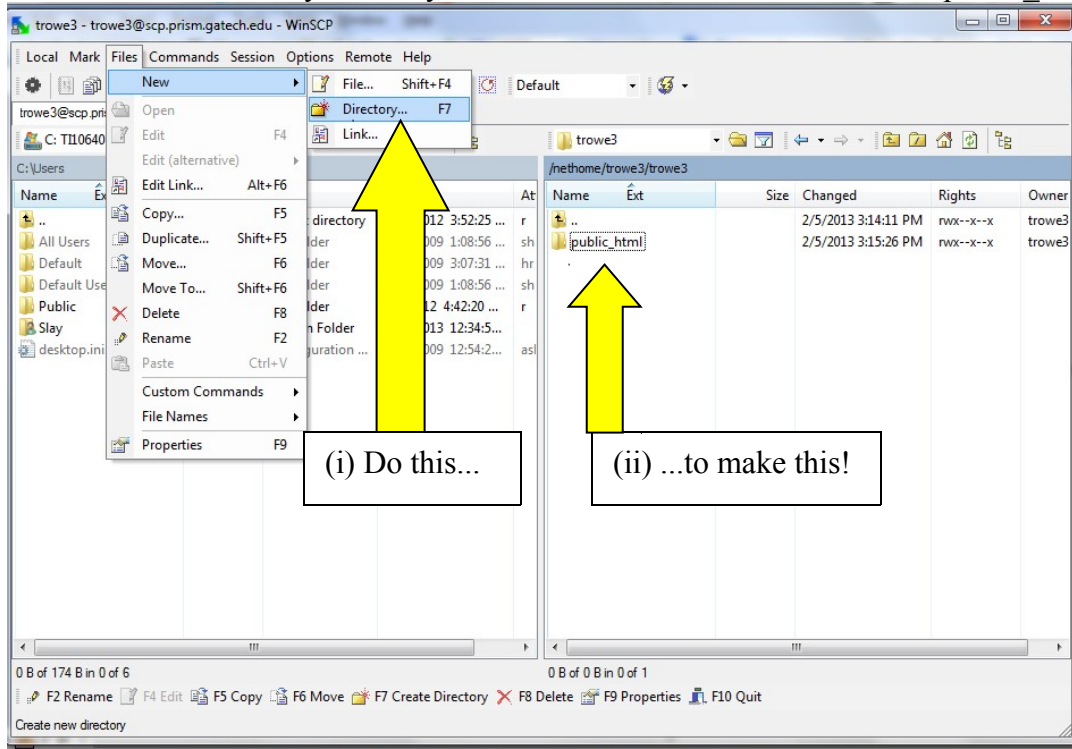


Your Properties window will pop-up and look something like below. Check the boxes as seen below, or just type in the octal code: 0711 & click "OK"!



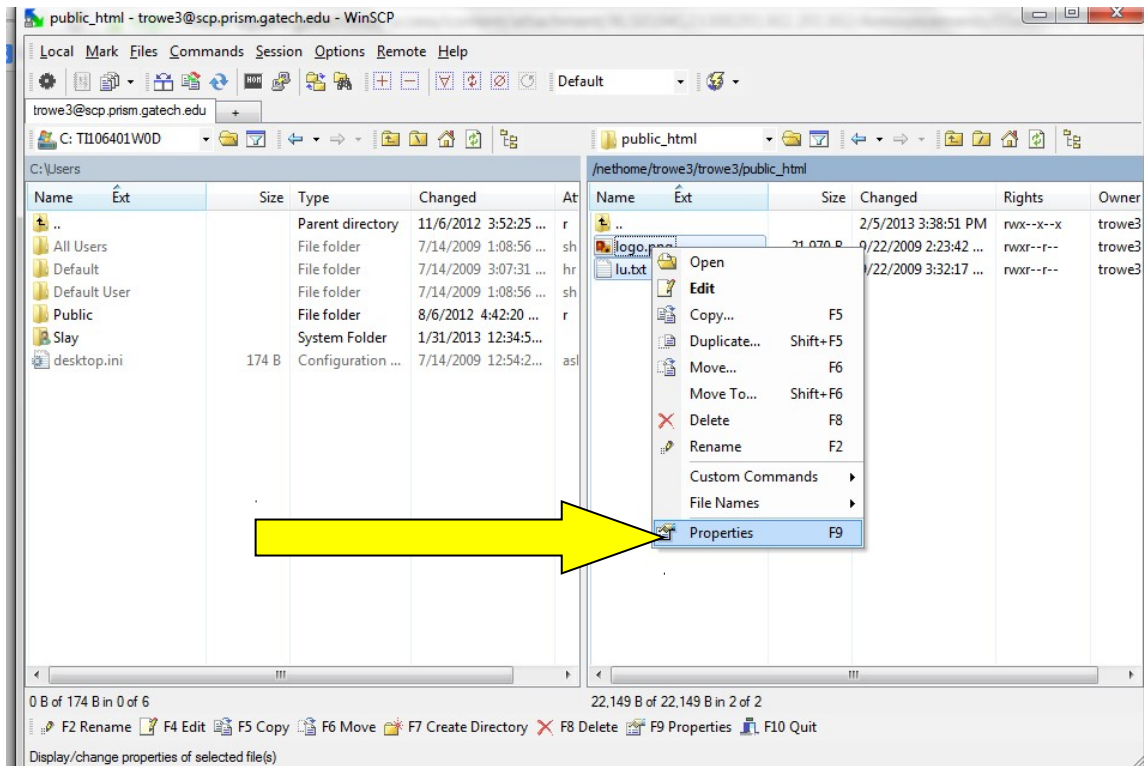
3. Create a public_html folder within your home directory. Set up your permissions just like in step 2, but for your public_html folder (Right click > Properties > Octal: 0711)

Files > New > Directory will let you create a new folder. Rename this as public_html like below.

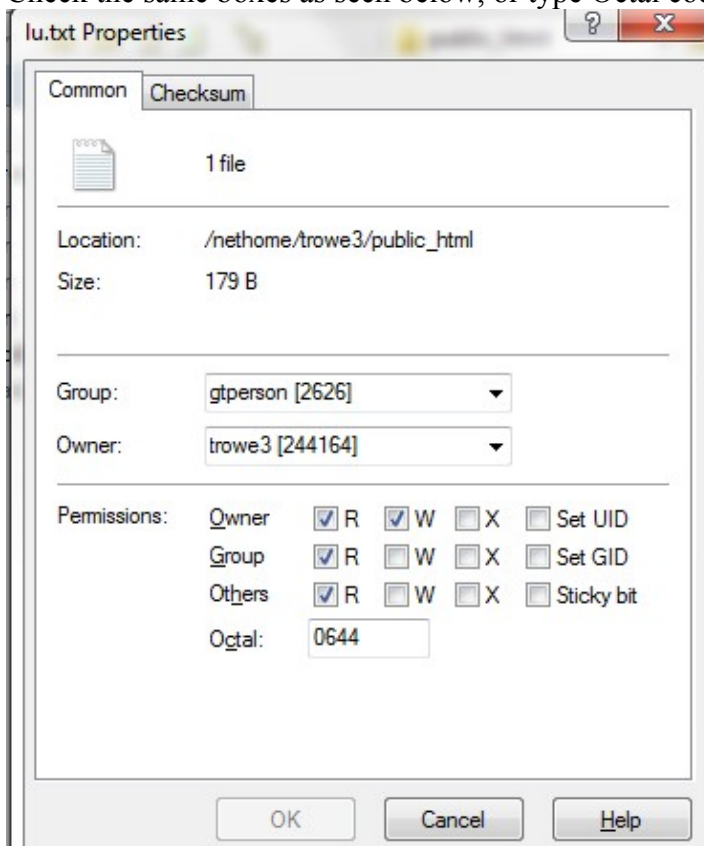


4. Setting the files in your public_html file to be "Readable"

Right click on file(s) > "Properties"



Check the same boxes as seen below, or type Octal code: 0644 & click "OK"!



Fugu (Mac) Screenshots:

1. Login

Connect to:

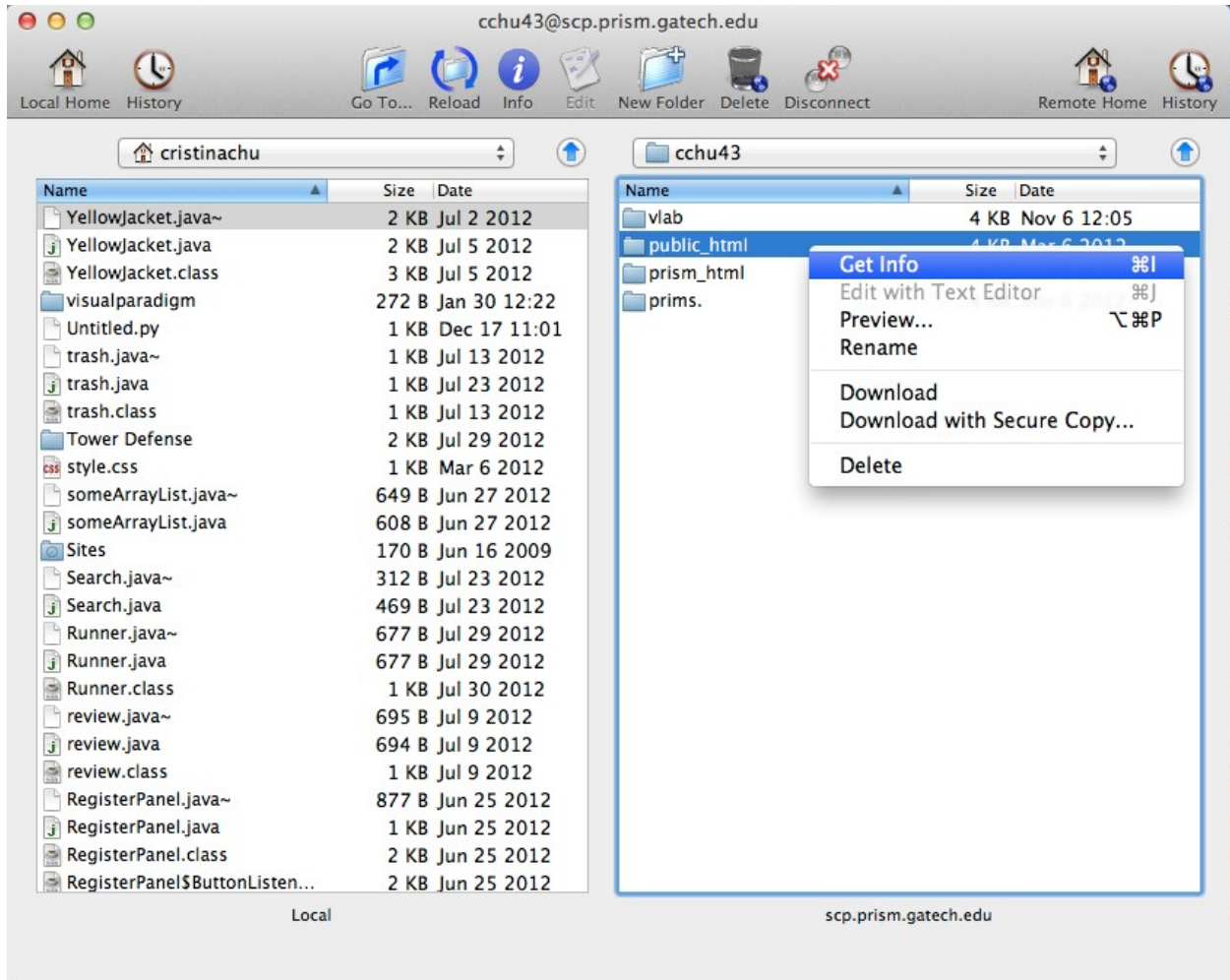
Username:

Port:

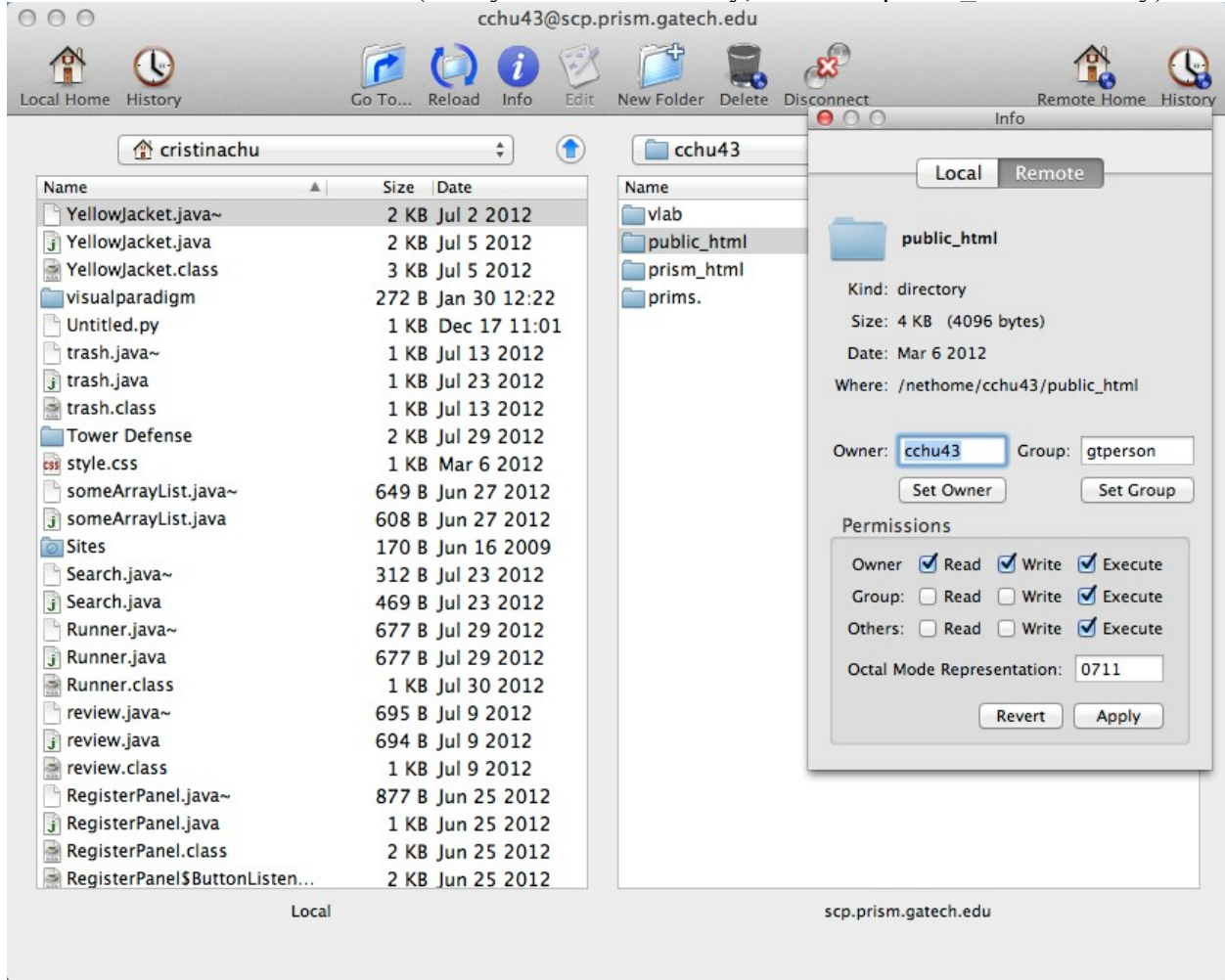
Directory:

► Advanced SFTP Options

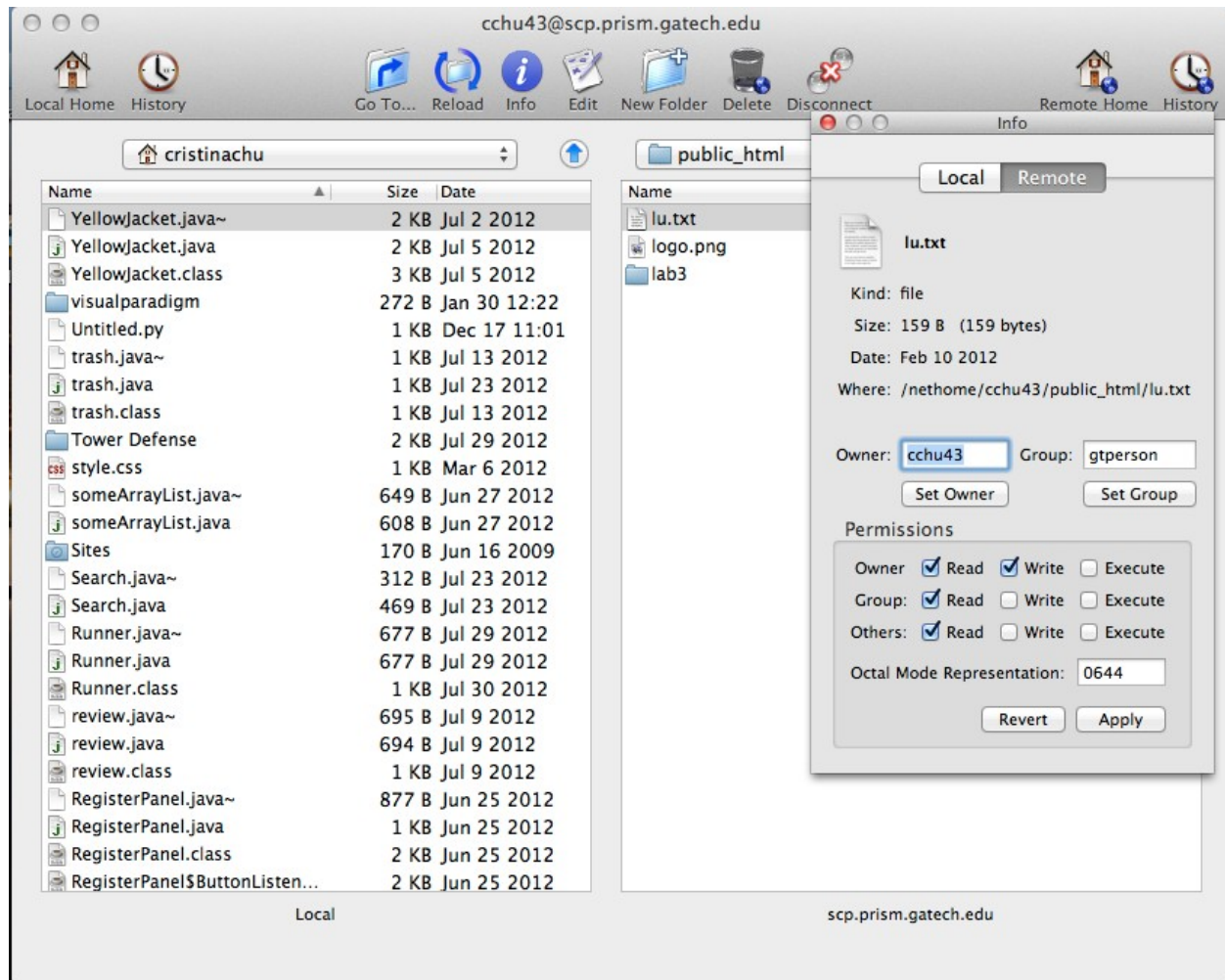
2. Select the "Get Info" menu



3. Check eXecute on directories (both your home directory, AND the public_html directory)



4. Check Read on files.



Good luck!

If you need help, all of the normal sources of assistance (your TAs, office hours, etc) are available. Again, there is **nothing to turn in on T-Square**; you have done it correctly if you can access both lu.txt and logo.png in your public_html directory from the web. Make sure that you get this done before the deadline!

Note: Once this assignment is due, do not alter anything relating to your public_html folder or those files. Doing so will change the date on those files. If the date is past the due date, you will receive a zero. Seriously, no exceptions. So yes, this means, do not go back and edit something or move things around in that folder!

Super Simple Grading Criteria:

You get 50 points for each of the following files being visible to your grading TA on their web browser! Note, because these files are on your webserver account, you do NOT need to turn anything into t-square! However, be very careful to not erase these files when you are working on your next lab! You must visit the following URL's to confirm that the files are visible!

50 points: <http://www.prism.gatech.edu/~yourusername/lu.txt>
50 points: <http://www.prism.gatech.edu/~yourusername/logo.png>