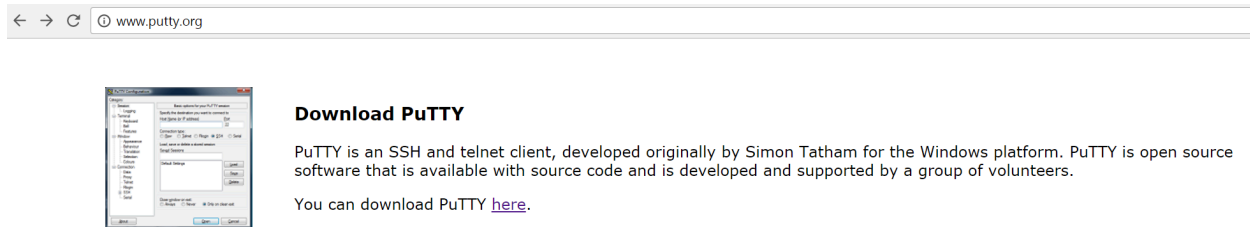


OSU Center for Genome Research and Biocomputing (CGRB), MCB 599:
“Introduction to Unix/Linux” (INX_U18), “**PuTTY SSH Directions**”: Day 01, **Pages:** 20
Revision: 2018-07-17, **Instructor:** Matthew Peterson (matthew@cgrb.oregonstate.edu)

1) Website

A Secure Shell (SSH) client (program) for Windows can be obtained by navigating to <http://putty.org> and clicking on the “here” link



2) Installer

There are numerous PuTTY installers; the easiest to “install” would be saving the “putty.exe” (64-bit client) to your Desktop.

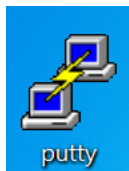
Alternative binary files

The installer packages above will provide all of these (except PuTTYtel), but you can download them one by one if you prefer.
(Not sure whether you want the 32-bit or the 64-bit version? Read the [FAQ entry](#).)

putty.exe (the SSH and Telnet client itself)

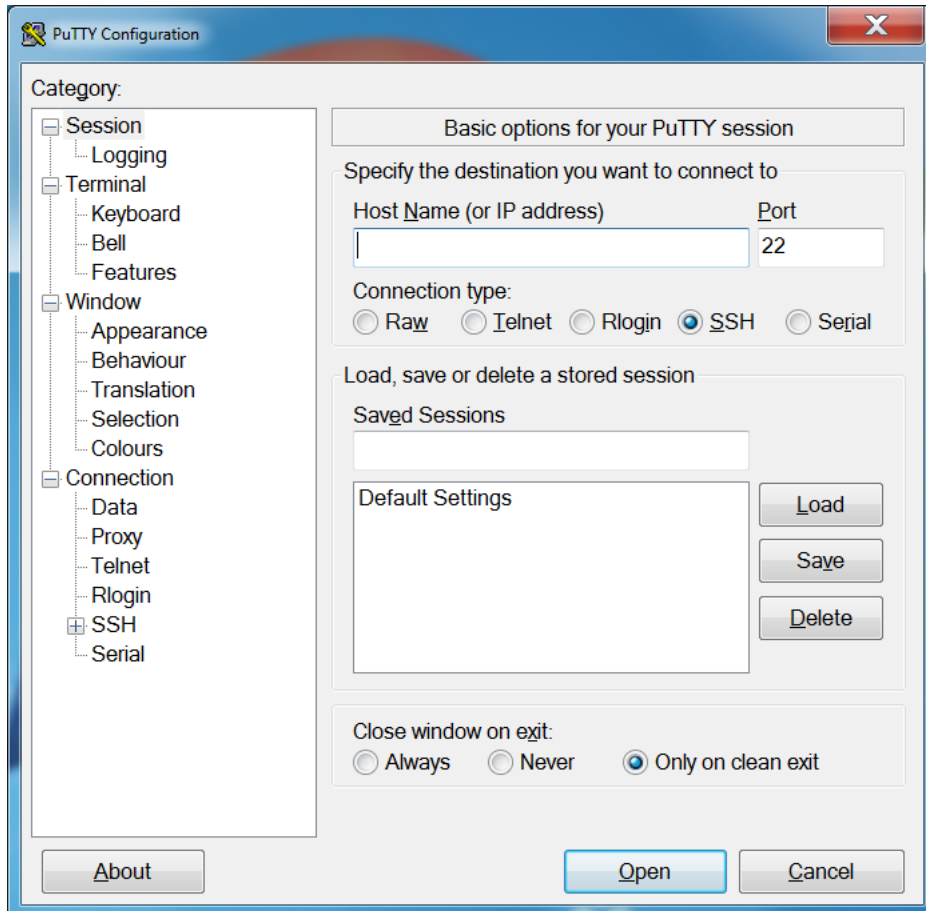
32-bit:	putty.exe	(or by FTP)	(signature)
64-bit:	putty.exe	(or by FTP)	(signature)

Once saved you should see the putty icon on your Desktop, e.g.,



3) Starting PuTTY

Double click on “putty” icon (on the Desktop) to launch it and you will see the Configuration screen

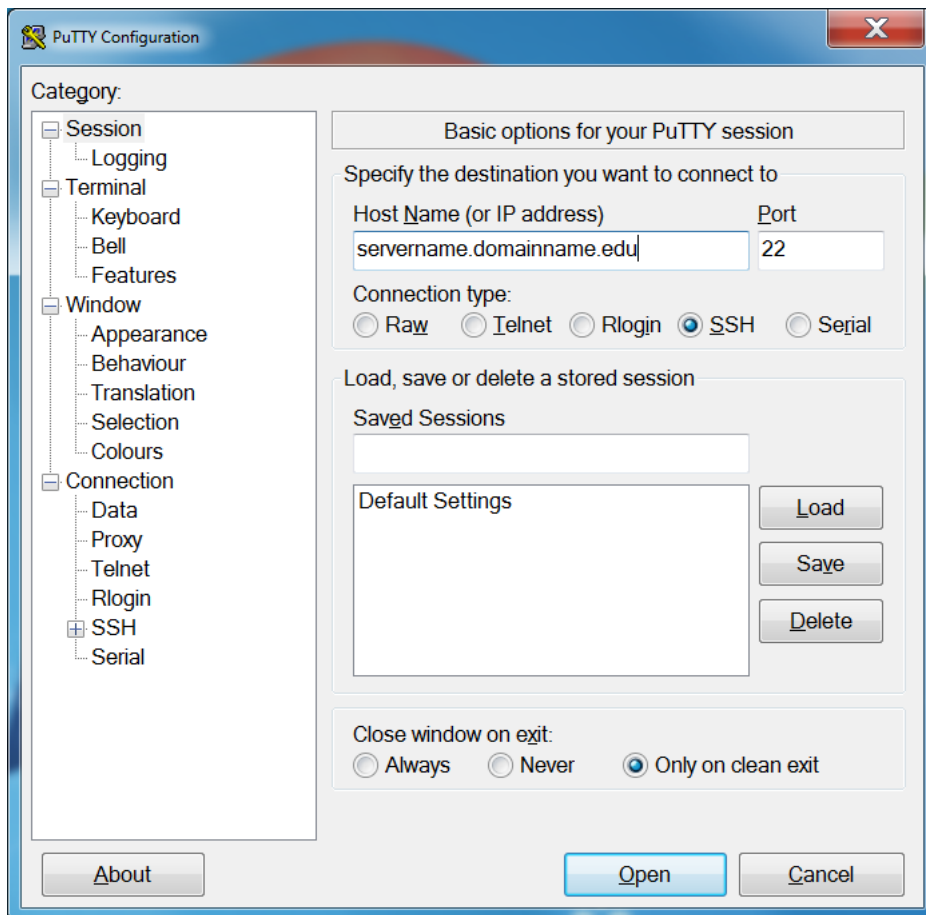


4) Connection Information

To connect to any server there are four pieces of information you need:

- The “Host Name,” e.g., `servername.domainname.edu`
- The “Port,” which is 22 by default for SSH
 - **Note:** Some servers *may* use a custom port number, your System Administrator should let you know if this is the case
- Your “Username” (for the user account that was created for you on the server)
- Your “Password”

To get started let’s connect to an *example* server using the Host Name of “`someserver.domainname.edu`” and leave the default Port set as “22” and click the “Open” button.



5) Security Alert

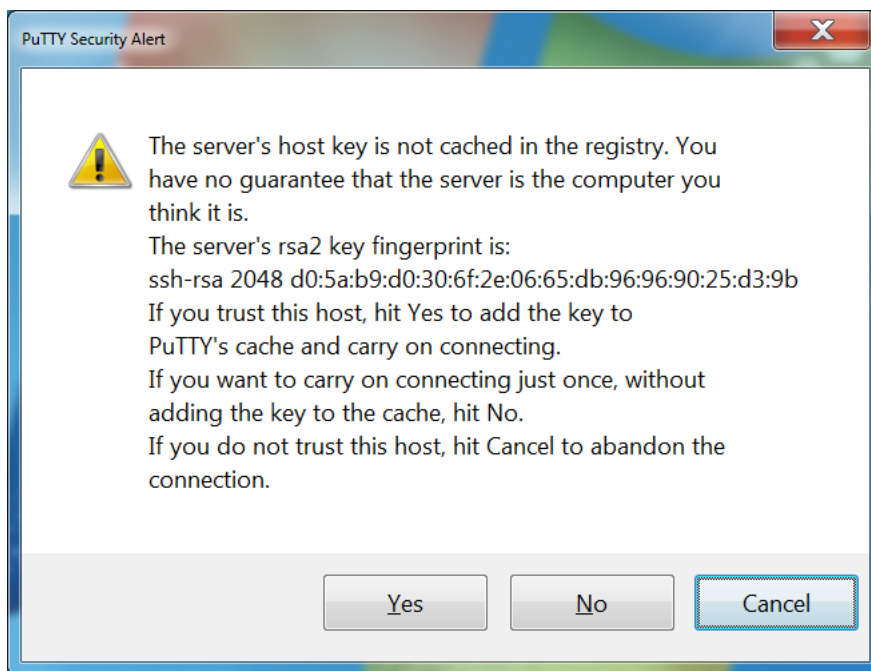
If this is the first time you are connecting to the server you will see a “Security Alert” asking if you want to trust the server’s unique “fingerprint.” You can click “**Yes**” to accept and cache that key on your local computer. When you connect to the server in the future it will check your saved fingerprint against the server’s fingerprint.

Note: If the two fingerprints do **not** match (at a later date) you will receive another “Security Alert,” which could indicate one of two things:

A) The server’s fingerprint changed (this could be due to an operating system reinstall (that generated a new fingerprint) or other legitimate change), or

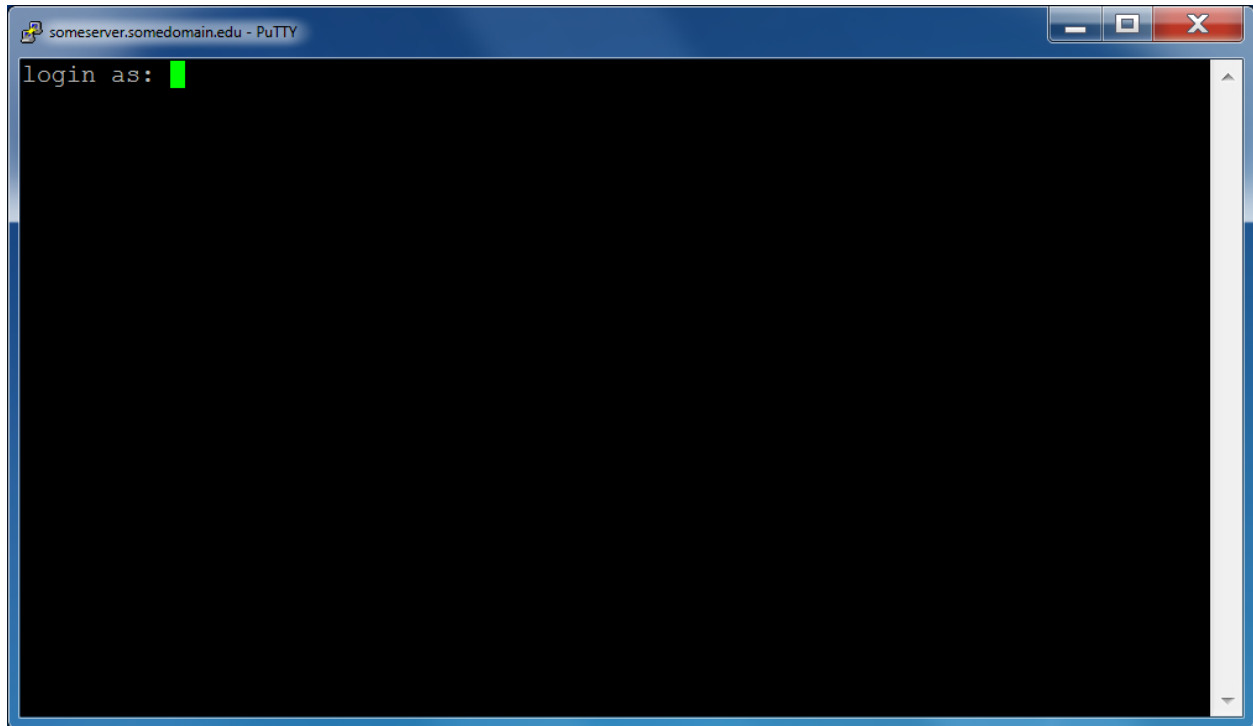
B) indication of some sort of malicious activity (*unlikely*).

If you are concerned feel free to ask your instructor or support group that manages the server about any key changes.



6) Login As (Username)

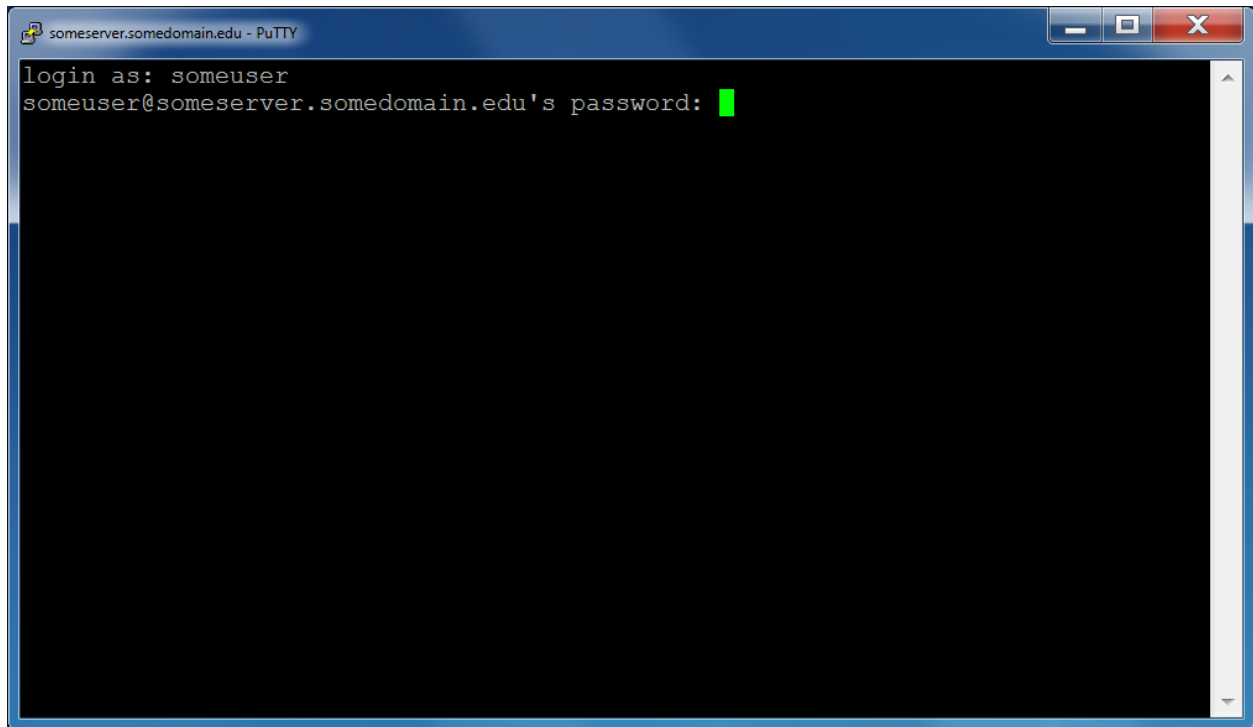
Upon connecting you will see a prompt “login as”



7) Username and Password

Enter your username, e.g., `someuser` and hit enter, you will then be prompted for your password, followed by the enter key.

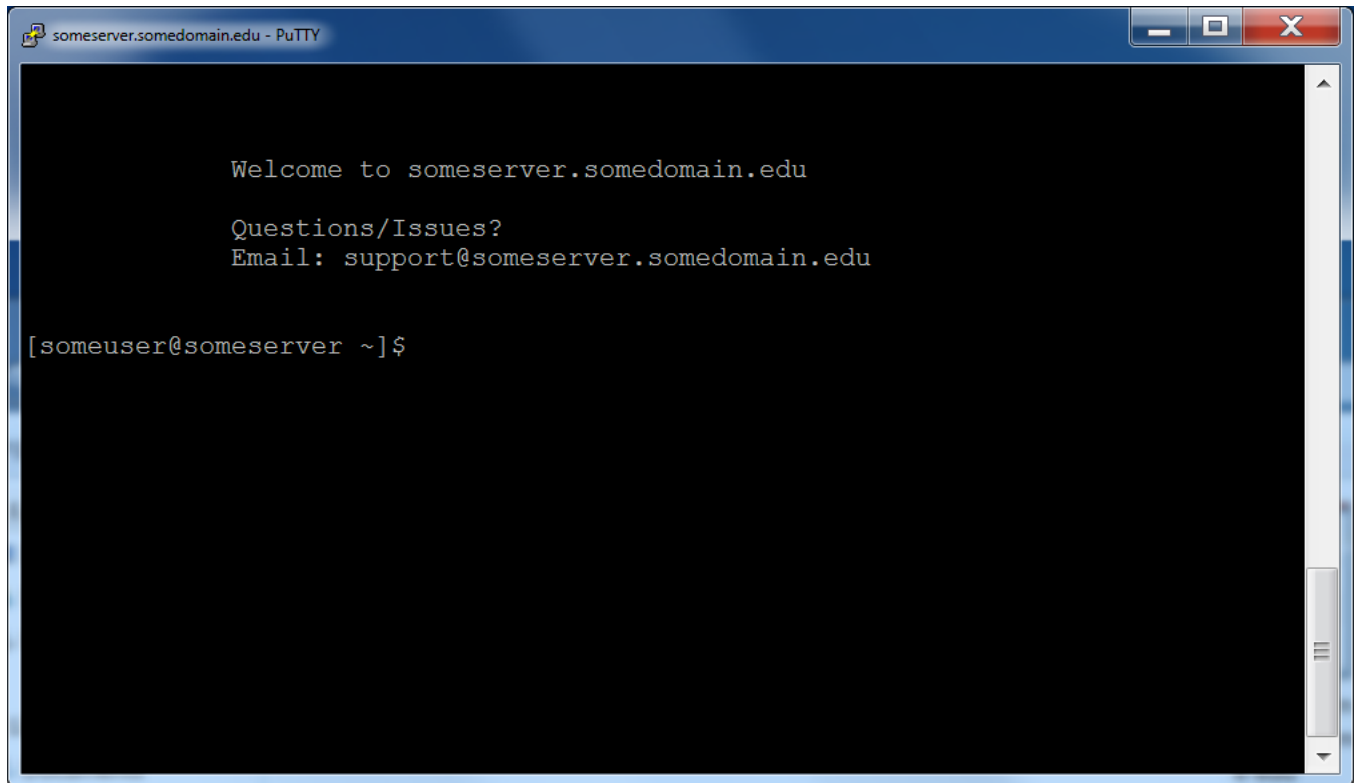
NOTE: No characters will appear when you type your password as this is a security feature.



8) Logged in

If your username and password is accepted then you will have logged into the server.

You *may* see a Message of the Day (MOTD) at the top of your screen showing a welcome message or any system notices. This will be followed by your command prompt, e.g.,
`[someuser@someserver ~]$`

A screenshot of a PuTTY terminal window titled "someserver.somedomain.edu - PuTTY". The window has a black background with white text. The text displayed is: "Welcome to someserver.somedomain.edu", "Questions/Issues?", "Email: support@someserver.somedomain.edu", and the command prompt "[someuser@someserver ~]\$". The window includes standard Windows-style window controls (minimize, maximize, close) in the top right corner and a vertical scrollbar on the right side.

```
someserver.somedomain.edu - PuTTY

Welcome to someserver.somedomain.edu

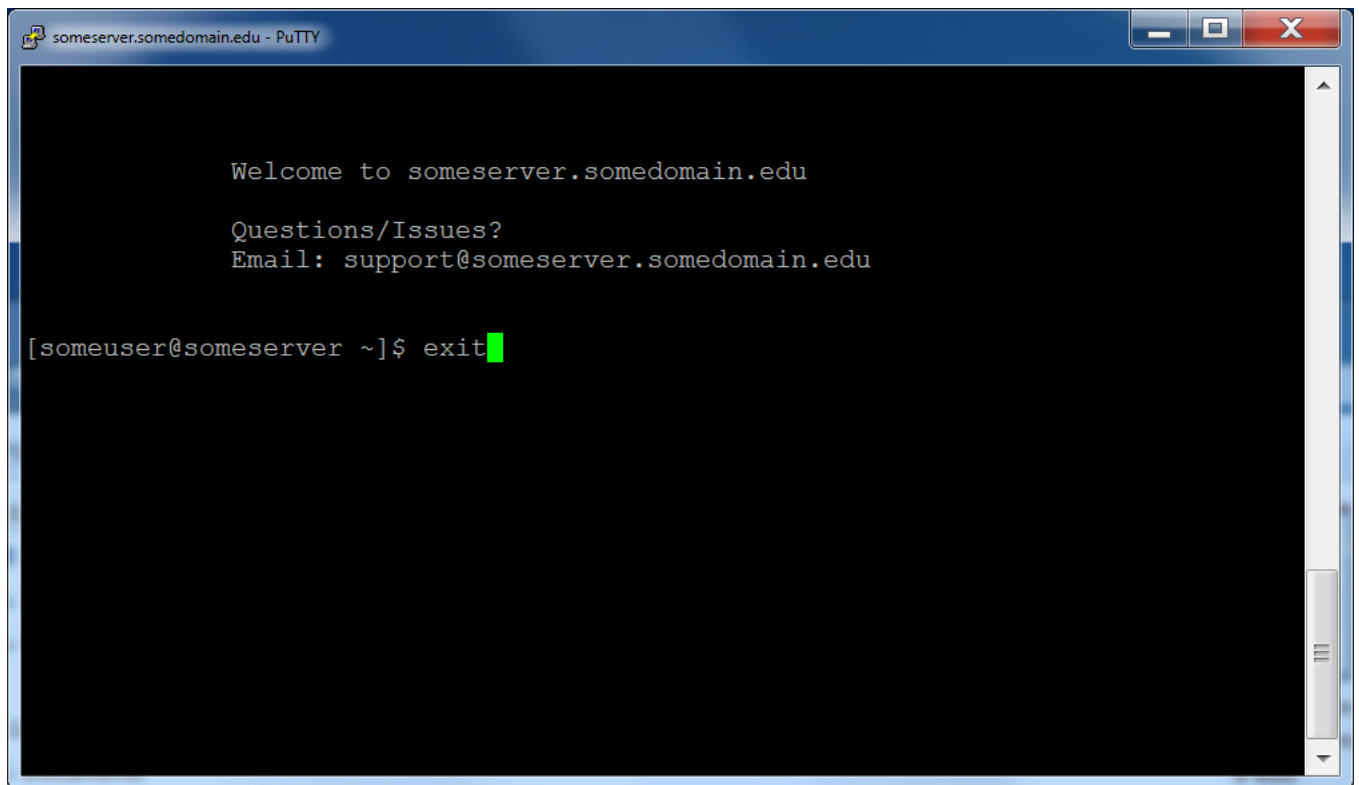
Questions/Issues?
Email: support@someserver.somedomain.edu

[someuser@someserver ~]$
```

9) Logging out

When you are finished you can log out of the server by typing: `exit` followed by the enter key.

Note: Do not click the red X in the upper right hand of the window as this is **not** the correct way to log out of a server.



The image shows a PuTTY terminal window titled "someserver.somedomain.edu - PuTTY". The terminal displays a welcome message and contact information for the server. At the bottom, the user has entered the command `exit` at the prompt `[someuser@someserver ~]$`, with a green cursor at the end of the command.

```
someserver.somedomain.edu - PuTTY

Welcome to someserver.somedomain.edu

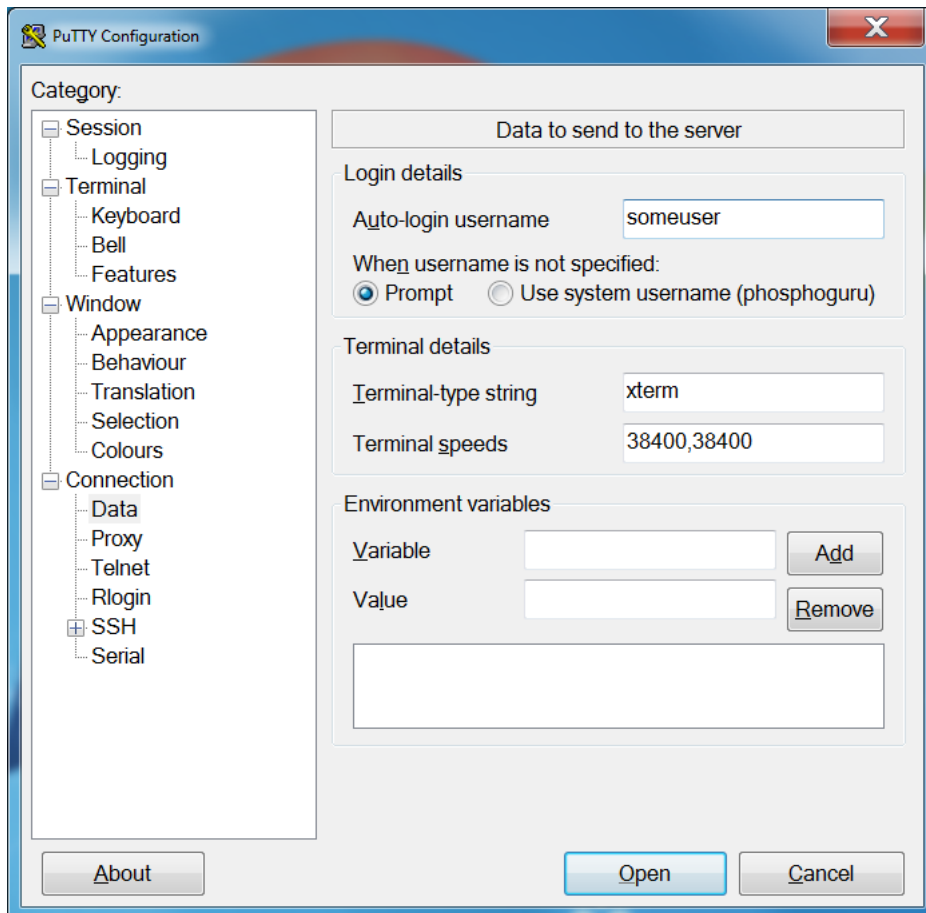
Questions/Issues?
Email: support@someserver.somedomain.edu

[someuser@someserver ~]$ exit
```


10) Remembering the Session

You can set putty to remember your connection information, e.g., hostname, port, and username, such that you do not need to re-type it in every time you restart putty and want to connect to a specific server.

For this example, quit out of putty and restart it. Then select the “Data” section (under “Connection”) on the left-hand hierarchy and then enter your username, e.g., `someuser`, in the field to the right of “Auto-login username”

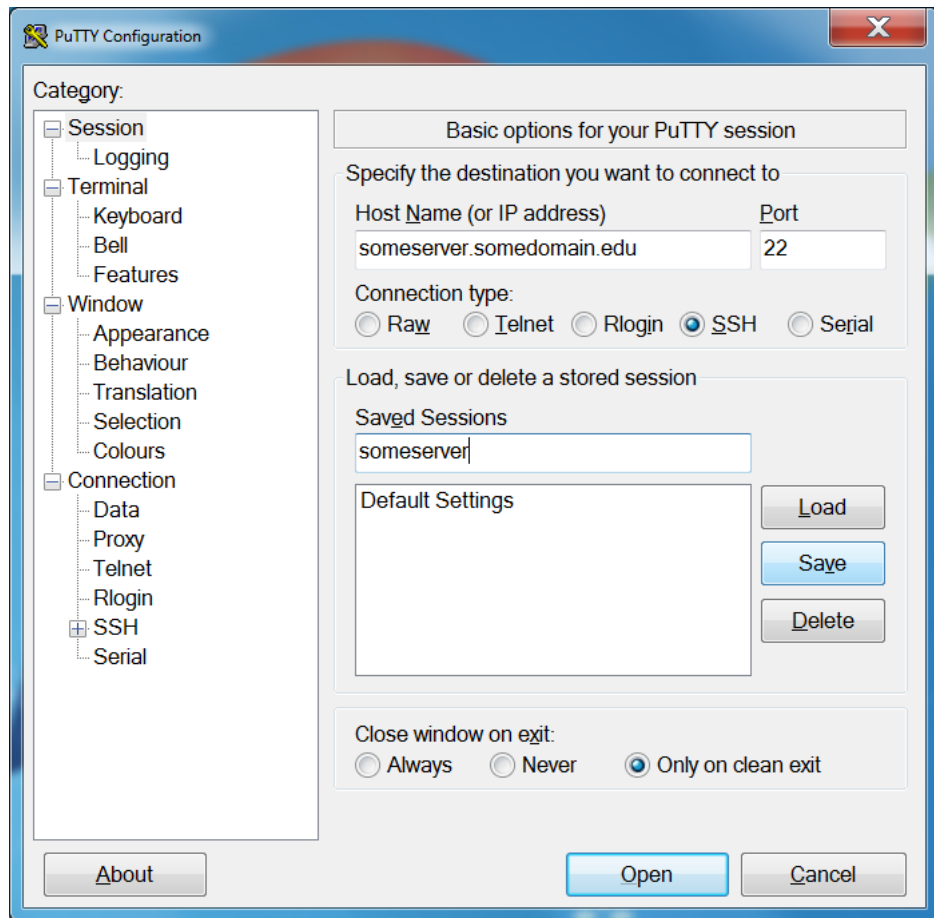


11) Saved Session

Click on the “Session” in the upper left and then re-fill in the Host Name, e.g., `someserver.somedomain.edu`, and the Port, e.g., 22

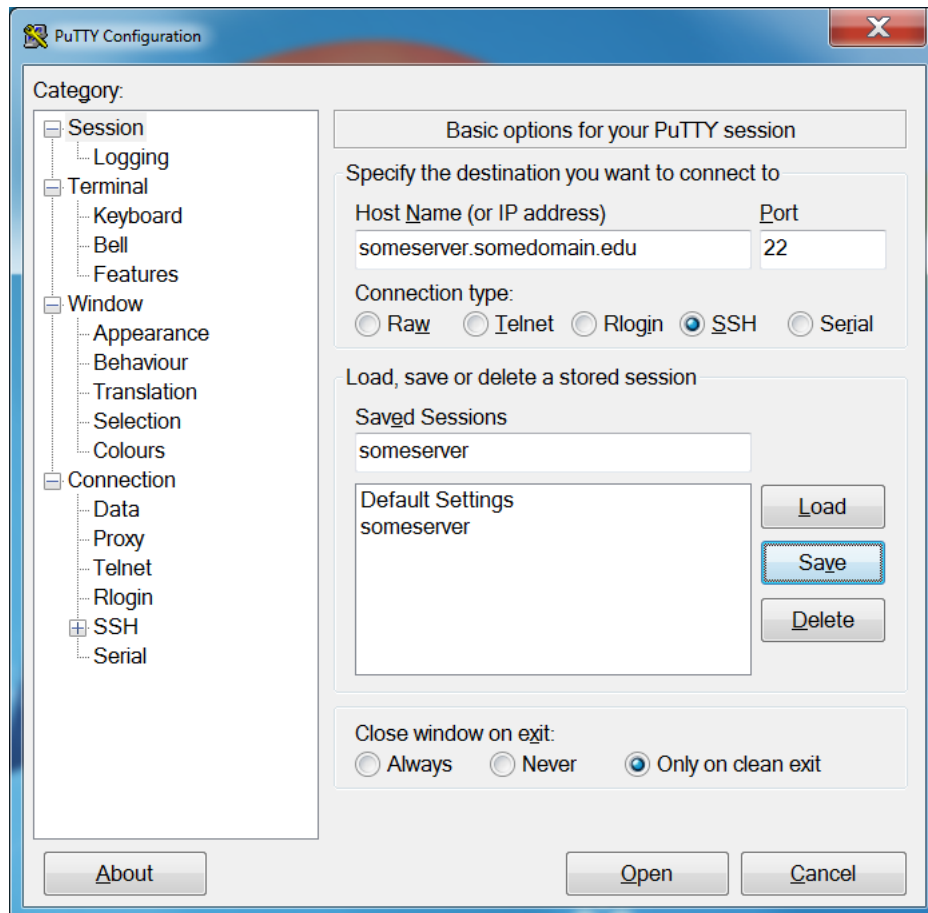
Next under “Saved Sessions” give your session a name (this can be anything), e.g., in this case we will simply call it `someserver`

Finally click the “Save” button on the right.



12) Saved Sessions (continued)

You will now see that “someserver” is listed under the “Saved Sessions” (under “Default Settings”)

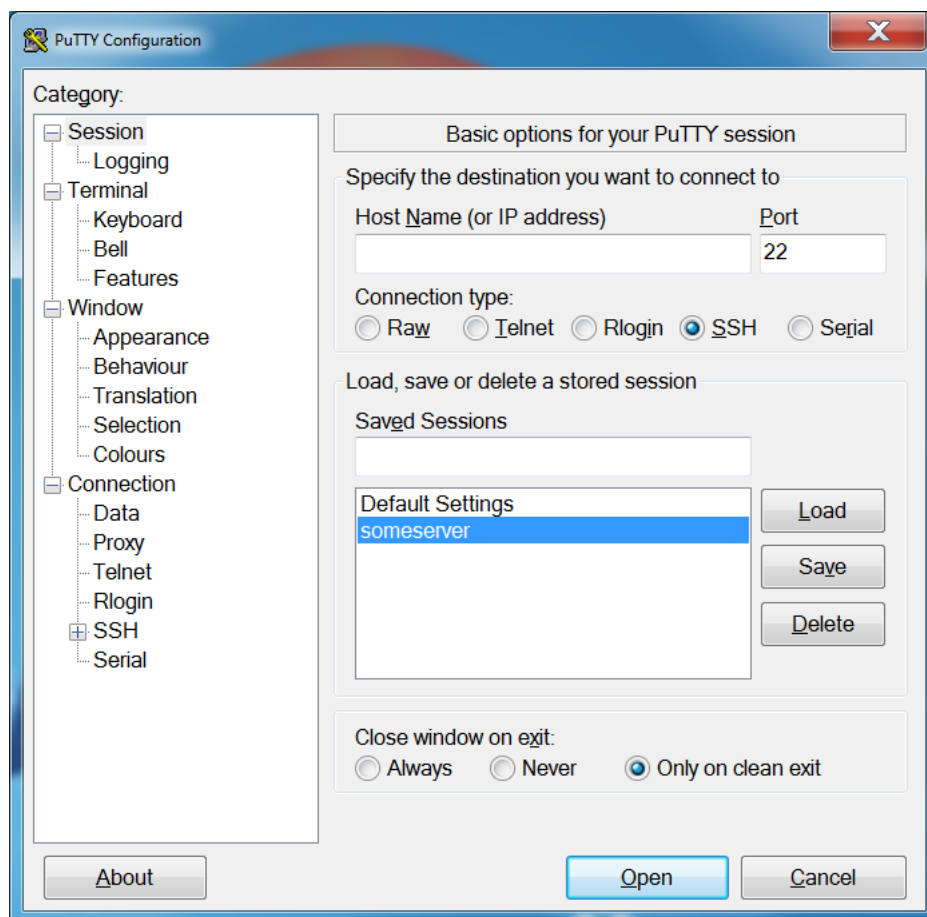


13) Loading a Saved Session

Quit out of putty and then restart it. You will see when you start that the Host Name is now empty. (Port is always pre-populated with the default of 22).

You can re-populate all of the settings you saved by highlighting “someserver” under “Saved Sessions” and clicking the “Load” button on the right. This will re-load all of your previously saved variables, e.g., Host Name, Port (which was already defaulted to 22), and your username (you can verify this if you go look in the “Data” section under “Connections” on the far left).

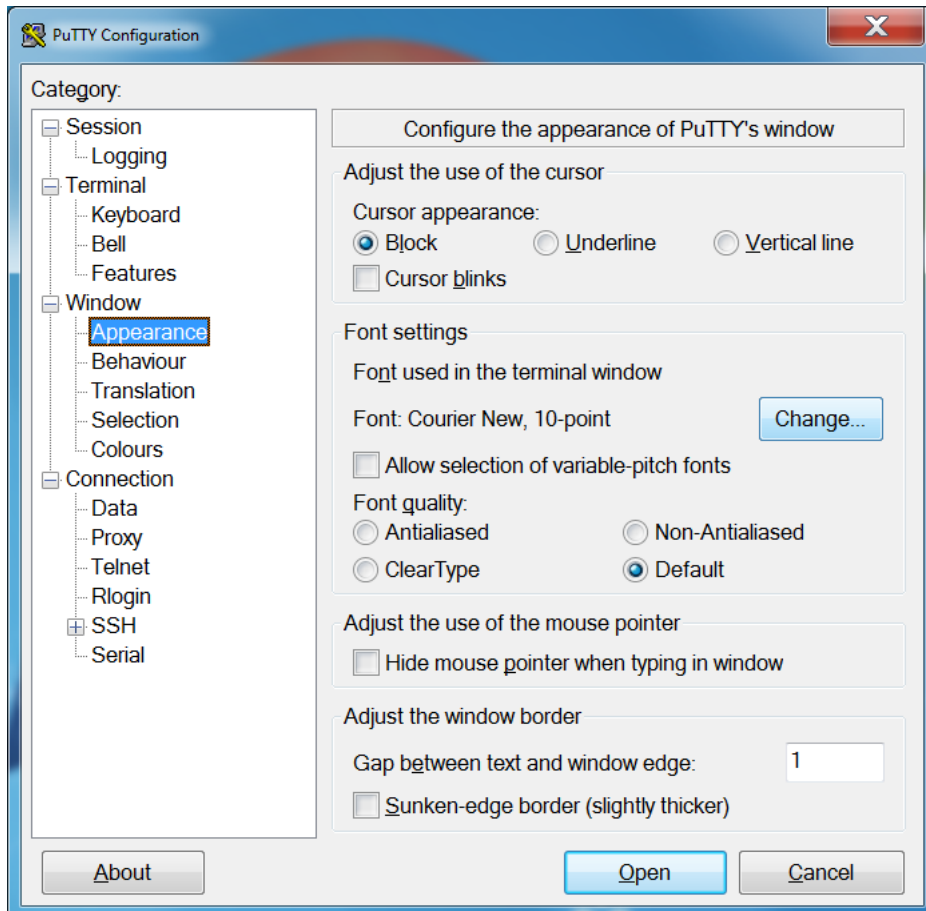
At this point with your “Saved Session” (named “someserver”) loaded you can click the “Open” button at the bottom to connect to the server. Before doing this proceed to step 13 and beyond to see how you can customize the display of your terminal.



14) Changing the font size of the terminal

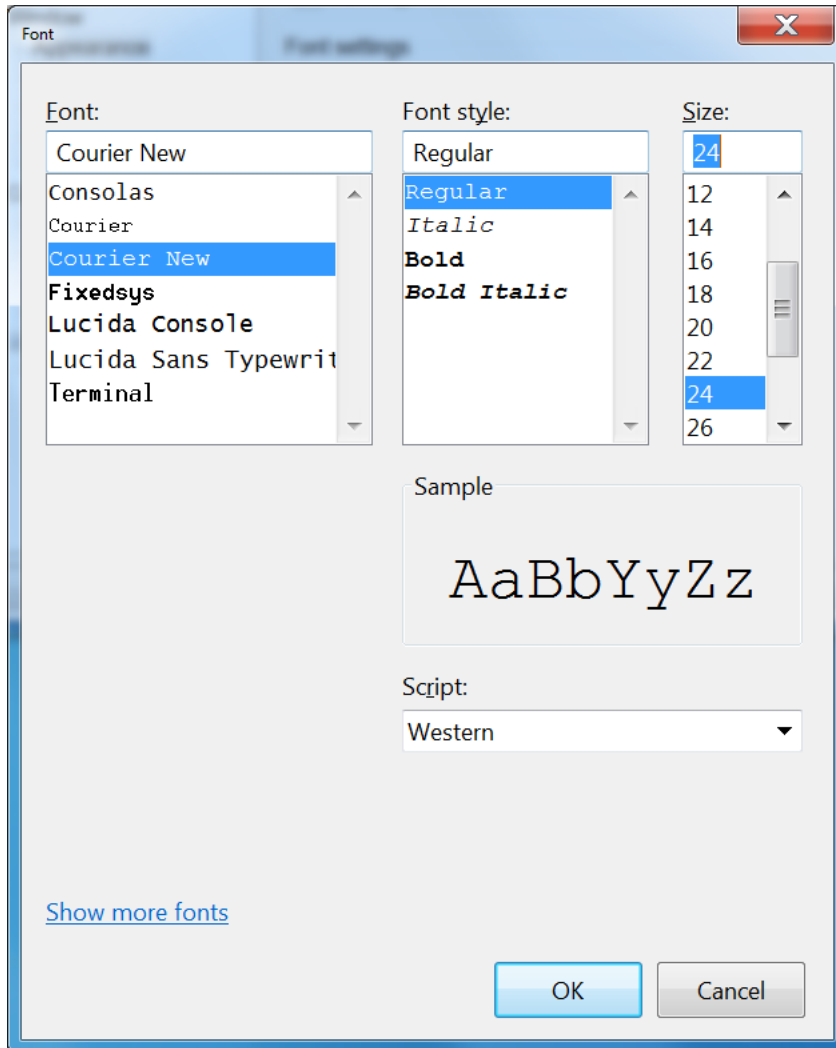
You can change the font size of the terminal to something that is larger by selecting the “Appearance” section under “Window” on the left-hand side.

Click the “Change...” button to the right of “Font: Courier New, 10-point”



15) Font Selection

Change the font “Size” to something larger, e.g., from 10 to 24, and click “OK”

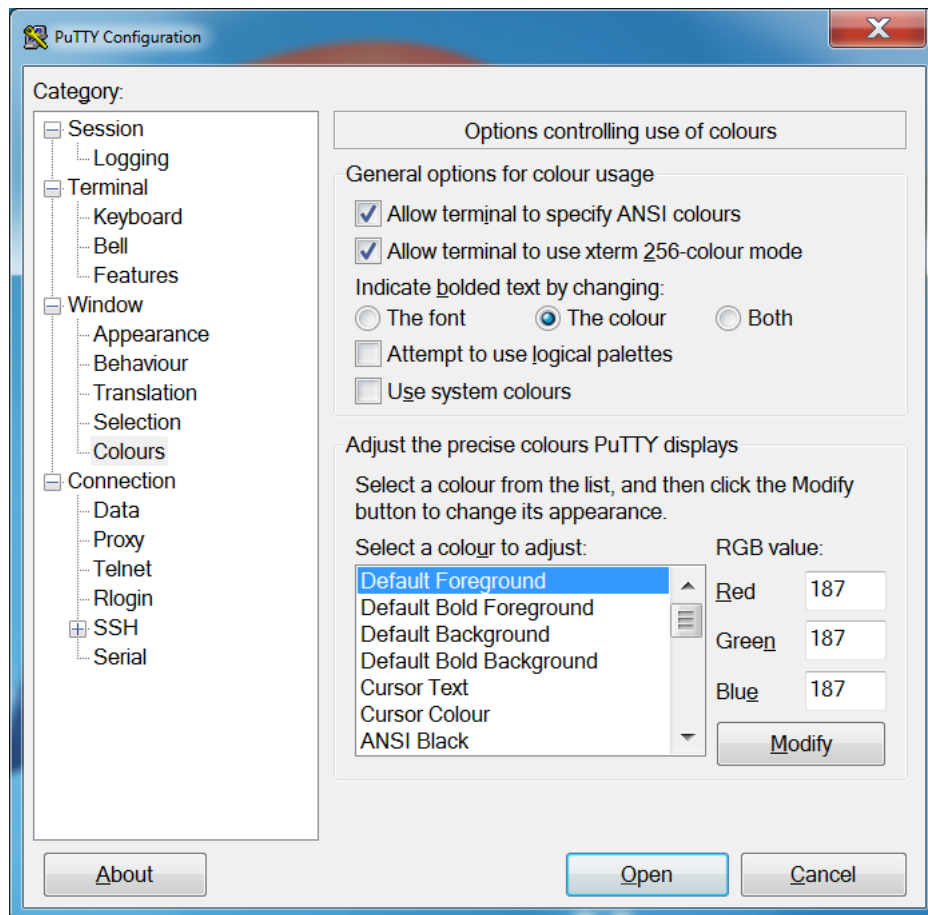


16) Changing the Foreground color

If you would like to change your terminal from greyish text on a black background to black text on a white background:

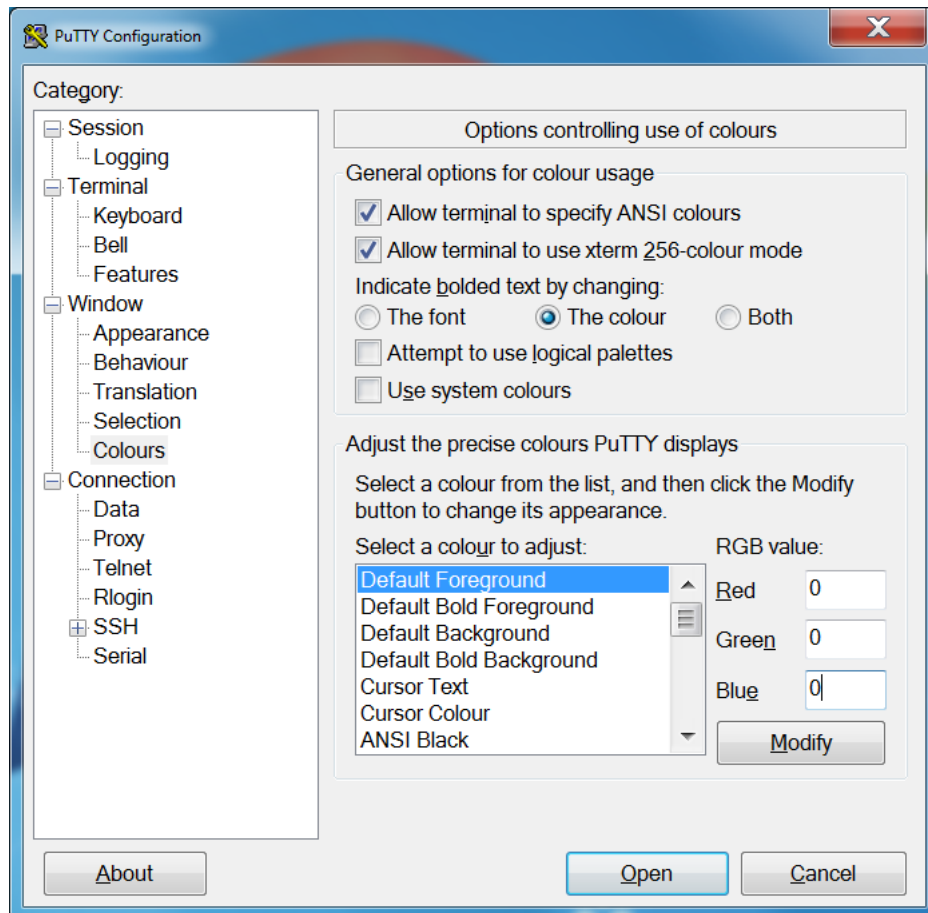
Select “Colours” on the left under “Window” and then highlight “Default Foreground” (under “Select a colour to adjust”).

The Red/Green/Blue (RGB) values will all be 187 (a shade of grey). Change all three of these values from 187 to 0, this will result in your text being black.



17) Changing the Foreground color (continued)

The following shows the values changed from 187 to 0 on the right for the “Default Foreground” (under “Select a colour to adjust”).

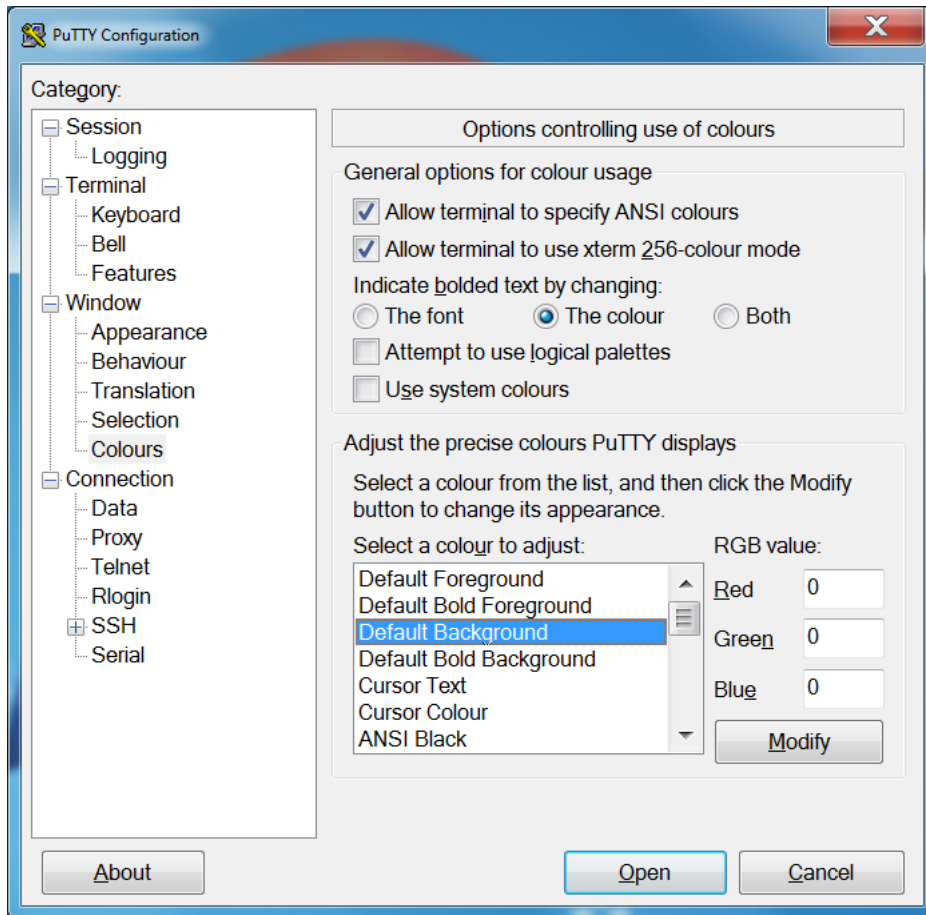


18) Changing the Background color

Next, we want to change the background color from black to white.

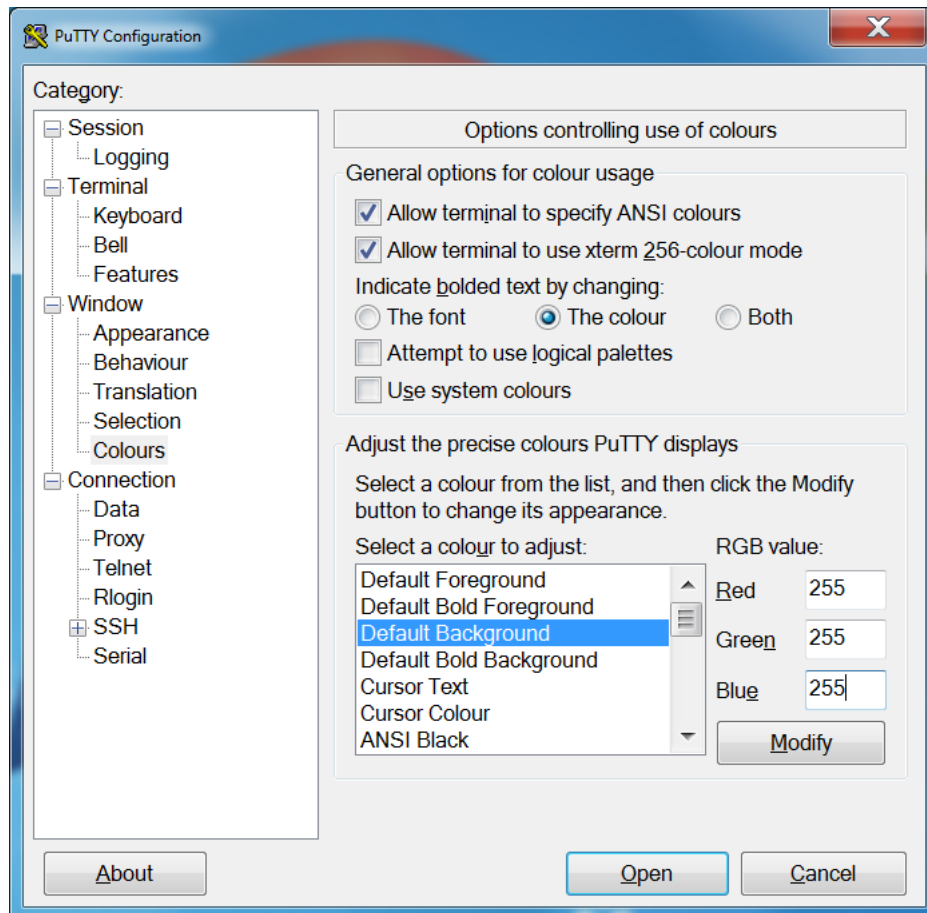
Select “Default Background” (under “Select a colour to adjust”) and you will see the Red/Green/Blue (RGB) values are all 0, i.e., black.

Change all three of these values from 0 to 255



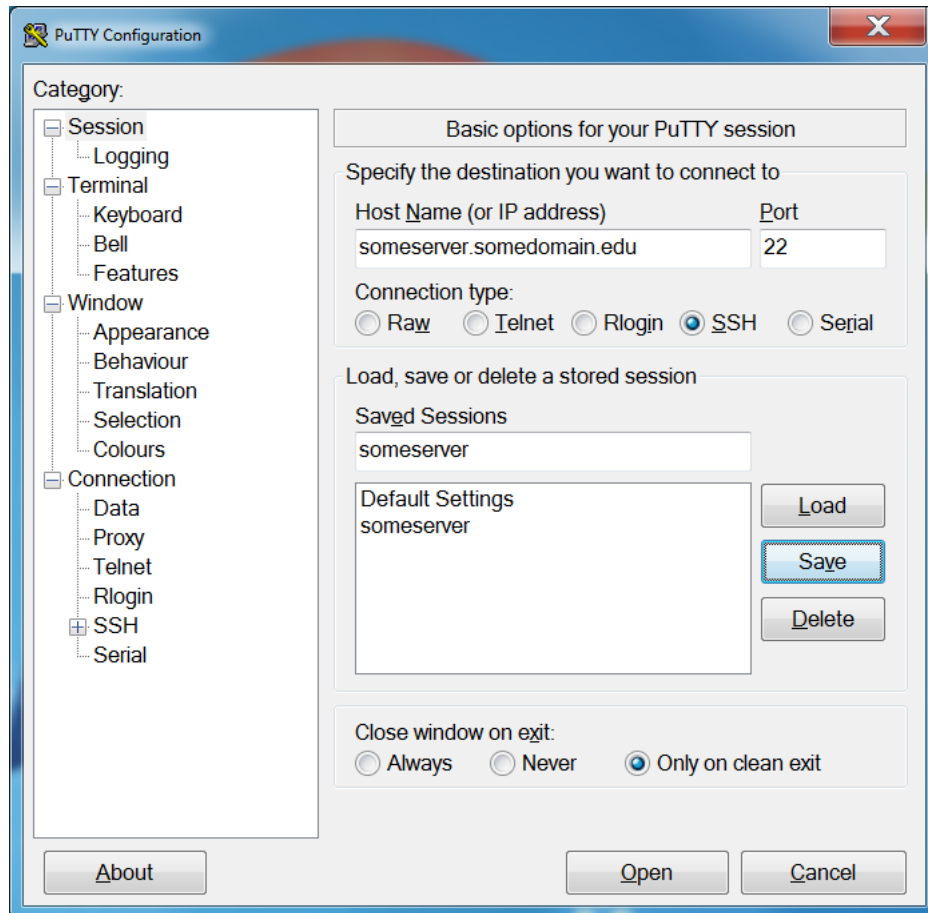
19) Changing the Background color (continued)

The following shows the values changed from 0 to 255 on the right for the “Default Background” (under “Select a colour to adjust”).



20) Save your changes (font size, foreground color, and background color)

Go back to the “Session” on the upper left and highlight your saved session, e.g., “someserver”, and click the “Save” button. This will save all of the changes you just made to the font size, foreground color, and background color to the “someserver” session.



21) Test your new session

Click “Open” at the bottom” and you should see a larger terminal window appear with a larger, black font on a white background. When you have quit putty and want to reload these settings again, refer back to step #13.

