

# Using slack

## Editing And Compiling With Linux

DVC's Computer Science Department owns a Linux-based web server, named "slack". COMSC students are entitled to accounts on this server, so that they can edit and compile C++ programs. All students need in order to use slack are: (1) a slack account with a username and password, as supplied by the instructor, (2) internet access from any location in the world, and (3) local SSH client software for accessing and operating remote servers.

This document explains how to download, install, and use a freely available SSH client called "WinScp". WinScp is installed on the PCs in the Computer Lab, located on the ground floor of the Library Building.

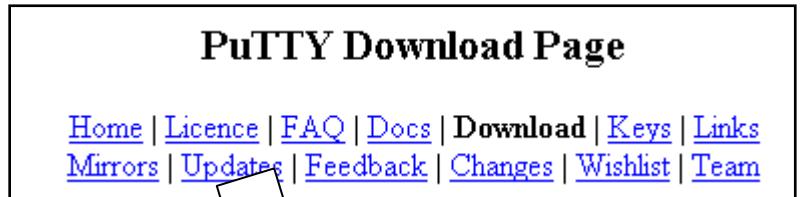
❑ **1. Download and install PuTTY:** You need to be online to do this. Go to <http://comsc.dvc.edu/rburns>, and use the [more free downloads...](#) link.

[C Tutorial -- more tutorials...](#)  
[Java 2 SDK -- more free downloads...](#)  
[AutoCAD Tutorial -- more free AutoCAD resources...](#)  
[How to be a student -- more how to's...](#)

Click the link labeled [Putty \(for using Linux\)](#) – you will see the "PuTTY Download Page".

(Putty is used by WinScp. Its installation is simply a matter of copying a single executable file onto your PC.)

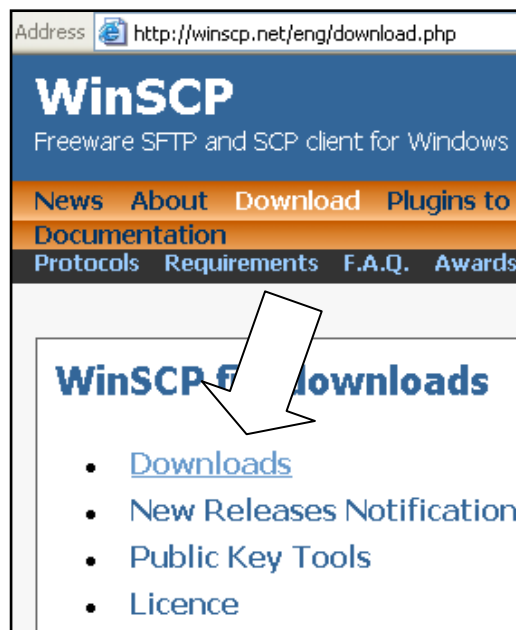
Scroll down the page until you find a link labeled [putty.exe](#) – right click it and select "Save Target As..." from the popup menu. Create a folder in **c:\Programs Files**, and name it **PuTTY**. Save **putty.exe** there. (You can save it somewhere else, but you will need to tell WinScp where to find it.)



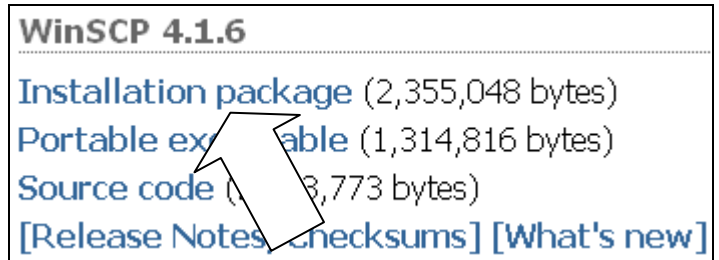
❑ **2. Download and install WinScp:** Once again go to <http://comsc.dvc.edu/rburns>, and use [more free downloads...](#) link.

Click the link labeled [WinScp \(for using Linux\)](#) – you will see the WinScp home page.

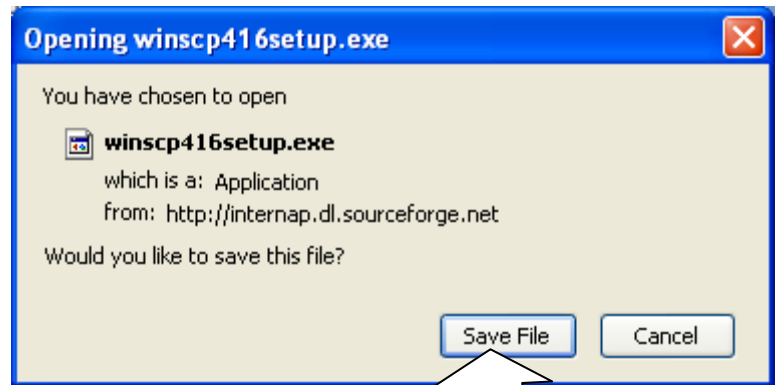
Locate the [Downloads](#) link, and click it.



Locate the [Installation Package](#) link, and click it.



When the [File Download](#) dialog window appears, click the [Save File](#) button. Find and run the downloaded EXE file. This will start the installation process. Follow the installation program's defaults.



When the installation complete, you should have an icon on your desktop labeled WinSCP3.

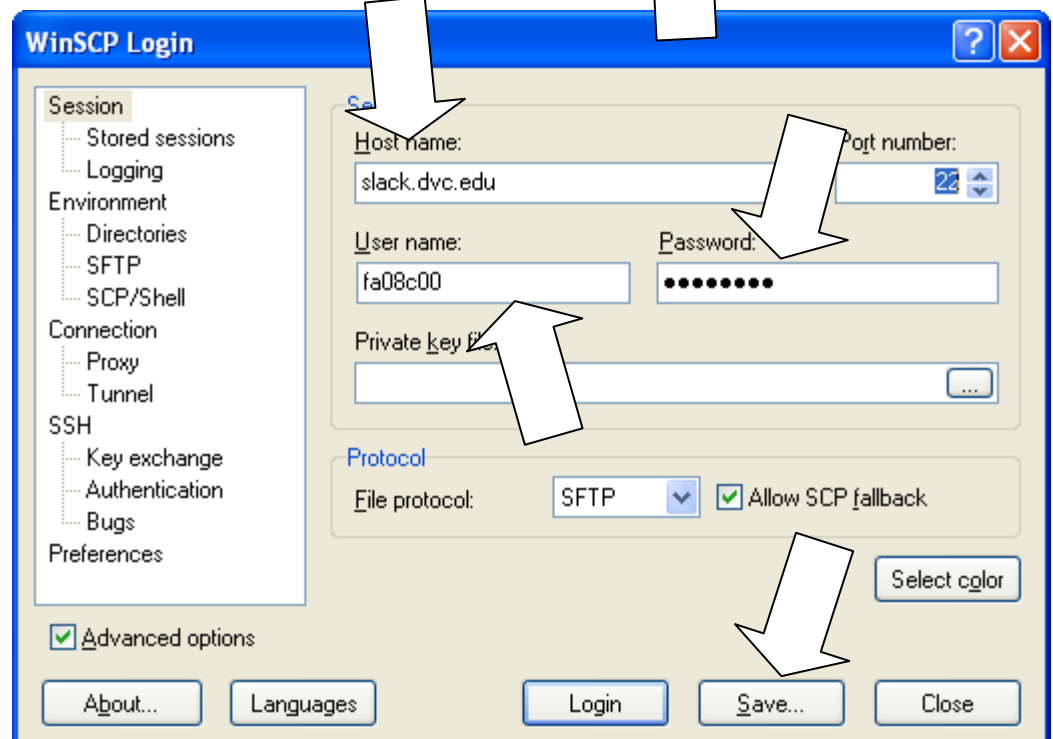
**3. Initialize WinScp:** When you start WinScp for the first time, you will see a login screen. Enter the following:

**Host name:** slack.dvc.edu

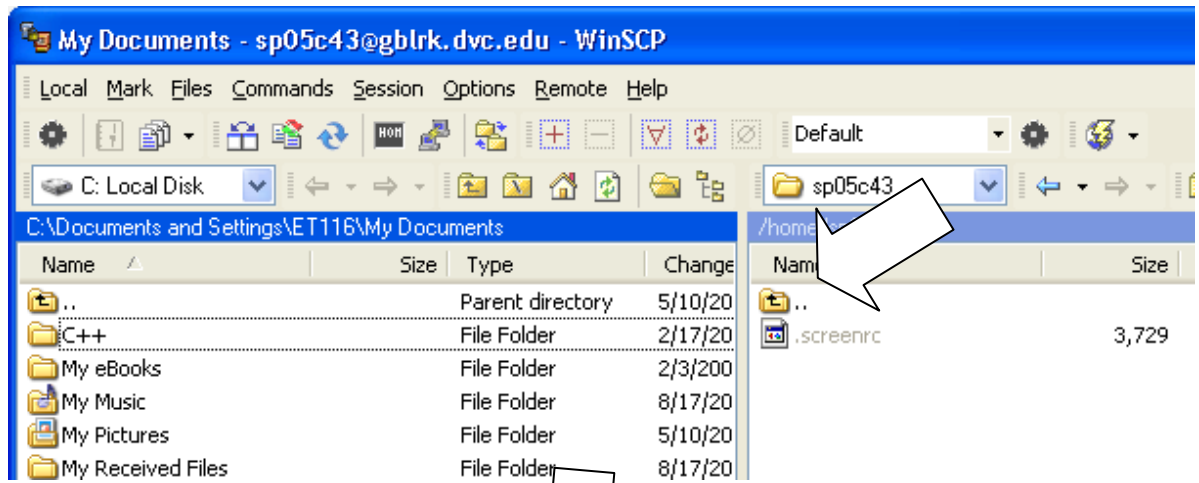
**User name:** (the username for the slack account supplied to you by your instructor)

**Password:** (the password for the slack account)


Then click the [Save...](#) button, so that you do not have to reenter this information in the future.

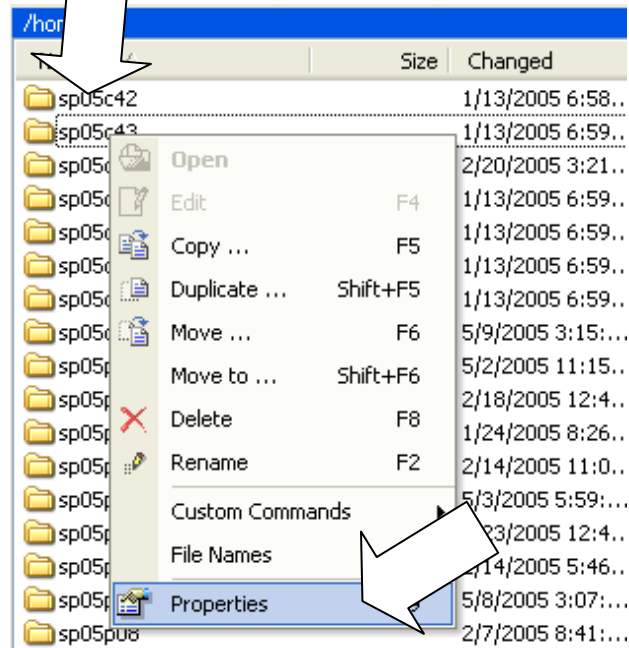


The WinScp screen lists local files on the left and remote (slack) files on the right. (You can drag and drop between these windows.) You may wish to create a C++ folder in your **My Documents**.

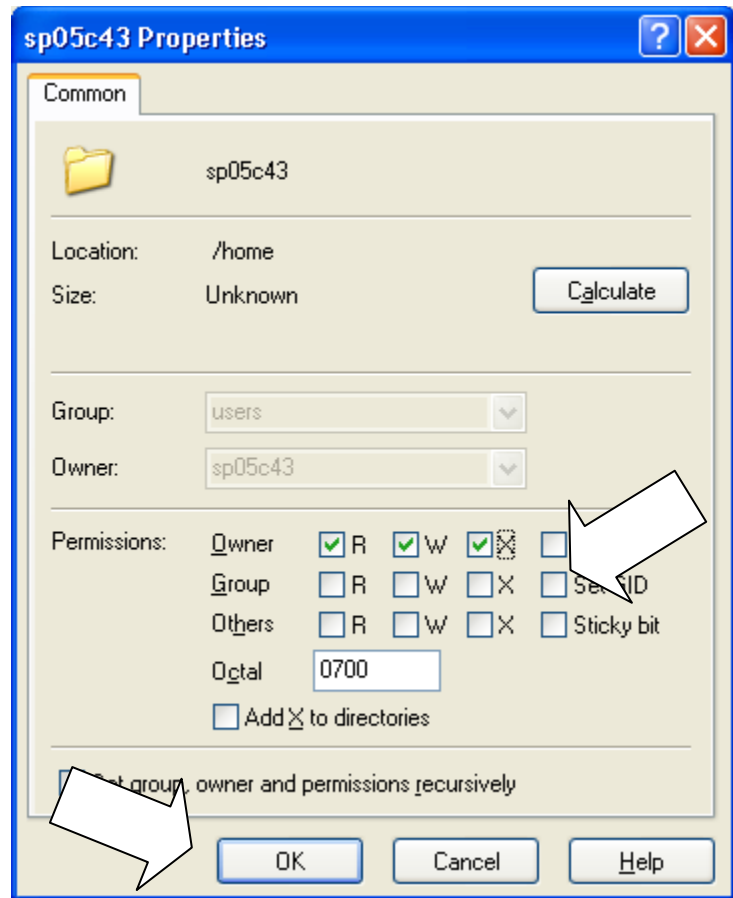


Your account folder on slack is *not private*. It is important that you secure it, so that others cannot access it (either inadvertently or on purpose), and see your files.

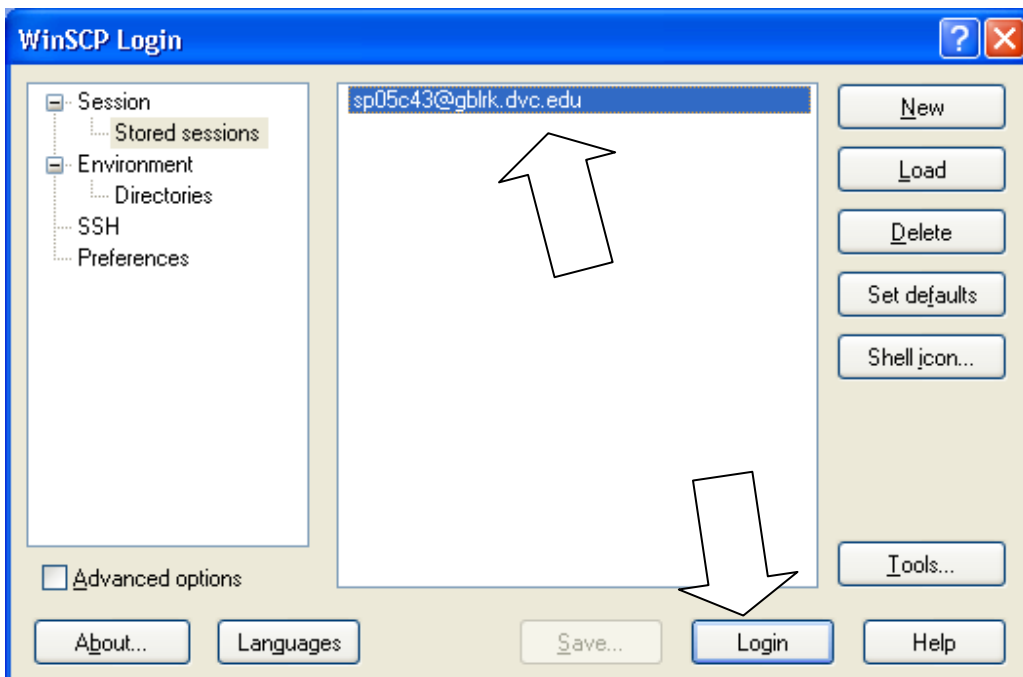
Double-click the  icon in the *right* window – that is, the remote slack files window, and you should see the parent folder of your personal slack folder. (Folders have the same names as the usernames for the accounts.) Locate your folder, and right-click over it. Choose **Properties** from the popup menu.



In the properties window, uncheck the permissions in the Group and Others lines, and click the OK button.



**4. Running WinScp:** When you start WinScp, you will see a login screen, with your login script referenced in the right-most window. Double-click it, or click the Login button to start a session.



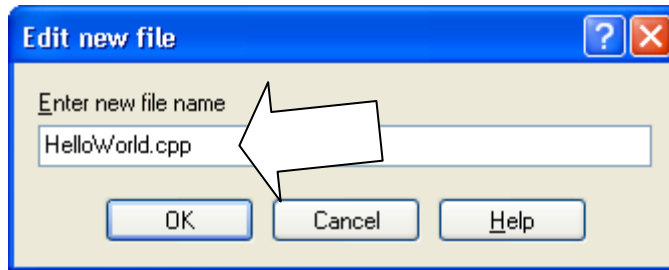
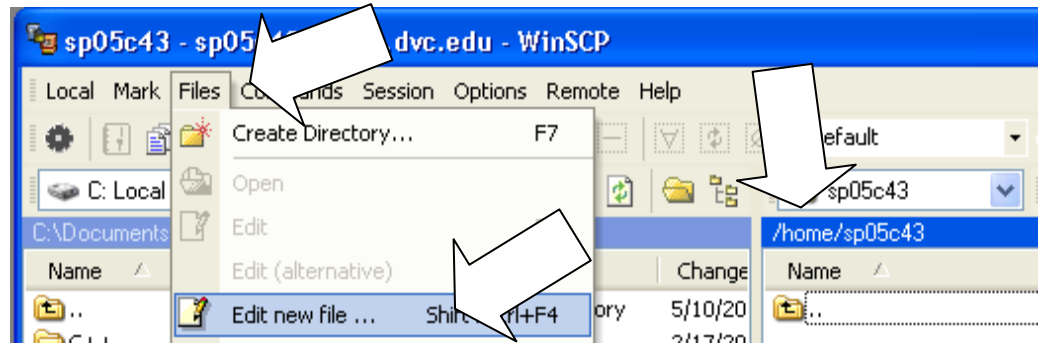
If you do not see your login script, you will probably see prompts for your username and password, instead. If so, enter:

**Host name:** slack.dvc.edu

**User name:** (the username for the slack account supplied to you by your instructor)

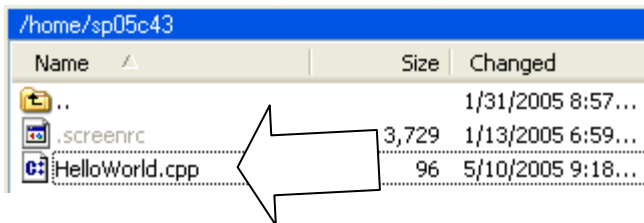
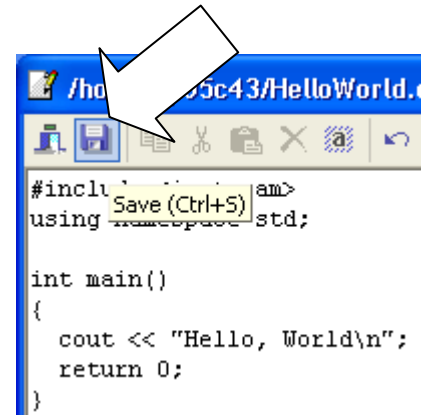
**Password:** (the password for the slack account)

To create a new file on the glbrk server, highlight the right-most file listing, and then use the File menu's Edit new file... command. You will see a prompt for entering a filename. (like **HelloWorld.cpp**).



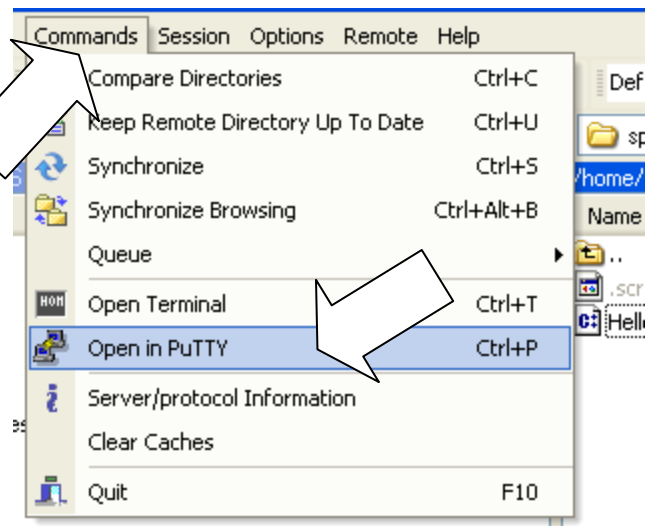
The WinScp text editor will appear. Use it to edit your file. Click the 2<sup>nd</sup> icon (the one shaped like a diskette) to save the file to slack.

You do not have to close the window during development – you can keep it open as you add and modify, save and recompile code. Saved files appear in WinScp's right-most window:

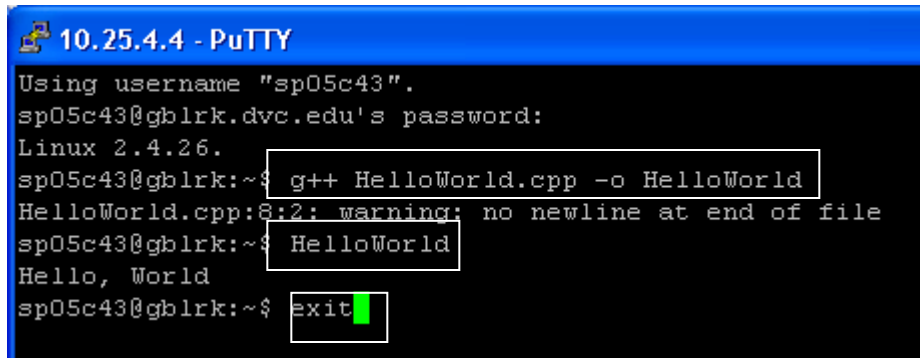


To compile, use the Command menu's Open in PuTTY command. If you saved the **putty.exe** file to the folder where WinScp expects it to be, it will start a TelNet-based session with slack.

(To verify the location of **putty.exe**, on the WinScp login screen click Preferences in the left-most hierarchy window. Click the Preference button. In the next window you should see the option "Integration" in the left-most hierarchy window. Choose it, and you should be able to see and edit the location of **putty.exe**.)



Putty should launch in another window, with a prompt for you to enter your glbrk password. The “compile and build” statement is:



```
10.25.4.4 - PuTTY
Using username "sp05c43".
sp05c43@glbrk.dvc.edu's password:
Linux 2.4.26.
sp05c43@glbrk:~$ g++ HelloWorld.cpp -o HelloWorld
HelloWorld.cpp:8:2: warning: no newline at end of file
sp05c43@glbrk:~$ HelloWorld
Hello, World
sp05c43@glbrk:~$ exit
```

**g++ HelloWorld.cpp -o HelloWorld**

That’s a dash-oh, not a dash-zero. The name of the executable in the above example is **HelloWorld**. Note that Linux is case sensitive, so HelloWorld.cpp and helloworld.cpp are *not* the same.

You can also just compile a CPP like this:

**g++ -c HelloWorld.cpp**

...and create an object file named **HelloWorld.o**. To build from an object file, do this:

**g++ HelloWorld.o -o HelloWorld**

To work with multiple source files, do this:

**g++ main.cpp Time.cpp -o main**

**To run**, enter the name of the executable file.

**To get a local copy** of your files, draw and drop from the right-most file listing (slack) to the left-most (local).

**To exit** the putty compiler window, enter the command “exit”.

**Hint:** It is best to work with multiple windows open, so that you can easily edit and compile.

