

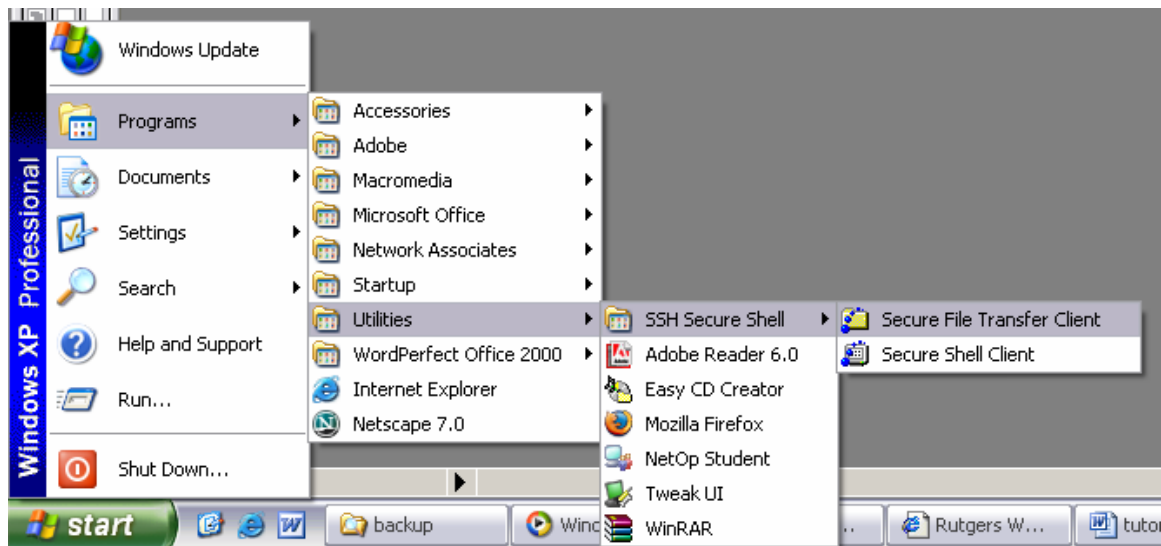
## Tutorial - SSH File Transfer (RCI)

### Introduction:

In the interest of security and information integrity, Rutgers University has implemented several new changes in the ways to upload, share, and send files via your RCI account. Files must be transferred via “secure” means; you will no longer be able to upload files via programs such as CuteFTP or WS\_FTP. SSH Secure File Transfer is the default program will you find available on all university computers. While it is set up and can be used very similar to traditional FTP programs, it is worth mentioning the differences and explaining how to use the program.

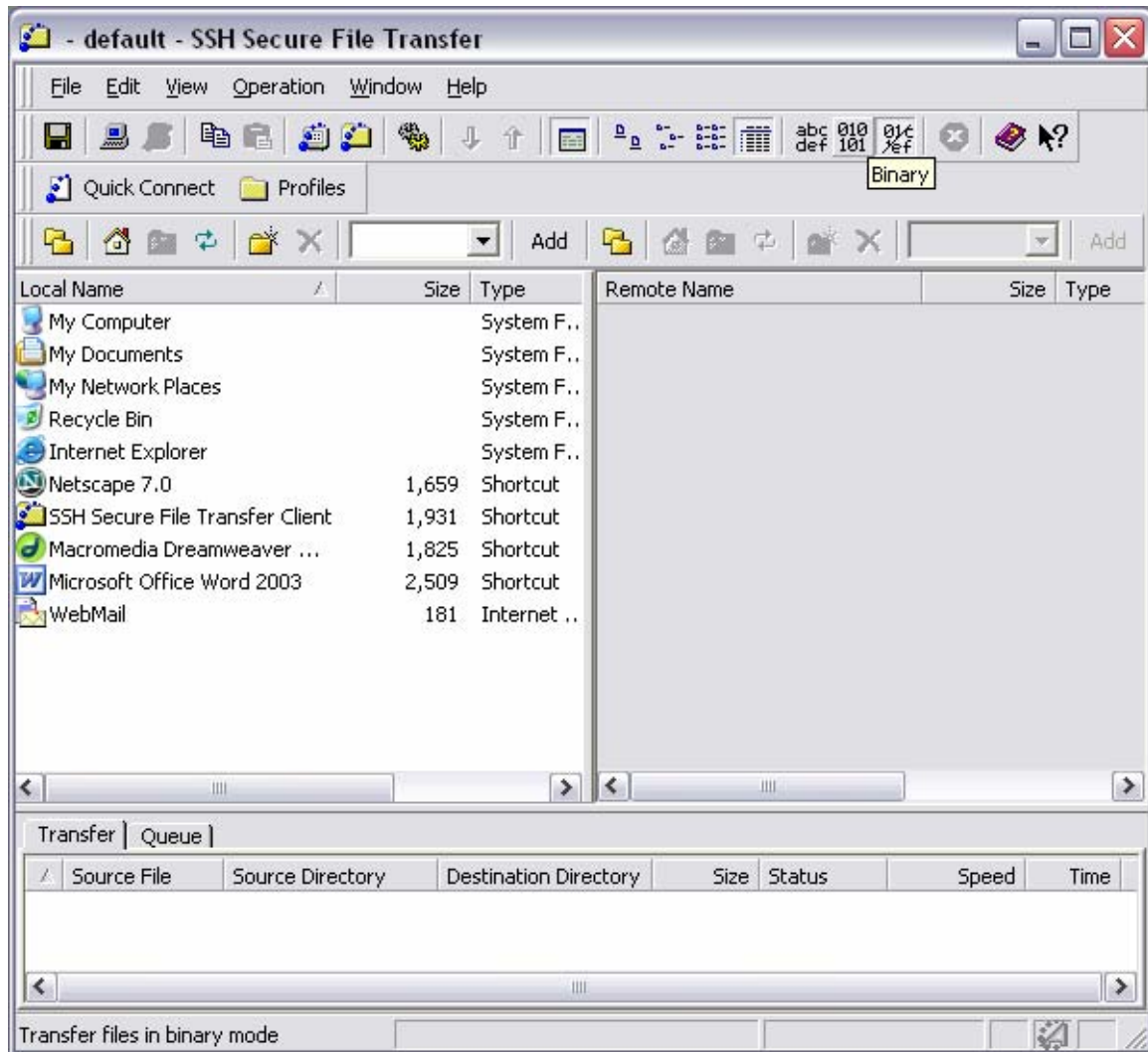
### Opening the Program:

Go to the “Start” menu in the bottom left of the screen, and look through the “Programs” >> “Utilities” >> “SSH Secure Shell” sub-directories. You will see “Secure Shell File Transfer”; click this to open the program.



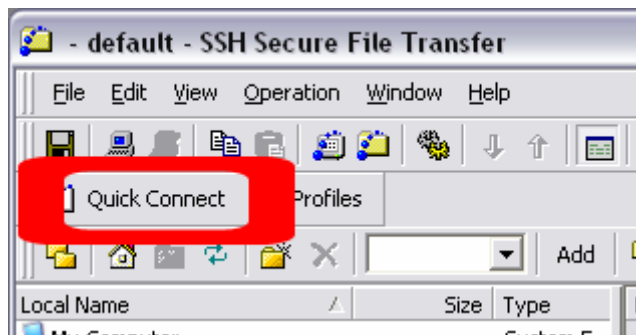
### Layout of the Program:

Simply looking at the program's window as it opens, you may see several aspects similar to past FTP programs you may have used. There is a “local” side (your hard drive, disk, CD, etc.) and a “remote” side (your RCI space). The bottom of the screen leaves space to list what files have been transferred, where to, and at what speed. There are a variety of other options and buttons, but there are very few you will need to use to connect to your RCI space.



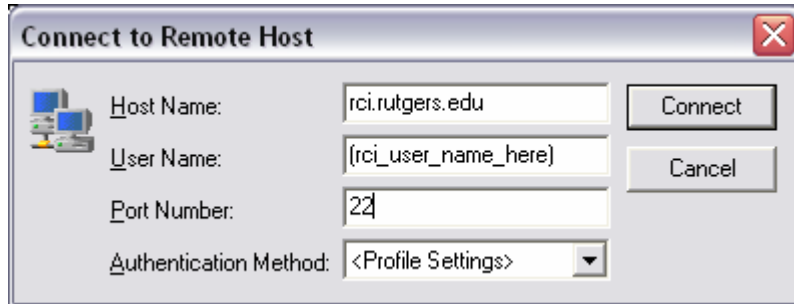
### Connecting:

Click the “Quick Connect” button near the upper left of the program. If a window appears saying that an error has occurred, it is safe to ignore it; this will have nothing to do with our uploading.

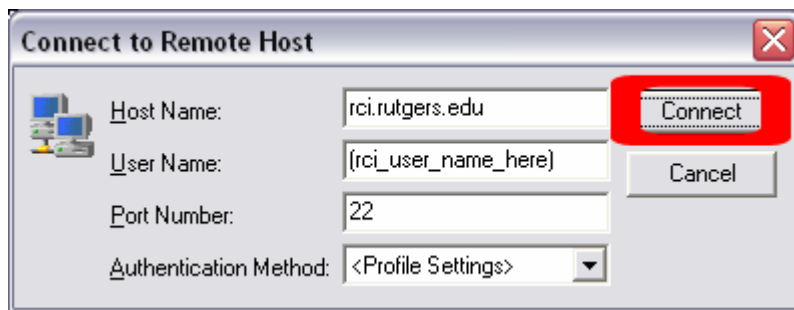


In this case, the “remote host” will RCI; you’ll be connecting to your RCI space in order to upload files to it, which you can then share or simply back-up. You will need to know your RCI user name and password in order to connect. For now, enter

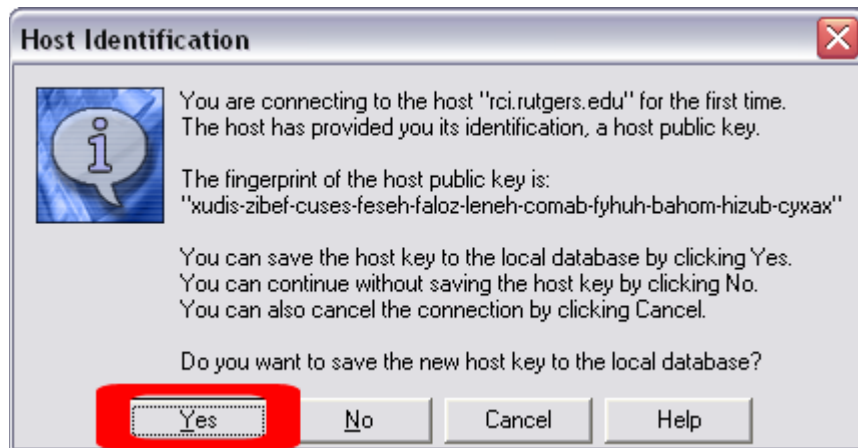
in "rci.rutgers.edu" into the box named "Host Name," and enter your RCI user name in the next box. The port number can stay at 22 (21 would be for regular FTP; secure is 22; this is simply the numbered port, or in-coming connection point, the "host" will be "listening" on for your connection). The "Authentication Method" can also remain as-is.



Once you've entered in the information, click "Connect."



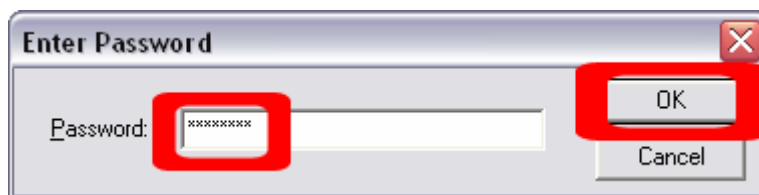
A new window may appear, notifying you that you are connecting via your computer and secure file transfer to RCI for the first time. You can simply click "Yes" to continue.



A new window will appear, welcoming you to the RCI server, and reminding you that you are to expected to follow the "Accetable Use Policy for Computing and Information Technology Resources."



You will then be prompted for your password. This is your RCI password. Enter in your password and click "OK."



If you have entered in your information correctly, you will be connected to your RCI space (located on the right side). An extra window, called "Add Profile," will appear; this is simply an extra window that we do not need. Feel free to close it by clicking the red "X" in the upper right of its window.



### **Public or Not?:**

Here is where you can make an important decision about how and where to save your files on your RCI space. Do you want them accessible to **anyone** (such as files for a class), or do you want them accessible **only to yourself**?

Only files located in your "public\_html" folder can be set as accessible to anyone. If you have not already set up your "public\_html" folder (and if this is the case, you are probably somewhat lost reading this part of the guide), you will need to do so before proceeding. Please read the "public\_html" tutorial for more in-depth information.

### **Permissions:**

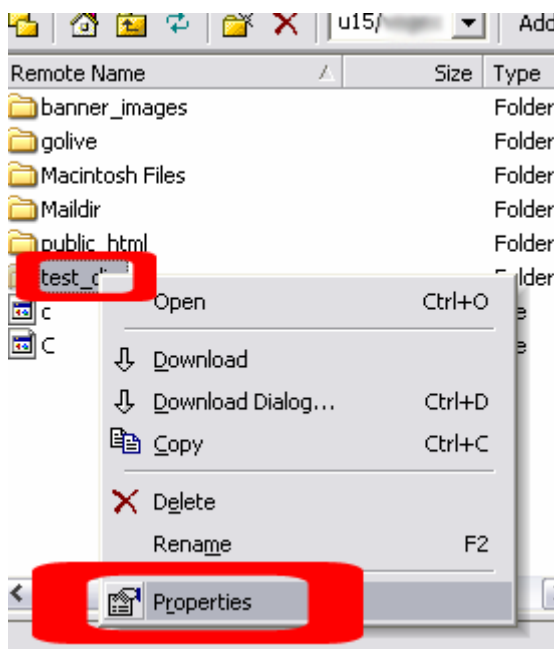
Files located on your RCI space can be set with special "permissions," which can be assigned (as numbers) via Secure File Transfer. With the right permissions, you can make files available to anyone (through a web browser), or just yourself (through Secure File Transfer, exclusively).

Please again note that only files located within the “public\_html” folder (and any sub-directories you may create within it) will be able to be seen through a web browser.

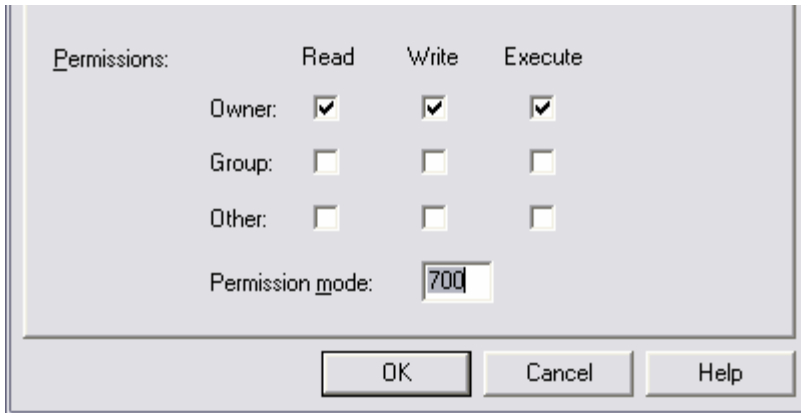
Secure File Transfer defaults the permission settings to new folder and files to “700.” This means that only **you**, as the **owner**, will be able to see and make changes to the file, and you will only be able to do so through Secure File Transfer. Even if files and folders are placed within the “public\_html” folder, they will default to 700.

If you would like the files to be made available to anyone (again, such as a group of students), you will need to change the permissions on the folders and files. Generally, the preferred settings are “755”; this means that only you, the owner, will be able to upload new files and change existing ones, but **anyone** will be able to **see** them (but nothing more).

To see the permissions of a file, simply right-click it and select “Properties” (note that you must be on the “Remote” side to check permissions; see the image below for an example).



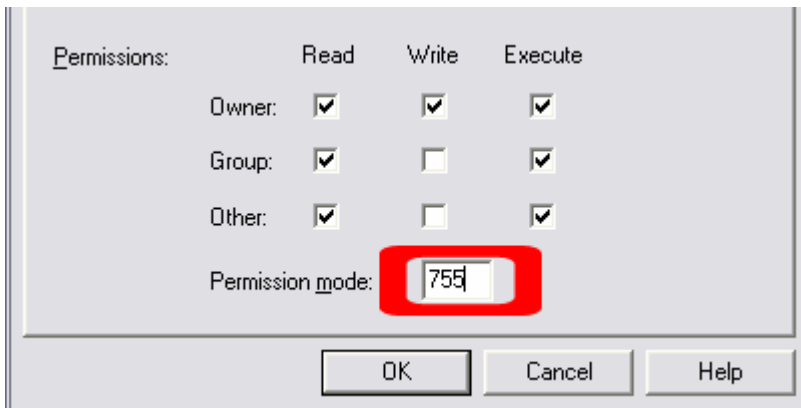
As noted, the default values to files will probably be set to 700.



Permissions:	Read	Write	Execute
Owner:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Group:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Permission mode:	<input type="text" value="700"/>		

OK Cancel Help

To change the permissions, simply type the number "755" instead of "700." The checkboxes will change accordingly (numbers correspond with certain attributes; changing the numbers will change the attributes). When you have done so, click "OK."



Permissions:	Read	Write	Execute
Owner:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Group:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Permission mode:	<input type="text" value="755"/>		

OK Cancel Help

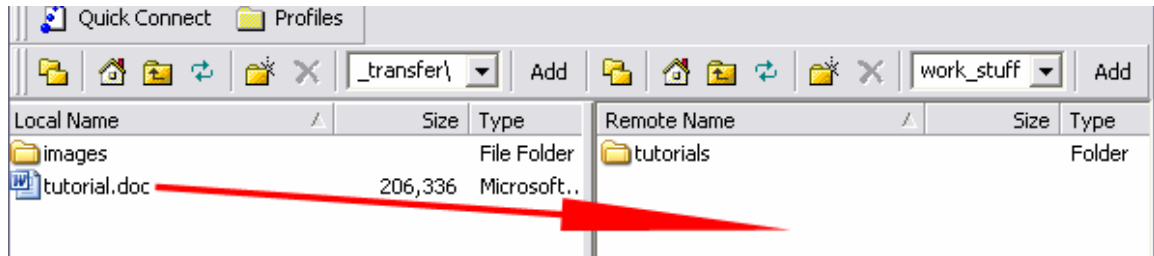
The file or folder that you have changed the permissions on will now be accessible via a web browser. For example, let us assume that you had a folder named "students" within your "public\_html" directory. You would now be able to enter:

[http://www.rci.rutgers.edu/~rci\\_user\\_name/students](http://www.rci.rutgers.edu/~rci_user_name/students)

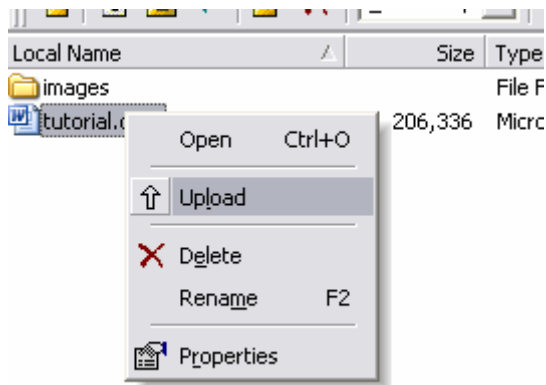
... into your web browser, where "rci\_user\_name" is your own RCI username, and you would be able to load up the files in this folder right in your browser window. Any actual files that you upload (as opposed to folders) should default to permissions allowing viewing by anyone (it may be 644 rather than 755, but this is satisfactory; you can change them if you so wish).

### **Transferring Files:**

To "upload" file to your RCI space, you will need to bring it from the "local" side to the "remote" side. You can do this in one of two ways. Most people prefer the "drag-and-drop" technique. Browse to the file on the left side the same way you would through Windows Explorer (or "My Computer") by double-clicking your way into directories and folders. When you find the file you wish to upload, click it and drag it over to the right-hand "remote" side.



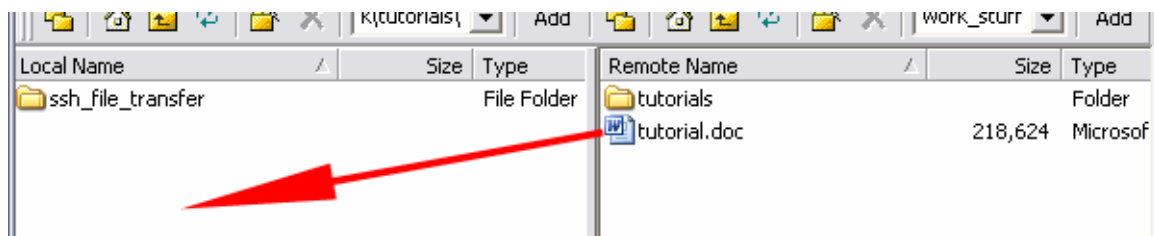
You can also right-click the file you wish to upload, and click "Upload" from the menu that appears. It will transfer to the directory currently open over on the right-hand "Remote" side.



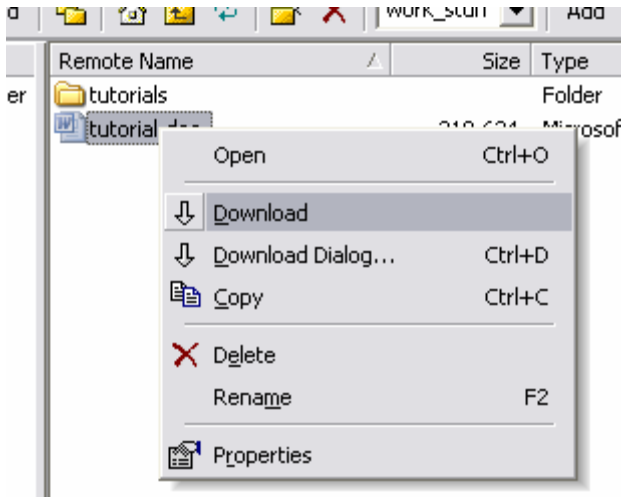
### Downloading Files:

You can retrieve (or "download") files in the same way that you uploaded them, by either "drag-and-drop" or right-clicking files on the "Remote" side.

Click the file you wish to download, and drag it over to the left-hand, "Local" side.



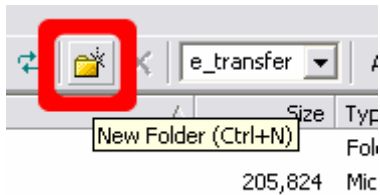
Or, you can right-click the file you wish to retrieve, and click "Download"; it will be stored in the currently-open directory on the "Local" side.



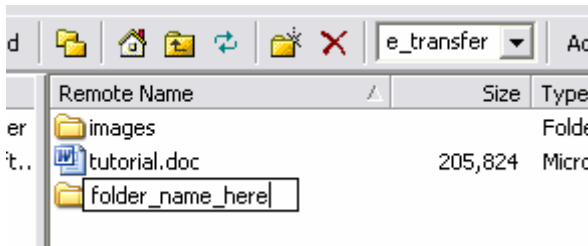
### Advanced Folder/Directory Navigation:

You may wish to navigate through folders, even creating new ones, on your “Remote” side (your RCI space). For example, if you have class “one” and class “two,” you can create individual folder for each class (helping to organize the material between them).

To create a new directory, click the “New Folder” button, as identified below. You can create new directories either on your local or remote side; both have their own individual “New Folder” buttons. For now, we’ll be creating a new folder on the “Remote” side.

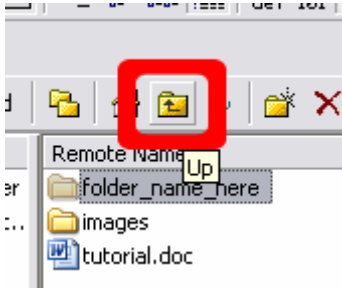


A new folder will appear, prompting you to give it a name. Enter any name you wish, and hit “Enter” on the keyboard.



Remember that Secure File Transfer will default new directories to permissions of 644; if you wish to have this folder available on the web, you will need to change its permissions to 755. Refer to the earlier section on “Permissions” if you need more information.

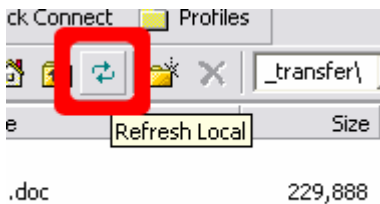
You can double-click this new folder to “go inside” of it. It will be empty until you upload any files to it. If you wish to “go backwards” in the hierarchy of folders on your server, click the “Up” button.



### Refreshing:

If for any reason files are not appearing on either your “Local” or “Remote” side, and you believe you have successfully transferred them, you may need to tell Secure File Transfer to “refresh” the listing of files in that folder.

Both the “Local” and “Remote” sides have their appropriate “Refresh” buttons.



### Transfer Status:

At the bottom of Secure File Transfer, there is a box that will list every file that has been transferred, from where, to where, at what speed, and how long it took. This is useful if you wish to visually further confirm that a file has been transferred, or are simply interested in any of the other information.

Transfer	Queue	Source File	Source Directory	Destination Directory	Size	Status	Speed	Time
↑		tutorial.doc	C:\Documents an...	/emptyrean/home2...	244,224	Complete	411.2 kB/s	00:0...

### Extra Tidbits:

Just as in Windows Explorer, you can rearrange the way that files are listed in a directory. For example, you may find it helpful to list them by most recent changes as opposed to alphabetical order. To do this, go to the “View” menu and select “Arrange Icons.” There are four options available: name (alphabetical), size (file size), type (type of document, such as text or audio), and date (by most recent activity or change).

