Web File Management with SSH Secure Shell 3.2.3

June 2003

Information
Technologies

SSH Secure Shell

SSH Secure Shell is a program that you install on your computer for a very high level of security when you transfer files or send commands to a remote server. It protects the confidentiality of your data and communications, even in the unlikely event that someone wishes to access or tamper with your files. The encryption technology of SSH Secure Shell maintains the highest levels of security and protection for your data.

If you have been using WS_FTP or another file transfer program, User Services strongly recommends that you switch to the SSH Secure Shell user desktop tool. It not only provides a higher level of security and reliability, but also more capabilities and ease of use. The file transfer and user interfaces (screens) are intuitive and enable the following:

- File transfers to and from the server.
- File management on your computer and in your directory on the server.
- Sending UNIX commands to the server, *including all PINE commands*, most notably, printing (use SSH Secure Shell terminal mode for PINE).

System Requirements

SSH Secure Shell requires a computer with these configurations:

- An Internet browser such as Netscape or Internet Explorer to download the installation file.
- An active UNIX account with the University (know your user name and password).
- Windows 95 (OSR2.1), Windows 98 or SE, Windows Me, Windows NT 4 (with Service Pack 5 or 6 installed), Windows 2000 (with Service Pack 1 or 2 installed), or Windows XP.
- Four megabytes of free disk space.
- A connection to the Internet.

Your UNIX Account

All University of Delaware faculty, staff, and students can obtain an account on the UNIX server. This account is a privilege and you are expected to use it responsibly. If you are uncertain about the proper use of computing resources, read the *Policy for Responsible Computing* on the University's Web site at http://www.udel.edu/ecce/policy.approved.html.

Installing SSH Secure Shell

Installing SSH Secure Shell on your computer is similar to other programs you may have installed. Before you begin, ensure that you have met the system requirements listed in the previous section. SSH Secure Shell is provided by the University to the University community for academic use only.

Downloading the Installation File

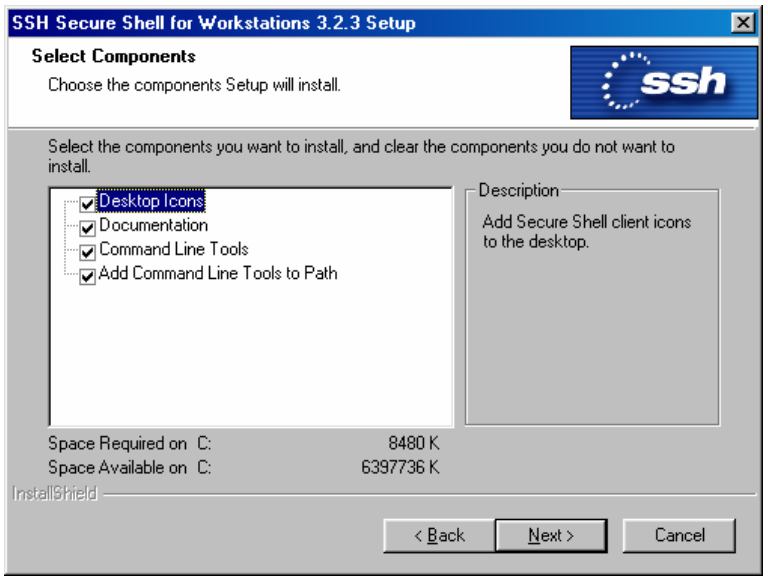
Your download speed will vary. If you are at home on a dial-up connection, it will be much slower than if you were at UD. Be patient and allow the process to continue for as long as you see progress in the download window. If it stalls, begin again or wait for a better time of day when Internet traffic or your Internet provider (e.g. AOL, Earthlink, etc.) is less congested. Follow these steps:

1. Open your Web browser (Netscape or Internet Explorer).
2. Proxy server. If you are connecting to the network through an off-campus connection, you must configure your proxy server settings to UD specifications. Follow the instructions at http://www.udel.edu/topics/connect/webproxy/index.html. *If you are on campus, skip this step*.
3. Installation file. Go to http://udeploy.udel.edu/Win/Docs/ssh.html and click **Install SSH Secure Shell**.
4. After the "Save As" window comes up, choose a familiar location to place the file. Click **Save**. Do not change the name of the file that is highlighted in "File name." You will need to locate this file for installation. The download box will show the file download progress.

Running the Installation Program

1. Turn off all Windows programs and antivirus software.
2. Find the downloaded installation file–**SSHSecureShellClient-3.2.3.exe**–and double-click it. It is probably on your Windows desktop or in the "My Download Files" folder.
3. In the InstallShield Wizard dialog box, click **Next** at the first screen.
4. License Agreement. Read the agreement and click **Yes**.

5. Choose Destination Location. In the next dialog box, click **Next** to accept the default folder.
6. Select Program Folder. The InstallShield Wizard has filled in the program folder name with "SSH Secure Shell." Change it as desired or click **Next**.
7. Select Components. Click **Next** to install all components.



8. Check Setup Information. Click **Next** to accept settings.
9. InstallShield Wizard Complete. Click **Finish** to complete the installation. You may now use SSH Secure Shell by clicking one of the SSH Secure Shell shortcuts on your desktop.
10. Delete installation file. Place the installation file in your recycle bin. After you have successfully run SSH Secure Shell, permanently delete the installation file: Empty the recycle bin.

Starting SSH Secure Shell

Locate the SSH Secure Shell client and file transfer icons on your desktop. If you wish to communicate with the server through UNIX commands, use the SSH Secure Shell Client (use this client to access PINE). If you wish to transfer and manage files through a graphical interface, use the SSH Secure Shell File Transfer Client. Note: You can get to the client screen from the file transfer screen and vice versa.

Connecting for the First Time

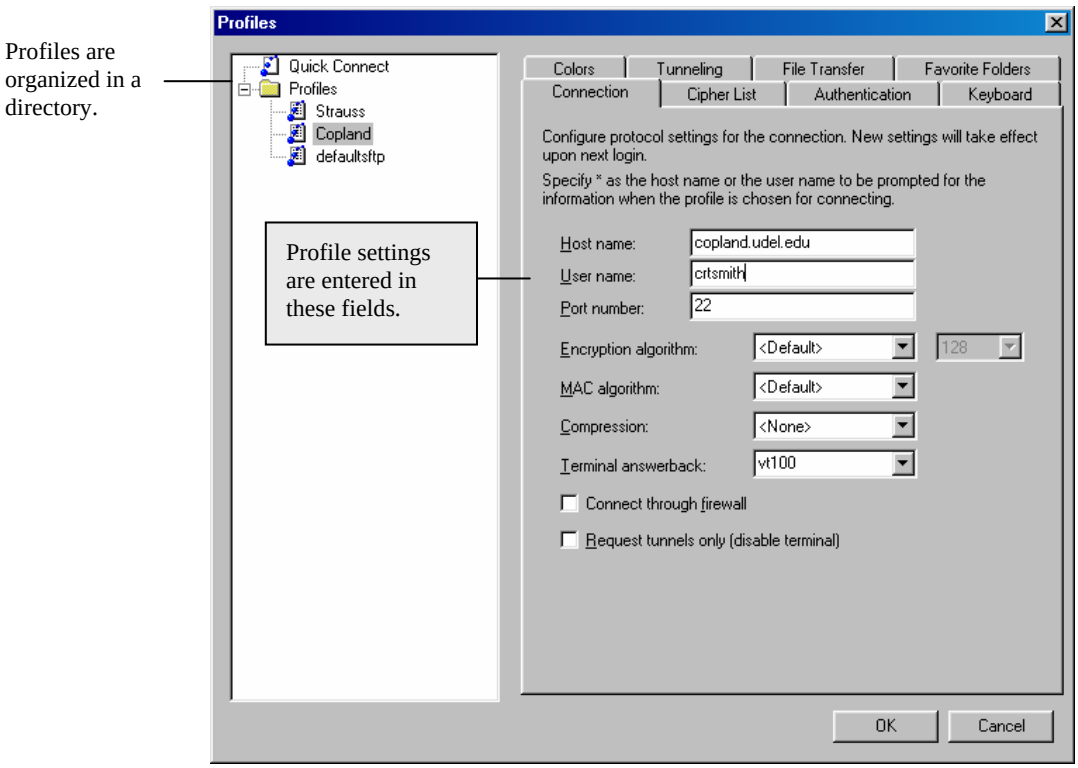
When you first open SSH Secure Shell through the UNIX command or file transfer client, you will be required to provide basic information about your account and your preferences to be stored in a profile. You name this profile and use it to connect each time. Once setup, you will only be required to provide your password upon entering. The following instructions will center on *file transfer and management through the file transfer interface*.

Setting Up a Profile

1. Double-click the SSH Secure Shell file transfer icon.

2. You will see the main screen with a small Add Profile toolbar in the upper-right corner. This toolbar will disappear shortly.
3. Click the **Profiles** button in the upper-left part of the screen.

4. Click **Add Profile...**
5. Type a name for this profile (e.g. “Copland” or “Strauss”) in the highlighted area–“Profile Name”–and click **Add to Profiles**. This profile will store your system settings and be used to connect to the server. You may add any number of profiles.



6. Click the profiles folder button again and select **Edit Profiles...** Profiles are listed in the directory tree to the upper-left with their settings on the right side of the Profiles box.
7. Click the profile name you created in the directory and fill in these profile fields as follows (leave "Port number" at 22):

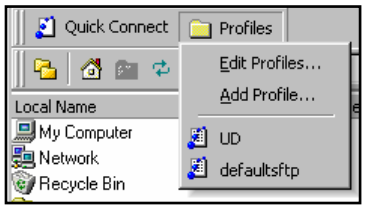
   Host name: copland.udel.edu

   User name: (Enter your UNIX user name.)
8. Select the Quick Connect profile and enter the same settings.
9. Review your entries and click **OK**.

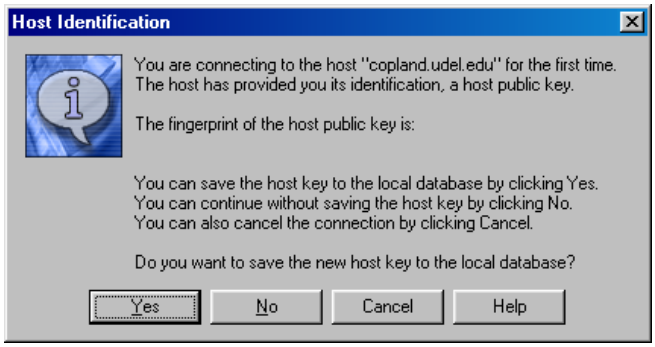
Connecting to the Web Server

Now that your settings are stored in your personal and Quick Connect profiles, you do not have to enter them to connect to the server. Note that you can add other profiles with different settings. To access your desired server, choose a profile that has the proper settings.

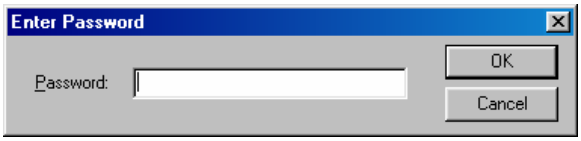
1. Click on the **Profile** button to select the desired profile.



2. When you connect for the first time, you will see the screen below. Click **Yes**. This will store a file on your computer called a "key" which is sent from the server. It ensures secure communications and file transfers with the server.



3. Enter your UNIX password at the prompt and click **OK**. You will always be asked to supply this password when connecting.

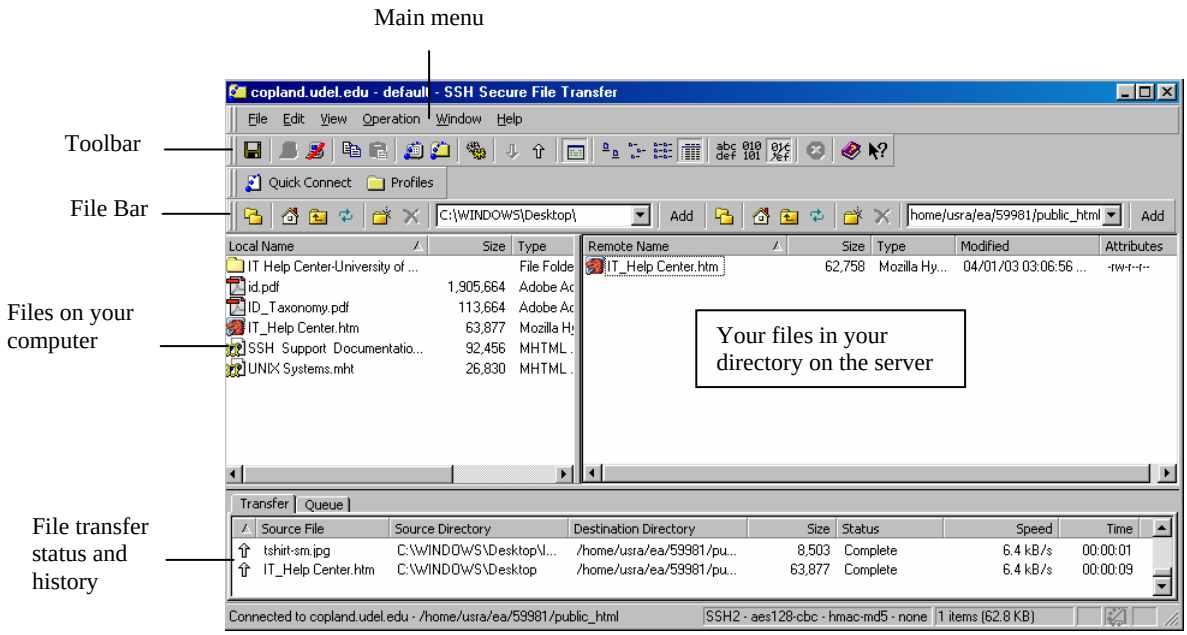


4. After a successful connection, you will see your personal home directory and files on the server on the right side of the screen. When finished transferring files, click the disconnect button in the upper left part of the screen.

Do not disconnect now. Go to the next section in these instructions.

The File Transfer Screen

After connecting to the server, you will see the screen below. If you fail to connect, check your profile settings and try again. All menus in the file transfer screen may be customized, and display windows may be resized by dragging edges.



Main Menu and Toolbar

Use these menus for basic program operation and specialized settings.

File Bar

You will use these options to view and manage files and directories. The same buttons are shown above your local computer (Local Name) on the left and server file listings (Remote Name) on the right.

Files on Your Computer

This listing shows your local files and folders and enables navigation very similar to Windows Explorer. Files can be dragged from your computer (Local Name) to the server (Remote Name) or from the server to your computer.

Files in Your Directory on the Server

This area displays directories and files in your home directory (Remote Name) on the server. You may also view other server directories and files as needed.

File Transfer Status and History

The status of each uploaded or downloaded file will appear on the Transfer tab. All actions are displayed in an exportable history list. The Queue tab displays files ready for upload or download.

The UNIX Terminal Screen

If you prefer to manage files and server communications with UNIX commands, use the SSH Secure Shell Client icon. SSH Secure Shell provides a terminal interface to all UNIX applications, including PINE. Simply use all commands as you would with any terminal client.

File Transfer and Management

Managing Web pages, graphics, documents, and other files on your computer and in your UD server directory is simple. With the file transfer screen you will be able to:

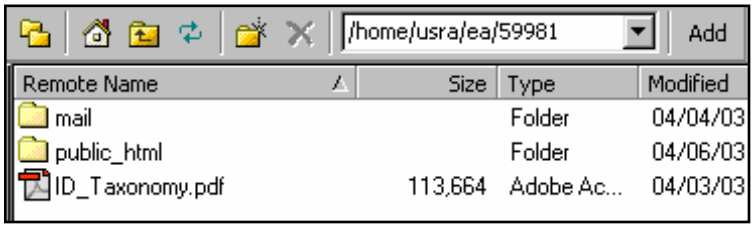
- View any directory and file on your computer and on the server.
- Create, rename, move, and delete folders and files on your computer or within your personal server directory space.
- Transfer any file or folder between your computer and your personal directory space on the server.
- Change the permissions of files in your personal directory space on the server.

Locating and Opening Directories

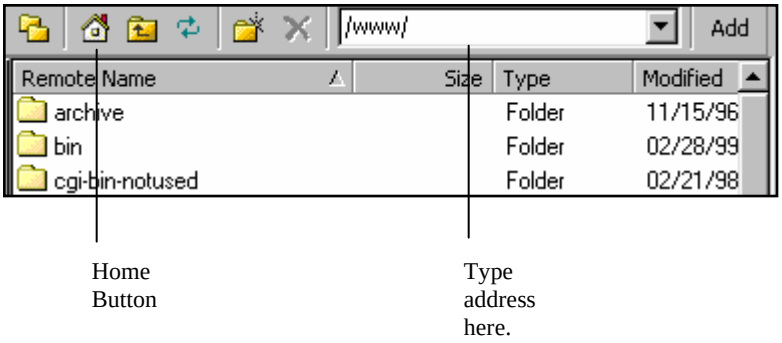
After you have made a connection to the desired UD server, you will see the last location you viewed on your computer (Local Name) and the contents of your home directory (Remote Name) on the server–your computer on the left and the UD server on the right.

Personal and Departmental Directories

Every user with a UNIX account has a personal directory on Copland that is attached to the Web server. This directory is always displayed when you first connect to the Copland server. You may also have space in a departmental folder within /www/htdocs or on other campus servers.



Type in a directory address to go to a directory outside of your home directory. Click the home button to return to your personal directory.



Your Web Site Directory

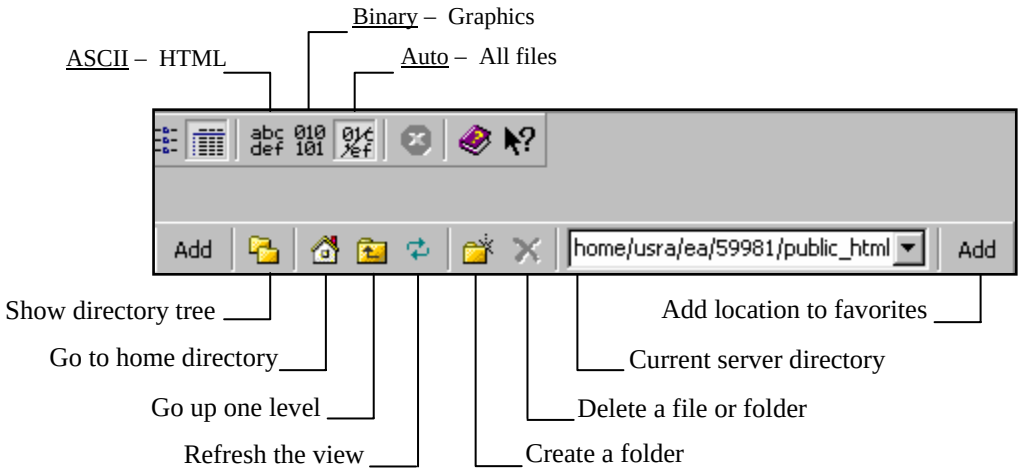
In order to make Web pages on Copland viewable over the Web, place them in the public_html directory. If you do not have this directory, follow the instructions at http://www.udel.edu/webstart/students/public_html.html.

If your pages will be placed in another directory, ask the owner of that directory to prepare it for the Web and provide you access to transfer files.

Working with Web Files and Directories

After creating your public_html Web folder, use the following file transfer screen functions to ensure that your pages are available and work properly. Note: These procedures will work when selecting files, folders, and directories in the personal computer or server directory lists.

Before beginning any transfers, select the **Auto** button. *Always use this setting*.



Directory Screen Capabilities

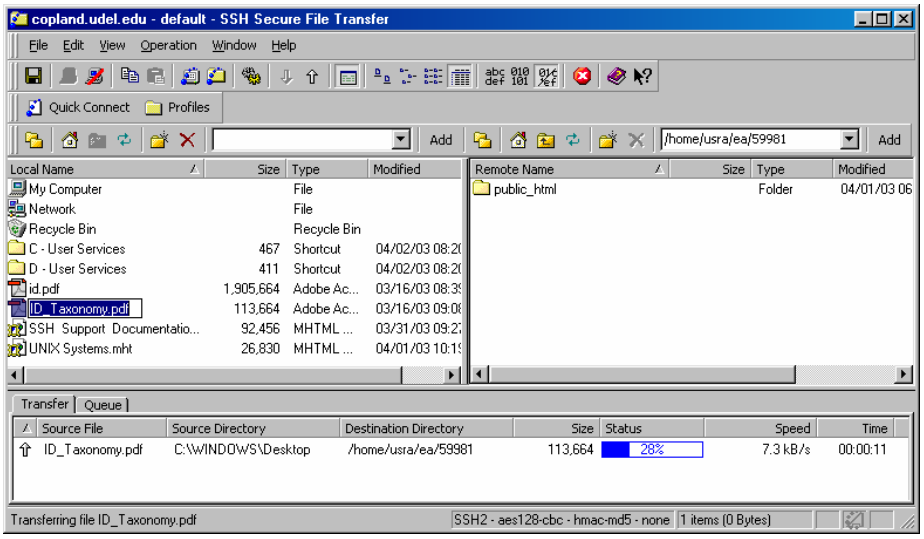
The file management screen is very similar to and provides most of the functions of Windows Explorer. Use these functions to publish your Web pages. However, there are some differences:

- Before deleting a folder in your UD server directory space, you must delete all files in it first.
- When moving or copying a file to and from a location *on a UD server* that contains a file with the same name, a copy of the file with a different name will *not* automatically be created on the UD server. You must change the file name before copying and pasting it to another location on the server.

Otherwise, the directory almost duplicates the functions you would use in Windows Explorer. When you wish to copy, cut, paste, rename, or move a file or directory, *do it as you would in Windows Explorer*.

Transferring Files by Dragging Them to the Server

1. Select/highlight the file or files that you wish to transfer by clicking the file name. If you want to transfer more than one file at once, hold the CRTL key down and click on more files. Release the CTRL key and mouse button when you have selected your files.
2. Click on the highlighted files group and drag it to the desired server directory or file list on the right of the screen.
3. Release the mouse button and observe the file transfer. If a file name is the same, you will be asked if it is OK to replace it with the file you are transferring/uploading. You will see the progress of the transfer in the file transfer status and history tab at the bottom of the screen. The file will be listed in the desired location if the transfer was successful.



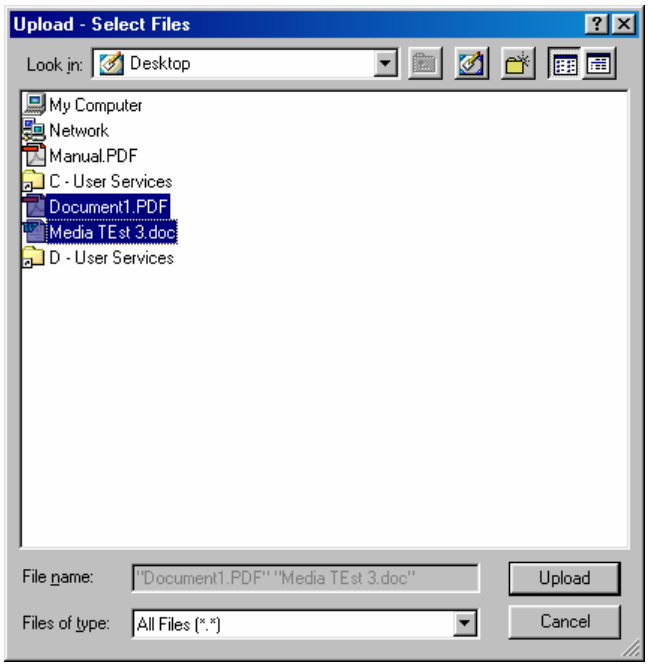
4. If you do not see your file in the target location, click the refresh button.

Transferring Files with Upload/Download

When you wish to transfer files between the computer and server directory that is displayed, use the upload or download feature.

1. Click the upload button to get a file to the server. Use the download button to move a file from the server to your computer. The buttons are near the top left of the screen on the Toolbar.

2. Locate and select/highlight files for upload/download.

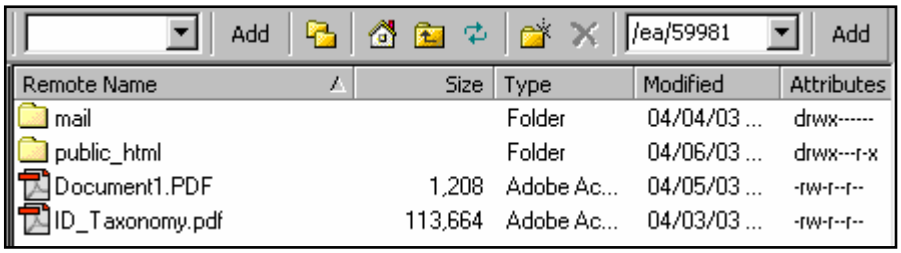


3. Click the **Upload** or **Download** button in the Select Files box. Downloaded files will be transferred to the displayed computer directory, and uploaded files will be placed in the displayed server directory.

File and Folder Permissions–Setting Attributes

After you have uploaded files to your public_html folder for viewing on the Web, you must ensure that Web users will be able to see the pages. Even though someone may type the correct Web address to view your site, she will not be able to see the material without permission. *The attributes for a file, or the folder it is in, must be set correctly on the server to give this permission.*

Attributes are shown to the far right of the file or folder name. Use the scroll bar at the bottom of the file window to reveal the attributes column. Again, Web page viewing is enabled by changing the attributes of files and folders within your public_html folder on the server.



Users

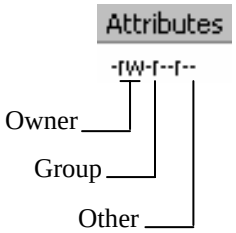
Files and folders can have three types of users:

Owner	The user with full rights to all files and directories within his personal server directory space; this user can change file and folder attributes.
Group	A select group of users listed by the owner.
Other	All other users; users accessing your pages and directories through the Web or the network.

Attributes

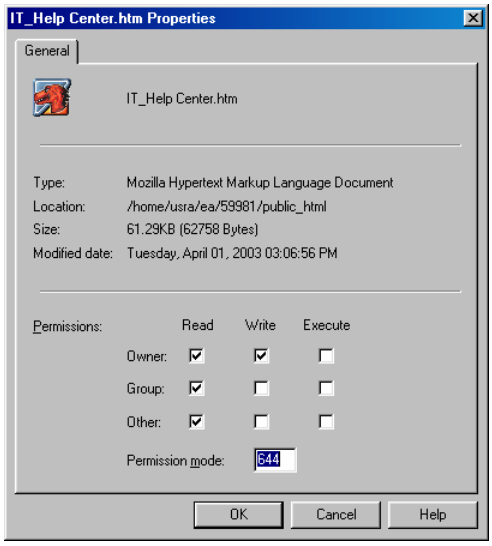
Files and folders can have the following attributes on the server:

R	The file or folder can be read.
W	The file or folder can be written to.
X	The folder can be opened to access files (execute); the user can view Web pages in the folder.
D	The listing is a directory.



Changing Attributes

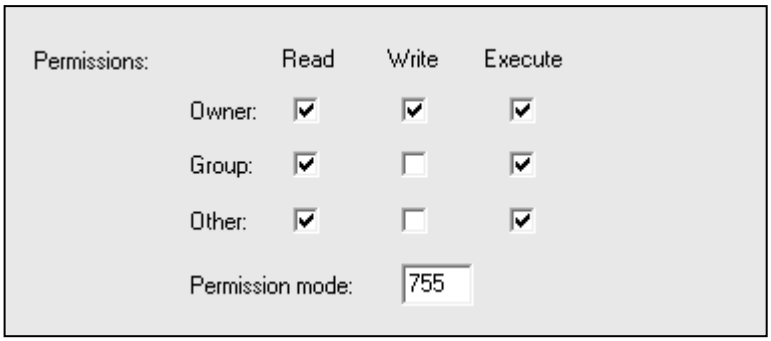
1. Right-click the file or folder name.
2. Click **Properties**.
3. Click the check box for the desired attribute for the Owner, Group, and Other categories.
4. Click **OK**.



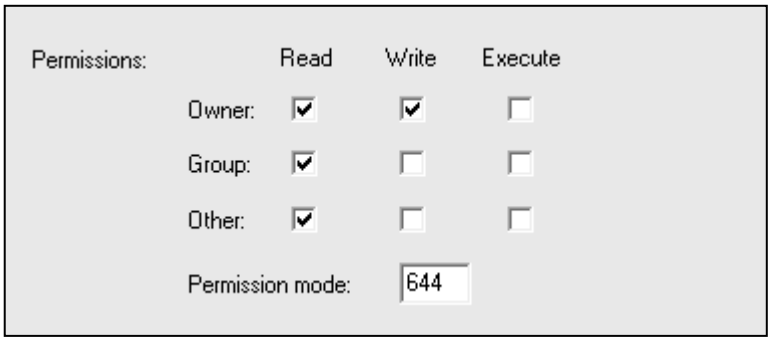
Recommended Attributes

The following settings are recommended to enable you to share your Web pages over the Internet. Verify that that these settings have been applied to your public_html folder *and all files and folders in it*. Individually select files and folders and bring up the properties settings window discussed in the previous section, "Changing Attributes." Click the checkboxes as shown below for files and folders and press the **OK** button in the properties window for each file and folder:

Folder Settings



File Settings



Accessing Web Pages

If you placed your files in a public_html directory/Web folder, users can access these files by typing the following address *and* the file name ("username" is your username and "filename" is the complete name of your Web page file):

http://udel.edu/~*username*/*filename* (there is no "www" in the address)

You can make your home page load *automatically* if you name it "index.html." It is unnecessary for users to type in the name of your homepage if you name it "index.html." In this example, when users type in the following Web address, your home page is loaded in their browsers:

http://udel.edu/~*username*/

Advanced Features and Preferences

You can learn about SSH Secure Shell's advanced features by investigating the SSH Secure Shell help guide. In addition to providing detailed instructions for system settings and preferences, the guide discusses topics such as enabling several users to write to and load files to the same directory. Other advanced topics include:

- Upload Queue
- Certificates
- Authentication
- Keys
- Ciphers
- Tunneling
- Firewalls

Click on the **Help** menu at the top of the screen to begin your search.

Help Resources

In addition to the SSH Secure Shell help guide on your computer, you can access documentation online or speak with an IT Help Center representative by phone:

IT Help Center

http://www.udel.edu/help/
(302) 831-6000

SSH

http://www.ssh.com/support/documentation/online/ssh/winhelp/32/