

For files to be available on the World Wide Web, they need to be published on a **Web server**. A Web server is a software system that receives requests from clients (such as Internet Explorer or Mozilla Firefox) and sends the requested files back to the clients.

Web Servers at IU Bloomington, IUPUI, IUK and IUN

There are two main servers for the IUB, IUK, IUN and IUPUI campuses, **Mercury** and **Webserve**, which serve Web files. Webserve is only available to IUB, IUPUI, IUK, and IUN campus departments, instructors, and official student groups for hosting their Web sites. However, Mercury is available to all faculty, staff and students at the IUB, IUPUI, IUK, and IUN campuses for their personal Web pages.

Using Mercury

These instructions show how to publish Web pages on Mercury using a Windows computer.

Note for Macintosh Users - For information on publishing Web pages using a Macintosh computer, go to:

<http://ittraining.iu.edu/workshops/sftp/SFTPM.pdf>

In order to make a connection to the Mercury Web server, you will need to have an account on Mercury and you will need to know the **host name**, the network name of the Mercury server.

Please be sure you have all of the following information before continuing:

Host Name:	mercury.uits.indiana.edu
Your Username:	
Your Password:	

Now that you have your account information gathered, you are ready to publish your Web pages.

The Web Publishing Process

There are several steps involved in publishing pages to the Web:

- A. Connect to the Web server
- B. Transfer the necessary files from the local machine to the Web server
- C. If necessary, set permissions for the transferred files so that they can be seen on the Web
- D. Verify publishing success by viewing the published files in a Web browser

Connecting to the Web Server

The first step in publishing files is connecting to the Web server. A secure communications protocol called *Secure Shell 2 (SSH2)* is used to make this connection. There are several applications available that allow the use of the SSH2 protocol, including SSH Secure Shell or PuTTY (Windows) and Terminal (MacOS X).

NOTE: Another common communications protocol, Telnet, does not meet current security standards, and therefore is no longer supported for use on Mercury or Webserv.

You will connect to Mercury using an SSH Secure Shell Client.

1. Launch the Secure Shell Client.

An SSH Secure Shell default window opens.

2. To establish a connection,



The Connect to Remote Host dialog box opens.

3. Enter the host name and your username in the appropriate fields.
4. To initiate the connection,



The first time you attempt to login to Mercury, you may see a message indicating that the authenticity of the host can't be established because it is not in a list of accepted hosts.

5. If necessary, to add the Mercury key to the list of hosts local database,



A dialog box prompting you for a password appears.

6. Type your password in the password field.

7. To complete the connection,



The connection is now established.

NOTE: If an Add Profile dialog box appears, simply close it by clicking the X in the upper right hand corner of the dialog box.

Your Mercury account is now ready to serve your Web files.

Transferring Files

File Transfer Protocol (FTP) is a process used for transferring files from one computer to another over a network, such as the Internet. To successfully transfer files, an FTP client (on your local machine) must connect over a network with an FTP server (usually on the Web server you want to publish to - in this case Mercury). Once this connection has been made, the client and server can request and transfer files between the two computers.

Understanding FTP and SFTP

One disadvantage of FTP is that it is not a secure method of transaction. It is possible for hackers to intercept sensitive information (such as usernames and passwords) as well as find out which files are being transferred and where those files are being stored.

To combat this security concern, some Web server administrators now require users to transfer files to and from their servers using *Secure FTP (SFTP)*. SFTP works much like regular FTP, except all of the information, commands, usernames, and passwords are encrypted. Hackers are unable to decipher this information.

To enable SFTP, both the Web server and the software used to transfer the files have to understand SFTP. Mercury is SFTP enabled; therefore, to transfer files to Mercury, an SFTP application should be used on the local machine. Both SSH Secure Shell (Windows) and CyberDuck (MacOS X) are examples of SFTP applications.

NOTE: Unfortunately, because of security issues, unsecure FTP clients, such as those that are built into FrontPage and versions of Dreamweaver prior to Dreamweaver MX 2004, cannot be used to publish to Mercury.

Establishing an SFTP Connection

The SFTP utility from within SSH Secure Shell can be used to transfer files quickly and securely using a simple “drag and drop” process.

You will open the SFTP utility to be able to transfer your files.

1. To open the SFTP utility, on the Menu bar,



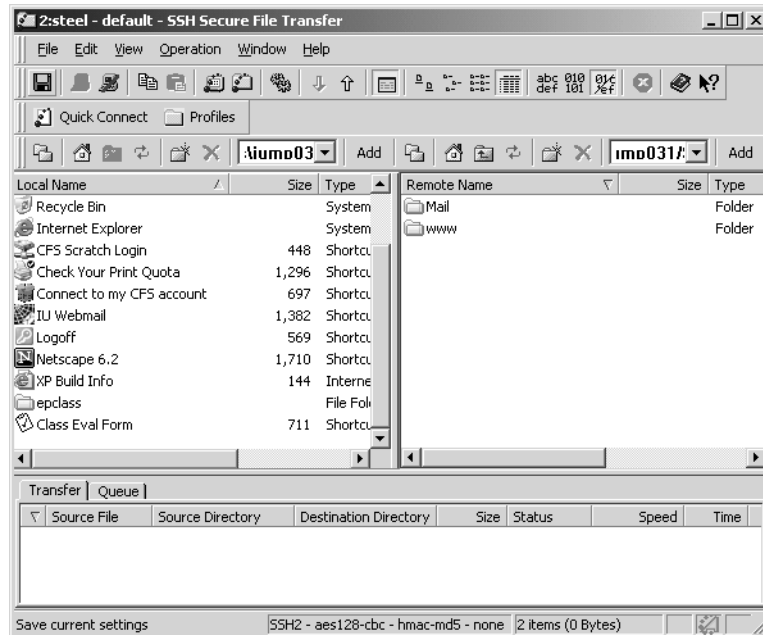
2. In the Window menu,



The SSH Secure File Transfer dialog box opens; however, before you can transfer files you may need to re-enter your account information.

3. If necessary, enter your host name and username in the appropriate fields in the dialog box; provide your password when prompted to do so.

The SFTP window opens:



You are now able to securely transfer files from the local computer, whose files are visible in the left-hand frame (under the heading “Local Name”) to the Web server account on Mercury in the right-hand frame (under the heading “Remote Name”).

Uploading Files

There are two basic terms associated with SFTP: **uploading** (sometimes called **put**) and **downloading** (sometimes called **get**). Downloading transfers files from a remote computer and stores them on a local computer. Uploading transfers files from a local computer to a remote computer.

You will upload your files from your local computer to the remote server, Mercury.

1. To specify the correct location for uploaded files, in the Remote window,



The www folder opens. Any files uploaded to your Mercury account will now be in the www directory.

2. Locate the file(s) you need to transfer on your local computer.
3. To upload a file,



NOTE: To select multiple files for uploading, hold down the **Ctrl** key while selecting the files.

The file should now be visible in both the Local and Remote frames.

4. Repeat steps 2 and 3 until all the files are transferred to your Mercury account.
5. Close the SSH Secure File Transfer Window.

You are now returned to the command prompt of the Mercury account.

Setting File Permissions

In order for new files to be viewable on the Web, the world must have permission to read those files. On some servers, such as Webserv or Mercury, the accounts are set up so that all files moved to the www directory are given the correct permissions by default. However, some other servers may require permissions to be set by the account owner

NOTE: If you must set file permissions on Mercury, you may use the command "spinweb -h" to find information about a special permission-changing utility available only on that server.

