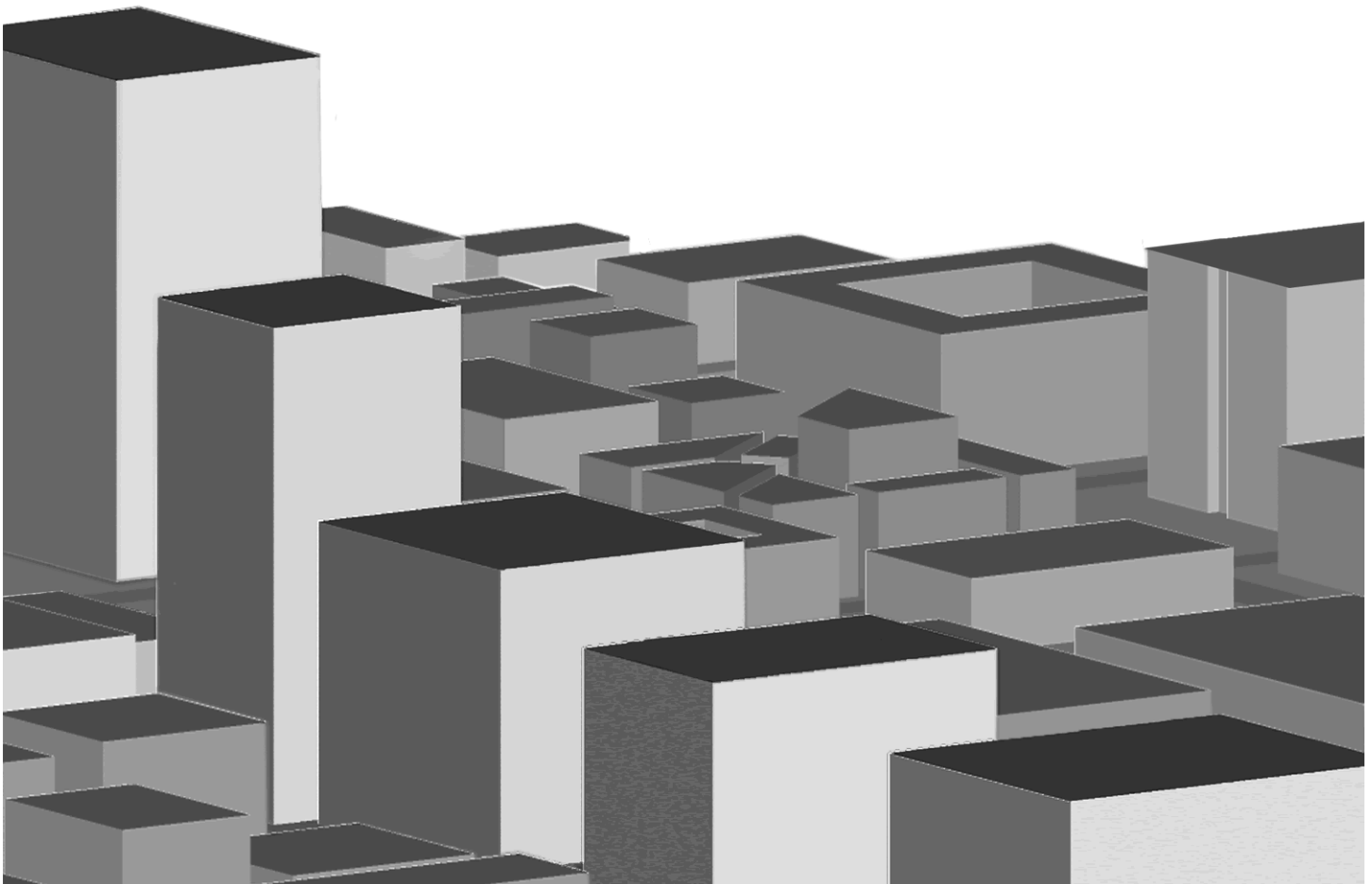




Web Publishing on Mercury - MacOS



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Contents

Publishing to the Web	1	Verifying a Published Web Page	8
Web Servers at IU Bloomington, IUPUI, IUK and IUN. 1		Obtaining Accounts, Help, and Software	9
Using Mercury	1	Requesting a Mercury Account	9
The Web Publishing Process	2	Requesting a Webserve Account	9
Connecting to the Web Server	2	Getting Help	9
Transferring Files.	3	Getting SSH2 or SFTP Software	10
Setting File Permissions	7	Contributions to These Materials	10

Publishing to the Web

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 Safari, Mozilla Firefox, or Camino) 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 Macintosh computer.

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

<http://ittraining.iu.edu/workshops/sftp/SFTPW.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:

Server:	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 they may 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).

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

You will connect to Mercury using Terminal.

With a default installation, the Terminal application is inside the Utilities folder of the Applications folder, which can be viewed using the Finder.

NOTE: On the IUPUI STC MacOS computers, the Terminal can be found on the dock.

1. To open the Utilities folder, from the Finder, press:



The contents of the Utilities folder are displayed in the Finder window. You may have to scroll to locate the icon for the Terminal application.

2. To open the Terminal application,



A Terminal window opens.

3. To connect to the server, type:

`ssh username@mercury.uits.indiana.edu` **Enter**

NOTE: Replace username with your own username for your Mercury account.

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.

4. If prompted to add Mercury to the list of hosts, type:

yes **Enter**

Your username is displayed as part of a prompt requesting the password for the account. To complete the connection, you will need to type the password.

5. To complete the connection, type:

Your Password **Enter**

The connection to the Mercury server is now established. By default, new accounts on Mercury are configured to serve Web files, and have a www folder already in the account.

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) 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 software, Cyberduck, can be used to transfer files quickly and securely using a simple “drag and drop” process.

You will use Cyberduck to transfer your files.

1. To open Cyberduck, in the Communications folder on the Dock,



Cyberduck opens, and you see the opening screen. Now we need to open a connection to the Web server.

2. To open a connection,



The SFTP login dialog box slide down over the opening screen:

A dialog box for SFTP login. It contains the following fields and options:

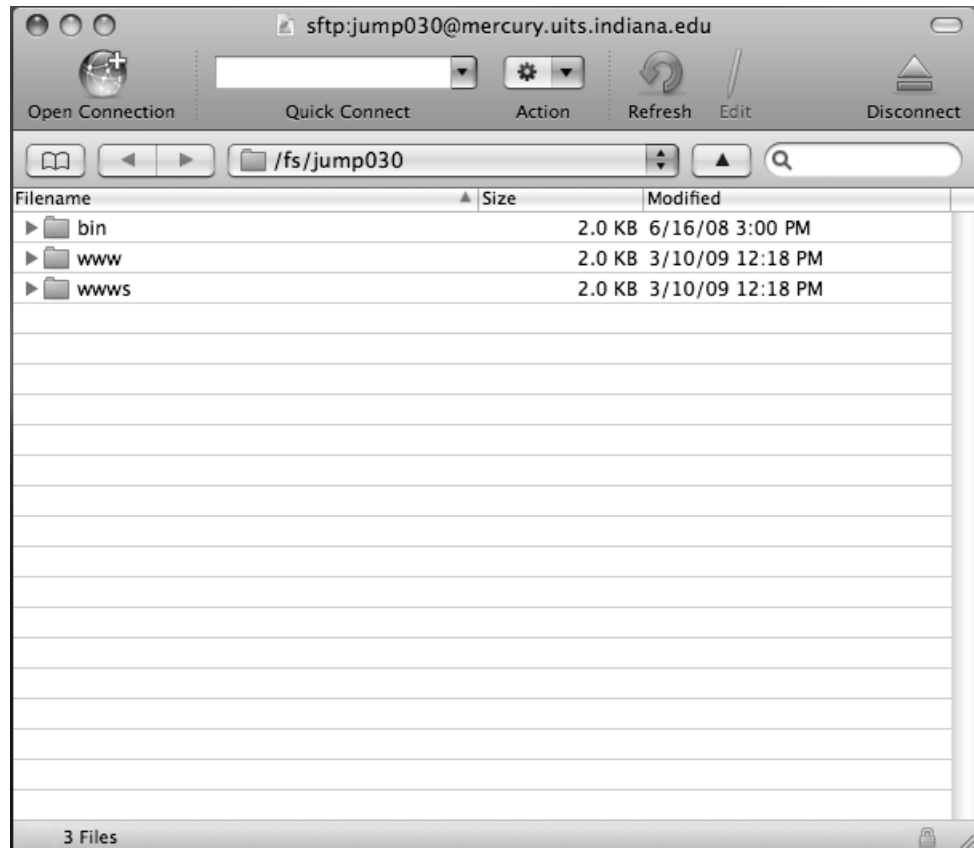
- Protocol: SFTP (SSH File Transfer Protocol)
- Server: [dropdown menu]
- Port: 22
- URL:
- Username: [text field]
- Password: [text field]
- Anonymous Login
- Add to Keychain
- Buttons: Cancel, Connect
- More Options: [arrow icon] More Options

3. Enter your login information in the appropriate fields in the dialog box.

4. To complete the connection,



The SFTP window opens:



You are now able to securely transfer files from the local computer to the Web server account on Mercury in the SFTP window.

Uploading Files

There are two basic terms associated with SFTP: **downloading** (sometimes called *get*) and **uploading** (sometimes called *put*). 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. To make the files available on the Web, they must be uploaded into the www folder in your account.

1. To open the www folder in your account,

 the www folder

The www folders contents are revealed in the SFTP window.

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

 a file from the Finder to the SFTP window

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

The file(s) should now be visible in the SFTP window.

4. Repeat steps 2 and 3 until all the files are transferred to your Mercury account.
5. To exit Cyberduck, on the Main menu,

 Cyberduck,  Quit Cyberduck

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 Webserve or Mercury, the accounts are set up so that all files moved to the www directory are given the correct permissions by default.

However, if the SFTP client is not properly configured, it may be possible to transfer files but have their permissions be those on the local machine. An indicator this may have happened would be if the files cannot be viewed in a Web browser. To correct this, you may reset the permissions on files in the www folder, using the spinweb utility on Mercury.

Using Spinweb

In addition to setting up an account to accept Web files, the spinweb utility on Mercury can be used to change file permissions for any new files in the www directory of an account. Make sure all file permissions in the www directory are set correctly by running the spinweb command again.

1. Switch to the Terminal application.

2. In the Terminal window, at the command prompt, type:

spinweb 

You see a prompt asking if you wish to run the spinweb utility.

3. To confirm running the spinweb utility, type:

yes 

Spinweb grants world access permissions to all of the files in the www directory.

4. To logout of Mercury, type:

exit 

5. To exit Terminal, on the Main menu,

 Terminal,  Quit Terminal

Verifying a Published Web Page

Once the files have been moved to a Web server and the permissions set properly, the pages may be viewed on the Web using a browser such as Safari or Camino or Mozilla Firefox.

1. Launch a Web browser.
2. To view the page, in the browser,

 File,  Open...

NOTE: In Safari or Firefox,  File,  Open Location....

3. To specify the page, type:

`http://mypage.iu.edu/~username/filename.html`

NOTE: Substitute your account username and filename where indicated above.

The page you created appears in the browser window.

Obtaining Accounts, Help, and Software

To publish files on a University server, you will need a personal account, or access to an organizational or departmental account. The following information will summarize how accounts may be obtained, where to go for additional help, and how to obtain the free software you will need for transferring files.

Requesting a Mercury Account

Mercury accounts are not automatically given to university members; however, they are available to every student, staff, and faculty member for personal Web publishing.

As with any UITS computing account, a Mercury account can be requested through Network ID Services on the Web. Go to the Network ID Services at:

<http://itaccounts.iu.edu/>

Requesting a Webservice Account

Webservice accounts are generally available to IUB, IUPUI, IUK and IUN departments, official student groups, and to instructors for research or academic purposes.

Many IU departments already have Webservice accounts. Contact your local service provider for more information about existing accounts.

IU users wanting to request a new account or find more information about Webservice accounts should visit:

http://webmaster.iu.edu/account_info/webserve.shtml

IUN users wanting a professional account should follow the directions at:

<http://www.iun.edu/~webnw/accounts/>

Getting Help

The Knowledge Base provides online help on various computer topics. To get specific information on how to create accounts or use a particular application, go to:

<http://kb.iu.edu/>

Getting SSH2 or SFTP Software

Members of the IU community can download SSH2 or SFTP software for free from IUware Online. This software is listed under Secure Communications Software. To download them for free, go to:

<http://iuware.iu.edu/>

Thank you for participating in
Web Publishing on Mercury - MacOS

Contributions to These Materials

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Where to Go From Here

You can use the resources listed below to further build your computing skills.

Taking Other IT Training & Education Workshops

UITs IT Training & Education offers hands-on instructor-led computing workshops aimed at a variety of skill levels, covering a broad range of topics. We teach hundreds of workshops on more than 80 topics every year! For more information, to see a detailed workshop schedule, or to register for a workshop, contact IT Training & Education:

Web: <http://ittraining.iu.edu/>

Email: (IUB) ittraining@indiana.edu; (IUPUI) ittraining@iupui.edu

Phone: (IUB) 812/855-7383; (IUPUI) 317/274-7383

Getting Help from Online Resources

University Information Technology Services – IU technology resources, services and support: <http://uits.iu.edu/>

IT Training Online – Self-paced IT courses you can take on your computer: <http://ittraining.iu.edu/online/>

UITs Knowledge Base – Searchable database of computing questions: <http://kb.iu.edu/>

IT Training Tips – Comment-enabled blog with training articles and videos: <http://ittrainingtips.iu.edu/>

Getting Help from Support Staff

Walk-in Support (All IU Campuses) Walk-in Support Center. Locations and schedules at: <http://kb.iu.edu/data/abxl.html>

(IUB & IUPUI) Consultants in the UITs Student Technology Centers

24 Hour Phone Support (IUB) 812/855-6789 (IUPUI) 317/274-4357

E-mail Support (All IU campuses) ithelp@iu.edu
