1   How To FTP To LIONS

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Contents

1.1   Abstract

This document explains how to use the File Transfer Protocol (FTP), one of the standard methods for copying files from one machine onto another across the Internet. FTP is in common use for downloading data/programs from servers and uploading Web sites.

Please note that this document assumes you are completely familiar with using your computer and operating system, and that you know and understand files, folders (directories), Web sites, URLs, and usernames/passwords.

1.2   Some FTP Terminology

When using FTP, there are two software packages which are involved:

The FTP Server – this is software that is running on the remote site that you are trying to send files to or retrieve files from.

The FTP Client – this is software that you run on your local desktop to communicate with the FTP Server.

There are two ways to let the FTP server know who you are:

"Authenticated" login – when the FTP client asks for your user name and password, you enter your LIONS user name and password. Once both are validated, you are given read and write access to files on the server.

"Anonymous" login – this is read-only access to certain public areas on the FTP server, usually located in the directory "/pub". You indicate this by using the special user name **anonymous**.

1.3   How to use FTP

As mentioned, FTP requires the use of "client software" which runs on your desktop to communicate with the FTP server. The two common types of clients are **Graphical** and **Command line**.

1.3.1   Graphical FTP clients

Graphical FTP clients simplifies file transfers by allowing you to transmit files by dragging and dropping icons between windows. When you open the program, when prompted for the name of the FTP host, enter **ftp.lions.odu.edu** and when prompted for your username and password, enter your LIONS user name and password. If you wish to log in as **anonymous**, you may not have to enter anything.

Some common Graphical FTP programs are

- WinSCP for Windows,

- Transmit for MacOS,

- Cyberduck for both Windows and MacOS, and

- gFTP client for UNIX/Linux platforms.

Please note that all major web browsers have removed support for the FTP protocol[12]. For the Firefox browser, there is a add-on called FireFTP which has mostly positive reviews which can be used on the Microsoft Windows platform.

1.3.2   Command line FTP

You can also use FTP in a command line format from your UNIX LIONS account or from a Windows command window. For example, to start FTP, at the command line prompt, enter:

```
ftp ftp.lions.odu.edu
```

The FTP site will prompt for your user name.

To use authenticated login, type in your user name (in this example, we're typing **foobar** as the user name – please use yours instead!) and press Enter.

```
Connected to ftp.lions.odu.edu.
220 Welcome to LIONS FTP service.
Name (ftp.lions.odu.edu:user): foobar
```

You will be asked for your password:

---

[1]https://developer.chrome.com/blog/chrome-86-deps-rems/
[2]https://blog.mozilla.org/security/2021/07/20/stopping-ftp-support-in-firefox-90/

```
331 Password required for foobar.
Password:
```

Type that in and press Enter (it will not display anything, for security reasons).

If you got it wrong, you will have to type:

```
quit
```

and start over. If you got it right, you will be logged in and FTP will display some words of welcome and respond with the `ftp>` prompt.

```
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp>
```

To use anonymous login, when prompted for the user name, enter the word **anonymous** and press Enter.

```
Connected to ftp.lions.odu.edu.
220 Welcome to LIONS FTP service.
Name (ftp.lions.odu.edu:user): anonymous
```

You will be asked for the anonymous password. By common convention, please enter your email address. Again, it will not echo.

```
331 Please specify the password.
Password:
```

Again, the FTP client will not display anything when you are entering your email address. When you hit Enter, you will be logged in and FTP will display some words of welcome and respond with the `ftp>` prompt.

```
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp>
```

Navigating Around The File System   After logging in with your LIONS user name, you can see a list of files and folders in the current server directory by typing

```
dir
```

For example:

```
ftp> dir
229 Entering Extended Passive Mode (|||18905|).
150 Here comes the directory listing.
dr-xr-xr-x    2 ftp      ftp              512 Nov 21 01:07 bin
-rw-r--r--    1 ftp      ftp           991232 Feb 20 16:19 core
dr-xr-xr-x    3 ftp      ftp              512 Dec 02 10:45 etc
-rw-r--r--    1 ftp      ftp             1915 Feb 27 13:00 index.html
drwxrwsr-x    3 ftp      ftp              512 Nov 25 10:14 noc
drwxr-xr-x    3 ftp      ftp              512 Nov 17 15:44 part1
drwxr-xr-x    6 ftp      ftp              512 Nov 17 15:43 part2
drwxr-xr-x    3 ftp      ftp              512 Jan 12 16:03 part3
drwxr-xr-x    6 ftp      ftp              512 Oct 21 19:20 part4
drwxr-xr-x    4 ftp      ftp              512 Jan 11 12:02 part5
drwxr-xr-x    3 ftp      ftp              512 Feb 03 11:45 part6
drwxr-xr-x    3 ftp      ftp              512 Feb 03 11:46 part7
drwxr-xr-x    7 ftp      ftp              512 Feb 13 09:37 pub
drwxr-xr-x    4 ftp      ftp              512 Dec 02 10:45 usr
226 Directory send OK.
ftp>
```

Anonymous users will see a much smaller view of the system:

```
ftp> dir
229 Entering Extended Passive Mode (|||19884|).
150 Here comes the directory listing.
dr-xr-xr-x    5 ftp      ftp             2048 Jun 23  2014 pub
-r--r--r--    1 ftp      ftp               26 Mar 25  2012 robots.txt
226 Directory send OK.
ftp>
```

Subdirectories (folders) are indicated in the directory listing with a letter **d** in the first character position on the line. The FTP client will show that the files are owned by user **ftp** and group **ftp**. This is a security measure and does not mean the file is actually owned by **ftp**.

If you lose track of where you are, type the following command to show the current working directory on the server:

```
pwd
```

To change directories on the server, type

```
cd directoryname
```

To go back up to the previous directory level, type

    cd ..

To change the local directory (the one where you originally typed the ftp command), type

    lcd directoryname

Downloading/Uploading Files   To send a file from your current (local) directory to the server (into its current directory) type

    put filename

To get a file from the server's current directory into your current local directory, type

    get filename

Note:

If you are making an anonymous connection, some sites by convention provide a directory called incoming, and it is only into this directory that you are allowed to upload files. However, you are not allowed to list it's contents with dir nor are you allowed to get any files from it, even if you know the name.

Quitting FTP   To leave the FTP client, type:

    quit

at the ftp> prompt.

1.4   Useful FTP Commands

These FTP commands are available on most systems.

Command	Description
`ascii`	Switch to ASCII mode. ASCII mode is the default mode; use it for transferring text files.
`binary`	Switch to binary mode. Use to transfer binary files, including files ending in `.zip`, `.tar`, `.Z`, and `.gz`, executable programs, and graphics files.
`bye` (or `quit`)	Close the connection to the remote computer and exit FTP.
`cd`	Change the directory on the remote computer.
`close`	Close the connection to the remote computer.
`del`	Delete files from the remote computer.
`dir` (or `ls`)	List the files in the current directory on the remote computer.
`get`	Copy a file from the remote computer to the local computer.
`hash`	Displays a # on the screen for every block of bytes transferred. A block is 1024 bytes in some cases, 2048 in others, but is between 1024 and 4096 in most cases. Check FTP's online help for the number represented in the FTP program you are using.
`help` (or `?`)	Lists or provides help on the use of FTP commands.
`lcd`	Change the directory on the local computer.
`lpwd`	Show the current directory (present working directory) on the local computer. This command is not available in all FTP versions. On Unix systems, try `!pwd` if `lpwd` doesn't work.
`mdel`	Delete multiple files on the remote computer.
`mget`	Copy multiple files from the remote computer to the local computer.
`mkdir`	Create a directory on the remote host.
`mput`	Copy multiple files from the local computer to the remote computer.
`open`	Open a connection to a remote computer.
`prompt`	Turn on (or turn off) file transfer prompting. Often used to turn off prompting when using `mdel`, `mput`, or `mget` so that you are not required to confirm the transfer of each file before it is transferred.
`put`	Copy a file from the local computer to the remote computer.
`pwd`	Show the current directory (present working directory) on the remote computer.
`rmdir`	Remove a directory on the remote host (the directory must be empty).
`user`	Log into the remote computer to which you are currently connected. FTP will ask for a login name and possibly a password.
`!`	In Unix, exit to the shell prompt, where you can enter commands. Enter `exit` to get back to FTP. If you follow `!` with a command (e.g., `!pwd`), FTP will execute the command without dropping you to the Unix prompt.

1.5   Web FTP Tutorial

This is a very brief tutorial on how to upload your files from a Windows(tm) platform over to the LIONS `public_html` directory for display on the web. Note that this is very command line driven and does not discuss GUI FTP clients.

1. Place the documents that you wish to upload into your "My Documents" folder. This will make things easier later on.

2. Click the 'Start' menu, then 'Run'. In the dialog box under "Open:", type `cmd` and press Enter. This will start up the Command Prompt. You should see a C prompt which looks like this:

   ```
   C:\Documents and Settings\yourusername
   ```

   where *yourusername* is your local account on your machine.

3. Issue

   ```
   cd my documents
   ```

   to go into your "My Documents" folder.

4. Type the following to start the FTP session to the LIONS ftp server:

   ```
   ftp ftp.lions.odu.edu
   ```

   Text similar to the following should now appear:

   ```
   Connected to ftp.lions.odu.edu.
   220 Welcome to LIONS FTP service.
   Name (ftp.lions.odu.edu:user):
   ```

   At this point, you would type in your LIONS account id and hit Enter. (Note that the examples use *yourusername* – just enter yours instead): The following will now appear:

   ```
   User (ftp.lions.odu.edu:(none)): yourusername
   331 Please specify the password.
   Password:
   ```

5. Here is where you type your password. For security reasons, it will not appear when you type it. The 230 message similar to the following will appear when successful:

   ```
   230 Login successful.
   Remote system type is UNIX.
   Using binary mode to transfer files.
   ftp>
   ```

6. Next, type the following to change path to your `public_html` directory:

    ```
    cd public_html
    ```

7. To upload files, type the `put` command followed by space and the name of the file to upload. For example, if you're uploading a file called 'index.htm', you would type the following:

    ```
    put index.htm
    ```

    Note that the main document in `public_html` must be either 'index.html' or 'index.htm', otherwise when you use a browser to go to your home directory, you will receive a 403 Forbidden error message.

    When the put command is finished, a message similar to the following will appear:

    ```
    200 PORT command successful
    150 Opening ASCII mode data connection for index.htm
    226 Transfer complete.
    ftp: nnnnn bytes sent in nn.nnSeconds nnnn.nnKbytes/sec.
    ```

8. Continue using put to upload the rest of the files.

9. When you're finished, type 'quit' and you will exit:

    ```
    ftp> quit
    221 Goodbye.
    ```