

# Accessing Files

## Accessing via SSH

The following tutorial should help you in using SSH to connect to and from your HUBzero server(s). You should be relatively comfortable with using a terminal (also referred to as a "command-line tool") to navigate directories and manipulate files.

**Warning:** Most accounts do **not** have SSH/sFTP access initially. Your system administrator must grant your account access before you will be able to connect.

From a terminal type `ssh <user>@<host>`. You will then be prompted for a password. Both the username and password will typically be the same as the account you registered on <host>.

```
yourmachine:~ you$ ssh username@host
yourmachine:~ you$ username@host password:
```

```
host ~
```

## Windows Clients

- [PuTTY](#) (a Telnet and SSH client)

## Mac OSX

All versions of Mac OSX come with Terminal.app which may be found in the /Utilities directory of your /Applications directory.

## Accessing via sFTP

sFTP, or secure FTP, is a program that uses SSH to transfer files. Unlike standard FTP, it encrypts both commands and data, preventing passwords and sensitive information from being transmitted in the clear over the network. It is functionally similar to FTP, but because it uses a different protocol, you can't use a standard FTP client to talk to an sFTP server, nor can you connect to an FTP server with a client that supports only sFTP.

The following tutorial should help you in using sFTP to connect to and from your HUBzero server(s).

**Warning:** Most accounts do **not** have SSH/sFTP access initially. Your system administrator must grant your account access before you will be able to connect.

### Graphical Clients

Using graphical SFTP clients simplifies file transfers by allowing you to transmit files simply by dragging and dropping icons between windows. When you open the program, you will have to enter the name of the host (e.g., yourhub.org) and your HUB username and password.

#### Windows Clients

- [WinSCP](#)
- [BitKinex](#)
- [FileZilla](#)
- [PuTTY](#)

#### Mac OSX Clients

- [Transmit](#)
- [Fetch](#)
- [Cyberduck](#)
- [Flow](#)
- [Fugu](#)

### Command-line

You can use command line SFTP from your Unix account, or from your Mac OS X or Unix workstation. To start an SFTP session, at the command prompt, enter:

```
yourmachine:~ you$ sftp username@host
yourmachine:~ you$ username@host password:
```

**host** ~

Some standard commands for command-line sFTP	Command	Description
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	cd	Change the current directory
--	----	------------------------------

	chmod	Change the permissions of a file or directory
--	-------	---

	chown	Change the owner of a file or directory
--	-------	---

	dir (or ls)	List the contents of the current directory
--	-------------	--

	exit (or quit)	Close the SFTP session and return to the local shell
--	----------------	--

	get	Copy a file from the remote host to the local machine
--	-----	---

	help (or ?)	Get help on the SFTP commands
--	-------------	-------------------------------

	lcd	Change the local directory
--	-----	----------------------------

Change the current directory
Change the permissions of a file or directory
Change the owner of a file or directory
List the contents of the current directory
List the contents of a remote directory
Close the SFTP session and return to the local shell
Copy a file from the remote host to the local machine
Copy a file from the local machine to the remote host
Get help on the SFTP commands
Change the local directory

Command	Description	See also
ls	List files and directories	ls(1), the ls command
mkdir	Create a new directory	mkdir(1), Create a new directory
ln (or symlink)	Create a symbolic link	ln(1), Create a symbolic link
lpwd	Show the current directory	Show the current directory
lumask	Change the permissions of a file	Change the permissions of a file
mkdir	Create a new directory	mkdir(1), Create a new directory
put	Copy a file from the local system to a remote system	Copy a file from the local system to a remote system
pwd	Show the current directory	Show the current directory
rename	Rename a file or directory	Rename a file or directory
rm	Delete a file or directory	Delete a file or directory
rmdir	Remove a directory	Remove a directory
version	Display the version of the command	Display the version of the command
!	In Unix, the exclamation mark is used to refer to the command entered in the previous prompt	In Unix, the exclamation mark is used to refer to the command entered in the previous prompt

## Finding Files

Once connected to a server, by either sFTP or directly with SSH, you will need to find the web root which contains the HUB install. The web root for the production version of a HUB can be found at /www/yourhub. Typically, HUBs will also have a development version of a HUB, which can be found at /www/dev.

Once in the desired directory, file layout and directory structure follows the conventions detailed in [Installation](#) unless otherwise noted.

See the [Installation](#) overview for details on a typical HUBzero install's directory structure.