

# The Basics of FTP

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FTP (File Transfer Protocol) allows a user to transfer files to/from a remote network site.

Topics: [Basic Order of Operations](#) | [Commands](#) | [Example Screen Shots](#)

## Basic Order of Operations:

1. Change to your local directory where most (if not all) of the files you will be transferring are kept.
2. Open a connection to the remote host via the `ftp` command.
3. Once connected to the remote host, change to the directory (**cd** command) where the files are that you are going to get or to the location where you are going to put files.
4. Set the transfer mode (**ascii** or **binary**).
5. Transfer the files (**get**, **mget**, **put**, **mput**).
6. Repeat steps 1, 3, 4, 5 as necessary.
7. Exit ftp with the **bye** command.

## Commands:

- **ftp [host]** - open an ftp session with the specified *host* machine.

Examples:

```
C:\> ftp neserve0
```

```
C:\> ftp erols.erols.com
```

- **open [host]** - Establish a connection to the specified *host* when you're already at an ftp prompt.

Examples:

```
ftp> open neserve0
```

```
ftp> open erols.erols.com
```

- **user [username]** - Log into an ftp server when you're already connected in an ftp session.

Examples:

```
ftp> user dlozinsk
```

```
ftp> user anonymous
```

- **ls [remote-directory]** - Print a listing of the contents of *remote-directory* on the remote machine.

The listing includes any system-dependent information that the server chooses to include.

Examples:

```
ftp> ls
```

```
ftp> ls /usr/local/bin
```

- **dir** [*remote-directory*] [*local-file*] - Print a listing of the contents in the directory *remote-directory*, and optionally, placing the output in *local-file*.

Examples:

```
ftp> dir
ftp> dir /usr/local/bin
```

- **help** [*command*] - Print an informative message about the meaning of *command*. If no argument is given, ftp prints a list of the known commands.

Examples:

```
ftp> help
ftp> help dir
```

- **?** - synonym for help.

Examples:

```
ftp> ?
ftp> ? dir
```

- **pwd** - Print the name of the current working directory on the remote machine. Often times this includes printing the full path.

Example:

```
ftp pwd>
```

- **cd** [*remote-directory*] - Change the working directory on the remote machine to *remote-directory*.

Examples:

```
ftp> cd /tmp
ftp> cd ../../
```

- **lcd** [*directory*] - Change the working directory to *directory* on the local machine. If no directory is specified, the user's home directory is used.

Examples:

```
ftp> lcd c:\temp
ftp> lcd ../../
```

- **ascii** - Set the file transfer type to ASCII . Only use this transfer method for text-files. That is, files ending in .txt, html files, and/or perl programs.

Example:

```
ftp> ascii
```

- **binary** - Set the file transfer type to support binary file transfer. Use this transfer method for anything other than a textfile. For example, Word documents, pdf files, gifs, jpgs, java class files, etc.

Example:

ftp> binary

- **put** [*local-file*] - Put (upload) *local-file* to the remote machine. No wildcards!

Examples:

```
ftp> put index.html
```

```
ftp> put test.txt
```

- **get** [*remote-file*] - Retrieve (download) *remote-file* and store it on the local machine. No wildcards!  
Can only get one file at a time.

Examples:

```
ftp> get index.html
```

```
ftp> get /tmp/readme.txt
```

- **mput** [*local-files*] - Expand wild cards in the list of *local-files* given as arguments and do a put for each file in the resulting list. The list of files should be separated by spaces.

Examples:

```
ftp> mput *
```

```
ftp> mput *.html
```

```
ftp> mput *.html test.txt README
```

- **mget** [*multiple files and/or wildcards*] - Expand wild cards in the list of remote files given as arguments and do a get for each file in the resulting list. The list of files should be separated by spaces.

Examples:

```
ftp> mget *
```

```
ftp> mget *.gif
```

```
ftp> mget *.doc image.gif salaries*
```

- **prompt** - Toggle interactive prompting. Interactive prompting occurs during multiple file transfers to allow the user to selectively retrieve or store files. If prompting is turned off, any mget or mput will transfer all files, and any mdelete will delete all files.

Example:

```
ftp> prompt
```

- **bell** - Arrange that a bell be sounded after each file transfer command is completed.

Example:

```
ftp> bell
```

- **delete** [*remote-file*] - Delete the *remote-file* on the remote machine.

Examples:

```
ftp> delete test.doc
```

```
ftp> delete /tmp/temporary_file.txt
```

- **mkdir** [*new-directory-name*] - create a directory *new-directory-name* on the remote machine.  
Examples:  
ftp> mkdir temp  
ftp> mkdir /tmp/dave
- **rmdir** [*directory-name*] - Delete the directory entitled *directory-name* on the remote machine.  
Examples:  
ftp> rmdir temporary\_directory  
ftp> rmdir /tmp/test\_dir
- **rename** [*old-file-name*] [*new-file-name*] - Rename the file *old-file-name* on the remote machine, to the file *new-file-name*.  
Examples:  
ftp> rename index.htm homepage.html  
ftp> rename /tmp/readme.txt /tmp/README\_NOW.txt
- **bye** - Terminate the FTP session with the remote server and exit ftp. On Unix, an end of file should also terminate the session and exit.  
Example:  
ftp> bye
- **quote site chmod xxx** [*file name*] - Change the permission modes of the file *file-name* on the remote system to *xxx* mode. Note that the chmod command is not always implemented.
- **get** [*file-name*] "**|more**" - Instead of downloading and saving the file *file-name* on the local machine, you view its contents. Only recommended to use with text files.

## Example Screen Shots:

1. [ftp and user](#)
2. [help and ?](#)
3. [ls and dir](#)
4. [pwd, cd, lcd, binary, put](#)
5. [mput, prompt, dir](#)
6. [rename, dir, delete, bye](#)

```
Telnet -
Connect Edit Terminal Help
71:/homes/kenmore/eng/dlozinsk>ftp ftp.erols.com
Connected to ftp.erols.com.
220 ftp.erols.com FTP server (UNIX(r) System U Release 4.0) ready.
500 'AUTH GSSAPI': command not understood.
Name (neserve0:dlozinsk): dlozinsk
331 Password required for dlozinsk.
Password:
530 Login incorrect.
Login failed.
ftp> user dlozinsk
331 Password required for dlozinsk.
Password:
230 User dlozinsk logged in.
ftp> █
```

ftp&gt; help

Commands may be abbreviated. Commands are:

!	debug	mkdir	put	size
\$	dir	mls	pwd	status
account	disconnect	mode	quit	struct
append	form	modtime	quote	system
ascii	get	mput	recv	sunique
bell	glob	newer	reget	tenex
binary	hash	nmap	rstatus	trace
bye	help	nlist	rhel	type
case	idle	ntrans	rename	user
cd	image	open	reset	umask
cdup	lcd	passive	restart	verbose
chmod	ls	private	rmdir	?
clear	macdef	prompt	runique	
close	mdelete	protect	safe	
cr	mdir	proxy	send	
delete	mget	sendport	site	

ftp&gt;

ftp&gt; help dir

dir list contents of remote directory

ftp&gt; ? dir

dir list contents of remote directory

ftp&gt;

```
ftp>
ftp> ls
227 Entering Passive Mode (153,39,50,135,229,177)
150 ASCII data connection for /bin/ls (153.39.50.135,58802) (0 bytes).
total 56
drwx-----  2 dlozinsk staff      4096 Jan 22 14:53 Mail
-rwxr-xr-x   1 dlozinsk staff      7909 Jan 22 13:54 bwp.pl
drwx-----  3 dlozinsk staff      4096 Jun 11  1998 gb
drwx-----  2 dlozinsk staff      4096 Nov 30 10:04 nsmail
drwxr-xr-x   3 dlozinsk staff      4096 Jan 13 13:36 perl
drwx-----  2 dlozinsk staff      4096 Jul 10  1998 pictures
226 ASCII Transfer complete.
ftp>
ftp> dir
227 Entering Passive Mode (153,39,50,135,229,179)
150 ASCII data connection for /bin/ls (153.39.50.135,58804) (0 bytes).
total 56
drwx-----  2 dlozinsk staff      4096 Jan 22 14:53 Mail
-rwxr-xr-x   1 dlozinsk staff      7909 Jan 22 13:54 bwp.pl
drwx-----  3 dlozinsk staff      4096 Jun 11  1998 gb
drwx-----  2 dlozinsk staff      4096 Nov 30 10:04 nsmail
drwxr-xr-x   3 dlozinsk staff      4096 Jan 13 13:36 perl
drwx-----  2 dlozinsk staff      4096 Jul 10  1998 pictures
226 ASCII Transfer complete.
ftp> █
```

```
Telnet - neserve0
Connect Edit Terminal Help
ftp>
ftp>
ftp>
ftp>
ftp>
ftp> pwd
257 "/homes/kenmore/eng/dlozinsk" is current directory.
ftp>
ftp> cd /tmp
250 CWD command successful.
ftp> pwd
257 "/tmp" is current directory.
ftp> lcd pictures
Local directory now /homes/kenmore/eng/dlozinsk/pictures
ftp>
ftp> binary
200 Type set to I.
ftp>
ftp> put in-another-world.jpg
227 Entering Passive Mode (153,39,50,135,230,5)
150 Binary data connection for in-another-world.jpg (153.39.50.135,58886).
226 Transfer complete.
185587 bytes sent in 0.18 seconds (1e+03 Kbytes/s)
ftp>
ftp>
```

Connect Edit Terminal Help

```
ftp>
ftp>
ftp> mput *.jpg
local: in-another-world.jpg remote: in-another-world.jpg
227 Entering Passive Mode (153,39,50,135,230,9)
150 Binary data connection for in-another-world.jpg (153.39.50.135,58890).
226 Transfer complete.
185587 bytes sent in 0.033 seconds (5.5e+03 Kbytes/s)
ftp>
ftp> prompt
Interactive mode on.
ftp>
ftp> mput *.jpg
mput in-another-world.jpg? y
227 Entering Passive Mode (153,39,50,135,230,20)
150 Binary data connection for in-another-world.jpg (153.39.50.135,58901).
226 Transfer complete.
185587 bytes sent in 0.0042 seconds (4.3e+04 Kbytes/s)
ftp>
ftp> dir *.jpg
227 Entering Passive Mode (153,39,50,135,230,51)
150 ASCII data connection for /bin/ls (153.39.50.135,58932) (0 bytes).
-rw-rw-rw-  1 dlozinsk staff      185587 Jan 25 09:59 in-another-world.jpg
226 ASCII Transfer complete.
ftp> █
```

```
ftp>
ftp>
ftp>
ftp> rename in-another-world.jpg iaw.jpg
350 File exists, ready for destination name
250 RNTD command successful.
ftp>
ftp> dir *.jpg
227 Entering Passive Mode (153,39,50,135,230,190)
150 ASCII data connection for /bin/ls (153.39.50.135,59071) (0 bytes).
-rw-rw-rw-  1 dlozinsk staff      185587 Jan 25 09:59 iaw.jpg
226 ASCII Transfer complete.
ftp>
ftp> delete iaw.jpg
250 DELE command successful.
ftp>
ftp> dir *.jpg
227 Entering Passive Mode (153,39,50,135,230,193)
150 ASCII data connection for /bin/ls (153.39.50.135,59074) (0 bytes).
*.jpg: No such file or directory
226 ASCII Transfer complete.
ftp>
ftp> bye
221 Goodbye.
72:/homes/kenmore/eng/dlozinsk>
```