

## **FTP for Free**

by Mary E. Tyler

## WHAT YOU NEED

- Mac OS X (\$129, www.apple.com)
- An Internet connection
- Access to a remote server

ou are the master of your own domain—your Web domain, that is. But trying to scrounge up some extra cash from banner-ad click-throughs on your Web site won't afford you anything more than a pizza every now and then (and a frozen Totino's one at that!). So you pimp yourself out as the Webmaster of other sites—like the "Can Carrot Top" protest site for the People for Ethical Treatment of AT&T Customers—maintaining various sites and their

mirrors to earn extra scrap. Just one small thing, though—good ol' Dreamweaver won't let you FTP to more than one site per project. That means you'll have to go in and change the FTP settings every time you update each mirror on each Web site. And you really don't want to have to shell out extra for an FTP program.



Buck up, buckaroo—things aren't so grim. Mac OS X has a built-in FTP client, aptly named FTP (file transfer program), that lets you transfer files to and from any FTP-enabled server. (For the uninitiated. FTP stands for file transfer

Terminal File Edit Scrollback Font Window Help 00 Terminal — tcsh (ttyp1) DEBTS TO BE PAID \$12,654.23 /ISA \$6,435.92 **ftn** – Internet file transfer program BANK O' PARENTALS \$2,200.00 FINANCIAL AID \$6.350.00 inpRtvV] [-o output] [-P port]
host [port]] [user@]host:[path] TOTAL DEBT: \$27,640,15 TODAY'S TO DO LIST CRIPTION Save Money!!! user interface to the Internet standard File Tr program allows a user to transfer files to and f ay direct copying, into the current directory. This is ide is. Refer to AUTO-FETCHING FILES below for more information Options may be specified at the command line, or to the command inter-Termina Force active mode ftp. By default, **ftp** will try to use mode ftp and fall back to active mode if passive is not ported by the server. This option causes **ftp** to always e ftp and term ted by the server. This operation ted by the server. It is only useful

On a mission to maintain your money? Use the Terminal for free FTP.

protocol, a standard Internet method of exchanging files between computers via TCP/IP.) Why haven't you noticed this app before? Probably because it resides in OS X's Darwin side, accessible only via the Terminal. While you might not want to employ it to manage huge Web sites, it's great for quick-and-dirty changes or if you're maintaining your own personal site. And unlike Stairways Software Interarchy (formerly Anarchie; \$45, www.interarchy.com), Fetch Softworks Fetch (\$25, www.fetchsoftworks.com), and Panic Transmit (\$24.95, www.panic.com), it's free. Here's how to use FTP to upload files to and download them from a remote server.

Help Me, Man! If you're not comfy cozy with commanding Unix apps, we recommend perusing the FTP manual first to gain insight on various options (aka flags) that you can apply to the program's use. So call up the man—Unix's manual command. Launch the Terminal (Applications > Utilities > Terminal). At the prompt, type man ftp and press Return to have the Terminal display the FTP manual. Press the Return key to scroll down line by line or the space bar to page down (the window's scroll bar and arrows won't work here). You can leave this window open for reference if needed. Then open a new window (aka a shell) by pressing Command-N. (If you're curious about other Unix commands, type man, press the space bar, type a Unix command, and press Return to call up its manual.)

	00	Terminal — ttyp1			
	FTP(1)	System General Commands Manual	FTP(1)		
	NAME				
		file transfer program			
	SYNOPSIS		1010 100		
		vV] [-o <u>output</u> ] [-P <u>port</u> ] [-r <u>retry</u> ] [-T <u>dir</u> , [port]] [user@host:[path][/] [file:///path]	<u>nax[,inc]]</u>		
		:password]@]host[:port]/path[/]]			Though the
		[:password]@]host[:port]/path] []			scroll bar
	–u <u>url</u> file [	<u>]</u>			indicates
	DESCRIPTION				
		r interface to the Internet standard File Tra	nsfer Proto-		otherwise,
		ram allows a user to transfer files to and fro	om a remote		this is not the
	network site.				end of the
	The last five	arguments will fetch a file using the FTP or H	HTTP proto-		
		rect copying, into the current directory. Th			manual—press
	for scripts.	Refer to <u>AUTO-FETCHING</u> <u>FILES</u> below for more in	nformation.		the Return key
	Ontiono may bo	specified at the command line, or to the comm	mand inter		
	preter.	spectriced do die communia title, or co die comm	ilana tricer-	¥	or space bar to
					scroll through it
					in its entirety.
-					in no entirety.

**Open (Sesame)** To open an FTP connection, just type ftp, press the space bar, type in the server address or Web site's URL, and press Return. For example, we typed ftp www.cancarrottop.com, and then pressed Return to open our gateway to the Carrot Top protest site. FTP will connect to the site and ask you to log in. After the Name prompt, type your user name for the site and press Return. At the Password prompt, type your password and press Return. The Terminal will then display a confirmation that you're logged in, followed by the remote computer's system type in the line below it.

00	Terminal — ttyp2
Last login: Wed Mar 1	9 11:38:39 on ttyp1
Welcome to Darwin!	
[node_6_74:~] kfong%	ftp www.cancarrottop.com
Connected to www.canc	arrottop.com
220 ProFTPD 1.2.6 Ser	ver ready.
Name (www.cancarrotto	p.com:kfong): cowabunga
331 Password required	for cowabunga.
Password:	-
230 User cowabunga loo	qqed in.
Remote system type is	UNIX.
Using binary mode to	
ftp>	

Once you've logged in to a site via FTP, the Terminal displays the remote computer's system-platform type.

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**Set the Transfer Mode** You may be on a Mac, but your hosting server may be running a different platform. Therefore, set the transfer mode—either ASCII or binary—to ensure that your file doesn't get garbled in transit. The Terminal displays the current mode below the line that states the remote system type. Use ASCII for text transfers, such as HTML files; use binary for everything else, like media files and graphics. To change modes, simply type the mode you want FTP to use. For example, to transfer text files, switch from binary to ASCII mode by simply typing **asci**i at the prompt and pressing Return. If you need to switch to binary mode, type **binary** at the prompt and press Return.

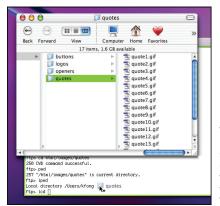
Terminal — ttyp1

## 00

Last login: Wed Mar 19 11:38:39 on ttyp1 Welcome to Darwin! [node-6-74:~] kfong% ftp www.cancarrottop.com Connected to www.cancarrottop.com 220 ProFTPD 1.2.6 Server ready. Name (www.cancarrottop.com:kfong): cowabunga 331 Password required for cowabunga. Password: 230 User cowabunga logged in. Remote system type is UNIX. Using binary mode to transfer files. tp> ascii 200 Type set to A. ftp> binary 200 Type set to I. ftp>

## Set the transfer mode to ASCII by typing ascii if you want to upload text files; use binary for everything else.

**Set the Destination** To choose the download destination for files on your Mac (your local drive), preface navigational commands with a lowercase *l*, as in *lollygagger*. For example, typing **lpwd** displays the path of your Mac's current directory (as opposed to typing **pwd**, which displays the path of the server's current directory). Type **lcd**, press the space bar, and then type the path to the target local directory, separating each directory with a slash (/) and enclosing multiple word names in quotes (""). If the file path is long, try this shortcut: Type **lcd**, press the space bar, drag and drop the target folder from a Finder window onto the Terminal window, and press Return to change to that directory. Unfortunately, if this path includes directory names with special characters, this shortcut may not work—in that case, you'll have to type the path the long way.



If you want to avoid typing a lengthy path name to change directories, drag and drop the desired folder onto the Terminal window. Find the Files OK, time to get down to business. For demonstration purposes, follow our example, but you can apply the instruction to your own files. In our example, every one of our Can Carrot Top pages sports a GIF image of a quote. Our job today is to download the current quote files from the server, update them, and then upload the new ones. First, navigate to the server directory that houses your target files using the cd (change directory) command—we typed cd html/images/quotes to navigate to our quotes directory. Type pwd (print working directory) if you need to view the path name of your current directory so you can figure out where you're at. FTP uses the same navigational commands as the Terminal to help you troll through a remote server. To navigate through your local drive, you must add one extra letter, as you'll see in the next step.

	🖲 🖯 🕤 Terminal — ttyp1
2	Last login: Wed Mar 19 11:38:39 on ttyp1
	Welcome to Darwin!
	[node_6_74:~] kfong% ftp www.cancarrottop.com
	Connected to www.cancarrottop.com
	220 ProFTPD 1.2.6 Server ready.
	Name (www.cancarrottop.com:kfong): cowabunga
	331 Password required for cowabunga.
	Password:
	230 User cowabunga logged in.
	Remote system type is UNIX.
	Using binary mode to transfer files.
	ftp> ascii
	200 Type set to A.
	ftp> binary
	200 Type set to I.
	ftp> cd html/images/quotes
	250 CWD command successful.
	ftp> pwd
	257 "/html/images/quotes" is current directory.
	ftp>

Here, we navigated to our server's *quotes* directory using the cd command, and then typed pwd to make sure we were really there.

**Come and Get It** To download a single file, simply type get, press the space bar, type the file name, and press Return. For example, we typed get quotel.giflto download our quotel.gif file (make sure the transfer mode is set correctly for your file—we used binary for our GIFs). If you need to grab stuff in bulk and your files are similarly named, do what we did instead of grabbing files one by one; we typed mget quote\*.gifland pressed Return to download all files whose names begin with quote and end with .gifl(apply your own semantics). The asterisk (\*) is a wild card that stands for any unspecified characters. For each file that matches the pattern, mget will ask if you want to download it—just press Return if you do, or type n (no) and press Return if you don't.

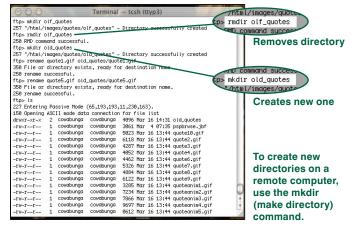
00	Terminal — tcsh (ttyp1)
ftp> lpwd	
local direc	tory /Users/kfong
'tp> lcd /H	ideout/Writing/Copywriting/Projects/CanCarrotTop.com/images/quotes
	tory now /Hideout/Writing/Copywriting/Projects/CanCarrotTop.com/images/quotes
tp> ls	
	g Passive Mode (65,193,193,11,230,62).
	ASCII mode data connection for file list
	1 cowabunga cowabunga 13861 Mar 4 07:35 pspbrwse.jbf
	1 cowabunga cowabunga 3617 Mar 4 07:35 quote1.gif
	1 cowabunga cowabunga 5823 Mar 4 07:35 quote10.gif
	1 cowabunga cowabunga 6118 Mar 4 07:35 quote2.gif
	1 cowabunga cowabunga 4287 Mar 4 07:35 quote3.gif
	1 cowabunga cowabunga 4052 Mar 4 07:35 quote4.gif
rw-rr	1 cowabunga cowabunga 4582 Mar 4 07:35 quote5.gif
	1 cowabunga cowabunga 4462 Mar 4 07:35 quote6.gif
	1 cowabunga cowabunga 4052 Mar 4 07:35 quote4.gif
	1 cowabunga cowabunga 4582 Mar 4 07:35 quote5.gif
rw-rr	1 cowabunga cowabunga 4462 Mar 4 07:35 quote6.gif
tp> get qu	
	e1.gif remote: quote1.gif
	g Passive Mode (65,193,193,11,230,63).
	BINARY mode data connection for quote1.gif (3617 bytes)
	**************************************
00:00 ETA	
	r complete.
	received in 00:00 (22.37 KB/s)
tp> mget q	
iget quote1	.gif [anpay?]?
	passive Mode (65,193,193,11,230,65).
	BINARY mode data connection for quote1.gif (3617 bytes)
	**************************************
00:00 ETA	
	r complete.
	received in 00:00 (23.16 KB/s)
	a.gif [anpqy?]? y
	g Passive Mode (65,193,193,11,230,66).
	BINARY mode data connection for quote10.gif (5823 bytes)
188%  ******	**************************************

Because we have several similarly named GIF files, we typed mget quote\*.gif to download every one in the numbered series. Put That Back After you're done updating your files, upload them back onto your Web hosting server. You can choose to do this a file at a time by typing put, pressing the space bar, typing the file name, and pressing Return (that is, put quotel.gif), or use the command mput as you used mget in step 6. Remember, FTP operates within the remote and local directories you specify—if you download a file, update it, and then move it to another folder, you'll need to change your current local directory via the Terminal to upload that file back to the server.

🖲 🖯 🔵 Terminal — tcsh (ttyp1)			
ftp> lpvd			Ø
Local directory /Users/kfong			4
<pre>ftp&gt; lcd /Hideout/Writing/Copywriting/Projects/CanCarrotTop.com/images</pre>			
Local directory now /Hideout/Writing/Copywriting/Projects/CanCarrotTop	o.com/images/quote	s	
ftp> mput quote*.gif			
mput quote1.gif [anpay?]? 227 Entering Passive Mode (206,57,18,14,129,216)			
150 Opening BINARY mode data connection for guote1.gif.			
1980 (####################################	53,49 KB/s	00:00 ETA	1.8
226 Transfer complete.	30.17 Kby 3	00.00 114	
25209 bytes sent in 00:00 (31.51 KB/s)			
mput quote10.gif [anpay?]?			1.8
227 Entering Passive Mode (206,57,18,14,96,42)			
150 Opening BINARY mode data connection for guote10.gif.			1.8
100%  ***********************************	30.82 KB/s	00:00 ETA	
226 Transfer complete.			1.8
16833 bytes sent in 00:00 (22.52 KB/s)			1.5
mput quote11.gif [anpqy?]?			1.8
227 Entering Passive Mode (206,57,18,14,206,117)			
150 Opening BINARY mode data connection for quote11.gif.			1.8
108%  ************************************	335.64 KB/s	00:00 ETA	
226 Transfer complete.			1.5
46979 bytes sent in 00:00 (246.42 KB/s)			
mput quote12.gif [anpay?]? 227 Entering Passive Mode (206,57,18,14,99,235)			
158 Opening BINARY mode data connection for quote12.gif.			
199% [***********************************	292.82 KB/s	00:00 ETA	-
226 Transfer complete.	272.02 ND/ 5	00.00 LIA	
22000 bytes sent in 00:00 (111.92 KB/s)			11
mput guote13.gif [anpay?]?			1.1
227 Entering Passive Mode (206,57,18,14,245,3)			Γ¥.
150 Opening BINARY mode data connection for quote13.gif.			1
			14

To upload your files, use the put command for single files or mput for multiple uploads.

**Move Stuff into New Places** We got a call from our client, telling us that quotes 1 and 5 are now obsolete. We don't want to delete the files just in case the client changes his mind. Instead, we can put them into a new directory. To create a new directory, navigate to the parent directory in which you want the new directory to appear, and type **mkdir** new directory name (for example, we typed **mkdir old\_quotes** to create a new directory called old\_quotes within our quotes directory). If you're dyslexic like us and mistype the directory name, remove the directory by typing **rmdir** directory name typo. Then move files by using the rename command as you did in step 8.



**Fix Boo-Boos** We accidentally uploaded two nonquote files—one of which we shouldn't have uploaded at all, and another that should've gone into our parent *images* directory instead of our quotes directory. No problem. To get rid of a file, type delete followed by the unwanted file's name—we typed delete zdonate\_Can\_Carrot\_Top.giflto remove that GIF. To move a file from one directory to another, you can't just drag and drop as in the Mac OS; you have to rename the file with a new path. To move our sign\_our\_ petition.gif file, we typed rename sign\_our\_petition.gif (space) ../sign\_our\_petition.gif. The command ../ before the second argument means "the parent of the present working directory," which is our images directory. Likewise, we could also do the same move by typing this out the long way: rename sign\_our\_petition.gif (space) /html/images/sign\_our\_petition.gif.

<pre>In the Unix world, if fpp la 227 Entering Passive Mode (65,193,193,11,230,144). 158 Opening 4281 mode data connection for file list -rvu-ru-r 1 cowdbunga cowdbunga 3061 Mr 4 07:35 psptryse.jbf -rvu-ru-ru-ru 1 cowdbunga cowdbunga 3061 Mr 4 07:35 psptryse.jbf -rvu-ru-ru-ru 1 cowdbunga cowdbunga 3061 Mr 16 13:34 quote1.gif -rvu-ru-ru-ru 1 cowdbunga cowdbunga 4287 Mr 16 13:34 quote1.gif -rvu-ru-ru-ru 1 cowdbunga cowdbunga 4287 Mr 16 13:34 quote1.gif -rvu-ru-ru-ru 1 cowdbunga cowdbunga 4387 Mr 16 13:34 quote1.gif -rvu-ru-ru-ru 1 cowdbunga cowdbunga 4387 Mr 16 13:34 quote1.gif -rvu-ru-ru-ru 1 cowdbunga cowdbunga 4387 Mr 16 13:34 quote1.gif -rvu-ru-ru 1 cowdbunga cowdbunga 4387 Mr 16 13:44 quote1.</pre>	ftp> Is 227 Entering Passive Mode (65,193,193,11,230,144). you want t	· ·
<pre>190 Opening ASCIII mode data connection for file [itt n=v=r-r=-1 cowdungs data connection for file [itt n=v=r=r=-1 cowdungs data connection for file [itt n=v=r=r=-1 cowdungs data conducting data with file data data data data data data data dat</pre>	ATTO CONTRACT TO A SHARE AND A SHAR	
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<pre>-ru-t 1 cowdungs cowdungs 6023 Mor 16 13144 quote10_qif -ru-t 1 cowdungs cowdungs 6128 Mor 16 13144 quote2_qif -ru-t 1 cowdungs cowdungs 6128 Mor 16 13144 quote3_qif -ru-t 1 cowdung cowdung 628 Mor 16 100 Mor 10</pre>		mectories, you
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<pre>rv-r</pre>	-re-r I cowabanga cowabanga 5625 hur 16 13:44 daptere.gti	me me me wim
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<pre>-rv 1 cowburgs condurgs 452 hr is 13:44 guide5.gif -rv 1 cowburgs condurgs 452 hr is 13:44 guide5.gif -rv 1 cowburgs cowburgs 452 hr is 13:44 guide5.gif -rv 1 cowburgs cowburgs 452 hr is 13:44 guide5.gif -rv 1 cowburgs cowburgs 452 how the is 13:44 guide5.gif -rv 1 cowburgs 258 DELE command successful. -rv 1 cowburgs 258 DELE command successful. -rv 1 cowburgs 258 File or directory exists, ready for destination name. -rv 1 cowburgs 258 rename successful. -rv 1 cowburgs 258 rename successful. -rv</pre>	-re-re-re-re-re-re-re-re-re-re-re-re-re-	i nume.
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<pre>rvur 1 cowdunga Cod TendIme Successful. -rvur 1 cowdunga covdunga 226 Transfer complete. Tsp delte zonnet_com_crort_Top.gif 239 OLE commond succesful. Tsp rennes sing.our_petition.gif/sign_our_petition.gif 338 File or directory exists, ready for destination name. 250 rennes succesful.</pre>		indcion nume.
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ftps-delete zdonate_Com_Carrot_Top.gif 250 DELE command successful. ftps-rennes sign_our_petition.gif/sign_our_petition.gif 380 File or directory exists, ready for destination name. 250 rennes successful.		
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ftp> renome sign_our_petition.gif/sign_our_petition.gif 380 File or directory exists, ready for destination name. 250 errome successful.		
350 File or directory exists, ready for destination name. 250 rename successful.		
250 rename successful.		
rops		

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**Say Good-Night** Finally, your work is done. Now what? Time to terminate. There are a few different ways to terminate an FTP connection. To terminate the connection without quitting FTP, just type **close** and press Return. If you want to quit FTP and close your connection, type **bye**, **exit**, or **quit** and you'll return to the original shell. For future reference, if you forget which commands the Terminal understands, type **help** and press Return from within FTP and it'll list them. Typing **help** command name gives you a one-line explanation of what that command does. OK, go geek out!

000	Terminal — tcsh (tty
ftp> help quit	
quit ftp> help lcd	terminate ftp session and exit
lcd	change local working directory
ftp> help quit quit	terminate ftp session and exit
ftp> help bye	
bye ftp> help exit	terminate ftp session and exit
exit	terminate ftp session and exit
ftp> help close	terminete film erenien
close ftp> quit	terminate ftp session
⊲OS X Junkie> [	

If you forget which command does what, type help before the command name to get a quick explanation.

Mary E. Tyler remembers when Macs were expensive and FTP clients weren't just cheap—they were free.