

## NcFTP

# Convenient File Transfer

**N**cFTP is a small compendium of programs which are designed for easy command line based file transfers, which includes:

- the NcFTP Client, an FTP browser
- NcFTPGet and NcFTPput, non-interactive file transfer programs
- NcFTPLs, a tool for displaying the directories on the server via FTP and without using an interactive shell
- NcFTPBatch and NcFTPspooler – all the programs within this collection work hand in hand.

NcFTP is of course, available for various Unix platforms, but it can also be used on a variety of other operating systems. The current version is 3.1.4 (dated 2nd July 2002), although some distributions still include the older 2.4.3 version, where you might notice a few new differences compared to the current version. If you intend to work your way through the commands and parameters discussed in this article you should consider updating to 3.x.

The client is launched by typing *ncftp* at the command line. Now instead of the standard prompt, you will now see *ncftp>*. Any other commands are then typed here. You can now use the *open* command or the shortcut *o* to open a new connection to an FTP server:

```
ncftp> open ftp.debian.org
Connecting to ftp.debian.com
(208.185.25.38)...
raff.debian.org FTP server
(vsftpd)
Logging in...
Login successful. Have fun.
Sorry, I don't do help.
Logged in to ftp.debian.com.
ncftp / > _
```

As you can see, we have now logged on successfully and are looking at the FTP server's root area. The current FTP server allows so-called *anonymous* logins, that is, we are now logged on to the server via the *anonymous* guest account. Most servers prompt you for your email address as your password for the guest

FTP ("File Transfer Protocol") is an Internet protocol for exchanging data between two hosts. As a standard command line tool *ftp* offers only limited functionality. The easy-to-use NcFTP client not only displays the status of your downloads but offers a number of useful additional features. **BY HEIKE JURZIK**



account. Do try to be polite and enter your email address for use in statistical evaluation. You may find that anonymous access is denied. In this case you will see an error message, such as "Can't set guest privileges", "User anonymous access denied" etc.

If you happen to have an account on the current server, you can log on using *open -u username hostname* and type the corresponding password. You can also save time by using the *-p* (for "password") parameter. In this case the complete command is as follows:

```
ncftp> open -u username -p password hostname
```

Quite a few well-known shell commands (*cd*, *pwd*, *ls*) work as you would expect

them to, although they have been re-implemented within the program. You can type *help* to display an overview of the available commands. *ls* displays a list of files and directories for the current server:

```
ncftp / > ls
debian-archive/
debian/
debian-cd/
```

If you want to change the directory to *debian-archive/*, you just need to type the command *cd debian-archive*. The prompt changes to *ncftp/debian-archive >* to show you the current working directory. If you want to view the *README* file in this directory, you do not need to transfer it to your own computer. Instead, you simply type *less README*.

File name completion is one of the more useful features, and one that you are probably familiar with, if you use *bash*. To launch the command we just discussed, *less README*, you can simply type *less R [Tab]*, as the current directory contains only one file name starting with a capital "R". Unique file names are then automatically completed. To do so NcFTP uses the *dir* command to create a list of files that is then parsed during the completion process. Depending on your network performance and the number of files in the current directory, this may take a while to complete.

You can also use the *get* command to transfer files to your own computer. A progress indicator shows the progress of the download. As you cannot enter any additional commands while you are downloading, NcFTP provides the *bgget* command, with "bg" denoting "background". You can even log out without interrupting the download. This same feature is available for the *put* command, which is used to upload a file from your computer to another host.

The alternative command, *bgput*, runs the upload process in the background. You can use the *jobs* command to check all the jobs currently waiting in the background.

To start downloading or uploading, use the *bgstart* command. The following message is displayed:

```
ncftp / > bgstart
Background process started.
Watch the "/home/huhn/.ncftp/sp2
ool/log" file to see how it is
progressing.
```

A quick look at the generated logfile shows the following:

```
2002-04-24 14:23:07 [026858] | 2
  Cmd: RETR file.tar.gz
2002-04-24 14:23:07 [026858] | 2
  150: Opening BINARY mode data2
connection for file.tar.gz (272
06 bytes).
2002-04-24 14:23:07 [026858] | 2
  226: Transfer complete.
2002-04-24 14:23:07 [026858] | 2
  Succeeded downloading file.ta2
r.gz.
```

The second line contains the message: "Opening BINARY mode" – which is the

default NcFTP setting for file transfers. In other words, the data you transfer will not be changed in any way. However, ASCII mode will correct the end-of-line characters that are used by all the various operating systems (you can change modes using the *type ascii* or *type binary* commands). The good news is, for Linux, you will probably not need this mode.

### I want it all!

The *get* command has an even greater set of features: You can transfer multiple files and even use wildcards. Suppose you are interested in two files on the FTP server, *README* and *README.old*, you can either *get README README.old* or use *get README\**. Additionally, you can use the *-z* flag to get a file and save it locally but with a different name. To copy *README.old* from the remote server to *README.alt* on your local machine, you would type the command *get -z README.old README.alt*.

NcFTP attempts to restart aborted downloads. If a file transfer happens to be interrupted, the program attempts to retrieve ("reget") the missing parts of the download when re-launched. However, you can use the *-f* flag to disable this behavior. You can also append data to an existing file. To do so, use *get -A file.log* ("append"), which will download the file and append it to a local file with the same name.

One extremely practical feature is NcFTP's ability to transfer complete directory structures recursively. *get -R directory* copies the directory plus any subdirectories and any files stored in

them on to your local machine. NcFTP also provides a few additional "l"-commands. The "l" means "local" in this case and allows you to shell out of NcFTP to run a few commands on the local machine. *lcd* changes the local directory. Once again, file completion is available.

*lls* calls the */bin/ls* command on your local machine, allowing you to quickly check the contents of the local directory, before downloading to it from the server. *lmkdir* (i.e. "make directory") allows you to create a new subdirectory without having to quit NcFTP.

When you attempt to terminate the connection to the server using *close*, or to quit NcFTP using *quit*, you will see the following prompt:

```
You have not saved a bookmark
for this site.

Would you like to save a
bookmark to:
  ftp://ftp.debian.com/2
  debian-archive/

Save? (yes/no)
```

If you type "yes" to confirm, the program will suggest a name for the server ("Enter a name for this bookmark, or hit enter for 'debian':") and save the bookmark. To maintain your own bookmarks simply type *bookmarks*, which will launch the simple editor. In contrast to the earlier versions of this program, the new version encrypts your passwords in *~/.ncftp/bookmarks*, instead of saving them in clear text. ■

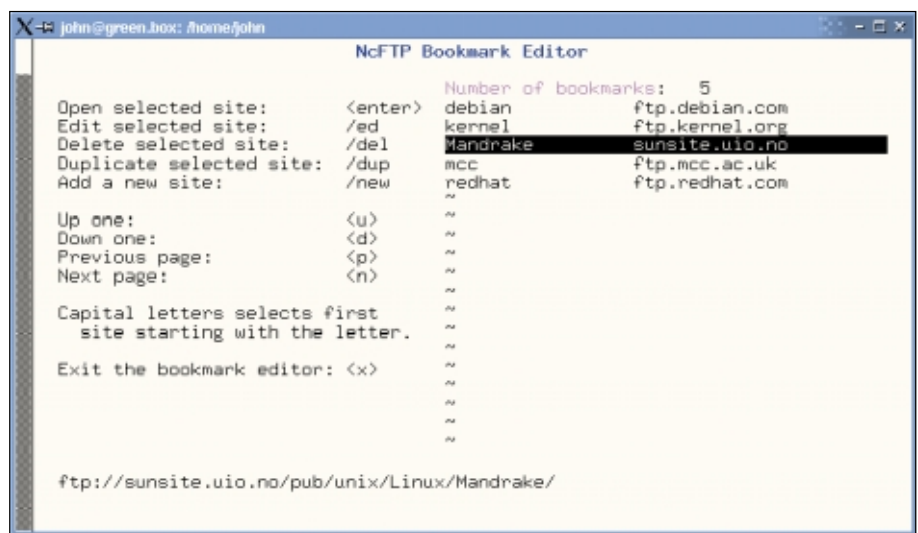


Figure 1: Maintaining bookmarks in NcFTP