

FAQ

COLLABORATORS

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Chapter 1

FAQ

1.1 Frequently Asked Questions (FAQ) List

Last-Modified: 25-May-94

Version: 2.4.8

Anonymous FTP
Frequently Asked Questions (FAQ) List

Suggestions for changes and comments are always welcome.

** Updated News:

Tom Czarnik has stopped maintaining this list.

The last version he released was 2.4.2 of 29-Apr-93.

Starting with version 2.4.3 this FAQ and the Anonymous FTP
sitelist is maintained by Perry Rovers (Perry.Rovers@kub.nl)

Copyright (c) 1993-1994, Perry Rovers -- Text may be quoted in on-line documents and written publications, but please notify me so I can add a reference and make sure that you add pointers to the places where people can get the latest version. You may make this file available on public servers, like ftp, gopher or WWW servers as well, but please let me know. Do not modify the info itself (i.e. converting it to some other format) before consulting me. All rights reserved. This may seem stricter than the last versions, but I only want to make sure I'm notified of how this file is used and for what purpose. If you contact me, I'm sure we can work something out.

Thanks to all the people who have contributed to this document!

[Note: during May, June, July and August, my e-mail responses will probably be delayed due to holidays and other work. Those that expect responses within a couple of days should ask someone else ;-)]

1.2 Contents

I keep a directory of Internet sites accepting Anonymous FTP and mail

retrieval of their files.

Topics are shown below and with their respective answers (*: new, +: changed)

Format: (Q#) for a question and (A#) for the answer.

- + (1) What is and how do I use the FTP program?
- + (2) What types of FTP information are available?
- + (4) What is the most current version?
- + (4) Retrieving the listings via email.
- + (5) Using FTP without direct Internet access.
- + (6) Getting help when you have problems with a site.
- (7) Getting a site listed or changes made.
- + (8) What is Archie and how does it relate to the list?
- + (9) Using FSP/Gopher/WAIS/WWW to access archives.
- + (10) How do I stop the listings from scrolling off the screen?
- * (11) How do I set up an (Anonymous) FTP server?

1.3 What is and how do I use the FTP program?

(Q1) What is and how do I use the FTP program?

(A1) For novices to the Internet, I highly recommend a good book, 'The Whole Internet User's Guide and Catalog' by Ed Krol. It is written clearly and contains an enormous amount of information. Read it cover to cover, and keep it close at hand. Published by O'Reilly & Associates, it is available from many computer bookstores or O'Reilly's worldwide distributors. Contact the publisher at +1 707-829-0515 (USA), or send e-mail to nuts@ora.com for information.

Unfortunately, this book is already outdated, but it still offers an invaluable resource and manual for novices and more experienced Internet users. Apparently there will be a new version of this book somewhere this year, so look out for it. Other books are 'The Internet Companion', 'Internet: Getting Started', 'Internet Unleashed', 'The Internet Guide for New Users' and a lot more. Look for them in your local bookstore. Almost all of the information in these books is also available on-line through various documents like the MaasInfo files, Zen and the Art of the Internet, The HitchHiker's Guide to the Internet, The Big Dummy's Guide to the Internet, the on-line version of The.Internet.Companion, the Internet Resource Guide and a whole number of FAQs, RFCs and the like.

The MaasInfo and Big Dummy's Guide files appear to be the most recent of these kind of files (look for info on where to get them in the sitelisting itself).

Another source for information might be the magazine Internet World, from Meckler Corp. (meckler@jvnc.net).

I'm not affiliated with any of the publishers, authors or anyone mentioned above, but I bought some of the books and like them.

The information below was originally maintained by Jon Granrose (one of the old maintainers of the listings). Mike Jones added the info about the

existence and location of the compression data chart maintained by David Lemson. Tom Czarnik (another old maintainer) added some as well and I have made some changes too.

By:

Jon Granrose
Mike Jones
Tom Czarnik
Perry Rovers

This is not a definitive guide to FTP, but will give a novice a general idea of what it is and how to do it.

What is FTP?
What is Anonymous FTP?
Commands
Procedure

1.4 What is FTP?

What is FTP?

FTP (File Transfer Protocol) allows a person to transfer files between two computers, generally connected via the Internet. If your system has FTP and is connected to the Internet, you can access very large amounts of archives available on a number of systems. If you are on Bitnet or a UUCP host, you should look for servers that work through the mail. A good source of information on archives in general, is the Usenet newsgroup comp.archives.

1.5 What is Anonymous FTP?

What is Anonymous FTP?

Many systems throughout the Internet offer files through anonymous FTP. This means that you can access a machine without having to have an account on that machine. These anonymous FTP servers contain software, documents of various sorts, and files for configuring networks. Archives for electronic mailing lists are often stored on and are available through anonymous FTP. An enormous amount of information is stored on these machines and is ready for anyone who's seeking it.

Note that all this is subject to change, it is a privilege and the person responsible for the machine can shut it down at any time without you being able to do anything about it.

1.6 Commands

Commands

All the normal FTP commands may be used to retrieve files. Some FTP commands are the same on different computers, but others are not.

Usually, FTP will list the commands if you type 'help' or type a question mark (?). Also, your computer's help command may have information about FTP. Try 'man ftp', 'man ftpd' or 'help ftp'.

Some useful commands available on most systems include:

ascii	Switch to ascii mode. Ascii mode is the default mode and used for transferring text files
binary	Switch to binary mode. For transferring binary files like .ZIP files, .Z files and the like
cd	Change the directory on the remote computer
dir/ls	List the files in the current directory on the remote computer
get	Copy a file from the remote computer to yours
hash	Puts a '#' on the screen for every <number> of bytes transferred. <number> is 1024 in some cases, 2048 in others but is between 1024 and 4096 in most cases. Check the ftp 'help' function for more info on the number for your clientprogram.
help	Gives help on the use of commands within the ftp program
lcd	Change the directory on your computer (the 'l' is for local)
lpwd	Shows the present working directory (pwd) on your computer (the 'l' is for local). Note: this may not work on all machines. On a Unix machine, try !pwd if lpwd doesn't work.
mget	Copy multiple files from the remote computer to yours
pwd	Shows the present working directory (pwd) on the remote computer

1.7 Procedure

Procedure

Anonymous FTP is a facility offered by many machines on the Internet.

This permits you to log in with the user name 'anonymous' or the user name 'ftp'. When prompted for a password, type your e-mail address -- it's not necessary, but it's a courtesy for those sites that like to know who is making use of their facility. Be courteous. Some sites require a valid e-mail address, others don't.

You can then look around and retrieve files. (Most anonymous ftp sites do not permit people to store files). Note that when you retrieve files, you have to know where the files are going to end up on your machine. This is where the 'lpwd' command comes in handy. Also note that when you have transferred a file that you want to use on your PC, but you run ftp from a Unix machine

(or a similar mainframe or network machine), you will have to ftp the file from the Unix machine to your PC first (this is assuming that you can't ftp to outside your company or campus from your PC, otherwise you could have gotten the file directly to the PC). This may sound silly, but sometimes people don't know where their files are stored or a system administrator decides to give ftp access to only a few systems.

Typically, a directory called 'pub' is where the interesting things are stored. Some sites will have a file with a name like ls-lR, that contains a complete list of the files on that site. Otherwise, you can type ls -lR and get such a listing -- for some sites, this can take a LONG time.

When retrieving non-text files, you must use binary mode, otherwise the file gets messed up. To do this, use the 'binary' command. (It's safe to set this for text files, but the result might look a bit different from an ASCII transfer) If the site at the other end is non-Unix, you may need to use some other mode -- see the documents or README files for that site and for FTP.

The simplest way to initiate FTP would be to give the command 'ftp <system-name>'. The <system-name> is the remote system you are connecting to, either a name like garbo.uwasa.fi, if you have an entry in /etc/hosts or are accessing a Domain Name Server or the Internet address 128.214.87.1 for Garbo. If that last sentence doesn't seem to make sense just try: ftp garbo.uwasa.fi or ftp 128.214.87.1 and look what happens. After a short wait, you will be prompted for your username. If you do not have an account on the remote system, some systems allow you to use 'anonymous'. This gives you a restricted access path (meaning that you can only run certain commands like 'dir' or 'ls' and are allowed only access to certain directories like 'pub').

You would then be prompted for a password. Some systems will tell you to send your real identity as the password. What you type doesn't matter in most cases, but it is suggested to give your mail address. This as a courtesy to the archive maintainers, they would like to know who's using their system. Other systems need a password of 'guest', or something similar. DO NOT TYPE A PASSWORD THAT YOU USE ON YOUR OWN SYSTEM.

After that, you should receive the FTP prompt (usually ftp>) and have access. You can get a directory of files by giving a 'dir' command or if the remote system is Unix-based, 'ls -l' will give the familiar output. On Garbo, there is a file available in the default anonymous ftp directory that explains what Garbo is and where files are located. Look for 00-index.txt files or something similar.

Unix systems will all have the same directory structure, and moving around is done with the 'cd' or 'cwd' command. TOPS-20, VAX/VMS, DOS VM/CMS and other systems have a different structure, but movement is still accomplished with the 'cd' command.

TOPS-20 has directories of the form: DISK:<DIR1.DIR2>, VAX/VMS has directories of the form DISK:[DIR1.DIR2] (use cd [-] instead of cd .. and cd [.DIR1] instead of cd dir1). DOS, OS/2 and Windows NT look like Unix but have shorter directory names. VM/CMS has mini-disks that can be accessed with the CD command. A lot of systems give some information about how to use the system when you login, look for that after you have typed the password (some of those messages will not be shown if you use a - as the first character in your password, some people need this because the system won't recognize them otherwise. If you have problems logging into a site, try a - as the first character).

Different systems have different organizations for their files, and the above example is the way most archives have it set up. By looking around other systems, you can learn how their files are arranged and move around much faster. Note, however, that FTP will not allow you outside the FTP 'root' directory. Moving about the entire system is not permitted. You will get 'Permission denied' messages.

Usually, files are grouped in archive files, so you don't have to get many small files separately. The most common archival file formats for the Internet are tar and zip. Occasionally, people use shell archives (shar) instead. Tar files are basically a bunch of files 'glued' together. Tar archives can be unpacked by running the 'tar' command on a Unix system (tar exists also for DOS, VMS and a whole bunch of other Operating Systems) -- you may want to first do a 'tar t' on the file to see what it contains before unpacking it. This means typing: tar t filename.tar and looking what the output shows. Be careful when unpacking shell archives since they have to be run through the Bourne shell to unpack them. (The simplest way is to use the unshar command).

Files are often stored compressed, because they take up less space that way -- for Unix, the most common compression 'scheme' is the 'compress' program, indicated by a .Z suffix on the file name. Also you will find Arc, Zoo, Arj, Lzh or Zip files, which are combined archival and compression formats (there are other archival formats as well - talk to the systems staff if you encounter them and don't know how to deal with them). For .zip files use zip and unzip (or pkzip/pkunzip), which are available for all Operating Systems.

Archival and compression utilities are very handy, but can make it very difficult to 'get' a file and use it:
when you're on a DOS or VMS system for example you can't type:

```
get filename.tar.Z
```

You have to type:

```
get filename.tar.Z filename.tz
```

or something like that and then remember what you have to do to unpack the file, namely first running your version of 'compress'

on it and then your version of 'tar'.
Remember this when you can't seem to transfer a file.

These are the most common file types (there are zillions more):

SUFFIX	FTP	TYPE
-----	---	-----
.arc	bin	ARChive (hardly used anymore)
.arj	bin	Arj (mostly MS-DOS)
.gif	bin	Graphics Interchange Format
.gz	bin	GNU Zip (Not compatible with Zip. Found on some sites as .z files. GNU zip is seen in combination with tar as .tgz files, maybe even as .tz files)
.hqx	bin	HQX (Mac)
.jpg	bin	JPEG (graphics format)
.lzh	bin	LHa, LHarc, Larc
.shar	ascii	SHell ARChive (mostly Unix)
.sit	bin	Stuff-It (Mac)
.tar	bin	Tape ARChive (mostly Unix)
.uu	ascii	uuencode/uudecode (also .uue)
.Z	bin	compress (mostly Unix, seen in combination with tar as .tar.Z files)
.zip	bin	Zip (either PKZip or Zip/Unzip)
.zoo	bin	Zoo

To get a list of all file compression/archiving methods and the programs to uncompress/unarchive (on the PC, Mac, Unix, VAX/VMS, VM/CMS, Atari ST and Amiga systems), FTP to the following sites and retrieve the listed file:

ftp.cso.uiuc.edu directory: /doc/pcnet/compression

This could be helpful to people new to FTP that don't know how to unpack the file they have just transferred.
Also check out the Frequently Asked Questions (FAQ) Lists and other periodical postings in the news.answers group. Especially the comp.graphics, comp.compression and the different Operating Systems FAQs (Unix, VMS etc.) can be very handy.

1.8 What types of FTP information are available?

(Q2) What types of FTP information are available?

(A2) FAQ - Frequently Asked Questions List about FTP
SITELIST - Comprehensive Information, containing:

- o Site name
- o Country
- o Date of last modification
- o GMT difference (+/-)
- o Source of last update
- o Administrative e-mail address
- o Organization maintaining FTP site

- o Email Server if available and instructions for use
- o System Type
- o Comments
- o Types of Files

Note that apart from my ftp-list.zip file, Timo Salmi and Rhys Weatherley are maintaining a complementary list of a number of MS-DOS ftp sites. They list some more information on a subset of sites in my SITELIST file. The file is called moder*.zip where * is a version number and it is available from garbo.uwasa.fi in directory /pc/pd2 and oak.oakland.edu in directory /pub/msdos/info.

Also, Christian Hettler is maintaining a list of German FTP sites on ftp.ask.uni-karlsruhe.de, directory: /pub/info, file: ftp.list.de and Arjan de Vet is maintaining a list of Dutch FTP sites on ftp.win.tue.nl, directory: pub/usenet/nlnet, file: nl-ftp (this one is in Dutch). On ftp.urec.fr there's a file called ftp-france-liste but it doesn't seem to be updated regularly.

1.9 What is the most current version?

(Q3) What is the most current version?

(A3) Look in the Version: line in the top of this file and compare it to the faq file in ftp-list.zip on garbo.uwasa.fi, ftp.edu.tw or oak.oakland.edu. The latest version is always available there.

1.10 Retrieving the list from alternate sources.

(Q4) Retrieving the list from alternate sources.

(A4) 1) Pick it up from anonymous FTP archives; look for 'ftp-list' in the SITELIST file. Be warned, many sites carry Jon Granrose's (sometimes known as ODIN.FTPLIST, pre Jan-92) or Tom Czarniks's old FTP listing (pre Apr-93) and these files are outdated. It will take a while for this version to spread, but the following sites always carry the latest version:

Europe - garbo.uwasa.fi as /pc/doc-net/ftp-list.zip
USA - rtfm.mit.edu in the /pub/usenet/news.answers/ftp-list directory: faq file and sitelist directory (ASCII)
USA - oak.oakland.edu as /pub/msdos/info/ftp-list.zip
Asia - ftp.edu.tw in /documents/networking/guides/ftp-list several files in several formats (.Z, .gz, .zip, ASCII, dBase and MS-Access database versions and AmigaGuide Hypertext version)

Admins who would like to mirror the list are welcome to mirror any of the above sites/directories, dependent on what format they like.

2) send an e-mail message to mail-server@rtfm.mit.edu with no subject and in the body of the message:

```
send usenet/news.answers/ftp-list/faq
send usenet/news.answers/ftp-list/sitelist/part1
send usenet/news.answers/ftp-list/sitelist/part2
send usenet/news.answers/ftp-list/sitelist/part3
send usenet/news.answers/ftp-list/sitelist/part4
send usenet/news.answers/ftp-list/sitelist/part5
send usenet/news.answers/ftp-list/sitelist/part6
send usenet/news.answers/ftp-list/sitelist/part7
send usenet/news.answers/ftp-list/sitelist/part8
send usenet/news.answers/ftp-list/sitelist/part9
send usenet/news.answers/ftp-list/sitelist/part10
```

- 3) Send me mail: Perry.Rovers@kub.nl. State how you need it sent and I'll get to it you ASAP. Thanks to the efforts of Lou Swiczewicz (swicz@acc.rwu.edu) and Dave Thomas (Dave_Thomas@mindlink.bc.ca) there will be made available from ftp.edu.tw a dBase and Microsoft Access database version and a Hypertext AmigaGuide version. The list is also searchable through some gophers, I'm gonna add a list of them at some later date.

1.11 Using FTP without direct Internet access.

(Q5) Using FTP without direct Internet access.

(A5) It is possible to get files from a site by using a general mail server. Many sites have their own servers. If you're on BITNET, ask your sysadmin or technical support group about PUCC (or send mail with a body of 'help' (no quotes, and nothing else) to BITFTP@PUCC, BITFTP@PLEARN or BITFTP@DEARN (known on the Internet as bitftp@pucc.princeton.edu, bitftp@plearn.edu.pl and bitftp@vm.gmd.de respectively)

Also, there's a service called TRICKLE, a concentrator of several ftp sites. Through TRICKLE you can retrieve files by e-mail or have them ftped to your own machine or SEND to you. It's also possible to subscribe to directories or files (you can for instance subscribe to the McAfee virusscanner and get it by mail everytime there's a new version). Send e-mail with '/HELP' (no quotes) in the body to trickle@hearn.nic.surfnet.nl or trickle@hearn.bitnet, for more info and a list of other trickle servers.

For non-BITNET sites, try using DEC's mail server. Send mail to ftpmail@decwrl.dec.com with 'help' (no quotes) in the body of the letter. You should NOT send a blank letter, commands are not optional.

Other servers that might be closer and provide the same service are:

- ftpmail@cs.uow.edu.au (Australia)
- ftpmail@ftp.uni-stuttgart.de (Germany)
- ftpmail@grasp.insa-lyon.fr (France)
- ftpmail@doc.ic.ac.uk (Great Britain)
- ftpmail@ieunet.ie (Ireland)
- ftpmail@lth.se (Sweden)
- ftpmail@sunsite.unc.edu (USA)

- ftpmail@ftp.uu.net (USA, message relayed to ftpmail@decwrl.dec.com)
- ftpmail@gallifrey.ucs.uoknor.edu (USA)

Actually, you are urged to use one of the above instead of decwrl.dec.com. That machine is very overloaded as it is the most widely known ftpmailer. So, lift the burden and use (faster!) local machines!!!

Requests for the ftpmail servers are of the form:

```
open <site>
cd <directory>
dir                                # To obtain a directory listing
get <file>                         # To retrieve a file
quit
```

Example:

```
open rtfm.mit.edu
cd pub/usenet/news.answers/ftp-list
get faq
quit
```

NOTE: Please make sure your system admin has approved the the use of a mail server, as files can take system resources of not only your site, but several sites up the stream. And please abide by the guidelines that the ftpmail server administrators have put in their help files. Most ftpmail servers default to their own site for files, so try retrieving things from that site first. In general, most files you need are already available there, so it is a waste to connect to another machine.

1.12 Problems with a site.

(Q6) Problems with a site.

(A6) Mail the problems to the admin address shown in the Sites list. If an address is not shown, attempt to use 'ftp@site_name'; replace 'site_name' with the name of the troublesome site. If it's very urgent, try sending a note describing the problem to postmaster@site_name or when the site is a Unix machine: root@site_name and when the site is a VAX/VMS machine: operator@site_name (the postmaster@site_name should be valid in all cases). If that fails, post a note to comp.archives.admin (the newsgroup for archive administrators). I'm going to include a list of common error messages here someday, so you don't have to contact the admin for some common notices you might receive. One of those message is: 'permission denied'. This can mean a few things: either you don't have write rights to the directory where you started 'ftp' from and you're trying to retrieve a file or the file or directory on the remote site has been made unaccessible to you (e.g. a /private directory). The solution to the first possibility is to change to a directory where you are allowed to write files (like your 'home' directory) and the solution to the second possibility is to ask the admin to change the permissions to that file or directory, but you'd better have a good reason to need access to that file or directory,

most of the time those permissions are there for a reason. Other messages will be included at a later date, in the meanwhile, check the helpfiles on your ftp client first if they give you the answer.

1.13 Getting a site listed or changes made.

(Q7) Getting a site listed or changes made.

(A7) Send mail to Perry.Rovers@kub.nl
Include the information stated below, in the body of the letter.

Needed information

- o Site name
- o Site's country of operations, preferably location within country as well
- o GMT difference (I don't bother with daylight savings and the like)
- o Manager(s) full name & email address(es) (not made public if you don't want it)
- o Any aliases you want listed for the site (preferred are ALL aliases that you know, because some people might refer to them. These are just there for completeness sake and to easily spot duplicate entries, NOT for use by anonymous ftp users)
- o Administrative address used for FTP related issues by the general public (like ftp@site_name)
- o Organization operating site, department within the organization
- o Is an E-mail server available and how can one use it?
- o Type of system the server is running on (OS, hardware)
- o Comments (restrictions and the like if any)
- o General description of the types of files available, special directories etc.

1.14 What is Archie and how does it relate to FTP?

(Q8) What is Archie and how does it relate to FTP?

(A8) Archie is a special service that keeps file listings from different FTP sites. You can Telnet to an Archie server (login with username 'archie') or use a client program to search for specific files.

Here are some sites; send mail to 'archie@site_name' for a help file. Note that some sites do not support mail access. Most do however.

archie.au*	139.130.4.6	Australia
archie.edvz.uni-linz.ac.at*	140.78.3.8	Austria
archie.univie.ac.at*	131.130.1.23	Austria
archie.uqam.ca*	132.208.250.10	Canada
archie.funet.fi	128.214.6.100	Finland
archie.th-darmstadt.de*	130.83.22.60	Germany
archie.ac.il*	132.65.6.15	Israel

archie.unipi.it*	131.114.21.10	Italy
archie.wide.ad.jp	133.4.3.6	Japan
archie.kr*	128.134.1.1	Korea
archie.sogang.ac.kr*	163.239.1.11	Korea
archie.rediris.es*	130.206.1.2	Spain
archie.luth.se*	130.240.18.4	Sweden
archie.switch.ch*	130.59.1.40	Switzerland
archie.ncu.edu.tw*	140.115.19.24	Taiwan
archie.doc.ic.ac.uk*	146.169.11.3	United Kingdom
archie.unl.edu	129.93.1.14	USA (NE)
archie.internic.net*	198.48.45.10	USA (NJ)
archie.rutgers.edu*	128.6.18.15	USA (NJ)
archie.ans.net*	147.225.1.10	USA (NY)
archie.sura.net*	128.167.254.179	USA (MD)

To get a list, type: telnet archie.ans.net
and login as 'archie' (no quotes) and type 'servers' (again, no quotes).
Of course you can also try a server somewhat closer but this list
is from archie.ans.net

To find a file called 'filename' you would type: prog filename
at the prompt. There are lots of options available, read the manual
with the 'help' command (no quotes). Some of you may be wondering,
why does the Anonymous FTP Sitelist exist if Archie can find files?
The answer is this: archie does not work (yet) with non-Unix sites (the
number of which will increase substantially the next years with all the
new users using PC's and Amiga's etc.) and another problem with archie
is that different servers can provide you with different answers depending
on the ftp sites they currently have in their memory. Using a European
server you might not be able to find a file in the US, but if you try
a US server it's possible that it does find the file(s) you need and
vice versa.

1.15 Using FSP/Gopher/WAIS/WWW to access archives.

(Q9) Using FSP/Gopher/WAIS/WWW to access archives.

(A9) Some sites offer retrieval of their FTP archives through Gopher,
a browser for the Internet. You can use a so-called Gopher client
program to connect to a Gopher server (in this case the Gopher server
of the ftp-site). Type 'gopher' on your system to see if Gopher is
installed. Most of the time this will bring up a menu system from
which you have several choices. Check the help pages for instructions
or ask a local system administrator or helpdesk on how to use it.
If Gopher does not appear to be installed, ask your local helpdesk
why it isn't. Installing Gopher on your system consists of getting
a client program for your Operating System and installing it.
You can get client programs for Gopher for several Operating Systems
from the boombox.micro.umn.edu ftp site in directory /pub/gopher
and from lots of other sites around the world (check the SITELIST file
for more sites).

Read the Usenet newsgroup comp.infosystems.gopher for more info.
If I know that a site supports Gopher, this info can be found in the
Comments: line in the SITELIST file. Other means of retrieving files
are through the World Wide Web (WWW or W3) or WAIS. These services
are extensions to the 'bare bones' FTP approach and are rapidly

become more popular. They are easy to use and if you have the resources you should consider getting a client for either Gopher, WWW or WAIS (or all) from a good ftp site. Check the relevant comp.infosystems.* group or/and the sitelist for addresses of clients and how to install them. The last option to access an archive to be mentioned here is called FSP (some people say it stands for File Service Protocol, some call it FTP's Sexier Partner and others refer to it as F**cking Software Pirates). FSP has some nice features that FTP doesn't have like 'crash-recovery', the ability to transfer only the part of a file that wasn't transferred before (a la Zmodem). Using FSP means getting yourself a client program and finding FSP sites. A good place to look for clients is on ftp.germany.eu.net and you can ask for sites in alt.comp.fsp (read the FAQ and the FSP docs first). FSP is mostly used to retrieve GIF files in the background (hence the second explanation of the abbreviation) and has been used for setting up 'pirate' sites (sites that distribute commercial software, hence the third explanation). This has given it a somewhat bad name, but the idea is good.

1.16 How do I stop the listings from scrolling off the screen?

(Q10) How do I stop the listings from scrolling off the screen?

(A10) When you're retrieving a directory listing of a large site, it's quite possible that the number of files in a directory is bigger than the number of rows on your screen. The listing then scrolls off your screen. There are several ways to avoid this. You can use 'ls -CF' or 'ls -lF' (no quotes) to get a directory listing like the MS-DOS 'dir/w' command (a 'wide' directory listing). Also, some ftp clients support: 'ls -l "| more"' or 'dir "| more"'. This seems to differ however per site so trying some of the following might help you:

```
ls -l |more
```

```
dir |more
```

```
Ctrl-S to stop the scrolling, Ctrl-Q to resume scrolling
```

```
Alt-Scrolllock to pause the screen
```

These combinations are highly machine specific but probably one of them will work for you. Also, instead of using 'dir' or 'ls' you can try to retrieve an index file first to look at that. Either transfer the file and look at it while you're not connected to the ftp site (by using 'get filename'), transfer the file and look at it while you're connected (by using a 'shell' command, you temporarily leave the ftp client program to look at the file with some editor, 'cat' or 'more', look in the help pages of the ftp client for more info, most of the time it's:

```
!more <filename
```

or something similar) or read the file while you're connected by retrieving it to the screen itself, use:

```
get filename.idx - (if you're working on a Unix system)
```

```
get filename.idx tt (if you're working on a VMS system)
```

```
get filename.idx con (if you're working on a MS-DOS system)
```

I have no idea what the appropriate parameter for VM/CMS is. Any takers? Be aware that this is very useful for small files but is not very easy for large files (unless you redirect the output to some filter,

like 'more'). Also, reading large files while you are connected is not recommended because it keeps the ftp server loaded. Be sensitive and don't overuse this. Get some readme or index files first and read them off-line so you know how the site is organized and where you can find things.

1.17 How do I set up an (Anonymous) FTP server?

(Q11) How do I set up an (Anonymous) FTP server?

(All) I've been getting lots of questions lately on how to setup a server for Anonymous FTP. Now, I'm not maintaining one, so this is mostly from docs and experience. Any comments or corrections here would be appreciated. First ask yourself, do I want to do this? It's a potential havoc creator, extra work and can cause serious security problems:

Setting up a ftpserver basically consists of getting an ftp-daemon running, setting several options and creating appropriate user(s) and directories. Most of the time you have to be 'root' or 'superuser' or 'system' on the system to pull any of this off (excluding those cases where PC users can run a ftpserver program on their machine or something similar).

There are several ftpserver programs that can be used. In most cases, the OS installed on your machine will already have a 'ftpd' program (on Unix systems, try 'man ftpd'), provided the system has TCP/IP functionality installed. The programs that come with the OS can be used without too much hassle because they are written for that OS and there are full docs available with the OS manuals (at least, they should be).

A disadvantage is that most factory servers appear to be rather limited [I can't explain the widespread use of other programs otherwise], so you might consider getting a more flexible and portable program like the Washington University of St. Louis ftpd program (or wu-ftpd for short) from ftp.wustl.edu. This version can be compiled on your (Unix) system with the right option and installed in the way the documentation describes (basically, creating the ~ftp directory and setting some variables, enabling the server and logging. It appears to be simple enough).

The program is very widely used and updated very fast if a bug is found. Other ftpserver programs are available from e.g. ftp.funet.fi and some sites are using custom programs.

Server programs are also available for non-Unix systems; for VAX/VMS systems there's the Multinet server (I have no idea if it's commercial or not, I guess so), for OS/2 there's the IBM TCP/IP Kit with a ftpserver program, for MS-Windows there's WinQVT Net, for MS-Windows NT there's probably also a program and for the Mac and the Amiga as well (I don't know where though). Check the 'regular' sites for these OSs for server programs, ask in the appropriate newsgroups (comp.os.*.admin, news.admin.misc, news.misc, after reading the appropriate FAQs of course!) or ask your software dealer.

As a last note, I'd like to emphasize that running a ftpserver means a potential security leak. There have been bugs in the different server programs that enabled unauthorized users to access your machine as normal or even superusers. Read the documentation of the server well and follow the comp.security advisories of the CERT. When you're ready and have tested the server, you can mail me the addition :-)