

# FTP GUIDE #1

---

## Source#1

[http://www.askjeeves.com/main/followup.asp?qCategory=NERD&ask=FTP+GUIDES&qSource=4&origin=0&frames=yes&site\\_name=Jeeves&metasearch=yes&ads=&sv=206&back=http%3A%2F%2Fwww.askjeeves.com%2Fmain%2FaskJeeves.asp%3Forigin%3D0%26qSource%3D4%26site\\_name%3DJeeves%26metasearch%3Dyes%26ads%3D%26ask%3DFTP%2BGUIDES%26x%3D20%26y%3D9&aj\\_ques=snapshot%3DJeeves%26kbid%3D338753%26item1%3D337941-337970&aj\\_logid=55670F75FBDD3E46B5B190956ECB3455&aj\\_rank=4&aj\\_score=0.65&aj\\_list1=337941-337970&x=10&y=10](http://www.askjeeves.com/main/followup.asp?qCategory=NERD&ask=FTP+GUIDES&qSource=4&origin=0&frames=yes&site_name=Jeeves&metasearch=yes&ads=&sv=206&back=http%3A%2F%2Fwww.askjeeves.com%2Fmain%2FaskJeeves.asp%3Forigin%3D0%26qSource%3D4%26site_name%3DJeeves%26metasearch%3Dyes%26ads%3D%26ask%3DFTP%2BGUIDES%26x%3D20%26y%3D9&aj_ques=snapshot%3DJeeves%26kbid%3D338753%26item1%3D337941-337970&aj_logid=55670F75FBDD3E46B5B190956ECB3455&aj_rank=4&aj_score=0.65&aj_list1=337941-337970&x=10&y=10)

---

## Source #2:

<http://www.rohan.sdsu.edu/0301.html>

# FTP Guide #2

---

## Contents

- [1.0 What is FTP?](#)
  - [2.0 What is FTP used for?](#)
  - [3.0 What is a file archive?](#)
  - [4.0 How does FTP connect to an Anonymous FTP site?](#)
  - [4.1 Finding a Domain Name or IP Address](#)
  - [5.0 Where are Anonymous FTP sites located?](#)
  - [6.0 How do I invoke FTP on ROHAN?](#)
  - [7.0 How do I open a new FTP session?](#)
  - [8.0 What is Binary vs. ASCII?](#)
  - [9.0 What are compressed files?](#)
  - [10.0 What are tar files?](#)
  - [11.0 What microcomputer software offers FTP?](#)
  - [12.0 What FTP commands are available?](#)
-

## 1.0 What is FTP?

FTP is an acronym for File Transfer Protocol and one of the programs using the TCP/IP (Transmission Control Protocol/Internet Protocol) suite. So, what is a protocol? A protocol is a set of rules that govern data interaction on a network. FTP is the rule set that allows files to be transferred between different kinds of computers, without concern for their operating system or how they are connected. But, the local and remote computers must either be able to establish a physical connection, or both must run the TCP/IP protocol and be connected on the Internet.

Return to [Contents](#)

---

## 2.0 What is FTP used for?

FTP can be used to download public domain software, source code, data files, research tools, utilities and documents for a variety of platforms from publicly accessible file archives. The /pub directory is a standard of file archives and is generally the directory in which to look for transferable files.

FTP can also be used to upload and download files between your microcomputer and your accounts on [ROHAN](#), if your communications software offers the FTP command. See section [11.0 What microcomputer software offers FTP?](#) for more information.

Return to [Contents](#)

---

## 3.0 What is a file archive?

Basically, a file archive is a storehouse of information. There are many file archives on the Internet. WUARCHIVE at Washington University, Missouri is a computer with a large program and file archive. It includes mirrors of many other programming archives, with megabytes of stuff for DOS, Windows, Macintosh, and other popular computer systems. It also contains the largest collection of GIF and JPEG pictures on the Internet. Because file archives provide the username **anonymous** for FTP retrieval of files from their system, they are referred to as Anonymous FTP sites. Their login is

called Anonymous FTP login. Your Email address is the accepted password convention for this type of login. Anonymous FTP login works only for file transfers from a remote computer to your local computer. It is not an account that can be accessed for general use or used to send files to a remote computer. Finally, not every file can be FTP'd. Only files that have a protection permitting transfer (i.e., allowing public read access) can be FTP'd anonymously.

Return to [Contents](#)

---

## 4.0 How does FTP connect to an Anonymous FTP site?

Each computer on the Internet has a unique Domain Name (host.domain.top-domain) and a corresponding IP Address (xxx.xxx.xxx.xxx with each xxx ranging from 0 to 255) associated with it as a means of identification. The ROHAN identification is rohan.sdsu.edu or 130.191.3.100. This address scheme tells network programs the location of a computer and on which network it resides. FTP uses either the remote computer's Domain Name or its corresponding IP Address to make a connection.

---

### 4.1 Finding a Domain Name or IP Address

There are a wide variety of books covering Internet issues including Domain Names and IP Addresses that can be obtained at most bookstores. New books are published each month and all can assist you with your explorations. Also see handout [#0303 Internet Resources](#) (available in BA-110, LL-200, at Malcolm A. Love Library, and on the web at URL -- <http://rohan.sdsu.edu/0300series.htm>) for further sources.

Quite often the SDSU name server program may not be able to map a Domain Name (hupcap.clemson.edu) to its IP Address (130.127.28.32), but you can use either. If the SDSU name server program does not recognize the Domain Name and you don't know the corresponding IP Address, you can use a lookup program prior to executing FTP from ROHAN and obtain that information. An example of `host` on ROHAN using two Internet sites, hubcap.clemson.edu and arthur.cs.purdue.edu, follows. The programs will look up either a Domain Name

or an IP address on a single line command string or via the program > prompt for multiple inquiries.

### On ROHAN:

```
rohan% host 130.127.28.32
32.28.127.130 IN-ADDR.ARPA domain name pointer hubcap.clemson.edu
rohan% host arthur.cs.purdue.edu
arthur.cs.purdue.edu has address 128.10.2.1
arthur.cs.purdue.edu mail is handled (pri=1) by arthur.cs.purdue.edu
rohan%
```

Return to [Contents](#)

---

## 5.0 Where are Anonymous FTP sites located?

At SDSU, there is a FTP archive located on **rohan.sdsu.edu** with doc, ibm, mac, and html directories and more under the /pub directory. To reach the WUARCHIVE mentioned earlier, you would FTP to **wuarchive.wustl.edu**. Many FTP sites can be accessed using the World Wide Web (WWW). Type in **ftp** and the address of the site. Login as **ftp** and use your complete Email address as the password. Files can be easily downloaded by clicking on the highlighted text. For further information on Anonymous FTP sites, refer to the handout [#0303 Internet Resources](#) (available in BA-110, LL-200 and on the web at URL -- *<http://rohan.sdsu.edu/0300series.html>*).

Return to [Contents](#)

---

## 6.0 How do I invoke FTP on ROHAN?

Log onto your computer account on ROHAN and issue the **ftp** command at the system prompt.

SunOS 5.8

This system is for the use of authorized users only. Individuals using this

computer system without authority, or in violation of state or federal laws are subject to having their activities monitored by law enforcement officials.

login:     <-- *log onto ROHAN with your*  
password:*username and password*

rohan%**ftp** <---- *invoke FTP*

Once in the FTP program, you open a session with the remote computer of your choice, login as **anonymous** and then issue a file command.

#### **open domainname**

Opens an FTP session on another host computer. In order to do this, you must know the computer's Domain Name or IP Address. The SUN Ultra Enterprise 4000 has a Domain Name of **rohan.sdsu.edu**, however [rohan](#) will suffice if you are using FTP from another computer on-campus. This is because the **sdsu.edu** part of the name refers to SDSU's domain, which on-campus computers assume as the default. When a Domain Name is used, your local computer obtains the IP Address from a Domain Name server. The IP Address should be used if the Domain Name does not succeed. Example: ROHAN has an IP Address of 130.191.3.100.

#### **username**

Prompts you to enter your account/username for the host computer. With Anonymous FTP, you would enter the appropriate public account/username, generally **anonymous** or **ftp**.

#### **password**

Prompts you to enter the password for the account/username entered. With Anonymous FTP, you would enter the appropriate password, generally **your complete Email address**.

#### **get myfile**

At this point, you are ready to issue an FTP file command. In this example, you are using the get command to copy a file named *myfile* from the remote host computer.

#### **quit**

Closes the session with the remote host computer and exits FTP.

Return to [Contents](#)

---

## 7.0 How do I open a new FTP session?

To log into another site, first close the current FTP session by issuing the **close** command. Then use the **open** command followed by the Domain Name or IP

Address for the new remote computer. Following opens another FTP session run from ROHAN to 152.163.200.5:

```
ftp> close
221 Goodbye.
ftp> open rohan.sdsu.edu
Connected to rohan.sdsu.edu
220 rohan.sdsu.edu FTP server (Version wu-2.6.0(7) Thu Jun 29 15:28:49 PDT 2000) ready.
Name (rohan.sdsu.edu:johndoe): anonymous
331 Guest login ok, send your email address as password.
Password: jdoe@rohan.sdsu.edu      <-Your Email address
230- Welcome to the San Diego State University anonymous ftp archive.
230 Guest login ok, access restrictions apply.
ftp>
```

Return to [Contents](#)

---

## 8.0 What is Binary vs. ASCII?

Files found at Anonymous FTP sites can either be stored in ASCII mode (pure text files usually ending with either .txt or .asc) or non-text files stored in binary mode (also known as image mode [pictures, software, music, speech, word, etc.]). ASCII mode automatically adjusts the file during the transfer so that the file is a valid text file when it is stored on the receiving end. A binary file is left alone and transferred verbatim. Before downloading be sure to set the transfer mode to the proper type by typing or selecting `ascii` or `binary` prior to the `get` or `mget` command (See section [12.0 What FTP commands are available?](#)). The FTP site should respond with *type set to A* or *type set to I* acknowledging your request. If you accidentally transfer a binary file with the transfer mode set to ASCII, the file received will be corrupted and useless. However, the reverse will work fine. If you don't know the type of a file, set the transfer mode to binary. Then you're sure that your files will always transfer correctly.

In the following example, we will get the binary zip file `tterm23.zip` (Terra Term Telnet Program) from an anonymous FTP session to `rohan.sdsu.edu`.

```

ftp> binary
200 Type set to I.
ftp> cd /pub/ibm
250-Please read the file README
250- it was last modified on Fri Aug 15 10:59:50 1997 - 1112 days ago
250 CWD command successful.
ftp> get tterm23.zip
200 PORT command successful.
150 Opening BINARY mode data connection for tterm23.zip (943376 bytes).
226 Transfer complete.
local: tterm23.zip remote: tterm23.zip
943376 bytes received in 0.072 seconds (12744.91 Kbytes/s)
ftp> quit
rohan%

```

The files are now in your account. This file is in a compressed format, so it will have to be uncompressed before it can be used.

Return to [Contents](#)

---

## 9.0 What are compressed files?

Many files at Anonymous FTP sites are compressed so they occupy less space on their computers and facilitate faster transfer across the Internet. Compressed files have file extensions like .z, .gzip, .bin, .hqx, or .zip.

Such files must be locally decompressed. The decompressing program used depends on the type of data compression initially employed. For instance, files which end with .z can be uncompressed or extracted using the UNIX utilities **uncompress**, while files ending with .zip can be uncompressed using the WIN program **WinZip**. Below are operating systems and compressed file types with their associated programs.

Operating System	File Type	To Uncompress a File	To Compress a File
WIN	.zip	WinZip	WinZip
MAC	.bin, .hqx, .sit, .cpt, .sea, .seq, .pit, .dd,	Stuffit Expander	Stuffit

	plus DOS (.zip, .lzh, and .arc), and UNIX (.z and .tar files)		Expander
UNIX	.gz	gunzip	gzip
UNIX	.z	uncompress	compress

A copy of the file compression program, pkzip (**pkzip204.exe**), can be downloaded for DOS/WIN PC users via Anonymous FTP to **rohan.sdsu.edu** from the /pub/ibm directory. For MAC users, a copy of Stuffit Expander (the file compression program) can be obtained using Anonymous FTP to **wwwhost.ots.utexas.edu** from the /pub/mac/compression/ directory. (The file name is **stuffit-expander-401.hqx**)

Return to [Contents](#)

---

## 10.0 What are tar files?

Sometimes the need to compress involves a group of files and becomes a two stage process. When it is necessary to bundle a group of files together for transfer, the UNIX program tar is used. tar can bundle programs (many related files) with their electronic manuals and maintain their directory and sub-directory configurations. Since it can bundle and unbundle but not compress, a compression program is used for the second stage. To alert users of its use, tar files traditionally have tar somewhere in their filename. If the tar file has been through both stages of the process, the filename might end in .tar.z (a compressed tar file).

To display the contents of a tarred file a screen at a time, enter:

```
tar tvf filename | more
```

where your file's name is substituted for *filename* in the above example command.

To untar a tarred file, type:

```
tar xvf filename
```

where your file's name is substituted for *filename* in the above example command.

Return to [Contents](#)

---

## 11.0 What microcomputer software offers FTP?

There are many software programs using TCP/IP protocols that can be used with an Internet connection. Following are some samples of software programs that offer FTP capabilities:

FTP Software Programs	
WIN versions	MAC versions
WS_FTP (freeware for Windows 95)	Fetch (public domain pkg.) (Available from TNS)

When using one of the above software packages, refer to their documentation for a description of their installation and use. Also see handout [#0303 Internet Resources](#) (available in BA-110, LL-200, at Malcolm A. Love Library, and on the web at URL -- <http://rohan.sdsu.edu/0300series.html>) for additional information.

Return to [Contents](#)

---

## 12.0 What FTP commands are available?

Most commands used by the FTP program are similar to UNIX commands and most FTP sites are on UNIX-based computers. Typing ? at the FTP> prompt will produce a list of FTP commands.

FTP> ?

Commands may be abbreviated. Commands are:

```
!      cr      macdef      proxy      send
$      delete  mdelete  sendport  status
account  debug    mdir     put       struct
append  dir      mget     pwd       sunique
ascii   disconnect  mkdir   quit      tenex
bell    form     mls      quote     trace
binary  get      mode     recv      type
bye     glob     mput     remotehelp  user
case    hash     nmap     rename    verbose
cd      help     ntrans   reset     ?
cdup    lcd      open     rmdir
close   ls       prompt   runique
```

Typing **help *command*** where *command* is replaced by one from the list will display a one line description of the command typed with usage requirements.

FTP> **help remotehelp**

remotehelp - get help from remote server

FTP> **help reset**

reset - clear queued command replies

Here are some FTP commands that will be helpful for almost all operating system environments.

**ascii**

Configures FTP to receive ASCII files (usually the default).

**binary**

Configures FTP to receive binary files (both text and binary files can be transferred in binary mode, so switching to this mode as soon as you start FTP won't hurt anything).

**cd**

Changes to a directory (depends on computer file structure).

**cdup or cd ..**

Changes directory up one level.

**close**

Closes an FTP session without quitting FTP.

**delete**

Deletes a file on the remote computer (needs the name of the file to follow command).

**dir**

Produces a more detailed listing of files on the remote computer where file names begin with a dash and directory names begin with the letter d.

**exit**

Closes an FTP session and quits FTP.

**ftp**

Starts an FTP session (see open command).

**get**

Copies (gets) a file from the remote to the local computer (needs the name of the file to follow command).

**help**

Provides a help listing; used with a command, it provides help on that command.

**lcd**

Changes local directory (send data to floppy drive).

**ls**

Produces a brief listing of files on the remote computer.

**mdelete, mls, mput, & mget**

Same as the delete, ls, put, and get commands except the "m" put in front of the commands allows an action on multiple files. For example: **mget file1 file2** would get both file1 and file2 with one command. Entering **mget** would prompt you for

the files. Wildcards can also be used. mput is generally not used during Anonymous FTP sessions.

**mkdir**

Creates a directory (depends on computer file structure)

**open**

Opens a session with a remote computer (needs the Domain Name or IP Address of the remote computer to follow command).

**put**

Copies (puts) a file from the local computer onto the remote computer (needs the name of the file to follow the command). Generally not used during Anonymous FTP sessions.

**pwd**

Displays the complete path of your present working directory on the remote computer (depends on computer file structure).

**quit**

Ends an FTP session.

**rename**

Renames a file on the remote computer (you are prompted for the new filename).

**rmdir**

Deletes a directory (depends on computer file structure).

**user**

Issues a user command (used for re-logging on to a remote computer in case initial logon fails).

For more detailed information, use the **help** function on your FTP program.

---