



File Transfer Protocol

A List of FTP Commands

Table of Contents

v-19.01.01 - ftp4cmd1.htm

Introduction

A Windows FTP Client

An Interactive FTP Session

A Scripted FTP Session

A Linux FTP Client

An Interactive FTP Session

A Scripted FTP Session

An FTP Command List

FTP Command, DIR

An FTP Extended Command List

LOCSITE, LITERAL and SITE

Summary

Software Agreement and Disclaimer

Downloads and Links

Current Server or Internet Access

Internet Access Required

Glossary of Terms

Comments or Feedback

Company Overview

The SimoTime Home Page

Introduction



The following information is provided as a reference for the File Transfer Protocol (FTP) commands. This document describes and demonstrates the client processes for an interactive and a scripted FTP session. Both the interactive and scripted processes were tested on a Windows System and a Linux (Ubuntu 16.04) System connecting to a UNIX FTP Server. This process may vary slightly depending on the hardware and software configurations of the local and remote systems.

We have made a significant effort to ensure the documents and software technologies are correct and accurate. We reserve the right to make changes without notice at any time. The function delivered in this version is based upon the enhancement requests from a specific group of users. The intent is to provide changes as the need arises and in a timeframe that is dependent upon the availability of resources.

Copyright © 1987-2023
SimoTime Technologies and Services
All Rights Reserved

A Windows FTP Client



This section describes a typical process for an interactive and automated, batch FTP session running on a Windows System and connecting to a UNIX System. This process may vary slightly depending on the hardware and software configurations of the local and remote systems.

An Interactive FTP Session



To start an FTP interactive session type "ftp" from a DOS Command window.

```
C:\> ftp
```

The DOS prompt should be replaced with the FTP prompt. The FTP program is now running on the local system. A connection (*or session*) to a remote system has not been established.

The help command or ? (*question mark*) may be executed without being attached to a remote system and will do a print (*usually to the screen*) of the FTP commands. The following is an example of an FTP Command to display the FTP Help information.

ftp help

The following is a typical result of the help command running on a PC with Windows.

```
Commands may be abbreviated. Commands are:
!          delete      literal      prompt      send
?          debug       ls          put          status
append     dir          mdelete     pwd          trace
ascii      disconnect  mdir        quit         type
bell       get          mget        quote        user
binary     glob          mkdir       recv         verbose
bye        hash          mls         remotehelp
cd         help          mput        rename
close     lcd           open        rmdir
```

ftp

The following FTP Command will perform the FTP OPEN (*make the connection*) and display the following messages.

ftp open domain.name

```
Connected to domain.name
220 antigonous FTP server ready.
User (domain.name:(none)): User-Name
331 Password required for user-name
Password: password
230 User user-name logged in.
```

ftp

The following FTP Command will change the directory on the remote system and display the following message.

ftp> cd /web

```
250 CWD command successful.
```

ftp

The following FTP Command will find out the pathname of the current directory on the remote system and display the information.

ftp> pwd

```
257 "/web" is the current directory.
```

ftp

The following FTP Command will set the file transfer mode to ASCII (*this is the default for most FTP programs*) and display the information.

ftp> ascii

```
200 Type set to A.
```

ftp

The following FTP Command will copy a file(*using ASCII mode*) from the local system to the remote system and display the information.

ftp> put d:\simoweb1\filename.txt

```
200 PORT command successful.
Opening ASCII mode data connection for filename.txt
226 Transfer complete
```

ftp

The following FTP Command will set the file transfer mode to BINARY (*the binary mode transfers all eight bits per byte and must be used to transfer non-ASCII files*) and display the information.

ftp> binary

```
200 Type set to I.
```

ftp

The following FTP Command will copy a file (*using BINARY mode*) from the local system to the remote system and display the information.

```
ftp> put d:\simoweb1\filename.zip
200 PORT command successful.
Opening BINARY mode data connection for filename.zip
226 Transfer complete
ftp
```

The following FTP Command will exit the FTP environment (*same as "bye"*) and display the information.

```
ftp> quit
221 Goodbye.
```

When the preceding FTP Command is finished the DOS prompt will be displayed.

C:\>

The preceding is a typical process for an interactive FTP session running on a PC with Windows/XP or Windows/7 and connecting to a UNIX system. This process may vary slightly depending on the hardware and software configurations of the local and remote systems.

A Scripted FTP Session



The following batch file (**FTPSAME1.cmd**) will start an FTP session and pass the name of a text file (UPWIP001.TXT) to the FTP program. This text file will be processed by the FTP program and each of the statements in the text file will be processed in the sequence they appear.

```
@echo OFF
rem * *****
rem *          FTPSAME1.CMD - a Windows Command File          *
rem *          This program is provided by SimoTime Technologies *
rem *          (C) Copyright 1987-2019 All Rights Reserved      *
rem *          Web Site URL:   http://www.simotime.com          *
rem *          e-mail:        helpdesk@simotime.com            *
rem * *****
echo *
echo * This batch and text file illustrate the use of FTP to upload an
echo * ASCII file and an EBCDIC or Binary file. The UPWIP001.BAT file
echo * references UPWIP001.TXT that contains...
echo *
echo *   user
echo *   password
echo *   cd /web
echo *   pwd
echo *   ascii
echo *   put d:\simoweb1\cb1txn01.htm
echo *   binary
echo *   put d:\simoweb1\cb1txn01.zip
echo *   quit
echo *
ftp -s:upwip001.txt www.simotime.com
```

The following is a listing of the contents of the text file (UPWIP001.TXT).

```
user
password
cd /web
pwd
ascii
put d:\simoweb1\cb1txn01.htm
binary
put d:\simoweb1\cb1txn01.zip
quit
```

A Linux FTP Client



This section describes a typical process for an interactive and automated, batch FTP session running on a Windows System and connecting to a UNIX System. This process may vary slightly depending on the hardware and software configurations of the local and remote systems.

An Interactive FTP Session



To start an FTP interactive session type "ftp" from a DOS Command window.

```
C:\> ftp
```

The DOS prompt should be replaced with the FTP prompt. The FTP program is now running on the local system. A connection (*or session*) to a remote system has not been established.

The help command or ? (*question mark*) may be executed without being attached to a remote system and will do a print (*usually to the screen*) of the FTP commands. The following is an example of an FTP Command to display the FTP Help information.

```
ftp help
```

The following is a typical result of the help command running on a PC with Windows.

```
Commands may be abbreviated. Commands are:
!          delete      literal    prompt    send
?          debug       ls         put       status
append     dir             mdelete   pwd       trace
ascii      disconnect  mdir      quit      type
bell       get          mget      quote     user
binary     glob        mkdir     recv      verbose
bye        hash       mls       remotehelp
cd         help      mput      rename
close     lcd       open     rmdir
```

```
ftp
```

The following FTP Command will perform the FTP OPEN (*make the connection*) and display the following messages.

```
ftp open domain.name
```

```
Connected to domain.name
220 antigonous FTP server ready.
User (domain.name:(none)): User-Name
331 Password required for user-name
Password: password
230 User user-name logged in.
```

```
ftp
```

The following FTP Command will change the directory on the remote system and display the following message.

```
ftp> cd /web
```

```
250 CWD command successful.
```

```
ftp
```

The following FTP Command will find out the pathname of the current directory on the remote system and display the information.

```
ftp> pwd
```

```
257 "/"web" is the current directory.
```

```
ftp
```

The following FTP Command will set the file transfer mode to ASCII (*this is the default for most FTP programs*) and display the information.

```
ftp> ascii
```

```
200 Type set to A.
```

```
ftp
```

The following FTP Command will copy a file(*using ASCII mode*) from the local system to the remote system and

display the information.

```
ftp> put d:\simoweb1\filename.txt
200 PORT command successful.
Opening ASCII mode data connection for filename.txt
226 Transfer complete
ftp
```

The following FTP Command will set the file transfer mode to BINARY (*the binary mode transfers all eight bits per byte and must be used to transfer non-ASCII files*) and display the information.

```
ftp> binary
200 Type set to I.
ftp
```

The following FTP Command will copy a file (*using BINARY mode*) from the local system to the remote system and display the information.

```
ftp> put d:\simoweb1\filename.zip
200 PORT command successful.
Opening BINARY mode data connection for filename.zip
226 Transfer complete
ftp
```

The following FTP Command will exit the FTP environment (*same as "bye"*) and display the information.

```
ftp> quit
221 Goodbye.
```

When the preceding FTP Command is finished the DOS prompt will be displayed.

C:\>

The preceding is a typical process for an interactive FTP session running on a Linux System and connecting to a UNIX Server. This process may vary slightly depending on the hardware and software configurations of the local and remote systems.

A Scripted FTP Session



The following Bash Script File (**ftpwips1.sh**) is a batch job that will upload multiple web members from the local system to the web server.

```
#!/bin/bash
shname=zuploadRESULTSREQ
sh simonote.sh "Starting CmdName $shname"
export HOST=domain_name
USER=user_id
PASS=password
sh simonote.sh "Continue with FTP Upload to $HOST"
sh simonote.sh "Please wait..."
# *
ftp -n -v <<FTP_SCRIPT
open $HOST
quote USER $USER
quote PASS $PASS
cd /
cd /$HOST/public
pwd
ascii
put SIMOWEB1/cblbit01.htm /simotime.com/public/cblbit01.htm
put SIMOWEB1/cblivp01.htm /simotime.com/public/cblivp01.htm
put SIMOWEB1/ftp4cmd1.htm /simotime.com/public/ftp4cmd1.htm
put SIMOWEB1/lorxor01.htm /simotime.com/public/lorxor01.htm
put SIMOWEB1/sys76p01.htm /simotime.com/public/sys76p01.htm
quit
FTP_SCRIPT
# *
sh simonote.sh "Finished CmdName $shname"
```

exit 0

An FTP Command List



The following is a summary of the commonly used FTP Commands.

Command	Description
!	Preceding a command with the exclamation point will cause the command to execute on the local system instead of the remote system.
?	Request assistance or information about the FTP commands. This command does not require a connection to a remote system.
ascii	Set the file transfer mode to ASCII (<i>Note: this is the default mode for most FTP programs</i>).
bell	Turns bell mode on / off. This command does not require a connection to a remote system.
binary	Set the file transfer mode to binary (<i>Note: the binary mode transfers all eight bits per byte and must be used to transfer non-ASCII files</i>).
bye	Exit the FTP environment (same as quit). This command does not require a connection to a remote system.
cd	Change directory on the remote system.
close	Terminate a session with another system.
debug	Sets debugging on/off. This command does not require a connection to a remote system.
delete	Delete (remove) a file in the current remote directory (same as rm in UNIX).
dir	Lists the contents of the remote directory. The asterisk (*) and the question mark (?) may be used as wild cards.
get	<i>RemoteName LocalName</i>
help	Request a list of all available FTP commands. This command does not require a connection to a remote system.
lcd	Change directory on your local system (same as CD in UNIX).
ls	List the names of the files in the current remote directory.
mget	Copy multiple files from the remote system to the local system. Note: You will be prompted for a "y/n" response before copying each file.
mkdir	Make a new directory within the current remote directory.
mput	Copy multiple files from the local system to the remote system. (<i>Note: You will be prompted for a "y/n" response before copying each file</i>).
open	Open a connection with another system.
put	Copy a file from the local system to the remote system.
pwd	Find out the pathname of the current directory on the remote system.
quit	Exit the FTP environment (same as "bye"). This command does not require a connection to a remote system.
rmdir	Remove (delete) a directory in the current remote directory.
trace	Toggles packet tracing. This command does not require a connection to a remote system.

A List of FTP Commands

FTP Command, DIR



The DIR command will list the contents of the remote directory. The asterisk (*) and the question mark (?) may be used as wild cards.

Parameters	Description
b*	This will display all entries that start with the letter "b". For example, the following will be displayed. <i>bet, ben, bingo, born, boon, bipartisan, bandit, boy</i>
b*n*	This will display all entries that start with the letter "b" and have the letter "n" somewhere after the letter "b". For example, the following will be displayed. <i>ben, bingo, born, boon, bipartisan, bandit</i> The following will not be displayed. <i>bet, boy</i>
b?n	This will display all entries that start with the letter "b", have the letter "n" in the 3rd position and have a three character name. For example, the following will be displayed. <i>ben</i> The following will not be displayed. <i>bet, bingo, born, boon, bipartisan, bandit, boy</i>
b?n*	This will display all entries that start with the letter "b" and have the letter "n" in the 3rd position. For example, the following will be displayed. <i>ben, bingo, bandit</i> The following will not be displayed. <i>bet, born, boon, bipartisan, boy</i>

A List of Parameters for the DIR FTP Command

An FTP Extended Command List



The following are additional commands that are used when transferring files between an IBM Mainframe and a Windows or UNIX client system. Also, the following includes commands required when working with files containing variable length records.

Command	Description
literal	Will send an argument to the remote FTP Server. This statement is similar in purpose as the "QUOTE" statement.
locsite	LOCSITE This statement may be used at the mainframe for commands specific to the mainframe
quote	Will send an argument to the remote FTP Server. This statement is similar in purpose as the "LITERAL" statement.
site	This parameter is used at the client system to transfer a function (<i>via the LITERAL or QUOTE statement</i>) to the host site. The following is a summary of the commonly used SITE/LOCSITE Commands.

A List of Extended FTP Commands

LOCSITE, LITERAL and SITE



This SITE (*via the literal or quote command*) statement is used at the client system and the LOCSITE command is used at the host system. Both statements are used to transfer a function to the host site. The following is a summary of the commonly used SITE/LOCSITE Commands.

Command	Description
BLKSIZE	BLOCKSIZE=nnnn where nnnn is the block size (BLKSIZE)
CYLINDERS	CYLinders To indicate that space should be allocated in cylinders
DIRECTORY	DIRECTory=nnn where 'nnn' indicates the number of directory blocks to be allocated for the directory of a PDS
LRECL	LREcl=nnn where nnn is the logical record length (LRECL)
PRIMARY	PRImary=nnn where nnn indicates the number of primary space units (<i>tracks or cylinders</i>)

RDW	RDW will cause each record of a variable length record to be preceded with a four byte Record Descriptor Word (RDW) and possible four byte Block Descriptor Word (BDW).
RECFM	RECFm=format where format is: F, FA, FB, FBA, FBM, FM, U, V, VA, VB, VBA, VBM, or VBS
SECONDARY	SECondary=nnn where nnn indicates the number of secondary space units (<i>tracks or cylinders</i>)
TRACKS	TRacks To indicate that space should be allocated in tracks.

Parameters used with the LOCSITE Extended FTP Commands

The following is an example of the LITERAL command and a GET command. The commands are executed at the client and will cause the RDW (*Record Descriptor Word*) to be included at the beginning of each record of a file with variable length records.

LITERAL SITE RDW

GET *host-file-name client-file-name*

The following is an example of the LOCSITE command and a PUT command. The commands are executed at the host and will cause the RDW (*Record Descriptor Word*) to be included at the beginning of each record of a file with variable length records.

LOCSITE RDW

PUT *host-file-name client-file-name*

The following is an example of the LOCSITE command for accessing tape files with variable length records. The command is executed at the host and will cause the RDW (*Record Descriptor Word*) to be included at the beginning of each record of a file with variable length records.

LOCSITE RDW READTAPEFORMAT=V

PUT *host-file-name client-file-name*

Summary



The purpose of this document is to provide a quick reference for connecting and exchanging information between two systems. This document describes a typical process for an interactive or automated, batch File Transfer Protocol (FTP) session running on a PC with Windows/2000 and connecting to a UNIX system. This process may vary slightly depending on the hardware and software configurations of the local and remote systems.

This document may be used to assist as a tutorial for new programmers or as a quick reference for experienced programmers.

In the world of programming there are many ways to solve a problem. This documentation and software were developed and tested on systems that are configured for a SIMOTIME environment based on the hardware, operating systems, user requirements and security requirements. Therefore, adjustments may be needed to execute the jobs and programs when transferred to a system of a different architecture or configuration.

SIMOTIME Services has experience in moving or sharing data or application processing across a variety of systems. For additional information about SIMOTIME Services or Technologies please contact us using the information in the [Contact, Comment or Feedback](#) section of this document.

Software Agreement and Disclaimer



Permission to use, copy, modify and distribute this software, documentation or training material for any purpose requires a fee to be paid to SimoTime Technologies. Once the fee is received by SimoTime the latest version of the software, documentation or training material will be delivered and a license will be granted for use within an enterprise, provided the SimoTime copyright notice appear on all copies of the software. The SimoTime name or Logo may not be used in any advertising or publicity pertaining to the use of the software without the written permission of SimoTime Technologies.

SimoTime Technologies makes no warranty or representations about the suitability of the software, documentation or learning material for any purpose. It is provided "AS IS" without any expressed or implied warranty, including the implied warranties of merchantability, fitness for a particular purpose and non-infringement. SimoTime Technologies shall not be liable for any direct, indirect, special or consequential damages resulting from the loss of use, data or projects, whether in an action of contract or tort, arising out of or in connection with the use or performance of this software, documentation or training material.

Downloads and Links





This section includes links to documents with additional information that are beyond the scope and purpose of this document. The first group of documents may be available from a local system or via an Internet connection, the second group of documents will require an internet connection.



Note: *A SimoTime License is required for the items to be made available on a local system or server.*



Current Server or Internet Access





The following links may be to the current server or to the Internet.

Note: *The latest versions of the SimoTime Documents and Program Suites are available on the Internet and may be accessed using the  icon. If a user has a SimoTime Enterprise License the Documents and Program Suites may be available on a local server and accessed using the  icon.*

  Explore Sample FTP Scripts and Windows Command Files(FTP) that will transfer files between a Mainframe Host System and a Windows Client System.

  Explore the alternatives for transferring data files between systems. This link provides access to a repository of information that includes the transferring and/or sharing of data between Mainframe (ZOS or VSE), Linux, UNIX and Windows Systems.

  Explore The ASCII and EBCDIC Translation Tables. These tables are provided for individuals that need to better understand the bit structures and differences of the encoding formats.

  Explore The File Status Return Codes to interpret the results of accessing VSAM data sets and/or QSAM files.

Internet Access Required



The following links will require an Internet connection.

A good place to start is [The SimoTime Home Page](#) for access to white papers, program examples and product information. This link requires an Internet Connection

Explore [The Micro Focus Web Site](#) for more information about products (including Micro Focus COBOL) and services available from Micro Focus. This link requires an Internet Connection.

Explore [the GnuCOBOL Technologies](#) available from SourceForge. SourceForge is an Open Source community resource dedicated to helping open source projects be as successful as possible. GnuCOBOL (formerly OpenCOBOL) is a COBOL compiler with run time support. The compiler (cobc) translates COBOL source to executable using intermediate C, designated C compiler and linker. This link will require an Internet Connection.

Glossary of Terms



Check out [The SimoTime Glossary](#) for a list of terms and definitions used in the documents provided by SimoTime.

Comments or Feedback



This document was created and is maintained by SimoTime Technologies. If you have any questions, suggestions, comments or feedback please use the following contact information.

1. Send an e-mail to our helpdesk.
 - 1.1. helpdesk@simotime.com.
2. Our telephone numbers are as follows.
 - 2.1. **1 415 763-9430** office-helpdesk
 - 2.2. **1 415 827-7045** mobile

We appreciate hearing from you.

Company Overview



SimoTime Technologies was founded in 1987 and is a privately owned company. We specialize in the creation and

deployment of business applications using new or existing technologies and services. We have a team of individuals that understand the broad range of technologies being used in today's environments. Our customers include small businesses using Internet technologies to corporations using very large mainframe systems.

Quite often, to reach larger markets or provide a higher level of service to existing customers it requires the newer Internet technologies to work in a complementary manner with existing corporate mainframe systems. We specialize in preparing applications and the associated data that are currently residing on a single platform to be distributed across a variety of platforms.

Preparing the application programs will require the transfer of source members that will be compiled and deployed on the target platform. The data will need to be transferred between the systems and may need to be converted and validated at various stages within the process. SimoTime has the technology, services and experience to assist in the application and data management tasks involved with doing business in a multi-system environment.

Whether you want to use the Internet to expand into new market segments or as a delivery vehicle for existing business functions simply give us a call or check the web site at <http://www.simotime.com>

[Return-to-Top](#)

File Transfer Protocol (FTP), a List of FTP Commands

Copyright © 1987-2023

SimoTime Technologies and Services

All Rights Reserved

When technology complements business

<http://www.simotime.com>