GetIt FTP User Guide

Includes setup, configuration and operational information.

NSC

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CHAPTER 1

GetIt FTP Overview

GetIt FTP enables computers to transfer files over your network or the Internet. It includes all of the standard features required in a modern FTP client, presented in a straight-forward and easy to use fashion. The software is suited to transferring large database, medical, archive, scientific and multimedia files.

SSL/TLS Support

GetIt FTP uses the same security technology that is found in e-commerce websites to protect confidential documents. Secure Sockets Layer (SSL) and Transport Layer Security (TLS) lets you send encrypted, authenticated information across the Internet.

Designed For Windows XP And Mobile Devices

GetIt FTP sports the latest Microsoft "look-and-feel" and includes navigation tools designed for mobile devices like the Microsoft Tablet PC, where a stylus or touch-pad is used instead of a keyboard or mouse. For example, you can select multiple files with a single click (or tap) and view file information in a 'summary' format.

Boost Your Bandwidth With 'MODE Z'

Get more files, faster. ShareIt FTP supports deflate transmission mode (also known as MODE Z) which is designed to increase network throughput and decrease transfer times by compressing file and system data. This feature benefits users and organizations who pay for connection time or bandwidth usage.

Built-In File Management Features

GetIt FTP lets you view, search, edit, rename, delete and change permissions of files and folders with just a few clicks.

Smart File Transfers

Send and receive entire directories using the built-in transfer queue. GetIt FTP can also resume broken transfers and automatically set ASCII/binary transmission modes.

Firewall and FTP Proxy Friendly

You can tune the GetIt FTP network configuration, including connection mode (active/passive), port range and command set, to co-operate with strict firewalls and Internet proxies.

64 Bit Filesystem Support

GetIt FTP is designed to meet the data requirements of modern database, scientific and multimedia applications. 64 bit support means that GetIt FTP can handle terabytes of data.

Point And Click Configuration

No complicated scripts or programming required. Just point and click to set up your FTP client.

Where To Find More Information

Request for Comments (RFC) documents provide an overview of a protocol or service and details about how the protocol should work. If you are a new Internet user, you will probably find some of the background information in an RFC helpful. Experienced users can find the technical details of a protocol in these documents. You can search for RFC documents by number at this Web site:

http://www.faqs.org/rfc

For details about FTP, see RFC 959.

CHAPTER 2

System Requirements

The minimum requirements your computer needs to run GetIt FTP are:

- A 300Mhz Pentium 2 (or compatible) processor.
- 32MB of RAM; 64 or more recommended.
- 4MB of storage; 10 or more recommended.
- Microsoft Windows NT 4 (service pack 6), Windows 2000, Windows XP (embedded or professional) or Windows Server 2003 operating system.
- Any Windows compatible display system.
- A TCP/IP network connection.

CHAPTER 3

Installing GetIt FTP

This chapter describes the procedures to install and uninstall GetIt FTP.

NOTE: If you have purchased GetIt FTP from an on-line distributor, print out your receipt and make a back-up copy of the software.

Installing

Perform the following steps to install GetIt FTP:

1. Double-click the **Setup.exe** icon located in the GetIt FTP folder.
2. Follow the on-screen instructions.

Uninstalling

Perform the following steps to uninstall GetIt FTP:

1. Close any instances of GetIt FTP.
2. Choose the **Add/Remove Programs** application located in the **Start > Settings > Control Panel** menus.
3. Choose **GetIt FTP** from the list.
4. Click the **Change/Remove** button.
5. Follow the on-screen instructions.

CHAPTER 4

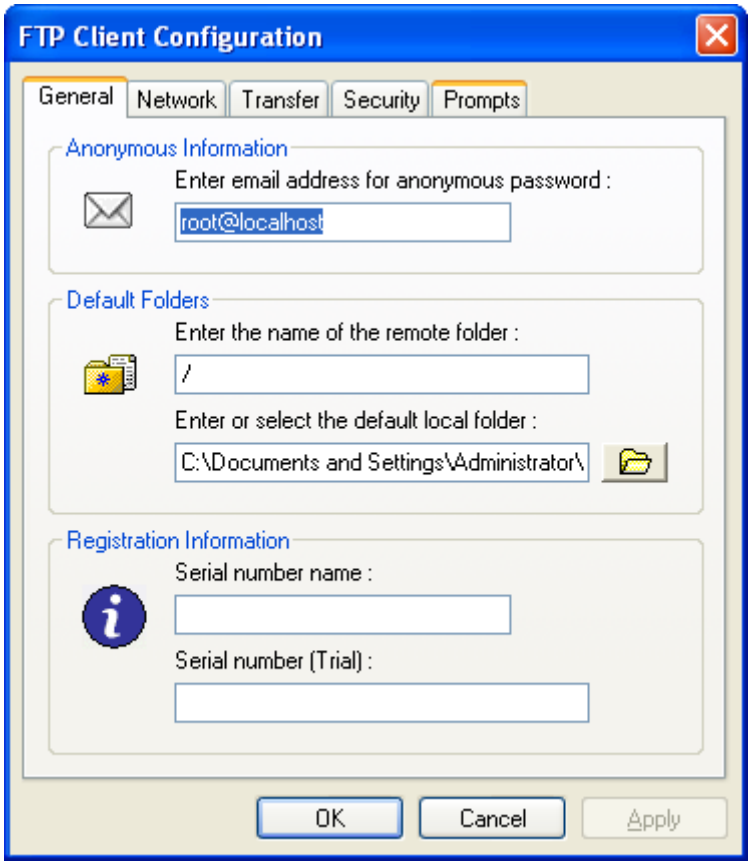
Configuring GetIt FTP

To configure GetIt FTP:

1. Click the **Config** button on the main toolbar; or
2. Select the **Preferences** option in the **Tools** menu.

Configure General Settings

The General settings lets you specify the guest email password, default transfer folders and registration information.

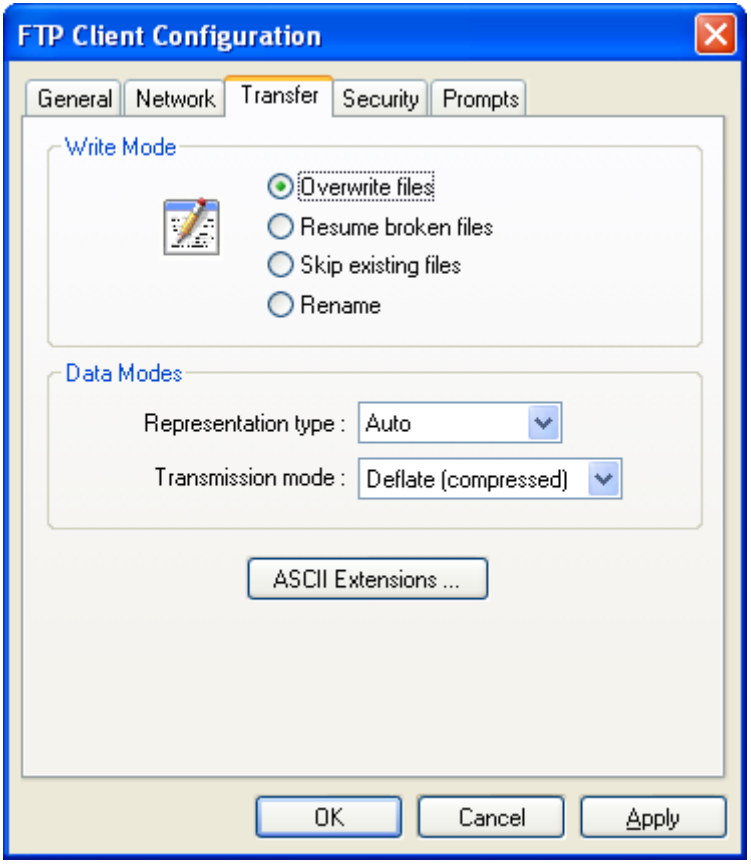


1. **Anonymous password**. Enter a password for use on public (anonymous) FTP sites. The format for the email address is: username@yourdomain.com. For example, johndoe@hotmail.com.
2. **Remote folder**. Enter the default location to look for files and folders on FTP sites. The root ('/' forward slash with no quotes) folder is recommended.
3. **Local folder**. Enter or select the location on your computer to store FTP files.
4. **Serial number name**. If you have purchased GetIt FTP for commercial use, enter the name found on the order receipt.

5. **Serial number**. Enter your GetIt FTP serial number.

Configure Transfer Settings

The Transfer settings enable you to set the default write mode and ASCII/binary conversion options.



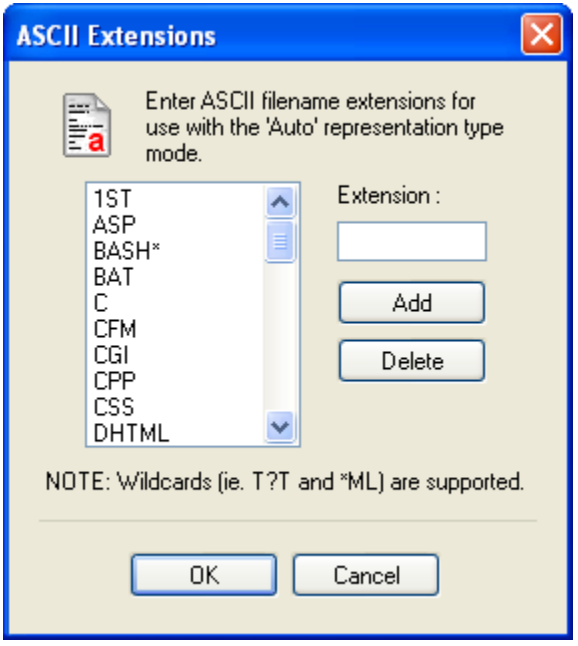
1. **Write mode**. The write mode lets you specify how GetIt FTP should handle duplicate or broken files. For example, if the power goes out during a file transfer, GetIt FTP has the capability to continue (‘resume mode’) the download so that the server does not have to resend the information you already have on your computer.

2. **Representation type**. The representation type is used by the client and server to determine the format of files. For example, some computers store ASCII (text) files on the hard drive in a different manner than binary (image or executable) files. It is recommended that you set this option to 'Auto' to allow GetIt FTP to set the correct type.
3. **Transmission mode**. The transmission mode specifies how the data is formatted during transmission. There are two options for this parameter:

- *Stream*. Data is sent in a continuous stream of 8-bit bytes.
- *Deflate or 'MODE Z'*. Data is compressed immediately before and after transmission across the network. This mode requires FTP server support and can yield dramatic bandwidth savings.

Configure ASCII Extensions

The ASCII Extension settings let you to configure GetIt FTP to automatically switch between ASCII and binary mode (the data "representation") during file transfers. Common file formats are built into the software.



Adding an ASCII Extension

Enter the name pattern (wildcards are supported) in the **Extension** textbox and click the **Add** button.

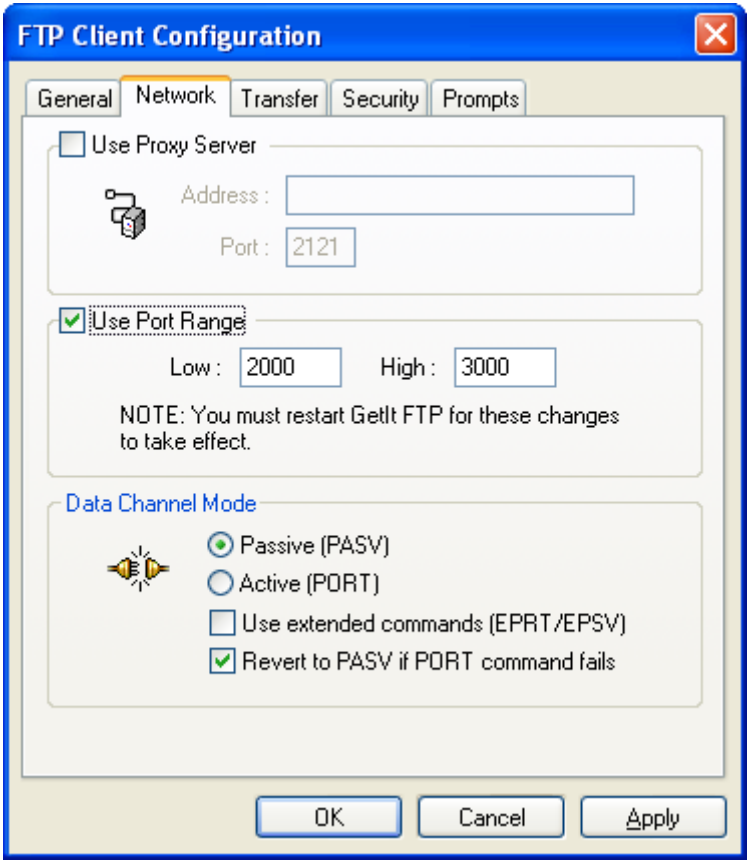
Delete an ASCII Extension

Select the extension you wish to delete in the listbox and click the **Delete** button.

Configure Network Settings

The Network settings enable you to configure GetIt FTP to operate with firewalls and Internet proxy servers. You should talk to your network administrator about

these options; each organization will use different parameters and may have strict policies about the use of FTP.

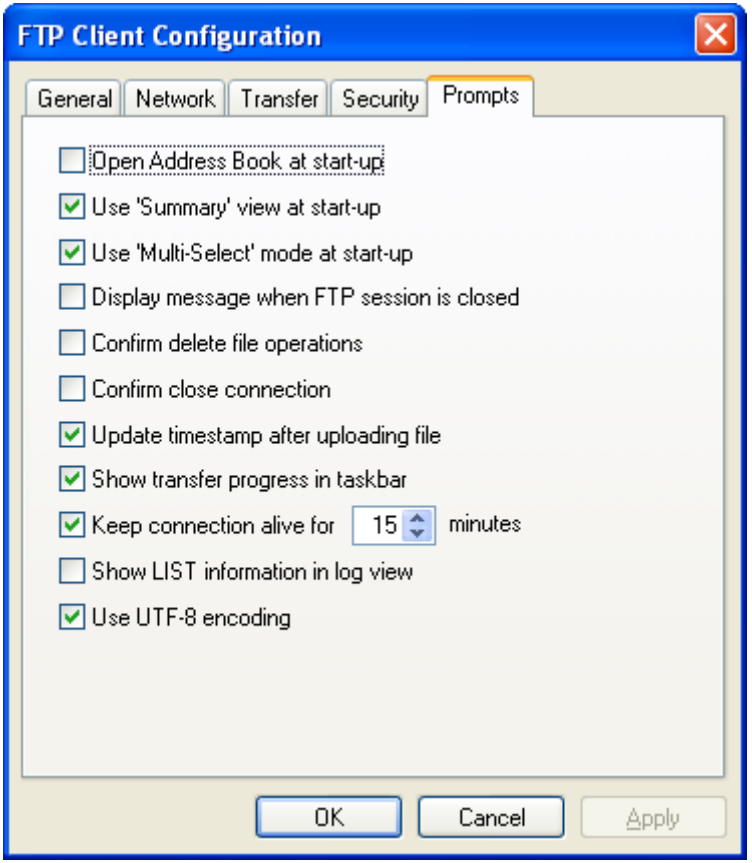


1. **Proxy server**. If you access the Internet through a proxy server, check this option. Otherwise, skip to step 3.
2. **Proxy address and port**. Enter the name or TCP/IP address of your proxy server.
3. **Port range**. This option forces GetIt FTP to use a fixed port range for data channel communications.
4. **Low and high ports**. Enter the low and high port range. These parameters are to be used in conjunction with your firewall rules.

5. **Data channel mode**. These options control how the client and server will negotiate data channel connections. The extended commands assist some firewall and protocol options.

Configure Prompt Settings

The Prompt settings manage the amount of input GetIt FTP will require you to make during FTP and file management operations.



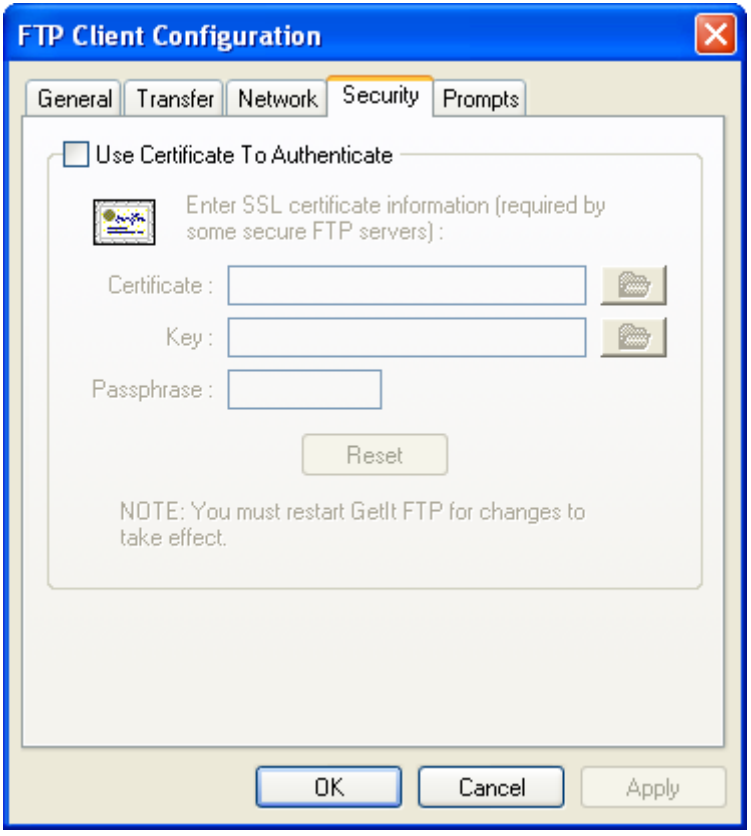
Configure Security Settings

The Security settings let you configure an SSL client certificate for use with secure FTP sites. You should contact your network administrator for more information on these options. Some secure FTP servers do not require this feature.

SSL/TLS Background

The Secure Sockets Layer (SSL) protocol is designed to secure and authenticate communications over the Internet. It uses a public-and-private key encryption system, which involves the use of a digital certificate from a "trusted" source. SSL has recently been succeeded by the Transport Layer Security (TLS) protocol, which is based on SSL. TLS uses the same cryptographic methods as SSL but supports stronger (168-bit 3DES vs 128-bit) algorithms.

The most important part of SSL is the digital certificate, a piece of data that includes a public key and other interesting information, such as the owner of the certificate, it's expiration date, and the fully qualified domain name associated with the server. It is up to the client to either accept or reject the server's certificate. In the case of FTP, many client applications will simply prompt you to read and accept the certificate, others may use an elaborate verification process. If the client rejects the certificate, secure communications cannot take place.



1. **Enable certificate**. Choose this option if you want to use a client certificate. If your FTP server does not require a certificate, then you can skip the remaining steps.
2. **Certificate filename**. Enter the path and filename information for your certificate (.crt).
3. **Private key filename**. Enter the path and filename information for your private key (.key).
4. **Passphrase**. Enter the passphrase associated with the certificate and key files.

NOTE: You will have to exit and restart GetIt FTP after modifying these fields.

Where To Find More Information

If you require more information about secure network communications, there is a variety of books available from O'Reilly & Associates. See the *Network Security With OpenSSL* book (ISBN 0-596-00270-X) for an in-depth discussion on the benefits of using a CA.

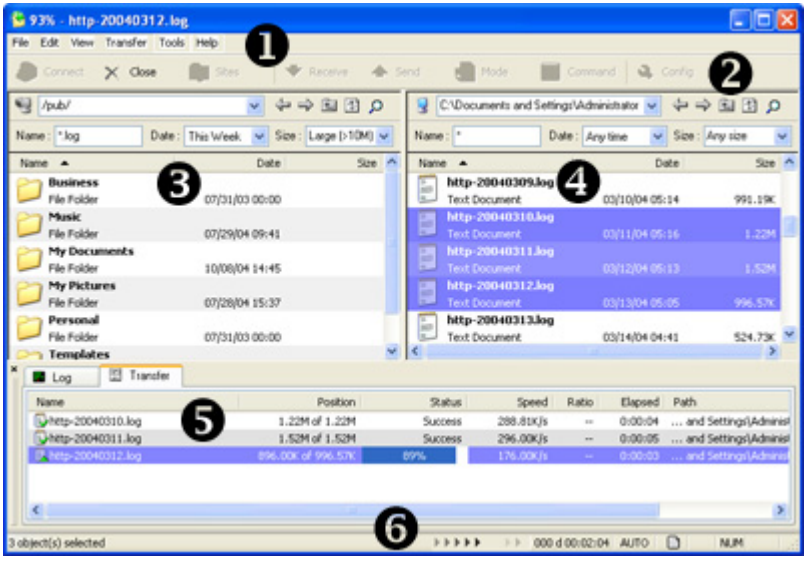
The latest SSL 3.0 specification, an Internet Draft dated November 1996, can be viewed at: http://wp.netscape.com/eng/ssl3/draft302.txt.

CHAPTER 5

Navigation

The Main Screen

GetIt FTP delivers a graphically rich FTP experience. You can view local and remote files side-by-side and track transfer progress at the bottom of the screen.



1. **Menubar**. Contains menu items for common FTP operations.
2. **Command toolbar**. Includes features to connect to FTP sites and transfer files.
3. **Remote view**. The remote view lets you navigate the files and folders on the FTP site.
4. **Local view**. The local view lets you browse files and folders on your computer.
5. **Transfer queue**. View and edit uploads and downloads.
6. **Statusbar**. View connection status, help and transfer progress.

The Command Toolbar

The Command toolbar includes features to connect to FTP sites, send and receive files and configure GetIt FTP.

1. **Connect**. Enter FTP host information (username, password, IP address and transfer modes).
2. **Close**. Disconnect (QUIT) current FTP session.
3. **Sites**. Browse and edit favorite FTP sites.
4. **Send files and folders**. Upload items to FTP server.
5. **Receive files and folders**. Download items from FTP server.
6. **Mode**. Switch between ASCII, binary and automatic representation type.
7. **Command**. Send custom commands to the FTP server.
8. **Config**. Edit application settings.

The Statusbar

The Statusbar displays help, progress and mode information.

1. **Progress control**. Active during data transfers.

2. **Connection time**. Displays connected time (days hours:minutes:seconds).
3. **Representation mode**. ASCII, binary or automatic.
4. **Connection status**. Disconnected, plain text, secure.

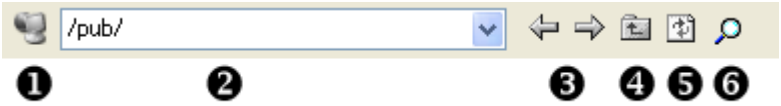
Connection Status Indicators

1. **Text**. Plain-text (non-secure) FTP session.

2. **Secure**. FTP with SSL session.

The Navigation Toolbar

The Navigation toolbar lets you change and refresh the file information in the remote and local views.



1. **Focus indicator**. This icon will “light up” when the file view has focus (mouse and keyboard input is enabled).
2. **Location control**. This combobox displays the current folder. You can enter a new destination by clicking the control and typing information; or by using the mouse to browse and select a previous entry.
3. **Browse buttons**. These buttons are linked to the Location control and enable you to move back and forth between visited folders.
4. **Change to parent**. Click this button to move to the parent folder.
5. **Refresh**. Use this button to refresh the contents of the current folder.
6. **Filter**. Click this button to enable the filemask, date and size filtering options.

The Filter Options

The Filter options lets you categorize files by name and type, size and date.

1. **Filemask**. Enter the filename pattern; Unix wildcards (*, ?, etc.) are supported.
2. **Date range**. Select a date range for files.
3. **File size**. Select the minimum size of files to find.

Filter Examples

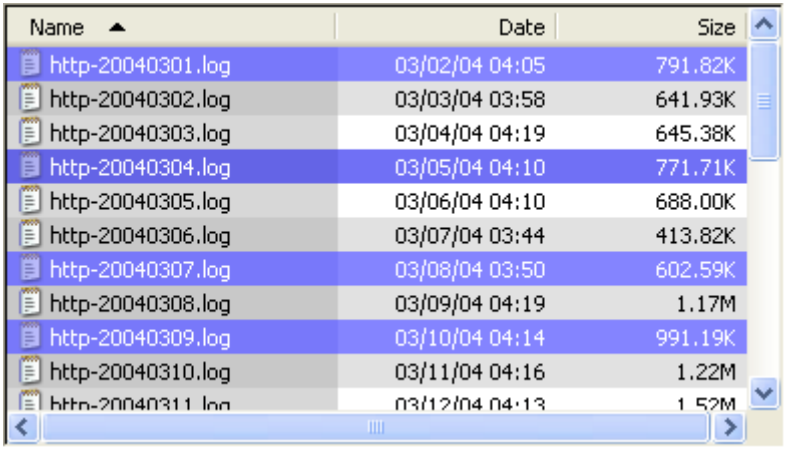
NAME	DATE	SIZE	DESCRIPTION
*.psd	This Week	Small (>100K)	Displays all Adobe photoshop files created this week and over 100K in size.
*.exe	Any Time	Any Size	Displays only executable files.
report?.ppt	This Year	Any Size	Displays all Microsoft Power Point presentations created this year and named report1.ppt, report2.ppt, reportA.ppt etc.
.htm	Today	Any Size	Displays all .html and .htm files created after 12:00am.

The File View

The file view lets you browse and manipulate the contents of the current folder. GetIt FTP supports two different viewing modes which are designed to help you work with this information:

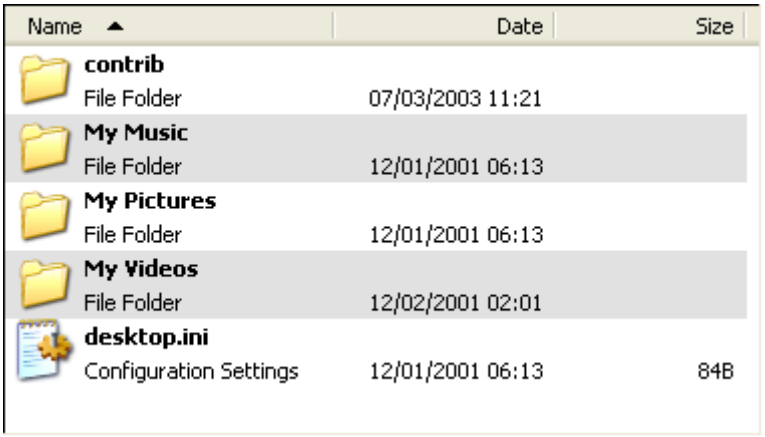
Details View

The Details view displays file and folder information in a familiar and compact format.



Summary View

The Summary view is designed to simplify file browsing and is ideal for accessing systems with long filenames; it also provides extended file details. This format is suited to stylus and touchpad input.



CHAPTER 6

Technical Notes

This section contains advanced system and protocol details for GetIt FTP.

File Modification Time (MDTM) Command

GetIt FTP implements the MDTM command as specified in the draft-ietf-ftpext-mlst-16 document. However, the server also supports the widely accepted "set" time option:

MDTM <sp> timeval <sp> pathname <CRLF>

ASCII Representation Type

When using ASCII representation type (TYPE A), GetIt FTP will translate the newline characters (LF = '\n') to the correct CRLF sequence. The benefit of this feature is that GetIt FTP can be used to convert text files from other operating systems (for example, UNIX) to the native Windows format. However, users and administrators should note that the size of the file on the destination system will be larger than that of the source.

NOTE: The server will not alter existing CRLF formatting. For more information, see RFC 959 section 3.1.1.1.

Telnet Protocol Notes

GetIt FTP emulates the Synch signal behavior specified in RFC 854 (page 7). The software ignores the TCP Urgent flag and scans the incoming data for the DM (Data Mark) flag. When the flag is seen, only "interesting" control functions will be executed and TELNET data up to the DM is ignored. See description below for more detail on the TCP Urgent flag:

> [Winsock documentation] 2.2.3 Out-of-band data
> *Note: The following discussion of out-of-band data, also referred to as TCP Urgent data, follows the model used in the Berkeley software distribution. Users and implementors should be aware of the fact that there are at present two conflicting interpretations of RFC 793 (in which the concept is introduced), and that the implementation of out-of-band data in the Berkeley Software Distribution does not conform to the Host Requirements laid down in RFC 1122. To minimize interoperability problems, applications writers are advised not to use out-of-band data unless this is required in order to interoperate with an existing service. Windows Sockets suppliers are urged to document the out-of-band semantics (BSD or RFC 1122) which their product implements. It is beyond the scope of this specification to mandate a particular set of semantics for out-of-band data handling...*

OpenSSL

GetIt FTP employs the OpenSSL suite to implement Secure Sockets Layer (SSL) functionality. This software is a comphrensive 'open source' solution that meets the security requirements of CERT and other international organizations. For more information, see the OpenSSL website: http://www.openssl.org.

APPENDIX A

FTP Commands

COMMAND	DESCRIPTION/SYNTAX	RFC
LIST	List file information in current/specified directory. Usage: LIST [<sp> pathname] <CRLF>	959
NLIST	List file names. Usage: NLIST [<sp> pathname] <CRLF>	959
CWD/XCWD	Change working directory. Usage: CWD/XCWD <sp> directory <CRLF>	959
CDUP/XCUP	Change to parent directory. Usage: CDUP/XCUP <CRLF>	959
PORT	Specify remote IP address for data transfer (server to client). Usage: PORT <sp> b0, b1, b2, b3, b4, b5 <CRLF>	959
PASV	Passive data transfer (client to server). Usage: PASV <CRLF>	959

COMMAND	DESCRIPTION/SYNTAX	RFC
TYPE	Set representation type. Usage: TYPE <sp> [A | I | L 8 | N | T | AN | AT] <CRLF>	959
ALLO	Allocate storage space (ignored). Usage: ALLO <sp> filesize <CRLF>	959
STOR	Store (upload) file. Usage: STOR <sp> filename <CRLF>	959
STOU	Store unique file. *The server will generate and return a filename in the reply.* STOU <CRLF>	959
APPE	Append file. Usage: APPE <sp> filename <CRLF>	959
RETR	Retrieve (download) file. Usage: RETR <sp> filename <CRLF>	959
PWD/XPWD	Print working directory. Usage: PWD/XPWD <CRLF>	959
ABOR	Stop current operation. Usage: ABOR <CRLF>	959
USER	Set username. Usage: USER <sp> username <CRLF>	959
PASS	Set password. Usage: PASS <sp> password <CRLF>	959
ACCT	Set account (ignored). Usage: ACCT <sp> account-info <CRLF>	959
DELE	Delete file. Usage: DELE <sp> filename <CRLF>	959
RMD/XRMD	Remove directory. Usage: RMD/XRMD <sp> directory <CRLF>	959
MKD/XMKD	Create directory. Usage: MKD/XMKD <sp> directory <CRLF>	959

COMMAND	DESCRIPTION/SYNTAX	RFC
RNFR	Rename from. *Must be followed by RNTO command.* Usage: RNFR <sp> filename <CRLF>	959
RNTO	Rename to. Usage: RNTO <sp> filename <CRLF>	959
SYST	System command. Return host operating system information. Usage: SYST <CRLF>	959
MODE	Set transmission mode. Usage: MODE <sp> [S | Z] <CRLF>	959
STRU	Set file structure. Usage: STRU <sp> [F | R] <CRLF>	959
STAT	Status. Return information about the current operation. Usage: STAT [<sp> pathname] <CRLF>	959
REIN	Reinitialize. This command terminates a user, flushing all IO. Usage: REIN <CRLF>	959/ EXT
MDTM	Set/get file modification time. Usage: MDTM <sp> pathname <CRLF> and MDTM <sp> timevalue <sp> pathname <CRLF>	EXT
SIZE	Return the size of a file (using current representation type). Usage: SIZE <sp> pathname <CRLF>	EXT
AUTH	Set authentication/security mechanism. Usage: AUTH <sp> [SSL | TLS] <CRLF>	2228
PBSZ	Set protection buffer size. Usage: PBSZ <sp> size <CRLF>	2228
PROT	Set data channel protection level. Usage: PROT <sp> [C | P] <CRLF>	2228

COMMAND	DESCRIPTION/SYNTAX	RFC
CCC	Clear command channel. Usage: CCC <CRLF>	2228
FEAT	Feature command. Show server capabilities. Usage: FEAT <CRLF>	2389
OPTS	Options command. Allows the client to set command behavior. Usage: OPTS <sp> command [<sp> options] <CRLF>	2389
HELP	Display command and syntax information. Usage: HELP [<sp> command] <CRLF>	959
NOOP	No operation. Usage: NOOP <CRLF>	959
EPRT	Extended PORT command. Usage: EPRT <sp> <d><net-prt><d><net-addr><d><tcp-port><d>	2428
EPSV	Extended PASV command. Usage: EPSV [<sp> ALL] <CRLF>	2428
QUIT	Logout. Usage: QUIT <CRLF>	959