

# FileZilla Command Line Pro Manual Version 1.5 — July 11th, 2023 First Release

Lead Author: Josué Andrade Gomes (based on the work of Naomi Kramer)

Co-Authors: Tim Kosse, Roberto Galoppini

Book Cover: Vencho Miloshevski

Copyright © 2021-2023 by Tim Kosse and Business Follows srl

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, without either the prior written permission of the copyrights' holders. Requests for permission should be addressed to social@filezilla-project.org and info@businessfollows.com.

TRADEMARKS: FileZilla logo and FileZilla are trademarks or registered trademarks of Tim Kosse, in Europe and in the United States, and may not be used without written permission. All other trademarks are the property of their respective owners.

# Contents

1	Introduction to FileZilla Pro Command Line1.1 FileZilla Pro Command Line Features	5
2	Common Terminology	10
3	Protocols Supported by FileZilla Pro Command Line 3.1 FTP	15
4	Installing FileZilla Pro Command Line4.1 Prerequisites4.2 Windows Installation4.3 Registering4.4 Offline Registration	18 20
5	Using FileZilla Pro Command Line  5.1 Starting FileZilla Pro Command Line  5.2 Getting Help  5.3 Connecting to a Server  5.4 Local and Remote Paths  5.5 Transferring Files  5.6 Deleting Files  5.7 Renaming Files  5.8 Handling Directories  5.9 Regular Expressions  5.10 Providing a master password  5.11 Settings  5.12 Version and Build Info	26 26 31 32 35 36 38 40 41 41

# FileZilla Pro Command Line User Guide, Release 1.5

9	Copyright and Trademark Information	94
8	7.3 Common Errors 7.4 Contact FileZilla Pro Command Line Customer Support  Advanced Options 8.1 Modify File Size Display 8.2 Active vs Passive Mode 8.3 FTP Active Mode Configuration 8.4 Using an FTP Proxy 8.5 Using a Proxy Server 8.6 Pre-allocate Disk Space Before Download 8.7 Configuring MIME Type Mapping 8.8 Create Log Files 8.9 Error Handling 8.10 File Synchronization 8.11 Schedule a script 8.12 Adding to PATH 8.13 Protect Passwords with a Master Password 8.14 Escape Sequences 8.15 Dynamic Scripts 8.16 Output Formats	81 82 82 83 84 84 85 85 86 87 88 89 90 91
7	6.6 How to Upload Files to Azure 6.7 How to Upload Files to Google Cloud 6.8 How to Upload Files to Box 6.9 How to Upload Files to WebDAV  Troubleshooting 7.1 Timeouts on Large Files 7.2 Amazon S3: Forbidden Error	68 71 74 75 <b>77</b>
6	Setting up Cloud Storage Connections  6.1 How to Upload Files Using Amazon S3	62 63 63
	5.13 Using the Site Manager	

### Introduction to FileZilla Pro Command Line

FileZilla Pro Command Line is a command line file transfer application suited for developers, system administrators and more broadly "advanced" users wishing to use scripts.

### 1.1 FileZilla Pro Command Line Features

The features of FileZilla Pro Command Line include:

- A number of file transfer protocols, including *FTP*, *FTPS*, *SFTP*, WebDAV, and most cloud storage protocols.
- Logging.
- Transfer speed limits for both uploads and downloads.
- Keep idle connections alive.

# 1.2 Supported Cloud Data Storage Services

FileZilla Pro Command Line supports the following cloud data storage services:

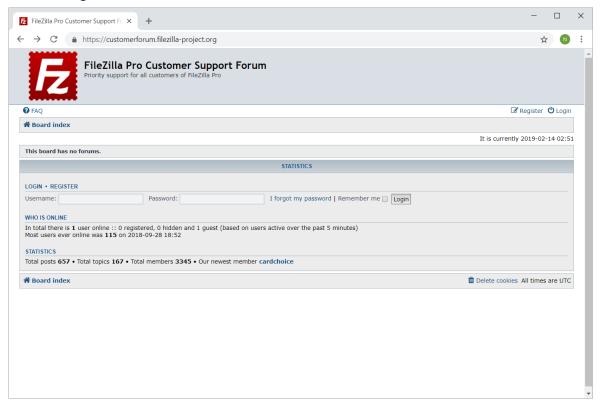
- Amazon S3
- Backblaze B2
- Box
- Dropbox
- Google Cloud Storage

- Google Drive
- Microsoft Azure File Storage Service
- Microsoft Azure Blob Storage Service
- Microsoft OneDrive
- Microsoft OneDrive for Business
- Microsoft Sharepoint
- OpenStack Swift
- Rackspace Cloud
- WebDAV

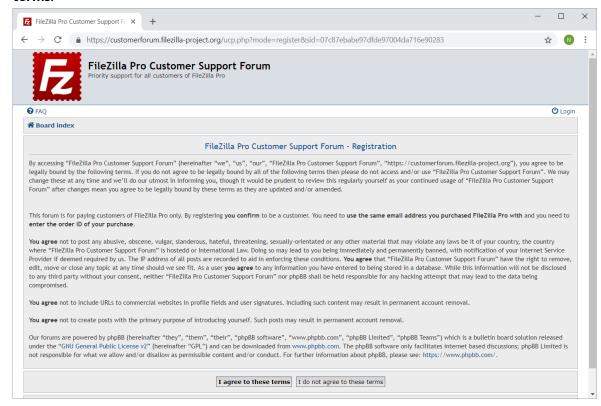
# 1.3 Register as a Customer

You can register as a FileZilla Pro Command Line customer on the Customer Support forum to receive priority support from FileZilla Pro Command Line staff.

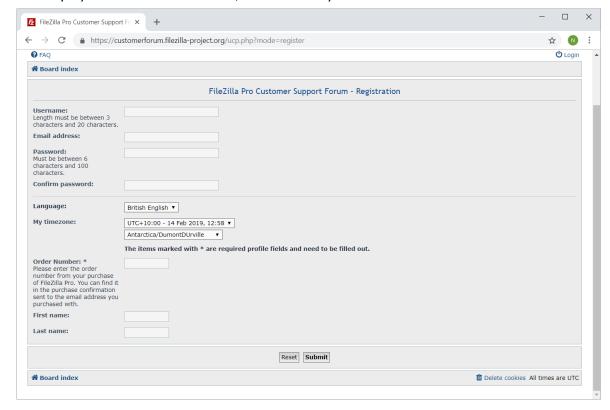
- Open https://customerforum.filezilla-project.org/ in an internet browser.
- Click on Register.



• Read the terms of registration and, if you agree to the conditions, click on I agree to these terms.



• Enter a *User ID* in the **Username** field. This can be whatever you want; for example a nickname. It is displayed to other forum users, so do not use your email address here.



- In the **Email address** field, enter the email address with which you bought File Zilla Pro Command Line.
- Enter a password in the **Password** and **Confirm password** fields.
- Enter the order number from your FileZilla Pro Command Line purchase in the **Order Number** field.
- Enter other information if desired.
- Click on Submit.

If you have trouble registering on the forum, email info@filezillapro.com for assistance.

# **Common Terminology**

#### Client

A client is a computer application that you use to connect your local computer to a server on the internet. In this case, the client is FileZilla Pro Command Line. Using it, you can add, delete, or edit files and/or directories on the remote server.

#### Download

When files are transferred from a remote server to a local machine.

#### **FTP**

File Transfer Protocol is a basic method for moving files between local and remote computers. See *FTP* for more information.

#### **FTPS**

File Transfer Protocol with *TLS* is a secure version of File Transfer Protocol (standard FTP). File transfers are encrypted between FileZilla Pro Command Line and the server. See *FTPS* for more information.

#### **JSON**

Stands for JavaScript Object Notation, and it is a data interchange format used for structured representation of data objects.

#### Local

The machine on which FileZilla Pro Command Line is installed, that you're using to control file transfers.

#### **MIME Types**

MIME stands for Multipurpose Internet Mail Extensions, and it is a technique that servers use to recognize the type of file being used, similar to the way Windows recognizes files by their file extension (e.g. .txt). It helps browsers to figure out what to do with a particular file when you click on a link to it; for example, display it or download it. A MIME type typically consists of a type and a subtype.

#### Common MIME types are:

text/plain (text file)

- image/jpeg (JPEG image)
- audio/mpeg (MP3 audio)
- video/quicktime (QuickTime video)
- application/pdf (PDF document)

#### Overwrite

Copying over an existing file with one of the same name and file extension. This is a term you will come across often in FileZilla Pro Command Line documentation, because it is common while copying files to come across files that you or someone else have already copied across, and you will need to tell FileZilla Pro Command Line how to handle this situation. One option is to copy over the existing file with a new one that has the same filename.

#### Recursive

In terms of FileZilla Pro Command Line, a recursive action on a directory affects all of its subdirectories and files in them. For example, running a delete command on a directory with a number of files in it as well as subdirectories with files in them – perhaps several levels deep – requires FileZilla Pro Command Line to first send a delete command for each file in the bottom layer of directories, then send a delete command for those directories, then send a delete command for files in the second-to-bottom layer of directories, etc., until it reaches the top layer of directories and files.

#### Remote

The server that FileZilla Pro Command Line will connect to in order to modify directories and files. Often this is geographically remote as well.

#### Server

A server is a computer that you can connect to via the internet. Servers can be used for a range of activities, but for purposes of FileZilla Pro Command Line, they're used for uploading and downloading files. For example, a website is generally hosted on a server or cluster of servers, and you can connect to it via its FTP server – a computer dedicated to handling file transfers.

**Note:** If you want to create an FTP server, you'll need to use a server program like FileZilla Server.

#### **SFTP**

SSH File Transfer Protocol is a method that FileZilla Pro Command Line can use to access and transfer files on a server. It is based on Secure Socket Shell protocol rather than traditional File Transfer Protocol, so it tends to use a server's SSH port. See *SFTP* for more information.

#### TLS

Transport Layer Security (TLS) encrypts communications between FileZilla Pro Command Line and a server. This keeps the files that you're transferring secure from eavesdroppers while they're in transit between your local computer and the server. TLS is used in *FTPS* connections.

#### **UNC**

Universal Naming Convention. A path format for identify resources in a network. On Windows the format is \\server-name\\resource-name.

### Upload

When files are transferred from a local machine to a remote server.

### **User ID**

Also sometimes referred to as a User Name or User Identification. This is the string of text that an application, server, or website recognizes as belonging to a particular person. Sometimes your user ID will be your email address; sometimes just a string of characters, for example janesmith98352.

# **Protocols Supported by FileZilla Pro Command Line**

FileZilla Pro Command Line supports a number of protocols to allow you the greatest possible flexibility in transferring files. It supports:

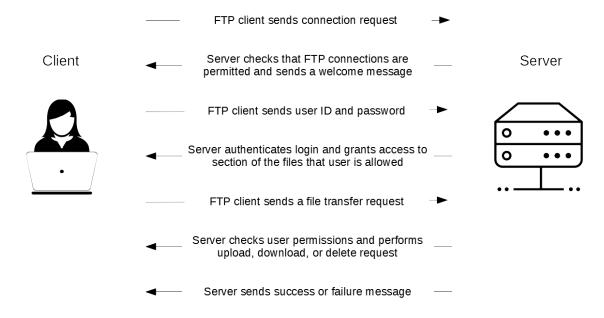
- FTP
- FTPS
- SFTP

FileZilla Pro Command Line supports the following cloud data storage services:

- Amazon S3
- Backblaze B2
- Box
- Dropbox
- Google Cloud Storage
- Google Drive
- Microsoft Azure File Storage Service
- Microsoft Azure Blob Storage Service
- Microsoft OneDrive
- Microsoft OneDrive for Business
- Microsoft Sharepoint
- OpenStack Swift
- Rackspace Cloud
- WebDAV

# 3.1 FTP

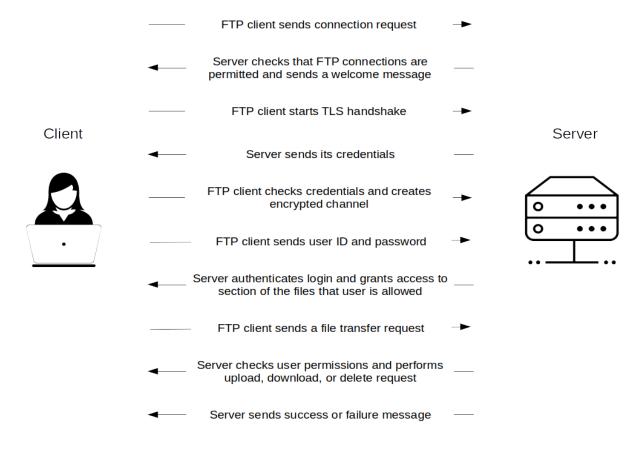
FTP stands for File Transfer Protocol. It's a method for moving files between computers, over the internet, that has been in use for decades. FTP connections are not encrypted, which means that your files could potentially be seen and copied by a third party.



3.1. FTP 14

# **3.2 FTPS**

FTPS stands for FTP over TLS. It's a newer, secure version of *FTP* that encrypts your connection, meaning that a third party can't see the files that you're moving. It uses Transport Layer Security (*TLS*).

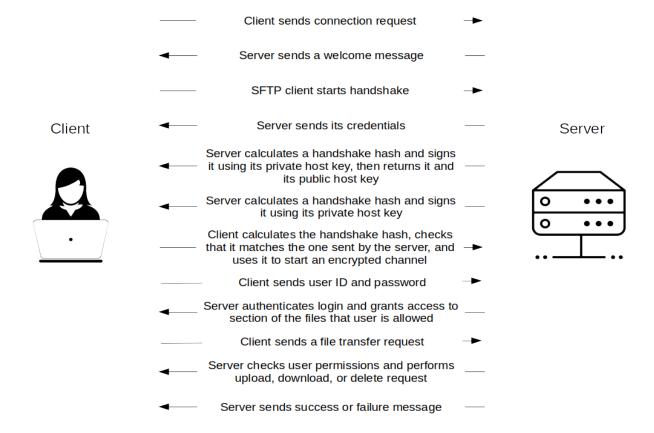


3.2. FTPS 15

### **3.3 SFTP**

SSH File Transfer Protocol (SFTP) is a method for transferring files between a local and remote computer, like FTP and FTPS, but the difference is in how it works.

Instead of sending FTP commands, SFTP uses an extended set of SSH commands. If the server you're connecting to only supports FTP connections, not SSH connections, you won't be able to use SFTP.



3.3. SFTP 16

4

# **Installing FileZilla Pro Command Line**

Installing FileZilla Pro Command Line is slightly different on each operating system.

When you buy FileZilla Pro Command Line, you'll receive a login (usually your email address) and code, as well as a download link. Click on the link, or copy and paste to your browser, and enter your login and code to start the download.

**Note:** Ensure that you pay attention to where the download saves onto your local computer.

# 4.1 Prerequisites

Before installing FileZilla Pro Command Line, you'll need:

- At least 20MB of space free on your drive.
- Administrator privileges if you want to make the program available for all users on a Windows machine.

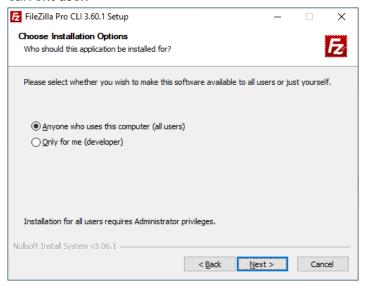
Check that the date and time on your machine are correct. FileZilla Pro Command Line will not allow you to complete the registration process unless both date and time are set correctly. If in doubt, set your machine to automatically set its time and date.

# 4.2 Windows Installation

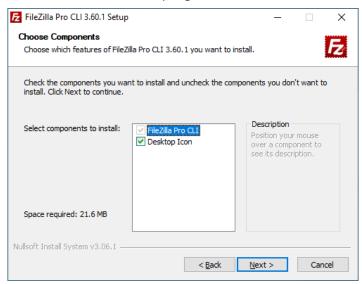
**Note:** You'll require administrator privileges on the current computer if you want to install FileZilla Pro Command Line for all users of the machine.

- 1. Double-click on the FileZilla Pro Command Line install file to start the installation.

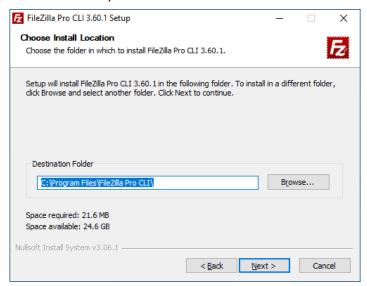
  This file will be named FileZilla\_cli\_<version number>\_win64-setup.exe: for example, FileZilla\_cli\_3.54.1\_win64-setup.exe.
- 2. Select whether to install FileZilla Pro Command Line for all users of the machine, or just the current user.



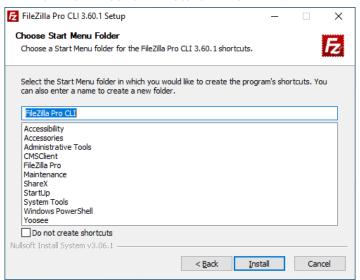
- 3. Select the components that you want to be installed with FileZilla Pro Command Line:
  - FileZilla CLI is the base program; this is required.
  - **Desktop icon** adds a link to FileZilla Pro Command Line to your desktop, making it easy to find and run the program.



4. Click **Browse** if you want to select an installation location. Click **Next** to move to the next page.



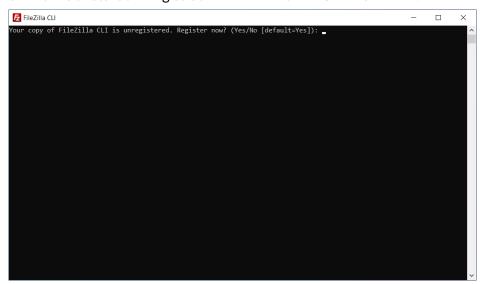
5. Pick an existing Start Menu folder to add an icon for FileZilla Pro Command Line, or enter a new name to create a new Start Menu folder.



# 4.3 Registering

On the first run FileZilla Pro Command Line prompts for registration. If you run FileZilla Pro Command Line as administrator it will be registered for all users.

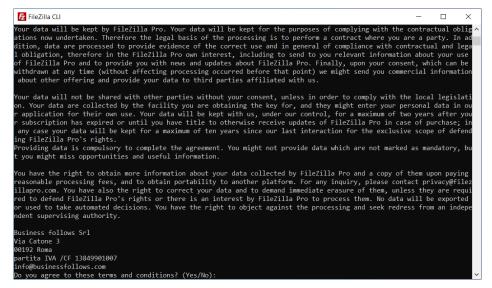
1. Select Yes to start the registration of FileZilla Pro Command Line.



You will be asked to provide the registration key or if you do not have the registration key enter the email you used when you purchased FileZilla Pro Command Line.

4.3. Registering 20

2. FileZilla Pro Command Line terms and conditions are shown. Enter Yes to accept them:



# 4.4 Offline Registration

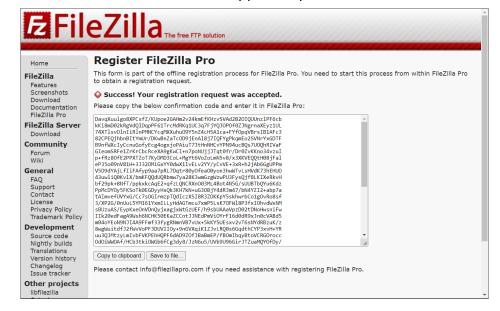
If you're behind a corporate firewall that does not allow FileZilla Pro Command Line to register, or you need to register your copy without internet access, you can register offline. Follow the steps described below to register offline.

- 1. In the register prompt, choose **Offline**.
- 2. If you already have the confirmation code, continue to item 9.
- 3. If you do not yet have the confirmation code, enter **No** in the **Do you want to enter the registration confirmation?** prompt.
- 4. You will be asked to provide the registration key. If you do not have the registration key, enter the email you used when you purchased FileZilla Pro Command Line.
- 5. A registration request is created. Copy it to the clipboard or to save into a file, enter **Yes** in the **Do you want to save it into a file?** prompt.

6. Visit https://filezilla-project.org/proregister.php and enter the registration request. If the registration request was saved into a file, click **Browse** to select the file and upload it.



- 7. Click Submit registration request.
- 8. A confirmation code is created. Copy it to clipboard or save it into a file:



- 9. Back to FileZilla Pro Command Line: in the **Do you want to enter the registration confirmation?** prompt, enter **Yes**.
- 10. If the confirmation code was saved to a file, enter **File** instead and in the next prompt enter the name of the file the confirmation code was saved to.

If the confirmation code is valid, FileZilla Pro Command Line is now registered.

# Using FileZilla Pro Command Line

# 5.1 Starting FileZilla Pro Command Line

There are two basic ways to start FileZilla Pro Command Line:

- From a shortcut on your computer's desktop or the Start Menu.
- From the command line

# 5.1.1 Starting FileZilla Pro Command Line from the desktop

The FileZilla Pro Command Line icon looks like this:



#### **Windows**

During the installation process, you can choose to let the installer create a shortcut to FileZilla Pro Command Line in the Start Menu.

If you're using Windows 8 or above, click on the Start Menu and type filezilla to find the shortcut.

If you selected to install the *Desktop icon*, a shortcut icon is available on your desktop.

If you did not select to create either the Start Menu shortcut or the desktop icon, use Windows Explorer to go to the directory where FileZilla Pro Command Line is installed and launch it from there.

### 5.1.2 Starting FileZilla Pro Command Line from the command line

To start FileZilla Pro Command Line open the command prompt or terminal and enter:

fzcli

If it fails to launch you may need to add it to your system PATH variable. See Adding to PATH.

The interactive mode is started.



In the interactive prompt you enter the commands.

The interactive mode is the default.

### 5.1.3 Script modes

FileZilla Pro Command Line can also run a script with commands. To run the script start FileZilla Pro Command Line with either batch or standalone mode:

```
fzcli --mode batch --script <script file>
fzcli --mode standalone --script <script file>
```

In the batch mode FileZilla Pro Command Line can still prompt for missing information or for confirmation. In the standalone mode FileZilla Pro Command Line won't prompt and aborts if missing information.

### 5.1.4 Script files

A script file is a text file with a command per line:

```
connect ftp://user:password@hostname.net
cd remote_dir
put localfile
get remotefile
```

FileZilla Pro Command Line executes each command and exits at the end.

### 5.1.5 Initial Local Path

To set the initial local path start FileZilla Pro Command Line with local-path option:

```
fzcli --local-path C:\Documents
```

The path becomes the local current directory. See Show the current local directory

# 5.2 Getting Help

Enter help in the interactive prompt and a list of available commands is shown.

```
cli> help
(cwd)
                                                                                    Change remote directory
Clear the error flag
Connect to server
Remove remote file
Disconnect from server
Download remote file
Show help
Change local directory
Remove local file
List local files
Make local directory
 clear
connect (c, open)
del (rm)
disconnect (close)
                                                                                    Make local directory
Show current local directory
Remove local directory
Rename local file
List remote files
            (mkdir)
(mlren)
                                                                                     Make remote directory
Rename multiple local
Upload multiple local
                                                                                    Rename multiple rocal files
Upload local file
Show current remote directory
Exit the application
Reconnect to server
 mrn (mren)
quit (exit, q)
reconnect
                                                                                     Download directory recursively
                                                                                    Download directory recursively
Remove remote directory
Rename remote file
Upload directory recursively
Provide a master password that will be used to decrypt protected password
List, display or set settings
Connect to server using site
File and directory synchronization
Show version and build info
  md (rmdir)
n (mv, ren)
                  (sync)
about, version)
              (about,
```

To get more details about a specific command enter help followed by the command. For example:

help connect

# 5.3 Connecting to a Server

To connect to a server use the connect (or open or c) command. The syntax of the connect command is:

connect <URI>

URI must be in the form [protocol://][user[:password]@]host[:port][/path].

protocol is the protocol to use for the connection:

- ftp
- sftp
- ftps (implicit)

5.2. Getting Help 26

- ftpes (explicit)
- s3
- webdav
- azfile (Microsoft Azure File)
- azblob (Microsoft Azure Blob)
- google (Google Cloud)
- gdrive (Google Drive)
- dropbox
- onedrive
- box
- b2 (Backblaze B2)

```
user: username or ID
password: password
host: host name or IP address
port: port to connect to
```

path: initial remote path (must be an absolute path)

#### For example:

```
fzcli> connect s3://AKIAX4CPYNRAOTQK6KM2:CUXv83Z66yVxdo4dJRZ0EyRpMwkim6VVtWoU9x6v@s3.amazonaws.com/558007041165/bulk/mul ti
1 Thu, 21 Oct 2021 18:22:19 GMT Retrieving directory listing of "/558007041165/bulk/multi"...
1 Thu, 21 Oct 2021 18:22:19 GMT Resolving address of 558007041165.s3.dualstack.us-east-1.amazonaws.com
1 Thu, 21 Oct 2021 18:22:19 GMT Connecting to [2600:1fa0:8068:a0d1:34d8:6efe::]:443...
1 Thu, 21 Oct 2021 18:22:19 GMT Connection established, initializing TLS...
1 Thu, 21 Oct 2021 18:22:19 GMT Verifying certificate...
1 Thu, 21 Oct 2021 18:22:19 GMT TLS connection established, sending HTTP request
1 Thu, 21 Oct 2021 18:22:19 GMT Directory listing of "/558007041165/bulk/multi" successful
fzcli>
```

#### Alternatively you can pass the connection details as parameters:

```
fzcli> connect --protocol s3 --user AKIAX4CPYNRAOTQK6KM2 --pass CUXv83Z66yVxdo4dJRZ0EyRpMwkim6VVtWoU9x6v --path /5580070
41165/bulk/multi s3.amazonaws.com
1 Thu, 21 Oct 2021 18:19:22 GMT Retrieving directory listing of "/558007041165/bulk/multi"...
1 Thu, 21 Oct 2021 18:19:22 GMT Resolving address of 558007041165.s3.dualstack.us-east-1.amazonaws.com
1 Thu, 21 Oct 2021 18:19:22 GMT Connecting to [2600:1fa0:80e8:bf11:34d9:2e18::]:443...
1 Thu, 21 Oct 2021 18:19:22 GMT Connection established, initializing TLS...
1 Thu, 21 Oct 2021 18:19:22 GMT Verifying certificate...
1 Thu, 21 Oct 2021 18:19:22 GMT TLS connection established, sending HTTP request
1 Thu, 21 Oct 2021 18:19:22 GMT Directory listing of "/558007041165/bulk/multi" successful
fzcli>
```

### 5.3.1 Connect to an existing site

To connect to an existing site that was previously created with the Site Manager (see *Using the Site Manager*) use the site command:

```
site <site path>
```

site path has to be given as complete path, with a slash as separation character.

site path has to be prefixed with 0 for user defined entries and 1 for default entries.

You can also use the connect command with the site parameter:

```
connect --site <site path>
```

For example, if you have a "My S3 buckets" site:

```
site "0/My S3 buckets"
```

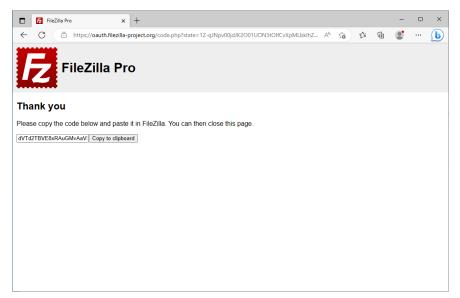
**Note:** If FileZilla Pro Command Line is configured to save passwords protected by a master password (see *Password Storing*), you'll be asked to enter the master password in order to connect.

### 5.3.2 Connect to an OAuth Protocol

The following protocols require an authorization step in a browser: Google Cloud, Google Drive, Dropbox, Microsoft OneDrive and Box.

In this case FileZilla Pro Command Line shows an authorization URL. Copy the URL in a browser and follow the steps to authorize FileZilla Pro Command Line.

For Box and OneDrive protocols an authorization code is generated in the browser.



Copy the code and paste it in FileZilla Pro Command Line prompt.

```
fzcli> connect dropbox://filezillaprodemo@gmail.com@api.dropbox.com
Open following url to authenticate connection:
       esponse_type=code&state=6QvikVcI~nRRKWXc8~GlTwBwD.BOhDOJNxYXbyjAWsHQy79vKjCBv0~mUPBTaTB.9E93MJxZ1ZdDn2YLE46nkGtwUWVII2u0
KMAtkjhtt77ZdPKqZ7CGwA_i_3L3lPc9&token_access_type=offline
After that press enter to continue
 Thu, 21 Oct 2021 18:28:51 GMT Resolving address of api.dropboxapi.com
 Thu, 21 Oct 2021 18:28:51 GMT Connecting to [2620:100:601d:19::a27d:513]:443...
 Thu, 21 Oct 2021 18:28:51 GMT Connection established, initializing TLS...
 Thu, 21 Oct 2021 18:28:52 GMT Verifying certificate..
 Thu, 21 Oct 2021 18:28:55 GMT TLS connection established, sending HTTP request
 Thu, 21 Oct 2021 18:28:55 GMT Resolving address of api.dropbox.com
 Thu, 21 Oct 2021 18:28:55 GMT Connecting to [2620:100:601d:19::a27d:513]:443...
 Thu, 21 Oct 2021 18:28:56 GMT Connection established, initializing TLS...
 Thu, 21 Oct 2021 18:28:56 GMT Verifying certificate..
 Thu, 21 Oct 2021 18:28:56 GMT TLS connection established, sending HTTP request
Thu, 21 Oct 2021 18:28:56 GMT Received credentials for "FileZilla Pro Demo <filezillaprodemo@gmail.com>"
 Thu, 21 Oct 2021 18:28:56 GMT Retrieving directory listing of "". Thu, 21 Oct 2021 18:28:56 GMT Directory listing of "/" successful
```

### 5.3.3 Connect to SFTP with a key file

To connect to a SFTP server using a SSH2 key file, you will need to first create a site with the Site Manager (see *Using the Site Manager*) and then connect using *Connect to an existing site* 

- 1. Use the command site add to create a new site in the Site Manager.
- 2. Select SFTP SSH File Transfer Protocol protocol.
- 3. Enter the host and port.
- 4. In the **Logon type** prompt choose **Key file**.
- 5. Enter the user name.

- 6. Enter the path for the key file.
- 7. Continue configuring the site following the prompts.

For more details, see How to Use SSH Private Keys for SFTP.

### 5.3.4 Unknown Server Certificate

When connecting to a TLS host FileZilla Pro Command Line may ask you to examine a server certificate.

```
The server's certificate is unknown. Please carefully examine the certificate to make sure the server can be trusted.m
Compare the displayed fingerprint with the certificate fingerprint you have received from your server administrator or
erver hosting provider.
Certificates:
         Fingerprint (SHA256): f6:fd:0a:bf:22:3b:65:70:e6:64:cc:b9:cb:07:28:4c:f9:5a:87:bf:84:cb:30:e3:97:0b:5a:93:f8:50:
0c:78
         Fingerprint (SHA1): 0f:d1:28:33:76:d9:73:e9:34:e6:35:51:19:50:48:5e:13:fb:ec:69
         validity: From Wed, 23 Jun 2021 00:00:00 GMT to Sun, 24 Jul 2022 23:59:59 GMT
         Serial: 06:a6:aa:cf:e8:f7:f8:a4:f3:96:5c:b3:e0:da:43:bf
         Public key algorithm: RSA with 2048 bits
         Signature algorithm: RSA-SHA256
Alternative names: 's3.amazonaws.com' '*.s3.amazonaws.com' '*.s3.dualstack.us-east-1.amazonaws.com' 's3.dualstack.us-east-1.amazonaws.com' '*.s3.us-east-1.amazonaws.com' '*.s3.us-east-1.amazonaws.com' '*.s3-control.us-east-1.amazonaws.com' 's3-control.us-east-1.amazonaws.com' 's3-control.dualstack.us-east-1.amazonaws.com' 's3-control.dualstack.us-east-1.amazonaws.com' 's3-control.dualstack.us-east-1.amazonaws.com' 's3-control.dualstack.us-east-1.amazonaws.com' 's3-control.dualstack.us-east-1.amazonaws.com'
-1.amazonaws.com' '*.s3-accesspoint.us-east-1.amazonaws.com' '*.s3-accesspoint.dualstack.us-east-1.amazonaws.com' '*.s3
.us-east-1.vpce.amazonaws.com
         Fingerprint (SHA256): f9:69:08:80:81:9f:06:cd:cc:0b:2f:22:4b:20:7f:2a:f6:00:3f:b5:73:39:b8:67:9a:16:0f:a9:52:08:
d6:2d
         Fingerprint (SHA1): a9:d5:30:02:e9:7e:00:e0:43:24:4f:3d:17:0d:6f:4c:41:41:04:fd
         validity: From Tue, 08 Dec 2015 12:05:07 GMT to Sat, 10 May 2025 12:00:00 GMT Serial: 01:82:f8:09:8e:a2:e6:26:b9:1a:3b:27:84:1f:b9:af
         Public key algorithm: RSA with 2048 bits
Signature algorithm: RSA-SHA256
         Fingerprint (SHA256): 16:af:57:a9:f6:76:b0:ab:12:60:95:aa:5e:ba:de:f2:2a:b3:11:19:d6:44:ac:95:cd:4b:93:db:f3:f2:
6a:eb
         Fingerprint (SHA1): d4:de:20:d0:5e:66:fc:53:fe:1a:50:88:2c:78:db:28:52:ca:e4:74
         validity: From Fri, 12 May 2000 18:46:00 GMT to Mon, 12 May 2025 23:59:00 GMT
         Serial: 02:00:00:b9
         Public key algorithm: RSA with 2048 bits
         Signature algorithm: RSA-SHA1
          Issuer same as subject, certificate is self-signed
Session info:
         Host: 558007041165.s3.dualstack.us-east-1.amazonaws.com:443
         Protocol: TLS1.2
         Cipher: AES-128-GCM
         Key exchange: ECDHE-SECP256R1-RSA-SHA256
         Mac: AEAD
Trust the server certificate and carry on connecting? (Yes, No, Always for this certificate [default=Yes]): \_
```

FileZilla Pro Command Line shows the server certificate details and asks if you want to trust it and continue with the connection:

Trust the server certificate and carry on connecting? (Yes, No, Always for this certificate [default=Yes]):

Enter Yes to accept the certificate or No to deny it and cancel the connection.

### 5.3.5 Disconnect

To disconnect from the remote server use the disconnect (or close) command:

disconnect

### 5.4 Local and Remote Paths

FileZilla Pro Command Line performs operations on files and directories. The path of files or directories is required for some of these operations. Paths can be either local or remote.

### 5.4.1 Local Path Syntax

The local path parameter refers to the path of the file or directory on the local system. The syntax for local path accepts valid Unix or Windows paths, including *UNC* paths.

The path can be relative to the current local directory, or it can be an absolute path.

### 5.4.2 Remote Path Syntax

The remote path parameter refers to the path of a file or directory on the remote system. The syntax is Unix by default. The remote path type can be configured in the *Site Manager*.

### 5.4.3 Examples

The following examples illustrate how local and remote paths are used:

The local path documents/letter.pdf is a relative path to the file letter.pdf under the documents directory, which is under the current directory. The remote path /Backup/letter.pdf is an absolute path of the file letter.pdf under directory Backup, which is under the root directory. It is an absolute path, as it starts with the root (/) directory:

put documents/letter.pdf /Backup/letter.pdf

In the next example, the local path is absolute, and the remote path is relative:

put C:\\Documents\\Letter.docx Archive/Letter.docx

Note that the backslash character (\) needs to be escaped with another backslash character (\\). See *Escape Sequences*.

On Windows, UNC paths are also accepted. The local path below is \\documentserver\share\Budget. xlsx:

put \\\\documentserver\\share\\Budget.xlsx /Project/Budget.xlsx

# 5.5 Transferring Files

### 5.5.1 **Upload**

To upload a file use the put command:

```
put [options] <local file> [<remote file>]
```

local file and remote file can refer to a file using either an absolute or a relative path.

If remote file is empty the name of the local file is used.

### Options:

```
--exists, -e: action in case the remote file exists. Possible values:
    overwrite, o: overwrite the remote file.
    skip, s: the transfer does not take place.
    resume, r: resume the transfer.
    newer, n: overwrite if source is newer than destination.
    size, z: overwrite if file sizes are different.
    size_newer, w: overwrite if source is newer or sizes are different.
```

### 5.5.2 Upload multiple files

To upload multiple files use the mput command:

```
mput [options] <local files> [<remote path>]
```

local files is a regular expression to select which files are uploaded. See *Regular Expressions* for the regular expression syntax.

remote path can refer to an absolute or a relative path.

If remote path is empty the current remote directory is used.

Options:

```
--exists, -e: action in case the remote file exists. Possible values:
```

```
overwrite, o: overwrites the remote file.

skip, s: the transfer does not take place.

resume, r: resume the transfer

newer, n: overwrite if source is newer than destination.

size, z: overwrite if file sizes are different.

size_newer, w: overwrite if source is newer or sizes are different.
```

### 5.5.3 Upload a directory

To recursively upload a directory use the rput command:

```
rput [options] <local path> [<remote path>]
```

local path and remote path can refer to either an absolute or a relative path.

If remote path is empty the current remote directory is used.

### Options:

```
--exists, -e: action in case the remote file exists. Possible values:
    overwrite, o: overwrite the remote file.
    skip, s: the transfer does not take place.
    resume, r: resume the transfer
    newer, n: overwrite if source is newer than destination.
    size, z: overwrite if file sizes are different.
    size_newer, w: overwrite if source is newer or sizes are different.
--filter, -f: regular expression to filter which files are uploaded. See Regular Expressions for the regular expression syntax.
--flatten: flatten the directory structure on remote side.
```

#### 5.5.4 Download

To download a file use the get command:

```
get [options] <remote file> [<local file>]
```

local file and remote file can refer to a file using either an absolute or a relative path.

If local file is see the name of the remote file is used.

Options:

```
--exists, -e: action in case the remote file exists. Possible values: overwrite, o: overwrite the local file. skip, s: the transfer does not take place. resume, r: resume the transfer newer, n: overwrite if source is newer than destination. size, z: overwrite if file sizes are different. size_newer, w: overwrite if source is newer or sizes are different.
```

### 5.5.5 Download multiple files

To download multiple files use the mget command:

```
mget [options] <remote files> [<local path>]
```

remote files is a regular expression to select which files are downloaded. See *Regular Expressions* for the regular expression syntax.

local path can refer to an absolute or a relative path.

If local path is empty the current local directory is used.

Options:

```
--exists, -e: action in case the local file exists. Possible values:
    overwrite, o: overwrites the remote file.
    skip, s: the transfer does not take place.
    resume, r: resume the transfer
    newer, n: overwrite if source is newer than destination.
    size, z: overwrite if file sizes are different.
    size_newer, w: overwrite if source is newer or sizes are different.
```

### 5.5.6 Download a directory

To recursively download a directory use the rget command:

```
rget [options] <remote path> [<local path>]
```

local path and remote path can refer to either an absolute or a relative path.

If local path is empty the current local directory is used.

Options:

```
--exists, -e: action in case the local file exists. Possible values:
    overwrite, o: overwrite the local file.
    skip, s: the transfer does not take place.
    resume, r: resume the transfer
    newer, n: overwrite if source is newer than destination.
    size, z: overwrite if file sizes are different.
    size_newer, w: overwrite if source is newer or sizes are different.
--filter, -f: regular expression to filter which files are downloaded. See Regular Expressions for the regular expression syntax.
--flatten: flatten the directory structure on local side.
```

# 5.6 Deleting Files

### 5.6.1 Delete a remote file or directory

To delete a remote file or a directory use the del (or rm) command:

```
del [options] <remote path>
```

remote path can refer to a file or directory using either an absolute or a relative path.

Options:

```
--recursive, -r: recursively delete files and directories.
```

### 5.6.2 Delete multiple remote files

To delete multiple remote files use the mdel command:

```
mdel <remote files>
```

remote files is a regular expression to select which files are removed. See *Regular Expressions* for the regular expression syntax.

### 5.6.3 Delete a local file or directory

To delete a local file or a directory use the ldel (or lrm) command:

```
ldel [options] <local path>
```

local path can refer to a file or directory using either an absolute or a relative path.

Options:

--recursive, -r: recursively delete files and directories.

### 5.6.4 Delete multiple local files

To delete multiple local files use the 1mde1 command:

```
lmdel <local files>
```

local files is a regular expression to select which files are removed. See *Regular Expressions* for the regular expression syntax.

# 5.7 Renaming Files

#### 5.7.1 Rename a remote file

To rename a remote file use the rn (or mv or ren) command:

```
rn <source> <destination>
```

source and destination can refer to a file using either an absolute or a relative path.

#### 5.7.2 Rename a local file

To rename a remote file use the lrn (or lmv or lren) command:

```
lrn <source> <destination>
```

source and destination can refer to a file using either an absolute or a relative path.

#### 5.7.3 Rename multiple files

To rename multiple files, use the mrn (or mren) command for remote files and 1mrn (or 1mren) for local files.

```
mrn options [pattern]
lmrn options [pattern]
```

pattern: optional regular expression to select which entries to rename. If missing, all entries in the current directory are renamed. See *Regular Expressions* to learn more about regular expression syntax.

#### Options:

To replace text in file names you have the following options:

- --search, -s: the text to be searched.
- --replace, -r: the text that will replace the searched text. If this option is not specified, the search text is removed.
- --case, -c: match case in searched text
- --regex, -x: uses search text as a regular expression.

The options to add text in file names are:

- --add, -a: the text that will be added to the beginning of the file name.
- --end, -e: the text that will be added to the end of the file name.

#### Common options:

- --exists, e: how to handle existing entries:
  - ignore, i: new name is ignored, rename does not take place
  - overwrite, o: existing entry is replaced. If you try to rename two or more entries with the same new name FileZilla Pro Command Line returns an error and aborts the operation.
  - number, n: an incremental number is added to the new name

#### 5.7.4 Examples

Replace IMG by DSC in all JPEG files:

```
mrn --search IMG --replace DSC --exist number \.jpg$
```

Rename .docx files to .bak:

```
lmrn --regex --search \.docx$ --replace .bak --exists ignore
```

• Add tmp to the beginning of all files in the current directory:

```
mrn --add tmp --exists ignore
```

Remove the tmp from the beginning:

```
mrn --regex --search ^tmp --exists ignore
```

## **5.8 Handling Directories**

#### 5.8.1 List the contents of the current remote directory

To list the files of the current remote directory use the ls (or dir) command:

```
ls [regex]
```

regex: optional regular expression to show specific files. See *Regular Expressions* for the regular expression syntax.

#### For example:

```
fzcli> ls
                             2,98 MiB Advertisement.mp4
Mon, 12 Apr 2021 21:20:35 GMT
Thu, 28 Jan 2021 20:38:01 GMT 11,73 MiB
                                       Archive.7z
Thu, 06 May 2021 20:58:01 GMT 609,68 KiB 'Boletim Informativo.pdf'
Tue, 12 Jan 2021 06:37:08 GMT 72,51 KiB 'Customer Presentation.pptx'
Tue, 15 Dec 2020 13:44:41 GMT
                            26,59 KiB 'Design Specs.docx'
Tue, 15 Dec 2020 13:44:34 GMT 343,84 KiB Fax.tif
     <DIR> Invoices
Tue, 15 Dec 2020 13:44:31 GMT
                            20,00 KiB Letter.pdf
Tue, 15 Dec 2020 13:44:30 GMT
                             1,60 KiB
                                      Letter.tex
Tue, 15 Dec 2020 13:44:30 GMT 72,51 KiB Marketing.pptx
Tue, 15 Dec 2020 13:44:35 GMT 609,68 KiB
                                       Newsletter.pdf
Tue, 15 Dec 2020 13:44:40 GMT 583,00 KiB Newsletter.pub
     <DIR> Pictures
Tue, 15 Dec 2020 13:44:43 GMT
                             1,99 MiB
                                       Recording.ogg
Tue, 15 Dec 2020 13:44:38 GMT 294,70 KiB 'Summary Report.docx'
Tue, 15 Dec 2020 13:44:30 GMT
                            22,35 KiB ~$dget.xlsx
Tue, 15 Dec 2020 13:44:30 GMT
                             26,59 KiB '~$sign Specs.docx'
Tue, 15 Dec 2020 13:44:35 GMT
                            72,51 KiB '~$stomer Presentation.pptx'
fzcli>
```

## 5.8.2 List the contents of the current local directory

To list the files of the current local directory use the lls (or ldir) command:

```
lls [regex]
```

regex: optional regular expression to show specific files. See *Regular Expressions* for the regular expression syntax.

#### 5.8.3 Show the current remote directory

To show the current remote directory use the pwd command:

pwd

#### 5.8.4 Show the current local directory

To show the current local directory use the 1pwd command:

1pwd

# 5.8.5 Change the current remote directory

To change the current remote directory use the cd (or cwd) command:

```
cd <remote path>
```

remote path can be an absolute path or a path relative to the current remote directory.

#### 5.8.6 Change the current local directory

To change the current local directory use the lcd (or lcwd) command:

```
lcd <local path>
```

local path can be an absolute path or a path relative to the current local directory.

#### 5.8.7 Create a remote directory

To create a remote directory use the mkd (or mkdir) command:

```
mkd <remote path>
```

remote path can be an absolute path or a path relative to the current remote directory.

#### 5.8.8 Create a local directory

To create a local directory use the lmkd (or lmkdir) command:

```
lmkd <local path>
```

local path can be an absolute path or a path relative to the current local directory.

#### 5.8.9 Remove a remote directory

To remove a remote directory use the rmd (or rmdir) command:

```
rmd <remote path>
```

remote path can be an absolute path or a path relative to the current remote directory.

## 5.8.10 Remove a local directory

To remove a local directory use the lrmd (or lrmdir) command:

```
lrmd <local path>
```

local path can be an absolute path or a path relative to the current local directory.

# 5.9 Regular Expressions

For the commands that accept a regular expression option:

• .: use a period to substitute for a single character. For example, entering f. 11 can select *fell.txt* and *fill.txt*.

- \*: use an asterisk after a character to look for any number of that character in the specified place in the string. For example, entering tex\*t can select tet, text, texxt, texxxxxxxt, etc.
- ?: use a question mark after a character to look for 0 or 1 uses of that character in the specified place in the string. For example, entering tex?t can select tet or text, but not texxt.
- ^: use a caret mark to look for all file names beginning with the character(s) after it. For example, entering ^t would select all files with names beginning with a t.
- \$: use a dollar sign to look for all file names ending with the character(s) before it. For example, entering b\$ would select all files with names ending with a b.
- \: use a backslash character to 'escape' the following character, telling FileZilla Pro Command Line to treat it as a normal character and not as an expression. For example, if you want to select text files, you could enter \ . txt.

# 5.10 Providing a master password

To provide a master password enter the secret command:

```
secret <password>
```

This command adds a password that will be attempted whenever a master password would be needed to decrypt the credentials.

Different stored data might have originally been protected with different master passwords. In this case you can add multiple passwords by using the *secret* command multiple times.

If you have configured to save passwords protected by a master password you'll be prompted to enter the master password in order to decrypt credentials when connecting. If a password is provided in the connect command it will be attempted first.

**Note:** You can use this option in a script file to use stored OAuth tokens without getting prompted to enter a password.

See Protect Passwords with a Master Password, Password Storing

# 5.11 Settings

To list the available settings enter the set command:

set

To view a value of a specific settings use set command followed by the setting name:

```
set engine.log.file
```

To modify a setting use set followed by the setting name and a value:

```
set engine.log.file fzcli.log
```

The settings of type flag can have only two values:

```
0 - disables the flag
```

1 - enables the flag

Some settings accept numbers or words. For example:

```
set engine.log.debug_level 2
```

is equivalent to

```
set engine.log.debug_level info
```

#### **5.11.1** Saving the settings

By default, a setting change is only valid during the current session. To save the changes across sessions use the set save command:

```
set save
```

#### 5.11.2 FTP mode

engine.passive\_mode, flag: enables the passive mode.

## 5.11.3 Limit ports

```
engine.limit_ports, flag: enable local port restricting
```

#### 5.11.4 Limit local ports range

```
engine.limit_ports.low: lowest available port.
engine.limit_ports.low: highest available port.
```

# 5.11.5 Keep-Alive commands

engine.ftp.send\_keepalive, flags: whether send keep alive commands or not

#### **5.11.6 FTP Proxy**

#### 5.11.7 SFTP Settings

```
Private key files:
    engine.sftp.keyfiles
engine.sftp.compression, flags: enables compression
```

## 5.11.8 Generic Proxy

```
engine.proxy.type

0-none

1-HTTP 1.1 using CONNECT method

2-SOCKS 4

3-SOCKS 5

engine.proxy.host: proxy host
engine.proxy.user: proxy user
engine.proxy.password: proxy password
```

#### 5.11.9 Speed Limit

#### 5.11.10 Preallocate space

engine.preallocate\_space, flag: preallocate space before downloading

#### 5.11.11 Server

engine.view\_hidden\_files, flag: force show hidden files

#### **5.11.12 MIME Types**

```
engine.mimetype_mapping
```

A key/value pair list of *MIME Types* to file type mapping. The pairs are separated by a semicolon. See *Configuring MIME Type Mapping*.

#### 5.11.13 Filesize Formats

```
engine.size_format
```

- 0 Display size in bytes
- 1 IEC binary prefixes (e.g. 1 KiB = 1024 bytes)
- 2 Binary prefixes using SI symbols (eg 1 KB = 1024 bytes)
- 3 Decimal prefixes using SI symbols (eg 1 KB = 1000 bytes)

engine.size\_use\_thousand\_separator, flag: enables the use of thousands separator. engine.size\_decimal\_places: number of decimal places if you choose to have file size displayed in anything other than bytes.

## 5.11.14 Logging

```
engine.log.debug_level

O or none

1 or warning

2 or info

3 or verbose

4 or debug

engine.log.raw_listing, flag: enables log raw directory Listing.
engine.log.file: log file name.
engine.log.file_sizehint: size limit of the logfile (in MiB).
engine.log.detailed, flag: enables detailed logs.
```

## 5.11.15 FTP File Types

engine.ftp.transfer\_type: the file type FileZilla Pro Command Line uses for transferring files:

O or auto: automatic detection of the most appropriate transfer type

1 or ascii: a conversion between client and server formats may be necessary

2 or binary: files are transferred without any conversion

engine.ftp.ascii\_files: a list of file types treated as ASCII files separated by bars.

engine.ftp.ascii\_no\_ext, flag: whether files without extension are treated as ASCII
files.

engine.ftp.ascii\_dotfiles,flag: whether files starting with a dot are managed as ASCII files.

## 5.11.16 Error Handling

#### 5.11.17 Prompt Overrides

FileZilla Pro Command Line might stop execution to show a prompt asking for confirmation or information.

Use the following options to override the prompt and provide a default response:

cli.prompt.file\_exists: for File already exists prompt. What to do if a file with the same name exists.

0 or ask: show the prompt and wait for the response

1 or skip: skip: do not transfer the file

2 or overwrite: overwrite destination file

3 or resume: resume transfer

4 or newer: transfer if source is newer than destination

5 or size: transfer if source and destination file sizes are different

6 or size\_newer: transfer if source is newer or sizes are different

cli.prompt.trust\_hostkey:

0 or ask: show the prompt and wait for the response

1 or yes

2 or no

3 or always

cli.prompt.certificate: whether trust a server certificate or not.

O or ask: show the prompt and wait for the response

1 or yes: trust the certificate and continue with the connection (only this time)

2 or no: ignore the certificate and cancel the connection

3 or always: trust the certificate now and in the future connections

cli.prompt.insecure\_connection: how to proceed with an insecure connection.

0 or ask: show the prompt and wait for the response

1 or yes: continue with the connection (only this time)

2 or no: cancel the connection

3 or always: continue with the connection now and in the future connections to the server

cli.prompt.mfa\_code: provide a multifactor authentication (MFA) code.

empty - ask to enter the code

cli.prompt.tls\_resumption: whether proceed with a connection with a server that does not support TLS resumption.

0 or ask: show the prompt and wait for the response

1 or yes: continue with the connection (only this time)

2 or no: cancel the connection

3 or always: continue with the connection now and in the future connections to the server

cli.prompt.oauth\_store: Action to take upon the use of stored OAuth credentials.

0 or ask: show the prompt and wait for the response

1 or use: use stored credentials

2 or reauth: discard the stored credentials and re-authenticate

3 or cancel: cancel the connection

#### 5.11.18 Password Storing

engine.password\_store

plain: the passwords are stored in plain text. This is the default.

protected: you will be asked to provide a master password to encrypt the

passwords. See Protect Passwords with a Master Password

disabled: no passwords are stored.

**Warning:** This option saves all pending changes in this and other options as well. There is no need to use *set save* to apply the changes.

#### 5.11.19 Google Drive export

Choose the format FileZilla Pro Command Line downloads a Google Workspace document (document, spreadsheets, or presentations).

engine.gdrive.export\_format

link: a web link file.

msoffice: as a Microsoft Office file.

opendoc: as an OpenDocument file used by LibreOffice, OpenOffice, and

other office suites.

pdf: as a Portable Document file.

txt: as a text file (for documents and presentations) or a CSV (comma sepa-

rated value) file (for spreadsheets).

#### 5.11.20 TLS Certificate Trust

When connecting to a secure server FileZilla Pro Command Line presents to the user the server *TLS* certificate and prompts to trust or not the certificate for the current and future connections.

Alternatively, you can use the operating system trust store to validate the certificates:

```
engine.system_trust_store, flag
```

#### 5.12 Version and Build Info

To see FileZilla Pro Command Line version and build info use the ver (or about) command:

ver

## 5.13 Using the Site Manager

The Site Manager is where FileZilla Pro Command Line saves server connection and login information, which is called a site.

#### **5.13.1** Add new site

To add new site use the command:

```
site add <site name>
```

Enter the site information interactively in a number of prompts.

Once you have entered all the basic information choose whether you want to enter advanced and protocol specific information or not.

#### 5.13.2 List the sites

To list the sites and folder use the command:

site list

#### 5.13.3 View site information

To view the site details:

site show <site name>

#### 5.13.4 Modify a site

To modify the site information use the command:

```
site edit <site name>
```

Modify the site interactively. Press enter at the prompt if you do not want to modify data.

#### 5.13.5 Delete a site

To remove a site use the command:

site del <site name>

#### 5.13.6 Rename a site

To rename a site use the command:

site ren <site name> <new name>

## 5.13.7 Duplicate a site

To create a copy of a site use the command:

```
site copy <site name> <new site name>
```

The name of the new site is optional. If you do not provide a name, a new name is created automatically by adding a number to the original name.

#### 5.13.8 Create a folder

In case of many connections, you can organize the site entries in folders. To create a folder, use the command:

site mkd <new folder name>

#### 5.13.9 Change the current folder

To change the current folder:

```
site cd <folder name>
```

New sites are created under the current folder.

To change the current folder to the upper level:

```
site cd ..
```

To view the name of the current folder:

site cwd

#### 5.13.10 Delete a folder

To delete a folder and its contents:

site rmd <folder name>

#### 5.13.11 Rename a folder

To rename a folder:

site rnf <folder name> <new name>

# 5.14 Exiting FileZilla Pro Command Line

Use the command quit to exit FileZilla Pro Command Line.

FileZilla Pro Command Line returns an exit code to the calling process (usually the operating system shell). If the error flag (see *Error Handling*) is set the exit code is 0, otherwise is 1.

Also, the quit command can take a parameter to set the exit code that will be returned:

quit <exit code>

On Debian and macOS you can read the exit code value by inspecting the variable \$?.

On Windows command prompt (CMD.EXE) you can read the exit code by inspecting the environment variable %ERRORLEVEL%.

On Windows PowerShell the exit code you can read the exit code by inspecting the variable \$LastEx-itCode.

# **Setting up Cloud Storage Connections**

# 6.1 How to Upload Files Using Amazon S3

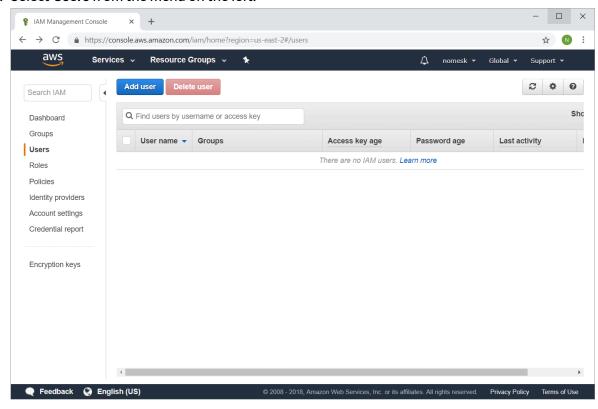
## 6.1.1 What you'll need

- An account with Amazon AWS
- An access key ID
- A secret access key.

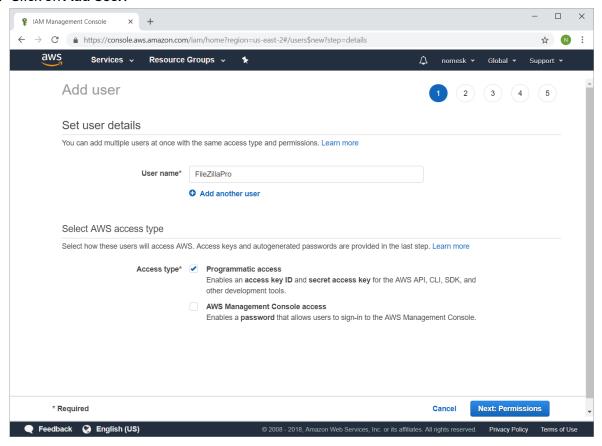
# 6.1.2 Create a user and get a secret access key for FileZilla Pro Command Line

1. Go to the IAM dashboard at https://console.aws.amazon.com/iam

2. Select **Users** from the menu on the left.

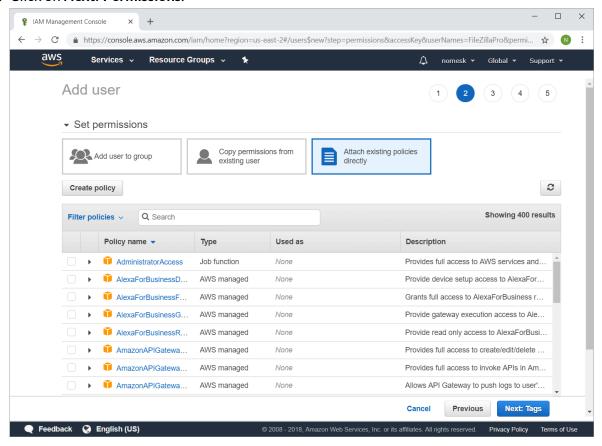


3. Click on Add User.



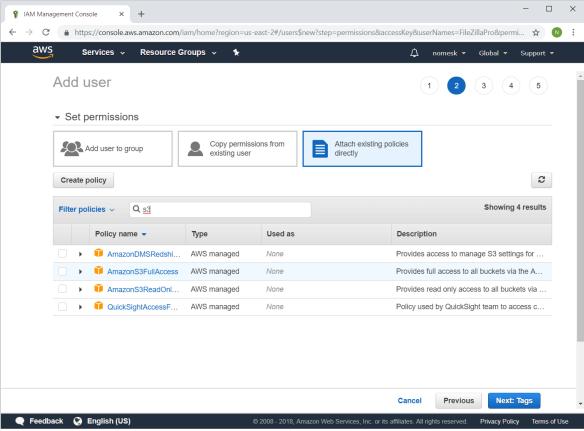
- 4. Enter a user name.
- 5. Tick the **Programmatic access** checkbox.

6. Click on Next: Permissions.

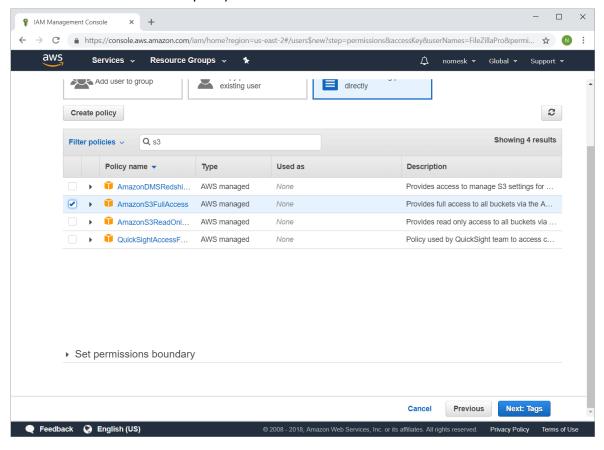


7. Click on Attach existing policies directly.

8. Enter S3 in the policy search field and press ENTER on your keyboard.

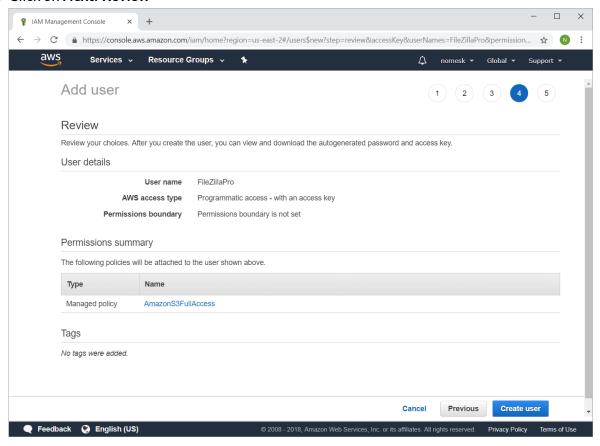


9. Tick the AmazonS3FullAccess policy.



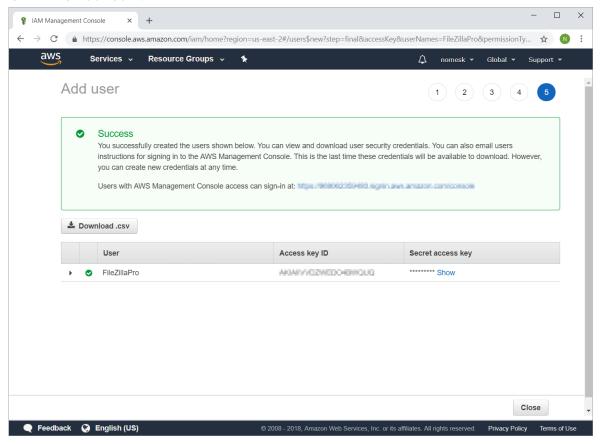
10. Click on Next: Tags.

11. Click on Next: Review



12. Check that you've assigned the AmazonS3FullAccess policy.

13. Click on Create User.



14. Without closing this browser window - you'll need the access key information - open FileZilla Pro Command Line.

## 6.1.3 Connecting to S3

Use the s3 protocol and connect to the s3. amazonaws.com host:

From the prompt enter the connect command:

```
connect s3://<access key>:<secret key>@s3.amazonaws.com<path>
```

Optionally you can use the parameters of the connect command:

```
connect --protocol s3 --user <access key> --pass <secret key> --path <path>
s3.amazonaws.com
```

Note that the path is optional but if present it has to start with a slash.

#### 6.1.4 How to use AWS config and credentials files to connect

FileZilla Pro Command Line can also connect using the credentials and settings from the .aws/config and .aws/credentials files.

- 1. Use the command site add to create a new site in the Site Manager (see Using the Site Manager).
- 2. Select S3 or S3 via IAM Identity Center protocol.
- 3. Press enter twice to keep the default host and port.
- 4. In the **Logon type** choose **Profile**.
- 5. In the **Profile** field enter the configured profile name. For the default profile enter: default
- 6. Continue the site configuration.

FileZilla Pro Command Line supports the following settings:

- aws\_access\_key\_id
- aws\_secret\_access\_key
- region
- source\_profile
- role\_arns
- role\_session\_name
- mfa\_serial
- duration\_seconds
- aws\_session\_token

If a setting exists both in credentials and config files for the same profile the settings from the credentials file are used. If any of the settings region, role\_arn and mfa\_serial exist both in the site configuration and in the files, the settings from the files are used.

FileZilla Pro Command Line looks for the AWS\_CONFIG\_FILE environment variable to locate the config file. Also, it looks for the AWS\_SHARED\_CREDENTIALS\_FILE environment variable to locate the credentials file.

If any of these environment variables are empty, FileZilla Pro Command Line looks for the file in the . aws directory in the user's (or home) directory. On Debian you can find the user's directory with the \$HOME environment variable. On Windows you can find the user's directory with the %USERPROFILE% environment variable.

For more details about these files consult the AWS documentation

# 6.1.5 How to authenticate against the AWS IAM Identity Center (formerly AWS Single Sign-On)

AWS Identity Center provides access to resources without the need for access keys or secret keys.

To connect using the IAM Identity Center:

- 1. Use the command site add to create a new site in the Site Manager (see Using the Site Manager).
- 2. Select S3 via IAM Identity Center protocol.
- 3. Press enter twice to keep the default host and port.
- 4. In the **Logon type** choose either **Interactive** or **Profile**.
- 5. For Interactive type, enter the AWS account ID in the Account ID prompt.
- 6. For **Profile**, enter a configured profile name. The required profile fields are: sso\_account\_id, sso\_region, sso\_role\_name and sso\_start\_url.
- 7. Optionally, modify both the local and remote directories when prompted. See *How to use AWS config and credentials files to connect*.
- 8. When asked for advanced options, enter **Yes**.
- 9. In the **S3 SSO Region** prompt, enter the AWS Region that contains the AWS access portal host. This region may be different from the previously entered region.
- 10. In the **S3 SSO Role** prompt, enter the role or permission set name.
- 11. In the S3 SSO URL prompt, enter the URL for the AWS access portal.
- 12. The site is now created. To connect use the command: site "0/Site name"
- 13. The authentication URL will be displayed. Copy and paste it into your browser.
- 14. In the browser, IAM Identity Center will prompt you to log in using your IAM credentials.
- 15. After logging in, you will be asked to authorize the request.
- 16. Click **Allow** to grant access to FileZilla Pro Command Line.
- 17. Return to FileZilla Pro Command Line and press enter to continue.

You are now connected to AWS S3 using IAM Identity Center authentication. For more information, visit https://aws.amazon.com/iam/identity-center

See also: Connect to an existing site

## 6.2 How to Upload Files to Google Drive

## 6.2.1 What you'll need

- A Google Drive account
- Your user ID (usually an email address) and password for the Google Drive account

#### 6.2.2 Connecting to Google Drive

Use the gdrive protocol and connect to the www.googleapis.com host:

From the prompt enter the connect command:

```
connect gdrive://www.googleapis.com<path>
```

For example:

```
connect gdrive://www.googleapis.com
```

Optionally you can use the parameters of the connect command:

```
connect --protocol gdrive --path <path> www.googleapis.com
```

Note that the path is optional but if present it has to start with a slash.

An authorization URL is shown. Open the authorization URL in a browser and follow the steps to authorize FileZilla Pro Command Line.

Listing the root directory shows the virtual folders:

```
My Drive
Shared drive
Shared with me
```

You can now transfer files between your local machine and your Google Drive account.

See also: Google Drive export

## 6.3 How to Upload Files to Dropbox

#### 6.3.1 What you'll need

- A Dropbox account
- Your usual login details for Dropbox; a user ID (typically an email address) and password for the Dropbox account

#### 6.3.2 Connecting to Dropbox

Use the dropbox protocol and connect to the api.dropboxapi.com host:

From the prompt enter the connect command:

```
connect dropbox://api.dropboxapi.com<path>
```

For example:

```
connect dropbox://api.dropboxapi.com
```

Optionally you can use the parameters of the connect command:

```
connect --protocol dropbox --path <path> api.dropboxapi.com
```

Note that the path is optional but if present it has to start with a slash.

An authorization URL is shown. Open the authorization URL in a browser and follow the steps to authorize FileZilla Pro Command Line.

You can now transfer files between your local machine and your Dropbox account.

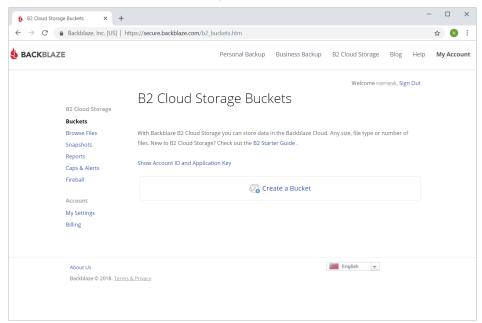
# 6.4 How to Upload Files to Backblaze B2

## 6.4.1 What you'll need

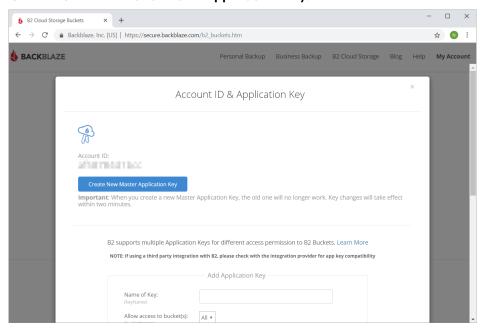
- A B2 account
- Your B2 account ID
- An application key

## 6.4.2 Finding your B2 account ID and application key

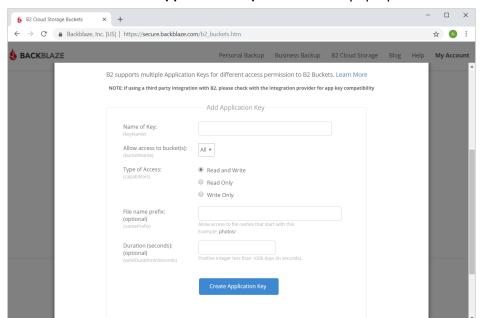
- 1. Log into your Backblaze B2 account.
- 2. Click on My Account in the top right of the window.



3. Click on Show Account ID and Application Key.

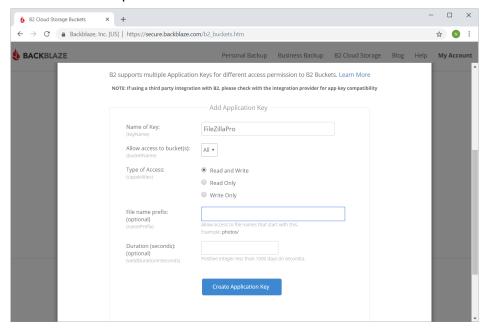


4. Copy your account ID into a text editor.



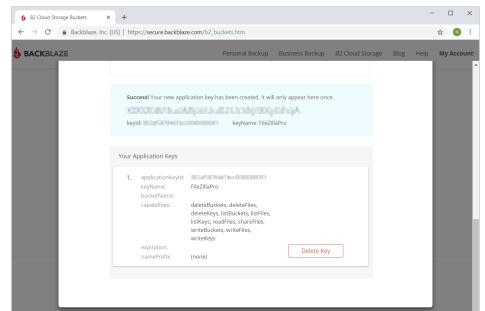
5. Scroll down to the **Add Application Key** section of the pop-up window.

6. Enter a name, and select any restrictions that you need. FileZilla Pro Command Line will need to read and write permissions for at least one bucket.



7. Click on Create Application Key.

The Backblaze B2 website will create a new application key for FileZilla Pro Command Line to use.



8. Scroll down to the **Your Application Keys** section of the pop-up window. You should see a **Success!** message just above it.

9. Copy the new application key into a text editor.

## 6.4.3 Connecting to B2

Use the b2 protocol and connect to the api.backblazeb2.com host:

From the prompt enter the connect command:

```
\begin{tabular}{ll} connect & b2://\application & key & ID>:\application & key & api.backblazeb2. \\ com\application & key & api.backblazeb2. \\ \end{tabular}
```

Optionally you can use the parameters of the connect command:

```
connect --protocol b2 --user <application key ID> --pass <application key>
--path <path> api.backblazeb2.com
```

Note that the path is optional but if present it has to start with a slash.

You can use either the master application key or a normal application key.

The account ID can be used in place of the master application key ID.

You can now transfer files between your local machine and your Backblaze B2 account.

# 6.5 How to Upload Files to OneDrive

FileZilla Pro Command Line supports OneDrive Personal and OneDrive for Business and Sharepoint.

## 6.5.1 What you'll need

- A OneDrive account
- Your OneDrive login details (these will usually be the same as your Microsoft login)
- For OneDrive for Business and Sharepoint your account is provided by your organization administrator

#### 6.5.2 Connecting to OneDrive

Use the onedrive protocol and connect to the graph.microsoft.com host:

From the prompt enter the connect command:

```
connect onedrive://graph.microsoft.com<path>
```

For example:

```
connect onedrive://graph.microsoft.com
```

Optionally you can use the parameters of the connect command:

```
connect --protocol onedrive --path <path> graph.microsoft.com
```

Note that the path is optional but if present it has to start with a slash.

An authorization URL is shown. Open the authorization URL in a browser and follow the steps to authorize FileZilla Pro Command Line.

An authorization code is generated in the browser. Copy the code in the prompt.

Listing the root directory shows the virtual folders:

```
My Drives
Shared with me
```

You can now transfer files between your local machine and your Microsoft OneDrive account.

# 6.6 How to Upload Files to Azure

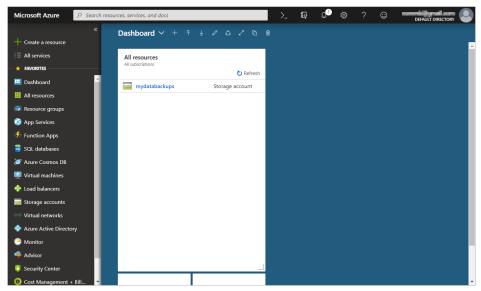
## 6.6.1 What you'll need

- An Azure account
- The name of the storage account that you want to access
- An access key for the storage account

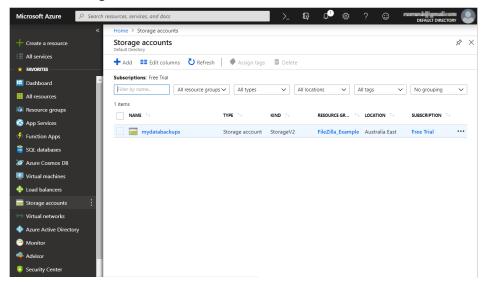
#### 6.6.2 How to find your Azure access key

- 1. Open an internet browser window and go to https://portal.azure.com.
- 2. Log in as you usually would.

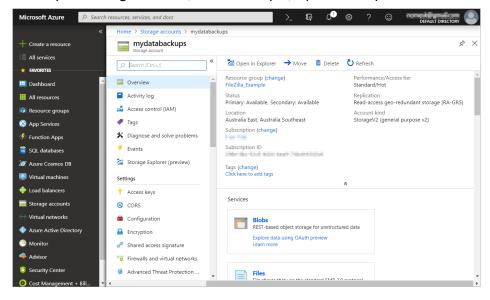
Your Azure dashboard should look something like this:

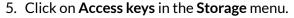


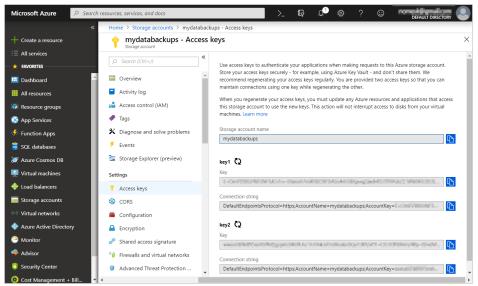
3. Click on **Storage accounts** in the menu on the left.



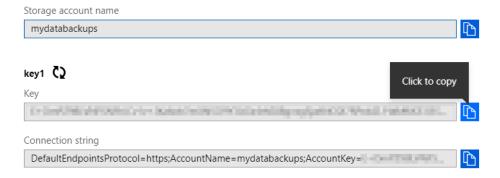
4. Select your storage account; in this example, *mydatabackups*.







6. Click on the blue copy button next to an access key.



## 6.6.3 Connecting to Azure File Storage

Use the azfile protocol and connect to the file.core.windows.net host:

From the prompt enter the connect command:

```
connect azfile://<account>:<access key>@file.core.windows.net<path>
```

Optionally you can use the parameters of the connect command:

```
connect --protocol azfile --user <account> --pass <access key> --path <path>
file.core.windows.net
```

Note that the path is optional but if present it has to start with a slash.

#### 6.6.4 Connecting to Azure Blob Storage

Use the azblob protocol and connect to the blob.core.windows.net host:

From the prompt enter the connect command:

```
connect azblob://<account>:<access key>@blob.core.windows.net<path>
```

Optionally you can use the parameters of the connect command:

```
connect --protocol azblob --user <account> --pass <access key> --path <path>
blob.core.windows.net
```

Note that the path is optional but if present it has to start with a slash.

You can now transfer files between your local machine and your Azure account.

# 6.7 How to Upload Files to Google Cloud

**Note:** Google Cloud and Google Drive are two different services.

#### 6.7.1 What you'll need

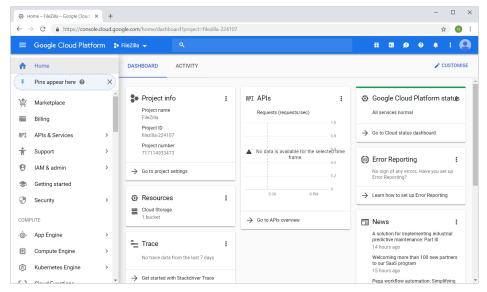
- A Google Cloud account
- The project ID for the bucket(s) you need to access
- An email account with permission to access the project and bucket(s)

#### 6.7.2 How to find your Google Cloud project ID

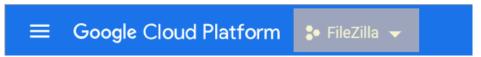
1. Open an internet browser window and go to https://console.cloud.google.com.

2. Log in as you usually would.

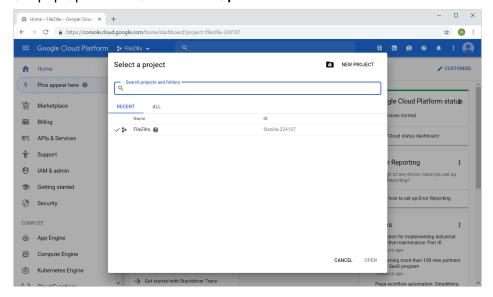
Your Google Cloud dashboard should look something like this:



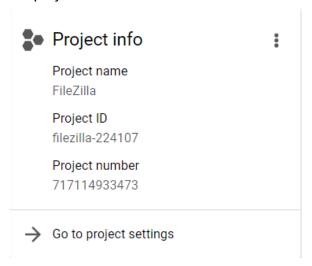
3. The current project is listed just next to the Google Cloud Platform title:



4. To change projects, click on the project name in the title bar and select the project you need in the pop-up window and click on **Open**.



5. Check the **Project info** card. By default, it's in the top left corner of the dashboard. It will list the project ID.



If you can't find the **Project info** card, click on the project name in the title bar. The pop-up window will list all your projects with their associated project IDs.

## 6.7.3 Connecting to Google Cloud

Use the google protocol and connect to the storage.googleapis.com host:

From the prompt enter the connect command:

```
connect google://project-id@storage.googleapis.com<path>
```

Optionally you can use the parameters of the connect command:

```
connect --protocol google --user  project-id> --path <path> storage.
googleapis.com
```

Note that the path is optional but if present it has to start with a slash.

An authorization URL is shown. Open the authorization URL in a browser and follow the steps to authorize FileZilla Pro Command Line.

You can now transfer files between your local machine and your Google Cloud account.

## 6.7.4 Connecting with a Service Account

To connect FileZilla Pro Command Line to Google Cloud using a service account, follow these steps:

- 1. Open the Google Cloud console and navigate to the IAM & Admin section.
- 2. Select **Service Accounts** from the menu.
- 3. Click on the service account you want to use.
- 4. Go to the **KEYS** tab.
- 5. Click on the **ADD KEY** button and select **Create new key**.
- 6. Select the **JSON** type and click on the **Create** button.
- 7. Save the generated key file in a secure location.
- 8. Launch FileZilla Pro Command Line.
- 9. Use the command site add to create a new site in the Site Manager (see Using the Site Manager).
- 10. Select Google Cloud Storage with Service Account protocol.
- 11. Press enter twice to keep the default host and port.
- 12. In the **Logon type** prompt, select **Key file**.
- 13. In the **Key file** field, enter the full path of the saved key file.
- 14. Continue configuring the site following the prompts.

See also: Connect to an existing site

## 6.8 How to Upload Files to Box

## 6.8.1 What you'll need

- A Box account
- Your usual login details for Box; a user ID (typically an email address) and password for the Box account

## 6.8.2 Connecting to Box

Use the box protocol and connect to the api.box.com host:

From the prompt enter the connect command:

```
connect box://api.box.com<path>
```

For example:

```
connect box://api.box.com
```

Optionally you can use the parameters of the connect command:

```
connect --protocol box --path <path> api.box.com
```

Note that the path is optional but if present it has to start with a slash.

An authorization URL is shown. Open the authorization URL in a browser and follow the steps to authorize FileZilla Pro Command Line.

An authorization code is generated in the browser. Copy the code in the prompt.

You can now transfer files between your local machine and your Box account.

## 6.9 How to Upload Files to WebDAV

## 6.9.1 What you'll need

- An account with a hosting service that provides WebDAV access.
- Connection information:
  - host address
  - host port
  - user
  - password

# 6.9.2 Connecting to WebDAV

Use the webday protocol:

From the prompt enter the connect command:

```
connect webdav://<user>:<password>@<host>:<port><path>
```

Optionally you can use the parameters of the connect command:

```
connect --protocol webdav --user <user> --pass <password> --path <path>
<host>:<port>
```

Note that the path is optional but if present it has to start with a slash.

You can now transfer files between your local machine and your WebDAV provider.

# **Troubleshooting**

# 7.1 Timeouts on Large Files

If you can transfer small files without any issues, but transfers of larger files end with a timeout, a broken router and/or firewall may exist between the client and the server and is causing a problem.

FTP uses two TCP connections: a control connection to submit commands and receive replies, and a data connection for actual file transfers. It is the nature of FTP that during a transfer the control connection stays completely idle.

The TCP specifications do not set a limit on the amount of time a connection can stay idle. Unless explicitly closed, a connection is supposed to remain alive indefinitely. However, many routers and firewalls automatically close idle connections after a certain period of time. For *FTP*, this means that during a long transfer the control connection can get dropped because it is detected as idle, but neither client nor server are notified. So when all data has been transferred, the server assumes the control connection is alive, and it sends the transfer confirmation reply. Likewise, the client thinks the control connection is alive, and it waits for the reply from the server. But since the control connection got dropped without notification, the reply never arrives and eventually the connection will time out.

In an attempt to solve this problem, the TCP specifications include a way to send keep-alive packets on otherwise idle TCP connections, to tell all involved parties that the connection is still alive and needed. However, these keep-alive packets should not be sent more often than once every two hours. Therefore, with added tolerance for network latency, connections can stay idle for up to 2 hours and 4 minutes.

However, many routers and firewalls drop connections that have been idle for less than 2 hours and 4 minutes. In other words, all routers and firewalls that are dropping idle connections too early cannot be used for long *FTP* transfers. To solve this problem, you need to uninstall affected firewalls and replace the faulty routers.

## 7.2 Amazon S3: Forbidden Error

If you are getting the 403 Forbidden error when connecting to Amazon S3 storage check if your access key ID has permission to list the available buckets. In case your access key ID is restricted to a single bucket you need to enter it as the path parameter when connecting. Make sure it is prefixed with a slash:

connect s3://ACCESSKEY:SECRETKEY@s3.amazonaws.com/BUCKET

## 7.3 Common Errors

### 7.3.1 Connection timeout

There are a few different reasons that a connection timeout can occur:

#### Slow or unreliable connection

Somewhere between your *Local* machine and the host server is a slow or unreliable connection.

To counter this increase the value of the engine. timeout setting. The default value is 20 seconds:

set engine.timeout 30

### Incorrectly configured server

If the connection times out on large file transfers, a server somewhere between your local computer and the *Remote* server might be incorrectly configured, identifying the command channel of the connection as 'idle', and closing it. This is a misconfiguration, and ideally should be handled by opening a support ticket with the owner of the server.

You might be able to counter it temporarily by enabling the keep-alive commands with the engine. ftp.send\_keepalive setting:

set engine.ftp.send\_keepalive 1

### 7.3.2 Critical error: Could not connect to server

This error usually means that the login details or method set for a *Remote* connection are incorrect. Check:

• The user ID and password that you entered. Note that for many website hosting providers, the user ID and password that you use to login to the website itself will be different to the user ID and password that you need for file transfer connections. Look for FTP or SFTP or SSH connection details in information provided by the hosting provider.

Status: Connection attempt failed with "ECONNREFUSED - Connection refused by server" message

If the connection is failing with the status message above, there might be a *Local* network configuration issue.

Another possible cause is that the connection is being blocked by a firewall. If you have a local firewall or an antivirus, try to disable it. If that works you may need to add an exception to the firewall configuration to grant FileZilla Pro Command Line permanent access to the network.

If you are in a corporate network, you may need to ask the network administrator to open specific *FTP* ports. Most *FTP* servers use port 21, *SFTP* servers use port 22 and *FTPS* (implicit mode) use port 990 by default.

# 7.3.3 Login failure

There are a couple of reasons that your login might fail for a particular server:

#### Incorrect credentials

Check that you're using the *FTP* login details provided by your server administrator or hosting provider. These will generally be different to the login details you use to gain access to website functionality or your website hosting account.

### Firewall or antivirus is blocking FileZilla Pro Command Line

Some firewall and antivirus programs block file transfer connections by injecting false login failures. Check the settings on any firewall or antivirus scanning programs, or check with your network administrator to see if this might be happening to you.

7.3. Common Errors 79

#### Issue on the server end

If you've checked all of these possibilities, and you're still having trouble logging in, contact your server administrator or hosting provider.

### 7.3.4 Files are not transferred or deleted

A failure to transfer or delete a file on a remote server is generally caused by permissions or a lock set on the file.

### File permissions do not allow the current operation

Copy the displayed error message and contact your server administrator or server hosting provider for assistance. Include the text of the error message, as it may assist the person handling the help request.

### The directory is protected

Check the directory that you're trying to transfer files to. Is it protected, or a system directory? Try transferring a file to a different directory.

#### The file is open in another program

Windows machines tend to lock files that are currently being used by an application. While the file is locked, FileZilla Pro Command Line won't be able to transfer it. Try again when the file is not open in another application.

# 7.3.5 Directory listings and file transfers fail

If you can connect to a remote server in FileZilla Pro Command Line using *FTP* or FTP with *TLS*, but not see remote directory listings or transfer files, there is probably something between FileZilla Pro Command Line and the remote server that is interfering with the connection. Generally this will be a virus scanner, firewall, or NAT router.

Use FTP Test at https://ftptest.net/ to find out where in the connection the problem lies.

If the test connection fails, the problem is on the *Remote* end – talk to your system administrator or hosting provider for assistance.

If the test connection succeeds, then the problem is probably on your *Local* computer or network. Some steps that you can take to diagnose the problem are:

7.3. Common Errors 80

- Check your local computer's antivirus software. Its settings, list of blocked applications, or logs might show that it has blocked FTP commands from FileZilla Pro Command Line.
- Check your local computer's firewall, if one is enabled. Most modern Windows machines have a native firewall enabled by default; open Windows Defender Security Center (Windows 10) and click on **Firewall & network protection** to check firewall settings or to configure the firewall to let FileZilla Pro Command Line access remote servers.
- Are you using active-mode FTP? (see Active vs Passive Mode) If so, you may need to configure
  the NAT router to allow it. See FTP Active Mode Configuration for instructions, or go to https:
  //wiki.filezilla-project.org/Network\_Configuration for a more in-depth discussion of network
  configuration.
- Is your internet service provider blocking FTP transfers using an ISP-level firewall or NAT router? If so, your only option might be to switch to a different ISP.

### 7.3.6 Uploads fail but downloads work

If you can download files from a remote server but not upload to, the most common reason is that the server has run out of disk space, or you've exceeded a storage quota assigned to the *FTP* user or group (for example, your company). If you think this might be the problem, try deleting some files from the remote server and try again to upload files.

Depending on the server, you might be able to check the disk space currently available to you in a user dashboard. If not, check with your web hosting service or server administrator.

Very occasionally, a server's file system might experience technical difficulties to the point that all files are read-only – you can look at them and download them, but no changes can be made to existing files or new files added. Contact your server administrator or web hosting provider for assistance.

## 7.4 Contact FileZilla Pro Command Line Customer Support

If you can't find a solution to your issue in the User Guide, you can receive priority support from FileZilla staff using the Customer Support forum at https://customerforum.filezilla-project.org/.

You will need to register as a customer before posting in the forum (see Register as a Customer).

# **Advanced Options**

# 8.1 Modify File Size Display

There are three common file size definitions used in the IT world, and which one you use will vary your understanding of file size reporting:

- Original binary-factor definition of SI (International System of Units) units: 1024B = 1KB;
   1024KB = 1MB; 1024MB = 1GB
- New digital-factor definition of SI (International System of Units) units: 1000B = 1KB; 1000KB
   1MB; 1000MB = 1GB
- New binary-factor units: 1024B = 1KiB; 1024KiB = 1MiB; 1024 MiB = 1GiB.

By default, FileZilla Pro Command Line displays file sizes in bytes.

If you'd like to have file sizes displayed differently use the Filesize Formats.

## 8.2 Active vs Passive Mode

While the differences between these two modes can get complex, here's a basic explanation:

FTP and FTPS connections use two different channels to a server at once. One is used for commands and responses, the other for the actual data being transferred.

It's a little like ordering a pizza: You make a phone call or put in an order via a website, but the actual pizza arrives by car or scooter.

The second channel – the data channel – is opened differently in active and passive modes. In active mode, the remote server opens the data channel. In passive mode, the local machine opens the data channel using the IP address and port number with which the remote server replies to a successful connection request. Sort of like the difference between having a pizza delivered (active mode) and going to pick it up yourself (passive mode).

The reason these differences are important is that some firewalls and routers won't allow a remote server to initiate a connection to a computer on the local network. If the remote server can't open the data channel, the active mode FTP connection can't transfer any data.

By default, FileZilla Pro Command Line uses passive mode for FTP and FTPS connections.

To see or change which mode FileZilla Pro Command Line change the FTP mode setting.

#### Related topics:

FTP Active Mode Configuration

# 8.3 FTP Active Mode Configuration

### 8.3.1 Set the range of local port numbers that a remote server can use

You can restrict the local ports that remote FTP servers can use to initiate data channels. These will need to correspond to ports that the router is configured to allow access from outside the local network.

Enable the Limit ports setting and set the range you want with the Limit local ports range settings.

## 8.3.2 Configure the external IP address for your local machine

Before a remote server can send a request to open a data channel, it needs to know the external IP address of your computer. This is different to the IP address that it has on your local network, and it tends to change regularly unless your router is configured to assign a static address instead.

The easiest way to configure this is to allow FileZilla Pro Command Line to check with the operating system to find out the current external IP address (default). If that does not work, though, there are two other options:

- Configure FileZilla Pro Command Line to use a static IP address: only use this if your router and ISP support static IP addresses, and one is assigned to your computer.
- Configure FileZilla Pro Command Line to check a third-party website to find your computer's external IP address.

To configure FileZilla Pro Command Line to use a static IP address set the engine.external\_ip\_mode to 1 and set the IP address in the engine.external\_ip setting.

To configure FileZilla Pro Command Line to consult a third-party website to find the local computer's IP address set the engine.external\_ip\_mode to 2 and set the URL of your preferred IP address-checking website in the IP address in the engine.external\_ip\_resolver setting.

### 8.3.3 Use external IP address for local network connections

By default, FileZilla Pro Command Line does not use the external IP address for connections to servers on the local network.

If you need FileZilla Pro Command Line to use the external IP address instead of the internal (local network) address set the engine.no\_external\_ip\_on\_local setting to 0.

# 8.4 Using an FTP Proxy

Depending on your router or network configuration, you might need to use a proxy in order to make unencrypted *FTP* connections from FileZilla Pro Command Line.

To configure FileZilla Pro Command Line to use an FTP proxy set the FTP Proxy settings.

## 8.5 Using a Proxy Server

**Note:** These instructions refer to using a generic proxy server. If you need to use a specific FTP proxy server, see *Using an FTP Proxy*.

FileZilla Pro Command Line can connect through the following types of proxy servers:

- HTTP/1 using CONNECT
- SOCKS 4
- SOCKS 5

To configure FileZilla Pro Command Line to use a proxy server set the Generic Proxy settings.

# 8.6 Pre-allocate Disk Space Before Download

If you're downloading large files and experiencing issues with file fragmentation, you can turn on pre-allocation. FileZilla Pro Command Line will find contiguous disk space for each file and create a placeholder file to keep it available.

To enable pre-allocation change the *Preallocate space* setting.

# 8.7 Configuring MIME Type Mapping

FileZilla Pro Command Line maps a number of file extensions to MIME Types by default.

If you need to modify these mappings change the MIME Types setting.

The MIME type mapping is a list of MIME type to file extension pairs separated by semicolon.

To get the current MIME type mapping:

```
set engine.mimetype_mapping engine.mimetype_mapping = application/
java-archive=jar;application/javascript=js;application/pdf=pdf;application/
rss+xml=rss;application/x-font-ttf=ttf;application/x-shockwave-flash=swf;
application/xml=xml xsl;application/xslt+xml=xslt;application/zip=zip;
binary/octet-stream=bin exe;image/gif=gif;image/jpeg=jpeg jpg jpe;image/
png=png;image/svg+xml=svg;text/css=css;text/html=html htm;text/plain=txt
text;
```

To add a new MIME type mapping, for example, video/mp4 to mp4 extension:

```
set engine.mimetype_mapping "application/java-archive=jar;application/
javascript=js;application/pdf=pdf;application/rss+xml=rss;application/
x-font-ttf=ttf;application/x-shockwave-flash=swf;application/xml=xml xsl;
application/xslt+xml=xslt;application/zip=zip;binary/octet-stream=bin
exe;image/gif=gif;image/jpeg=jpeg jpg jpe;image/png=png;image/svg+xml=svg;
text/css=css;text/html=html htm;text/plain=txt text;video/mp4=mp4"
```

## 8.8 Create Log Files

To configure FileZilla Pro Command Line to save transfer messages to local log files change the *Logging* settings.

# 8.9 Error Handling

FileZilla Pro Command Line sets an error flag when an error occurs while running a command.

To show if the error flag is set, use the error command:

```
error
```

To clear the error flag, use the clear command or the error command with the clear option:

```
clear
error --clear
```

To run a command only if the error flag is not set, prefix it with ?:

```
?ls directory
```

To run a command only if the error flag is set, prefix it with @:

```
@connect site
```

To run a command even if the error flag is set and the option cli.error\_handling is set as 1 - skip if error flag is set, prefix it with !:

```
set cli.error_handling skip
!cd directory
```

Prefix a command with ^ and the error flag is not set in case of error:

```
^mkdir directory
```

To clear the error flag before running the command, prefix it with \*:

```
*mkd directory
```

## 8.9.1 Example

```
set cli.error_handling exit
connect ftps://user:password@server.net
set cli.error_handling run
^mkdir directory
cd directory
?put file.txt
```

- 1. Set error handling to exit in case of error.
- 2. Connect to a remote server. If connection fails, FileZilla Pro Command Line exits.
- 3. Set error handling to continue in case of error.
- 4. Creates a directory. If the directory creation fails the error flag is not set.
- 5. Change current directory. If changing the current directory fails the error flag is set
- 6. Upload a file. Only runs if the error flag is not set

### **Related topics:**

**Error Handling** 

## 8.10 File Synchronization

File synchronization compares and synchronizes files and directories between your local computer and the remote server, making sure both locations contain the same files and directories.

```
sync [options] <local path> <remote path>
```

local path and remote path you can use either an absolute path or a relative path.

#### Options:

--direction, -d: synchronization type:

localtoremote, 1: one-way synchronization replicating local files not on the server, removing files on the server that do not exist on the local directory.

remotetolocal, r: one-way synchronization replicating remote files on the local directory, removing files on the local directory that do not exist on the server.

bidirectional, b: two-way synchronization replicating local files not on the server and replicating remote files on the local directory, no files are deleted.

--exists, -e: allow specifying how to handle files that exist on both sides:

```
ignore, i: just ignore the files
```

newer, n: upload or download if the source is newer than the target.

size, s: upload or download if file sizes are different. Ignored in the bidirectional type.

sizeornewer, w: upload or download if source is newer or file sizes are different. Ignored in the bidirectional type.

--recursive, -r: synchronize recursively files and subdirectories.

### **8.10.1 Examples**

• Copy new and updated local files to server:

```
sync --direction localtoremote --recursive --exists newer /Files/website/
public_html /public_html
```

• Backup remote files to local:

```
sync --direction remotetolocal --recursive --exists newer /Documents/backup /
files/documents
```

# 8.11 Schedule a script

### 8.11.1 Microsoft Windows

From the Microsoft Windows command prompt or from the PowerShell prompt run:

```
schtasks /create /sc DAILY /st 20:00 /tn "Copy files to server" /tr "\"C:\
Program Files\FileZilla Pro CLI\fzcli.exe\" --mode standalone --local-path
D:\Files --script D:\Scripts\script-file"
```

The command schedules FileZilla Pro Command Line to run the script D: \Scripts\script-file daily at 8 PM, with the default local directory set to D: \Files.

### 8.11.2 Debian Linux

From a terminal enter:

\$ crontab -e

And enter the following line:

```
0 20 * * * /opt/FileZilla3/bin/fzcli --mode standalone --local-path /opt/files --script /opt/scripts/script-file
```

The command schedules FileZilla Pro Command Line to run the script /opt/scripts/script-file daily at 8 PM, with the default local directory set to /opt/files.

Save the crontab.

# 8.12 Adding to PATH

To add FileZilla Pro Command Line to your system *PATH* variable and make it easier to launch it from the terminal, follow the instructions you find below.

### 8.12.1 Microsoft Windows

- 1. Press Win+X
- 2. In the list, choose **System**
- 3. In the Settings window, click on Advanced system settings
- 4. Press Environment variables...
- 5. In System variables pane, select Path and press Edit
- 6. Press New
- 7. Enter C:\Program Files\FileZilla Pro CLI\
- 8. Press **OK** three times

If you installed FileZilla Pro Command Line in another directory, use that instead.

Restart any open command prompt or PowerShell terminal.

### 8.12.2 Debian Linux

- 1. Open the . bashrc file in your home directory in a text editor
- 2. Add at the end of the file: export PATH=/opt/FileZilla3/bin:\$PATH

3. Save the file

If you installed FileZilla Pro Command Line in another directory, use that instead.

Restart any open terminal.

### 8.13 Protect Passwords with a Master Password

By default, FileZilla Pro Command Line saves passwords that you enter in the Site Manager.

It's recommended to use a master password to store the passwords encrypted. Passwords stored without a master password are insecure and can be read by anyone with access to your computer.

**Warning:** Ensure that you keep your master password in a safe place. If you lose or forget the master password, you'll be unable to access any saved passwords for the sites in the Site Manager.

If you want FileZilla Pro Command Line to protect the password file with a master password, use the engine.password store setting:

```
set engine.password_store protected
```

You can disable the master password using either options plain or disabled. With the plain option, you will be asked for the master password to decrypt the stored passwords.

To modify the master password, set the option to protected and you will be asked for the new master password and then for the old master password.

In any case, if you have forgotten the master password, you can enter DELETE to delete all the existing passwords. You will need to re-enter them, though.

See also: Providing a master password

## 8.14 Escape Sequences

File, directory names and setting values can have spaces. In that case, you need to escape the space character with a backslash character (\).

For example, to change the current directory to My files:

```
cd My\ files
```

You can also enclose them in double-quotes ("):

```
cd "My files"
```

If the name itself has double-quotes, you need to escape them. For example, to change the current directory to "company" files:

```
cd \"company\"\ files
or
cd "\"company\" files"
```

The backslash character has to be escaped too. For example, to change the current local directory to C:\Documents:

```
lcd C:\\Documents
```

You can also enter the characters by their Unicode codepoints. For example, to download the file €-budget.xlsx or to upload the file Präsentation.pptx:

```
get \u20ac-budget.xslx
put Pr\xe4sentation.pptx
```

With  $\xspace \xspace \xspace$ 

A failure or an incorrect character occurs when using the \u prefix with a codepoint value less than 5 hexadecimal digits followed by a valid hexadecimal digit character. For example:

Stra\udfe (Straße where ß is represented by the codepoint value df) results in error because dfe is a valid hexadecimal number but not a valid codepoint value. In this case, use either:

Stra\xdfe, or

Stra\u000dfe

You can find the character codepoints at www.unicode.org/charts

# 8.15 Dynamic Scripts

You may need to embed dynamic parameters in your scripts, like current date and time. You can use a programming language of your choice to create scripts containing them.

See the example below. This is a Windows batch file that creates a script, and then launches FileZilla Pro Command Line taking the script as parameter:

```
@ECHO OFF

REM Get the current date and time
FOR /f "tokens=2 delims==" %%a IN ('wmic OS Get localdatetime /value') DO ^
    SET "dt=%%a"
SET "YY=%dt:~2,2%" & SET "YYYYY=%dt:~0,4%" & SET "MM=%dt:~4,2%" & SET "DD=%dt:~6,2%"
SET "HH=%dt:~8,2%" & SET "Min=%dt:~10,2%" & SET "Sec=%dt:~12,2%"

SET NOW=%YYYY%-%MM%-%DD%_%HH%-%Min%-%Sec%
SET SCRIPT_NAME=dynamic-script-%NOW%

ECHO # Dynamic generated scrypt > %SCRIPT_NAME%
ECHO set engine.log.file fzcli-%NOW%.log >> %SCRIPT_NAME%
ECHO set engine.log.debug_level debug >> %SCRIPT_NAME%
ECHO connect ftpes://user:password@ftpserver.net >> %SCRIPT_NAME%
ECHO connect ftpes://user:password@ftpserver.net >> %SCRIPT_NAME%
```

(continues on next page)

(continued from previous page)

```
ECHO put --exists skip file file-%NOW% >> %SCRIPT_NAME%
ECHO ls >> %SCRIPT_NAME%
ECHO quit >> %SCRIPT_NAME%

"C:\Program Files\FileZilla Pro CLI\fzcli.exe" --script %SCRIPT_NAME%
```

The batch file first gets the current date and time and put in the variable NOW. It then creates a dynamic file name for the script based on the variable NOW. After that, it creates the dynamic script, adding several FileZilla Pro Command Line commands to the file. Note that some commands also use NOW: the log file name configuration and the name of the uploaded file.

Finally, it executes FileZilla Pro Command Line taking the script file created earlier.

# 8.16 Output Formats

To facilitate the usage of FileZilla Pro Command Line output with other tools, you can format it using the output parameter:

Use -- output prefixed or -- output json.

• prefixed adds a prefix indicating the message type to each line of the output. Types include Info:,Error:,Prompt:,Data:,Engine:,andListing:.

```
Prompt de Comando - fzcli --output prefixed --script script-output
                                                                                                                                                               ×
Engine: 1 Fri, 16 Jun 2023 19:17:24 GMT Connecting to 40.121.111.78:21...
Engine: 1 Fri, 16 Jun 2023 19:17:24 GMT Connection established, waiting for welcome message...
Engine: 1 Fri, 16 Jun 2023 19:17:25 GMT Initializing TLS..
Engine: 1 Fri, 16 Jun 2023 19:17:25 GMT TLS connection established.
Engine: 1 Fri, 16 Jun 2023 19:17:26 GMT Logged in
Engine: 1 Fri, 16 Jun 2023 19:17:20 GMT Retrieving directory listing...
Engine: 1 Fri, 16 Jun 2023 19:17:26 GMT Retrieving directory listing of "/" successful
Engine: 1 Fri, 16 Jun 2023 19:17:27 GMT Directory listing of "/" successful Engine: 1 Fri, 16 Jun 2023 19:17:27 GMT Retrieving directory listing of "/Construction Project"...
ingine: 1 Fri, 16 Jun 2023 19:17:29 GMT Calculating timezone offset of server...
Engine: 1 Fri, 16 Jun 2023 19:17:29 GMT Timezone offset of server is 0 seconds.
Engine: 1 Fri, 16 Jun 2023 19:17:29 GMT Directory listing of "/Construction Project" successful
Engine: 1 Fri, 16 Jun 2023 19:17:29 GMT Retrieving directory listing of "/Construction Project/Pictures". Engine: 1 Fri, 16 Jun 2023 19:17:30 GMT Directory listing of "/Construction Project/Pictures" successful
Listing: Fri, 16 Jun 2023 19:17:30 GMT Retrieving directory listing of "/Construction Project/Pictures"..
Listing: Fri, 16 Jun 2023 19:15:00 GMT 51,86 KiB DSC00080.jpg
Listing: Fri, 16 Jun 2023 19:15:00 GMT 53,16 KiB DSC00081.jpg
isting: Fri, 16 Jun 2023 19:15:00 GMT 54,74 KiB DSC00082.jpg
Engine: 1 Fri, 16 Jun 2023 19:17:31 GMT Directory listing of "/Construction Project/Pictures" successful
 info: D:\Projects\samples\large\
 ngine: 1 Fri, 16 Jun 2023 19:17:31 GMT Starting upload of D:\Projects\samples\large\file-large-20MiB
```

• json formats the output in JSON format, which provides a structured representation of the data. This feature is particularly useful when you need to programmatically parse the output for further processing or automation.

```
Trompt de Comando - fzcli --output json --script script -output

{
    "datetime": "Wed, 21 Jun 2023 10:31:27 GMT",
    "logtype": "Status",
    "message": "Directory listing of \"/Construction Project/Pictures\" successful",
    "type": "log"
}

{
    "datetime": "Wed, 21 Jun 2023 10:31:27 GMT",
    "logtype": "Status",
    "message": "Retrieving directory listing of \"/Construction Project/Pictures\"...",
    "type": "log"
}

{
    "type": "listing",
    "entries": [
    {
        "directory": false,
        "modified": "2023-06-16T19:15:00Z",
        "name": "DSC00079.jpg",
        "size": 47715
    },
    {
        "directory": false,
        "modified": "2023-06-16T19:15:00Z",
        "name": "DSC00080.jpg",
        "size": 53104
    },
    {
        "directory": false,
        "modified": "2023-06-16T19:15:00Z",
        "name": "DSC0007",
        "size": 53104
    },
    {
        "directory": false,
        "modified": "2023-06-16T19:15:00Z",
        "modified": "
```

The output format includes JSON objects with the following attributes:

- message: a string containing the log message.
- type: a string indicating the type of log message. Valid values are error, prompt, info, data, log, and listing.

For messages with type log:

- logtype: a string indicating the type of log message. Valid values are Status, Error, Command, Response, Trace, and Listing.
- datetime: a string containing the date and time of the log message.
- message: a string containing the log message

For messages with type listing, the object includes an array named entries, where each value in the array represents a file or directory entry and has the following attributes:

- modified: a string containing the date and time the file or directory was last modified.
- name: a string containing the name of the file or directory.
- size: an integer indicating the size in bytes.
- directory: a boolean indicating whether the entry is a directory or not.

# **Copyright and Trademark Information**

**Lead Author:** Josué Andrade Gomes (based on the work of Naomi Kramer)

Co-Authors: Tim Kosse, Roberto Galoppini

Copyright © 2021-2023 by Tim Kosse and Business Follows srl

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, without either the prior written permission of the copyrights' holders. Requests for permission should be addressed to social@filezilla-project.org and info@businessfollows.com.

**TRADEMARKS:** FileZilla logo and FileZilla are trademarks or registered trademarks of Tim Kosse, in Europe and in the United States, and may not be used without written permission. All other trademarks are the property of their respective owners.

### **Build info**

Jul 11, 2023 12:45