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# FTP Data Exchange between FTP Server and SIMATIC S7-1200 / S7-1500

SIMATIC S7-1200, SIMATIC S7-1500, FTP Server

<https://support.industry.siemens.com/cs/ww/en/view/81367009>

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# 1 Introduction

## 1.1 Overview

### Initial situation

The widely used **File Transfer Protocol (FTP)** provides you with the option to store data on server systems. FTP supports almost all server and operating systems.

Via special communications processors (CPs), all controllers of the S7-300, S7-400 and S7-1500 product families support FTP communication.

This application example shows you how, based on open user communication (TCON, TSEND, TRCV and TDISCON), even an S7-1200 or S7-1500 can use FTP communication **without a special CP** with certain FTP servers.

**Note**

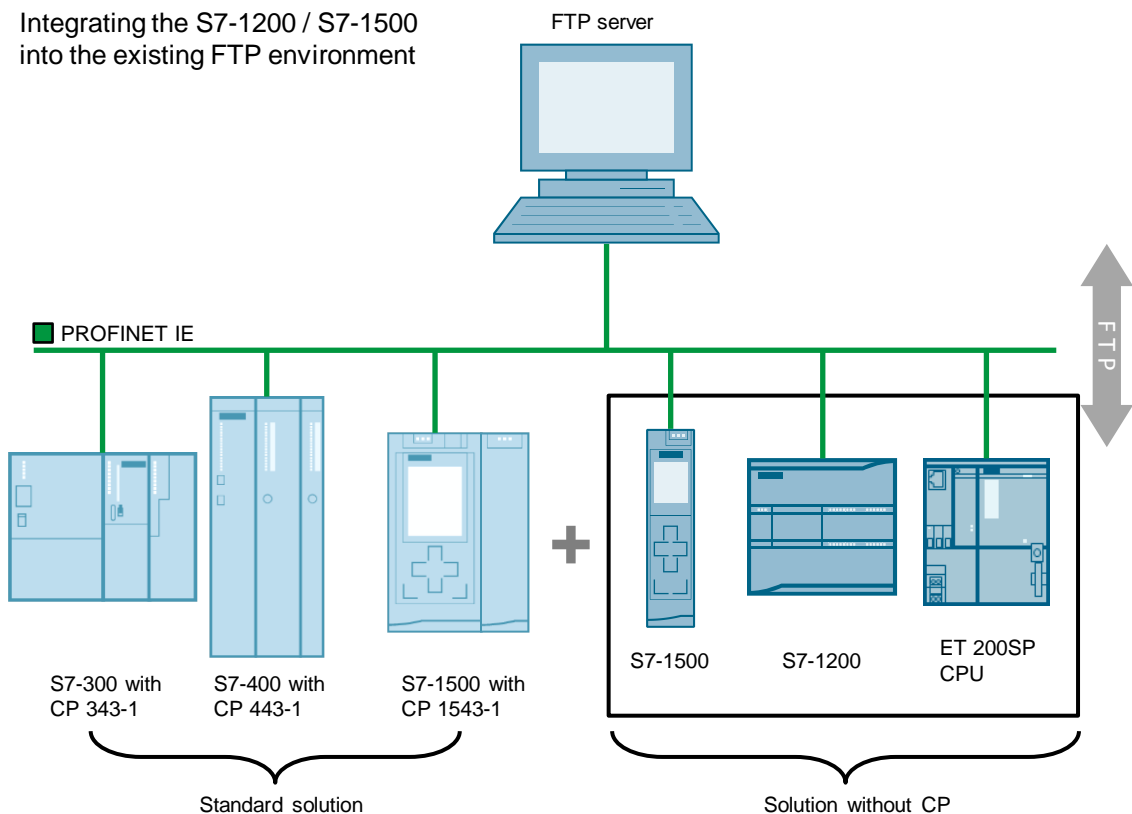
The function of this application example can only be guaranteed with the FTP servers tested ([Configuring the FTP server](#) chapter).

### Overview of the application example

The following figure provides an overview of the automation example.

Figure 1-1

Integrating the S7-1200 / S7-1500 into the existing FTP environment



## Description

In many projects and plants, it is necessary to exchange process data between controllers and servers or PCs so that the data produced there can also be used outside the control level. This is made possible by standardized protocols. FTP is a simple protocol that operates on the client-server principle and fulfills this task.

Until now, users who used an S7-300, S7-400 or S7-1500 could exchange process data only with a CP via FTP using an FTP server. This application example integrates the S7-1200 and S7-1500 into the existing FTP environment without a communications processor.

## Advantages

The solution presented here offers the following advantages:

- Simple and easy to understand FTP communication with an S7-1200 or S7-1500 via the "Ftp1X00Cmd" block.
- The command set of the block corresponds to that of FTP communication via S7-300, S7-400 or S7-1500 controllers with a CP.

## Note

The FTP function block supplied with this application example exclusively performs FTP client functions.

## Comparison of the most important FTP features in the SIMATIC S7 environment

The following table lists the different options for using FTP in the SIMATIC S7 environment.

Table 1-1

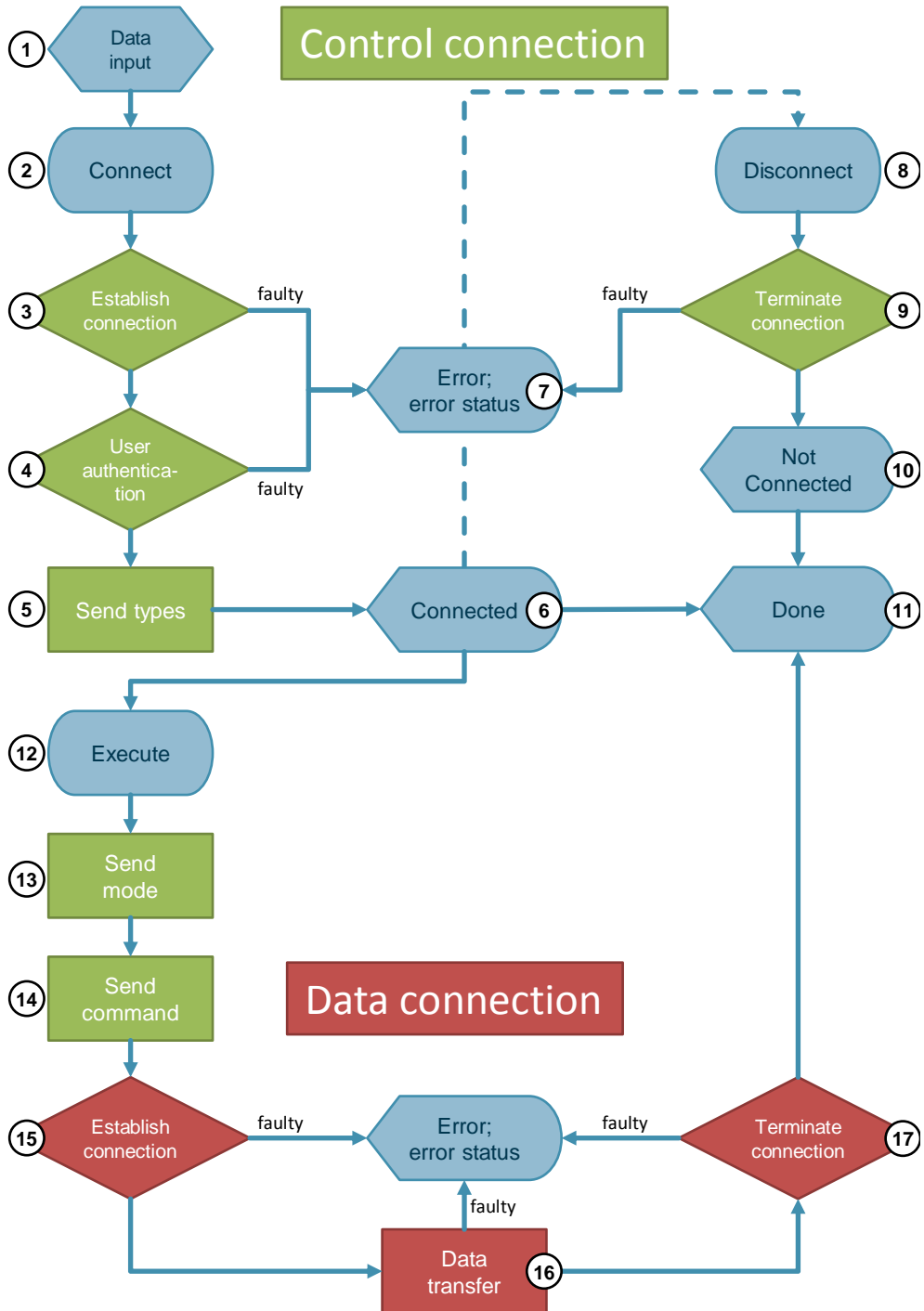
FTP feature	S7-300 or S7-400 (CP 343-1 / 443-1)	S7-1500 (CP 1543-1)	S7-1200 and S7-1500 ("Ftp1X00Cmd" FB)
With a special CP	✓ (CP 343-1 / 443-1)	✓ (CP 1543-1)	✗
FTP server	✓	✓	✗
Number of simultaneous client connections	10/20	32	4
Active FTP	✓	✓	✓
Passive FTP	✗	✓	✓
FTPS	✗	✓	✗
Full S7 FTP command set	✓	✓	✗

## 1.2 How the function block works

Figure showing how the "Ftp1X00Cmd" block works

The following figure shows how the "Ftp1X00Cmd" function block works, its structure and states.

Figure 1-2



## Description of the items

The following table describes the different items of Figure 1-2.

Table 1-2

No.	Action	Description
1.	Store connection data in DB.	The following connection data is specified by the user: Server IP address; hardware ID of the interface used; username; password; file name; FTP mode; FTP command; FTP data; connection ID of control connection (ID and ID+1 are required for each "Ftp1X00Cmd").
2.	Select connect.	The user initiates the control connection.
3.	Establish control connection.	The control connection (port 21) to the FTP server is being established.
4.	User authentication.	The FTP client logs in with the user data specified by the user (username, password).
5.	Send types to server.	The type of the file to be transferred is sent to the FTP server.
6.	Connected set.	The control connection is now ready. FTP jobs can now be run (no. 12) until the control connection is closed.
7.	Error set; output error status.	An error occurred while processing. The error-specific status is output (see <a href="#">Chapter 2.5</a> )
8.	Reset connect.	The user initiates 'disconnect control connection'.
9.	Disconnect control connection.	The control connection (port 21) to the FTP server is being disconnected.
10.	Connected reset.	The control connection has been disconnected.
11.	Done set.	Connection establishment or triggered job has been executed.
12.	Select execute.	The user initiates 'run FTP job'.
13.	Send mode to server.	The mode selected by the user (active, passive) is sent to the FTP server.
14.	Send FTP command to server.	The FTP command selected by the user is sent to the FTP server. The following commands are available: STORE (save data) APPEND (attach data) RETRIEVE (fetch data) DELETE (delete file)
15.	Establish data connection.	The data connection (active FTP: port 20) to the FTP server is being established.
16.	Data transfer from or to the server.	Either storage of data on the FTP server or the assigned area on the controller (FTP client).
17.	Disconnect data connection.	The data connection (active FTP: port 20) to the FTP server is being disconnected.

## 1.3 Components used

### Hardware components for data exchange with the S7-1200

The following table shows the components used for the application example for the solution with the S7-1200 and S7-1500.

Table 1-3

Component	No.	Article no.	Note
SIMATIC S7-1200 CPU 1214C DC/DC/DC	1	6ES7 214-1AG31-0XB0	Alternatively, any other SIMATIC S7-1200 with firmware V4.2 or higher can be used.
SIMATIC S7-1500 CPU 1513-1 PN	1	6ES7 513-1AL01-0AB0	Alternatively, any other SIMATIC S7-1500 or ET 200SP CPU with firmware V2.0 or higher can be used.

### Software components

The following table shows the software components used for the application example.

Table 1-4

Component	No.	Article number	Note
STEP 7 PROFESSIONAL V15	1	6ES7 822-1AA05-0YA5	Alternatively, a smaller package can be used.
FileZilla Server V0.9.60	1	Freeware (GPL)	For the <b>FileZilla Server</b> download link, see <a href="#">Chapter 4.2: 4\</a>

### Project and documentation

This application example consists of the following components:

Table 1-5

Component	File name	Note
Project	81367009_FTP_S7_1X00_PROJ_V3_4.zip	This zip file contains the STEP 7 project of the sample project for the S7-1500 and S7-1200.
Documentation	81367009_FTP_S7_1X00_DOKU_V3_4_en.pdf	This document.



## 2 Engineering

### 2.1 "Ftp1X00Cmd" interface description

#### Functional description

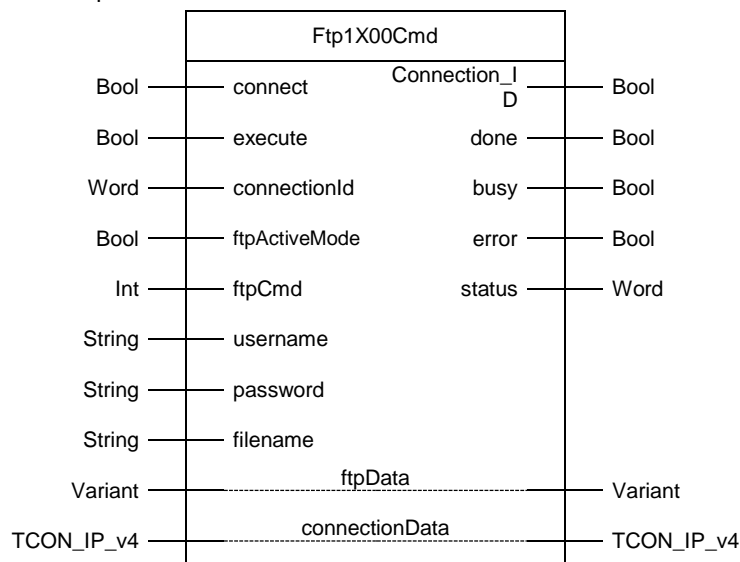
The "Ftp1X00Cmd" FTP function block emulates FTP based on open user communication. It can execute the following FTP commands:

- CONNECT (connect and log in)
- DISCONNECT (disconnect and log out)
- STORE (save data)
- APPEND (attach data)
- RETRIEVE (fetch data)
- DELETE (delete file)

#### Block interface

The following figure shows the interfaces of the "Ftp1X00Cmd" function block.

Figure 2-1: Ftp1X00Cmd



The following table describes the interfaces of the "Ftp1X00Cmd" function block.

Table 2-1: Parameters of Ftp1X00Cmd

Name	P type	Data type	Comment
connect	IN	Bool	TRUE = establish control connection to FTP server FALSE = disconnect control connection
execute	IN	Bool	FTP job trigger at positive edge
connectionId	IN	Word	Freely selectable connection ID of the TCP connections. <b>NOTICE: ID and ID+1 are reserved. These are unique throughout the project.</b>
ftpActiveMode	IN	Bool	FALSE = passive FTP mode TRUE = active FTP mode
ftpCmd	IN	Int	2 = STORE, 3 = RETRIEVE, 4 = DELETE,

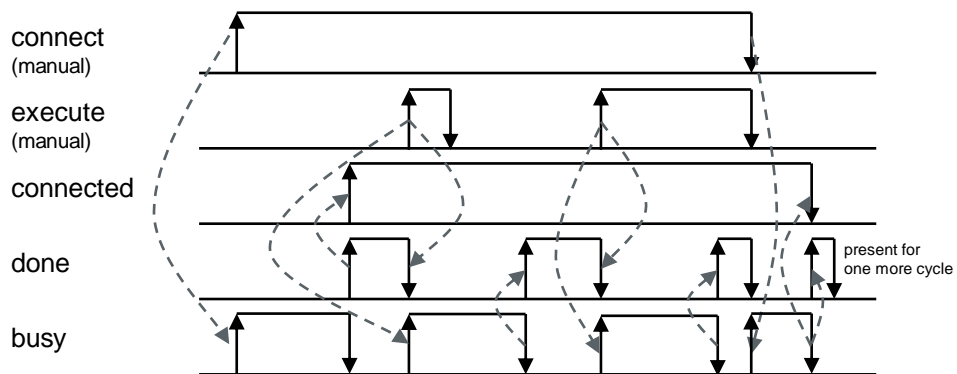
Name	P type	Data type	Comment
			6 = APPEND
username	IN	String	Username of an FTP server user
password	IN	String	Password of the FTP server user
filename	IN	String	File name for FTP communication
connected	OUT	Bool	TRUE = control connection connected FALSE = control connection disconnected
done	OUT	Bool	TRUE = job complete
busy	OUT	Bool	TRUE = job in progress
error	OUT	Bool	TRUE = error occurred
status	OUT	Word	Outputs the current job status as a HEX code
ftpData	IN_OUT	Variant	User data for FTP communication
connectionData	IN_OUT	TCON_IP_v4	Data for the connection to the FTP server (IP address, hardware ID of the interface used)

**Note** If "connect" and "execute" are not set, the "done" and "error" output values are only present for one cycle.

**Function chart**

The following function chart shows how the output parameters respond depending on the input parameters.

Figure 2-2



**Data transfer of user-defined structures**

At the "data" input, the "Ftp1X00Cmd" function block expects an array of bytes. The "Serialize" system function allows you to copy your defined user data (PLC data types) to the "Data" memory area of the "ftpData" data block. For a detailed description of the "Serialize" system function, refer to the TIA Portal Help.

## 2.2 Configuring the FTP server

### Note

This application example uses the example of FileZilla Server to show the configuration of the FTP server. The required configuration steps may differ for other FTP servers.

The "Ftp1X00Cmd" function block cannot be used with any FTP server. The function is only guaranteed and tested for the following FTP servers: SIMATIC CP, FileZilla and JanaServer.

### Installation

The following instructions show you how to install FileZilla Server.

Table 2-2

No.	Action	Comment
1.	Download FileZilla Server.	For the <b>FileZilla Server</b> download link, see <a href="#">Chapter 4.2</a> . This program is recommended for the application example as it is easy to use and structured in a very functional way.
2.	Install the FTP server software on your server.	To do this, follow the program's instructions.

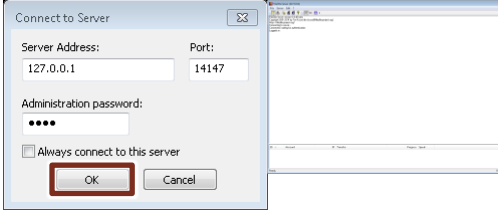
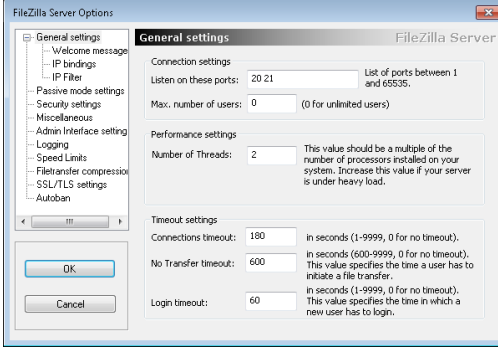
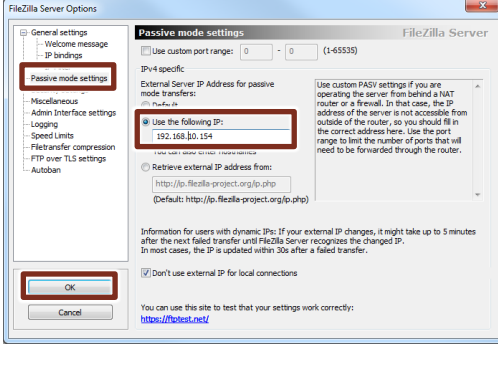
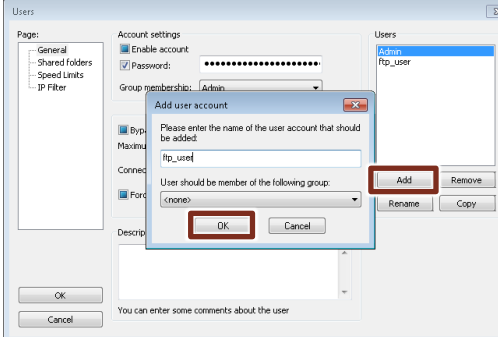
### Note

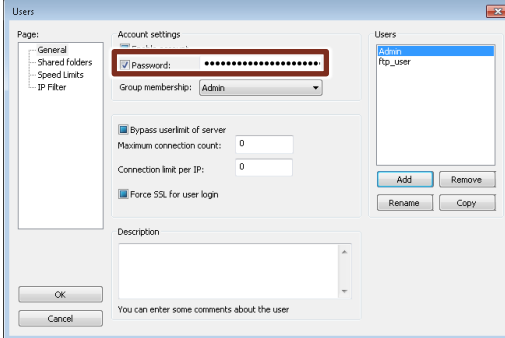
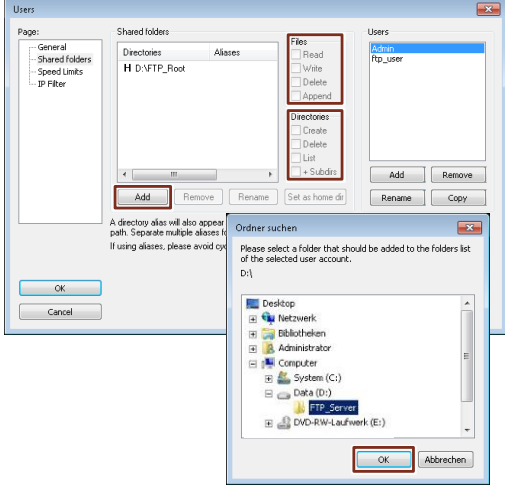
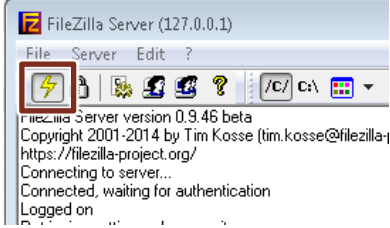
Make sure you have the latest FileZilla Server version.

**Configuration**

The following table shows the steps necessary to configure FileZilla Server. If you are using different FTP server software, follow their manuals for commissioning. **A created user with password and full access to the files in the user's root directory is important for the application example to work.**

Table 2-3

No.	Action	Screenshot
1.	<p>Start the FileZilla Server interface on your FTP server and click "OK".</p> <p>You are now logged in to the interface. It displays all the actions running on the server.</p>	
2.	<p>In the menu bar, click "Edit" and then select "Settings" to go to the server settings.</p> <p>Here you can make all the settings you need, e.g. "Max. number of users" and "Connection timeout" (when the FTP server terminates the connection to the FTP client).</p> <p>For this application example, you can use the default settings.</p>	
3.	<p>If you want to use active FTP, select "OK" to confirm and continue with Step 4.</p> <p>If you want to use passive FTP, go to the menu bar and open the "Passive mode settings" menu.</p> <p>In "Use the following IP:", enter the IP address of the computer's used interface.</p> <p>Select "OK" to confirm.</p>	
4.	<p>In the menu bar, click "Edit" and then select "Users" to go to user management.</p> <p>Select "General" and click "Add".</p> <p>In the field, enter an FTP user name, for example, "ftp_user".</p> <p>Select "OK" to confirm.</p>	

No.	Action	Screenshot
5.	<p>Check the "Password" check box and in the field next to it, enter the password, for example, "ftp_user".</p>	
6.	<p>Select "Shared folders" and in the "Shared folders" section, click "Add".</p> <p>In Explorer that is now open, navigate to the folder you want to use as the FTP root directory for the created user. Select the folder (e.g., a previously created folder: "FTP_Server") and click "OK" to confirm.</p> <p>In "Files", check the "Read", "Write", "Delete" and "Append" check boxes.</p> <p>If you want to create new folder structures and directories, go to "Directories" and check the "Create", "Delete", "List" and "+Subdirs" check boxes.</p> <p>Select "OK" to confirm.</p>	
7.	<p>Make sure that the server is online. The online icon must be on.</p> <p>You have now created an FTP user with password, root directory and all required rights. The FTP server is now ready for the application example and for processing user requests.</p>	

## 2.3 Integration into the user project

**Note** When assigning your devices' IP addresses, make sure that the CPU that operates as an FTP client and the FTP server are in the same subnet and each IP address is only assigned once in the subnet.

### Requirements

In order to use the application example, the following prerequisites must be met:

- S7-1200 with firmware V4.2 or higher
- S7-1500 with firmware V2.0 or higher
- Compatible FTP server has been configured

### Restrictions

The following restrictions apply to this application example.

- The application example works only with the tested FTP servers and with the tested software version or higher versions.
- Only four FTP users can be simultaneously connected from a controller to an FTP server.
- FTPS functionality cannot be integrated.
- Open user communication allows the S7-1200 to send / receive a maximum of 8192 bytes per job and the S7-1500 to send / receive a maximum of 65536 bytes per job.
- For non-optimized access, the lower / upper limit of arrays is -32768 / 32767.
- For optimized access, the lower / upper limit of arrays is -2,147,483,648 / 2,147,483,647.
- For the S7-1200 and S7-1500, the maximum size of data to be received depends on the maximum size of the CPU's receive memory.

**Note** **This note applies to S7-1500-CPU's**  
For a block with the "Optimized block access" property, an element of the Bool data type requires 1 byte of space. The same applies to arrays of Bool.

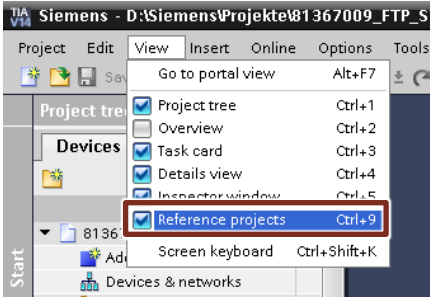
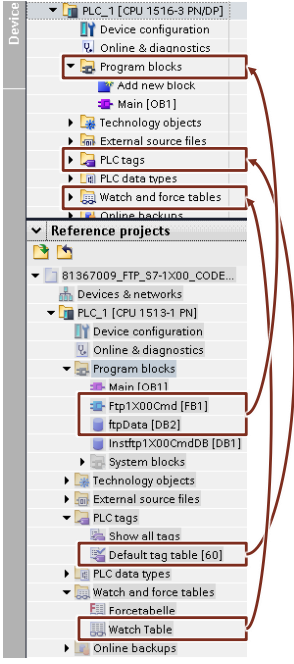
### Integrating project components into the user project

Copy the following project components to your TIA Portal project using drag and drop:

- "Ftp1X00Cmd" function block
- "ftpData" data block
- "Watch Table"
- The "PLC tags" from the "Default tag table [60]"

It is recommended to use the "Reference projects" view for copying. The following table shows you how to do this.

Table 2-4

No.	Action	Screenshot/description
1.	In "View", check the "Reference projects" check box to open the view.	 <p>The screenshot shows the TIA Portal interface with the 'View' menu open. The 'Reference projects' option is checked and highlighted with a red box. Other options include Project tree, Overview, Task card, Details view, Inspector window, and Screen keyboard.</p>
2.	In the "Reference projects" view, open the supplied sample project.	<p>"81367009_FTP_S7_1X00_PROJ_V3_4.zip"</p>
3.	<p>Now you can copy the following project components to your project using drag and drop:</p> <ul style="list-style-type: none"> <li>• "Ftp1X00Cmd" function block</li> <li>• "ftpData" data block</li> <li>• "Watch Table"</li> <li>• The "PLC tags" from the "Default tag table [60]"</li> </ul>	 <p>The screenshot shows the project tree with the 'Reference projects' folder expanded. Red boxes highlight the 'Ftp1X00Cmd [FB1]', 'ftpData [DB2]', 'Instftp1X00CmdDB [DB1]', and 'Default tag table [60]' components. Red arrows indicate the path from these components to the 'Program blocks' folder of the main project.</p>
4.	Call the "Ftp1X00Cmd" block in your cyclic organization block and interconnect the block as described in the following subchapter.	

**Note** Working with a second TIA Portal instance requires more system resources than the "Reference projects" view.

### Interconnecting the fixed parameters of the "Ftp1X00Cmd" block

Before you use the "Ftp1X00Cmd" block for FTP communication, you must interconnect the following parameters:

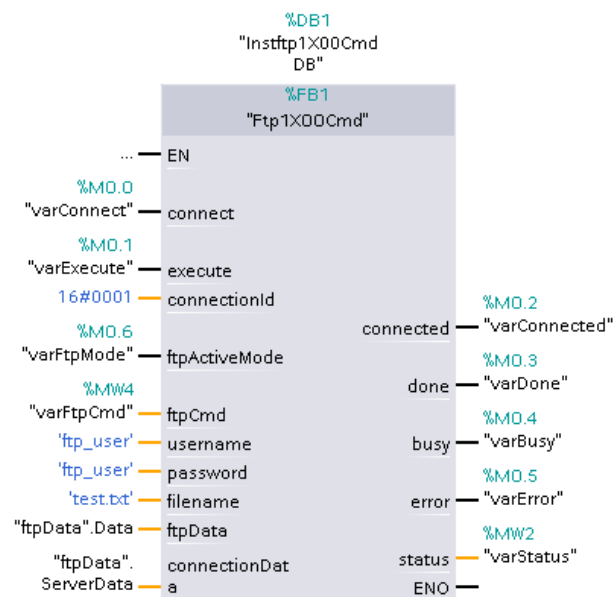
- "connectionID"
- "username",
- "password",
- "filename",
- "ftpData"
- "connectionData"

Interconnect the parameters as described in the interface description chapter.

In order to control the block, you also have to interconnect the "connect", "execute", "ftpCmd" and "ftpMode" inputs. In the application example, "PLC tags" are assigned to these inputs. The tags used are listed in the supplied tag table.

The following figure shows the call of the "Ftp1X00Cmd" block in the application example.

Figure 2-3



**Note**

Interconnecting the parameters described here is the fundamental requirement for using the block. If they are not interconnected, a control connection to the FTP server cannot be established.

In order to establish the connection, the specified user must have been created on the server side.



## 2.4 Using "Ftp1X00Cmd"

**Note** Successful use requires that the FTP server be compatible with the "Ftp1X00Cmd" block and has been configured as described in [Chapter 2.2](#).

### Description of using the "Ftp1X00Cmd" block

The "Ftp1X00Cmd" block is mainly controlled via the "connect", "execute", "ftpCmd" and "ftpMode" inputs.

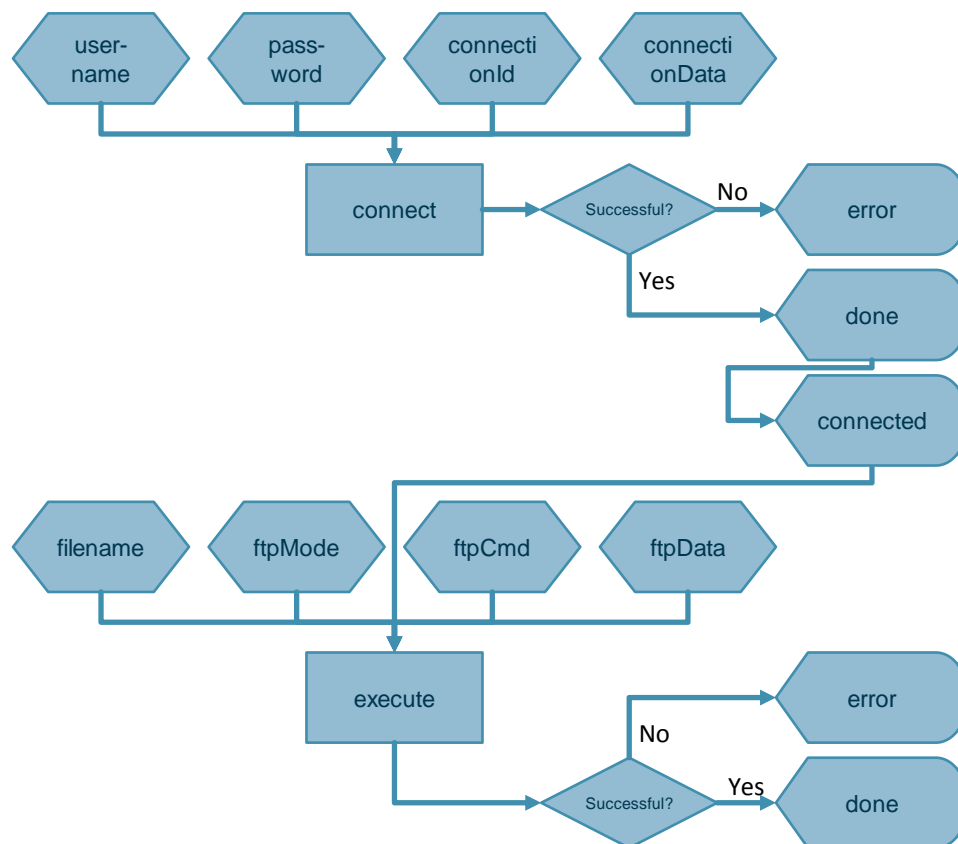
The "connect" input controls the establishment and termination of the control connection to the FTP server. While data is exchanged, "connect" must remain TRUE. When "connect" is set to FALSE, termination of the control connection starts and the user connected on the FTP server is logged out.

The "ftpCmd" input defines the FTP command for the data transfer (2=STORE, 3=RETRIEVE, 4=DELETE, 6=APPEND). The "ftpMode" input defines the transfer mode (TRUE=active, FALSE=passive).

As soon as the controller has a control connection to the FTP server ("connected" output = TRUE), an FTP mode has been set, a valid FTP command has been selected and a valid file name/path has been specified, you can execute FTP commands with a positive edge at the "execute" input.

The aim of the following figure is to illustrate the dependencies of the inputs and outputs of the "Ftp1X00Cmd" block.

Figure 2-4



**Description of the supplied tag table**

The project of the application example includes a tag table. The following section explains the tag table.

The following figure shows the tag table.

Figure 2-5

i	Name	Address	Display format
1	// Operation area		
2	"varConnect"	%M0.0	Bool
3	"varExecute"	%M0.1	Bool
4	"varFtpMode"	%M0.6	Bool
5	"varFtpCmd"	%MW4	DEC+/-
6	// Status area		
7	"varDone"	%M0.3	Bool
8	"varBusy"	%M0.4	Bool
9	"varError"	%M0.5	Bool
10	"varConnected"	%M0.2	Bool
11	"varStatus"	%MW2	Hex

The following table describes the tag table.

Table 2-5

No.	Tag	Function
1.	varConnect	When this tag is set, the control connection is established and the user specified at the "username" input is logged in to the FTP server using the password specified at the "password" input. When the tag is reset, the control connection is terminated and the user is logged out.
2.	varExecute	A positive edge starts the FTP data transfer job.
3.	varFtpMode	Defines the FTP mode for the data transfer.
4.	varFtpCmd	Specifies the FTP command.
5.	varDone varBusy varError varConnected varStatus	Status area: The tags reflect the status of the "Ftp1X00Cmd" block. This area indicates whether the control connection has been established and whether the block executed without errors or with a specific error.

## 2.5 Error handling of "Ftp1X00Cmd"

The "Ftp1X00Cmd" block catches some errors of the OUC blocks and converts received FTP reply codes to HEX codes. These status messages are output at the "status" output.

### HEX code status messages

The following table describes some of the possible status messages of the "Ftp1X00Cmd" block.

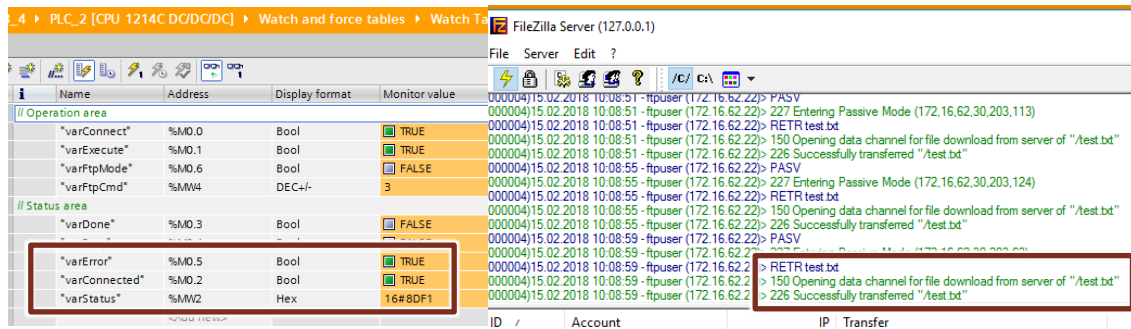
Table 2-6

done	busy	error	status	Description
X			0	Job successfully completed without error
X			0100	Job successful. Due to the behavior of TDISCON when disconnecting, the data connection was aborted after the transfer.
	X		7001	Establishing control connection.
	X		7002	Terminating control connection.
	X		7003	Executing FTP command.
		X	8D11	Control connection not established; data connection cannot be opened
		X	8D26	Data connection cannot be opened
		X	8D27	Data connection not closed properly; some servers nevertheless receive data; as a result, data transfer still takes place.
		X	8D28	FTP server timeout
		X	8D81	File not found
		X	8DF1	Watchdog timer timeout (5s)
		X	8DF2	Unknown reply code
		X	8DF3	Unknown command
		X	8F60	Invalid user data
		X	8F62	Action aborted; disconnecting data connection
		X	8F69	Connection attempt when a connection exists

### "8DF1" status when data transfer successful (S7-1200)

If the block provides the "8DF1 – Watchdog timer timeout (5s)" status and the FTP server indicates that the data transfer was successful, the block has not received the data transfer successful confirmation. You can continue transferring data as usual. However, the "done" output is not set due to the missing acknowledgment.

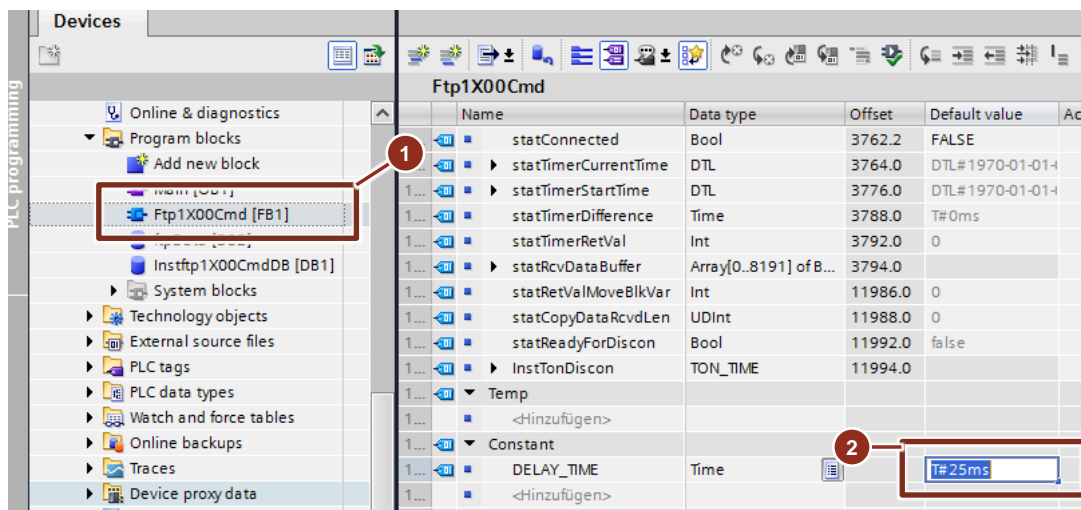
Figure 2-6



### Incomplete transfer of sent file

If the FTP server receives an incomplete file, the data connection was generally closed too quickly for the block. To prevent this, a 25-ms time delay was implemented in the block. If data losses still occur, increase the time delay. To do this, change the "DELAY\_TIME" constant in the block tags.

Figure 2-7



# 3 Valuable Information

## 3.1 Basics

### FTP – general

FTP was developed to exchange data between a client and a server. Furthermore, it is designed for managing directories through remote access. In the world of automation, FTP is a useful protocol to easily exchange data.

FTP communication has two modes:

- Active FTP
- Passive FTP

It also provides the option to exchange data in an encrypted form using:

- FTPS
- SFTP

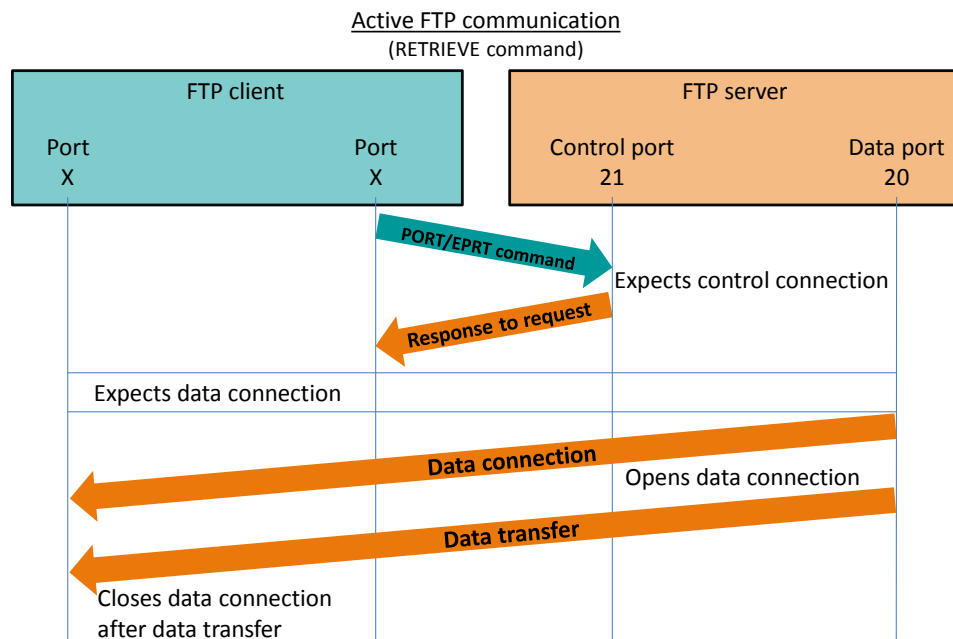
### Active FTP

In this mode, the FTP client opens a random port (>1023) and sends this port and its own IP address to the FTP server using a special command (PORT or EPRT). By default, the command is sent to port 21 of the FTP server. Port 21 must be open or forwarded in the server's firewall; otherwise, no communication will be established. When data transfer is requested, the FTP server initiates a data connection to the sent IP address and FTP server port 20.

Active mode is used when the FTP server is located behind a firewall as the data connection is initiated externally from the FTP server and therefore not blocked by the firewall. Hence, the FTP server acts actively.

The figure below uses the example of the RETRIEVE command to illustrate active FTP communication.

Figure 3-1



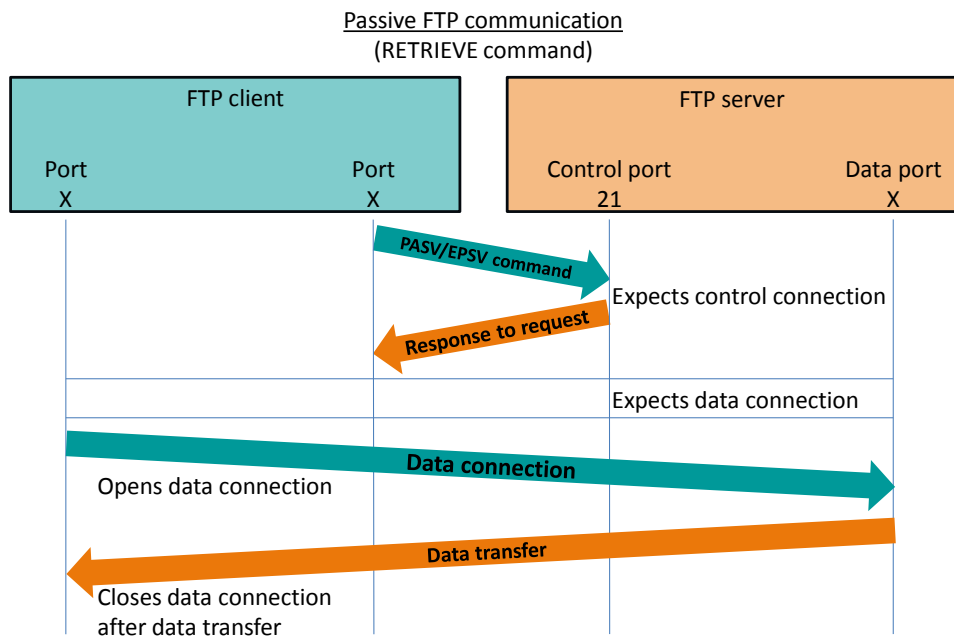
**Passive FTP**

In this mode, the FTP client sends PASV or EPASV commands to port 21 of the FTP server. The FTP server then opens a random port and, together with its IP address, sends this port number to the FTP client. For the data transfer, the FTP client initiates a TCP connection to the IP address sent by the FTP server and the port.

If the FTP client is located behind a firewall, passive mode is used. Stateful packet inspection normally always allows outgoing data packets in the firewall. Hence, the FTP server acts passively.

The figure below uses the example of the RETRIEVE command to illustrate passive FTP communication:

Figure 3-2



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**FTPS**

FTPS, also called FTP using SSL/TLS, is used to send data in an encrypted form via FTP. FTPS distinguishes between two types of encryption:

- Explicit FTPS (FTPES)
- Implicit FTPS

Explicit FTPS, also called FTPES, requires the client to explicitly ask the server for secure transmission. If, in this mode, a client does not send such a request to the server, the server can decide whether to retain, reject or limit this non-secure connection.

Implicit FTPS expects the client to immediately send a "TLS/SSL ClientHello" message to the server. If the client does not send this message, the server disconnects the connection.

**Note**

Explicit FTPS can be used in conjunction with a CP x43-1 Advanced V3 and a CP 1x43-1. Implicit FTPS is not supported.

### SFTP

The SSH File Transfer Protocol or Secure File Transfer Protocol (SFTP) is an alternative to FTP. It transfers data using Secure Shell (SSH).

SFTP is also short for Simple File Transfer Protocol, a simpler version of FTP. The SSH File Transfer Protocol must not be confused with this protocol!

**Note** SFTP is not supported by any CP.

## 3.2 Alternative solutions

As an alternative to the solution described here, the FTP functionality can also be integrated into the S7 world with different hardware.

The following table lists alternative solutions with a link to the respective application example.

Table 3-1

Solution	Link
FTP communication with S7-1500 and CP 1543-1	<a href="https://support.industry.siemens.com/cs/ww/en/view/103550797">https://support.industry.siemens.com/cs/ww/en/view/103550797</a>
FTP communication with S7-300/400 and CPx43-1 Advanced	<a href="https://support.industry.siemens.com/cs/ww/en/view/21605954">https://support.industry.siemens.com/cs/ww/en/view/21605954</a>

## 4 Appendix

### 4.1 Service and Support

#### Industry Online Support

Do you have any questions or need assistance?

Siemens Industry Online Support offers round the clock access to our entire service and support know-how and portfolio.

Industry Online Support is the central address for information about our products, solutions and services.

Product information, manuals, downloads, FAQs, application examples and videos – all information is accessible with just a few mouse clicks at:

<https://support.industry.siemens.com>

#### Technical Support

The Technical Support of Siemens Industry provides you with fast and competent support regarding all technical queries with numerous tailor-made offers – ranging from basic support to individual support contracts.

You send queries to Technical Support via Web form:

[www.siemens.com/industry/supportrequest](http://www.siemens.com/industry/supportrequest).

#### SITRAIN – Training for Industry

With our globally available training courses for our products and solutions, we help you achieve with practical experience, innovative learning methods and a concept that's tailored to the customer's specific needs.

For more information on our offered trainings and courses, as well as their locations and dates, refer to:

[www.siemens.com/sitrain](http://www.siemens.com/sitrain)

#### Service offer

Our range of services includes the following:

- Plant data services
- Spare parts services
- Repair services
- On-site and maintenance services
- Retrofitting and modernization services
- Service programs and contracts

You can find detailed information on our range of services in the service catalog:

<https://support.industry.siemens.com/cs/sc>

#### Industry Online Support app

You will receive optimum support wherever you are with the "Siemens Industry Online Support" app. The app is available for Apple iOS, Android and Windows Phone:

<https://support.industry.siemens.com/cs/ww/en/sc/2067>



## 4.2 Links and literature

Table 4-1

No.	Topic
\1\	Siemens Industry Online Support <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>
\2\	Link to the entry page of the application example <a href="https://support.industry.siemens.com/cs/ww/en/view/81367009">https://support.industry.siemens.com/cs/ww/en/view/81367009</a>
\3\	STEP 7 V14 SP1 manual <a href="https://support.industry.siemens.com/cs/ww/en/view/109747136">https://support.industry.siemens.com/cs/ww/en/view/109747136</a>
\4\	FileZilla Server <a href="https://filezilla-project.org/download.php?type=server">https://filezilla-project.org/download.php?type=server</a>
\5\	Programming Styleguide <a href="https://support.industry.siemens.com/cs/ww/en/view/109478084">https://support.industry.siemens.com/cs/ww/en/view/109478084</a>

## 4.3 Change documentation

Table 4-2

Version	Date	Modifications
V1.0	10/2013	First version
V2.0	05/2015	FTP client functionality for S7-1500 added; migration to TIA Portal V13 SP1, update of the OUC library used
V3.0	07/2017	Migration to TIA Portal V14 SP1 Complete revision of the "Ftp1X00Cmd" block according to the <a href="#">Programming Styleguide</a>
V3.1	11/2017	Bug fixes and performance enhancement
V3.2	02/2018	Error handling chapter extended
V3.3	03/2018	Migration to TIA Portal V15, troubleshooting
V3.4	04/2018	SFTP/FTPS added to Valuable Information chapter, troubleshooting