

# **Application Note:**

## **FTP Server Setup on computers running Windows-7**

### **For use with 2500P-ACP1**

The CTI 2500P-ACP1 is capable of transferring data files to a remote FTP Server. This document provides information for those who do not currently have a FTP Server installed and operating. Setting up an FTP Server at a plant can raise network security concerns, so we highly recommend working with your IT staff and following any rules in place for adding functionality to an existing network.

Here are some options for setting up your own FTP Server. This list is no means conclusive, as there are lots of available options.

- 1) FileZilla FTP Server (free PC based server program - see instructions in section below)
- 2) Microsoft IIS (included with most versions of Windows) includes an FTP Server (also PC based). This works well once set up properly, but it can be difficult to set up and configure users and security. (You have been warned!)
- 3) Most Linux distributions include FTP server support.
- 4) Purchase a NAS (Network Attached Storage) device that has embedded FTP Server support. These are usually configurable from a built in web server page (examples include: Western Digital MyCloud EX2 series, Seagate NAS, or Addonics NAS Adapter)

The remainder of this document provides details for installation and setup of FileZilla FTP Server on computer running Windows-7. Filezilla is an open source software solution distributed free of charge. The program is easily customized for user connections, accessibility, and security features.

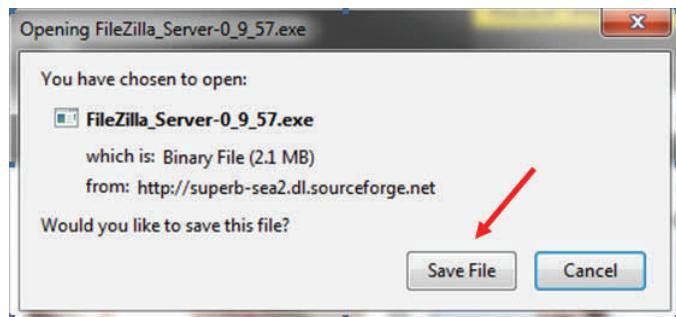


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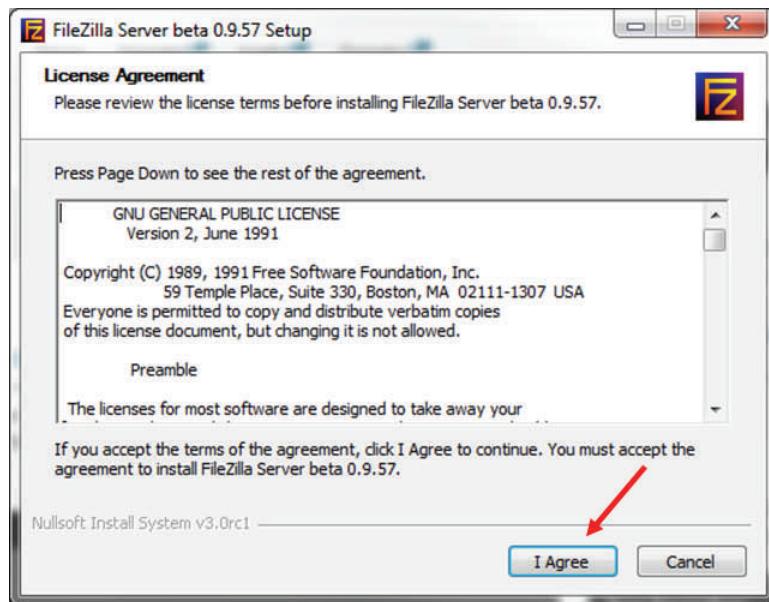
## Filezilla FTP Server Installation Instructions:

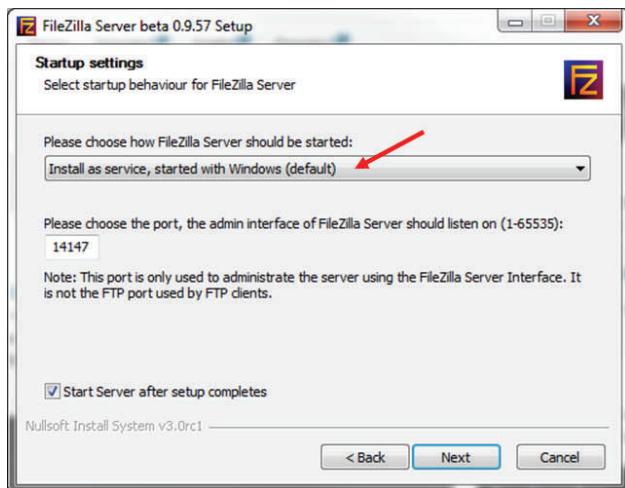
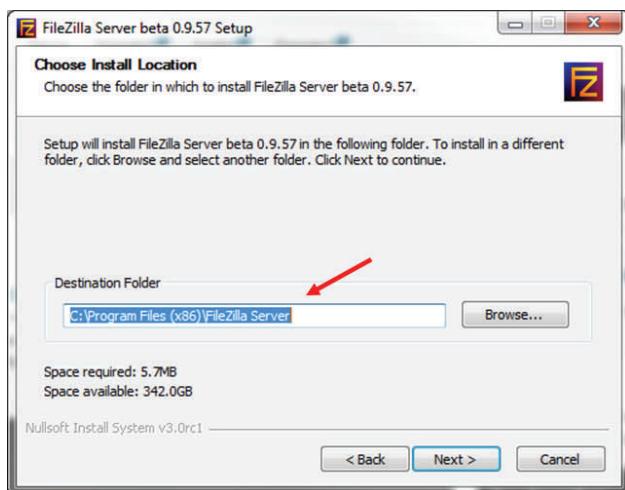
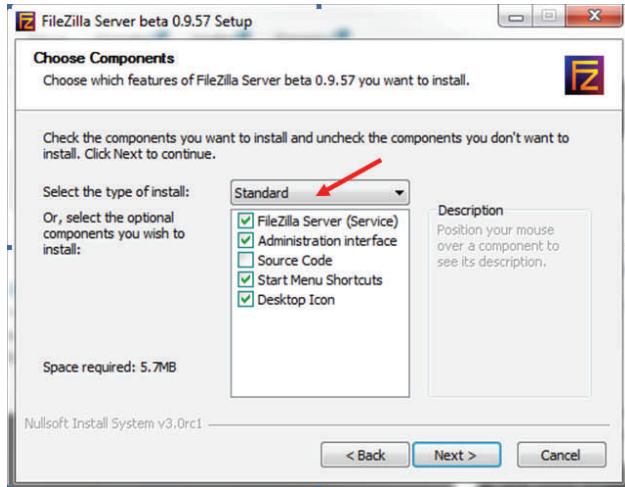
- 1) Download the appropriate version from the CTI website:  
[www.controltechnology.com/downloads](http://www.controltechnology.com/downloads) (login is required)
- 2) Download Procedure:

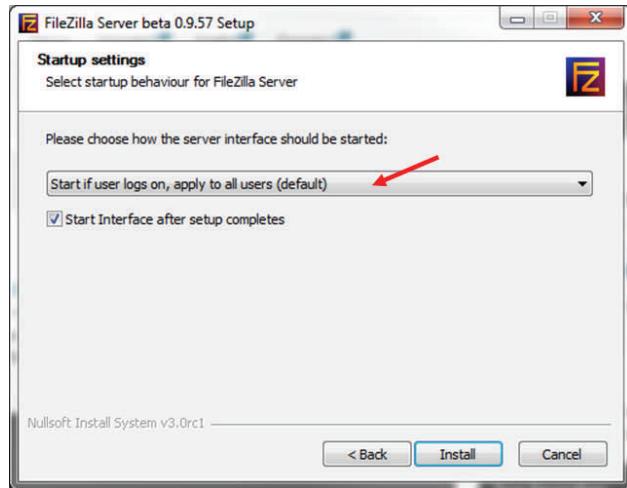


Accept the 'User Access Control' warning displayed to allow Filezilla FTP Server to install on the hard drive.

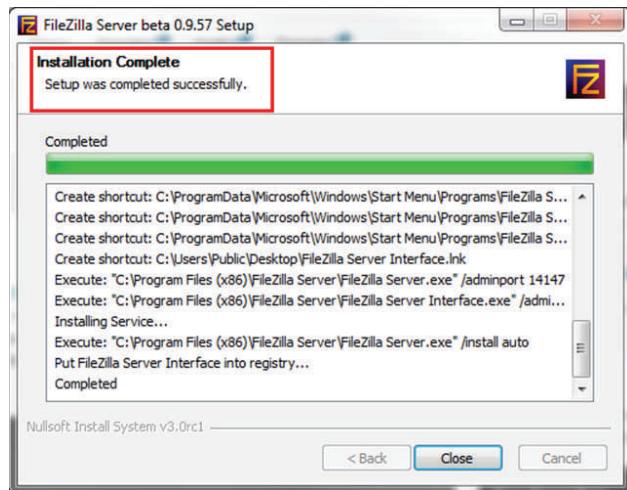
- 3) Installation Procedure:  
Standard installation is sufficient for most applications.





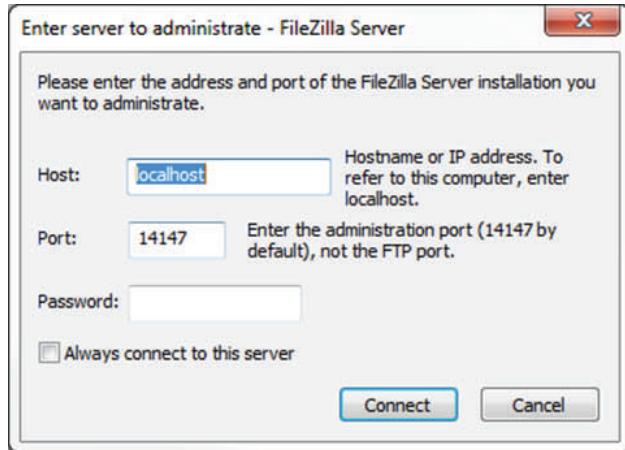


This shows the FTP Server installed correctly:

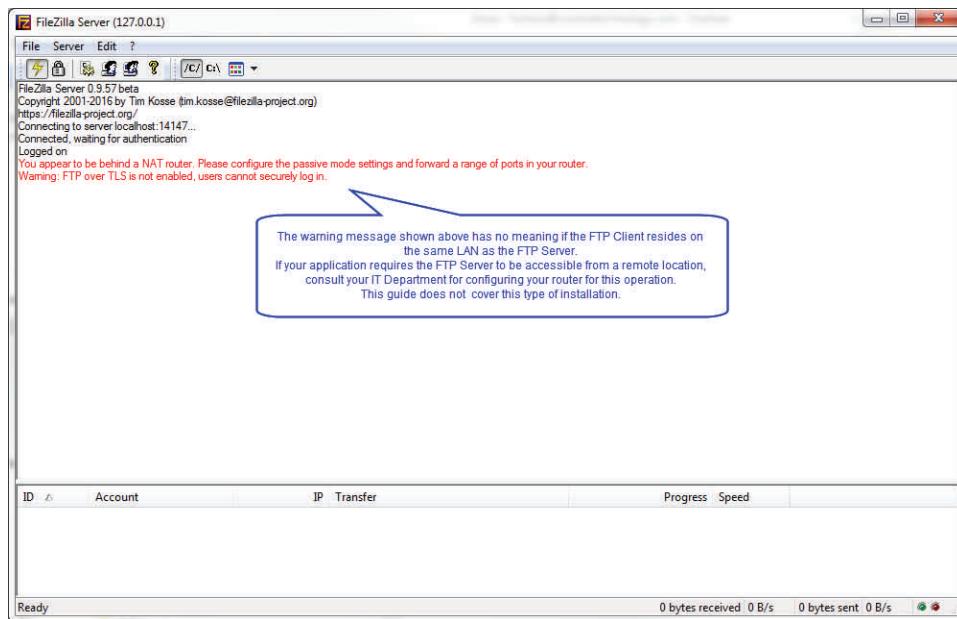


3) Configure FTP Server.

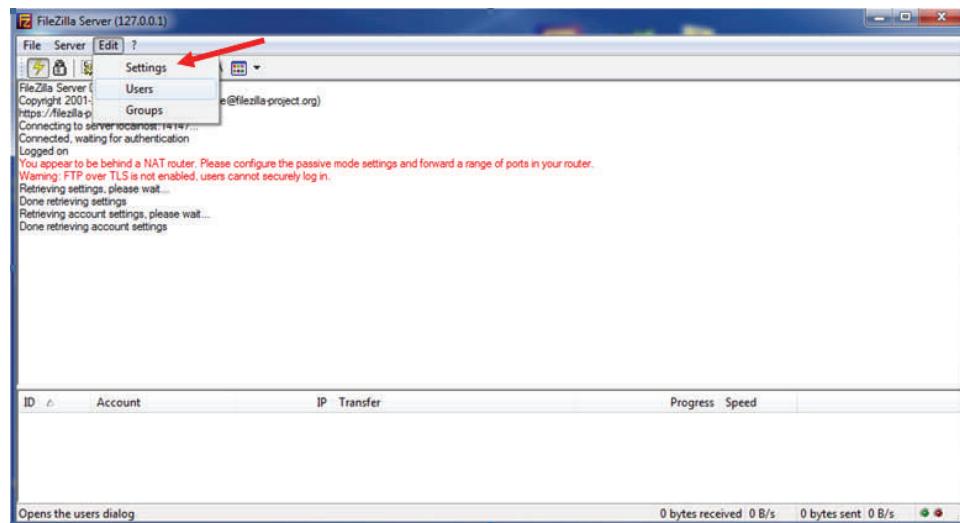
- a) Start FTP Server Interface. ‘Localhost’ computer name works when the FTP Server and FTP Server Interface reside on the same computer.



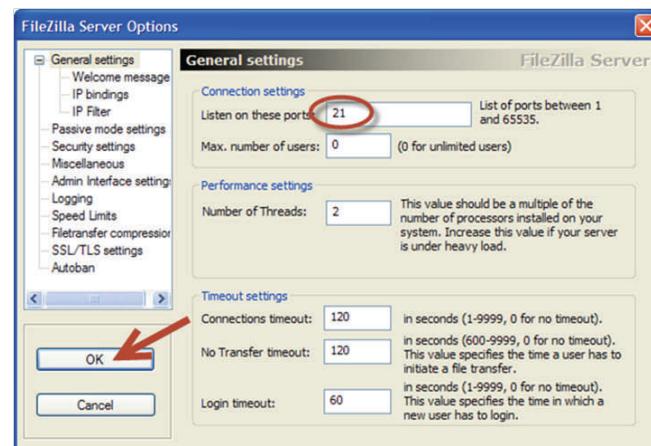
FTP Server interface log shown below shows normal FTP Server status:



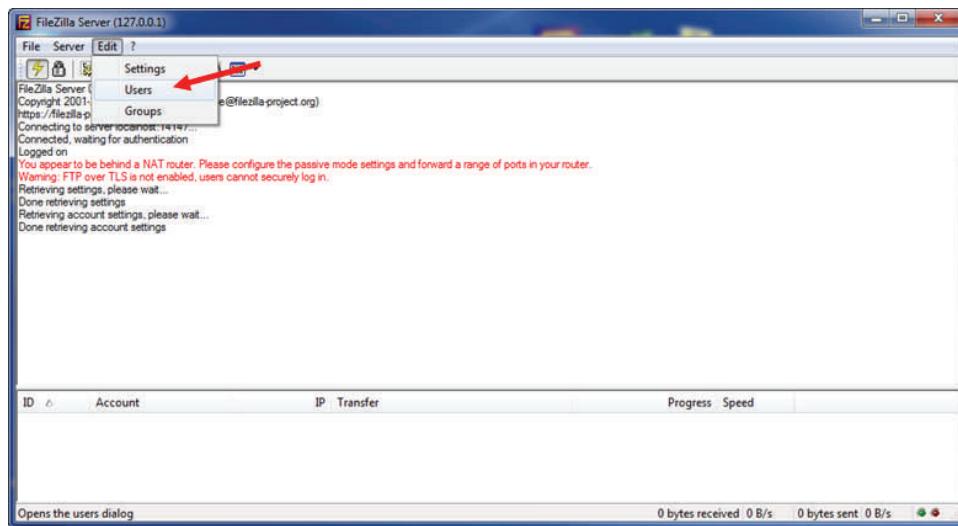
b) Configure FTP Server ‘Settings’:



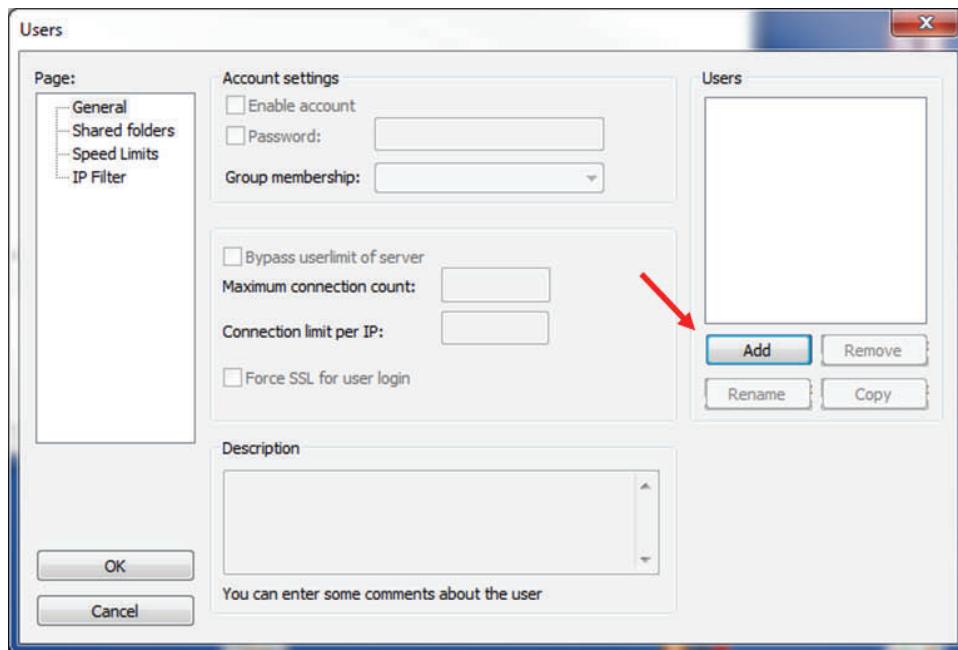
Enter FTP Server ‘Listening Port’ number. Port 21 is default.



- c) Configure User Accounts.  
 Select ‘Users’ option from [Edit] menu.



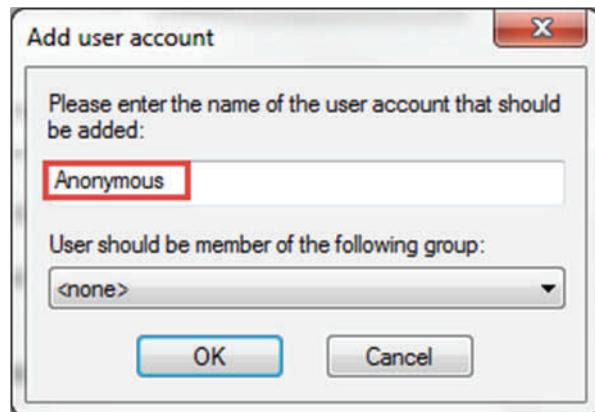
Select [Users—Add] button to add a User Account:



Default user account name is “Anonymous”.

Password for “Anonymous” user is any text string in email address format (i.e. you@me.com).  
Use custom user account name/password for more security.

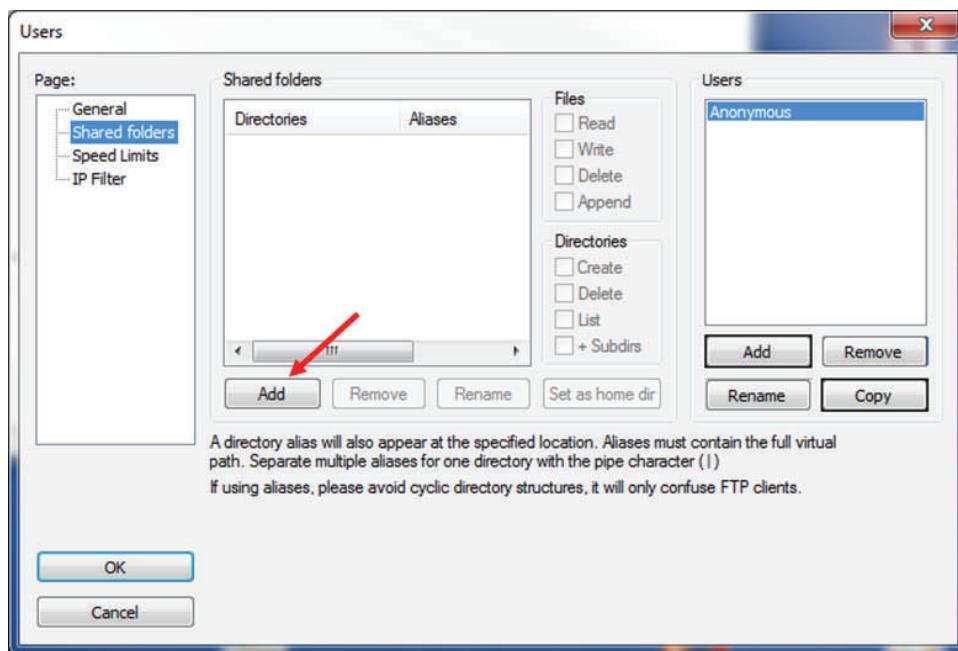
Custom user account names/password must be entered in ‘Module Configuration’ page in the ACP1 web server.



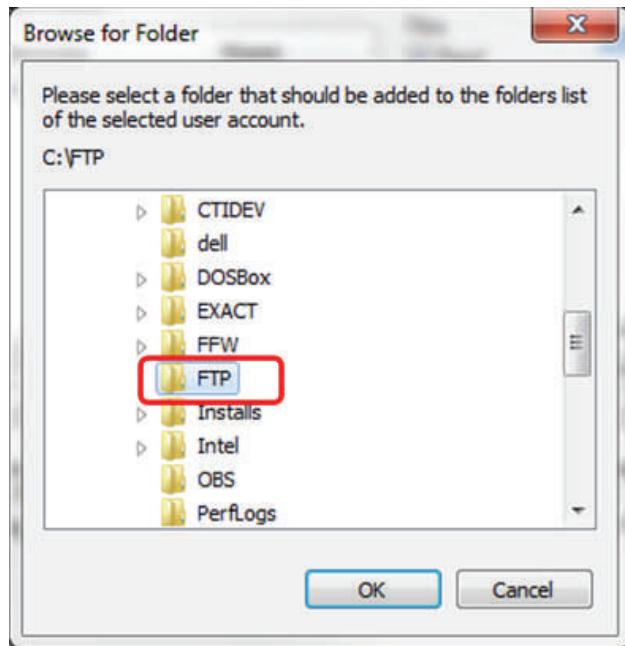
d) Configure the directories/folders that can be accessed by FTP Client:

Select [Shared folders] tab.

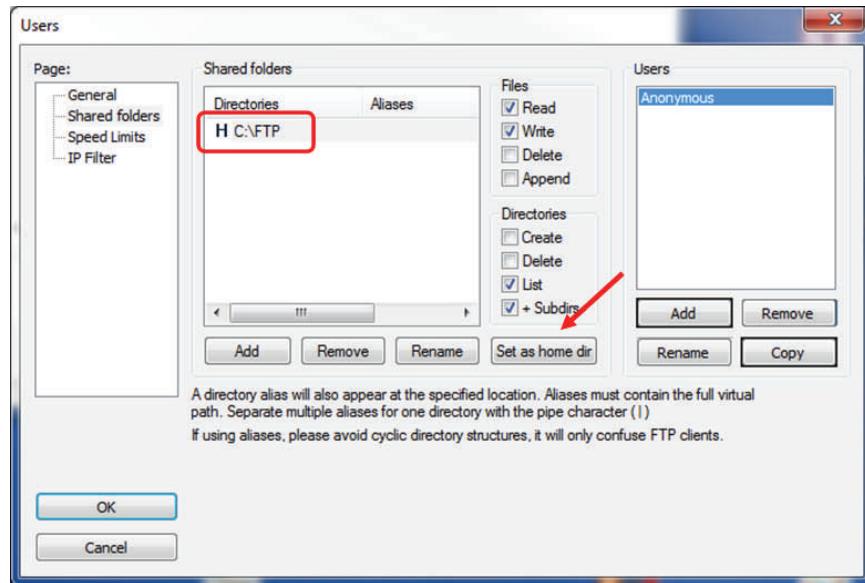
Press [Add] to configure directories accessible by ACP1 FTP Client.



Browse for folder that will serve as “root directory” for files sent by ACP1 FTP Client. The example below shows the directory C:\FTP that was previously created. You must select an existing folder to complete FTP Server setup.



The selected directory is shown in the “Shared folders” window. Select [Set as home dir] to mark as FTP Server “root” directory.

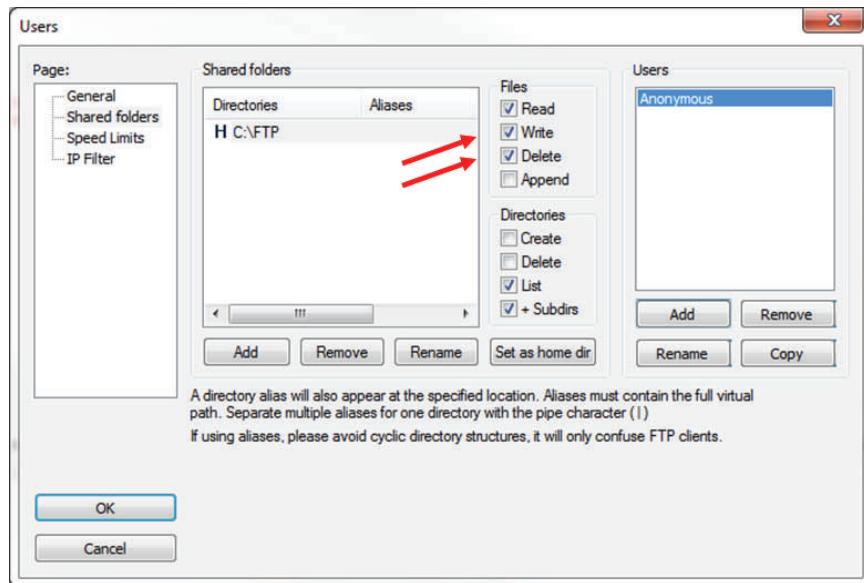


- e) Configure file access that FTP Server will allow:

Select [Write Files] option to allow ACP1 FTP Client to send data files to FTP Server.  
This is required for use with the ACP1 co-processor.

[Delete Files] option allows the FTP Client to overwrite existing files (with same file name).  
This option is recommended when used with the ACP1 since files can be overwritten if network connection is lost while a file transfer is in progress.

[Create Directories] option should be checked if ACP1 FTP Client needs to create and send files to one or more sub-directories (under Home directory).

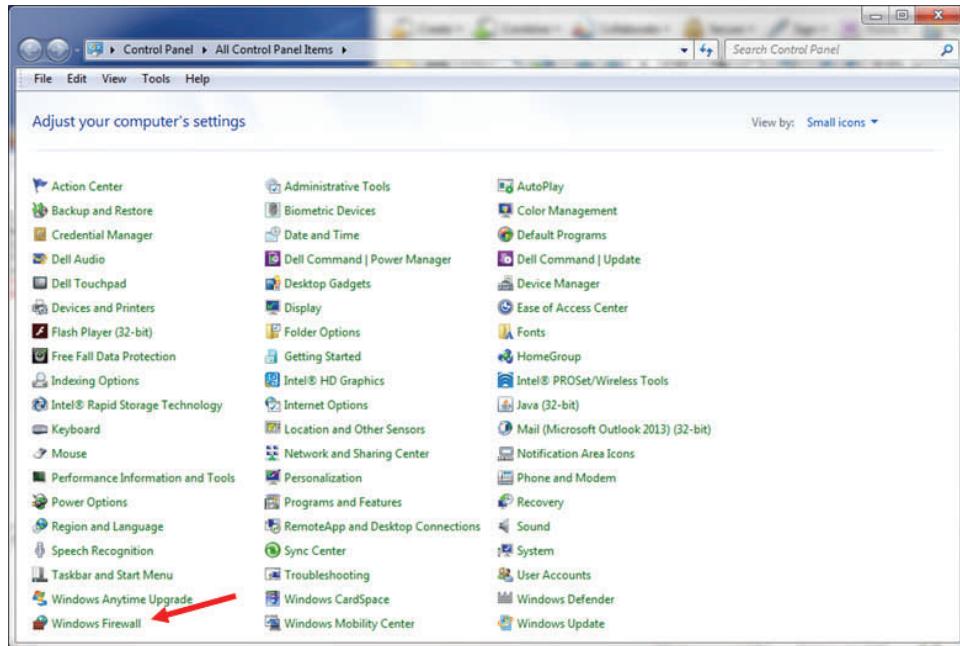


This completes the FTP Server setup.

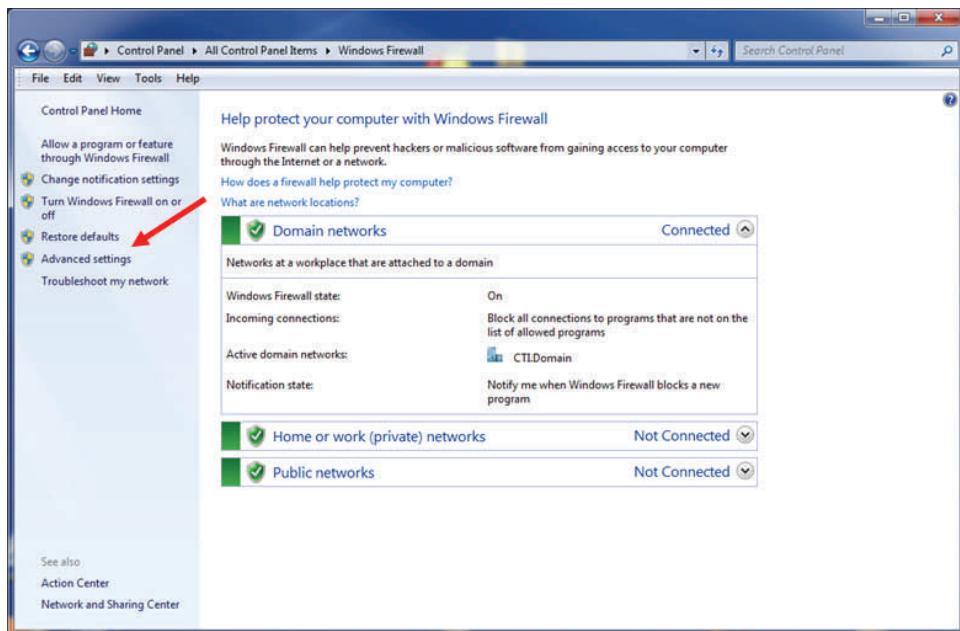
You must now configure the firewall for FTP operation.

- 4) Create Firewall Exception for accessing FTP Server .  
This example uses the ‘Windows Firewall’.

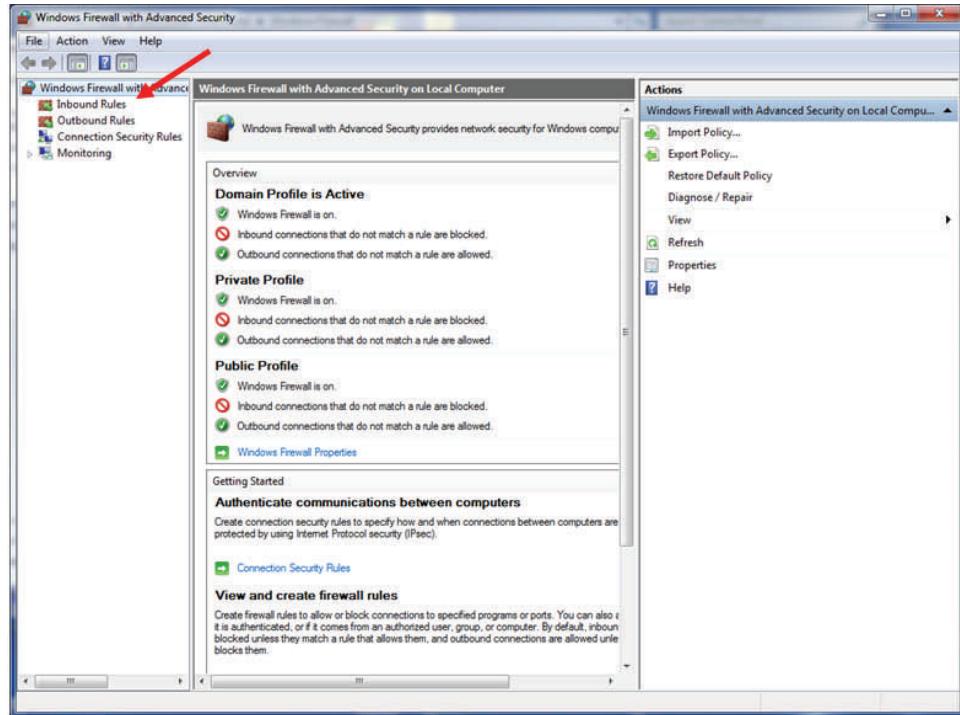
- a) Select ‘Windows Firewall’ from ‘Control Panel’ menu:



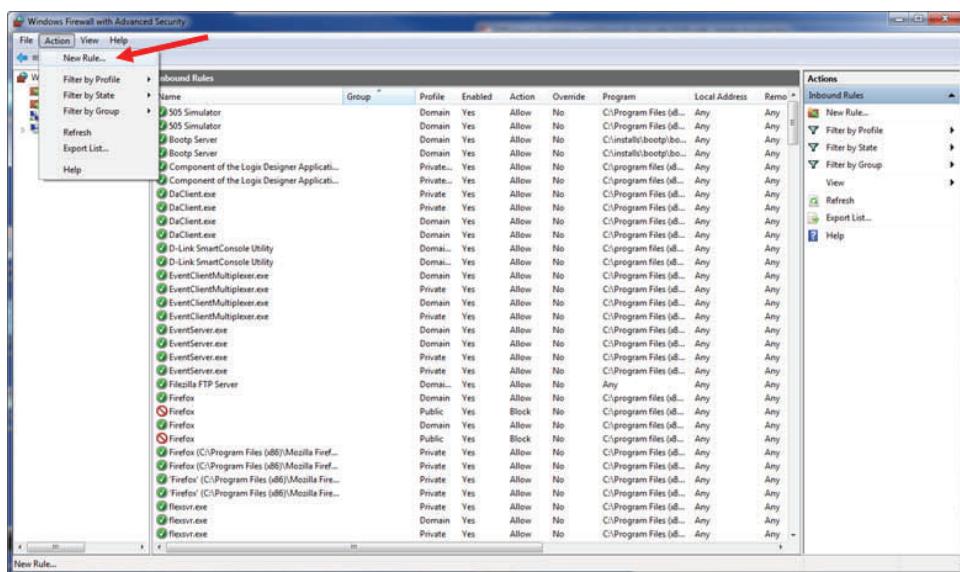
- b) Select ‘Advanced settings’:



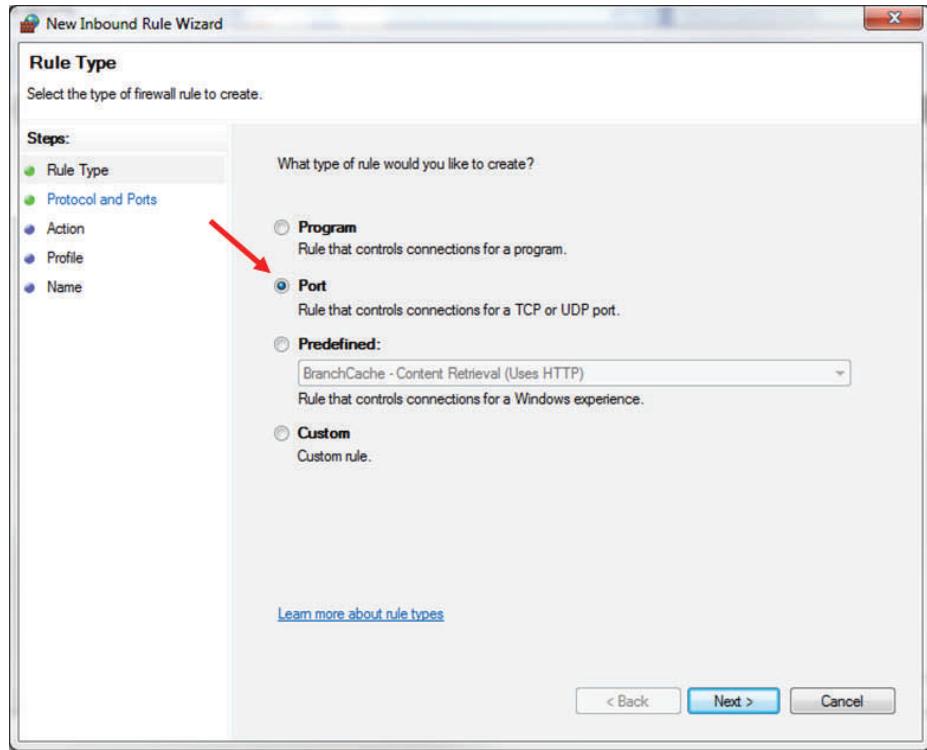
c) Choose ‘Inbound Rules’:



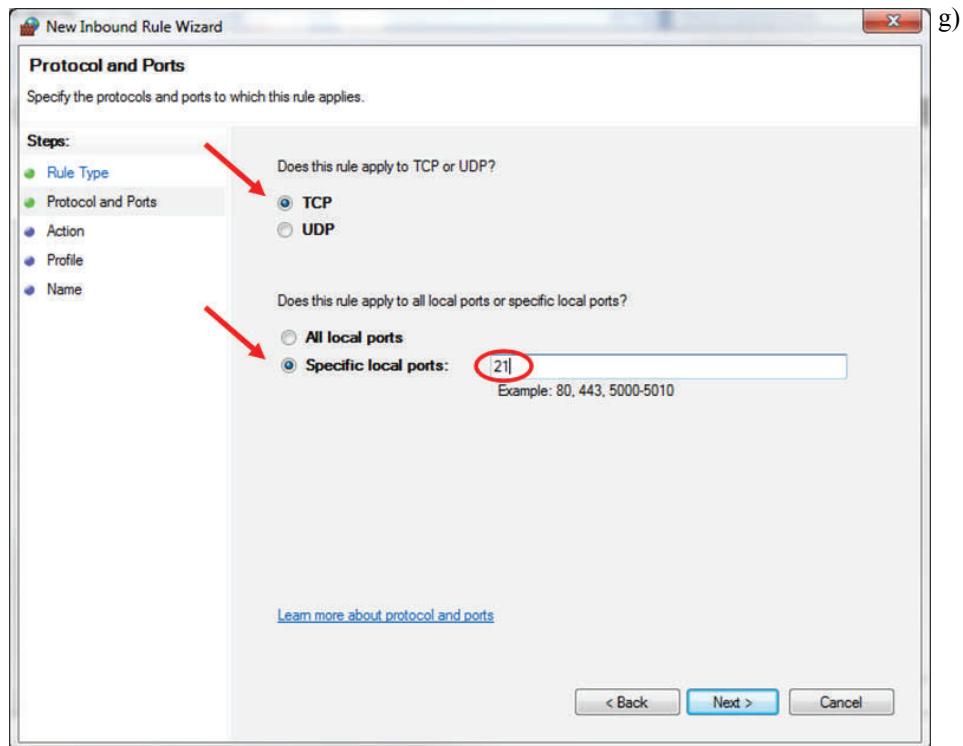
d) Select [New Rule...] from ‘Action’ menu.



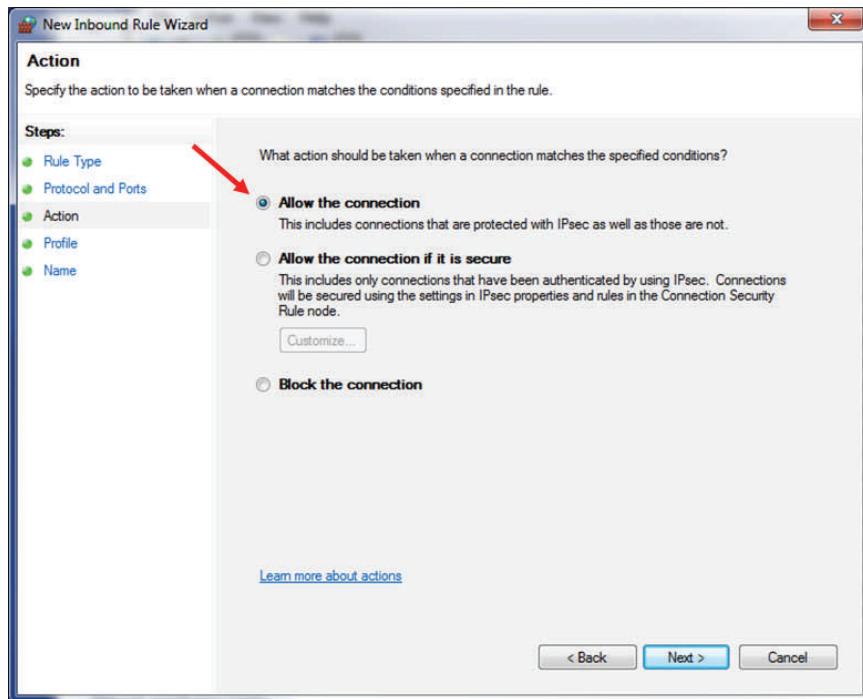
e) Create new ‘Port’ rule:



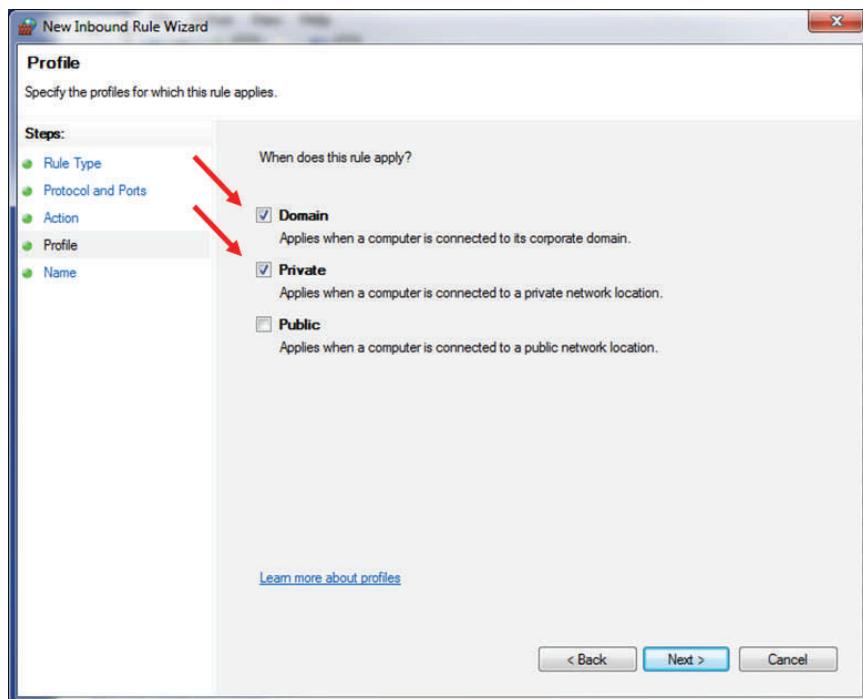
f) Rule applies to ‘TCP’ connections on Local Port specified in Section 3b. Default is Port 21.



- g) Specify type of connection to be supported.  
 The ACP1 does not support IPsec protocol suite. Select ‘Allow the connection’.

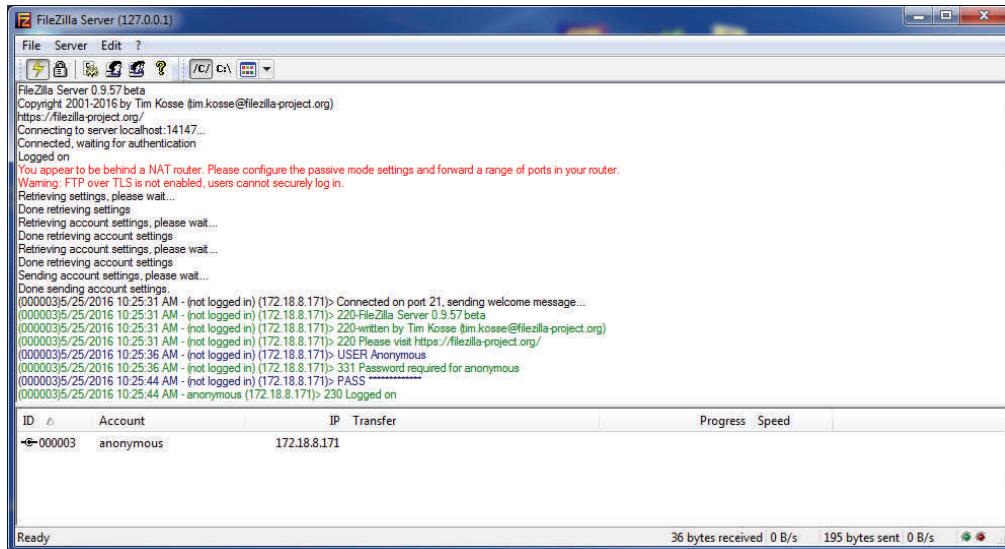


- f) Choose the Network Profile settings where FTP connections are allowed.  
 Connections from ‘Public’ networks should be permitted only when absolutely necessary.



## The FileZilla FTP Server is now ready to use.

A screenshot showing the FTP Server log when user ‘Anonymous’ has successfully logged in:



The screenshot shows the FileZilla Server interface. The title bar reads "FileZilla Server (127.0.0.1)". The main window displays a log of server events and a session table.

**Log (Top Left):**

```
FileZilla Server 0.9.57 beta
Copyright 2001-2016 by Tim Kosse (tim.kosse@filezilla-project.org)
https://filezilla-project.org/
Connecting to server localhost:14147...
Connected, waiting for authentication
Logged on
You appear to be behind a NAT router. Please configure the passive mode settings and forward a range of ports in your router.
Warning: FTP over TLS is not enabled, users cannot securely log in.
Retrieving settings, please wait...
Done retrieving settings
Retrieving account settings, please wait...
Done retrieving account settings
Retrieving account settings, please wait...
Done retrieving account settings
Sending account settings, please wait...
Done sending account settings
(0000035/25/2016 10:25:31 AM - [not logged in] (172.18.8.171))> Connected on port 21, sending welcome message...
(0000035/25/2016 10:25:31 AM - [not logged in] (172.18.8.171))> 220 FileZilla Server 0.9.57 beta
(0000035/25/2016 10:25:31 AM - [not logged in] (172.18.8.171))> 220-written by Tim Kosse (tim.kosse@filezilla-project.org)
(0000035/25/2016 10:25:31 AM - [not logged in] (172.18.8.171))> 220 Please visit https://filezilla-project.org/
(0000035/25/2016 10:25:36 AM - [not logged in] (172.18.8.171))> USER Anonymous
(0000035/25/2016 10:25:36 AM - [not logged in] (172.18.8.171))> 331 Password required for anonymous
(0000035/25/2016 10:25:44 AM - [not logged in] (172.18.8.171))> PASS *****
(0000035/25/2016 10:25:44 AM - anonymous (172.18.8.171))> 230 Logged on
```

**Session Table (Bottom Left):**

ID	Account	IP	Transfer	Progress	Speed
000003	anonymous	172.18.8.171			

**Status Bar (Bottom Right):**

Ready      36 bytes received 0 B/s      195 bytes sent 0 B/s