CIMCO

FTP server

for Windows 95/98/NT, 2000, XP and Vista

Version 2.1

CIMCO Integration

Introduction

CIMCO FTP Server is an FTP server developed for Windows NT and Windows 95/98. The server was developed with the following goals in mind:

- Compact implementation.
- Complete protocol implementation.
- Background operation.

The CIMCO FTP Server is very small, yet powerful, supporting all FTP requirements as of today. In contrast to other FTP servers, the intention with this server is that it should be started in the background. The server only needs a minimal initial configuration using a configuration tool, after which the server operates smoothly by itself in the background.

Error conditions during startup are reported using message boxes on the desktop. When the server is running, all other messages are written to an optional log file. The level of information for the log may be specified in the configuration tool.

Installation
If the installation program does not auto-start, run CIMCO_FTP_2xxxx.exe from the CD-ROM. Follow the guidelines suggested by the installation program.

Configuration.
FTP Server Settings

After installing CIMCO FTP, an FTP icon (shown right)
will be present on the Desktop.
Click the icon. The CIMCO FTP configuration main screen will appear:
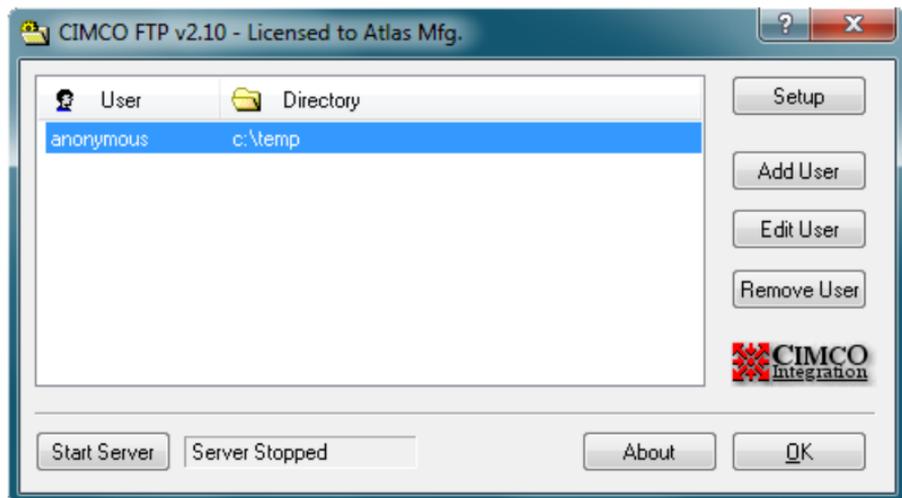
To set up the FTP server, click Setup.
The FTP Server settings window will appear:
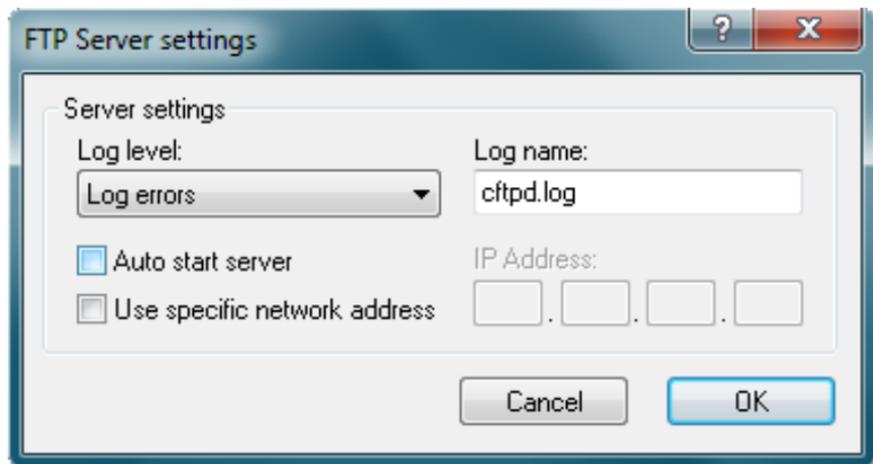
Log level, Log name

Most prominent in this window are the Log level and Log name fields.
In the field Log level you can choose if you want the logging of all activity, only errors, or no logging at all. If chosen, the logging information will be written to the log file specified in the Log name field. The log file will be placed in the CIMCO FTP program directory.

Auto start server
Check this box if you want the FTP Server to start when the computer is rebooted.

Use specific network address
If the server has multiple network adapters and you want it to use only one, this is where you specify which one.

Add new user

FTP user setup (user name and password must be as set on the CNC machine)

In this part of the setup program you specify the logon and passwords of clients. Default is: user 'anonymous', password (none), and User directory 'c:\temp'. Can be modified or deleted.

Adding a user: Enter the user information into the 'User name', 'Password' and 'User directory' fields, select System type, and click the 'OK' button. The user information will then be added as a new line to the list of users.

System type
Defines what type of server is reported to clients connecting to the FTP server - this affects the way the server will transmit directory listings. The field has 4 settings: UNIX, WINDOWS, OKUMA or UNKNOWN.
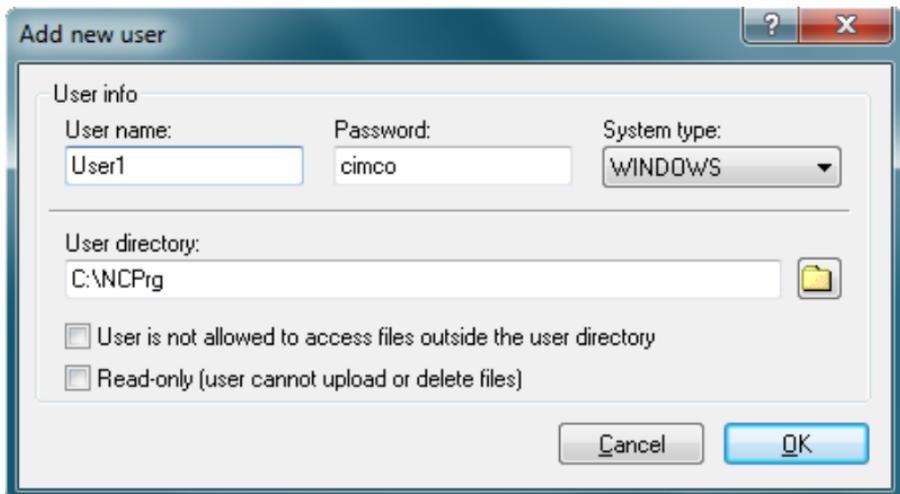
User directory

If you select a nonexistent directory as home directory, you will be prompted to create the directory. Answering 'Yes' will create a new directory with the home directory's name, answering 'No' will not create directory, and answering 'Cancel' will cancel the add or modify operation.

The checkbox 'User is not allowed to access files outside the user directory' can be checked to limit the user to transferring files to/from the User directory and its sub-directories.
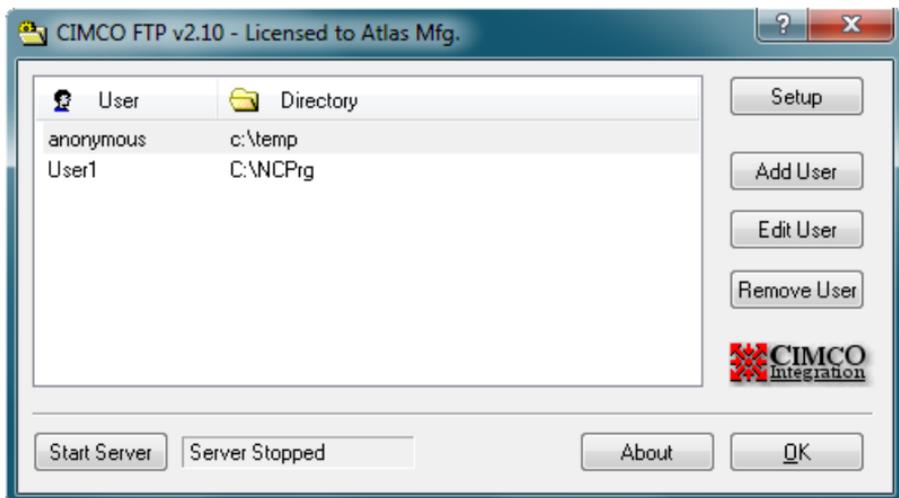
Editing an existing user: Select the user to be edited from the list of users. Click the 'Edit user' button. Make the desired modifications, and click the 'OK' button. Information on that user present on the list of users will then change.

Removing an existing user: Select the user to be removed from the list of users. Click the 'Remove' button. That user will then be removed from the list of users.

If the FTP server is not started, and you want to start it immediately, you can click the 'Start Server' button.

Notes

How to use against a CNC control.

The CIMCO FTP server can with great success be used as counterpart for CNC communications requiring an FTP server as remote part. The minimal runtime requirements will allow existing PCs with network connections to be used, eliminating the need for additional new hardware.

In order to use a Windows 95/98 or Windows NT system, you must have:

- A standard network card installed.
- TCP/IP networking installed.

The CIMCO FTP server is configured with a user and the users home directory (using the configuration tool as described above).

On the CNC control, you specify the PC host as CNC server and adjust the directory display method according to the 'System type' in the configuration tool on the PC.
If you are used to configuring the CNC control, the network is operating properly, and you know where to place files, the whole operation will take less than an hour!

Using the FTP server for Deckel Dialog 112 controls.

The following describes the exact configuration for the control above. It is assumed that the control is operating properly and that the FTP server is installed correctly.

The CIMCO FTP server configuration.
The following options are the mandatory settings for the control.

Use the configuration tool to:

> Set 'System type' to 'UNKNOWN'.
>
> Add a FTP user:
>
> > 'User name' = DMC70V
> > 'Password' = DMC70V
> > 'Home directory' = c:\ncprog

All other parameters may be set as desired and required for your environment.

The Deckel Dialog 112 parameters.

The control allows up to 4 remote server configurations. Here we assume that the first one is used. The two sections below matches the ones found on the control.

Ethernet parameters
Address (TCP/IP address of the control)
Gateway (empty)
Connect 0
Timeout 20
Host 1

Host parameter no. 1
Host name (TCP/IP address of your PC FTP server)
User name DMC70V
Password DMC70V
Directory /ncprog
Address (TCP/IP address of your PC FTP server)
Host type 02
User ID 0000
Group ID 0000
Column 0011
Line 0000

Configuration of Dialog 112 with Ethernet.
Cimco FTP version 2

Host parameters on the Dialog 112:

#11 Host name Any text to identify the host by NC

#12 User name Set to an FTP user of the Cimco FTP server

#13 Password Password for the user

#14 Directory Set this to the directory of server, where the nc-programs are.

#15 Address The IP-address of the Cimco FTP server

#16 Host Type Set this to 0

#17 User id Set this to 0

#18 Group id Set this to 0

#19 File column This depend on the setting of "System Type" in the
 CIMCO FTP Configuration.
 System Type Setting
 UNIX 5465
 UNKNOWN 0011
 WINNT4 3950

#20 Invalid line This depend on the setting of "System Type" in the
CIMCO FTP configuration.
System Type Setting
UNIX 0000
UNKNOWN 0200
WINNT4 0200

To debug the configuration, set the Log Level in the CIMCO FTP configuration to EXTREME.
Attempt an connection.
Then check in the C:\CIMCO\FTP\CFTPD.LOG file for details.

Below is an printout of an typical log in EXTREME mode.
Every event is being logged.

```
! 27/02/01  07:12:19  Logging started.
  27/02/01  07:12:19  (Listener) Listener started, listing on IP 0.0.0.0
  27/02/01  07:23:00  (Listener) New incomming connection from 127.0.0.1
  27/02/01  07:23:00  (127.0.0.1) S->C: 220- CIMCO FTP Server v1.4.4
  27/02/01  07:23:00  (127.0.0.1) S->C: 220  (c) 1998-2000 CIMCO Integration, all rights reserved
  27/02/01  07:23:02  (127.0.0.1) C->S: USER JPN
  27/02/01  07:23:02  (127.0.0.1) S->C: 331 User name okay, need password.
  27/02/01  07:23:04  (127.0.0.1) C->S: PASS D5VL
  27/02/01  07:23:04  (127.0.0.1) S->C: 230 User logged in, proceed.
  27/02/01  07:23:04  (127.0.0.1) Client logged in as 'JPN'.
  27/02/01  07:23:16  (127.0.0.1) C->S: CWD C:\NCPROG
  27/02/01  07:23:16  (127.0.0.1) S->C: 250 Requested file action okay, completed.
  27/02/01  07:23:18  (127.0.0.1) C->S: PORT 127,0,0,1,4,29
```

```
 27/02/01  07:23:18  (127.0.0.1) S->C: 200 Command okay.
 27/02/01  07:23:18  (127.0.0.1) C->S: LIST
 27/02/01  07:23:18  (127.0.0.1) S->C: 150 File status okay; about to open data
connection.
 27/02/01  07:23:18  (127.0.0.1) S->C: 226 Closing data connection.
 27/02/01  07:23:31  (127.0.0.1) C->S: PORT 127,0,0,1,4,30
 27/02/01  07:23:31  (127.0.0.1) S->C: 200 Command okay.
 27/02/01  07:23:31  (127.0.0.1) C->S: RETR 4711.NC
 27/02/01  07:23:31  (127.0.0.1) S->C: 150 File status okay; about to open data
connection.
 27/02/01  07:23:31  (127.0.0.1) Sending file to client (4711.NC).
 27/02/01  07:23:31  (127.0.0.1) S->C: 226 Closing data connection.
 27/02/01  07:23:31  (127.0.0.1) 4711.NC transmitted successfully.
 27/02/01  07:23:33  (127.0.0.1) C->S: QUIT
 27/02/01  07:23:33  (127.0.0.1) S->C: 221 Service closing control connection.
 27/02/01  07:23:33  (127.0.0.1) Client is terminated.
```

FTP server limitations.

This implementation allows up to 32 clients using the service simultaneously and up to 64 different users.

Protocol implementation.

The CIMCO FTP server daemon is implemented as described in the following standards:

	RFC 959
File Transfer Protocol (FTP)	*RFC 775*
Directory oriented FTP commands	*RFC 1123*
Requirements for Internet Hosts-Application and Support	

In addition to these standards, the low-level standards for TCP/IP are supported.

Notes

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