

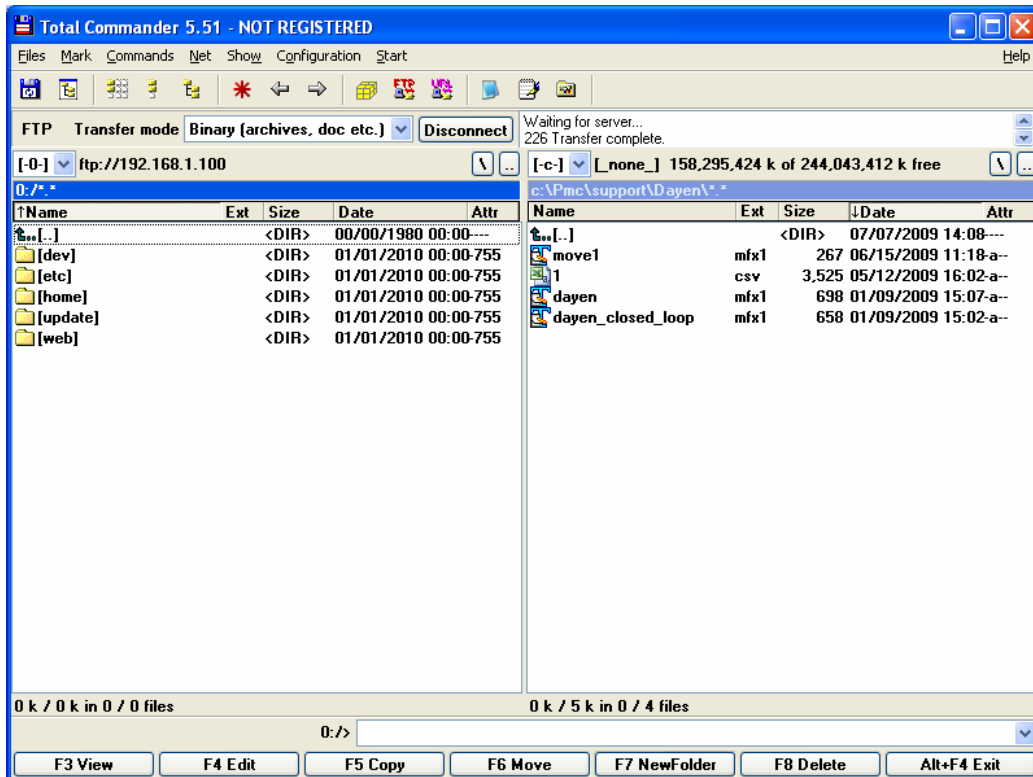
Title: MultiFlex ETH 1000 Series FTP File Transfer Support Utilities
Products(s): All MultiFlex ETH 1000 Series Ethernet motion controllers
Keywords: MultiFlex ETH, Ethernet, FTP, MCCL, G-code, Macro
ID#: TN1075
Date: Feb. 12, 2010

Summary

PMC's MultiFlex ETH 1000 Series motion controllers provide a set of convenient tools for supporting the processing of large files that have been transferred to the controller via FTP such as MCCL macro definition files and G-code configuration and part files.

More Information

The MultiFlex ETH 1000 Series controllers feature an embedded FTP server for file transfer to and from the controller. It can be accessed by a remote FTP client such as Filezilla (no username / no password required) or by connecting to <ftp://192.168.1.100>.



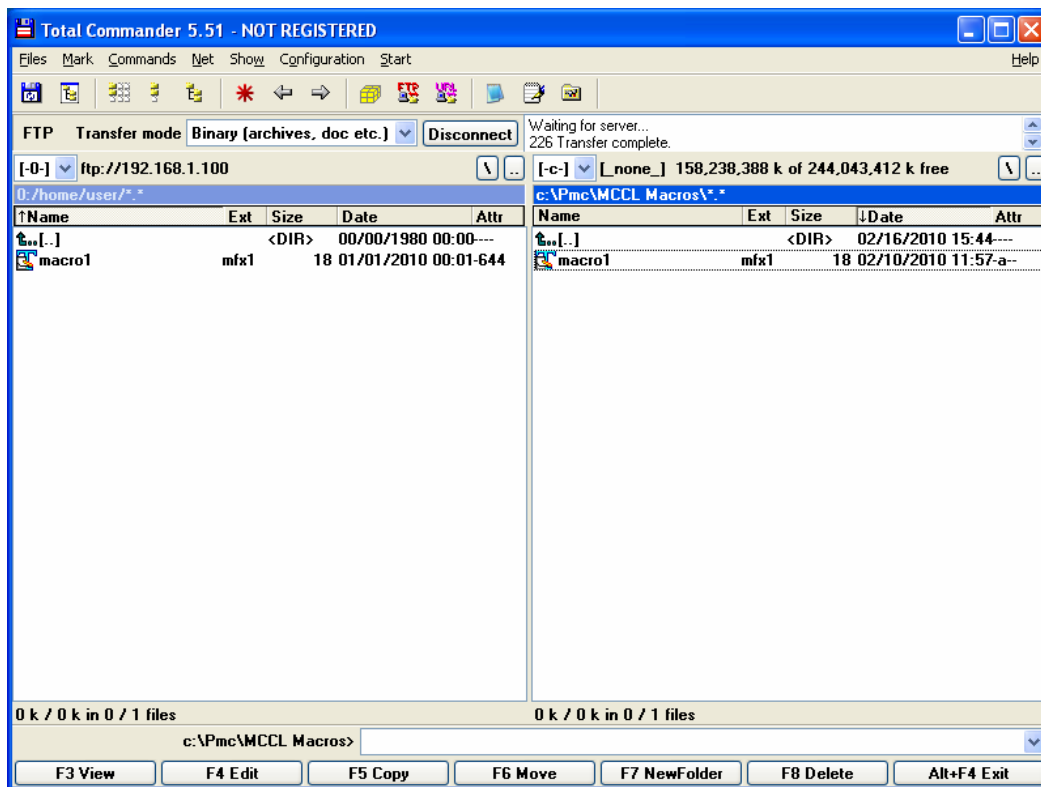
In the previous figure the left pane shows the controller's embedded file system with several sub-directories. The target of all FTP file transfers related to processing of MCCL macro files and G-code configuration, tool and part files is

/home/user

Files can be transferred by drop-and drag with a graphical FTP client or by using the PUT command using a command line client.

MCCL Macro File Processing Procedure

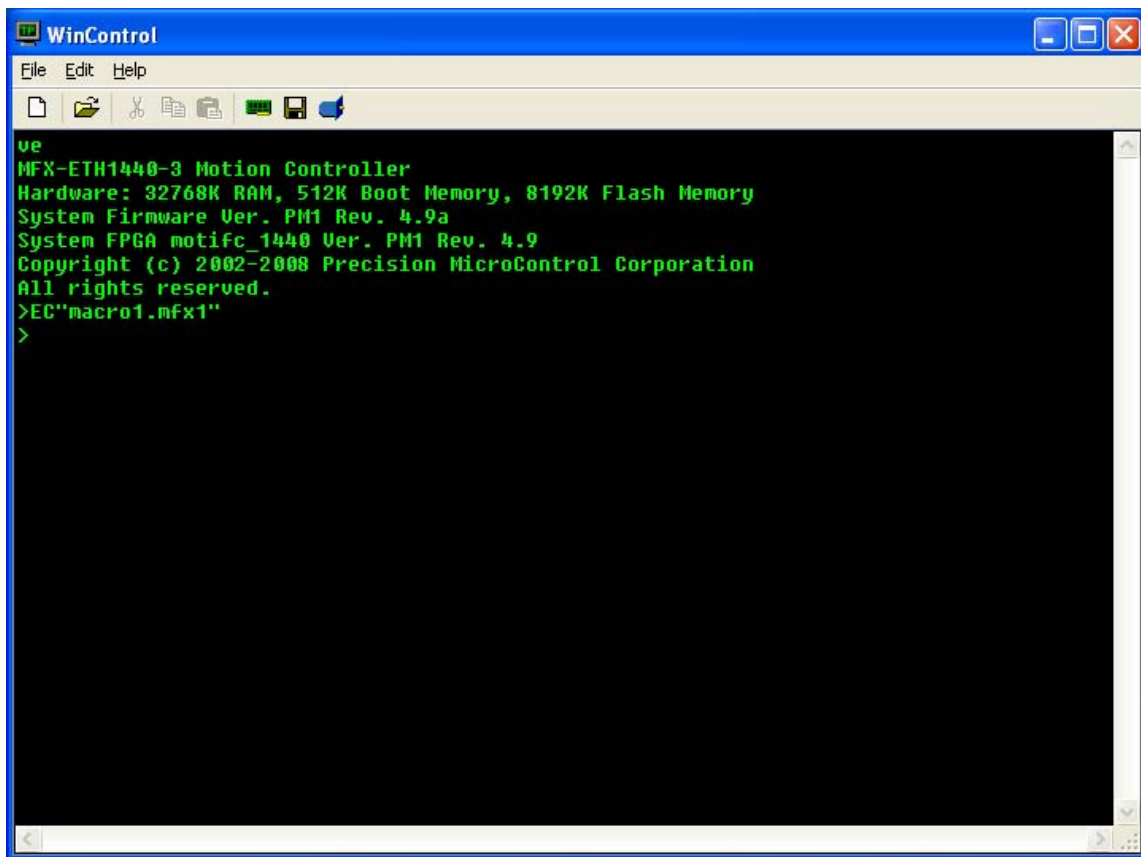
The following figure illustrates a typical file transfer of an MCCL macro file named macro1.mfx1 located on the host computer to the Multiflex ETH controller.



Following the FTP transfer, the macro file will reside in the default directory, appearing to the operating system as /home/user/macro1.mfx1. In order to execute the contents of the macro command file, the ExecuteCommand (EC) MCCL command can be issued from a Telnet command line, such as WinControl, using the following syntax

EC"<filename>"

This is illustrated in the following figure.



Following this, all commands listed in the macro command file are sent through the command processor and are then available for use by the system.



G-code File Processing Procedure

The basic steps described in the previous section can be also be applied to G-code part files, configuration files, tool files and work files. After transferring these data files to the controller via FTP to the /home/user directory, the appropriate MCCL commands can be used to invoke the code:

- RUFn run part file
- RCFn run configuration file
- RWFn run work file
- RTFn run tool file

Note that these commands take integer file numbers as parameters so the files must be named appropriately when transferred to the controller.

Also note that the Multiflex ETH controller no longer supports ASCII interface transfer and deferred execution mode of these file types. Therefore, the following commands will not be recognized by the system:

- LO load file
- LOF load part file
- RUE run part file enable
- RCE run configuration file enable
- RWE run work file enable
- RTE run tool file enable