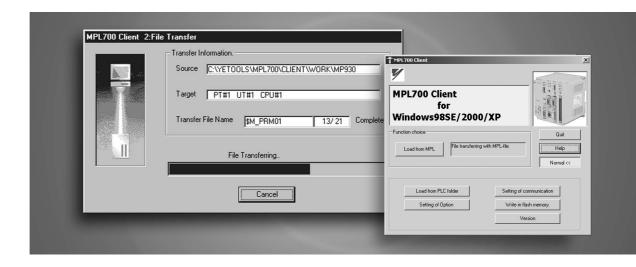
Machine Controller MP900/MP2000 Series MPLoader (Client) USER'S MANUAL

For Client





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About This Manual

- This manual describes how to install and operate the MPLoader Client Software, a simple loader software application for MP900/MP2000-series Machine Controllers. The main information provided in this manual is as follows:
 - · An overview of the MPLoader.
 - Installation method for the MPL700 Client.
 - Procedures for MPL700 Client screen operations.
- The MPLoader supports the following Machine Controllers.
 - MP920 Machine Controller
 - MP930 Machine Controller
 - MP940 Machine Controller
 - MP2100 Machine Controller
 - MP2200 Machine Controller
 - MP2300 Machine Controller
- Read this manual carefully to ensure the proper use of the MPLoader system. Also, keep this manual in a safe place so that it can be referred to whenever necessary.

Using This Manual

■ Intended Audience

This manual is intended for the following users.

- Those responsible for designing the MP900/MP2000 system
- Those responsible for making, inspecting, performing test operation for, and making adjustments to control panels or operation panels in which the MP900/MP2000 system is installed.
- Description of Technical Terms

In this manual, the following terms are defined as follows:

- MPLoader = General term for the MPLoader Software, a simple loader software application for MP900/MP2000-series Machine Controllers.
- MPL700 Server = MPLoader software used at the server end.
- MPL700 Client = MPLoader software used at the client end.
- PLC = Machine Controller
- MPE720 = Engineering tool for programming software

About the Software

■ Precautions

- This software is licensed for a single user. To use this software in other computers, purchase the version of this software that is designed for several users.
- This software is not to be copied or used for any purpose other than loading applications to MP900/MP2000-series Machine Controllers.
- Store the CD-ROMs containing the software in a safe place.
- This software is not to be decompiled, disassembled, or reverse engineered.
- This software is not to be given to, rent to, exchanged with, or otherwise released to a third party without the prior permission of Yaskawa Corporation.

■ Trademarks

- Windows, Windows 98SE, Windows 2000, and Windows XP are registered trademarks of Microsoft Corporation.
- Pentium is a registered trademark of Intel Corporation.
- Ethernet is a registered trademark of Xerox Corporation.
- Adobe and Acrobat are registered trademarks of Adobe Systems Incorporated.

Visual Aids

The following aids are used to indicate certain types of information for easier reference.



Indicates important information that should be memorized. Also indicates low-level precautions that, if not heeded, may cause an alarm to sound but will not result in the device being damaged.



Indicates supplemental information.

Related Manuals

■ Refer to the following related manuals as required.

Manual Name	Manual Number	Contents
MP900/MP2000 Series Machine Controller User's Manual Ladder Programming	SIEZ-C887-1.2	Describes the instructions used in MP900 ladder logic programming.
Machine Controller MP900/MP2000 Series User's Manual MPE720 Software for Programming Device	SIEPC88070005	Describes how to install and operate the MP900/MP2000 series programming system (MPE720).
MP900/MP2000 Series Machine Controller User's Manual Motion Programming	SIEZ-C887-1.3	Describes the motion programming language used for MP900 Machine Controllers.
MP920 Machine Controller User's Manual Design and Maintenance	SIEZ-C887-2.1	Describes the design and maintenance for the MP920 Machine Controller.
MP930 Machine Controller User's Manual Design and Maintenance	SIEZ-C887-1.1	Describes the design and maintenance for the MP930 Machine Controller.
MP940 Machine Controller User's Manual Design and Maintenance	SIEZ-C887-4.1	Describes the design and maintenance for the MP940 Machine Controller.
Machine Controller MP2100 User's Manual Design and Maintenance	SIEPC88070001	Describes the design and maintenance of the MP2100 Machine Controller.
Machine Controller MP2200 User's Manual	SIEPC88070014	Describes the design and maintenance of the MP2200 Machine Controller.
Machine Controller MP2300 Basic Module User's Manual	SIEPC88070003	Describes the design and maintenance of the MP2300 Basic Module.
MP900/MP2000 Series Machine Controller MPLoader (Server) User's Manual	SIEZ-C887-12.1	Describes the installation and operating procedures for the MPLoader (Server) Software, a simple loader software application for MP900 Machine Controllers.

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Overview

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1.1 MPLoader

1.1.1 Products

MPLoader is a software package for easily making changes to definition files, application programs, and register data for MP900/MP2000-series Machine Controllers, without using the MPE720.

The type of MPLoader differs depending on the number of personal computers that the MPLoader can be installed in legally.

Product	Туре	Licence
MPL 700 Client	CPMC-MPL700C	Licensed for single user
	CPMC-MPL700C-10	Licensed for 10 users
	CPMC-MPL700C-20	Licensed for 20 users

■ Functions

Loading Application data

- MPLoader can be used to load the compressed MAL files created using the MPE720 to the controller.
- MPLoader version 3.00 or later can be used to load the YMW project files created with MPE720 version 6 to the controller.
- MPLoader can be used to load data in a batch as a PLC (CPU) folder in the MPE720.
- MPLoader can be used to back up any application that has already been loaded, depending on the settings that were used when the data was loaded to the controller.
- MPLoader can be used to load the compressed MPL files created using in the MPL700 Server to the controller.

Flash Memory Save

• With MPL700 Client, data can be saved in the flash memory.

1.1.2 Operating Environment

MPLoader requires the following system configuration.

Item	Specification
CPU	Pentium II 400 MHz or better
RAM	128 Mbytes min.
Hard disk	The following disk space is required for installation. • MPL700C Software installation: 30 Mbytes
Resolution	800×600 min.
Operating system	Windows 2000, or Windows XP

1.1.3 Applicable Models and Communications Format

The MPL700 Client supports the following models and communications formats:

- Models: MP900/MP2000-series Controllers (not including MP910)
- Communications: RS-232C Serial communications, Ethernet (not including relay or duplex), and PCI bus (for the MP2100/MP2100M)

1.2 MPL700 Functions

1.2.1 Functions

This software is a tool for smooth, easy loading of updated application programs to the enduser environment without using the MPE720. It does not have the MPE720 functions for system definitions, programming, and monitoring.

The application provider sends the application to the end user as a compressed file. The end user can load the application to the required Controller from the MPL700 Software by specifying the compressed file received.

1.2.2 Overall Flow

The flow of data is shown below up to the point where the updated application program is loaded to the end-user environment (CPU Module) using the MPL700 Client.

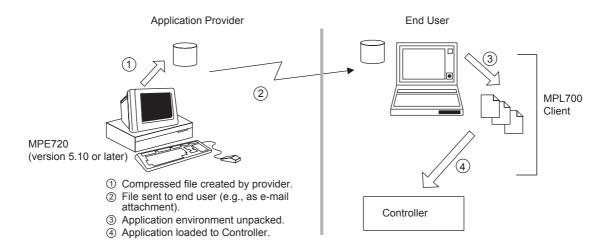


Fig. 1.1 Overall Flow

①: Files are compressed with the Compress and Transfer function of the MPE720 version 5.10 or later. MPL700 Server has the same function.

For information on compressing files, refer to *B Compressing Files with MPE720*. MPLoader version 3.00 or later can transfer the YMW project files created using the MPE720 version 6.

For information on creating YMW files, refer to C Transfer Setting for Project Files Created Using MPE720 version 6.

③ and ④: MPL700 Client is used to load the compressed files to the MP900/MP2000 Machine Controllers.



The file transfer in stage 2 is performed, for example, via a network or using a removable disk and is not supported by the MPL700 Software.

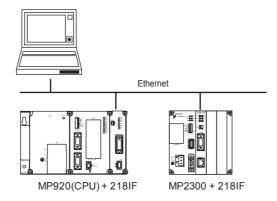
1.2.3 Connection Methods

The following illustrations show the connection methods for the MP900/MP2000-series Machine Controllers.

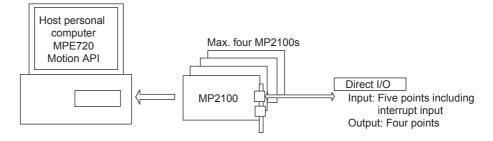
■ One-to-one Serial Connection



■ Ethernet Connection



■ PCI-bus Connection to MP2100



1.2.4 Software Functions

This section describes the functions of the MPL700 Client.

■ List of MPL700 Client Functions

Function	Details
Environment unpacking	Unpack the files (.MPL and .MAL) created with the MPE720 or the MPL700 Server and create an environment for loading to the Controller.
Loading informa- tion display	Display the files to be loaded as a list based on the index file.
Load ^{*1}	Perform transfer processing for the files specified with the index file.
Backup	Dump and back up the Controller environment prior to loading.
Log-on	Automatically log on using the information specified at the server.
PLC type check	Checks the loading environments and the types of PLC connected.
PLC selection	Select the target PLC if there is more than one PLC connected.
Communications format selection	Select Serial, Ethernet, or MP2100.
CPU operation	Send a command to stop the CPU when loading.
Writing to flash	Write to flash memory.
CPU folder data transfer*2	Function for transferring all data from CPU folders together.

- * 1. The MPE720 does not have to be installed in the environment where the MPL700 Client software is used.
- * 2. The data loading methods for the MPL700 Client are as follows.

Method	Provider	File Provided	Transfer Method	Functional Restrictions
1	Compressed file	Compressed files created in the MPE720 PLC environment (.MPL and .MAL)	Batch/ individual	-
2	CPU folder data	PLC folder transferred from hard disk to floppy disk with MPE720, or the entire PLC folder is copied to another storage medium	Batch	No display of transfer data information
3	YMW file	Project files created using the MPE720 version 6	Batch/ individual	-

The following diagram shows the flow of data between the server and the client in two methods of transferring data.

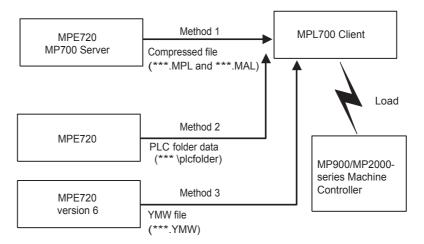


Fig. 1.2 Server-Client Transfer Methods and Flow of Data

2

Installation

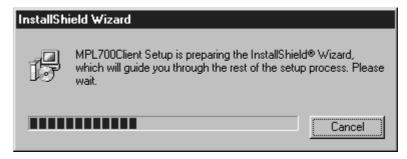
This chapter explains how to install the MPL700 Client.

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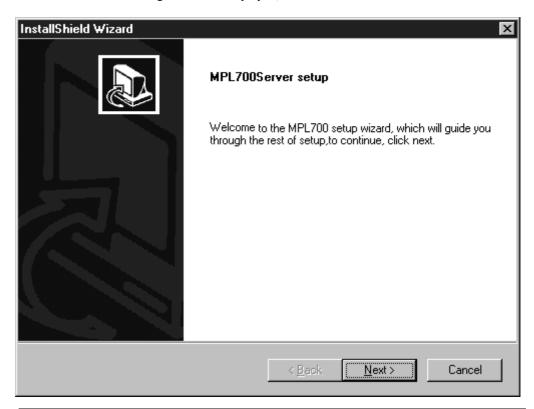
2.1 Installation Procedure

Insert the MPL700 Client's CD-ROM into the computer's CD-ROM drive and follow the procedure given below.

Start up SETUREXE from the installation disk.
 The window shown below will be displayed along with the MPL700 Client logo. Wait until the progress indicator shows that 100 % of the setup process has been completed.



2. When the following window is displayed, click the **Next** Button.

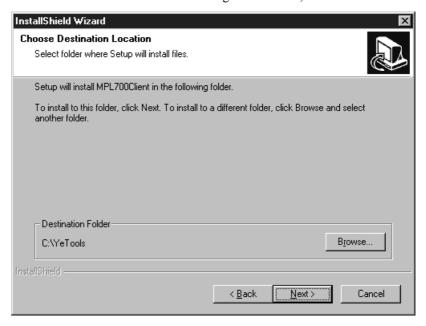




Click the Cancel Button to quit installation.

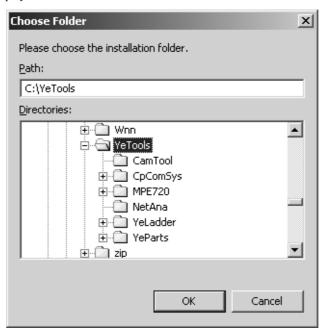
If the Cancel Button is clicked, a dialog box confirming termination is displayed.

3. A window for selecting the installation destination is displayed as shown below. Select the installation destination. After making the selection, click the **Next** Button.



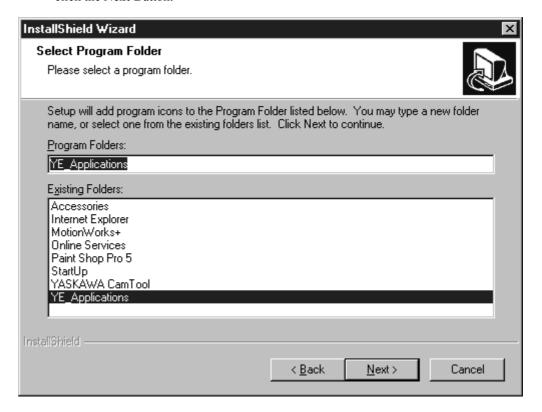


If the Browse Button is clicked, a dialog box for selecting the installation destination path is displayed.



Note: After inputting an installation path, click the **OK** Button to return to the previous window. Clicking the **Cancel** Button will clear the input path. If the required folder in the tree display section is clicked, the path to that folder will be set automatically.

- Click the **Back** Button to return to the previous window. Click the **Cancel** Button to terminate installation.
- If the **Cancel** Button is clicked, a dialog box confirming termination is displayed. After selecting the installation destination, click the **Next** Button.
- 4. When the following window is displayed, select the program folder. Either create a new folder or use an existing folder. The default selection is **YE_Applications**. Perform installation processing after selecting the program folder. After making the selection, click the **Next** Button.

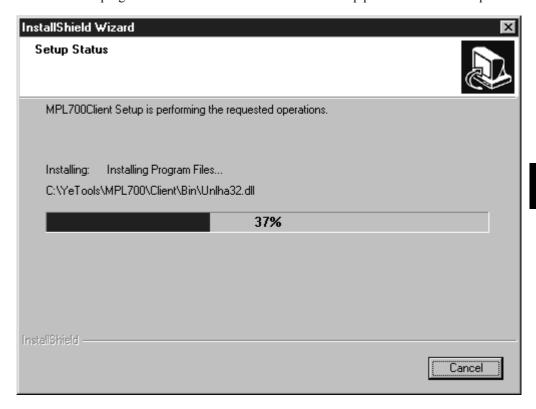




- Click the **Back** Button to return to the previous window.
- Click the **Cancel** Button to terminate installation.

 If the **Cancel** Button is clicked, a dialog box confirming termination is displayed.

5. Installation is executed. The following window is displayed during installation. Wait until the progress indicator shows that 100 % of the setup process has been completed.



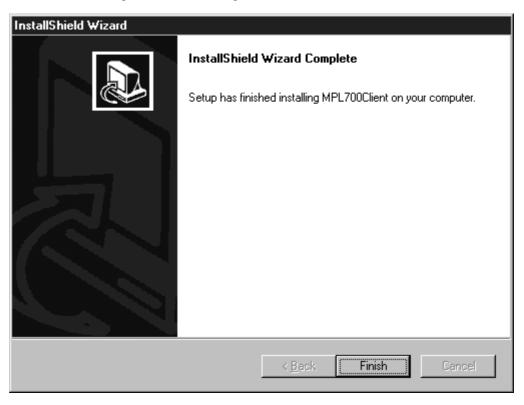


• Before the window shown above is displayed, the window shown below is displayed briefly. This window does not indicate that the program has stopped. The window will soon be replaced with the one shown above.



• If the Cancel Button is clicked, a dialog box confirming termination is displayed.

6. A window indicating that installation has been completed is displayed. Click the **Finish** Button to complete the installation procedure.





Before the window shown above is displayed, the window shown below, advising the user to
install Acrobat Reader, may be displayed. If it is, after completing the MPL700 Client installation
program, install Acrobat Reader from the MPL700 Client installation disk.

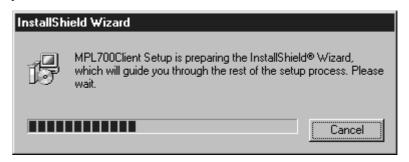


- For Acrobat Reader installation, double-click ar500eng.exe in the Manual-Reader folder of the MPL700 Client's CD-ROM, on the Windows Explorer.
- For details on how to use Acrobat Reader, refer to the Acrobat Reader's online help.

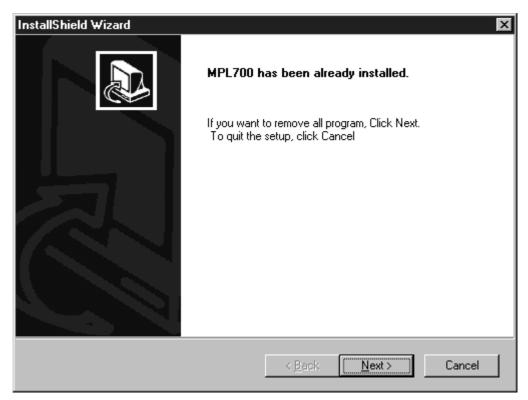
2.2 Uninstallation Procedure

Insert the MPL700 Client's CD-ROM into the CD-ROM drive of the computer with MPL700 Client installed and use the following procedure.

Start up SETUREXE from the installation disk.
 The window shown below will be displayed along with the MPL700 Client logo.
 Wait until the progress indicator shows that 100 % of the setup process has been completed.



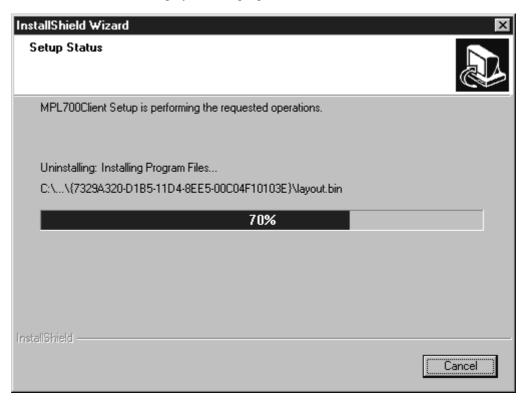
2. When the following window is displayed, click the **Next** Button.





Click the **Cancel** Button to terminate the uninstallation procedure. If the **Cancel** Button is clicked, a dialog box confirming termination is displayed.

3. The following window is displayed and uninstallation is executed. The state of progress of uninstallation is displayed in the progress bar.





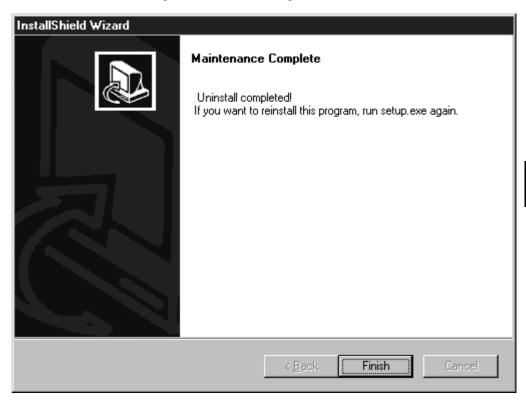
Click the Cancel Button to cancel the uninstallation procedure.

If the Cancel Button is clicked, a dialog box confirming termination is displayed.

IMPORTANT

If the uninstallation procedure is cancelled before completion, the MPL700 Client icon may remain in the program folder. MPL700 Client operation, however, cannot be guaranteed in this state. To use MPL700 Client, repeat the uninstallation procedure until completion, and then re-install the MPL700 Client.

4. A window indicating completion of the uninstallation procedure is displayed. Click the **Finish** Button to complete the uninstallation procedure.



Starting and Screen Operations

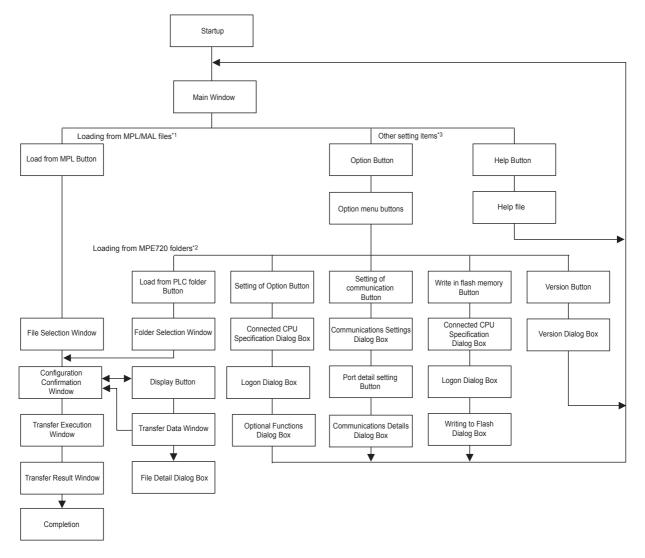
This chapter explains how to start up the MPL700 Client and perform screen operations.

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3.1 Startup and Main Window

3.1.1 Startup and Operating Procedures

The procedures required to go from starting to closing the MPL700 Client are explained below. The different processes performed with the MPL700 Client are shown in the following figure.



- * 1. This is the procedure used for loading data from MPL/MAL files. For details, refer to 3.2 Procedure for Loading MPL/MAL Data.
- * 2. This is the procedure used for loading data from installed MPE720 folders. For details, refer to 3.3 Procedure for Loading Specifed Folders.
- * 3. These are the procedures for setting other items. For details, refer to 3.4 Other Expansion Function Button Operations.

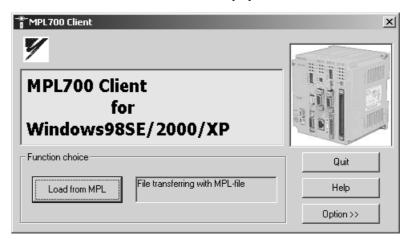
The method for loading files using window interface operations is explained in the following pages.

3.1.2 Main Window

Display Procedure

Use the following procedure to display the Main Window.

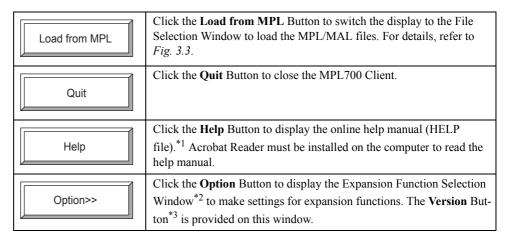
- 1. Open the Windows Start Menu.
- 2. Select YE_Application/MPL700 Client from the Start Menu.
- 3. The MPL700 Client's Main Window is displayed.



Click the buttons displayed in the window to perform the corresponding operation.

■ Functions of the Buttons

The **Load from MPL** Button and other buttons for detailed settings are displayed.



* 1. To view the HELP file, Acrobat Reader must already be installed on the computer. If required, Acrobat Reader can be installed from the MPL700 Client's installation CD-ROM. If Acrobat Reader is not installed, the dialog box shown below will be displayed. Click the **OK** Button of this dialog box to return to the Main Window.

3.1.2 Main Window

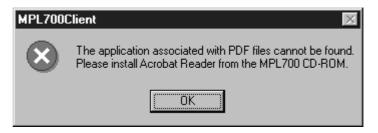
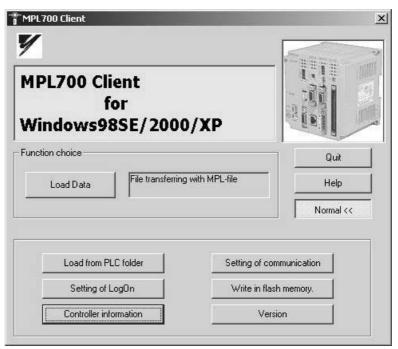


Fig. 3.1 Dialog Box prompting Acrobat Reader installation

* 2. The Expansion Function Selection Window is displayed by clicking the **Option** Button. For details on the **Load from PLC folder** Button, refer to 3.3 Procedure for Loading Specifed Folders. For details on other buttons, refer to 3.4 Other Expansion Function Button Operations.



* 3. The Version Dialog Box is displayed by clicking the **Version** Button. The version of the MPL700 Client Software is displayed. Click the **OK** Button of this dialog box to return to the Main Window.

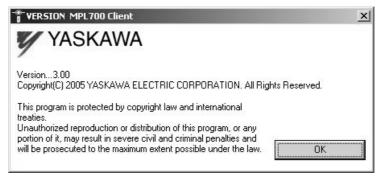


Fig. 3.2 Dialog Box Version Information about MPL700 client

3.2 Procedure for Loading MPL/MAL Data

The procedure for loading MPL/MAL files created with the MPE720 or the MPL700 Server to the Controller is explained below in the order in which the relevant windows are displayed. The procedure for loading data from MPE720 folders is described in 3.3 Procedure for Loading Specifed Folders. Settings other than those for loading data are described in 3.4 Other Expansion Function Button Operations.

3.2.1 Overview of Loading Procedure

MPL/MAL data is loaded according to the following procedure.

- 1. Click the Load from MPL Button from the Main Window.
- 2. The display will switch to the File Selection Window. Specify the file to be read.
- 3. Click the **Open** Button.
- 4. The display will switch to the Configuration Confirmation Window. To view the transfer data, click the **Display** Button. (If viewing the transfer data is not necessary, go to step 7.)
- The display will switch to the Transfer Data Window. To view the file details, click the
 Detail Button. (Click the Close Button to return to the Configuration Confirmation
 Window. Go to step 7.)
- 6. The display will switch to the File Detail Dialog Box. Confirm the displayed contents. (Click the Close Button to return to the Transfer Data Window, and then click the Close Button from this window to return to the Configuration Confirmation Window.)
- 7. Click the **Transfer** Button from the Configuration Confirmation Window to start loading.
- 8. The display will switch to the Transfer Execution Window.
- 9. When transfer is completed, the transfer result is displayed.
- 10. Finish the procedure.

The display contents and operations for the above steps are explained in order below.

3.2.2 File Selection Window

■ Display Procedure

Use the following procedure to display the File Selection Window (used to open files).

- 1. Click the Load from MPL Button from the Main Window.
- 2. The following File Selection Window is displayed.

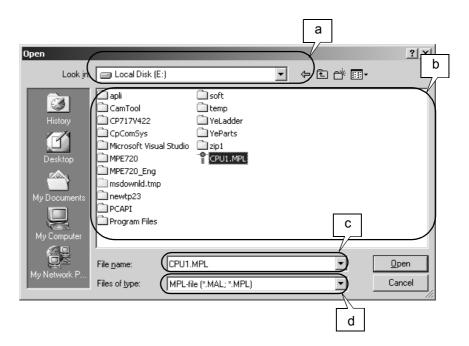


Fig. 3.3 File Selection Window



The above window is the window displayed when using the MPL700 Client on Windows 98. Parts of the window will vary depending on the operating system. The display contents, however, will be the same.

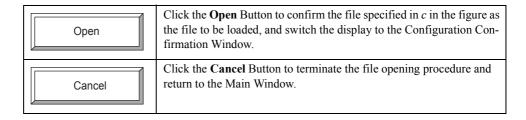
Click the buttons displayed in the window to perform the corresponding operation. The displayed contents and the functions of the buttons are explained below.

■ Display Contents

Contents and operations for the places indicated in the window are explained below.

Symbol	Details
а	Displays the path for the currently displayed folder.
b	Lists the files in the currently displayed folder. (Only MPL/MAL files are displayed.)
С	Displays the MPL/MAL file for which reading is specified.
d	Displays the type of file displayed (MPL/MAL files only).

■ Functions of the Buttons



■ Operating Procedure

Use the following procedure to specify the MPL/MAL file to be loaded and switch windows.

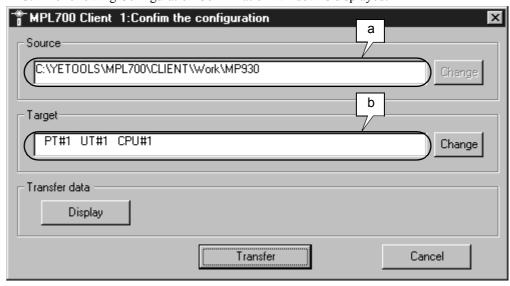
- 1. Click the Load from MPL Button from the Main Window.
- 2. The display will switch to the File Selection Window. Display the folder containing the required MPL/MAL file, and select the required MPL/MAL file from those displayed.*
- 3. Click the **Open** Button with the required MPL/MAL file selected. The display will switch to the Configuration Confirmation Window.
 - * If the MPL/MAL file is not in the folder, click the **Cancel** Button to return to the Main Window, and click the **Quit** Button to close the MPL700 Client.

3.2.3 Configuration Confirmation Window

■ Display Procedure

Use the following procedure to display the Configuration Confirmation Window (used to confirm settings).

- 1. Click the Load from MPL Button from the Main Window.
- 2. The display will switch to the File Selection Window. Click the **Open** Button from the File Selection Window.
- 3. The following Configuration Confirmation Window is displayed.



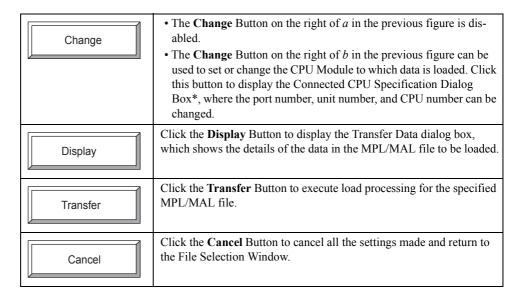
Click the buttons displayed in the window to perform the corresponding operation. The display contents and the functions of the buttons are explained below.

■ Display Contents

Contents and operations for the places indicated in the window are explained below.

Symbol	Details
а	Displays the path of the MPL/MAL file to be loaded.
b	Displays the specified target CPU.

■ Functions of the Buttons



* The following is the Connected CPU Specification Dialog Box.



Operating Procedure

Use the following procedure to confirm or change the settings for the MPL/MAL data to be loaded and the target CPU data.

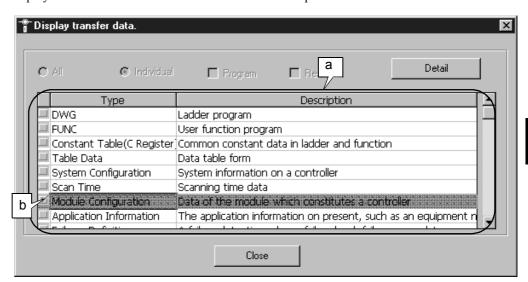
- 1. Click the Load from MPL Button from the Main Window.
- 2. The display will switch to the File Selection Window. Display the folder containing the required MPL/MAL file, and select the required MPL/MAL file from those displayed.
- 3. Click the **Open** Button with the required MPL/MAL file selected. The display will switch to the Configuration Confirmation Window.

■ Other Buttons

Details

Click the **Display** button to view the contents of the MPL/MAL file for loading as shown in the following figure.

Click the buttons displayed in the window to perform the corresponding operation. The display contents and the functions of the buttons are explained below.

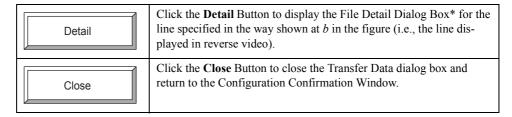


■ Display Contents

Contents and operations for the places indicated in the window are explained below.

Symbol	Details
а	Displays the contents of the data in the MPL/MAL file to be loaded.
b	The checkmarks indicate the data that will be loaded.

■ Functions of the Buttons



* The following is the File Detail Dialog Box. Click the **Close** Button to return to the Transfer Data Window.

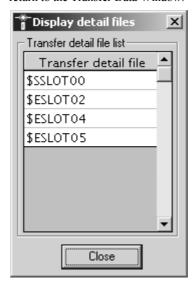


Fig. 3.4 File Detail Dialog Box

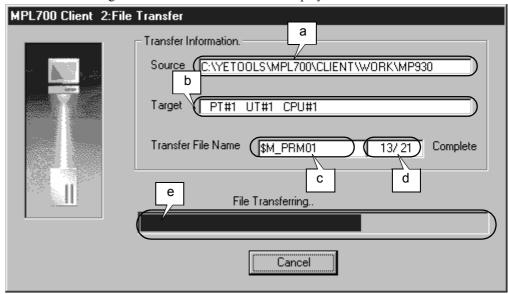
3.2.4 Transfer Execution Window

Unless file transfer is interrupted, there are no particular operations required with this window. When file transfer is completed, the display automatically switches to the Transfer Result Window. The Transfer Result Window is described in 3.2.5 Transfer Result Window.

■ Display Procedure

Use the following procedure to display the Transfer Execution Window.

- 1. Click the **Load from MPL** Button from the Main Window.
- 2. The display will switch to the File Selection Window. Click the **Open** Button from the File Selection Window.
- 3. The display will switch to the Configuration Confirmation Window. Click the **Transfer** Button from the Configuration Confirmation Window.



4. The following Transfer Execution Window is displayed.

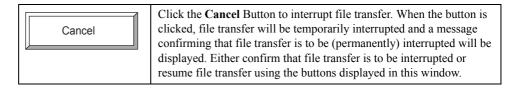
Click the buttons displayed in the window to perform the corresponding operation. The display contents and the functions of the buttons are explained below.

■ Display Contents

Contents and operations for the places indicated in the window are explained below.

Symbol	Details
а	Displays the path for the folder containing the files being transferred.
b	Displays the files' transfer destination.
С	Displays the name of the file currently being transferred.
d	Displays the number of files that have been transferred and the total number of files to transfer.
е	Displays the transfer progress of the files as a gauge.

■ Functions of the Buttons



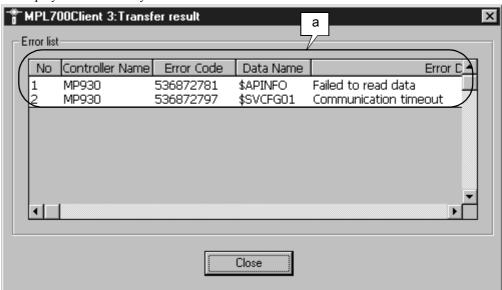
3.2.5 Transfer Result Window

After file transfer is completed, this window lists the errors that occurred during transfer. If transfer processing was performed normally then nothing will appear in the error list. Click the **Close** Button in this window to complete the MPL/MAL file transfer procedure and return to the Main Window.

■ Display Procedure

Use the following procedure to display the Transfer Result Window.

- 1. Click the **Load from MPL** Button from the Main Window.
- 2. The display will switch to the File Selection Window. Click the **Open** Button from the File Selection Window.
- 3. The display will switch to the Configuration Confirmation Window. Click the **Transfer** Button from the Configuration Confirmation Window.
- 4. The display will switch to the Transfer Execution Window.
 When data transfer is completed, the following Transfer Result Window will be displayed automatically.



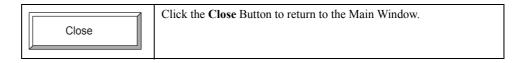
Click the buttons displayed in the window to perform the corresponding operation. The display contents and the functions of the buttons are explained below.

Display Contents

Contents and operations for the places indicated in the window are explained below.

Symbol	Details
а	Lists errors that occurred during transfer.

■ Functions of the Buttons



3.3 Procedure for Loading Specifed Folders

The procedure for loading MPE720 folders to the Controller is explained below in the order in which the relevant windows are displayed.

3.3.1 Overview of Loading Procedure

The window operations for loading MPE720 folders are as follows.

- Click the **Option** Button from the Main Window to display the expansion function buttons.
- 2. Click the Load from PLC folder Button to switch the display.
- 3. The display will switch to the Folder Selection Window. Specify the MPE720 data folder to be read and click the **OK** Button. (Refer to *3.3.2 Folder Selection Window.*)
- 4. The display will switch to the Configuration Confirmation Window. Click the **Transfer** Button to start loading. (Refer to *3.3.3 Configuration Confirmation Window.*)
- 5. The display will switch to the Transfer Execution Window.
- 6. When transfer is completed, the transfer result is displayed.
- 7. Complete the procedure by closing the window and returning to the Main Window.

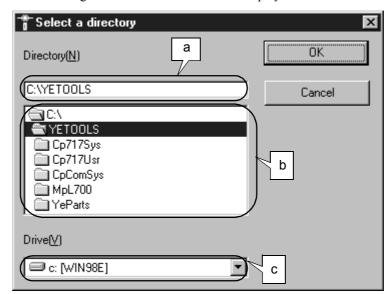
Note: The window displayed in step 4 is the same as the one displayed for transferring MPL/MAL files. There are some differences, however, in the operations used for this window. For details, refer to the relevant explanation in the following pages. Steps 5 and 6 are the same as for transferring MPL/MAL files and so explanations for these steps have been omitted.

3.3.2 Folder Selection Window

Display Procedure

Use the following procedure to display the Folder Selection Window.

- 1. Start the MPL700 Client.
- 2. The Main Window is displayed. Click the **Option** Button to display the expansion function buttons.
- 3. Click the Load from PLC folder Button.



4. The following Folder Selection Window is displayed.

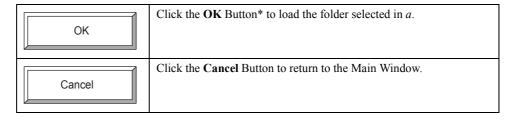
Click the buttons displayed in the window to perform the corresponding operation. The display contents and the functions of the buttons are explained below.

■ Display Contents

Contents and operations for the places indicated in the window are explained below.

Symbol	Details	
a Displays the path for the folder to be read.		
b Lists the folders so that they can be selected.		
c Displays the currently displayed drive.		

■ Functions of the Buttons



* The **OK** Button will not be enabled if an invalid folder is selected.

■ Operating Procedure

Use the following procedure in the Folder Selection Window.

- 1. Specify the folder (MPE720 data folder) to be read using a or b.
- 2. After specifying a folder, click the **OK** Button.
- 3. If a valid folder is selected, the display will switch to the Configuration Confirmation Window.



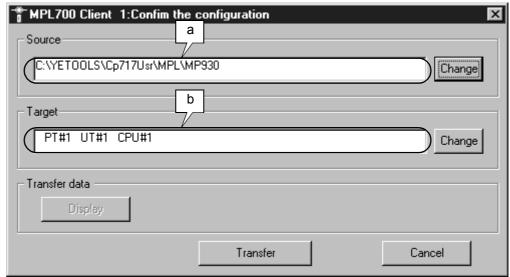
In step 2, if the specified folder is not a PLC folder created with MPE720, or a copy of one, the **OK** Button will not be enabled.

3.3.3 Configuration Confirmation Window

■ Display Procedure

Use the following procedure to display the Configuration Confirmation Window.

- 1. Click the **Option** Button from the Main Window to display the expansion function buttons
- 2. Click the Load from PLC folder Button.
- 3. The window will switch to the Folder Selection Window. Specify the folder to be read and click the **OK** Button.
- 4. The following Configuration Confirmation Window is displayed.



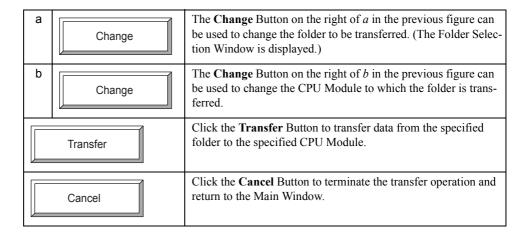
Click the buttons displayed in the window to perform the corresponding operation. The display contents and the functions of the buttons are explained below.

■ Display Contents

Contents and operations for the places indicated in the window are explained below.

Symbol Details	
a Displays the path of the MPE720 data folder to be transferred.	
b Displays the specified target CPU.	

■ Functions of the Buttons

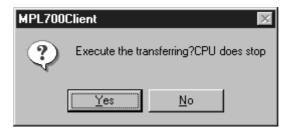


Note: When specifying the folder and loading the data, the **Display** Button in this window is disabled.

■ Operating Procedure

Use the following procedure in the Configuration Confirmation Window.

- 1. Individually confirm that the specifications for the CPU data to be transferred and the target CPU Module are correct. (If they are not correct, change the paths using the **Change** Buttons.)
- 2. After confirming that the paths are correct, click the **Transfer** Button.
- 3. A dialog box confirming that the connected CPU Module can be stopped is displayed. Click the **Yes** Button.



4. The following Logon Dialog Box for the connected CPU Module is displayed.

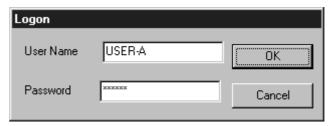


Fig. 3.5 Logon Dialog Box

5. Input the logon name and password, and click the **OK** Button. The display will switch to the Transfer Execution Window.

When file transfer is completed, the Transfer Execution Window will switch to the Transfer Result Window. The operations for these two windows are the same as for loading MPL/MAL files. For details, refer to 3.2.4 Transfer Execution Window and 3.2.5 Transfer Result Window.

3.4 Other Expansion Function Button Operations

The following expansion function buttons, which are displayed by clicking the **Option** Button in the Main Window, are explained below.

- Setting of communication Button
- Setting of Option Button
- Write in flash memory Button

The dialog boxes that are displayed when these buttons are clicked are described below.

3.4.1 Communications Settings Dialog Box

■ Display Procedure

Click the **Setting of communication** Button from the Main Window to display the following Communications Settings Dialog Box.

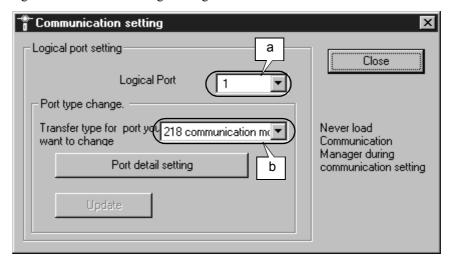


Fig. 3.6 Communications Settings Dialog Box

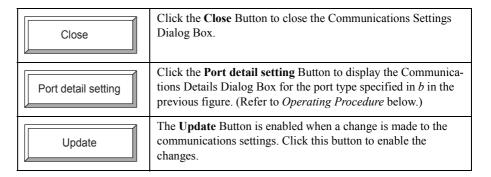
Click the buttons displayed in the dialog box to perform the corresponding operation. The display contents and the functions of the buttons are explained below.

■ Display Contents

Contents and operations for the places indicated in the dialog box are explained below.

Symbol	Symbol Details	
a Displays the currently set communications port No. (1 to 16).		
b	Displays the currently set port type. The following four settings are available: serial, 218 communication module, MP2100, and Nothing.	

■ Functions of the Buttons



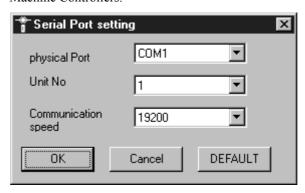
■ Operating Procedure

The detailed settings for each port type are explained below. There are two port types: serial and 218 communication module. The detailed settings, however, vary for each port according to the setting status. Each situation is explained below.

Serial Port Settings

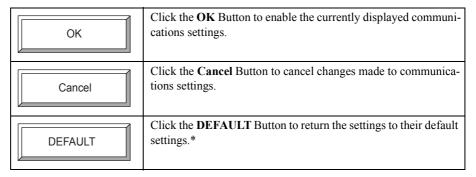
The Communications Details Dialog Box displayed when serial is specified as the port type is shown below. The display contents are as follows:

- Physical port: Select a port in the range COM1 to COM16. (Specify the communications port at the computer.)
- Unit number: Specify a unit number in the range 1 to 63. (The actual range that can be specified depends on the connected CPU Module.)
- Communications speed: Select a communications speed in the range 300 to 28,800.
 Select the communication speed that is available for the MP900/MP2000-series
 Machine Controllers.



3.4.1 Communications Settings Dialog Box

• Functions of the Buttons

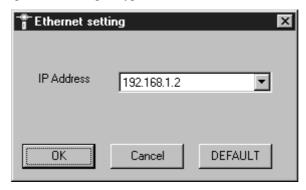


* The default settings are as follows.

Physical port: COM1; Unit number: 1; Communications speed: 19,200

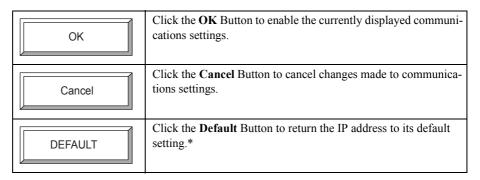
Ethernet Settings

The Communications Details Dialog Box displayed when 218 communications module is specified as the port type is shown below.



Set the IP address for Ethernet in this dialog box.

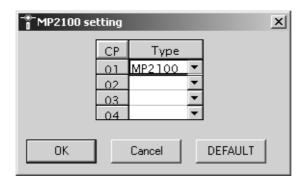
• Functions of the Buttons



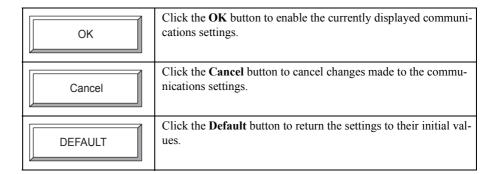
* The default IP address is 192.168.1.2.

MP2100 Settings

The Communication Details Dialog Box that is displayed when the MP2100 is the port type is shown here.



Select the CP number of the MP2100 in this dialog box.



3.4.2 Setting of Option Dialog Box

The connected CPU can be run or stopped from the Optional Functions Dialog Box. CPU data can also be backed up from this dialog box. When using an optional function, make communications settings for the CPU Module in the Connected CPU Specification Dialog Box and input the user name and password in the Logon Dialog Box before displaying the Optional Functions Dialog Box (see *Fig. 3.10*).

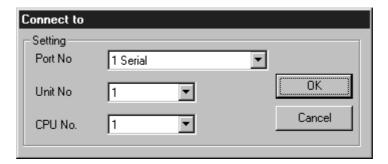


Fig. 3.7 Connected CPU Specification Dialog Box for Serial Communications

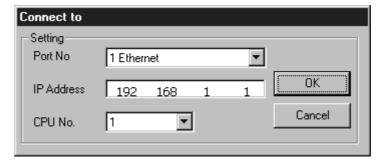


Fig. 3.8 Connected CPU Specification Dialog Box for 218 (Ethernet) Communications

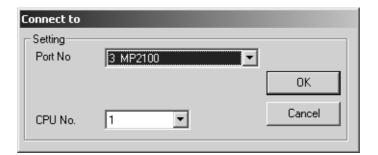


Fig. 3.9 Connected CPU Specification Dialog Box for the MP2100

■ Display Procedure

Click the **Setting of Option** Button (one of the extension function buttons in the Main Window) to display the Optional Functions Dialog Box.

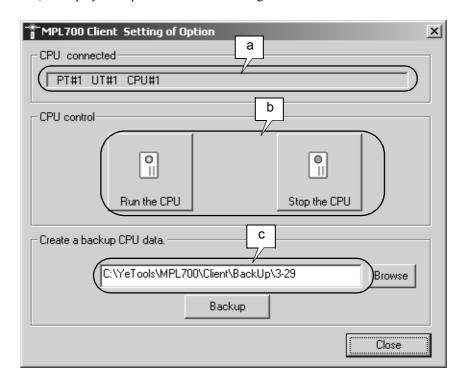


Fig. 3.10 Optional Functions Dialog Box Displayed after Logging On

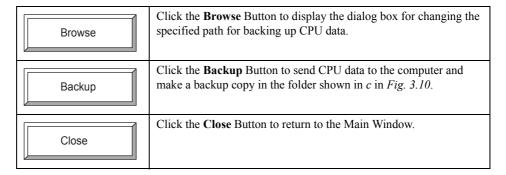
Click the buttons displayed in the dialog box to perform the corresponding operation. The display contents and the functions of the buttons are explained in *Functions of the Buttons* on the next page.

Display Contents

Contents and operations for the places indicated in the dialog box are explained below.

Symbol	Details	
а	Displays the CPU Module connected with the logon operation.	
b	Used to run and stop the connected CPU Module.	
С	Displays the path at the computer used to back up data for the connected CPU Module.	

■ Functions of the Buttons



■ Operating Procedures

Operating procedures for the Optional Functions Dialog Box are explained below.

RUN/STOP

- Click the **Run the CPU** Button to send the RUN command from the computer.
- Click the **Stop the CPU** Button to send the STOP command from the computer.

Backup

When the **Backup** Button is clicked, a CPU data backup file is created at the path specified in *c* in *Fig. 3.10*, and data transfer is started. During transfer, the Backup Execution Dialog Box is displayed. This dialog box shows the source CPU, the path to the folder containing the destination backup file, the name of the file currently being backed up, the number of files transferred, and the total number of files to be transferred.

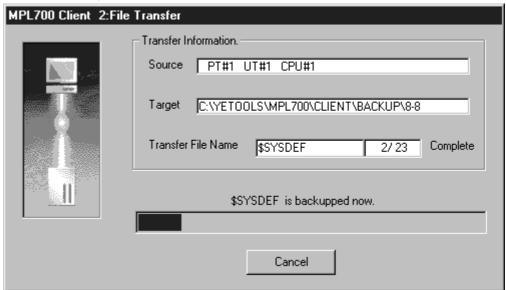


Fig. 3.11 Backup Execution Dialog Box

3.4.3 Writing to Flash Dialog Box

■ Display Procedure

Click the **Option** Button from the Main Window and then click the **Write in flash memory** Button (one of the expansion function buttons) to display the Connected CPU Specification Dialog Box^{*1}. Click the **OK** Button in this dialog box to display the Logon Dialog Box^{*2}. Input the user name and the password and click the **OK** Button to display the Writing to Flash Dialog Box (see *Fig. 3.12*).

- * 1. The dialog box shown in *Fig. 3.7* is displayed when the connection specification is serial, and the dialog box shown in *Fig. 3.8* is displayed when the connection specification is 218 (Ethernet) communications
- * 2. The same Logon Dialog Box shown in Fig. 3.5 is displayed.

■ Display Contents

The following Writing to Flash Dialog Box is displayed while data is written to flash memory.



Fig. 3.12 Writing to Flash Dialog Box

Operating Procedure

The procedure for writing to flash memory is explained below.

- 1. Click the **Write in flash memory** Button (one of the expansion function buttons) from the Main Window.
- 2. The Connected CPU Specification Dialog Box shown in *Fig. 3.7* or *Fig. 3.8* is displayed.
- 3. After confirming the communications settings, click the **OK** Button.
- 4. The Logon Dialog Box shown in Fig. 3.5 is displayed.
- 5. Input the user name and password.
- 6. The Writing to Flash Dialog Box shown in Fig. 3.12 is displayed.

Note: After the writing to flash operation is started, no other screen operations are possible until writing is completed. The operation cannot be cancelled. 7. When writing is completed, the following Writing to Flash Completion Dialog Box is displayed.



Fig. 3.13 Writing to Flash Completion Dialog Box

3.4.4 Controller Information Dialog Box

■ Display Procedure

- 1. Click the **Option** Button from the Main Window to display the expansion function buttons.
- 2. Click the **Controller information** Button. The dialog box shown in *Fig. 3.7* is displayed when the connection specification is serial. The dialog box shown in *Fig. 3.8* is displayed when the connection specification is 218 (Ethernet) communications.
- 3. After confirming the communications settings, click the **OK** Button.
- 4. The following Controller information Dialog Box is displayed.

Display Contents

The following Controller information Dialog Box is displayed.

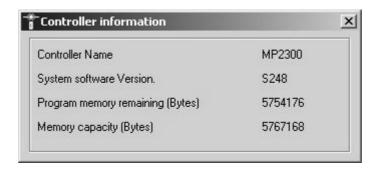


Fig. 3.14 Controller information Dialog Box

Appendices

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Version 6	8-4

A List of Errors

This appendix provides a list of errors that may occur with the MPL700 Client. It also provides appropriate countermeasures.

Error Message	Cause	Countermeasure		
Transfer error has occurred.	Displayed if an error occurs during data transfer.	Check that the computer and Controller are connected properly. Repeat the data transfer procedure.		
A fatal transfer error has occurred during a backup.	Displayed if a fatal error occurs at the computer during transfer of data for backup, and data transfer cannot be completed normally.	 Check that the computer and Controller are connected properly. Repeat the backup procedure. If backup still cannot be performed correctly after taking the above countemeasures, contact your YASKAWA representative. 		
The file transfer has not been completed to the end.	Displayed if transfer is interrupted before completion.	 Check that the computer and Controller are connected properly. Repeat the data transfer procedure. 		
This file isn't type of MPL/MAL!!	Displayed if a file specified to be read is not an MPL/MAL file.	Specify the correct MPL/MAL file. There is a possibility that the MPL/MAL file is corrupted. Check with the file provider.		
File construction is corrupt!!	Displayed if an MPL/MAL file is corrupted.	There is a possibility that an MPL/MAL file is corrupted. Check with the file provider.		
Failure in extracting from MPL/ MAL-file!!	Displayed if MPL/MAL file cannot be unpacked.	Repeat the procedure for reading MPL/MAL files.		
File transfer was incomplete.	Displayed after error information when transfer cannot be completed normally.	An error occurred during transfer. Take countermeasures according to the error information display.		
Environment parameter mismatch with controller.	Displayed if the PLC folder specified for backup does not correspond to the connected PLC model.	Specify a PLC folder that corresponds to the connected PLC as the backup folder.		
Can't logon CPU.	Displayed if logon is not performed normally.	Check the status of the connection between the computer and the PLC.		
Please create communication setting for logical port you like.	Displayed if nothing is set for the logical port.	Set the logical port.		
You can't use manual in English edition.	Displayed if Acrobat Reader is not installed.	Install Acrobat Reader.		
Fail in reading help file!	Displayed if the HELP file is corrupted.	Reinstall the MPL700 Client.		
User Name or Password you input is corrupt.	Displayed if an invalid character is set for the user name or password.	Reset the user name or password using valid characters.		
If you use MPL/MAL-file, retry logon with correct UserName or PassWord.	Displayed if logon is not performed normally when loading MPL/MAL files.	Check that the type of PLC connected corresponds to the MPL/MAL files. Check with the provider of the MPL/MAL files.		
Fail in file abstraction. The program is interrupted.	Displayed if MPL/MAL data cannot be unpacked due to a system error and the MPL700 Client cannot operate properly.	Restart the MPL700 Client.		

(cont'd)

Error Mossago	Cause	(cont'd) Countermeasure
Error Message		
Can't find port information file in your system. So you may have to install this applications once again.	Displayed if MPL700 Client installation cannot be confirmed for the set communications process.	Repeat the procedure for communications settings.Reinstall the MPL700 Client.
This program can't go on any more!! This program is to be concluded.	Displayed if MPL700 Client operation becomes unstable due to a system error.	Restart the MPL700 Client.
Path you indicate is void.	Displayed if an invalid path is set.	Specify a valid folder path.
Folder you indicate is not PLC data folder.	Displayed if the selected folder is not a PLC data folder.	Specify the correct PLC folder.
File name is corrupt. You need to input valid file name.	Displayed if a file name containing invalid characters is specified.	Reset the file name using valid characters.
Directory path is corrupt. You need to input valid directory path.	Displayed if a path containing invalid characters is specified.	Reset the path using valid characters.
Insert disk.	Displayed if the drive for backup cannot be recognized normally.	Insert a disk in the computer's drive for backup.
MPL700 Client failed in the writing in flash memory.	Displayed if the procedure for writing to flash memory is not performed normally.	Check the status of the connection between the computer and the PLC. Repeat the procedure for writing to flash memory.
This file is broken or not MPL/MAL-file.	Displayed if an MPL/MAL file is corrupted or another type of file is specified.	Check with the file provider.
Confirmation your system which application has installed correctly or not.	Displayed if the MPL700 Client cannot be started.	Reinstall the MPL700 Client.
Failure in reading in system registry data.	Displayed if an error occurs during MPL700 Client startup.	Reinstall the MPL700 Client.
Can't find PortInfo.dat. Please create PortInfo.dat with Communication Manager.	Displayed if there is no communications settings file.	Repeat the procedure for the commuications port settings.Reinstall the MPL700 Client.
Can't get information of transferring from MPL/MAL file.	Displayed if the specified MPL/MAL file is corrupted.	Reinstall the MPL700 Client.
Available disk space is not enough for loading of MPL700 Client.	Displayed if an attempt is made to start up the MPL700 Client with less than 10 Mbytes of space available on the drive where the MPL700 Client is installed.	Ensure that there is at least 10 Mbytes of space available on the drive where the MPL700 Client is installed.
Environment parameter mismatch with controller.	Displayed if the type of PLC connected and the PLC type specified with the MPL700 Client are different.	 Check that the correct PLC is connected. Check that the MPL/MAL file is correct.
Available disk space is not enough.	Displayed when backing up data if there is less than 10 Mbytes of space available on the drive to which data is backed up.	Ensure that there is at least 10 Mbytes of space available on the drive to which data is backed up.
Failed in initializing for work folder.	Displayed if the MPL700 Client's work folder is not initialized normally.	Reinstall the MPL700 Client. Contact your YASKAWA representative.
MPL700 Client can't quit Communication Manager, because Communication is active.	Displayed when making communications settings or closing the MPL700 Client if the communications process is being used by another application.	Close the MPL700 Client and then close the other application that is performing communications. After that, restart the MPL700 Client.

(cont'd)

Error Message	Cause	Countermeasure
Can't connect to the Communications Manager. Communication COM port is not set correctly, or there is some trouble when connecting to the controller.	Displayed if the communications settings are incorrect, or if there is a problem in the connection between the computer and the PLC.	 Repeat the procedure for communications settings. Check the status of the connection between the computer and the PLC. Reinstall the MPL700 Client.
No supported controller type.	Displayed if an attempt is made to create an MPL/MAL file with an invalid PLC model specified.	Create MPL/MAL files after specifying a valid PLC model.
No such directory.	Displayed if the PLC folder is corrupted because of an operating error or a computer error.	Repeat the data loading procedure. Contact your YASKAWA representative.
Can't call the communication manager.	Displayed if there is an error at the MPL700 Client or the computer.	 Restart the MPL700 Client after rebooting the computer. Reinstall the MPL700 Client.
Can't find the communication manager.	Displayed if the MPL700 Client is corrupted.	Reinstall the MPL700 Client.
Communication timeout.	Displayed if communications with the PLC are not possible.	Check the status of the connection between the computer and the PLC.
Environment parameter mismatch with controller. Check connected controller.	Displayed if the PLC folder to be loaded does not correspond to the connected PLC model.	Ensure that the PLC folder to be loaded corresponds to the connected PLC model.

B Compressing Files with MPE720

The Compress and Transfer function of MPE720 version 5.10 or later can be used to make compressed files. MPL700 Client can be used to transfer the compressed files that were made in MPE720 to the MP900/MP2000 series Machine Controllers.

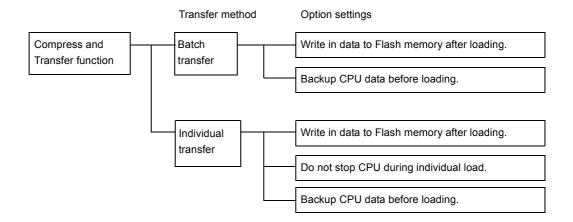
MPL700 Server has a function similar to the Compress and Transfer function in the MPE720 compress and transfer function.

For more information on the Compress and Transfer frunction of MPE720, refer to *Machine Controller MP900/MP2000 Series User's Manual MPE720 Software for Programming Device* (manual no.: SIEPC88070005).

B.1 Overview of Functions

The Compress and Transfer function of the MPE720 makes the compressed files for use with the application of the PLC folder for MPE720.

The Compress and Transfer function can be used to select the transfer method in the MPL700 Client.



■ EXAMPLE ■

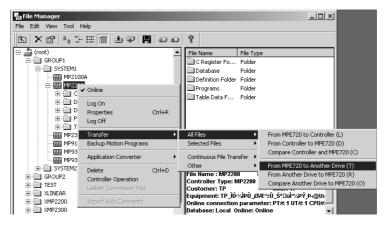
If the compressed files are to be transferred in a batch and the CPU data is to be backed up before loading or the data is to be written to the Flash memory after loading, the compressed files are processed in the following order after being transferred to the controller using the MPL700 Client.

- 1. Application data in the controller is saved in a batch.
- 2. Application data in the compressed files for use is loaded in a batch.
- 3. Application data is stored in the Flash memory.

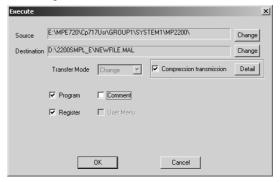
B.2 Procedure for Compressing Files

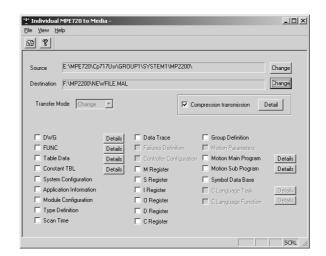
The compress and transfer function starts after logging on to the PLC folder and selecting MPE720-Media.

1. Right-click the PLC folder in the file manager, and select Transfer (T) and Batch Transfer(A) or Transfer(T) and Individual Transfer(I).



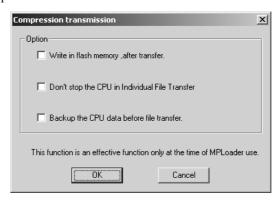
2. Select File Transfer[MPE720-Media](T), and then a dialog box appears, asking if you want to transfer the compressed MPE720 files.





3. Select Storage for the compressed files as the transfer destination. For individual transfers, MPLoader can transfer one drawing or register data.

4. Click Details in the Transfer Confirmation window. Select the optional settings for loading the application with the MPL Client.



C Transfer Setting for Project Files Created Using MPE720 Version 6

To compress and transfer YMW project files created using MPE720 version 6, set the transfer settings of the MPLoader tool by the following procedure:



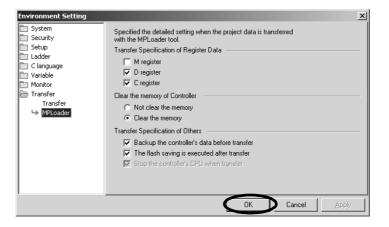
The MPLoader tool setting is possible for MPE720 version 6.02 or later.

1. Start MPE720 version 6 and create a project file. Create the data to be transferred such as ladder program, and store them in the project file.



Refer to Engineering Tool for MP2000 Series Machine Controller: MPE720 Version 6 User's Manual (SIEP C880700 30A) for information such as the procedure to start MPE720 version 6, to create a project file, and to edit the ladder program.)

- 2. Open the project file to be transferred. Select *File Environment Setting* from the Main Manu. The Environment Setting Dialog Box will be displayed.
- 3. Select *Transfer MPLoader* from the tree in the Environment Setting Dialog Box. The detail setting window for the transfer using MPLoader tool will be displayed.
- 4. Select the required items, and then click the **OK** Button.



Transfer Specification of Register data:

Select the check boxes of the registers to be transferred.

Clear the memory of Controller:

Select the **Not clear the memory** Option to overwrite the transferred data in the Machine Controller RAM.

Select the **Clear the memory** Option to clear the Machine Controller RAM before executing the automatic transfer.

Transfer Specification of Others:

Backup the controller's data before transfer Check Box:

MPLoader automatically backs up the controller data before transfer.

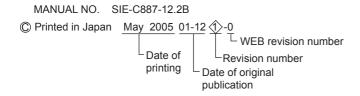
The flash saving is executed after transfer Check Box:

When this check box is selected, data is transferred from the Target PC to the Machine Controller and then saved in the flash memory.

5. Select *File - Save Project* or *Save Project file as* from the Main Menu to save the settings.

Revision History

The revision dates and numbers of the revised manuals are given on the bottom of the back cover.



Date of Printing	Rev. No.	WEB Rev. No.	Section	Revised Contents
December 2001	-	0		First edition: Based on Japanese user's manual, SI-C887-12.2 printed in May 2001.
May 2005	1>	0		Based on Japanese user's manual, SI-C887-12.2B<1> printed in February 2005.
	Ť		All chapters	Addition: Description of MP2000-series Machine Controllers Addition: Description of the MPE720 compressed files.
			Chapter 3	Revision: Button names in main window and in other windows
			Back cover	Revision: Address
June 2006	2>	0	1.1.1 1.2.2 1.2.4 Appendix C	Addition: Information about YMW project files created in the MPE720 version 6.
			1.1.2	Revision: Operating Environment
			3.4.4	Addition: Controller information

Machine Controller MP900/MP2000 Series MPLoader (Client) **USER'S MANUAL**

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