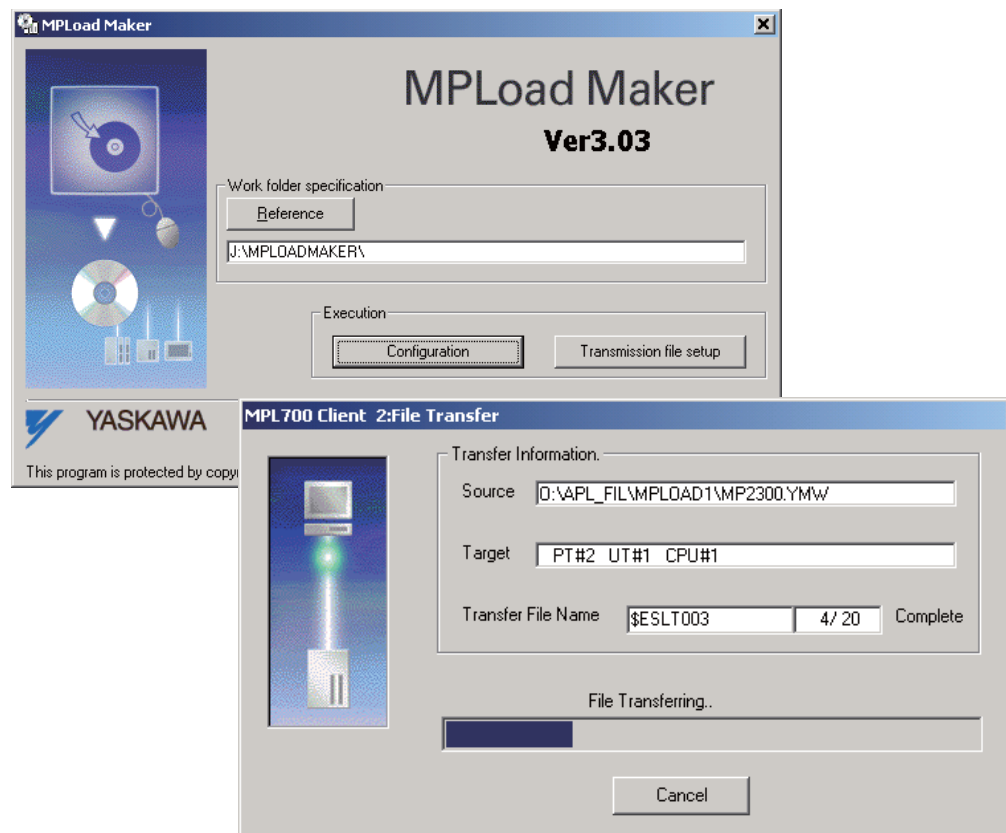


## Auto Transfer File Creation Tool for MP2000 Series Machine Controller

# MPLoad Maker USER'S MANUAL

TYPE: CPMC-MPL710



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## ■ Related Manuals

The following table lists the manuals relating to the MPLoad Maker. Refer to these manuals as required.

Manual Name	Manual Number	Contents
Machine Controller MP900/MP2000 Series MPE720 Software for Programming Device User's Manual	SIEP C880700 05	Describes how to install and operate the MP900/ MP2000 Series programming system (MPE720 Ver.5).
Engineering Tool for MP2000 Series Machine Controller MPE720 Version6 User's Manual	SIEP C880700 30	Describes how to install and operate the MP2000 Series Engineering Tool (MPE720 Ver.6).

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- This product includes file archive software UNLHA(32).dll. The copyright of UNLHA(32).dll is owned by Micco.

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# Contents

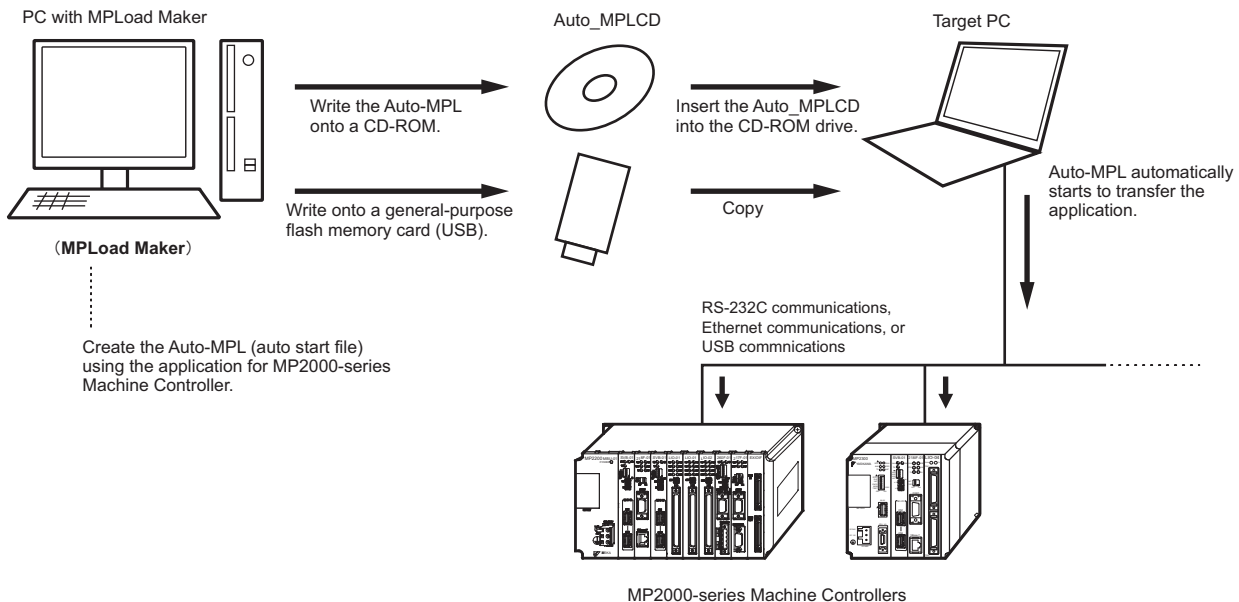
1 Introduction to MPLoad Maker	5
1.1 Overview	5
1.2 Features	5
1.3 Specifications	6
2 Installing MPLoad Maker	7
3 Starting and Exiting MPLoad Maker	8
3.1 Starting MPLoad Maker	8
3.2 Exiting MPLoad Maker	8
4 Creating Auto_MPLCD	9
4.1 Communications Settings for Target PC	9
4.2 Creating Auto_MPL	12
4.3 Creating Auto_MPLCD	17
4.4 Starting Auto_MPL	18
5 Creating .BAT File Executable from HDD	21
5.1 Communications Settings for Target PC	21
5.2 Creating .BAT File	21
5.3 Copying .BAT File to Target PC	27
5.4 Starting .BAT File	27
A Creating a .Mal File (Compressed File) for MPE720 Ver.5	
Application	29
A.1 Creating a .Mal File for Batch Transfer	29
A.2 Creating a .Mal File for Individual Transfer	32
B Transfer Setting for Project File Created Using MPE720 Ver.6	35
C Error Messages and Troubleshooting	36
C.1 Error Messages Displayed on a PC with MPLoad Maker installed	36
C.2 Error Messages Displayed on the Target PC	36
Revision History	

# 1 Introduction to MPLoad Maker

## 1.1 Overview

MPLoad Maker is a tool which allows the user to create an auto start file (Auto\_MPL) using the application data for the MP2000-series Machine Controller created by the Personal Computer (PC). When the created Auto\_MPL is written on the CD-ROM and the CD-ROM (hereinafter referred to as MPLCD) is inserted into the CD-ROM drive of the PC connected to a Machine Controller (hereinafter referred to as target PC), AUTO\_MPL will open the application automatically and transfer the application to the target Machine Controller.

Instead of using Auto\_MPL written on the CD-ROM, you can use the .BAT file written on other media or on the HDD. The application is transferred as illustrated below.



- ♦ MPLoad Maker can not be used to reuse rewritable disks. A CD-RW device or driver is required to write the Auto\_MPL onto a CD-ROM.

## 1.2 Features

MPLoad Maker features the following:

- Application transfer without installing a tool such as MPE720 or MPLoader in the Target PC.
- Application transfer to multiple Machine Controllers using a single Auto\_MPLCD.
- As the functions of Auto\_MPL are limited to opening and transferring the application, the application will not be overwritten adversely in the Target PC.

## 1.3 Specifications

The following table provides the specifications of MPLoad Maker.

Item	PC with MPLoad Maker	Target PC
Applicable Machine Controllers	MP2100, MP2100M, MP2101, MP2101M, MP2101T, MP2101TM, MP2200 (CPU-01/02/03/04), MP2300, MP2310, MP2300S, MP2400, and MPU-01	
CPU	Pentium II 400 MHz min.	
Minimum Required RAM	128 MB	
Minimum Required Display Resolution	800×600	
Supported Operating Systems	<ul style="list-style-type: none"> <li>• Windows 2000 (Japanese or English version)</li> <li>• Windows XP (Japanese or English version)</li> <li>• Windows Vista (Japanese or English version)</li> <li>• Windows 7 (Japanese or English version)</li> </ul>	<ul style="list-style-type: none"> <li>• Windows 2000 (Japanese or English version)</li> <li>• Windows XP (Japanese or English version)</li> <li>• Windows Vista (Japanese or English version)</li> <li>• Windows 7 (Japanese or English version)</li> </ul>
Supported Communications Interfaces or Modules	—	Serial communications interface 217IF-01 <sup>*1</sup> 218IF-01 <sup>*1</sup> 260IF-01 261IF-01 215AIF-01 Ethernet communications interface 218IF-01 <sup>*1</sup> 218IFA <sup>*1</sup> 218IFB <sup>*1</sup> 218IFC <sup>*1</sup> USB interface MP2200 (with CPU-02 Module) MP2100 interface MP2100 MP2100M MP2101 MP2101M MP2101T MP2101TM
Transferable File Types	.MAL file (compressed MAL file of MPE720 Ver.5 application) .YMW file (MPE720 Ver. 6 project file)	
Application Continuous Transfer Function	—	Provided
Memory Required for Installation	30 MB	None (Installation is not necessary.)
Hard Drive Space Required for Create/Transfer	25 MB + $\alpha$ <sup>*2</sup> (per Auto_MPL)	1 MB + $\alpha$ <sup>*2</sup> (Data will be deleted automatically at completion of transfer.)

\* 1. The relay setting is not supported.

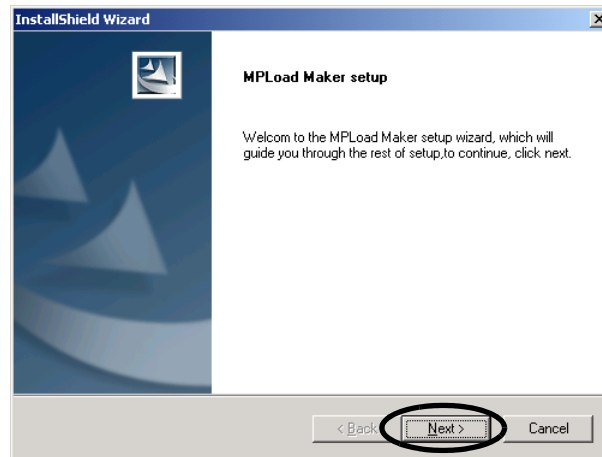
\* 2. Depends on the size of application to be transferred.

## 2 Installing MPLoad Maker

Use the following procedure to install MPLoad Maker on the PC.

1. Insert the MPLoad Maker installation CD-ROM into the CD-ROM drive of the PC.
2. Open the **ENG** folder and then **MPLOADMAKER** folder in the CD-ROM using Explorer. Double-click **Setup.exe** file in the folder.

The MPLoad Maker Installer will start. The InstallShield Wizard following the Title Window will then be displayed.

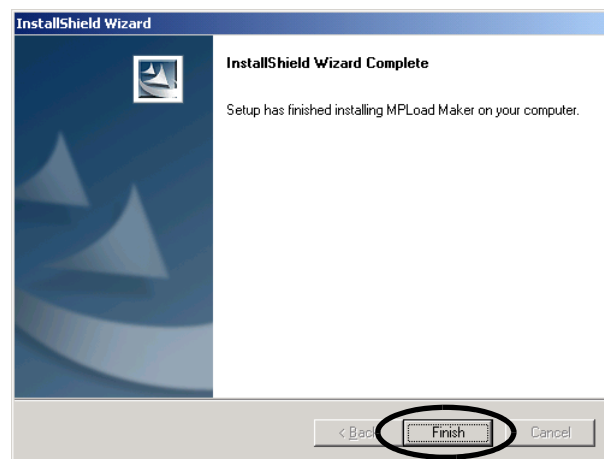


3. Click the **Next** Button if you are using the default settings of the installation destination folder and program folder.

Installation will start. When the installation completes, the InstallShield Wizard Complete message will be displayed.

- ♦ Default setting: Installation destination folder "C:\¥YeTools," Program folder "YE\_Applications"

4. Click the **Finish** Button.



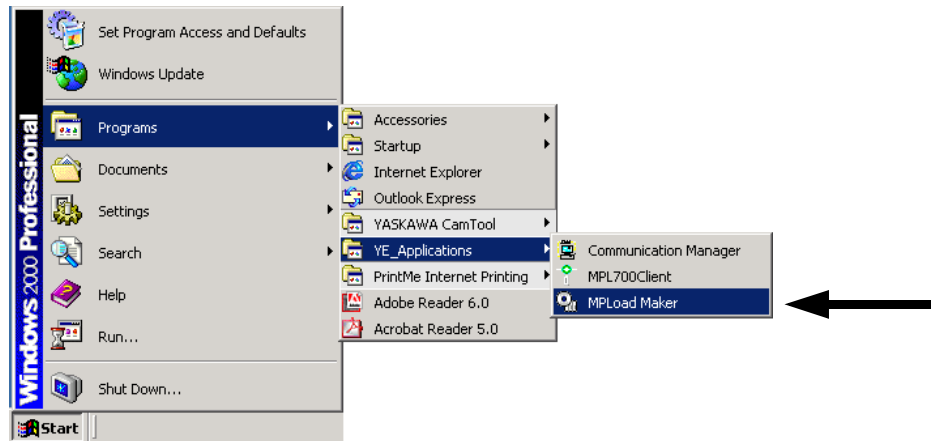
MPLoad Maker has now been installed. Remove the installation CD-ROM from the CD-ROM drive.

## 3 Starting and Exiting MPLoad Maker

Use the following procedures to start and exit the MPLoad Maker.

### 3.1 Starting MPLoad Maker

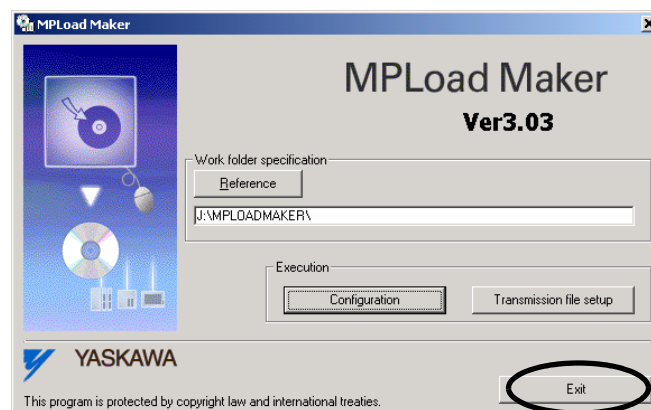
1. Click the **Start** Button and select **Programs - YE\_Applications - MPLoad Maker**.



MPLoad Maker will start and the main window will be displayed.

### 3.2 Exiting MPLoad Maker

1. Click the **Exit** Button in the main window.





## 4 Creating Auto\_MPLCD

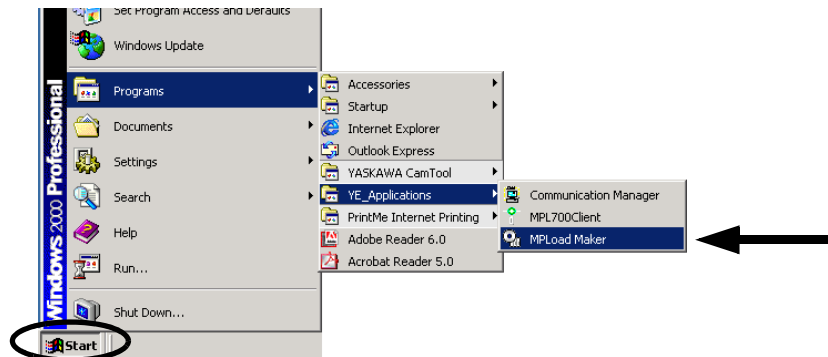
This chapter explains how to create the Auto\_MPL file using MPLoad Maker and write it onto a CD-ROM to create the Auto\_MPLCD.

### 4.1 Communications Settings for Target PC

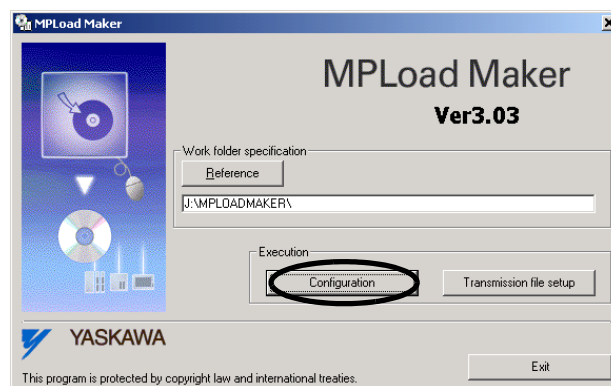
Start MPLoad Maker to make the communications settings for the Target PC. A serial communications interface, 218 communications module (Ethernet), MP2100 interface, or USB can be used for communications between the Target PC and the Machine Controllers.

- Check the following before setting: Target PC IP address, serial port (COM port) number used for communications between Target PC and Machine Controllers, and CP number where the MP2100 Module is mounted when using a MP2100 Module.

1. Click the **Start** Button and select **Programs - YE\_Applications - MPLoad Maker** to start MPLoad Maker.



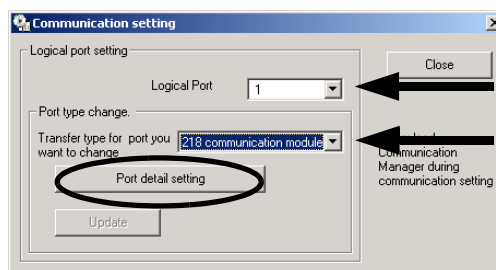
2. Click the **Configuration** Button.



The **Communication Setting** Dialog Box will be displayed.

- Refer to 4.2 *Creating Auto\_MPL* on page 12 for details on **Work folder specification**.

3. Select the logical port number and port type (communications type) used for communications between the Target PC and Machine Controllers, and then click the **Port detail setting** Button.



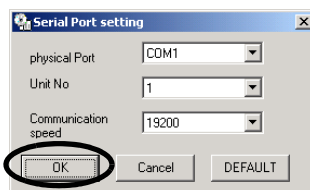
The setting dialog box for the selected port type will be displayed.

- Selecting the port type will enable the **Port detail setting** Button.
- When **USB** is selected as the port type, the **Port detail setting** Button will be invalid. Proceed to Step 5.

4. Make the communications settings for the selected port.

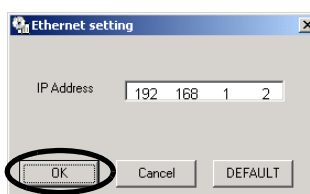
<When **Serial** is selected as the port type>

The **Serial Port setting** Dialog Box will be displayed. Select the physical port, unit No., and communications speed, and then click the **OK** Button.



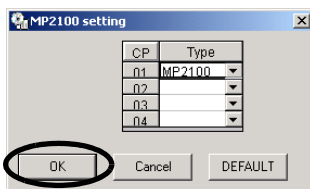
<When the **218 communication module** or **Ethernet (LP)** is selected as the port type>

The **Ethernet setting** Dialog Box will be displayed. Type the IP address of the Target PC, and then click the **OK** Button.



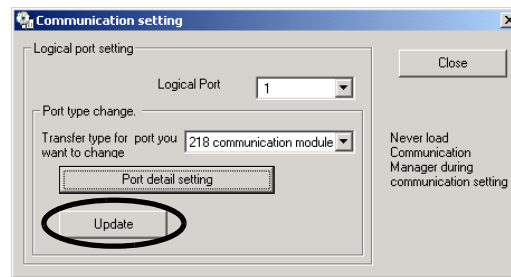
<When **MP2100** is selected as the port type>

The **MP2100 setting** Dialog Box will be displayed. Click the arrow ▼ next to the CP number (set by the dip switch of MP2100) of the transfer destination MP2100 board, select **MP2100** from the **Type** Box, and then click the **OK** Button.



The **Communication setting** Dialog Box will be displayed again and the **Update** Button will be enabled.

5. Click the **Update** Button. A confirmation message will appear. Click the **OK** Button.



6. When using more than one port, repeat Steps 3 through 5 to make communications settings for each port.
7. Click the **Close** Button to close the **Communication setting** Dialog Box.

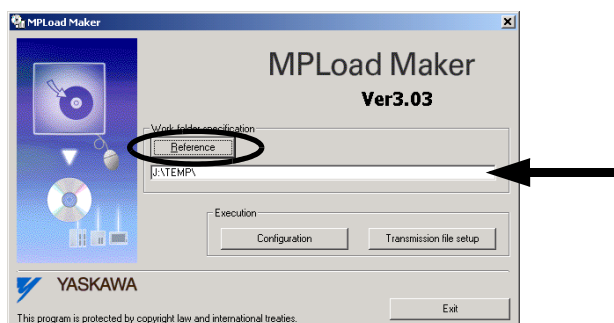
## 4.2 Creating Auto\_MPL

Specify the .mal file or .ymw file to be transferred using MPLoad Maker and create the Auto\_MPL.

- Create a folder (with a desired folder name) to store the Auto\_MPL on the hard drive. The Auto\_MPL (containing four sets of data) in one folder will be written into one Auto\_MPLCD.
- When transferring the MPE720 Ver.5 application, it is necessary to compress the application to create the .mal file. Refer to *A Creating a .Mal File (Compressed File) for MPE720 Ver.5 Application* on page 29 for information on how to create a .mal file.
- When transferring the MPE720 Ver. 6 application, the settings for the compression and transfer function of the MPLoader tool must be made in advance. Refer to *B Transfer Setting for Project File Created Using MPE720 Ver.6* on page 35 for information on how to set the compression and transfer function.

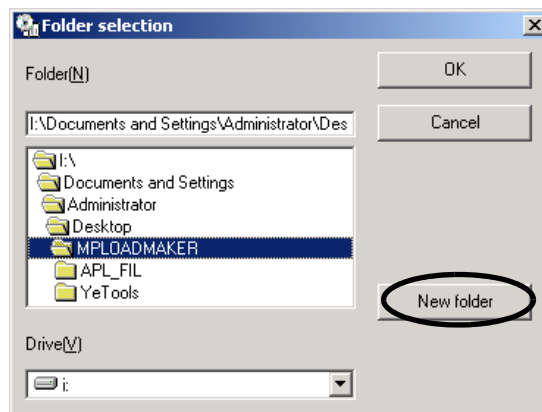
1. Specify the folder to store the Auto\_MPL in the MPLoad Maker main window.

Click the **Reference** Button under **Work folder specification** to select the work folder in the **Folder Selection** Dialog Box, or type the work folder path into the input field.

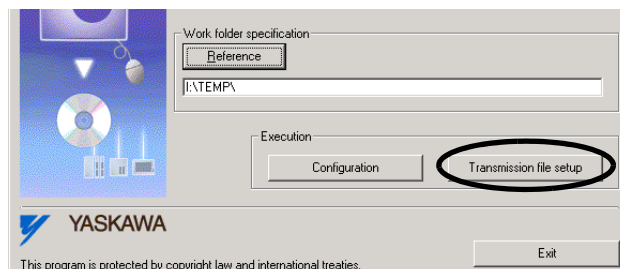


When selecting the work folder in the **Folder selection** Dialog Box, double-click the relevant work folder and then click the **OK** Button.

- If a work folder has not yet been created, click the **New folder** Button to create a work folder.

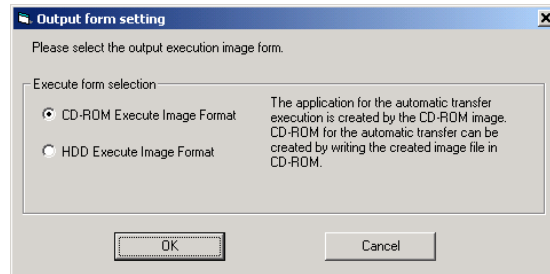


2. Click the **Transmission file setup** Button.



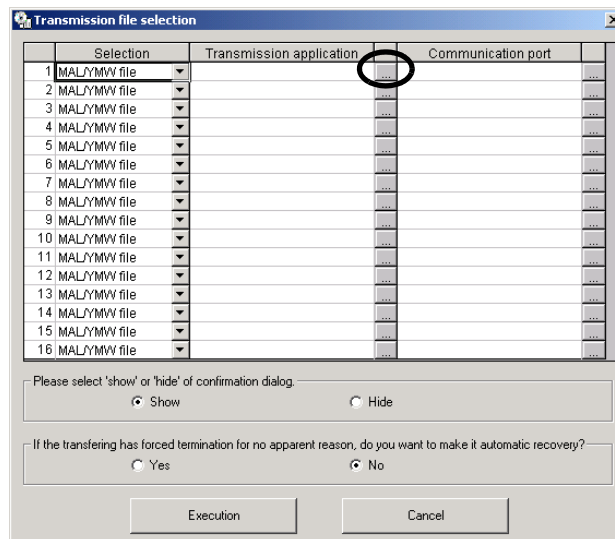
The **Output form setting** Dialog Box will be displayed.

3. Select the **CD-ROM Execute Image Format** Option, and then click the **OK** button.



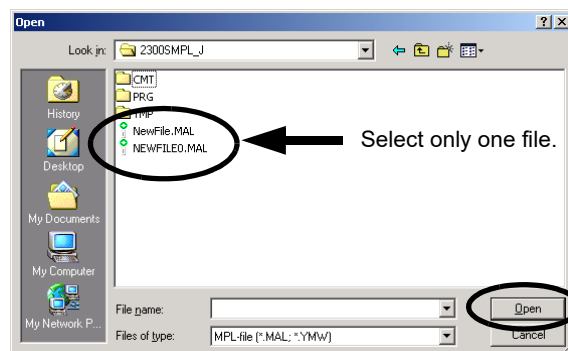
The **Transmission file selection** Dialog Box will be displayed.

4. Click the button to the right of the **Transmission application** column.



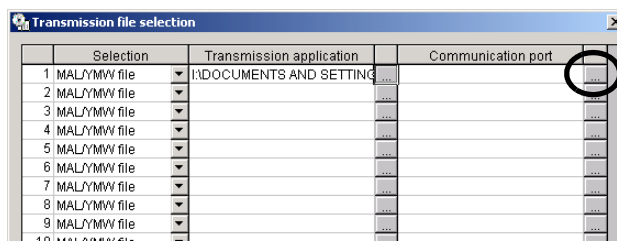
The **Open** Dialog Box will be displayed.

5. Select one .mal or .ymw file to be transferred, and then click the **Open** Button.



The **Transmission file selection** Dialog Box will be displayed again.

6. Check the .mal or .ymw file path displayed in the **Transmission application** column, and then click the button to the right of the **Communication port** column.
  - When the file path is too long to be displayed, drag the frame of the display field. A scroll bar will be displayed on the bottom of the frame to scroll the display.



The **Connect to** Dialog Box will be displayed.

7. Select the logical port number used for transfer in the Target PC from the **Port No** Box.

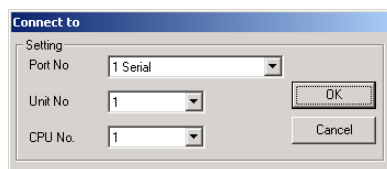
The items to be set will differ depending on the selected port type.

8. Set the transfer destination Machine Controller (Module).

< When **Serial** is selected as **Port No.** >

**Unit No.:** The value set in the setting dialog box of the port type selected in the **Communication setting** Dialog Box is displayed. It is possible to change the value.

**CPU No:** Select **1**.

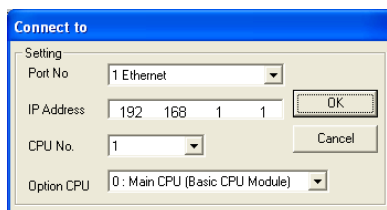


< When the **218 communication module** or **Ethernet (LP)** is selected as **Port No.** >

**IP Address:** The default setting **192 168 1 1** is displayed. Change the setting to the IP address of the transfer destination 218IF Module.

**CPU No.:** Select **1**.

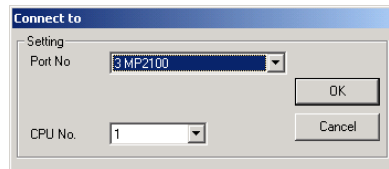
**Option CPU:** The default setting **0: No optional CPU (Basic Module)** is selected. If the transfer destination is the MPU-01 Module, change the setting to the same value as the circuit number of the MPU-01 Module.



< When **MP2100** is selected as **Port No.** >

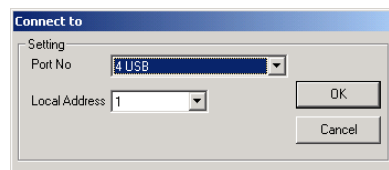
**CPU No.:** Select the CPU number of the transfer destination Machine Controller. Select a CPU number from the CP numbers (CPU numbers) in the setting dialog box of the MP2100 (port type) selected in the **Communication setting** Dialog Box.

- ♦ Selecting a CPU number other than those in the **Communication setting** Dialog Box will generate an alarm at execution of transfer.



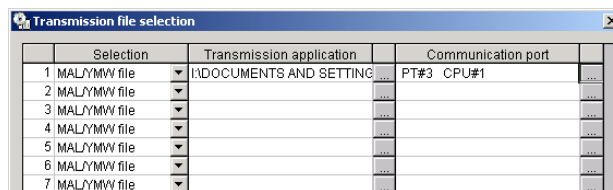
< When **USB** is selected as **Port No.** >

**Local Address :** Select the USB port address of the transfer destination Machine Controller.



Click the **OK** Button to complete the settings. The **Transmission file selection** Dialog Box will be displayed again.

The selected logical port number and the contents assigned to the port are displayed in the **Communication port** column.

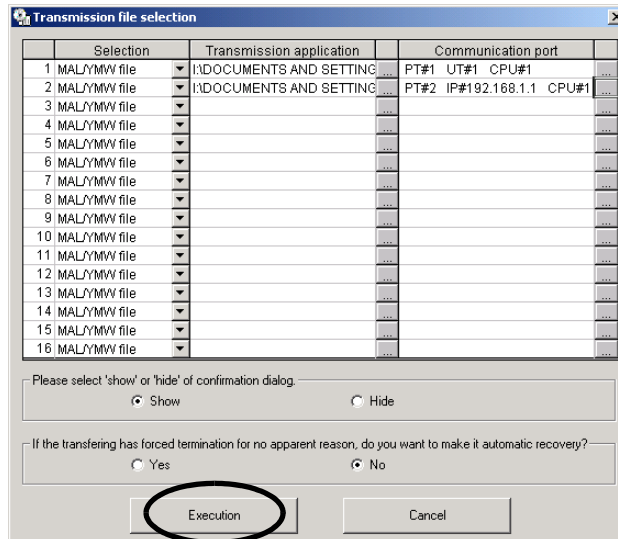


9. Repeat Steps 3 through 8 to set all the applications to be transferred and the transfer destinations.

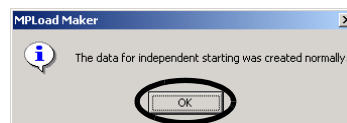
- ♦ Also repeat Steps 3 through 8 (file selection to communications port settings) when setting one application to multiple transfer destinations.
- ♦ Do not close the **Transmission file selection** Dialog Box until the application selection and communications port settings have been completed and the Auto\_MPL has been created by clicking the **Execution** Button. Closing the Dialog Box before clicking the **Execution** Button will delete all the information set for the application.

**10.** When you have finished selecting all of the applications to be transferred and completed all communications port settings, click the **Execution** Button.

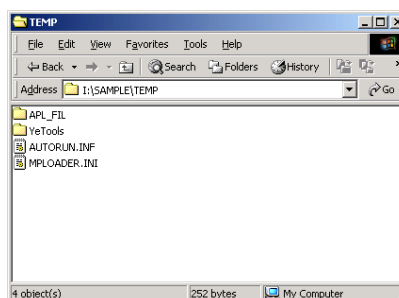
- When the **Show** Option is selected under **Please select 'show' or 'hide' of confirmation dialog**, the **Confirmation** Dialog Box will be displayed when the Auto\_MPLCD is inserted in the CD-ROM drive of the Target PC to check the transfer file names and communications port settings.
- If the auto start CD-ROM is forcibly terminated by Windows Task Manager or the Target PC power supply is turned OFF in the Target PC where the MPE720 is installed, the MPE720 may not be able to run any more. When the **Yes** Option is selected under **If the transferring has forced termination for no apparent reason, do you want to make it automatic recovery?**, a backup file will be created to restore the original environments so that the MPE720 will start properly in the above case.



The MPLoad Maker will start creating an Auto\_MPL. When the Auto\_MPL has been created, the following message will be displayed. Click the **OK** Button.



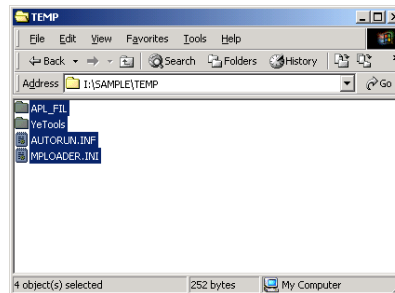
**11.** Open the work folder specified in Step 1 and confirm that the folders and files shown below have been created.





## 4.3 Creating Auto\_MPLCD

Use a CD-RW device or driver to write the created Auto\_MPL (shown below) onto a CD-ROM. The Auto\_MPL written onto the CD-ROM is called Auto\_MPLCD.



- Write four sets of data in the work folder onto a CD-ROM.
- MLoad Maker can not be used to reuse rewritable disks.
- When writing the Auto\_MPL onto a CD-ROM, a message for directory level may appear. If the writing operation is interrupted, change the settings. For example, change the write directory level to a level higher than 10.
- If the created Auto\_MPLCD is left in the CD-ROM drive, the Auto\_MPL will automatically start running. Be sure to remove the Auto\_MPLCD from the CD-ROM drive when writing is completed.

## 4.4 Starting Auto\_MPL

When the created Auto\_MPLCD is inserted into the CD-ROM drive of the Target PC, Auto\_MPL will automatically launch, and the application will be extracted and transferred to the Machine Controller.

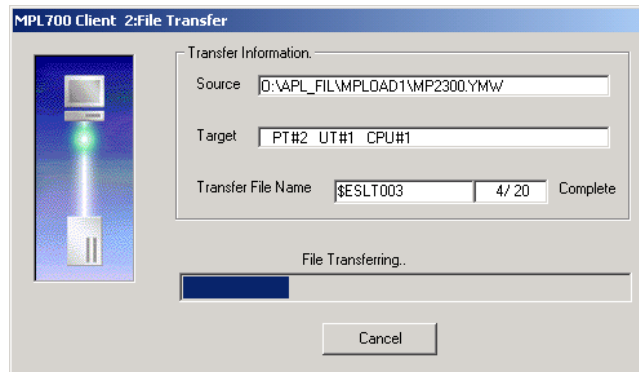
- If the Communication Manager (Communication Process) has been installed in the Target PC, close it before inserting Auto\_MPLCD into the CD-ROM drive. If the Communication Manager is open when Auto\_MPLCD is inserted into the CD-ROM drive, the following message will appear and an error will occur.



- Check the task bar for the **Communication Manager** Icon. If the **Communication Manager** Icon is displayed, the Communication Manager is open. Right-click the **Communication Manager** Icon and select **Exit**. A confirmation message will appear. Click the **Yes** Button.

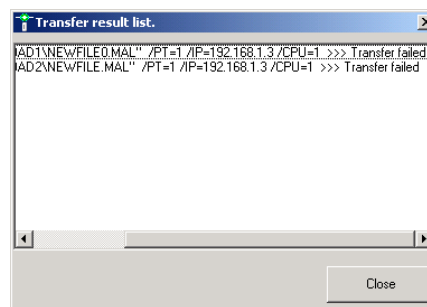


Inserting the created Auto\_MPLCD into the CD-ROM drive of the Target PC will automatically open Auto\_MPL. The program or project file in Auto\_MPL will be automatically decompressed and transferred to the Machine Controllers. During the transfer, the **MPL700 Client 2: File Transfer** Dialog Box will be displayed.



- Clicking the **Cancel** Button on the above dialog box will abort the transfer.

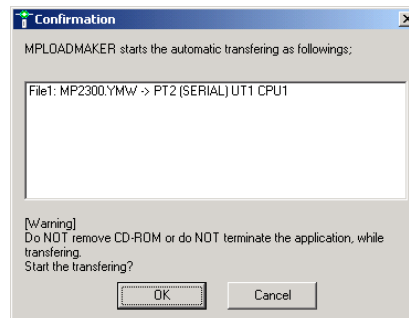
When the transfer is complete, the following list will be displayed. Check to confirm if the transfer was completed successfully or failed.



- The transfer will fail in the following cases.
  - The actual IP address is different from the address set when creating the Auto\_MPL.
  - The actual serial port (COM port) number is different from the number set when creating the Auto\_MPL.
  - The actual CPU number is different from the number set when creating the Auto\_MPL.
  - The actual USB address is different from the address set when creating the Auto\_MPL.
  - The Target PC is not connected to the transfer destination Machine Controllers.

### ■ If Displaying the **Confirmation** Dialog Box

If the **Show** option is selected under **Please select 'show' or 'hide' confirmation dialog** in the **Transmission file selection** Dialog Box when creating the Auto\_MPL, the **Confirmation** Dialog Box will be displayed to check the transfer contents when inserting the created Auto\_MPLCD into the CD-ROM drive of the Target PC.

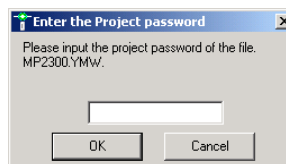


**OK** Button: Click this button to continue the transfer.

**Cancel** Button: Click this button to cancel the transfer.

### ■ If a Password Has Been Set for .Ymw File

If a project password has been set for the .ymw file, the following dialog box will be displayed when inserting the created Auto\_MPLCD into the CD-ROM drive of the Target PC, and you will be prompted to type the project password.



Type the correct password and click the **OK** Button. The transfer will begin.

Click the **Cancel** Button to cancel the transfer.

### ■ If Optional Setting of Writing onto Flash Memory after Transfer Is Made for .Mal or .Ymw File

If the **Write in flash memory after transfer** Check Box was selected when creating the .mal file using the MPE720 Ver.5 or if the **The flash saving is executed after transfer** Check Box was selected in the detail setting window opened by selecting **Transfer - MPLoader** from the tree in the **Environment Setting** Dialog Box for the .ymw file (project file) created using the MPE720 Ver.6, the data transferred to the Machine Controller will be saved in the flash memory of the Machine Controller.

## 5 Creating .BAT File Executable from HDD

This chapter explains how to create a .BAT file that is executable from the HDD using MPLoad Maker.

- Create a folder (with a desired folder name) to store the .BAT file on the hard drive.
- When transferring the MPE720 Ver.5 application, it is necessary to compress the application to create the .mal file. Refer to *A Creating a .Mal File (Compressed File) for MPE720 Ver.5 Application* on page 29 for information on how to create a .mal file.
- When transferring the MPE720 Ver. 6 application, the settings for the compression and transfer function of the MPloder tool must be made in advance. Refer to *B Transfer Setting for Project File Created Using MPE720 Ver.6* on page 35 for information on how to set the compression and transfer function.

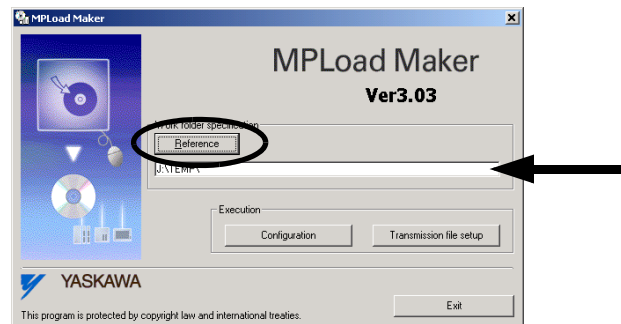
### 5.1 Communications Settings for Target PC

Refer to *4.1 Communications Settings for Target PC* on page 9.

### 5.2 Creating .BAT File

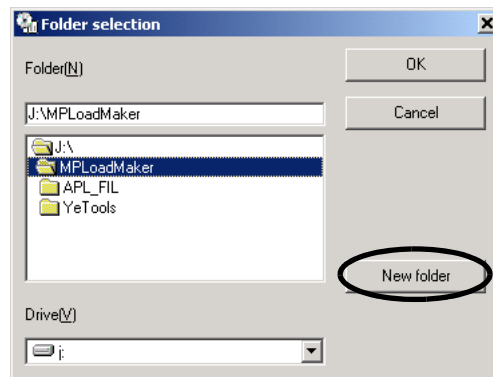
Specify the .mal file or .ymw file to be transferred using MPloder Maker and create the .BAT file.

1. Specify the folder to store the .BAT file in the MPloder Maker main window.  
Click the **Reference** Button under **Work folder specification** to select the work folder in the **Folder Selection** Dialog Box, or type the work folder path into the input field.

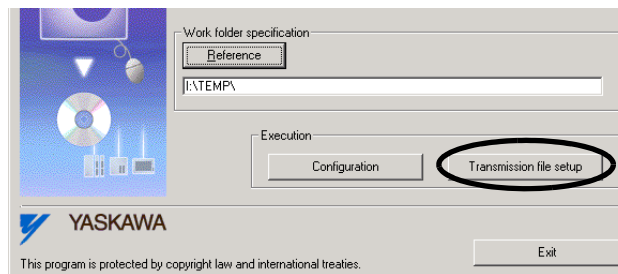


When selecting the work folder in the **Folder selection** Dialog Box, double-click the relevant work folder and then click the **OK** Button.

- If a work folder has not yet been created, click the **New folder** Button to create a work folder.

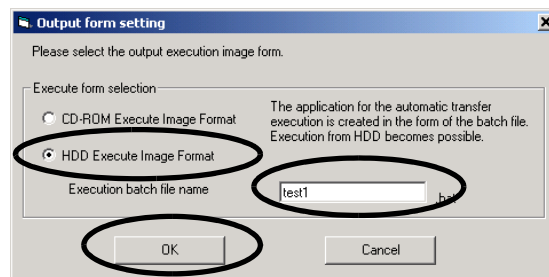


2. Click the **Transmission file setup** Button.

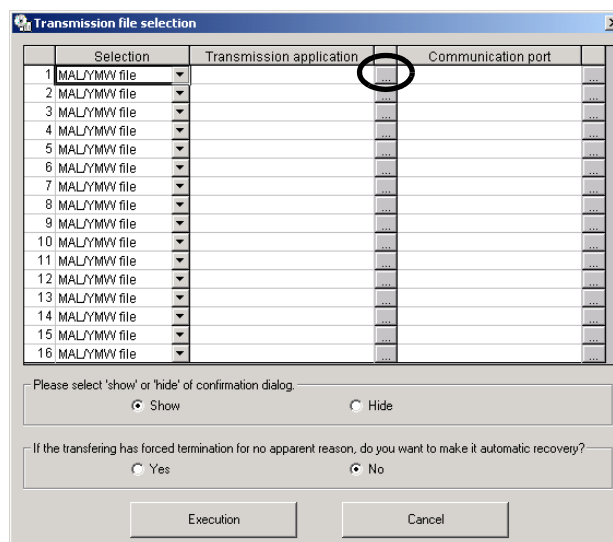


The **Output form setting** Dialog Box will be displayed.

3. Select the **HDD Execute Image Format** Option, input the .BAT file name (**test1** in the example below), then click the **OK** Button.

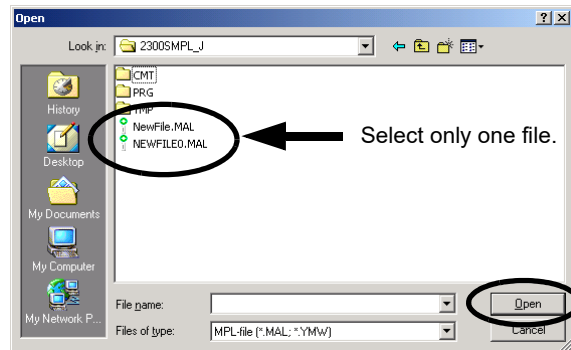


4. Click the button to the right of the **Transmission application** column.



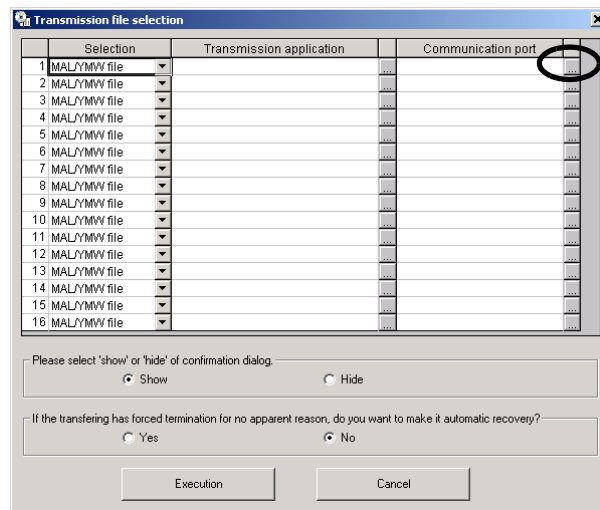
The **Open** Dialog Box will be displayed.

5. Select one .mal or .ymw file to be transferred, and then click the **Open** Button.



The **Transmission file selection** Dialog Box will be displayed again.

6. Check the .mal or .ymw file path displayed in the **Transmission application** column, and then click the button to the right of the **Communication port** column.
  - ♦ When the file path is too long to be displayed, drag the frame of the display field. A scroll bar will be displayed on the bottom of the frame to scroll the display.



The **Connect to** Dialog Box will be displayed.

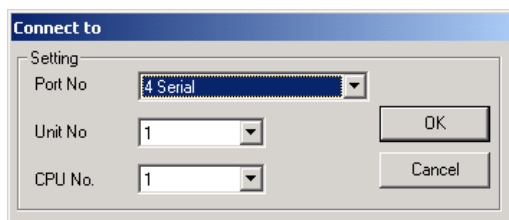
7. Select the logical port number used for transfer in the Target PC from the **Port No** Box.  
The items to be set will differ depending on the selected port type.

## 8. Set the transfer destination Machine Controller (Module).

< When **Serial** is selected as **Port No.** >

**Unit No.:** The value set in the setting dialog box of the port type selected in the **Communication setting** Dialog Box is displayed. It is possible to change the value.

**CPU No:** Select **1**.



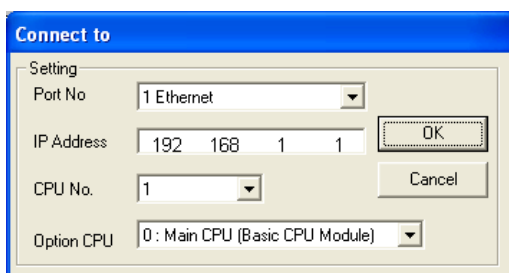
The 'Connect to' dialog box shows the 'Setting' section with 'Port No.' set to '4 Serial'. Below it, 'Unit No.' is set to '1' and 'CPU No.' is set to '1'. There are 'OK' and 'Cancel' buttons on the right.

< When the **218 communication module** or **Ethernet (LP)** is selected as **Port No.** >

**IP Address:** The default setting **192 168 1 1** is displayed. Change the setting to the IP address of the transfer destination 218IF Module.

**CPU No.:** Select **1**.

**Option CPU:** The default setting **0: No optional CPU (Basic Module)** is selected. If the transfer destination is the MPU-01 Module, change the setting to the same value as the circuit number of the MPU-01 Module.

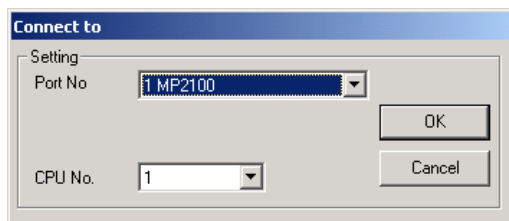


The 'Connect to' dialog box shows the 'Setting' section with 'Port No.' set to '1 Ethernet'. Below it, 'IP Address' is set to '192 168 1 1', 'CPU No.' is set to '1', and 'Option CPU' is set to '0 : Main CPU (Basic CPU Module)'. There are 'OK' and 'Cancel' buttons on the right.

< When **MP2100** is selected as **Port No.** >

**CPU No.:** Select the CPU number of the transfer destination Machine Controller. Select a CPU number from the CP numbers (CPU numbers) in the setting dialog box of the MP2100 (port type) selected in the **Communication setting** Dialog Box.

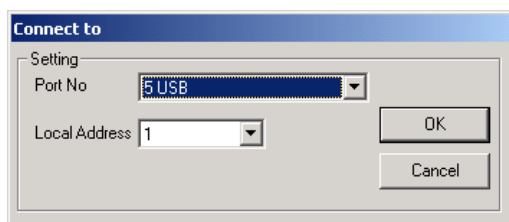
- Selecting a CPU number other than those in the **Communication setting** Dialog Box will generate an alarm at execution of transfer.



The 'Connect to' dialog box shows the 'Setting' section with 'Port No.' set to 'MP2100'. Below it, 'CPU No.' is set to '1'. There are 'OK' and 'Cancel' buttons on the right.

< When **USB** is selected as **Port No.** >

**Local Address :** Select the USB port address of the transfer destination Machine Controller.



The 'Connect to' dialog box shows the 'Setting' section with 'Port No.' set to '5 USB'. Below it, 'Local Address' is set to '1'. There are 'OK' and 'Cancel' buttons on the right.



Click the **OK** Button to complete the settings. The **Transmission file selection** Dialog Box will be displayed again.

The selected logical port number and the contents assigned to the port are displayed in the **Communication port** column.

Selection	Transmission application	Communication port
1 MAL/VMW file	J:\MPLoadMaker\2300.MAL	PT#4 UT#1 CPU#1
2 MAL/VMW file		
3 MAL/VMW file		
4 MAL/VMW file		
5 MAL/VMW file		
6 MAL/VMW file		
7 MAL/VMW file		
8 MAL/VMW file		
9 MAL/VMW file		
10 MAL/VMW file		
11 MAL/VMW file		
12 MAL/VMW file		
13 MAL/VMW file		
14 MAL/VMW file		
15 MAL/VMW file		
16 MAL/VMW file		

Please select 'show' or 'hide' of confirmation dialog.  
☒ Show ☐ Hide

If the transferring has forced termination for no apparent reason, do you want to make it automatic recovery?  
☐ Yes ☒ No

Execution Cancel

9. Repeat Steps 3 through 8 to set all the applications to be transferred and the transfer destinations.
  - ♦ Also repeat Steps 3 through 8 (file selection to communications port settings) when setting one application to multiple transfer destinations.
  - ♦ Do not close the **Transmission file selection** Dialog Box until the application selection and communications port settings have been completed and the .BAT file has been created by clicking the **Execution** Button. Closing the Dialog Box before clicking the **Execution** Button will delete all the information set for the application.
10. When you have finished selecting all of the applications to be transferred and completed all communications port settings, click the **Execution** Button.
  - ♦ When the **Show** Option is selected under **Please select 'show' or 'hide' of confirmation dialog**, the **Confirmation** Dialog Box will be displayed when the .BAT file is opened in the Target PC to check the transfer file names and communications port settings.
  - ♦ If the auto start .BAT file is forcibly terminated by Windows Task Manager or the Target PC power supply is turned OFF in the Target PC where the MPE720 is installed, the MPE720 may not be able to run any more. When the **Yes** Option is selected under **If the transferring has forced termination for no apparent reason, do you want to make it automatic recovery?**, a backup file will be created to restore the original environments so that the MPE720 will start properly in the above case.

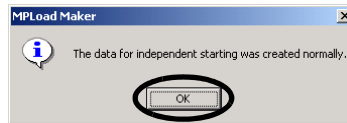
Selection	Transmission application	Communication port
1 MAL/VMW file	J:\MPLoadMaker\2300.MAL	PT#2 IP#192.168.1.1 CPU#4
2 MAL/VMW file	J:\MPLoadMaker\2300.MAL	PT#4 UT#1 CPU#1
3 MAL/VMW file		
4 MAL/VMW file		
5 MAL/VMW file		
6 MAL/VMW file		
7 MAL/VMW file		
8 MAL/VMW file		
9 MAL/VMW file		
10 MAL/VMW file		
11 MAL/VMW file		
12 MAL/VMW file		
13 MAL/VMW file		
14 MAL/VMW file		
15 MAL/VMW file		
16 MAL/VMW file		

Please select 'show' or 'hide' of confirmation dialog.  
☒ Show ☐ Hide

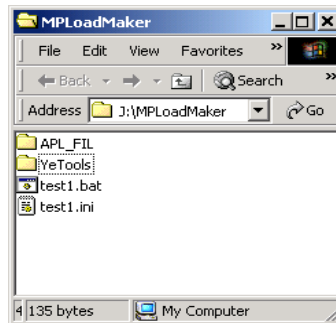
If the transferring has forced termination for no apparent reason, do you want to make it automatic recovery?  
☐ Yes ☒ No

Execution Cancel

The MPLoad Maker will start creating a .BAT file. When the .BAT file has been created, the following message will be displayed. Click the **OK** Button.



11. Open the work folder specified in Step 1 and confirm that the folders and files shown below have been created.



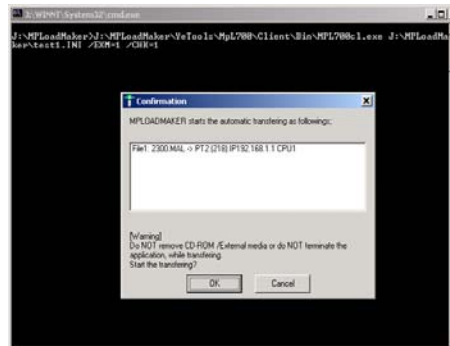
## 5.3 Copying .BAT File to Target PC

Use media such as the commercial USB memory, and copy files and subfolders under the work folder to batch copy to a target PC.

## 5.4 Starting .BAT File

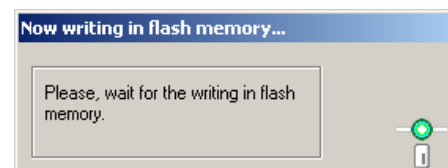
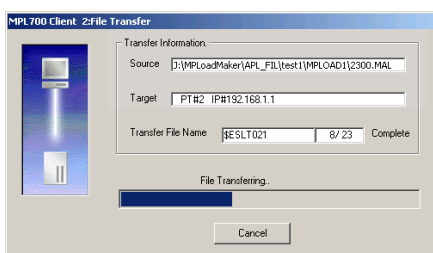
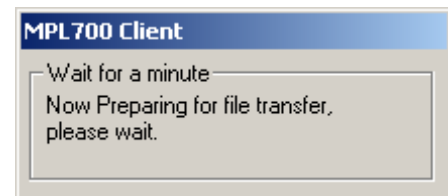
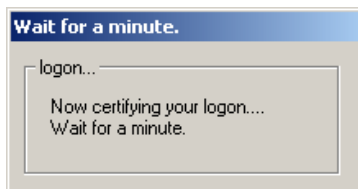
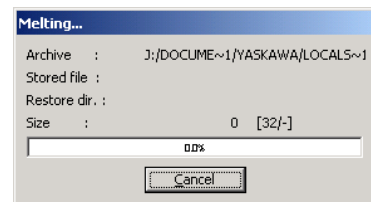
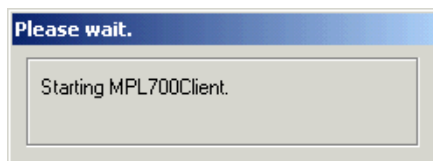
Double-click the .BAT file in the folder copied to the target PC. The file will automatically launch, and the application will be extracted and transferred to the Machine Controller.

1. Double-click the .BAT file to start the file automatically.

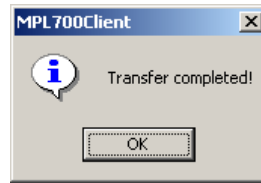


The confirmation Dialog Box will be displayed.

2. Click the **OK** Button. The display will change in the following manner.



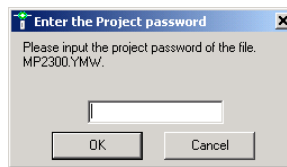
3. A confirmation message is displayed. Click the **OK** Button to quit the operation.



- The transfer will fail in the following cases.
  - The actual IP address is different from the address set when creating the .BAT file.
  - The actual serial port (COM port) number is different from the number set when creating the .BAT file.
  - The actual CPU number is different from the number set when creating the .BAT file.
  - The actual USB address is different from the address set when creating the .BAT file.
  - The Target PC is not connected to the transfer destination Machine Controllers.

#### ■ If a Password Has Been Set for .Ymw File

If a project password has been set for the .ymw file, the following dialog box will be displayed when inserting the created Auto\_MPLCD into the CD-ROM drive of the Target PC, and you will be prompted to type the project password.



Type the correct password and click the **OK** Button. The transfer will begin.  
Click the **Cancel** Button to cancel the transfer.

#### ■ If Optional Setting of Writing onto Flash Memory after Transfer Is Made for .Mal or .Ymw File

If the **Write in flash memory after transfer** Check Box was selected when creating the .mal file using the MPE720 Ver.5 or if the **The flash saving is executed after transfer** Check Box was selected in the detail setting window opened by selecting **Transfer - MPLoader** from the tree in the **Environment Setting** Dialog Box for the .ymw file (project file) created using the MPE720 Ver.6, the data transferred to the Machine Controller will be saved in the flash memory of the Machine Controller.

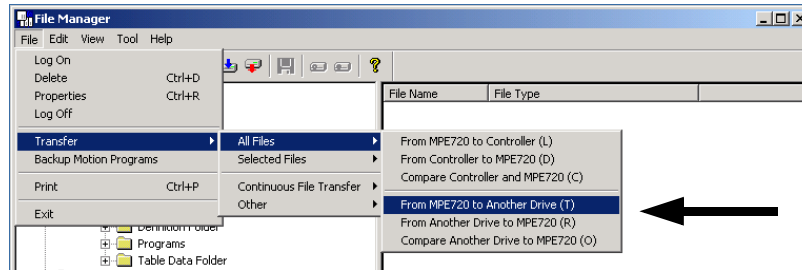
(Writing in flash memory is executed automatically as step 2.)

## A Creating a .Mal File (Compressed File) for MPE720 Ver.5 Application

This section explains how to compress an application using the MPE720 Ver.5 to create the .mal file. The procedure for creating a .mal file for batch transfer is different from that for individual transfers.

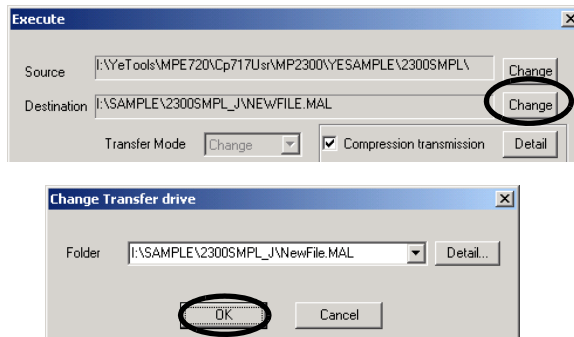
### A.1 Creating a .Mal File for Batch Transfer

1. Log onto the PLC folder whose Auto\_MPL is to be created in the file manager of MPE720 Ver.5. Select **File - Transfer - All Files - From MPE720 to Another Drive**.



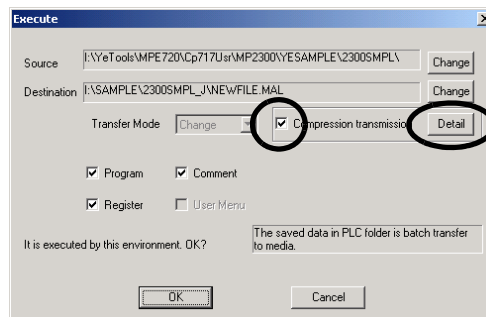
The **Execute** Dialog Box will be displayed.

2. Click the **Change** Button next to the **Destination** data field. The **Change Transfer drive** Dialog Box will be displayed. Set the .mal file name and storage destination folder, and then click the **OK** Button.



The **Execute** Dialog Box will be displayed again.

3. Select the **Compression transmission** Check Box, and then click the **Detail** Button.



The **Compression transmission** Dialog Box will be displayed.

A.1 Creating a .Mal File for Batch Transfer

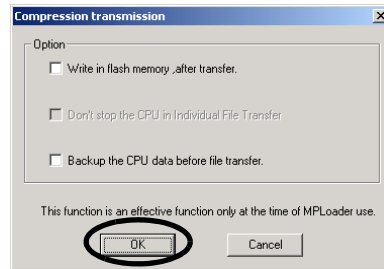
4. Select the optional settings, and then click the **OK** Button.

**Write in flash memory 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.

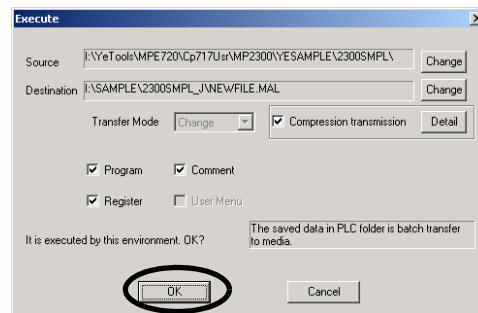
**Backup the CPU data before file transfer** Check Box:

Invalid for MPLoad Maker. Available only for MPLoader.



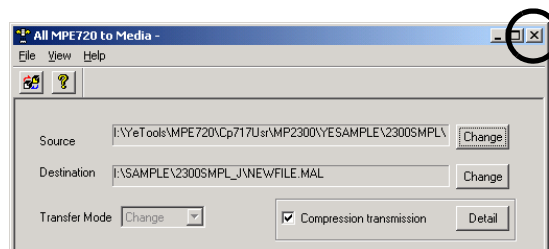
The **Execute** Dialog Box will be displayed again.

5. Click the **OK** Button.

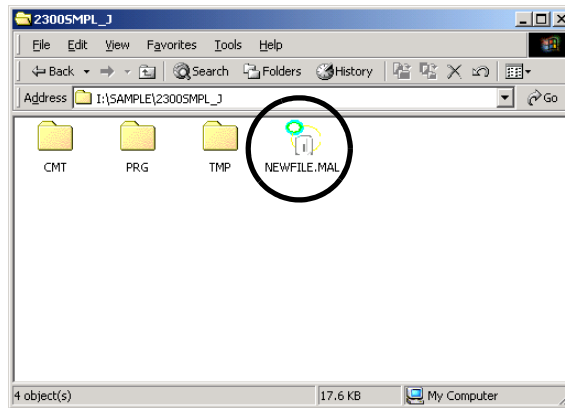


The transfer will start. When the transfer is complete, the **All MPE720 to Media** Dialog Box will be displayed.

6. Click the close-window button.

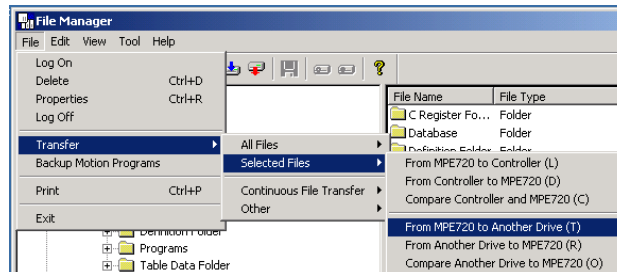


7. Open the transfer destination folder to confirm that the .mal file has been created.



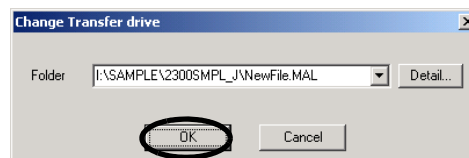
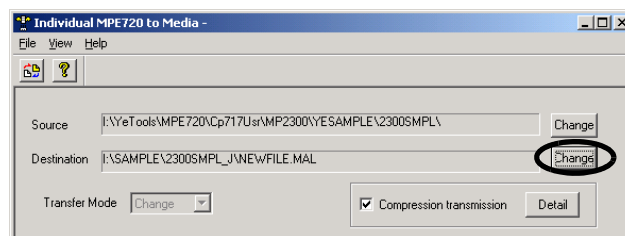
## A.2 Creating a .Mal File for Individual Transfer

1. Log onto the PLC folder whose Auto\_MPL is to be created in the file manager of MPE720 Ver.5.  
Select **File - Transfer - Selected Files - From MPE720 to Another Drive**.



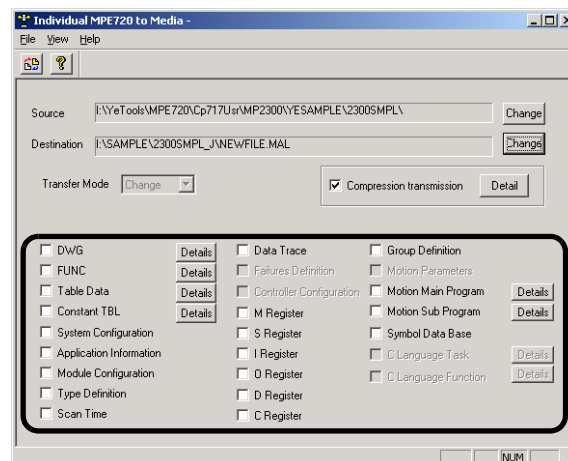
The **Individual MPE720 to Media** Dialog Box will be displayed.

2. Click the **Change** Button next to the **Destination** data field. The **Change Transfer drive** Dialog Box will be displayed. Set the .mal file name and storage destination folder, and then click the **OK** Button.



The **Individual MPE720 to Media** Dialog Box will be displayed again.

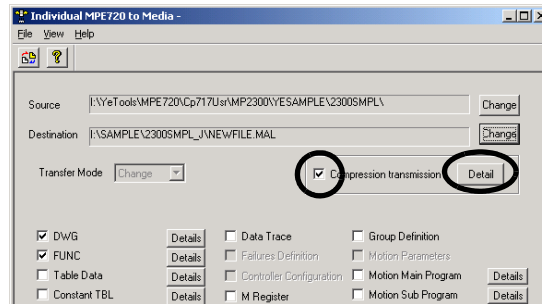
3. Select the check boxes (**DWG to Symbol Data Base** Check Boxes) of the data to be transferred.



- For check boxes with a **Details** Button, click this button to set the details of the data to be transferred.

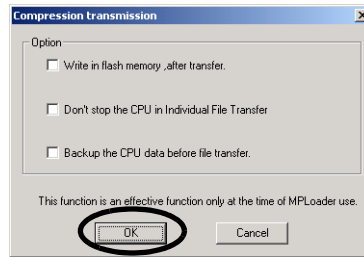


4. Select the **Compression transmission** Check Box and click the **Detail** Button.



The **Compression transmission** Dialog Box will be displayed.

5. Select the optional settings, and then click the **OK** Button.



**Write in flash memory 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.

**Don't stop the CPU in Individual File Transfer** Check Box:

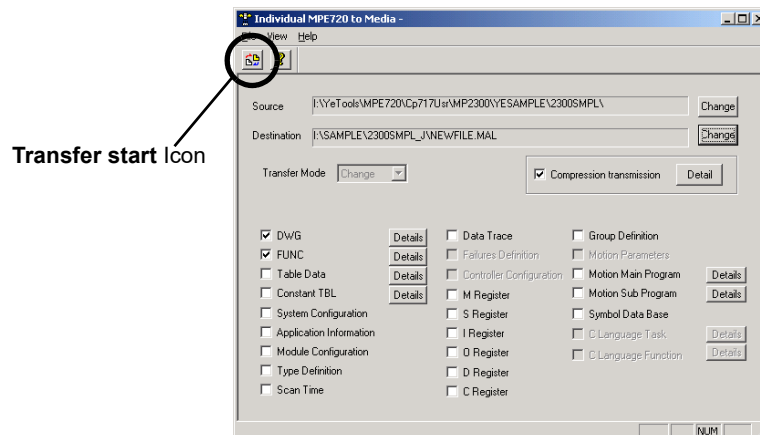
When this check box is selected, the application will be transferred individually from the Target PC to the Machine Controller with the Machine Controller's CPU in Run status.

**Backup the CPU data before file transfer** Check Box:

Invalid for MPLoad Maker. Available only for MPLoader.

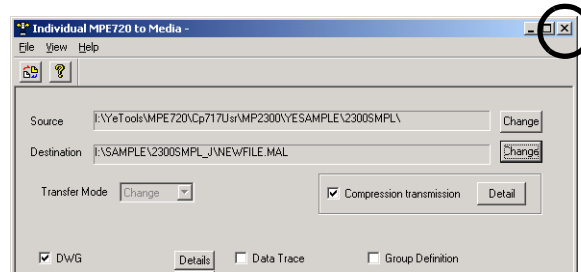
Click the **OK** Button to return to the **Individual MPE720 to Media** Dialog Box.

6. Click the **transfer start** Icon.

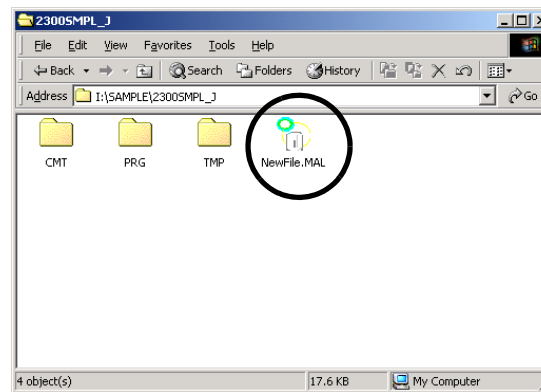


A confirmation message will be displayed. Click the **Yes** Button to start transfer. When the transfer is complete, the **Individual MPE720 to Media** Dialog Box will be displayed again.

7. Click the close-window button.



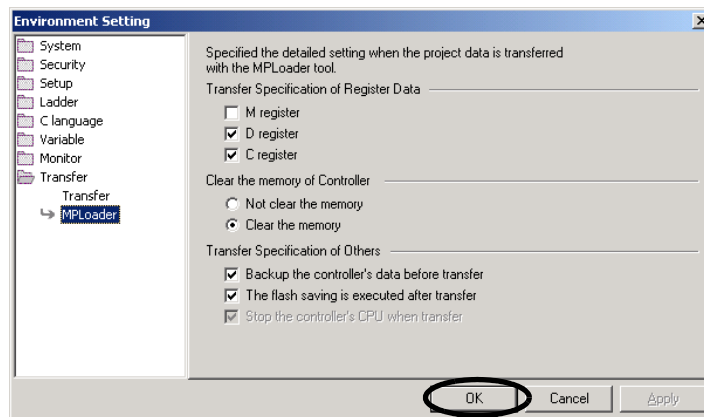
8. Open the transfer destination folder to confirm that the .mal file has been created.



## B Transfer Setting for Project File Created Using MPE720 Ver.6

To compress and transfer a project file (.ymw file) created using MPE720 Ver.6, set the transfer settings of the MPLoader tool by the following procedure:

- ♦ The MPLoader tool setting is possible for MPE720 Ver.6.02 or later.
1. Start MPE720 Ver.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 30) for information such as the procedure to start MPE720 Ver.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 Menu. 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:

Invalid for MPLoad Maker. Available only for MPLoader.

#### 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.

## C Error Messages and Troubleshooting

The error messages displayed on the PC with MPLoad Maker installed and those displayed on the Target PC are listed below, along with causes and corrective actions.

### C.1 Error Messages Displayed on a PC with MPLoad Maker installed

Error Messages	Causes	Corrective Actions
The selected folder contains invalid controller data. Please choose a MAL/YMW file created by MPL700 Server or MPE720.	The file selected from the <b>Open</b> Dialog Box opened from the <b>Transmission file selection</b> Dialog Box is not a valid .mal or .ymw file.	<ul style="list-style-type: none"> <li>Specify the correct .mal or .ymw file.</li> <li>The .mal or .ymw file may be corrupt. Contact the file provider or recreate the file.</li> </ul>
The communication port is not specified.	The <b>Execution</b> Button was clicked without having specified the communications port in the <b>Transmission file selection</b> Dialog Box.	Select the communications port.
The specified path is invalid. Please reenter an valid pathname.	Invalid characters are used in the path to <b>Work Folder Specification</b> , or an unknown folder is specified.	Type the correct path.

### C.2 Error Messages Displayed on the Target PC

Error Messages	Causes	Corrective Actions
Transfer error has occurred.	Displayed if an error occurs during data transfer.	<ul style="list-style-type: none"> <li>Check that the computer and Controller are properly connected.</li> <li>Repeat the data transfer procedure.</li> </ul>
The file transfer has not been completed to the end.	Displayed if transfer is interrupted before completion.	<ul style="list-style-type: none"> <li>Check that the computer and Controller are properly connected.</li> <li>Repeat the data transfer procedure.</li> </ul>
This file isn't type of MPL/MAL/YMW-file!!	Displayed if a file specified to be read is not an .mal or .ymw file.	<ul style="list-style-type: none"> <li>Specify the correct .mal or .ymw file.</li> <li>The .mal or .ymw file may have been corrupted. Contact the file provider.</li> </ul>
File construction is corrupt!!	Displayed if an .mal or .ymw file is corrupt.	The .mal or .ymw file may have been corrupted. Contact the file provider.
Failure in extracting from file!!	Displayed if an .mal or .ymw file cannot be extracted.	Repeat the procedure for reading .mal or .ymw 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.
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.
Username 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/YMW-file, re-try logon with correct Username or Password.	Displayed if logon is not performed normally when loading .mal or .ymw files.	<ul style="list-style-type: none"> <li>Check that the type of PLC connected corresponds to the .mal or .ymw files.</li> <li>Contact the provider of the .mal or .ymw files.</li> </ul>
Fail in file abstraction. The program is interrupted.	Displayed if .mal or .ymw data cannot be extracted due to a system error and the auto start CD-ROM created by MPLoad Maker cannot operate properly.	Restart the auto start CD-ROM.

(cont'd)

Error Messages	Causes	Corrective Actions
Can't find port information file in your system. You may have to install this application once again.	Displayed if the Communications Manager (Communications Process) settings for the auto start CD-ROM are incorrect.	Set the Communications settings using MPLoad Maker, and create the transfer file again. Then, recreate the auto start CD-ROM.
This program can't go on any more!! This program is to be concluded.	Displayed if auto start CD-ROM operation becomes unstable due to a system error.	<ul style="list-style-type: none"> <li>Restart the auto start CD-ROM.</li> <li>Reboot the Target PC. Then, execute again.</li> </ul>
The FLASH write operation was unsuccessful.	Displayed if the procedure for writing to flash memory is not performed normally.	<ul style="list-style-type: none"> <li>Check the status of the connection between the computer and the PLC.</li> <li>Repeat the procedure for writing to flash memory.</li> </ul>
Confirm whether application has been installed correctly.	Displayed if the auto start CD-ROM cannot be started.	Create the transfer file using MPLoad Maker again. Then, recreate auto start CD-ROM.
Failure in reading in system registry data.	Displayed if an error occurs during auto start CD-ROM startup.	Create the transfer file using MPLoad Maker again. Then, recreate auto start CD-ROM.
Can't find PortInfo.dat. Please create PortInfo.dat with Communication setting.	Displayed if there is no communications settings file.	<ul style="list-style-type: none"> <li>Correctly make the Communications Port settings.</li> <li>Create the transfer file using MPLoad Maker again. Then, recreate auto start CD-ROM.</li> </ul>
Can't get information of transferring from MAL/YMW file.	Displayed if the specified auto start CD-ROM file is corrupt.	Create the transfer file using MPLoad Maker again. Then, recreate auto start CD-ROM.
Available disk space is not enough for loading of MPL700Client.	Displayed if an attempt is made to launch MPLoad Maker with less than 25 Mbytes of space available on the drive where the auto start CD-ROM is executed.	Ensure that there are at least 25 Mbytes of space available on the drive where the auto start CD-ROM is executed.
Environment parameter mismatch with controller.	Displayed if the type of PLC connected and the PLC type specified with the MPLoad Maker are different.	<ul style="list-style-type: none"> <li>Check that the correct PLC is connected.</li> <li>Check that the .mal or .ymw file is correct.</li> </ul>
Failed in initializing for work folder.	Displayed if the auto start CD-ROM's work folder is not initialized normally.	<ul style="list-style-type: none"> <li>Create the transfer file using MPLoad Maker again. Then, recreate auto start CD-ROM.</li> <li>Contact your YASKAWA representative.</li> </ul>
Can't connect to the communication COM Port is not set correctly, or there is some trouble 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.	<ul style="list-style-type: none"> <li>Check the status of the connection between the computer and the PLC.</li> <li>Set the Communications settings using MPLoad Maker, and create the transfer file again. Then, recreate auto start CD-ROM.</li> </ul>
Can't call the communication manager	Displayed if there is an error on the created auto start CD-ROM or the computer.	<ul style="list-style-type: none"> <li>Execute the auto start CD-ROM after rebooting the Target PC.</li> <li>Create the transfer file using MPLoad Maker again. Then, recreate auto start CD-ROM.</li> </ul>
Can't find the communication manager	Displayed if the created auto start CD-ROM is corrupt.	Create the transfer file using MPLoad Maker again. Then, recreate auto start CD-ROM.
Communication timeout	Displayed if communications with the PLC are not possible.	Check the status of the connection between the computer and the PLC.

## Revision History

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

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September 2022	<2>	1	Front cover	Revision: Format
			All chapters	Partly revised
			Back cover	Revision: Address, format
August 2011	<2>	0	Front cover	Revision: Format
			1.3	Addition: Applicable machine controllers, supported operating systems, and supported communications interfaces or modules
			4.1	Revision: Contents of step 4
			4.2	Revision: Contents of step 8
			5.2	Revision: Contents of step 8
			Back cover	Revision: Address, format
January 2008	<1>	-	All chapters	Revision: Software version updated from Ver.3.01 to 3.03
			Chapter 5	New chapter added: Creating .BAT File Executable from HDD
			Back cover	Revision: Address
June 2006	-	-		First edition

# Auto Transfer File Creation Tool for MP2000 Series Machine Controller

# MPLoad Maker

# USER'S MANUAL

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**IRUMA BUSINESS CENTER (SOLUTION CENTER)**

480, Kamifujisawa, Iruma, Saitama, 358-8555, Japan  
Phone: +81-4-2962-5151 Fax: +81-4-2962-6138  
www.yaskawa.co.jp

**YASKAWA AMERICA, INC.**

2121, Norman Drive South, Waukegan, IL 60085, U.S.A.  
Phone: +1-800-YASKAWA (927-5292) or +1-847-887-7000 Fax: +1-847-887-7310  
www.yaskawa.com

**YASKAWA ELÉTRICO DO BRASIL LTDA.**

777, Avenida Piraporinha, Diadema, São Paulo, 09950-000, Brasil  
Phone: +55-11-3585-1100 Fax: +55-11-3585-1187  
www.yaskawa.com.br

**YASKAWA EUROPE GmbH**

Hauptstraße 185, 65760 Eschborn, Germany  
Phone: +49-6196-569-300 Fax: +49-6196-569-398  
www.yaskawa.eu.com E-mail: info@yaskawa.eu.com

**YASKAWA ELECTRIC KOREA CORPORATION**

18F, Hi Investment & Securities Building, 66 Yeoul-daero, Yeongdeungpo-gu, Seoul, 07325, Korea  
Phone: +82-2-784-7844 Fax: +82-2-784-8495  
www.yaskawa.co.kr

**YASKAWA ASIA PACIFIC PTE. LTD.**

30A, Kallang Place, #06-01, 339213, Singapore  
Phone: +65-6282-3003 Fax: +65-6289-3003  
www.yaskawa.com.sg

**YASKAWA ELECTRIC (THAILAND) CO., LTD.**

59, 1F-5F, Flourish Building, Soi Ratchadapisek 18, Ratchadapisek Road, Huaykwang, Bangkok, 10310, Thailand  
Phone: +66-2-017-0099 Fax: +66-2-017-0799  
www.yaskawa.co.th

**YASKAWA ELECTRIC (CHINA) CO., LTD.**

22F, Link Square 1, No.222, Hubin Road, Shanghai, 200021, China  
Phone: +86-21-5385-2200 Fax: +86-21-5385-3299  
www.yaskawa.com.cn

**YASKAWA ELECTRIC (CHINA) CO., LTD. BEIJING OFFICE**

Room 1011, Tower W3 Oriental Plaza, No.1, East Chang An Avenue,  
Dong Cheng District, Beijing, 100738, China  
Phone: +86-10-8518-4086 Fax: +86-10-8518-4082

**YASKAWA ELECTRIC TAIWAN CORPORATION**

12F, No. 207, Section 3, Beishin Road, Shindian District, New Taipei City 23143, Taiwan  
Phone: +886-2-8913-1333 Fax: +886-2-8913-1513 or +886-2-8913-1519  
www.yaskawa.com.tw

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## YASKAWA

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In the event that the end user of this product is to be the military and said product is to be employed in any weapons systems or the manufacture thereof, the export will fall under the relevant regulations as stipulated in the Foreign Exchange and Foreign Trade Regulations. Therefore, be sure to follow all procedures and submit all relevant documentation according to any and all rules, regulations and laws that may apply. Specifications are subject to change without notice for ongoing product modifications and improvements.

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