



MELSOFT

MR Configurator2 Version1

MODEL

SW1DNC-MRC2-E

INSTALLATION GUIDE

Thank you for choosing the MELSOFT MR Configurator2.
To optimize the use of the MR Configurator2, please read over this Installation Guide and the corresponding AC servo Installation Guide before using the software. After reading the Installation Guide, always place this Installation Guide in a safe place.



● Safety Instructions ●

(Always read these instructions before using the equipment.)

Do not attempt to install, operate, maintain or inspect the servo amplifier and servo motor until you have read through this Installation Guide, and appended documents carefully and can use the equipment correctly. Do not use the servo amplifier and servo motor until you have a full knowledge of the equipment, safety information and instructions.

In this Installation Guide, the safety instruction levels are classified into "WARNING" and "CAUTION".





Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.





Indicates that incorrect handling may cause hazardous conditions, resulting in medium or slight injury to personnel or may cause physical damage.

Note that the CAUTION level may lead to a serious consequence according to conditions. Please follow the instructions of both levels because they are important to personnel safety.

What must not be done and what must be done are indicated by the following diagrammatic symbols:

: Indicates what must not be done. For example, "No Fire" is indicated by .

: Indicates what must be done. For example, grounding is indicated by .

In this Installation Guide, instructions at a lower level than the above, instructions for other functions, and so on are classified into "POINT".

After reading this Installation Guide, always keep it accessible to the operator.

- Windows is a trademark of Microsoft Corporation.
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• Before executing the test mode, always read section 2.3 "Precautions for test mode".

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1. INTRODUCTION

1. INTRODUCTION

1.1 Specifications

Using the communication function of the servo amplifier, the MR Configurator2 allows functions, such as parameter setting change, graph, program operation mode and test mode, to be implemented from a personal computer.

When connecting to the servo amplifier (MR-J4 series/MR-JE series)

Servo amplifier		MR-J4-A (-RJ)	MR-J4-B (-RJ)*5 *6	MR-J4-B -LL	MR-J4-B -RJ010	MR-JE-A	MR-JE-B	MR-J4-TM
Communication Method	USB	○	○	○	○	○	○	○
	RS-422(RS-232C)	○	○	○	○	○	○	○
Parameter	Parameter Setting	○	○	○	○	○	○	○
	Axis Name Setting	*4○	○	○	○	○	○	○
	Parameter Converter	*4○	○	○	○	○	○	○
Safety	Safety Parameter Setting	*7*8○	*8*9○	○	○	○	○	○
	Change Password	*7*8○	*8*9○	○	○	○	○	○
	Initialize Password	*7*8○	*8*9○	○	○	○	○	○
Positioning-data	Point Table	*7○	○	○	○	○	○	○
	Program	*7○	○	○	○	○	○	○
	Indirect Addressing	*7○	○	○	○	○	○	○
	Cam Data	*7○	○	○	○	○	○	○
Monitor	Display All	○	○	○	○	○	○	○
	I/O Monitor	○	○	○	○	○	○	○
	Graph	○	○	○	○	○	○	○
	ABS Data Display	○	○	○	○	○	○	○
Diagnosis	Alarm Display	○	○	○	○	○	○	○
	Alarm Onset Data	○	○	○	○	○	○	○
	Drive Recorder	○	○	○	○	○	○	○
	No Motor Rotation	○	○	*10○	○	○	○	○
	System Configuration	○	○	○	○	○	○	○
	Life Diagnosis	○	○	○	○	○	○	○
	Machine Diagnosis	○	○	○	○	○	○	○
	Fully Closed Loop Diagnosis	*1○	*1○	○	○	○	○	*1○
Linear Diagnosis	*2○	*2○	○	○	○	○	*2○	
Test Mode	JOG Mode	*3○	*3○	○	○	○	○	*3○
	Positioning Mode	○	○	○	○	○	○	○
	Motor-less Operation	*4○	*4○	○	○	○	○	*4○
	DO Forced Output	○	○	○	○	○	○	○
	Program Operation	○	○	○	○	○	○	○
	Single-step Feed	*7○	○	○	○	○	○	○
	Test Mode Information	○	○	○	○	○	○	○
Adjustment	One-touch Tuning	○	○	*10○	○	○	○	○
	Tuning	○	○	○	○	○	○	○
	Machine Analyzer	○	○	○	○	○	○	○
	Advanced Gain Search	○	○	○	○	○	○	○
Tools	Update Parameter Setting Range	○	○	○	○	○	○	○
	Machine Unit Conversion Display Setting	○	○	○	○	○	○	○

*1 Only available when operation mode is Fully closed loop control mode.

*2 Only available when operation mode is Linear servo motor control mode.

*3 Not available when operation mode is Linear servo motor control mode.

*4 Only available when operation mode is Standard control mode.

*5 The same as MR-J3-B in MR-J3-B compatibility mode.

- Standard control mode: MR-J3-B
- Fully closed control mode: MR-J3-B-RJ006
- Linear servo motor control mode: MR-J3-B-RJ004
- DD Motor control mode: MR-J3-B-RJ080W

*6 The same as MR-J4-B (-RJ) in MR-J3-B extension function (Several restrictions).

Please select the "MR-J3-B extension function" when using as MR-J3-B extension function.

*7 Only available when it is MR-J4-A-RJ.

*8 Functional safety unit MR-D30 is necessary.

*9 Only available when it is MR-J4-B-RJ.

*10 Cannot be used in pressure control mode.

1. INTRODUCTION

When connecting to the servo amplifier (MR-J3 series/MR-JN-A)

Servo amplifier		MR-J3-A	MR-J3-B	MR-J3-B -RJ006	MR-J3-B -RJ004	MR-J3-B -RJ080W	MR-J3-T	MR-JN-A
Communication Method	USB	○	○	○	○	○	○	○
	RS-422(RS-232C)	○	△	△	△	△	○	△
Parameter	Parameter Setting	○	○	○	○	○	○	○
	Axis Name Setting	○	△	△	△	△	○	○
	Parameter Converter	△	△	△	△	△	△	△
Safety	Safety Parameter Setting	△	△	△	△	△	△	△
	Change Password	△	△	△	△	△	△	△
	Initialize Password	△	△	△	△	△	△	△
Positioning-data	Point Table	△	△	△	△	△	○	○
	Program	△	△	△	△	△	△	○
	Indirect Addressing	△	△	△	△	△	△	△
	Cam Data	△	△	△	△	△	△	△
Monitor	Display All	○	○	○	○	○	○	○
	I/O Monitor	○	○	○	○	○	○	○
	Graph	○	○	○	○	○	○	○
	ABS Data Display	○	○	○	○	○	○	△
Diagnosis	Alarm Display	○	○	○	○	○	○	○
	Alarm Onset Data	○	○	○	○	○	○	○
	Drive Recorder	△	△	△	△	△	△	○
	No Motor Rotation	○	○	○	○	○	○	○
	System Configuration	○	○	○	○	○	○	○
	Life Diagnosis	○	○	○	○	○	○	○
	Machine Diagnosis	△	△	△	△	△	△	△
	Fully Closed Loop Diagnosis	△	△	○	△	△	△	△
Linear Diagnosis	△	△	△	○	△	△	△	
Test Mode	JOG Mode	○	○	○	△	○	○	○
	Positioning Mode	○	○	○	○	○	○	○
	Motor-less Operation	○	○	○	△	○	○	○
	DO Forced Output	○	○	○	○	○	○	○
	Program Operation	○	○	○	○	○	○	○
	Single-step Feed	△	△	△	△	△	○	○
	Test Mode Information	○	○	○	○	○	○	○
Adjustment	One-touch Tuning	△	△	△	△	△	△	△
	Tuning	○	○	○	○	○	○	○
	Machine Analyzer	○	○	○	○	○	○	△
	Advanced Gain Search	○	○	○	○	△	○	△
Tools	Update Parameter Setting Range	○	○	○	○	○	○	○
	Machine Unit Conversion Display Setting	○	○	○	○	○	○	○

1. INTRODUCTION

When via a motion controller *9

Servo amplifier		MR-J4-B (-RJ)*6 *7	MR-J4-B -LL	MR-J3-B	MR-J3-B -RJ006	MR-J3-B -RJ004	MR-J3-B -RJ080W	MR- MT1200
Communication Method	SSCNET III			○	○	○	○	○
	SSCNET III/H	○	○					
Parameter	Parameter Setting	○	○	○	○	○	○	○
	Axis Name Setting							
	Parameter Converter							
Safety	Safety Parameter Setting	*8*10○						
	Change Password	8*10○						
	Initialize Password	*8*10○						
Positioning-data	Point Table							
	Program							
	Indirect Addressing							
	Cam Data							
Monitor	Display All	○	○	○	○	○	○	
	I/O Monitor	○	○	○	○	○	○	
	Graph	○	○	○	○	○	○	
	ABS Data Display	○	○	○	○	○	○	
Diagnosis	Alarm Display	○	○	○	○	○	○	○
	Alarm Onset Data	○	○	○	○	○	○	
	Drive Recorder	○						
	No Motor Rotation	○	*11○	○	○	○	○	
	System Configuration	○	○	○	○	○	○	○
	Life Diagnosis	○	○	○	○	○	○	
	Machine Diagnosis	○	○					
	Fully Closed Loop Diagnosis	*1○			○			
Linear Diagnosis	*2○				○			
Test Mode	JOG Mode	*3○	○	*5○	*5○		*5○	
	Positioning Mode	○	○	*5○	*5○	*5○	*5○	
	Motor-less Operation	*4○		○	○			
	DO Forced Output	○		○	○	○	○	
	Program Operation	○	○	*5○	*5○	*5○	*5○	
	Single-step Feed							
	Test Mode Information	○	○	*5○	*5○	*5○	*5○	
Adjustment	One-touch Tuning	○	*11○					
	Tuning	○	○	○	○	○	○	
	Machine Analyzer	○	○	*5○	*5○	*5○	*5○	
	Advanced Gain Search			○	○	○		
Tools	Update Parameter Setting Range	○	○	○	○	○	○	
	Machine Unit Conversion Display Setting	○	○	○	○	○	○	

*1 Only available when operation mode is Fully closed loop control mode.

*2 Only available when operation mode is Linear servo motor control mode.

*3 Not available when operation mode is Linear servo motor control mode.

*4 Only available when operation mode is Standard control mode.

*5 Not available for Q17□H.

*6 The same as MR-J3-B in MR-J3-B compatibility mode.

- Standard control mode: MR-J3-B
- Fully closed control mode: MR-J3-B-RJ006
- Linear servo motor control mode: MR-J3-B-RJ004
- DD Motor control mode: MR-J3-B-RJ080W

*7 Can not be used as MR-J3-B extension function.

Please select the "MR-J3-B" series from controller when connecting to MR-J3-B extension function.

*8 Functional safety unit MR-D30 is necessary.

*9 Each function of MR Configurator2 will be used as MT Developer2 function in MT Developer2 Version 1.100E or later.

*10 Only available when it is MR-J4-B-RJ.

*11 Cannot be used in pressure control mode.

1. INTRODUCTION

When via a simple motion *9

Servo amplifier		MR-J4-B (-RJ)*6 *7	MR-J4-B -RJ010	MR-JE-B	MR-J3-B	MR-J3-B -RJ006	MR-J3-B -RJ004	MR-J3-B -RJ080W	MR- MT1200
Communication Method	SSCNET III				○	○	○	○	○
	SSCNET III/H	○		○					
	CC-Link IE Field		○						
Parameter	Parameter Setting	○	○	○	*5○	*5○	*5○	*5○	*5○
	Axis Name Setting								
	Parameter Converter								
Safety	Safety Parameter Setting	*8*10○							
	Change Password	*8*10○							
	Initialize Password	*8*10○							
Positioning-data	Point Table								
	Program								
	Indirect Addressing								
	Cam Data								
Monitor	Display All	○	○	○	○	○	○	○	
	I/O Monitor	○	○	○	○	○	○	○	
	Graph	○	○	○	○	○	○	○	
	ABS Data Display	○	○	○	○	○	○	○	
Diagnosis	Alarm Display	○	○	○	○	○	○	○	○
	Alarm Onset Data	○	○	○	○	○	○	○	
	Drive Recorder	○	○	○					
	No Motor Rotation	○	○	○	○	○	○	○	
	System Configuration	○	○	○	○	○	○	○	○
	Life Diagnosis	○	○	○	○	○	○	○	
	Machine Diagnosis	○	○	○					
	Fully Closed Loop Diagnosis	*1○				○			
Linear Diagnosis	*2○					○			
Test Mode	JOG Mode	*3○	○	○					
	Positioning Mode	○	○	○					
	Motor-less Operation	*4○	○	○	○	○			
	DO Forced Output	○	○	○	○	○	○	○	
	Program Operation	○	○	○					
	Single-step Feed								
	Test Mode Information	○	○	○	○	○	○	○	
Adjustment	One-touch Tuning	○	○	○					
	Tuning	○	○	○					
	Machine Analyzer	○	○	○					
	Advanced Gain Search								
Tools	Update Parameter Setting Range	○	○	○	○	○	○	○	
	Machine Unit Conversion Display Setting	○	○	○	○	○	○	○	

*1 Only available when operation mode is Fully closed loop control mode.

*2 Only available when operation mode is Linear servo motor control mode.

*3 Not available when operation mode is Linear servo motor control mode.

*4 Only available when operation mode is Standard control mode.

*5 Not available for online setting in LD77MH]. Please read/write parameters using GX Works2.

*6 The same as MR-J3-B in MR-J3-B compatibility mode.

- Standard control mode: MR-J3-B
- Fully closed control mode: MR-J3-B-RJ006
- Linear servo motor control mode: MR-J3-B-RJ004
- DD Motor control mode: MR-J3-B-RJ080W

*7 Can not be used as MR-J3-B extension function.

Please select the "MR-J3-B" series from controller when connecting to MR-J3-B extension function.

*8 Functional safety unit MR-D30 is necessary.

*9 Each function of MR Configurator2 will be used as GX Works3 function in GX Works3.

*10 Only available when it is MR-J4-B-RJ.

1. INTRODUCTION

1.2 System configuration

1.2.1 Components

To use the MR Configurator2, the following components are required in addition to the servo amplifier and servo motor. Configure the system according to the Installation Guide of each equipment.

Equipment		(Note 1) Description
(Note 2, 3, 4, 5, 6) Personal computer	OS	Microsoft® Windows® 8.1 Enterprise Operating System Microsoft® Windows® 8.1 Pro Operating System Microsoft® Windows® 8.1 Operating System Microsoft® Windows® 8 Enterprise Operating System Microsoft® Windows® 8 Pro Operating System Microsoft® Windows® 8 Operating System Microsoft® Windows® 7 Enterprise Operating System Microsoft® Windows® 7 Ultimate Operating System Microsoft® Windows® 7 Professional Operating System Microsoft® Windows® 7 Home Premium Operating System Microsoft® Windows® 7 Starter Operating System Microsoft® Windows Vista® Enterprise Operating System Microsoft® Windows Vista® Ultimate Operating System Microsoft® Windows Vista® Business Operating System Microsoft® Windows Vista® Home Premium Operating System Microsoft® Windows Vista® Home Basic Operating System Microsoft® Windows® XP Professional Operating System, Service Pack 3 Microsoft® Windows® XP Home Edition Operating System, Service Pack 3
	CPU	Desktop PC: Intel® Celeron® Processor 2.8GHz or higher Laptop PC : Intel® Pentium® M Processor 1.7GHz or higher
	Memory	512MB or more recommended (For 32-bit edition) 1GB or more recommended (For 64-bit edition)
	Hard Disk	1GB or more of free space
	Browser	Internet Explorer 4.0 or more
Display	One whose resolution is 1024 × 768 or more and that can provide a high color (16 bit) display. Connectable with the above personal computer.	
Keyboard	Connectable with the above personal computer.	
Mouse	Connectable with the above personal computer.	
Printer	Connectable with the above personal computer.	
USB cable	MR-J3USBCBL3M	

Note 1. Windows and Windows Vista are the registered trademarks of Microsoft Corporation in the United States and other countries.

Celeron, Pentium is the registered trademarks of Intel Corporation.

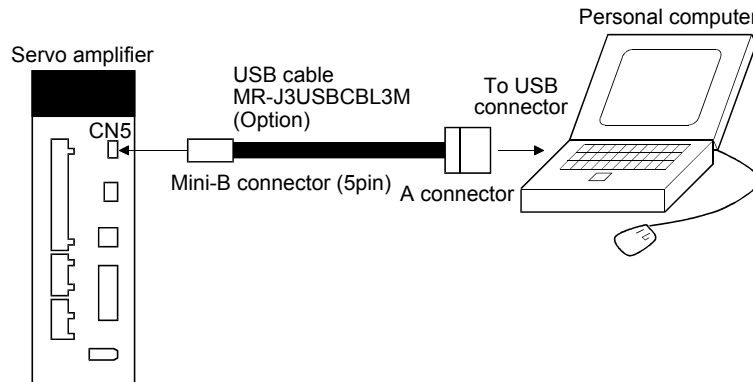
2. On some personal computers, this software may not run properly.
3. If Microsoft® Windows® XP or later is used, the following functions cannot be used. If any of the following functions is used, this product may not operate normally.
 - Start of application in Windows® compatible mode
 - Fast user switching
 - Remote desktop
 - Big fonts (Detail settings of screen property)
 - DPI setting other than 100% (Characters on screen and size of illustrations etc. are set other than [Decrease 100%])
4. If Windows Vista® or later is used, log in as a user having User authority or higher
5. If Windows® 7 or later is used, the following functions cannot be used.
 - Windows XP Mode
 - Touch
6. If Windows® 8 or later is used, the following functions cannot be used.
 - Hyper-V
 - Modern UI Style

1. INTRODUCTION

1.2.2 Configuration

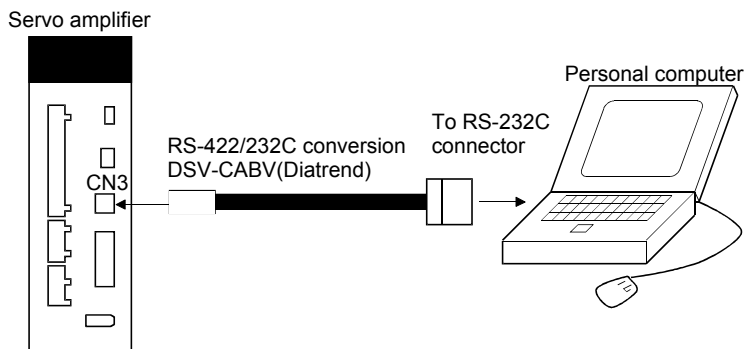
(1) For use of USB

Run/operate the servo amplifier of axis 1. As the USB cable, use the optional MR-J3USBCBL3M.



(2) For use of RS-422 (MR-J3-A/MR-J3-T)

Run/operate the servo amplifier of axis 1. It is recommended to use the following cable.



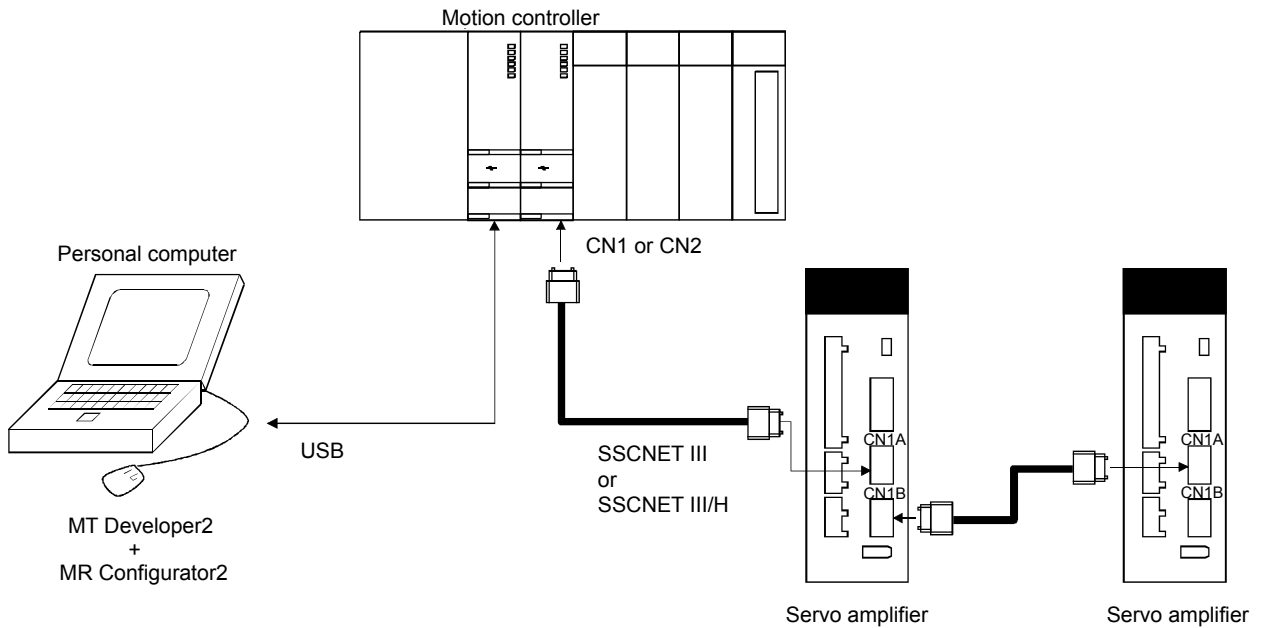
1. INTRODUCTION

(3) For setting up via a motion controller (MR-J4-B (-RJ)/MR-J3-B)

When control several servo amplifiers via a motion controller, MR Configurator2 is started from MT Developer2 (Note 1), and communication is performed according to the communication method and communication path that are set in the transfer setup on MT Developer2.

(Note 1) Each function of MR Configurator2 will be used as MT Developer2 function in MT Developer2 Version 1.100E or later.

The example of USB connection is shown below.



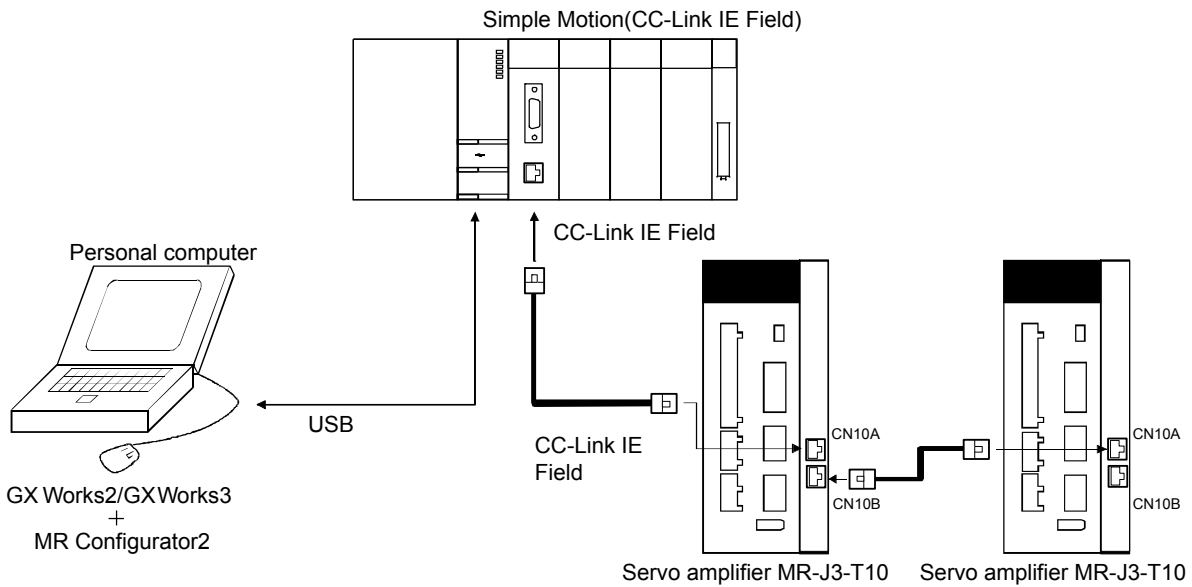
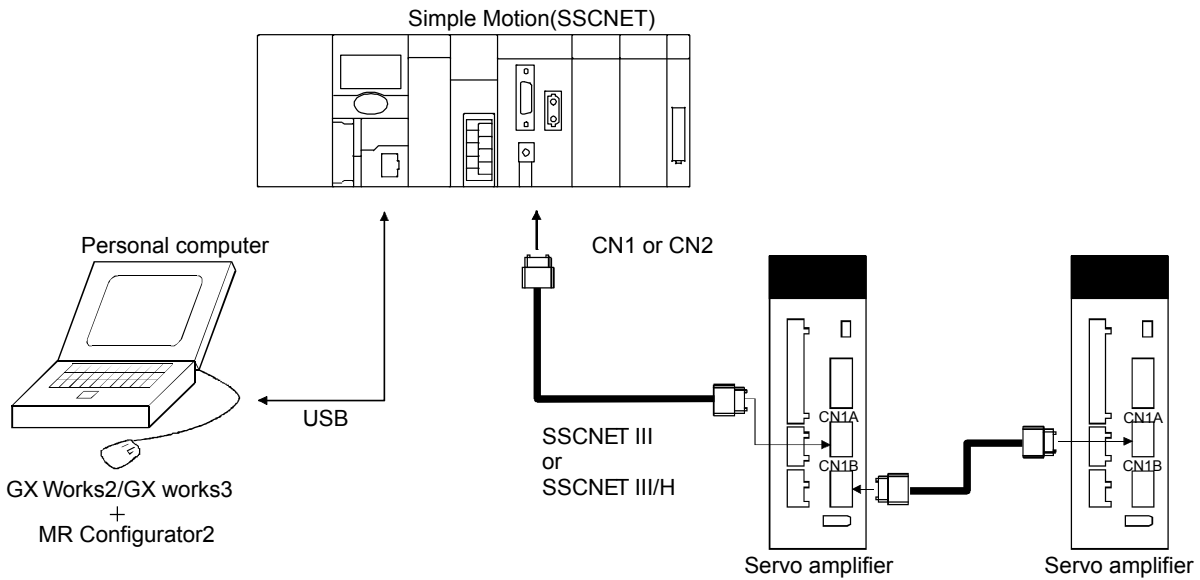
1. INTRODUCTION

(4) For setting up via a simple motion (MR-J4-B (-RJ)/MR-J4-B-RJ010/MR-J3-B)

When control several servo amplifiers via a simple motion, MR Configurator2 is started from GX Works2/GX Works3 (Note 2), and communication is performed according to the communication method and communication path that are set in the transfer setup on GX Works2/GX Works3.

(Note 2) Each function of MR Configurator2 will be used as GX Works3 function in GX Works3.

The example of USB connection is shown below.



1. INTRODUCTION

1.3 Basic terms

1) Mouse pointer

An on-screen arrow which moves with movements of the mouse.

2) Point

To move the mouse pointer to a particular item or position on the screen.

3) Click

To press and release the left button of the mouse once.

4) Double-click

To press and release the left button of the mouse twice.

5) Drag

To hold down the left button of the mouse and move the mouse.

6) Focus

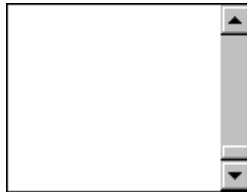
Highlights characters, button or the like when the menu or button is ready to accept an input from the keyboard.

7) Text box

Box used to enter characters.

8) List box

Box used to select one of several items.



9) Combo box

Box used to select one of several items.



10) Check box

Box used to select one or more of several items. When a choice is made a mark appears in the box.

11) Option button

Button used to select only one of several items. When a choice is changed  moves to a new choice.

1. INTRODUCTION

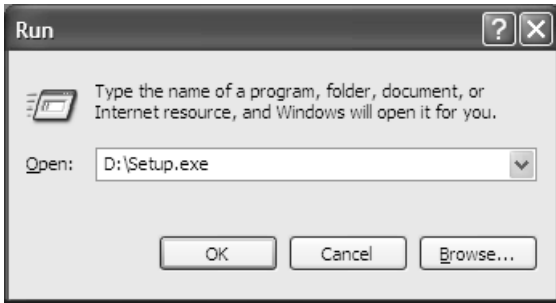
1.4 Installation procedure

Perform installation with the administrator authority (computer administrator authority).

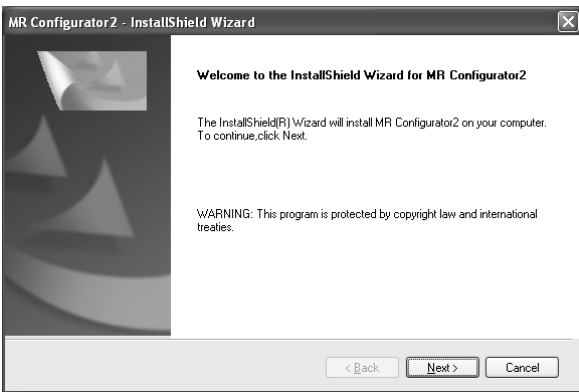
Here, the hard disk drive of the personal computer is explained as C and the CD drive as D.

Before executing this program, be sure to close all other Windows programs.

On Windows® 8 or later, it is necessary to make it valid when .NET Framework 3.5 (including .NET 2.0 and 3.0) of personal computer is invalid.



1) Insert the CD-ROM in Drive D (CD drive). Then, click the "Start" button on the task bar to open the menu, and click "RUN". When the left window as shown on the left appeared, enter "D:\Setup.exe" and click the "OK" button.



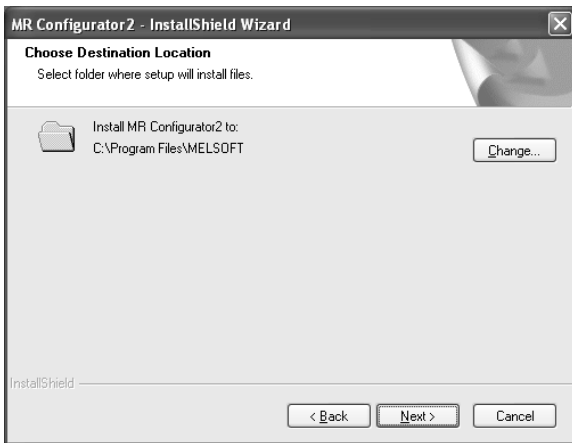
2) After the above window, the left window appears. Click the "Next" button.



3) After the Setup status screen, the User information screen appears. Enter the user name and company name. Also, enter the product ID on the license agreement which was provided with the product in single-byte alphanumeric characters, and click the "Next" button.

1. INTRODUCTION

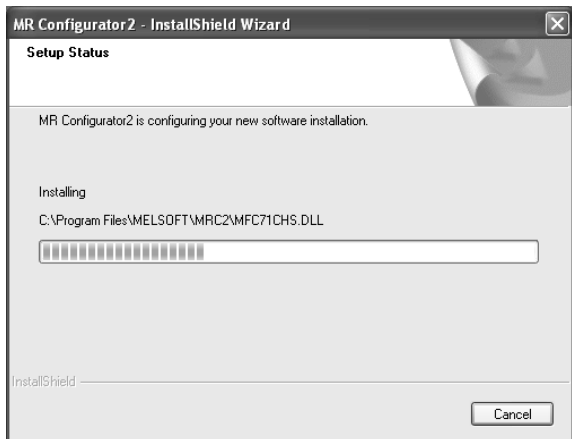
- 4) The Select installation destination screen appears. Specify the installation destination, and click the "Next" button. This starts installation.



- 5) Information for starting the program file copy is displayed. Click the "Next" button to start the installation.



- 6) The Setup status screen appears.



1. INTRODUCTION



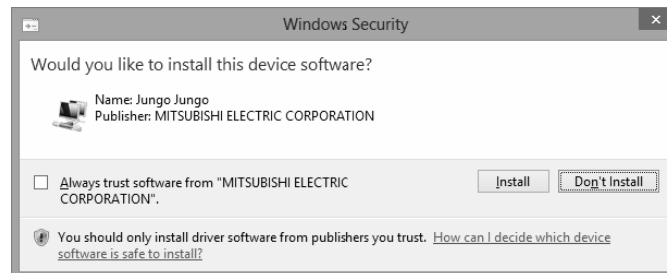
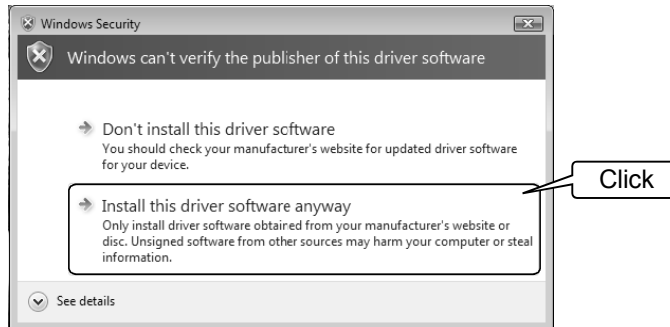
7) The driver installation window appears.

POINT

- When Windows® XP is used, the verify screen appears. Click the "Continue Anyway" button.

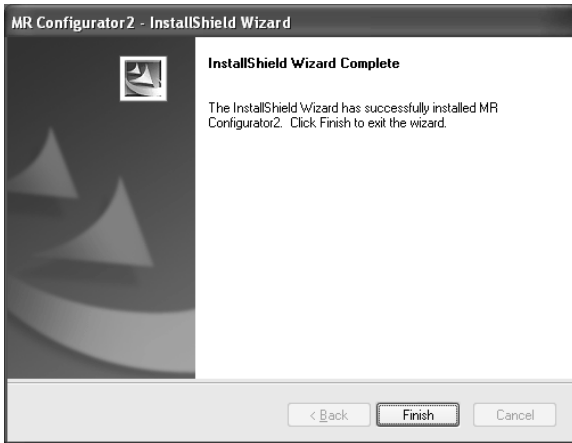


- On Windows Vista® or later, the security warning screen shown below appears several times. Select "Install this driver software anyway" for all three times or click the "Install" button. (The screen does not appear after the USB driver is registered.)



- If the driver is not installed, communication may be partly interrupted. In this case, reinstall MR Configurator2.

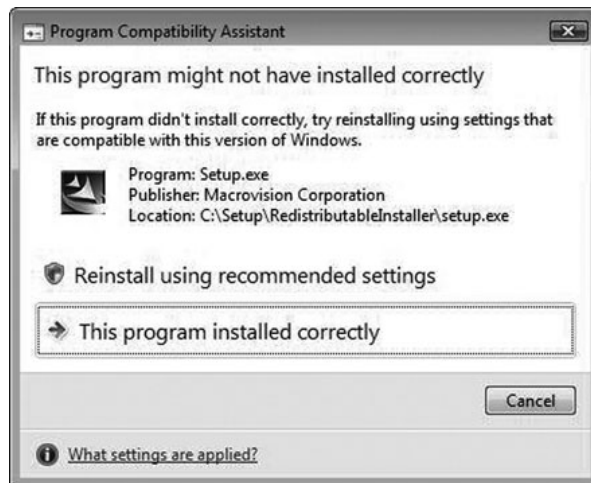
1. INTRODUCTION



- 8) When installation is completed, the next screen appears. Click the "Finish" button to end the setup. When restart message appears, starting again to use MR Configurator2. The register of start menu changes from "MELSOFT Application" to "MELSOFT" in Ver. 1.45X.

POINT

- In the corresponding window, to stop installation, click the "Cancel" button.
- If an overwrite install has been done to upgrade the version of MR Configurator2 when Windows Vista[®] or later is used, the following message may be displayed. In this case, select "This program installed correctly".



- On Windows[®] 8 or later, the update of application list is not executed when executed version up from MR Configurator2 in 1.41T or before, so you need to restart the personal computer.

1. INTRODUCTION

1.5 New hardware detection wizard

The New Hardware Adding Wizard appears when the servo amplifier powered on is connected with the personal computer via USB for the first time (Only when Windows® XP is used). New hardware is automatically detected when Windows Vista® or later is used. The following shows a display flow.

(1) When Windows® XP is used



Click "Next".



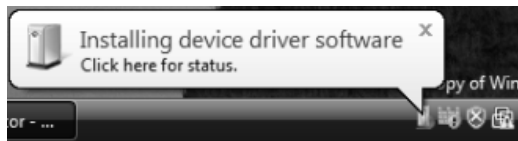
Click "Continue Anyway".



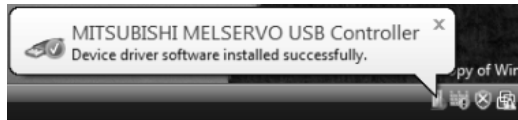
Click "Finish".

1. INTRODUCTION

(2) When Windows Vista® or Windows® 7 is used



Indications on the left appear during automatic registration.
(Operation is not required.)



(3) When Windows® 8 or later is used

It will not be displayed.

2. HOW TO USE THE SOFTWARE

2. HOW TO USE THE SOFTWARE

2.1 Operation

The method of selecting the command is the operation procedures using the mouse.
Unavailable commands are grayed out.

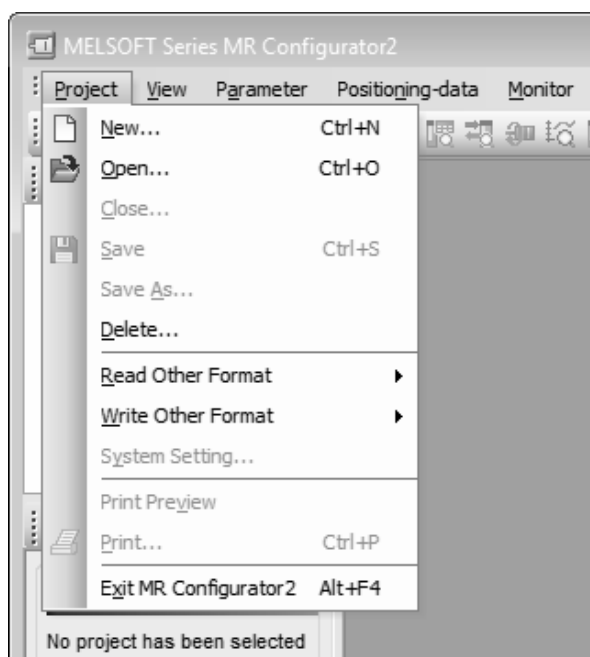
2.1.1 Start-up

- (1) When connecting to the servo amplifier
Click "MR Configurator2" on the desktop.
- (2) When operating via motion controller (Before MT Developer2 Version 1.100E)
Double-click the "Servo Parameter" icon of the Motion controller programming software MT Developer2.
- (3) When operating via simple motion module (GX Works2)
Double-click the "Servo Parameter" icon of the simple motion module programming software tool, which is integrated in the PLC programming software GX Works2.
- (4) When operating via motion controller (MT Developer2 Version 1.100E or later)
Each function of MR Configurator2 will be used as MT Developer2 function. Refer to the "Operating Servo Amplifier" of MT Developer2 HELP when using each function of MR Configurator2.
- (5) When operating via simple motion module (GX Works3)
Each function of MR Configurator2 will be used as GX Works3 function. Refer to the "Servo Amplifier Operation" in Simple Motion Setting Tool HELP of GX Works3 when using each function of MR Configurator2.

2.1.2 Project

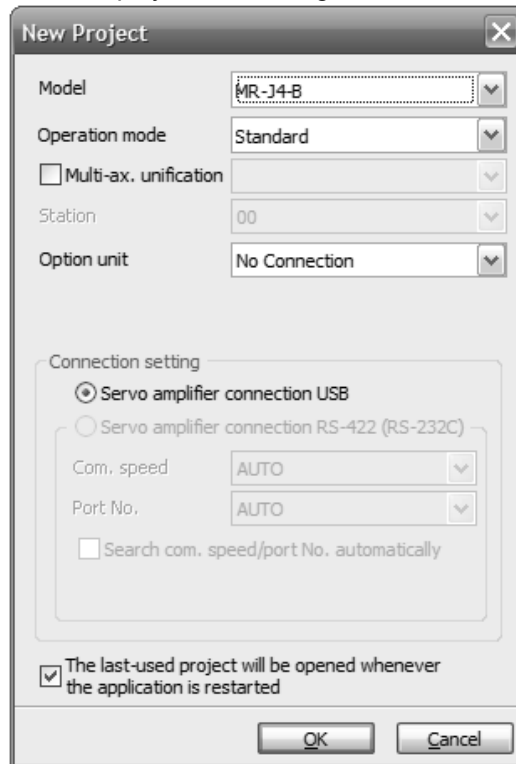
(1) New

Clicking "Project" on the menu bar displays the following menu.

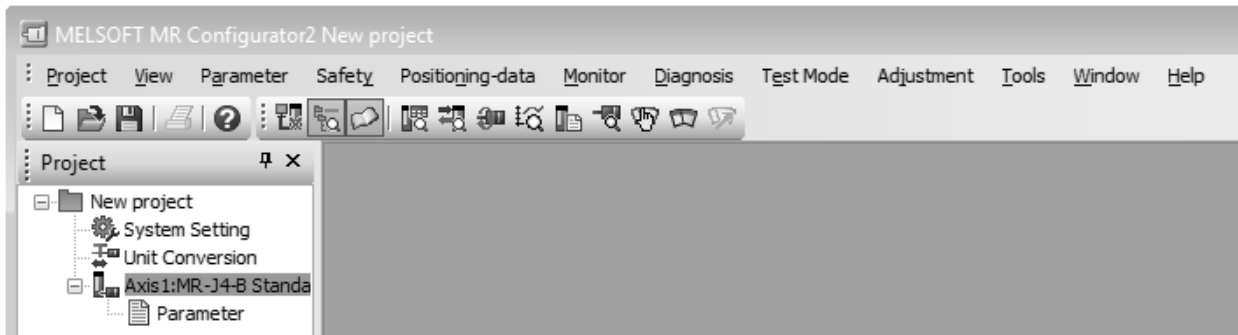


2. HOW TO USE THE SOFTWARE

Clicking "New" in the sub menu displays the following window.



When the model is selected, and "OK" button is clicked, the following windows are displayed.



(2) Open

Read the input information from the saved file.

Clicking "Open" in the sub menu opens a window, where you can specify the project.

(3) Close

Close the currently open project.

Clicking "Close" in the sub menu closes the project.

(4) Save

Modify and save the currently open project.

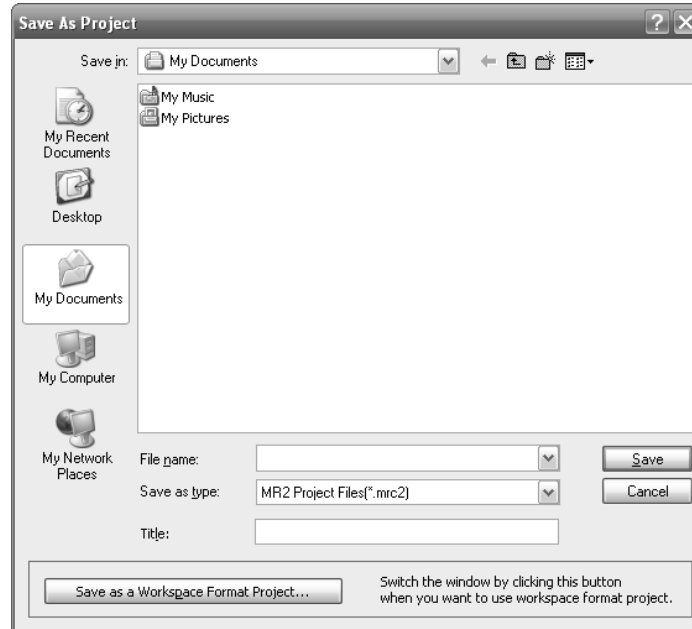
Clicking "Save as project" in the sub menu saves the project.

2. HOW TO USE THE SOFTWARE

(5) Save As

Save the current input information into a file. If the information to be repeatedly input is saved, that information can be read by clicking "Open".

Clicking "Save As" in the sub menu displays the following window.



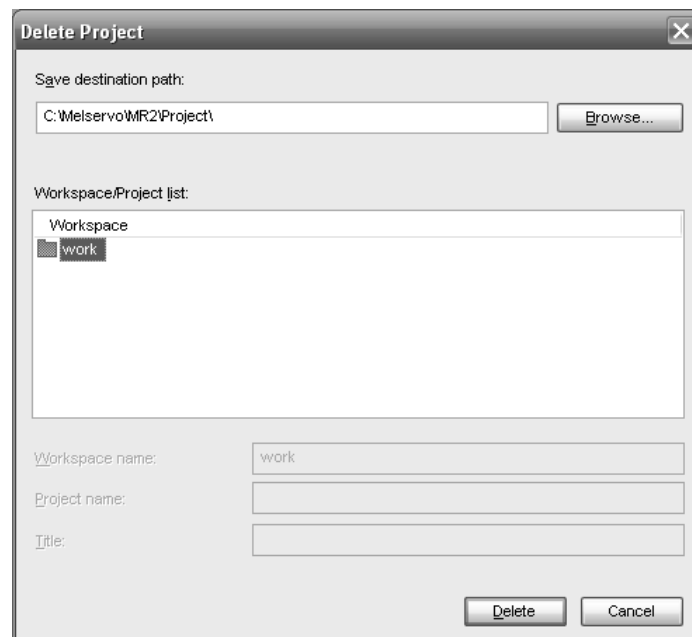
Note)

When you want to save the existing workspace format MR Configurator2 project, click the "Save as a Workspace Format Project" button.

(6) Delete

Delete the existing project for the workspace format MR Configurator2.

Clicking "Delete" in the sub menu displays the following window.

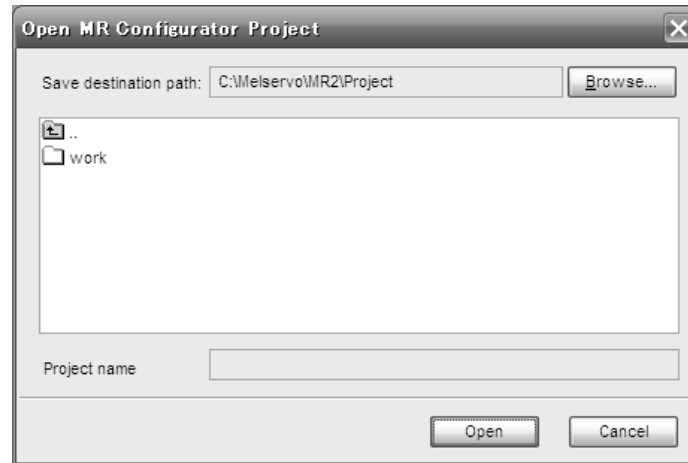


2. HOW TO USE THE SOFTWARE

(7) Open MR Configurator Project

Open an existing MR Configurator project.

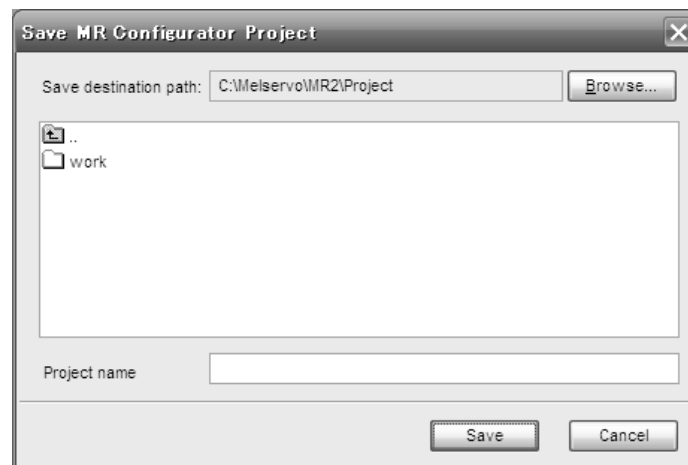
Clicking “Read Other Format” - “Open MR Configurator Project” in the sub menu displays the following window.



(8) Save MR Configurator Project

Save an existing MR Configurator project.

Clicking “Write Other Format” - “Save MR Configurator Project” in the sub menu displays the following window.

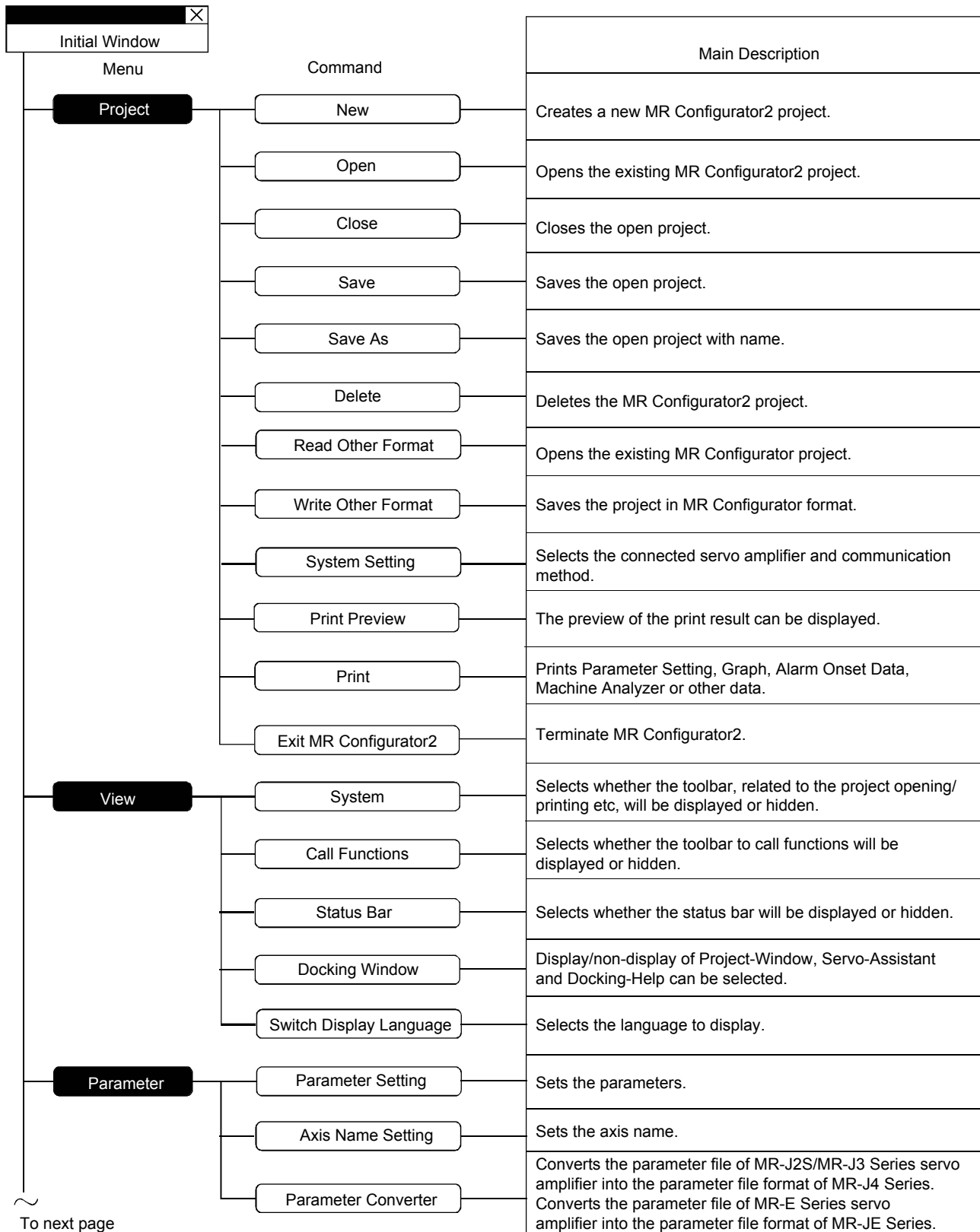


2. HOW TO USE THE SOFTWARE

2.2 Commands and display windows

This section provides commands and their main descriptions.

For the method of using each command, the detailed explanation is provided in the help function of the servo amplifier software.



To next page

2. HOW TO USE THE SOFTWARE

Continued from previous page

Menu	Command	Main Description
Safety	Safety Parameter Setting	Sets the safety parameter setting.
	Change Password	Can change the password during writing safety parameter.
	Initialize Password	Can initialize the password during writing safety parameter.
Positioning-data	Point Table	Sets the point table.
	Program	Sets the program.
	Indirect Addressing	Can set the general register of servo amplifier.
	Cam Data	Can display/edit the cam data.
Monitor	Display All	Displays the servo status item-by-item numerically.
	I/O Monitor	Displays the I/O signal, analog monitor and other status.
	Graph	Displays the servo status in graphical form.
	ABS Data Display	Displays the ABS data.
Diagnosis	Alarm Display	Displays the detailed information if alarm or warning is currently occurring. List displays the history about the alarm or warning already occurred.
	Alarm Onset Data	Displays the monitored data at alarm occurrence if alarm or warning is currently occurring.
	Drive Recorder	Displays the drive recorder.
	No Motor Rotation	Displays the reason why the servo motor does not rotate.
	System Configuration	Displays the system configuration information.
	Life Diagnosis	Displays the life diagnosis information.
	Machine Diagnosis	Displays the machine diagnosis information.
	Fully Closed Loop Diagnosis	Displays the monitor and parameters concerning the fully closed loop function.
	Linear Diagnosis	Displays the monitor and parameters concerning the linear function.

To next page

2. HOW TO USE THE SOFTWARE

Continued from previous page

Menu	Command	Main Description
Test Mode	JOG Mode	Executes JOG operation.
	Positioning Mode	Executes positioning operation.
	Motor-less Operation	Executes motor-less operation.
	DO Forced Output	Executes DO forced output.
	Program Operation	Executes programmed operation.
	Single-step Feed	Executes single-step feed operation.
	Test Mode Information	Displays the alarms and warnings which occurred at the start, end or during operation, in chronological order.
Adjustment	One-touch Tuning	Executes one-touch tuning.
	Tuning	Adjusts the gain parameters.
	Machine Analyzer	Executes machine analyzer.
	Advanced Gain Search	Executes advanced gain search.
Tools	Update Parameter Setting Range	Acquires the parameter setting range from the connected amplifier and updates the data file of MR Configurator2.
	Machine Unit Conversion Display Setting	Sets the valid/invalid of machine unit conversion display and the unit/pulse/move distance for unit conversion.
Window	Cascade	Displays superimposed screens.
	Tile Vertically	Tiles the screens vertically.
	Tile Horizontally	Tiles the screens horizontally.
	Arrange Icons	Arranges minimized screens.
	Close All Windows	Closes all windows which are displayed.
	Reset Window Layout	Resets all windows layout.
Help	MR Configurator2 Help	Displays Help of MR Configurator2.
	Connection to MITSUBISHI ELECTRIC FA Global Website	Displays the MITSUBISHI ELECTRIC FA Global Website.
	About MR Configurator2	Displays version information.

2. HOW TO USE THE SOFTWARE

2.3 Precautions for test mode

⚠ WARNING

- Always touch the switches with dry hands. You may get an electric shock if you touch them with wet hands.
- Always operate the equipment with the front cover installed. Removing the front cover will expose the terminals and charged area having high voltages, which may lead to an electric shock.
- Keep the front cover closed while power is on the equipment is running. Otherwise, you may get an electric shock.

⚠ CAUTION

- Before starting operation, make sure that the parameters are set to correct values. Depending on machines, they may operate unpredictably.
- Take safety measures, e.g. provide covers, to prevent accidental contact of hands and parts (cables, etc.) with the servo amplifier heat sink, regenerative brake resistor, servo motor, etc. since they may be hot while power is on or for some time after power-off. Their temperatures may be high and you may get burnt or a parts may damaged.

(1) Servo on

In the JOG Mode, Positioning Mode, Program Operation, or Single-step Feed available in the Test, the servo amplifier's digital input signal Servo on (SON) is automatically switched on in the servo amplifier to start operation, independently of the ON/OFF status of Servo on (SON). Also, any external command pulse or input signal (except emergency stop) is not accepted until the test mode window is closed to terminate the command.

Servo on is automatically switched on by the following operation:

Test mode	Mouse
JOG Mode	Click the "Forward" or "Reverse" button.
Positioning Mode	
Program Operation	Click the "Operation Start" button.
Single-step Feed	

(2) Stop

POINT

- To make an emergency stop, switch off the emergency stop signal of the servo amplifier or shut off the input power.

1) Perform the following operation to stop the test mode:

Test mode	Mouse
JOG Mode	When the check box for "Rotation only while the CCW or CW button is being pushed" on the JOG Mode window is not checked, click the "Stop" button. When the check box is checked, release the "Forward CCW" and "Reverse CW" buttons.
Positioning Mode	Click the "Pause" button or the "Stop" button.
Program Operation	
Single-step Feed	

2. HOW TO USE THE SOFTWARE

2) The servo motor will stop if either of the following situations occurs in the test mode:

- The communication cable is disconnected.
- If the window is dragged or the other menu is opened, communication between the personal computer and the servo amplifier may be suspended temporarily, stopping the servo motor temporarily.
- Forced software stop is made.

3. TROUBLESHOOTING

3. TROUBLESHOOTING

(1) Communication error

If communication between the personal computer and the servo amplifier is suspended and the communication error as shown in the following window occurs, check the detail code on the error message and remove its cause.

<Possible cause> Poor connection of communication cable, system setting mistake, noise entry, hard disk fault, etc.



*****001	Communication error
*****002	Communication time-out error
80A00107	
*****009	Insufficient memory error
80010400	Station number specification error
80010200	Communication port specification error
80070100	Write-protected parameter
80080200	The RD signals cannot be turn on

(2) If driver has been installed, driver installation screen appears at USB connection.

When Windows XP[®] is used, the driver must be installed for each USB port. When the servo amplifier is connected to a different USB port for the first time, the driver installation screen appears.

(3) Time-out error occurs at return from standby mode

POINT	<ul style="list-style-type: none"> ▪ Some personal computers cannot return to normal from a system standby. In this case, make the system standby of the personal computer invalid.
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When a system standby has been set in the power option or power saving mode of a notebook PC, a time-out error will occur at a return from a system standby.

3. TROUBLESHOOTING

(4) Communication can never be made if USB is connected

The driver may not be set correctly. Check whether the USB driver is set correctly on the Device manager screen and whether "MITSUBISHI MELSERVO USB Controller" is displayed under the "Universal Serial Bus controllers" folder on the Device manager screen with the servo amplifier powered on. If "? USB Device" is displayed, delete the driver once, then power the servo amplifier off and then on, and reinstall the driver.



Set the Device Manager screen in any of the following methods.

(a) When Windows® XP is used

Click the "Start" button on the task bar to open the menu. Click "My Computer" to open the My Computer screen, and click "View system information" to open "System properties". Click the "Hardware" tag, and click "Device Manager".

(b) When Windows Vista® or Windows® 7 is used

Click the "Start" button on the task bar to open the menu. Right-click "Computer" and then click "Property". Open "System properties" and then click "Device Manager".

(c) When Windows® 8 or later is used

Press "Windows logo key + X" to open the menu on the bottom left, and then click "Device Manager".

3. TROUBLESHOOTING

(5) The USB driver cannot be installed

It will show the manual installation instructions of USB driver.

(a) When using Windows® XP

1. Connect a personal computer and a servo amplifier with a USB cable, and then turn on the servo amplifier.
2. The [Welcome to the Found New Hardware Wizard] dialog box is displayed. Select "Install from a list or specific location (Advanced)".
3. The [Please choose your search and installation options] dialog box is displayed. Select "Search for the best driver in these locations". Check "Include this location in the search", and then set "EZSocket \EZSocketSv" of the folder where MR Configurator2 has been installed. If multiple MELSOFT products are installed previously, refer to their installed location.

("Program Files\MELSOFT\EZSocket\EZSocketSv " or "[Folder where this product is installed]\EZSocket \EZSocketSv")



Point

- If cannot be installed, confirm the following settings.

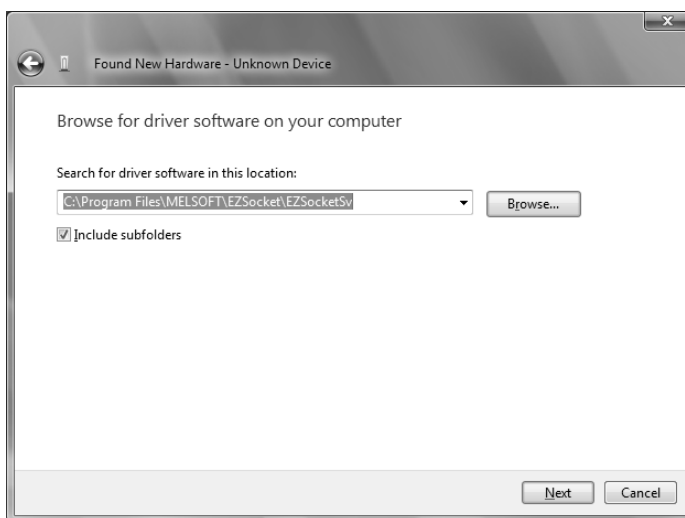
In [Control Panel] - [System] - [Hardware] - [Driver Signing], if "Block - Never install unsigned driver software" is selected, the USB driver may not be installed.

In [Driver Signing], select "Ignore - Install the software anyway and don't ask for my approval", or "Warn - Prompt me each time to choose an action", and execute the USB driver installation.

(b) When using Windows Vista®

1. Connect a personal computer and a servo amplifier with a USB cable, and then turn on the servo amplifier.
2. The [Found New Hardware] dialog box is displayed. Select "Locate and install driver software (recommended)".
3. The [Found New Hardware - Unknown Device] dialog is displayed. Select "Don't search online".
4. Check "Browse my computer for driver software (advanced)", and then set "EZSocket\EZSocketSv " of the folder where MR Configurator2 has been installed. If multiple MELSOFT products are installed previously, refer to their installed location.

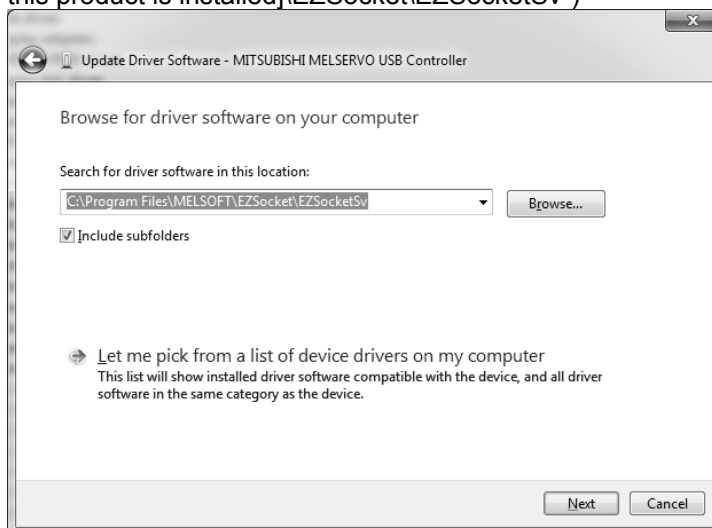
("Program Files\MELSOFT\EZSocket\EZSocketSv" or "[Folder where this product is installed]\EZSocket\EZSocketSv")



(c) When using Windows® 7 or later

1. Connect a personal computer and a servo amplifier with a USB cable, and then turn on the servo amplifier.
2. "Device driver software was not successfully installed" popup window is displayed. (It will not be displayed in Windows® 8 or later.) Select [Control Panel] – [System and Security] – [Administrative Tools] – [Computer Management], and select "Update Driver Software" of [Unknown device] in the Device Manager.
3. The [Update Driver Software - Unknown Device] dialog is displayed. Select "Don't search online". Check "Browse my computer for driver software (advanced)", and then set "EZsocket\EZSocketSv" of the folder where MR Configurator2 has been installed. If multiple MELSOFT products are installed previously, refer to their installed location.

("Program Files\MELSOFT\EZSocket\EZSocketSv" or "[Folder where this product is installed]\EZSocket\EZSocketSv")



REVISIONS

*The manual number is given on the bottom left of the back cover.

Print Date	*Manual Number	Revision
Sep., 2010	IB(NA)0300163-A	First edition
Mar., 2012	IB(NA)0300163-B	1-1 Add MR-J4-A, MR-J4-B, MR-J3-A, and MR-J3-T in the table 1-2 Add MR-J4-B in the table 1-3 Add MR-J4-B in the table 1-4 Add 64-bit OS 1-6 Add to SSCNETIII/H communication path in the figure 1-7 Add to SSCNETIII/H communication path in the figure 2-2 Changes to the MR-J4-B from MR-J3-B models in the figure 2-6 Add "Point table", "Drive Recorder" and "Machine Diagnosis" 2-7 Add "Single-step Feed", "One-touch Tuning" and "Reset Window Layout" 2-8 Add "Single-step Feed" 2-10 Delete the description of MR-J3-B 2-10 Add the description of MR-J4-A to column of SYNC command 2-11 Add SYNC command in the figure
Jun., 2012	IB(NA)0300163-C	1-1 Available "Update Parameter Setting Range" of MR-J4-A 1-1 Available "Fully Closed Loop Diagnosis" of MR-J4-B 1-2 Available "Fully Closed Loop Diagnosis" of MR-J4-B 1-3 Available "Fully Closed Loop Diagnosis" of MR-J4-B 1-1 Add "Parameter Converter" in the table 1-2 Add "Parameter Converter" in the table 1-3 Add "Parameter Converter" in the table 2-5 Add "Parameter Converter"
Feb., 2013	IB(NA)0300163-D	1-1 Add MR-J4-B-RJ010, MR-JN-A and MR-JE-A in the table 1-1 Add "Program" in the table 1-1 Available "Fully Closed Loop Diagnosis" of MR-J4-A 1-1 Available "Linear Diagnosis" of MR-J4-A 1-2 Add "Program" in the table 1-3 Add MR-J4-B-RJ010 in the table 1-3 Add "CC-Link IE Field" and "Program" in the table 1-7 Add "MR-J4-B-RJ010" to "(4) For setting up via a simple motion" 1-7 Describe the USB connection by SSCNET and CC-Link IE Field 1-7 Modify the description of GX Communication setting 2-3 Modify the description of "(5) Saving the project with name" 2-3 Modify the description of "(6) Deleting the project" 2-6 Add "Program" to "Positioning-data"

Print Date	*Manual Number	Revision
May, 2013	IB(NA)0300163-E	1-4 Modify the description of "Note 3, 4, 5" 1-4 Add the Windows® 8 to OS 1-6 Modify the description of "(3) For setting up via a motion controller" 1-7 Modify the description of "(4) For setting up via a simple motion" 1-9 Modify the description of "1.4 Installation procedure" 1-9 Add the description of Windows® 8 1-11 Modify the description of "POINT" 1-11 Add the description of Windows® 8 1-13 Modify the description of "1.5 New hardware detection wizard" 1-14 Add the description of Windows® 8 3-2 Add the description of Windows® 8
Mar., 2014	IB(NA)0300163-F	1-1 Add the J3 extension function 1-1 Add the safety menu, available "Positioning-data" of MR-J4-A 1-2 Add the J3 extension function and safety menu 1-3 Add the J3 extension function and safety menu 1-4 Add the Windows® 8.1/delete the Windows® 2000 to OS 1-9 Delete the description of Windows® 2000 1-11 Modify the security warning screen 1-13 Delete the description of Windows® 2000 1-14 Delete the description of Windows® 2000 2-1 Modify the start-up method 2-2 Change the image 2-6 Add the safety and indirect addressing menu 3-1 Delete the description of Windows® 2000 3-2 Delete the description of Windows® 2000
Jun., 2014	IB(NA)0300163-G	1-2 Add the description about MT Developer2 Version 1.100E or later 1-3 Add the description about GX Works3 1-6 Add the description about MT Developer2 Version 1.100E or later 1-7 Add the description about GX Works3 2-1 Add the description about MT Developer2 Version 1.100E or later/ GX Works3 2-5 Add "Switch Display Language" in View

Print Date	*Manual Number	Revision
Oct., 2014	IB(NA)0300163-H	A-2 Delete the memo page of "Safety Instructions" 2 Delete the memo page of "CONTENTS" 1-2 Modify the layout 1-3 Modify the layout 1-4 Modify the layout 1-7 Modify the layout 1-8 Modify the layout 2-6 Modify the description of "Alarm Display" 2-7 Add "Connection to MITSUBISHI ELECTRIC FA Global Website" in Help 2-7 Modify the description of "Update Parameter Setting Range" 2-12 Delete the memo page of "2. HOW TO USE THE SOFTWARE" 3-3 Delete the memo page of "3. TROUBLESHOOTING" Back cover Delete the three-diamond Mitsubishi mark before the company name
Nov., 2014	IB(NA)0300163-J	1-1 Available "Functional safety unit" of MR-J4-A/Add the description about MR-J4-B-RJ/Add MR-JE-B 1-2 Add the description about MR-J4-B-RJ 1-3 Add the description about MR-J4-B-RJ/Add MR-JE-B
Jan., 2015	IB(NA)0300163-K	1-1 Modify the description about MR-JE-A 1-1, 1-2 Divide the description about MR-J4 series and MR-J3 series/MR-JN-A to 1-1 and 1-2 pages 1-1, 1-2, 1-3, 1-4 Add "Cam data" to "Positioning-data" 1-1, 1-3 Add MR-J4-B-LL in the table 1-7 Modify the layout 1-8 Modify the layout 2-6 Add "Cam data" to "Positioning-data"
Apr., 2015	IB(NA)0300163-L	1-1 Change the model order in corresponding table 1-12 Add the description of "POINT" 1-13 Add the description of "POINT" 3-3, 3-4 Add the description of "TROUBLESHOOTING"
Jul., 2015	IB(NA)0300163-M	1-1, 1-3, 1-4 Modify the model name in corresponding table 1-5 Update the Windows® XP of the corresponding OS/Check the description of Note 3 1-7, 1-8 Modify the model name 1-13 Modify the contents 2-9 Modify the contents in Chapter 2

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MODEL	
MODEL CODE	

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