

Operating Manual









MELSOFT Integrated FA Software

SW1D5C-SHEET-E

• SAFETY PRECAUTIONS •

(Always read these instructions before using this equipment.)

Before using this product, please read this manual and the relevant manuals introduced in this manual carefully and pay full attention to safety to handle the product correctly.

The instructions given in this manual are concerned with this product. For the safety instructions of the programmable controller system, please read the CPU module user's manual.

In this manual, the safety instructions are ranked as "AWARNING" and ACAUTION".

Note that the ACAUTION level may lead to serious consequences according to the circumstances. Always follow the instructions of both levels because they are important to personal safety. Observe the precautions of both levels because they are important for personal and system safety.

Please save this manual in a convenient place so that you can refer to it and always forward it to the end user.

[Design Instructions]

• Build an interlock circuit outside the PLC system to ensure that the whole system always works safely when changing the data of the running PLC or controlling the PLC status from the personal computer.

In addition, be sure to incorporate the corrective action into the system to deal with the communication error due to the poor cable connection while operating the PLC CPU online from the peripheral device.

[Operating Precautions]

• Read the manual carefully and confirm the safety before connecting a personal computer with the running CPU module to perform the online operation (especially forced output and operating status change).

Misoperation may cause the machine damage or accidents.

• CONDITIONS OF USE FOR THE PRODUCT •

(1) Mitsubishi programmable controller ("the PRODUCT") shall be used in conditions;
 i) where any problem, fault or failure occurring in the PRODUCT, if any, shall not lead to any major or serious accident; and

ii) where the backup and fail-safe function are systematically or automatically provided outside of the PRODUCT for the case of any problem, fault or failure occurring in the PRODUCT.

(2) The PRODUCT has been designed and manufactured for the purpose of being used in general industries.

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("Prohibited Application")

Prohibited Applications include, but not limited to, the use of the PRODUCT in;

- Nuclear Power Plants and any other power plants operated by Power companies, and/or any other cases in which the public could be affected if any problem or fault occurs in the PRODUCT.
- Railway companies or Public service purposes, and/or any other cases in which establishment of a special quality assurance system is required by the Purchaser or End User.
- Aircraft or Aerospace, Medical applications, Train equipment, transport equipment such as Elevator and Escalator, Incineration and Fuel devices, Vehicles, Manned transportation, Equipment for Recreation and Amusement, and Safety devices, handling of Nuclear or Hazardous Materials or Chemicals, Mining and Drilling, and/or other applications where there is a significant risk of injury to the public or property.

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INTRODUCTION

Thank you for choosing the Mitsubishi Integrated FA Software MELSOFT series. Read this manual and make sure you understand the functions and performance of MELSOFT series thoroughly in advance to ensure correct use.

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Manuals

The following manuals are relevant to this software package. Refer to the table when ordering the manuals.

Relevant Manuals

Manual Name		Manual Number (Model Code)
MX Sheet Version 1 Operating Manual Explains the operation procedures, setting and operation methods of MX Sheet.	(Sold separately)	SH-080348E (13JU35)
MX Component Version 3 Operating Manual Explains the setting and operation methods of each utility on MX Component.	(Sold separately)	SH-0800271 (13JU32)
MX Component Version 3 Programming Manual Explains the programming procedures, details and error codes for ACT control.	(Sold separately)	SH-080272 (13JF66)

Note: The MX Sheet Version 1 Operating Manual is stored on CD-ROM of the corresponding software package in PDF format.

Any of the manuals is available separately in printed form. Please indicate its manual number (model code) in the above table, when ordering the printed manual.

NOTICES

- We don't guarantee the commercially-available Windows-based software products that have been introduced in this manual.
- We hold the copyrights of this software package.
- No part of this manual may be transcribed or duplicated in any form without prior permission by Mitsubishi Electric Corporation.
- We have attempted to cover all the revisions of software and hardware, but this manual may not contain the latest revisions.
- We assume that one software package will be used on one personal computer.
- We permit the user to use this software package (including this manual) based on the Software License Agreement.
- We are not liable for consequences or influences due to this software package (including this manual).
- The specifications of this software package and the descriptions in this manual may be altered in future without prior notice.

Generic Terms and Abbreviations

Unless otherwise stated, this manual uses the following abbreviations and terms for the explanation of MX Sheet.

Generic Term/Abbreviation	Description
MX Sheet	Generic product name for product types SW1D5C-SHEET-E and SW1D5C-SHEET-EA.
	-EA indicates a volume license product.
IBM-PC/AT compatible	Abbreviation of the IBM PC/AT or its compatible personal computer
PC CPU module	Abbreviation of the MELSEC-Q series corresponding PC CPU module
	(CONTEC CO., LTD.).
Personal computer	Generic term of PC CPU module and IBM-PC/AT compatible Personal computer.
MX Component	Generic product name for product types SW3D5C-ACT-E and SW3D5C-ACT-EA.
MX Component	-EA indicates a volume license product.
	Microsoft [®] Windows [®] 7 Starter Operating System,
	Microsoft [®] Windows [®] 7 Home Premium Operating System,
	Microsoft [®] Windows [®] 7 Professional Operating System,
Windows [®] 7	Microsoft [®] Windows [®] 7 Ultimate Operating System and
	Microsoft [®] Windows [®] 7 Enterprise Operating System.
	Note that the 32-bit version is designated as "32-bit Windows $^{\ensuremath{\mathbb{R}}}$ 7", and the 64-bit version
	is designated as "64-bit Windows [®] 7".
	Generic term of Microsoft [®] Windows Vista [®] Home Basic Operating System,
	Microsoft [®] Windows Vista [®] Home Premium Operating System,
Windows Vista [®]	Microsoft [®] Windows Vista [®] Business Operating System,
	Microsoft [®] Windows Vista [®] Ultimate Operating System and
	Microsoft [®] Windows Vista [®] Enterprise Operating System.
Windows [®] XP	Generic term of Microsoft [®] Windows [®] XP Professional Operating System and
WINDOWS AP	Microsoft [®] Windows [®] XP Home Edition Operating System.

Definitions of Terms

The terms used in this manual have the following meanings and definitions.

(1) Logical station number

A number assigned to the group of data that is integrated from the connection target information required for communication within the Communication Setup Utility.



Connection target information on up to CPU to communicate with is combined into one data, to which logical station number is assigned.

(2) 1 shot communication

This function executes the function set to the selected cell area at any timing.

MEMO

1 OVERVIEW

1.1 What Is MX Sheet?

MX Sheet is a communication support software package that enables device data collection by simple program-less setting using Excel. This manual explains the basic using methods of MX Sheet. For details, refer to the MX Sheet Version 1 Operating Manual.



PLC CPU

1.2 Functions Explained in This Manual

This manual explains the following MX Sheet functions.

Logging function (refer to Section 6.1)
 This function accumulates the device data collected from the PLC as a history in the cell area selected on an Excel sheet.



(2) Monitor function (refer to Section 6.2) This function displays the device data collected from the PLC in the cell area selected on an Excel sheet.



(3) Write function (refer to Section 6.3)

This function writes the values entered on an Excel sheet to PLC devices.



- (4) Automatic save function (refer to Section 6.4) This function saves the Excel book automatically, when the specified device is triggered at the specified time.
- (5) Automatic print function (refer to Section 6.5) This function prints the Excel book or specified Excel sheets automatically, when the specified device is triggered at the specified time.
- (6) Create button function (refer to Section 6.6) This function executes each of the Start Communication, End Communication and 1 Shot Communication functions by merely clicking the corresponding button created from Create Button.

1

2 OPERATING ENVIRONMENT

	Item	Description
Computer	IBM PC/AT compatible personal computer	Pentium [®] 200MHz or higher* ¹ IBM PC/AT compatible personal computer installed with applicable OS* ²
	PC CPU module	MELSEC-Q series compatible PC CPU module (CONTEC CO., LTD.)
Required m	emory	64MB or more* ⁴
Hard disk fr	ee space	100MB or more
Disk drive		CD-ROM disk drive
Display		Resolution 1024 × 768 pixels or higher
OS		Microsoft® Windows® 98 Operating System (English version), Microsoft® Windows® Millennium Edition Operating System (English version), Microsoft® Windows NT® Workstation Operating System Version 4.0 (English version) * ³ , Microsoft® Windows® 2000 Professional Operating System (English version), Microsoft® Windows® XP Professional Operating System (English version), Microsoft® Windows® XP Home Edition Operating System (English version), Microsoft® Windows Vista® Home Basic Operating System (English version), Microsoft® Windows Vista® Home Premium Operating System (English version), Microsoft® Windows Vista® Business Operating System (English version), Microsoft® Windows Vista® Ultimate Operating System (English version), Microsoft® Windows Vista® Enterprise Operating System (English version) , Microsoft® Windows [®] 7 Starter Operating System (English version), Microsoft® Windows® 7 Home Premium Operating System (English version), Microsoft® Windows® 7 Thome Premium Operating System (English version), Microsoft® Windows® 7 Home Premium Operating System (English version), Microsoft® Windows® 7 Forfessional Operating System (English version), Microsoft® Windows® 7 Professional Operating System (English version), Microsoft® Windows® 7 Enterprise Operating System (English version), Microsoft® Windows® 7 Enterprise Operating System (English version) or Microsoft® Windows® 7 Enterprise Operating System (English version).
Required Software	Excel * ⁵	Microsoft [®] Excel 2000 (English version), Microsoft [®] Excel 2002 (English version), Microsoft [®] Excel 2003 (English version), Microsoft [®] Excel 2007 (English version)* ⁶ , or 32-bit Microsoft [®] Excel 2010 (English version)* ⁷
	MX Component*8	MX Component version 3.01B or later

*1: A Pentium[®] 300MHz processor or higher is recommended when using Windows[®] XP and 1GHz processor or higher is recommended when using Windows Vista[®] or Windows[®] 7.

*2: This product does not work with a multiprocessor IBM-PC/AT-compatible personal computer, because the driver is not compatible with it.

*3: Service Pack 3 or more is needed when using Windows $NT^{\ensuremath{\ensuremath{\mathbb{R}}}}$ Workstation 4.0.

*4: 128MB or more is recommended for Windows[®] XP, 1GB or more is recommended for Windows Vista[®] and 32-bit Windows[®] 7, and 2GB or more is recommended for 64-bit Windows[®] 7.

*5: Excel sheets created in the English environment can be used in the English environment only. They cannot be used in the other environment.

*6: Windows® XP Service Pack 2 or later is required for Microsoft® Excel 2007.

*7: For 32-bit Microsoft[®] Excel 2010, Windows[®] XP Service Pack 3, Windows Vista[®] Service Pack 1 or higher, or Windows[®] 7 or later is required.

64-bit Microsoft[®] Excel 2010 is not supported.

*8: When executing the Communication Setup Utility with administrator authority from Excel, MX Component Version 3.12N or later is required.

POINT		
(1) When Windows [®] XP, Windows Vista [®] or Windows [®] 7 is used, the following		
new functions cannot be used.		
If any of the following new functions is used, this product may not operate		
normally.		
Start of application in Windows [®] compatible mode		
Fast user switching		
Remote desktop		
Big fonts (Details setting of Screen properties)		
64-bit Windows [®] XP and 64-bit Windows Vista [®] are not supported.		
(2) When Windows [®] 7 is used, the following new functions cannot be used.		
Windows XP Mode		
Windows Touch		
(3) When MX Sheet is tried to be installed on the personal computer where 64-bit		
Microsoft [®] Excel 2010 has been installed, the following error message appears.		
Information		
Excel-64bit version was installed in an environment can not perform the installation.		
ОК		
(4) When MX Sheet is installed, 64-bit Microsoft [®] Excel 2010 is installed and		
started, then an add-in is installed, the following error message appears.		
Microsoft Visual Basic for Applications		
Compile error in hidden module: MXShExtern. This error commonly occurs when code is incompatible with the		
version, platform, or architecture of this application. Click "Help" for information on how to correct this error.		
OK Help		
To use MX Sheet, install 32-bit Microsoft [®] Excel 2010.		

3 INSTALLATION AND UNINSTALLATION

This chapter explains the installation and uninstallation procedures of MX Sheet. The screens used in this chapter are those of the Microsoft[®] Windows[®] XP Professional Operating System. Though they differ slightly from those of the other OSes, refer to REMARK and perform operations.

3.1 Installation

This section explains MX Sheet installation.

3.1.1 Installation precautions

(1) Precautions on the OS

Log on as the user who has the Administrator attributes, when any of the following OSes is used.

Microsoft® Windows NT® Workstation Operating System Version 4.0 Microsoft® Windows® 2000 Professional Operating System Microsoft® Windows® XP Professional Operating System Microsoft® Windows® XP Home Edition Operating System Microsoft® Windows Vista® Home Basic Operating System Microsoft® Windows Vista® Home Premium Operating System Microsoft® Windows Vista® Business Operating System Microsoft® Windows Vista® Ultimate Operating System Microsoft® Windows Vista® Enterprise Operating System Microsoft® Windows Vista® Enterprise Operating System Microsoft® Windows® 7 Starter Operating System Microsoft® Windows® 7 Home Premium Operating System Microsoft® Windows® 7 Home Premium Operating System Microsoft® Windows® 7 Professional Operating System Microsoft® Windows® 7 Ditimate Operating System Microsoft® Windows® 7 Enterprise Operating System

(2) Software confirmation

Make sure that the following software programs have been installed in the personal computer where MX Sheet will be installed.

MX Component Version 3.01B or later Microsoft® Excel 2000 or later

(3) Precautions on using Microsoft[®] Excel 2007 or later Installing Visual Basic for Applications (hereafter, abbreviated as VBA) is required for Microsoft[®] Office 2007 or later.

If not installed, the following error message appears when add-in is registered at MX Sheet installation, and MX Sheet cannot be used.



(4) Security Setting of Microsoft[®] Excel 2007 The following explains the setting procedure of required Trust Center when using MX Sheet with Microsoft[®] Excel 2007.



1) Click [Office button].

	39.		2) Click Excel Options
C			
	<u>N</u> ew	Recent Documents	
Ê	<u>O</u> pen		
	<u>S</u> ave		
R	Save <u>A</u> s		
	<u>P</u> rint	•	
*Æ	Pr <u>e</u> pare		
	Sen <u>d</u>	·	
	P <u>u</u> blish		
	<u>C</u> lose		
		Excel Options X Exit Excel	

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3 INSTALLATION AND UNINSTALLATION





(5) Security Setting of Microsoft[®] Excel 2010 The following explains the setting procedure of required Trust Center when using MX Sheet with Microsoft[®] Excel 2010.



 Image: Save

 File
 Home

 Image: Save As

 Image: Open

 Image: Close

 Imfo

 Recent

 New

 Print

 Save & Send

 Help

 Image: Options

 Image: Distribution

(To the next page)

1) Click the <<File>> tab.

2) Select "Options".

3 INSTALLATION AND UNINSTALLATION





settings, click OK, and exit

Excel 2010.

(1) Installing the product



This package will not run unless MX Component Version 3 or above is installed. When you want to install as it is, please install MX Component Version 3 or above after installation of this pac

OK Cancel

OK Cancel

This package is not in proper operating environment. Please install this package after executing \Update\DCOM95.Exe from CD-ROM.

This package is not in proper operating environment. Please install this package after executing \Update\Axdist.Exe from CD-ROM.

This package is not in proper operating environment. Please install this package after executing \EnvMEL\Setup.Exe from CD-ROM.

OK

ÖK

OK

(To the next page)

X

X

This package has already been installed. There is a possibility for improper installation, if you ex

- 1) Start Windows[®] after powering on the personal computer.
- Start Explorer and click the drive in which the CD-ROM has been inserted. Double-click "SETUP.exe".
 To display Explorer, right-click [Start] and select [Explorer].
 - * When user account control is enabled, the following screen appears. Click "Allow" or Yes.

< Windows Vista [®] >	< Windows [®] 7>							
User Account Control	😚 User Account Control							
An unidentified program wants access to your computer	Do you want to allow the following program from an unknown publisher to make changes to this computer?							
Don't run the program unless you know where it's from or you've used it before. SETUP.EXE Unidentified Publisher	Program name: SETUP.EXE Publisher: Unknown File origin: CD/DVD drive							
Cancel I don't know where this program is from or what it's for.	Show getails Yes No Change when these notifications appear							
Allow I trust this program. I know where it's from or I've used it before.	l							
🛞 Details								
User Account Control helps stop unauthorized changes to your computer.								

If the left message appears, click OK, install MX Sheet, and then install MX Component.

If the left message appears, click Cancel, uninstall MX Sheet, and then reinstall it.

If the left message appears, operate as instructed in (a) of "(2) When message appears at start of installation".

After the operation is complete, restart installation operation.

If the left screen appears, operate as instructed in (b) of "(2) When message appears at start of installation".

After the operation is complete, restart installation operation.

Severe

 (\mathbf{X})

Severe

X

(From the previous page) \downarrow

Install	X
There is a possibil if you execute wit	ity for improper installation thout closing all the running applications(Including resident programs).Ok?
	OK
Welcome	·
	Welcome to the SWnD5-SHEET Setup program. This program will install SWnD5-SHEET on your computer. It is strongly recommended that you exit all Windows programs before running this Setup program. Click Cancel to quit Setup and then close any programs you have
	running. Click Next to continue with the Setup program. WARNING: This program is protected by copyright law and international treaties. Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
	< Back Next> Cancel
	\downarrow
User Information	
	Type your name below. You must also type the name of the company you work for. Name: Mitsubishi Company: MITSUBISHI ELECTRIC Co.
	< <u>B</u> ack <u>N</u> ext≻ Cancel
	\downarrow
Registration	Confirmation
You have pr Name: Compa	ovided the following registration information: Mitsubishi ny: MITSUBISHI ELECTRIC Co.
Is this registr	ation information correct?
C	Yes <u>N</u> o



- As the left screen appears, make sure that all applications have been closed and click OK.
 If the applications are running, close all the running applications.
- Setup starts. As the left screen appears, read the information and click <u>Next></u>.

5) Enter the name and company name, and then click Next>.

6) Confirm the registered name and company name.
If they are correct, click Yes.
To make a change, click No to return to the previous screen.

(From the previous page)



 Register the product ID of the product. Enter the product ID and click <u>Next></u>. The product ID is described on the "License certificate" included in the product.

8) Specify the installation destination folder.
 If you do not change the destination folder, click
 Next>.
 If you change the destination folder, click Browse...

and specify a new drive and folder.

 Register the MX Sheet to Excel as an add-in software. Mark the checkbox, when registering an add-in. (The checkbox is marked by default.) Click Next>.

For confirmation, the left message appears. Click $\begin{tabular}{c} OK \\ \hline OK \\ \hline . \end{tabular}$

(To the next page)

POINT

 To make MX Sheet available, register it to Excel as an add-in software. Normally, register an add-in software as instructed in step 9).
 If the "Register add-in checkbox" is unmarked in step 9), the following message appears after installation.

Informa	tion 🔀
Ð	Add-in registration of the MX Sheet menu was not performed. Please carry out add-in registration manually from Excel.
	()

Refer to Section 3.1.4 for the manual MX Sheet add-in registration method.

• When installing an add-in for Microsoft[®] Excel 2007 or later, the add-in that hides the tabs is automatically installed for the Excel.

)	~ (° ¹ ~) ,	;		E	ook1 - Mic	rosoft Exce					_ = X	
	Home	Insert	Page La	yout Fo	rmulas	Data R	eview Vi	ew Dev	eloper	Add-Ins	(0 - = x	
Pa		Calibri BIJU Calibri BIJU Font		Alignme	■ ⊡ · ≫·-	General \$ → % .00 .00 Number	_	ditional Form nat as Table Styles * Styles		Grand and a set a	FI	Find & Find & Find & Editing	∢ — Tab
<u> </u>	A1	•	0	f_x								*	
	А	В	С	D	E	F	G	Н	- I	J	К	L	
1													
2													
3													
4													
5													
6												-	
14 4	► ► She	eet1 / She	et2 🖉 She	et3 / 🖓 /				14				▶	
Read	iy 🔛									町 100% (一)		÷ .::	

 If VBA has not been installed when an add-in is installed for Microsoft[®] Excel 2007 or later, the following error message appears, and MX Sheet cannot be used.

Register add-in manually after installing VBA.

Severe	Add-in registration was not performed. VBA might not be installed. Please register the add-in manually from Excel after installing VBA.
	OK







(2) When message appears at start of installation

When starting the installation of this product, the "This package is not in proper operating environment" message appears, disabling normal completion of installation.

In such a case, close all applications and perform the (a) or (b) operation.

(a) Installing dcom95.exe or Axdist.exe

Execute dcom95.exe or Axdist.exe provided for MX Sheet. Install MX Sheet after executing the exe file and restarting the personal computer.

Execute the exe file on the corresponding operating system as follows.

OS	File name
Microsoft [®] Windows [®] 98 Operating System	dcom95.exe
	Axdist.exe
Microsoft® Windows NT® Workstation Operating System Version 4.0	Axdist.exe

(Dcom95.exe and Axdist.exe are in the [Update] folder on CD-ROM.)

(b) Installing EnvMEL

Execute Setup.exe in the [EnvMEL] folder on this product CD-ROM. Install this product after executing the [Setup.exe].

*: When user account control is enabled, the following screen appears. Click "Allow" or Yes.

< Windows Vista [®] >	< Windows [®] 7 >
User Account Control	🛞 User Account Control
An unidentified program wants access to your computer	Do you want to allow the following program from an unknown publisher to make changes to this computer?
Don't run the program unless you know where it's from or you've used it before. SETUREXE Unidentified Publisher	Program name: SETUP.EXE Publisher: Unknown File origin: CD/DVD drive
Cancel I don't know where this program is from or what it's for.	Show details ⊻es №
Allow I trust this program. I know where it's from or I've used it before.	Change when these notifications appe
⊙ <u>D</u> etails	
User Account Control helps stop unauthorized changes to your computer.	

After executing the above exe file, install the product again. If this product is not installed properly at this time, reboot the personal computer.

 When the following screen appears, regardless of the installation result, select "This program installed correctly".
 Do not select "Reinstall using recommended settings", because the installer installs an incorrect module.

Program Compatibility Assistant							
This program might not have installed correctly							
If this program didn't install correctly, try reinstalling using settings that are compatible with this version of Windows.							
Program: Setup Launcher Publisher: InstallShield Software Corporation Location: F:\EnvMEL\SETUP.EXE							
Reinstall using recommended settings							
This program installed correctly							
Cancel							
What settings are applied?							

¥

3.1.3 Installation check

Check whether MX Sheet has been installed normally or not as follows.

- (1) Start Excel.
- (2) If the [MX Sheet] item has been added to the menu bar, MX Sheet has been installed normally.

< Microsoft® Excel 2003 or earlier>

⊠ Microsoft Excel - Book1			Book1	- Microsof	t Excel				_ = ×
Ele Edit View Insert Format Iools Data Window MX Sheet(M) Help		Home Insert Page Layout Form	ulas	Data Re	view Vi	ew Dev	eloper A	dd-Ins	0 _ = x
🗋 🗅 🖨 🗟 🎒 🔕 🖤 🐰 🖻 🖹 🛷 🗠 🔽 Cel Setting(L)	ي .	MX Sheet *							
Automatic Save Setting	(Q)	Cell Setting() Automatic Save Setting() Automatic Frint Setting()							
1 Start Communication(B)		Automatic Print Setting(O) Automatic Communication Startup Setting(A)							2
3 End Communication(E) 4 5 15hot Communication(E)	Ŋ	Start Communication(E) End Communication(E)	E	F	G	Н	1	J	К
6 Cut Cell Area(<u>1</u>)		- 1Shot Communication(S)							
7 Gopy Cell Area(C) 8 Paste Cell Area(C) 9 Delete Cell Area(C) 10 Delete Cell Area(C)		Cut Cell Area() Copy Cell Area()							
11 Change Sheet Name(N))	Paste Cell Area(P)							
12 Greate Button(W)		Delete Cell Area(D)							
14		Change Sheet Name(<u>N</u>)							
15 Protect MX Sheet settin	ng(<u>R</u>)	Create Button(W)							
16 Options(j)		Protect MX Sheet setting(R)							
18 Setting Data Export(8)		Options(]							
19 20 Version Info.(¥)		: Setting Data Export(X)							
2 Mx Sheet		Version Info.(V)							
		13 H ()) Sheet1 / Sheet2 / Sheet3 / 9 / Ready 3					III 100% (-) 7	► I €
MX Sheet icons and menu are	displayed.	MX Sheet icons and	men	u are o	display	/ed.			

< Microsoft® Excel 2007 or later >

POINT

- (1) If the following screen appears during installation, [MX Sheet] is not registered to the menu bar.
 Register MX Sheet as an add-in software manually.

 Severe Failed in registration of the MX Sheet menu.
 Please carry out add-in registration manually in Excel.
- (2) If the "Register add-in" is not marked in the "Select add-in" dialog box in step 9) of Section 3.1.2, the [MX Sheet] menu will not be registered to the menu bar. Register MX Sheet as an add-in software manually after installation. Refer to Section 3.1.4 for the manual add-in registration method.

3.1.4 Manual add-in registration

[MX Sheet] menu will not be registered to Excel if "Register add-in" is not marked in "Select add-in" dialog in step 9) of Section 3.1.2. during installation. Add-in registration is required to use MX Sheet.

Register MX Sheet as an add-in software in the following procedure.

- 1) Start Excel.
- Choose [Tools] → [Add-Ins] from the menu bar to display the "Add-Ins" dialog box. *¹
 - *1: For Microsoft[®] Excel 2007 or later, follow 2) -1 and 2) -2.



2)-2 The "Excel Options" screen appears. Select [Add-Ins], change the item in "Manage" to [Excel Add-ins], and click Go...].

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Headers and Fosters CLiet-Mildosoft Office/Office12.0/FFRD.DLL Document P Hidden Kowa and Golumas CLiet-Mildosoft Office/Office12.0/FFRD.DLL Document P Hidden Kowa and Golumas CLiet-Mildosoft Office/Office12.0/FFRD.DLL Document P Winible Content CLiet-Mildosoft Office/Office12.0/FFRD.DLL Document P University CLiet-Mildosoft Office/Office12.0/FFRD.DLL Document P Contract Add-mildosoft Lowing Visitaria Ecrel Add-mildosoft Consument Pinitale Add-min softer/Add-mildosoft Ecrel Add-mildosoft Molecular Ageditional Add-min Add-mildosoft Additional MC Sheet Add-mildosoft Additional Add State Add Publisher Publisher Additional MC Sheet Add-mildosoft	ector				sources
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Internet Assistant VBA CLicosoft Office/Office2.Ulbumy/HDL/LAME. Seek Adsin bivitible.Context Seek Adsin Lossing Visual Lossing Visual Soler Adsin Context Montext Office.Office2.0ffER.DLD. Document lossing.visual Soler Adsin Excer Adsin Document Related Add-ins Yo Document Related Add-ins Add-m Additional MC Sheet Add-in Publisher Excer Adsin					
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Addition: Additional MX Sheet Add-In Publisher:					
Publisher:	1			Disabled Application Add-ins	
				Add-in: Additional MX Sheet Add-in	
Location: D:\MELSEC\Sheet\MXShRibbon.xlam				Publisher:	
			n.xlam	Location: D:\MELSEC\Sheet\MXShRibi	
Description: MELSEC COMMUNICATION ADD-IN MACRO			D-IN MACRO	Description: MELSEC COMMUNICATION	
			_		

								_										
			xcel -			_			-	_	_	-	-	_	_		-	
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owse	× ()
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y Documents	
Desktop	
* Favorites	

-

•

OK

Cancel

3) As the left screen appears, click Browse...

4) As the left screen appears, enter "MXShMenu.xla" in "File name" and click OK

"MXShMenu.xla" has been stored into [Userspecified folder*¹] \rightarrow [Sheet] at installation.

- *1: The installation destination folder will be "C:\Melsec\Sheet" if it has not been changed at installation.
 - * The following screen appears in Microsoft® Excel 2007 or later.

Browse							?×
Look in:	📄 Sheet		~	٩	- 🗈	×	
My Recent Documents	Sample MKShMerk	r de					
🕑 Desktop	MICSHRibb	n.xdam					
Documents							
My Computer							
My Network Places							
	File name:	McShMenu.xla			~		
	Files of type:	Add-Ins (*.xlan; *.xla; *.xll)			>		
Took *			C	0		C (ancel

- 5) As the left screen appears, make sure that the "MX Sheet" checkbox is marked, and click OK. *2
 - *2: For Microsoft® Excel 2007 or later, click Browse... again, and install the add-in that hides the tabs for Excel by operations 6) and 7).



(To the next page)

(My Do

File name: MXShMenu.xla

Files of type: Add-Ins



		\checkmark				
Browse						?×
Look in:	📄 Sheet		~	() • 🗆	$ \times$	(🖆 🔳 •
My Recent Documents	Sample Sample	xla				
🚱 Desktop	MXShRibbo	n.×lam				
Documents						
S My Computer						
My Network Places						
					_	
	File <u>n</u> ame:	MXShRibbon.×lam			1	
	Files of type:	Add-Ins (*.xlam; *.xla; *.xll)		•	1	
Tools •			[OK		Cancel
					_	

Ţ

?×

ОК Cancel

Browse...

Automation...

Add-Ins

ata

Ś

ydd-Ins available

1X Sheet Solver Add-in

Mindow MX Sheet(M) Help

MX Sheet

Avanue avanable:
 Analysis ToolPak
 Analysis ToolPak
 Analysis ToolPak
 Analysis ToolPak - VBA
 Conditional Sum Wizard
 Euro Currency Tools
 Internet Assistant VBA
 Lookup Wizard

al MX Sheet Add-i MELSEC COMMUNICATION ADD-IN MACRO

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Н

G

6) For Microsoft® Excel 2007 or later, enter "MXShRibbon.xlam" in "File name" on the displayed "Browse" screen, and click OK.

7) For Microsoft® Excel 2007 or later, check that "Additional MX Sheet Add-in" is selected on the displayed "Add-Ins" dialog box, and click OK.

- 8) Make sure that [MX Sheet] has been added to the menu bar. *1 The icon buttons are also displayed. This means manual add-in registration is complete.
 - *1: For Microsoft® Excel 2007 or later, the << Add-Ins >> tab is added on the ribbon, and [MX Sheet] group and icons are added to it.

Home Insert Page Layout	Formulas	Data	Review	View Dev	eloper	Add-Ins	y
MX Sheet × 🖬 🖬 🖼 📾 🕄 🗱 🗊		89 EM					
Automatic Save Setting (K)	_						
Automatic Print Setting(O)							
Automatic Communication Startup Settin	g(A)						
Start Communication(B)	E	F	G	н	1	J	K
End Communication(E)							
1Shot Communication(S)							
Cut Cell Area()	_						
Copy Cell Area(
Paste Cell Area(P)							
Delete Cell Area(D)							
Change Sheet Name(<u>M</u>)							
Create Button(W)	- F						
Protect MX Sheet setting(R)							
Options]]							
Setting Data Export(X)							
Version Info. 🕼							

Registration complete!

Ρ	OINT						
(1)	To manually install the add-in "MXShMenu.xla" for Microsoft [®] Excel 2007 or						
	later, install V	/BA.					
	If not installe	d, the following error message appears and MX Sheet cannot be					
	used.						
		Repairs to 'MXShMenu.xla'					
		Excel was able to open the file by repairing or removing the unreadable content.					
		This workbook has lost its VBA project, ActiveX controls and any other programmability-					
		Click to view log file listing repairs: D:\DOCUME~1\a\LOCALS~1\Temp\error020720_01.xml					
		Glose					
(2)	To manually or later, insta	install the add-in "MXShRibbon.xlam" for Microsoft [®] Excel 2007					
		d, the following error message appears and MX Sheet cannot be					
	used.						
	Microsoft Office Excel						
		Microsoft Office Excel cannot access the file 'D:\MELSEC\Sheet\MXShRibbon.xlam'. There are several possible reasons:					
		 The file name or path does not exist, The file is being used by another program. The workbook you are trying to save has the same name as a currently open workbook. 					

3.2 Uninstallation

🕤 👘 🖉 Search 🕞 Folders 🔛 -G Y 🔁 Go ይ Ż 1 P I 3 Control Panel 🔹 ninistr Tools Switch to Category View R d 5 ٢ See Also Game Internel Network Connection Windows Up
 Help and Sup ۵ O, 3 B
 Sounds and Audio Devices nters a Faxes Ś 1 82

1) Select "Add or Remove Programs" from Control Panel and double-click it. To display Control Panel, select [Start] \rightarrow [Control Panel]. REMARK

> When any of Windows[®] 98, Windows NT[®] Workstation 4.0 and Windows® 2000 Professional is used, select "Add or Remove Programs" from Control Panel and double-click it.

To display Control Panel, select [Start] → [Control Panel].

Select "Uninstall a program" on the Control Panel in Windows Vista® or Windows® 7.

- Add or F ve Progran R Currently installed programs Microsoft Office XP Pro 圆 MX Componen Add New Programs Þ dd/Remov Windows Close
- 2) Select MX Sheet and click Change/Remove.

REMARK

The left screen is that of Windows[®] XP Professional. The displayed screen varies with the OS. Depending on the used OS, perform the following operation.

- < Windows[®] 98 or Windows NT[®] Workstation 4.0 > (a) Click the <<Install and Remove>> tab.
 - (b) Select MX Sheet.
 - (c) Click Add/Remove
- < Windows® 2000 Professional >
 - (a) Click "Add or Remove Programs".
 - (b) Select MX Sheet.
 - (c) Click Change/Remove
- < Windows Vista® or Window® 7> Select "MX Component" on the "Uninstall or change a program" screen, and click "Uninstall/Change".
 - When user account control is enabled, the following screen appears. Click Continue or Yes

	<u>.</u>
< Windows Vista [®] >	< Windows [®] 7 >
Account Control	S User Account Control
Windows needs your permission to continue	Do you want to allow the following program changes to this computer?
you started this action, continue. Uninstall or change an application	Program name: Uninstall or change an applica Verified publisher: Microsoft Windows



(To the next page)

Details

User Account Control helps stop ur

This section explains MX Sheet unistallation.
Ţ 3) The dialog asks if you really want to uninstall MX Confirm File Deletion Sheet for confirmation. ? Are you sure you want to completely remove 'MX Sheet' and all of its components? To uninstall it, click Yes Yes No When not uninstalling it, click No . Clicking No returns to the previous screen. * Components indicate the installed icons and files. * When the following screen appears, clicking No to All deletes MX Sheet software package only. Clicking Yes, Yes To All deletes the common files of Windows-based MELSOFT software and may not start normally. × Remove Shared File? The system indicates that the following shared file is no longer used by any The system indicates that the loading as had a load in a straight of the system indicates that the programs. If any programs are still using this file and it is removed, those programs may not function. Are you sure you want to remove the shared file? Leaving this file will not harm your system. If you are not sure what to do, it is suggested that you choose to not remove this shared component. vsflex8l.ocx File name: E:\Windows\system32\ Located in: Yes To <u>A</u>ll Yes No No to All 4) When a message appears and shows that the files Remove Programs From Your Computer have been deleted, click OK . unInstallShield will remove the software 'MX Sheet' from your computer. Please wait while each of the following components is removed... remain undeleted. Shared program files.. Standard program files.. Folder items Program folders.. Program directories. Program registry entries. Uninstall successfully completed. ΟK

> J Complete!

Be sure to restart the personal computer, if some files

REMARK

When uninstallation is executed using any of the following OSes, MX Sheet remains displayed in the application list of "Add or Remove Programs" if uninstallation is completed normally.

After uninstallation is completed, restart "Add or Remove Programs" and check whether MX Sheet has been removed from the application list.

- Windows® 98
- Windows[®] Me
- Windows NT[®] Workstation 4.0

MEMO

4 SYSTEM CONFIGURATION USED IN THIS MANUAL



This manual explains system configuration as follows:

System Equipment		Description		
Personal computer		Personal computer that satisfies the operating environment of MX Sheet. Refer to Chapter 2 for details.		
	OS	Microsoft [®] Windows [®] XP Professional Operating System (English version)		
Software		MX Sheet Version 1		
		MX Component Version 3.01B		
	Excel	Microsoft [®] Excel 2002 (English version)		
PLC CPU		Q02HCPU		
RS-232 cable		QC30R2 (Connect to COM1 on personal computer side.)		
		Printer compliant with the personal computer specifications.		

MEMO

MEMO			

5 MX Sheet OPERATION PROCEDURE

This chapter explains the MX Sheet operation procedure.



*1: Be sure to save the Excel book before making the MX Sheet settings. MX Sheet cannot be set unless the Excel book is saved.

REMARK

Refer to the Excel manual for Excel operation.

MEMO

6 OPERATING MX Sheet

This chapter explains the following functions with examples.

Function	Reference Section	
Logging function	Section 6.1	
Monitor function	Section 6.2	
Write function	Section 6.3	
Automatic save function	Section 6.4	
Automatic print function	Section 6.5	
Create button function	Section 6.6	

6.1 Logging

This section provides an example of creating an Excel sheet using the logging function.

(1) Creation example

Set the following Excel sheet as instructed in (2).



(2) Setting MX Sheet

This section explains the procedure of creating an Excel sheet for logging function.



(To the next page)

6

(From the previous page) \downarrow

Cell Settings Cost Area Name Cost Area Name Cervation Interval Pervice Trigger Handshake CSV Logging Use Logging	 4) Setting the <<use>> tab</use> Set the setting items of the <<use>> tab as follows:</use> After setting, click the <<access data="">> tab.</access> Use Logging Cell Area Name Logging function Cell Area B2:G11 New data location Last Line Display Contents Add date and time details Operation when cell is full To scroll
Medidary Settings(Nd cet / Set already) OK Cancel Apply Cell Settings - Logging function Use Concess Data Operation Name Cell Settings - Logging function Image: Concess Data Operation Name Image: Concess Data Operation Name Image: Concess Data Type Viae Image: Concess Data Type Image: Concess Data Ty	<text><text><text><image/><text></text></text></text></text>

ser Account Control	SZ User Account Control
I An unidentified program wants access to your con	puter Do you want to allow the following program from an unknown publisher to make changes to this computer?
Don't nu the program unless you know where it's from or you've used before. ActComm.ese Unidentified Publisher Te continue, type an administrator password, and then click OK.	Program name: ActComm.exe Verified publisher: Unknown File origin: Hard drive on this computer To continue, type an administrator password, and then click Yes. Professional-E [Password
Details OK Ca	Incel Show details Yes No
Jser Account Control helps stop unauthorized changes to your compute	

(To the next page)

After inputting the password, click Yes or OK. The privilege escalation allowance screen on User Account Control appears as follows.

< Windows Vista [®] >	< Windows® 7>		
ser Account Control	🕲 User Account Control		
An unidentified program wants access to your computer	Do you want to allow the following program from an unknown publisher to make changes to this computer?		
Don't run the program unless you know where it's from or you've used it before. ActComm.exe Unidentified Publisher	Program name: ActComm.exe Publisher: Unknown File origin: Hard drive on this computer		
Cancel I don't know where this program is from or what it's for.	Show details Yes No		
Allow I trust this program. I know where it's from or I've used it before.	Change when these notifications appear		
⊙ <u>D</u> etails			
User Account Control helps stop unauthorized changes to your computer.			

Clicking "Allow" or Yes executes the Communication Setup Utility with administrator authority. When executing without administrator authority, the Communication Setup data can be checked, however, when clicking finish button on the Communication Setting Wizard, the error occurs as follows.



Exit	

(To the next page)

After starting the Communication Setup Utility, click the <<Target Setting>> tab and click Wizard

TERM

What is logical station? A number assigned to the group of data that is integrated from the connection target information required for communication within the Communication Setup Utility.

\downarrow	
Communication Setting Wizard - Introduction Image: Communication Setting Wazard will set the communication information for ACT. You can press Back at any time to change your selections. Please click Next to begin. Please select the logical station number.	7) Setting the logical station number Enter "1" in "Logical station number" and click <u>Next></u> .
Logical station number	
Communication Setting Wizard - PC side V Please select the PC side VF PC side VF Communication setting Connect port COMI Time out 10000 ms Cancel < Back Next> Finish	 8) Setting the personal computer side interface Make the following settings and click Next>. PC side I/F : Serial Connect port : COM1 Time out : 10000
Communication Setting Wizard - PLC side Plesse select the PLC side IF PLC side IF Communication setting CPU type CPU type CPU type CPU type Control DTR or RTS Control Control Cancel Cancel Cancel Cancel Cancel Communication	9) Setting the PLC side interface Make the following settings and click Next>. PLC side I/F : CPU module CPU type : Q02(H) Transmission speed : 19200 Control : DTR or RTS Control

(To the next page)

(From the previous page) Ţ 10) Selecting the communication path nunication Setting Wizard - Network × Make the following settings and click Next> Station type • Host station Station type : Host station Multiple CPU : None Multiple CPU None • < Back Next > Cancel L 11) Enter any word (CPU COM_Q02H in this example) and tion Setting Wizard - Finished click Finish . The Communication wizard has finished collecting information. Please Finish to build the logical station number Comment CPU COM_Q02H Finish Cancel < Back Next > 12) Check whether the logical station number settings Communication Setup Utility displayed on the <<Target setting>> tab of the Target setting List view Connection test Logical station number 1:CPU COM_Q02 • Delete.. Communication Setup Utility are correct or not. After checking, click the <<Connection test>> tab. Seria COM1 10000 ms Q02(H) 19200 bps PC IA CPU type Transmis: -014 DTR or RTS Control Multiple CPU None E×it ↓

(To the next page)

\downarrow		
La Communication Sctup Utility Merror Help Target setting Logical station number 1:CPU COM_002H Communication diagnosis count 5 Result CPU name Mean time of communication 0 mss	Setup Utility.	nmunicating. xit to close the Communication if they are not communicating
Cell Settings - Logging function Cences Data Cences Traper Headshale CSV Logging Uper Access Data Cences Traper Headshale CSV Logging Image: Cences Traper Image:	 14) Setting the <<access data<br="">Set the device of which dat Make the following settings After setting, click the <<o< li=""> Logical Station Number Device Data type Value Zoom No. of cells </o<></access>	ta to be logged. S.
Mandatory Settings(Net set / Set already) OK Cancel Apply	 15) Setting the <<operation inf<br="">Set the logging operation in Make the following settings</operation> Set the Operation Interval Operation day Operation time Logging Time Zone 	nterval. S.
(To the next page)		

Cell Settings - Logging funct	tion .	·			X
Use Access Data Operation		ger Handshake I (SV Logging		č
Set the Operation Interval					
Operation C Daily day	l I I	Monday Tuesday Wednesday Thursday Friday	Monthly I		exist
Operation (Regular interva	s Minutely Se	cond A C Hourt		Time table H	
Logging Time zone	-	HH : MM	-> HH :	MM	
C Log only during the specified	i time zone	:			
Cell Area Name Use	Logical Sta	Operation Interval	Device Trigger Ha	indshake CS	VLogging
Logging function Logging	1:CPU CO	Settings	No settings No	settings No	o settings
Mandatory Settings(Not set , Optional Settings (Not set ,	/Setaiready) /Setaiready)		ОК	Cancel	Apply
		\downarrow			
ols <u>D</u> ata <u>W</u> indow MX	Sheet(M) He	elp			
l 🖥 🖋 ⊨ -	Cell Setting(.)			2.
8 F 🕈 🖁 A	Automatic Sa				<u>з и</u>
		int Setting(<u>O</u>	·		
C	Automatic Co	ommunication	Startup Sett	ing(<u>A</u>)	Н
	Shart Commu	inching (D)			

16) Applying the settings

Click Apply to enable the settings of the "Cell Setting" dialog box.

After clicking Apply, check that the cell area has been registered as shown on the left screen, and click OK.

 Data Window
 MX Sheet(M) Help

 Cell Setting(L)...
 Image: Cell Setting(L)...

 Image: Cell Area(T)...
 Image: Cell Area(T)...

 Image: Cell Area(D)...
 Image: Cell Area(D)...

 Im

1Shot Commu	Inication	×
Cell Area Name	Logging function	
		OK

17) Checking the settings

Check whether the settings in steps 1) to 16) are correct or not by using the 1 shot communication function of MX Sheet.

Make 1 shot communication in the following procedure.

- 1. Choose [MX Sheet] \rightarrow [1 Shot Communication] from the menu bar.
- 2. As the "1 Shot Communication" dialog box appears, select the cell area name set in step 4) (logging function in this example) as the "Cell Area Name".
- Olicity OK to start 4 shot source visation
- 3. Click OK to start 1 shot communication.

(To the next page)

TERM

What is 1 shot communication? This function executes the function set to the selected cell area at any timing.

F	G	Н
	G	н
0		
0		
	0	

18) Adjusting the display

After 1 shot communication, "#########" is displayed in the date/time cell as shown on the left screen. Adjust the cell width of Column B so that the date and time can be displayed.

<After adjustment>

	A	в	C	D	E	F	G	Н
1			、					
2		2004/07/14 Wed 16:17:52	37	18	0	0	0	
3	```		·					
4								
5								
6								
7								
8								
9								
10								
11								
12								

↓

s <u>D</u> ata <u>W</u> indow	MX Sheet(M) Help	
i 🛍 ダ 🗠 -	Cell Setting(L)	2.
≓ € ∄ A	Automatic Save Setting(K)	в <i>I</i> <u>U</u>
	Automatic Print Setting(<u>O</u>)	
С	Automatic Communication Startup Setting(<u>A</u>)	Н
17:52 31	Start Communication(B)	n
17.52 50	End Communication(E)	1
	1Shot Communication(<u>5</u>)	
	Cut Cell Area(I)	
	Copy Cell Area(⊆)	
	Paste Cell Area(<u>P</u>)	L
	Delete Cell Area(D)	
	Change Sheet Name(<u>N</u>)	
	Create Button(<u>W</u>)	
	Protect MX Sheet setting(R)	
	Protect MX Sheet Setting(<u>K</u>)	L
	Options(I)	
	Setting Data Export(<u>X</u>)	
	Version Info.(V)	
	is set in ort the	



(To the next page)

19) Starting communication
 Choose [MX Sheet] → [Start Communication] from the menu bar to start logging.
 As the confirmation dialog box appears, click Yes.

ls <u>D</u> ata <u>W</u> indow	MX Sheet(M) Help	
С	Cell Setting(L)	- Н н
U	Automatic Save Setting(<u>K</u>),	
26:19 40	Automatic Print Setting(<u>0</u>)	
26:22 4:		
26:27 48 26:32 53		
26:32 5 26:37 5	End Communication(<u>E</u>)	
26:42 60 26:47 60	1Shot Communication(S)	
26:52 7:	Cut Cell Area(T)	
26:57 70		_
27:02 8:	Paste Cell Area(<u>P</u>)	
	Delete Cell Area(<u>D</u>)	
	Change Sheet Name(<u>N</u>)	
	Create Button(<u>W</u>)	•
	Protect MX Sheet setting(\underline{R})	
	Options(I),	
	Setting Data Export(<u>X</u>)	
	Version Info.(⊻)	

20) Ending communication

Choose [MX Sheet] \rightarrow [End Communication] from the menu bar to end logging.

Complete!

The Excel sheet for logging function is now completed.

6.2 Monitor

This section provides an example of creating an Excel sheet using the monitor function.

(1) Creation example

Set the following Excel sheet as instructed in (2).

N	🖾 Microsoft Excel - MX Sheet									
8	<u>F</u> ile <u>E</u> dit	<u>V</u> iew <u>I</u> nse	ert F <u>o</u> rmat	<u>T</u> ools <u>D</u> a	ata <u>W</u> indow	MX Sheet	(<u>M)</u> Help			
	• 8 •				5 -					
	L20	-	fx							
	A	В	С	D	E	F	G	Н		
1										
2		16	8	0	0	0				
3										
4				\sim						
5										
6										
7										
8										
9										
10										
11										
12										
13										
					ess data D0 to	D4 are displa	iyed			

in order from left to right .

(2) Setting MX Sheet

This section explains the procedure of creating an Excel sheet for monitor function.

	My Documents 💽 🗇 • 🗈 🥘 X 🖱	?× 1 ≝ + Tools +) Saving the Excel book Start Excel and save the Excel book.
History	My Pictures		
My Documents			
Desktop			
* Favorites			
My Network Places Save	game: MX Sheet.xls e as type: Microsoft Excel Workbook	▼ Save	
Microsoft Ex	ccel - MX Sheet	2) Specifying the cell area
_	View Insert Format Iools Data Window		Drag the cell (B2 to F2 in this example) on the left scree
B2			to specify the cell area in which monitor data will be displayed.
A	B C D E	F G	
2	•	—	
4 5			
6 7			
10			
•	\downarrow		
o Is <u>D</u> ata Window	MV Speet(M) Help	3) Displaying the "Cell Setting" dialog box
a 🛍 💅 🖂	MX Sheet(M) Help Cell Setting(L)	2.	Choose [MX Sheet] \rightarrow [Cell Setting] from the menu bar t
È ♥ ₽ ₽ ₽	Cell Setting(L) Automatic Save Setting(K) Automatic Print Setting(Q)	2), 3 Z <u>U</u> ≣≣ 5	b) Displaying the "Cell Setting" dialog box Choose [MX Sheet] → [Cell Setting] from the menu bar t display the "Cell Setting" dialog box.
a 🛍 💅 🖂	Cell Setting(L) Automatic Save Setting(K) Automatic Print Setting(Q) Automatic Communication Startup Setting(A) Start: Communication(B)	2), 3 Z <u>U</u> ≣≣ 5	Choose [MX Sheet] \rightarrow [Cell Setting] from the menu bar
È de de la A	Cell Setting(L) Automatic Save Setting(K) Automatic Print Setting(Q) Automatic Communication Startup Setting(A)	2), 3 Z <u>U</u> ≣≣ 5	Choose [MX Sheet] \rightarrow [Cell Setting] from the menu bar
È de de la A	Cell Setting(L) Automatic Save Setting(&) Automatic Print Setting(Q) Automatic Communication Startup Setting(A) Start Communication(B) End Communication(E) Ishot Communication(S) Cut Cell Area(T)	2), 3 Z <u>U</u> ≣≣ 5	Choose [MX Sheet] \rightarrow [Cell Setting] from the menu bar
È de de la A	Cell Setting(L) Automatic Save Setting(Q) Automatic Print Setting(Q) Automatic Communication Startup Setting(A) Start Communication(B) End Communication(E) 1Shot Communication(2) Cut Cell Area(1) Cut Cell Area(2) Paste Cell Area(2)	2), 3 Z <u>U</u> ≣≣ 5	Choose [MX Sheet] \rightarrow [Cell Setting] from the menu bar
È de de la A	Cell Setting(L) Automatic Save Setting(&) Automatic Print Setting(Q) Automatic Print Setting(Q) Automatic Communication Startup Setting(A) Start Communication(B) End Communication(E) 15hot Communication(S) Cut Cell Area(T) Cut Cell Area(Q) Paste Cell Area(Q) Delete Cell Area(D)	2), 3 Z <u>U</u> ≣≣ 5	Choose [MX Sheet] \rightarrow [Cell Setting] from the menu bar
È de de la A	Cell Setting(L) Automatic Save Setting(Q) Automatic Print Setting(Q) Automatic Communication Startup Setting(A) Start Communication(B) End Communication(E) 1Shot Communication(2) Cut Cell Area(1) Cut Cell Area(2) Paste Cell Area(2)	2), 3 Z <u>U</u> ≣≣ 5	Choose [MX Sheet] \rightarrow [Cell Setting] from the menu bar
È de de la A	Cell Setting(L) Automatic Save Setting(&) Automatic Print Setting(Q) Automatic Communication Startup Setting(A) Start Communication(B) End Communication(E) 1Shot Communication(S) Cut Cell Area(D) Cut Cell Area(Q) Paste Cell Area(Q) Delete Cell Area(Q) Change Sheet Name(\)	2), 3 Z <u>U</u> ≣≣ 5	Choose [MX Sheet] \rightarrow [Cell Setting] from the menu bar
È de de la A	Cell Setting(L) Automatic Save Setting(K) Automatic Print Setting(Q) Automatic Communication Startup Setting(A) Start. Communication(B) End Communication(E) 1Shot Communication(S) Cut Cell Area(T) Cut Cell Area(T) Paste Cell Area(D) Delete Cell Area(D) Change Sheet Name(M) Create Button(W)	2), 3 Z <u>U</u> ≣≣ 5	Choose [MX Sheet] \rightarrow [Cell Setting] from the menu bar
È de de la A	Cell Setting(L) Automatic Save Setting(K) Automatic Print Setting(Q) Automatic Communication Startup Setting(A) Start Communication(B) End Communication(E) 1shot Communication(S) Cut Cell Area(D) Cut Cell Area(D) Paste Cell Area(D) Delete Cell Area(D) Change Sheet Name(M) Create Button(W) Protect MX Sheet setting(R)	2), 3 Z <u>U</u> ≣≣ :	Choose [MX Sheet] \rightarrow [Cell Setting] from the menu bar

 \downarrow (To the next page)

(From the previous page)		
Cell Settings Image: Cell Settings Use Access Data Operation interval Device Trigger Handshake CSV Logging Use Monter runcion Cell Area Name B2:F2 Image: Cell Display Direction Left to Right Image: Cell Display Direction Cell Area Name Use Logical Sta. Operation Interval Cell Area Name Use Logical Sta. Operation Interval Device Trigger Handshake Cell Area Name Use Logical Sta. Operation Interval	4) Setting the < <use>> tab Set the setting items of the - After setting, click the <<acc Use Cell Area Name Cell Area Cell Display Direction</acc </use>	
Mandatory Settings(Not set / Set already) Optional Settings (Not set / Set already)		
Cett Settings - Monitor function Use Access Data Copied Station Number 1: CPU COM_002H Copied Station Number 1: CPU COM_002H Communication Settings. Derice Data Type Value No. of 1 Do 10 10-0:0:0:0:0:0:0:0:0:0:0:0:0:0:0:0:0:0:0	5) Setting the < <access data=""> Set the device of which data Make the following settings. After setting, click the <<op Logical Station Number^{*1} Device Data type Value Zoom No. of cells</op </access>	a to be monitored.
Mandetory Settings(Not set / Set already) OK Cancel Apply Optional Settings (Not set / Set already)	*1: Refer to Section 6.1 for t setting method.	he logical station number
Cell Settings - Monitor function Image: Television of the set of the s	 6) Setting the <<operation following="" in="" intervation="" li="" make="" monitor="" operation="" set="" settings.<="" the=""> Set the Operation Interval Operation day Operation time </operation>	terval.
Mondetony Settings (Not set / Set already) OK Cancel Apply Optional Settings (Not set / Set already)		

(To the next page)

		\checkmark			
Cell Settings - Monitor function	on				>
Use Access Data Operation In	terval Device Trig	ger 🛛 Handshake 🗍	CSV Logging		
Set the Operation Interval					
Operation (* Daily day	1 1 1	Sunday Monday Tuesday Wednesday Thursday Friday Saturday	Monthly Alternate date wh		ot exist
Operation (• Regular interval time 5 s		cond A C Hour	iy Minute A	Time table	HH : MM
Cel Area Name Use Monitor function Monitor	Logical Sta 1:CPU CO	Operation Interval Settings			SV Logging No settings
Mandatory Settings(Not set / Optional Settings (Not set /	, .		ок	Cancel	Apply
		\downarrow			
ools <u>D</u> ata <u>W</u> indow MX	Sheet(M) H	lelp			
h 🖪 🝼 🗠 -	Cell Setting(<u>L</u>)			2.
≣ ≓ € ≝ A		ave Setting(-		3 <i>I</i> <u>U</u>
		rint Setting(_		
D	Automatic C	ommunicatio	n Startup Se	tting(<u>A</u>)	

Start Communication(B)

1Shot Communication(<u>S</u>)...

Cut Cell Area(<u>T</u>)...

Copy Cell Area(<u>⊂</u>)...

Delete Cell Area(D)...

Create Button(<u>W</u>) Protect MX Sheet setting(R)...

Options(<u>I</u>)... Setting Data Export(X) Version Info.(V)...

Change Sheet Name(<u>N</u>)...

7) Applying the settings

Click Apply to enable the settings of the "Cell Setting" dialog box.

After clicking Apply, check that the cell area has been registered as shown on the left screen, and click OK.

8) Checking the settings

Check whether the settings in steps 1) to 7) are correct or not by using the 1 shot communication function of MX Sheet.

Make 1 shot communication in the following procedure.

- 1. Choose [MX Sheet] \rightarrow [1 Shot Communication] from the menu bar.
- 2. As the "1 Shot Communication" dialog box appears, select the cell area name set in step 4) (monitor function in this example) as the "Cell Area Name".
- 3. Click OK to start 1 shot communication.

1Shot Commu	inication		\mathbf{X}
Cell Area Name	Monitor function	-	
			OK Cancel



ta <u>W</u> indow	MX Sheet(<u>M</u>) Help		
≪ <u>w</u> indow	Cell Setting(L)	2.	_
€ # A	Automatic Save Setting(<u>K</u>)		
	Automatic Print Setting(<u>O</u>)		
D	Automatic Communication Startup Setting(A)	J	
	Start Communication(<u>B</u>)		_
	End Communication(<u>E</u>)	_	
	1Shot Communication(<u>S</u>)		
	Cut Cell Area(<u>T</u>)		_
	Copy Cell Area(<u>C</u>) Paste Cell Area(P)		
	Delete Cell Area(D)		
	Change Sheet Name(<u>N</u>)	-	_
	Create Button(<u>W</u>)		
	Protect MX Sheet setting(<u>R</u>)		
	Options(I)	-	
	Setting Data Export(<u>X</u>)		
	Version Info.(⊻)		
			_
MX	Communication will comme Is it OK?	nce.	
MX	Communication will comme Is it OK?	nce.	
	Communication will comme Is it OK?	nce.	
• Window 1	Communication will comme Is it OK? ∑es № ↓		
• Window 1	Communication will comme Is it OK? <u>Yes</u> <u>No</u> ↓ Mx Sheet(<u>M</u> <u>Help</u> Cell Setting(<u>L</u>) Automatic Save Setting(<u>K</u>)		
• Window 1	Communication will comme Is it OK? <u>Yes</u> <u>No</u> ↓ Mx Sheet(M) <u>Help</u> Cell Setting(() Automatic Save Setting((s) Automatic Print Setting((g)		
• Window 1	Communication will comme Is it OK? Yes No ↓ Mx Sheet(M) Help Cell Setting(L), Automatic Save Setting(S), Automatic Communication Startup Setting(A)		
• Window 1	Communication will comme Is it OK? <u>Yes</u> <u>No</u> ↓ Mx Sheet(M) <u>Help</u> Cell Setting(() Automatic Save Setting((s) Automatic Print Setting((g)		
• Window 1	Communication will comme Is it OK? Yes Yes Mx Sheet(M) Elep Cell Setting(L) Automatic Save Setting(K) Automatic Communication Startup Setting(A) Start Communication(B) End Communication(E)		
• Window 1	Communication will comme Is it OK?		
• Window 1	Communication will comme Is it OK? Yes Yes Mx Sheet(M) Elep Cell Setting(L) Automatic Save Setting(K) Automatic Communication Startup Setting(A) Start Communication(B) End Communication(E)		
• Window 1			
• Window 1	Communication will comme Is it OK? Yes Yes No WX Sheet(M) Help Cell Setting(L), Automatic Save Setting(S), Automatic Communication Startup Setting(A) Start Communication(E) Ishot Communication(S) Cut Cell Area(T), Copy Cell Area(C), Paste Cell Area(P), Delete Cell Area(P),		
• Window 1	Communication will comme Is it OK? Second		
• Window 1	Communication will comme Is it OK? Yes Yes No WX Sheet(M) Help Cell Setting(L), Automatic Save Setting(S), Automatic Communication Startup Setting(A) Start Communication(E) Ishot Communication(S) Cut Cell Area(1) Copy Cell Area(2) Paste Cell Area(2) Delete Cell Area(2)		
• Window 1	Communication will comme Is it OK? Is it OK? Mx Sheet(M) Help Cell Setting(L) Automatic Save Setting(S) Automatic Print Setting(Q) Automatic Communication(E) End Communication(E) Ishot Communication(S) Cut Cell Area(T) Paste Cell Area(D) Delete Cell Area(D) Change Sheet Name(M)		
• Window 1	Image: Second secon		
• Window 1	Communication will comme Is it OK? Yes No Yes No Automatic Save Setting({}) Automatic Print Setting(Q) Automatic Print Setting(Q) Automatic Communication(S) End Communication(E) Ishot Communication(S) Cut Cell Area(T) Copy Cell Area(Q) Paste Cell Area(D) Change Sheet Name(N) Create Button(W) Protect MX Sheet setting(B)		
	Communication will comme Is it OK? Is it OK? Mx Sheet(M) Lep Cell Setting(J) Automatic Save Setting(S) Automatic Print Setting(Q) Automatic Communication(E) End Communication(E) Ishot Communication(S) Cut Cell Area(D) Paste Cell Area(D) Paste Cell Area(D) Change Sheet Name(M) Create Button(W) Protect MX Sheet setting(R) Options(D)		

) Starting communication

Choose [MX Sheet] \rightarrow [Start Communication] from the menu bar to start monitor.

As the confirmation dialog box appears, click Yes.

Ending communication
 Choose [MX Sheet] → [End Communication] from the
 menu bar to exit monitor.
 After ending the communication, delete the monitor data.

The Excel sheet for monitor function is now completed.

6.3 Data Write

This section provides an example of creating an Excel sheet using the write function.

(1) Creation example

Set the following Excel sheet as instructed in (2).

Microsoft Excel - MX Sheet									
8	<u>Eile E</u> dit	<u>V</u> iew <u>I</u> nse	ert F <u>o</u> rmat	<u>T</u> ools <u>D</u> a	ata <u>W</u> indov	MX Sheet	(M) Help		
	• 8 •	- P	{1) ··· ·	n 🕅	5.				
	M14	•	f _x						
	A	В	С	D	E	F	G	Н	
1									
2		1	2	3					
3				$ \longrightarrow $					
4			▲						
5									
6									
7									
8									
9									
10									
11									
12									
13									

Enter values to be written to D0 - D2 in order from left to right.

(2) Setting MX Sheet

E

D

This section explains the procedure of creating an Excel sheet for monitor function.

Save As		?×
Save in:	My Documents 💌 🖕 🖈 🗈 🕅 🕶 Tools 🕶	
History	My Music My Pictures	
History History My Documents		
Desktop		
My Network Places	File game: MX Sheet.xis Save as type: Microsoft Excel Worlbook	ve
	Ļ	

□ ☞ 🖬 🗿 🔂 🗐 🗋 🖤 👗 🖻 🛍 • 🚿 🗠 •

C

🖀 🐂 🚝 P. P. P. F. 📾 🖬 📾 💥 💹 🗸

fx

B

🖾 Microsoft Excel - MX Sheet

В2

А

1) Saving the Excel book Start Excel and save the Excel book.

2) Specifying the cell area 🕙 File Edit View Insert Format Tools Data Window

Drag the cell (B2 to D2 in this example) on the left screen to specify the cell area in which written data will be entered.



3) Displaying the "Cell Setting" dialog box Choose [MX Sheet] \rightarrow [Cell Setting] from the menu bar to display the "Cell Setting" dialog box.

(From the previous page)		
Cell Settings Use Access Data Operation Interval Device Trigger Handshake Use Vete Image: Cell Area Name Wite function Cell Area Name B2D2 Image: Set the Color of Orid Ire Image: Set the Color for Filing Cell Area Name Left to Right Image: Set the Color for Filing Image: Cell Area Name Cell Area Name Use Logical Sta. Operation Interval Device Trigger Handshake CSV Logging	 4) Setting the <<use>> tab Set the setting items of the After setting, click the <<ac< li=""> Use Cell Area Name Cell Area Cell Display Direction </ac<></use>	
Mandatory Settings(Not set / Set already) OK Cancel Apply Optional Settings (Not set / Set already)		
Cell Settings - Write function Use Access Data Operation Interval Device Trigger Handstrake Logical Station Number 1 : CPU COM_GO2H Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings Image: Communication Settings	5) Setting the < <access data<br="">Set the device where data we Make the following settings After setting, click the <<op Logical Station Number^{*1} Device Data type Value Zoom No. of cells</op </access>	will be written. peration Interval>> tab. : 1 : D0 : 16bit integer : DEC : 1 : 3
Mondatory Settings (Not set / Set aready) Optional Settings (Not set / Set aready) Cell Settings - Write function Use Access Data Operation Recycler interval Operation @ Daily Weekly Second Handshake Operation @ Daily Operation @ Daily Weekly Group Mondary Operation @ Regular interval Minutely Second Hervisit Operation @ Regular interval Minutely Second Hervisit Second Hervisit Cell Area Name Use Logical Sta Operation Interval	setting method. 6) Setting the < <operation inter<br="">Set the write operation inter Make the following settings Set the Operation Interval Operation day Operation time</operation>	rval.
Mandatory Settings(Not set / Set already) OK Cancel Apply Optional Settings (Not set / Set already)		

(To the next page)

\checkmark
Cell Settings - Write function
Use Access Data Operation Interval Device Trigger Handshake
V Set the Operation Interval
Operation © Daly © Weekly Sunday © Monthly Day
Operation Regular interval Minutely Second Hourly Munute Time table HH MM A
Cell Area Name Use Logical Sta Operation Interval Device Trigger Handshake CSV Logging Write function Write 1:CPU CO Settings No settings No settings
Mandatory Settings(Not set / Set areasity) OK Cancel Apply Optional Settings (Not set / Set aready)
\downarrow
s <u>D</u> ata <u>Wi</u> ndow MX Sheet(<u>M</u>) <u>H</u> elp
: 🏥 🛷 🖉 - Cell Setting(L) [?) 🗸
Image: Print Save Setting(K) B Image: U Image: U </th
Start Communication(B)

 1Shot Communication(S)...

 Cut Cell Area(D)...

 Copy Cell Area(C)...

 Paste Cell Area(D)...

 Delete Cell Area(D)...

 Change Sheet Name(N)...

 Create Button(W)

Protect MX Sheet setting(\underline{R})...

Options(I)... Setting Data Export(⊠) Version Info.(⊻)... 7) Applying the settings

Click Apply to enable the settings of the "Cell Setting" dialog box.

After clicking Apply, check that the cell area has been registered as shown on the left screen, and click OK.

8) Starting communication

Choose [MX Sheet] \rightarrow [Start Communication] from the menu bar to start writing.

As the confirmation dialog box appears, click Yes.



•

(From the previous page)	
A B C D E 1 2 1 2 1 2 3 4 5 1 2 1 2 3 	 9) Entering the written values Enter the values to be written to devices into the cell area specified in step 2). Cell B2 : 1 (value to be written to D0) Cell C2 : 2 (value to be written to D1) Cell D2 : 3 (value to be written to D2) Make sure that the data on Excel are written to the PLC devices.
Window MX Sheet(M) Help Cell Setting(L) J Automatic Save Setting(Q) J Automatic Print Setting(Q) Automatic Communication Startup Setting(A) Start Communication(E) Ishot Communication(S) Cut Cell Area(D) Copy Cell Area(D) Cut Cell Area(D) Delete Cell Area(D) Delete Cell Area(D) Change Sheet Name(N) Create Button(W) Protect MX Sheet setting(R) Options(D) Setting Data Export(X) Version Info.(Y) Version Info.(Y)	10) Ending communication Choose [MX Sheet] → [End Communication] from the menu bar to end writing.
↓ Complete!	The Excel sheet for write function is now completed.

6.4 Automatic Save

This section explains a setting procedure for automatically saving the Excel book during MX Sheet operation.

- (1) Setting example Automatic save condition Automatically saved file name
- : Saved when the device (Y0) turns on.
- : Date and time are added to the file auto.xls.



(2) Setting automatic save

This section explains an Excel book automatic save setting procedure.



1) Selecting automatic save setting

Start Excel and choose [MX Sheet] → [Automatic Save Setting] from the menu bar to display the "Automatic Save" dialog box.



↓

2) Creating new automatic save conditions Create new automatic save conditions. Click Create New

1	completion)				
Save at the end of communica	tion				
Set the date and time Operation C Daily day	C Weekly	Sunday Monday Useday Useday Usedaesday Usedaesday Thursday Friday Seturday	C Monthly Atternate date with Last day of the		not exist
Operation 🖗 Regular interval lime Min		Minute	C Time table	HH : MM	
	COM_Q02		E		Communication Settings
Logical Station Number 1: CPU	Device Y0		attion When ON	<u> </u>	
	Device Y0	(0-15)	dition When ON	<u> </u>	
Gogical Station Number 1: CPU	Device Y0 line bit Save Logging function	(0-15)		Browse	







3) Setting the automatic save conditions Set the automatic save conditions as follows:

t completion)

*1: Refer to Section 6.1 for the logical station number setting method.

Set the file name to be saved automatically. Clicking Browse... displays the "Save As" dialog box. Specify any save place and file name.

File name Save as type : auto.xls : Excel book (*.xls)

After specifying the file name, click Save

After making the above settings, click OK

				/			
Automa	tic Save List						×
Enable		End of communication	Date time	Device Trigger	Clear cell a	rea	Create New
	Line1(Lot completion)	No settings	No settings	Settings	No setting	55	
							Ecit
							Delete
							Close

4) Specifying the automatic save conditions

After making sure that the automatic save name has been added to the list and the Enable filed has a check mark, click Close to close the Automatic save list.

5) Starting communication

Choose [MX Sheet] \rightarrow [Start Communication] from the menu bar to start communication.

As the confirmation dialog box appears, click Yes

	\downarrow	
s <u>D</u> ata <u>W</u> indow M	X Sheet(<u>M</u>) <u>H</u> elp	
1 🖬 🝼 10 -	Cell Setting(L)	Q.
≓∎∎A	Automatic Save Setting(<u>K</u>)	<u> 3 <i>I</i> U</u>
	Automatic Print Setting(O)	
C	Automatic Communication Startup Setting(<u>A</u>)	Н
58:58 49		h
59:03 54	End Communication(E)	7
59:08 59 59:13 64	1Shot Communication(<u>5</u>)	
59:18 69	Cut Cell Area(I)	
59:23 74	Copy Cell Area(<u>C</u>)	
59:28 75	Paste Cell Area(<u>P</u>)	
59:23 74 59:28 75 59:33 84 59:38 85	Delete Cell Area(D)	
59:43 94	Change Sheet Name(<u>N</u>)	
	Create Button(<u>W</u>)	
	Protect MX Sheet setting(<u>R</u>)	
	Options(I)	
	Setting Data Export(<u>X</u>)	
	Version Info.(⊻)	





6) Starting the PLC Monitor Utility

From the [Start] menu, choose [All Programs] \rightarrow [MELSOFT Application] \rightarrow [MX Component] \rightarrow [PLC Monitor Utility] to start the PLC Monitor Utility. As the "Transfer setting" dialog box appears, make the following settings.

Utility setting type: CheckLogical station number: 1

After making the above settings, click OK.

⁽To the next page)

Br. PLC. Monitor Utility Menu Grâne Urbit Device Batch [puter Memory] Entry Device] Device Hot Batch [puter Memory] Entry Device] Device Hot Batch [puter Memory] Entry Device] Device Hot Batch [puter Memory] Entry Device] Device Hot Batch [puter Memory] Entry Device] Device Hot Batch [puter Memory] Entry Device] Device Hot Batch [puter Memory] Entry Device] Monitor Isoma Batch [puter Memory] Display [puter Memory]	 7) Specifying the monitor device Choose the <<device batch="">> tab of the PLC Monitor Utility and make the following setting.</device> Device : Y0 After making the above settings, click <u>Start monitor</u>.
PLC Monitor Utility Image: Control of the label Derive Bach, Evente Mennary Entry Device Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Control of the label Image: Co	 8) Writing to device Change the Y0 device status. Double-click the monitor display area of the <<device Batch>> tab. The "Write to Device" dialog box appears. Forcibly turn on Y0 in the following procedure.</device 1. Type "Y0" in "Device" in "Bit Device". 2. Click Force ON.
Write to Device Force ON Bit device Force ON Device Y0 Force OFF Toggle force Word device / Buffer memory Toggle force Word device / Buffer memory HEX Buffer memory Hex Setting value 16bit integer Dec Set	After making the above settings, click <u>Close</u> .
Pru Onice Utility Bru Orine Ubility Device Batch Exter Memory Entry Device Immediate Orine Origination Originatio Originatio	9) Checking the device status The Y0 device status has been changed as set in step 8). Check whether it has been changed or not. After checking, click Stop monitor and then Exit .







10) Checking the saved file

The operation in step 8) activates the automatic save setting function and saves the Excel book automatically. Start Explorer and check whether the file specified in step 3) has been saved correctly. After checking the file, choose [MX Sheet] \rightarrow [End Communication] from the menu bar to end

communication.

The automatic save setting is now completed.

6.5 Automatic Print

This section explains a setting procedure for automatically printing the whole Excel book or specified Excel sheets during MX Sheet operation.

- (1) Setting example Automatic print condition Print area
- : Printed at 17:00 every day. : Sheet 1 and Sheet 3 are printed.
- (2) Setting automatic print

This section explains an Excel sheet automatic print setting procedure.



1) Selecting automatic print setting

Start Excel and choose [MX Sheet] \rightarrow [Automatic Print Setting] on the menu bar to display the "Automatic Print" dialog box.

2) Creating new automatic print conditions
 Create new automatic print conditions.
 Click Create New.



(To the next page)

- Setting the automatic print conditions Set the automatic print conditions. Set as indicated below.
 - Automatic Print Name Set the date and time Operation day Operation time Print Area
- : Line 1 (Daily report)
- : Check
- : Daily
- : Time table (17:00) : Specify the sheet
- (Sheet 1 and Sheet 3) *1

After making the above setting, click OK

*1: Multiple sheets can be specified. Specify the corresponding sheet only.



Specifying the automatic print conditions
 After making sure that the automatic print name has been added to the list and the Enable filed has a check mark, click Close to close the Automatic print list.

Setting complete!

POINT

If multiple printers are set within the personal computer, the default printer (set within [My Computer] \rightarrow [Printers]) is used to print the Excel sheet, when "Automatic Print" setting is selected.

6.6 Using the Button

This section explains a convenient communication starting method by Create Button.

(1)	Setting example	
	Button type*1	: Start Communication button
	MX Sheet setting condition	: Logging setting (Refer to Section 6.1)

- *1: The End Communication or 1 Shot Communication button is also available.
- (2) Creating the button and starting communication The following describes a procedure from button creation to a communication start using the button.

53 N	iicrosoft E	xcel - MX Sheet.xls							
8	Ello Edit y	jew [nsert Fgrmat]ools Data	₩ndow	MX Sheet(M) Help					
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	J32	¥ 8		Automatic Print Setting(O)					
	A	8	С	Automatic Communication Startup Setting(A)	н	1	J	K	L
1				Start Communication(8)					
2		2004/07/20 Tue 20:33:33	3400	End Communication(E)				_	
3								-	_
4				1Shot Communication(5)					
6				Cut Cell Area(T)					_
7				Copy Cell Area(C)					
В				Paste Gel Area/P)					
9				Delete Cell Area(D)					
10								_	
1				Change Sheet Name(M)	_				
3			- (Create Button(W)	Start C	ommunication	Button(B)	<u>-</u>	_
4			- L			ing its		Y.	
5				Protect MX Sheet setting(R)	15hot (Communication	Button(5)	15	
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1) Choosing Create Button Start Excel and specify the cell where the

Start Excel and specify the cell where the button will be placed.

Choose [MX Sheet] - [Create Button] - [Start Communication Button] on the menu bar.

The Start Communication Button is placed in the specified cell position. $^{\ast ^2}$

- *2: The display characters and character font of the created button can be changed. Refer to the MX Sheet Version 1 Operating Manual for details.
- Starting communication
 Click the Start Communication Button created in Step 1).

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MEMO

APPENDICES

Appendix 1 Useful Functions of MX Sheet

In addition to the functions explained in this manual (Chapter 6), MX Sheet has useful functions. This section provides the outlines and brief explanations of the functions. For more details, refer to the MX Sheet Version 1 Operating Manual.

Appendix 1.1 Alarm summary

The alarm summary function converts the ON/OFF information into the corresponding alarm comment character strings and accumulates them on an Excel sheet as an alarm history.

The followings are available by specifying in advance when the alarm history reaches the last line.

- Scrolling
- Printing Excel sheet
- Saving Excel book

The line operation ratio and other conditions can be checked easily by accumulating the alarm data history.

Generation	2002/07/31 Wed	l 16:57:30	Material sto	irange	Minor failure		
Generation	2002/07/31 Wed	16:57:30	Material sto	range	Minor failure		Alarm data are accumulated as bit devices turn on/off.
Restoration						μ	
						\bigvee	

Appendix 1.2 Comment display

The comment display function converts a bit device value or word device value into the corresponding comment character strings and displays them on an Excel sheet. (A comment is displayed according to the change of device value.) In the following example, the upper and lower limit values are set for a device so that the corresponding warning message will appear when the device value falls outside the range.



Appendix 1.3 Device trigger

The device trigger function sets the device condition for device data collection/write, and collects or writes the device data when the set device condition holds.



<Collecting/Writing device data while bit device is on>

Appendix 1.4 Handshake

Setting a handshake between the PLC and personal computer ensures the device data collection/write.

The handshake function determines whether to send data or not, based on the send request and receive response signals exchanged between the personal computer and PLC, before data updating.

When handshake begins with PLC side request



Appendix 1.5 CSV logging

The CSV logging function simultaneously displays device data on an Excel sheet using the logging or monitor function, and saves collected data as a CSV file. Using a single CSV file enables long-term data collection file.



Appendix 1.6 Automatic Communication Startup Setting

Automatic Communication Startup Setting automatically starts communication with the PLC when the Excel book where MX Sheet settings have been made is started. This setting eliminates the need of selecting [Start Communication] from the MX Sheet menu.

Appendix 1.7 Data conversion function

The data conversion function converts the communication settings of MX Links (SW3D5F-CSKP-E) and various settings of MX Chart (SW3D5F-OLEX-E) into the logical station number of MX Component and cell settings of MX Sheet, respectively. This function ensures efficient utilization of the conventional assets.

<Starting method>

🕅 Exploring - Sheet			
<u>File Edit View Go Favorites</u>	<u>T</u> ools <u>H</u> elp		
Back Forward Up	X 🗋 🛱 Cut Copy Paste	Undo Delete Properties	Views
Address C:\MELSEC\Sheet			-
Folders ×	Name	Size Type	Modified
Melsec	Sample	File Folder	7/31/02 8:08 PM
Act	III MXComShConv.exe	256KB Application	7/30/02 6:05 PM
🗄 🔂 Colink	MXShComn.dll	144KB Application Extension	7/30/02 6:04 PM
E Common	MXShEngn.dll	18KB Application Extension	7/30/02 5:49 PM
🕀 💼 Cskp	MXShEngn.exe	112KB Application	7/30/02 6:06 PM
DNaviPlus	জী MXShMenu.dll	4KB Application Extension	7/16/02 11:02 AM
📄 🗇 🗇 DrvCommon 🚽	MXShMenu.xla	358KB Microsoft Excel Add-In	7/27/02 3:51 PM
⊞ 🛄 Easysocket	MXShUtil.ocx	588KB OCX File	7/30/02 6:08 PM
🕂 🕀 🔂 🕀 🕀	🚮 Uninstaller.exe	20KB Application	7/30/02 6:09 PM
🕀 🗋 Mneth			
🕀 🛄 Qutp			
⊡ - 🔂 Sheet			
Sample 🔽	J		
1 object(s) selected	256KB	🛄 My Computer	11.

$[Explorer] \rightarrow [MELSEC] \rightarrow [Sheet] \rightarrow [MXComShConv.exe]$

Convert the comm Convert the communic (logical station number	ation setting of MX Links(SW3D5F-CSKP-E) Ver.B or above to co	nmunication setting					
Progress	Progress 0 [%]						
-	hart used in Excel book. g, tag file, alarm summary file and comment file of MX Chart(SW3D ell setting.	5F-OLEX-E) Ver.A or					
Excel Book	C:Wy Documents/OLEX.xls	Browse					
Tag file Alarm summary file	The tag file name set in environment setting utility will be converte The alarm summary file name set in each cell settings will be con						
	The comment file name set in each cell settings will be converted						
L	Exe	ecute Exit					

 \downarrow

Appendix 1.8 Protect MX Sheet setting

The MX Sheet setting can be protected by a password. *¹ The user settings can be made unchangeable.

Protect MX Sheet setting Image: Enable check setting data Password (optional) **** OK Cancel	Cell Settings[Read only]
MX Sheet setting becomes unchangeable!	Cell Settings (seed only) Image: Set only in the set of control interval Device Trigger Handshake CSV Logging Use Logging Image: Set the Color of Orid line Set the Color for Filling Cell Area A2 Set the Color of Orid line Set the Color for Filling Cell Area A2 Cell area at the start of communication New data location Last Line Image: Cell area Display Contents Add tille Add date and time details Operation when cell is full Image: Cell area Cell area Image: Cell Set the Color of the beginning without clearing the cell area Cell area Image: Cell Area Cell Area Cell area Image: Cell Area Cell Area Cell Area Image: Cell Area Add tille Add date and time details Operation when cell is full Image: Cell area Cell area Image: Cell Area Cell Area Cell area </td
	Cell Area Name Use Logical Sta Operation Interval Device Trigger Handshake CSV Logging Logging function Logging 1:G06-115 Settings No settings No settings No settings Mandatory Settings(Not set / Set already) OK Cancel Apply

*1: The password can be set or cancelled by choosing [MX Sheet] - [Protect MX Sheet setting]/[Unprotect MX Sheet setting] on the menu bar.

Appendix 1.9 Error log setting

When communication is started, an Error Log sheet that indicates the communication status of MX Sheet is created, and the communication status, error information and corrective actions are output.

To this Error Log sheet, the following error log setting can be made by Option setting.

(1) Setting the error log types to be output

The error log types (Information, Warning, Error) to be output can be specified.

	A	В	С	D	E
1	Kind	Date	Cell Area Name	ErrorNo	Contents
2	Informatior	2004/07/14 Wed 17:31:05		00000000	Communication was started.
	Error	2004/07/14 Wed 17:31:06	Monitor function	e1000009	
					The corrective action is as follows:
3					Create the logical station number after performing communication setting.
_	Warning	2004/07/14 Wed 17:31:08	Logging function	e1000021	Communication error has occurred in the open/close of communication. <00010003[Hex],0180840b[Hex]>
					Time-out error
					Though the time-out period had elapsed, data could not be received. The corrective action is as follows:
					Review the time-out value of the property.
					Set it again on the communication settings utility.
					Review the system, e.g. PLC CPU, module setting and cable status.
					Retry the method.
					Perform Close once and execute Open again.
					Exit the program and restart the IBM-PC/AT compatible.
4					<errorcode:180840b[hex]></errorcode:180840b[hex]>
5	Informatior	2004/07/14 Wed 17:31:40		00000002	Communication was completed.
6					

(Setting for outputting all error log)

(2) Automatic Error Log sheet display change setting At error occurrence, the Error Log sheet displayed can be automatically changed.



	A	В	С	D	E
1	Kind	Date	Cell Area Name	ErrorNo	Contents
2	Informatior	2004/07/14 Wed 17:34:35		00000000	Communication was started.
	Warning	2004/07/14 Wed 17:34:36	Logging function	e1000021	Communication error has occurred in the open/close of communication. <00010003[Hex],0180840b[Hex]> Time-out error Though the time-out period had elapsed, data could not be received. The corrective action is as follows: Review the time-out value of the property. Set it again on the communication settings utility. Review the system, e.g. PLC CPU, module setting and cable status. Retry the method. Perform Close once and execute Open again. Exit the program and restart the IBM-PC/AT compatible.
3					<errorcode:180840b[hex]></errorcode:180840b[hex]>

(3) Error log clear setting at communication start At the start of communication, the error log can be cleared.

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MX Sheet Version 1

Operating Manual (Introduction)

MODEL MELS1-SHEET-NY-E

13JU34

MODEL CODE

SH(NA)-080347E-J(1105)MEE

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