IDEC

DFM Data File Manager
User's Manual

SmartAXIS FT2J-7U

MICRO/I HG2J-7U, HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P

SmartAXIS Pro/Lite FT1A

FC6A/5A/4A MICROSmart

IDEC CORPORATION

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Preface

This manual describes Data File Manager.
Please read this manual carefully and ensure that you fully understand the functions and performance of the Data File Manager software.

Symbols Used in this Manual

This manual uses the following symbols to facilitate explanation.

Symbols

...... Information that requires special attention. Failure to operate the product in accordance with the information provided can lead to serious injury or damage.

...... Information relating to requests or material to reference in the use of a function

...... Useful information relating to a function

OK ...... Screen buttons are indicated by **bold** text or by using the actual graphic icon.

SHIFT ...... Keyboard keys are indicated by the keyboard inscription in capital letters.

**** ...... Controls are indicated by **bold** text.

Abbreviations, Generic Terms, and Terminology Used in this Manual

Item	Description
SmartAXIS	Generic term for integrated display controller FT2J-7U.
MICROSmart	Generic term for programmable logic controller FC6A and FC5A-D12X1E.
SmartAXIS Pro/Lite	Generic term for controller FT1A-24/40/48.
MICRO/I	Generic term for programmable display HG2J-7U, HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T and HG1G/1P.
External Device	Generic term used to refer to a PLC or micro computer that is connected to and communicates with the SmartAXIS or MICRO/I.
Device Address	Memory that is capable of storing values in unit of bits or words loaded on SmartAXIS, MICROSmart, SmartAXIS Pro/Lite, MICRO/I and external device.
WindO/I-NV4	Integrated configuration software application for creating projects of the SmartAXIS and MICRO/I.
WindLDR	WindLDR is a programming software to make ladder program or function block diagram for MICROSmart or SmartAXIS Pro/Lite.
Project data	All data including screen data for operating SmartAXIS and MICRO/I created by WindO/I-NV4. The file extension is ".pn4".
ZNV Project File	A file created based on the project data by the WindO/I-NV4's download function or Data File Manager's Upload funtion. The file contains project data and system software. The file extension is ".znv".
ZNX Project File	A file created based on the project data by the WindO/I-NV4's download function. The file contains project data, system software, and operating system. The file extension is ".znx". This file cannot be uploaded since it contains the operating system of SmartAXIS or MICRO/I.
ZLD Project File	A file created by WindLDR, to operate PLC such as MICROsmart and SmartAXIS Pro/Lite. The file contains user program (laddar program or function block diagram). The file extension is ".zld".
External Memory Device	The generic term for an SD memory card and a USB flash drive.
Command Line	Instructions (commands) written in the Windows command prompt, etc.
HMI Functions	The term refers to the functions such as screens and settings of SmartAXIS that can be created by the WindO/I-NV4.
Control Functions	The term refers to the control functions such as ladder program and setting of SmartAXIS that can be created by the WindLDR.

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Data File Manager User's Manual

IDEC

This chapter describes the correspondence models, functions and how to start and exit Data File Manager.

1 Overview

1.1 Supported models

Supported IDEC's PLCs and operator interfaces are as follows.

Designation on Data File Manager	Series Name	Abbreviation	Type Number
PLC	MICROSmart	FC6A	FC6A-C16***E, FC6A-C24***E, FC6A-C40***E, FC6A-C40***EJ, FC6A-D16**CEE, FC6A-D32**CEE
		FC5A	FC5A-C10R2*, FC5A-C16R2*, FC5A-C24R2*, FC5A-D16R*1, FC5A-D32*3, FC5A-D12*1E
		FC4A	FC4A-C10R2*, FC4A-C16R2*, FC4A-C24R2*, FC4A-D20*3, FC4A-D20R*1, FC4A-D40*3
	SmartAXIS Pro/Lite	FT1A	FT1A-12, FT1A-24, FT1A-40, FT1A-48
HMI	SmartAXIS	FT2J-7U	FT2J-7U22RAF-B, FT2J-7U22KAF-B, FT2J-7U22SAF-B
	MICRO/I	HG2J-7U	HG2J-7UT22TF-B
		HG5G/4G/3G-V	HG5G-VFXT22MF-B, HG4G-VCXT22MF-B, HG3G-V*XT22MF-*
		HG2G-V	HG2G-V5FT22TF-*
		HG2G-5T	HG2G-5T*22TF-*
		HG1G	HG1G-4VT22TF-*
		HG1P	HG1P-ST32*
		HG4G/3G	HG4G-CJT22*F-B, HG3G-*JT22*F-*
		HG2G-5F	HG2G-5FT22TF-*

1

Data File Manager Features & Basic Operations

1.2   What Can Be Done Using Data File Manager

The following functions are available on Data File Manager.

● MICROSmart, SmartAXIS Pro/Lite

YES: Supported, NO: Not supported

Function	MICROSmart			SmartAXIS Pro/Lite
	FC6A	FC5A	FC4A	FT1A
Changing the operating status of the PLC	Yes	Yes	Yes	Yes
Downloading or Uploading a ZLD Project File (.zld)	Yes	Yes	Yes	Yes
Downloading the system software	Yes	Yes	Yes	Yes
Downloading files and folders to the external memory device	Yes	No	No	No
Uploading files and folders from the external memory device	Yes	No	No	Yes
Downloading or Uploading the values of device addresses	Yes	Yes[*1]	No	Yes
Deleting data from the internal memory or the external memory device	Yes	Yes[*2]	Yes[*2]	Yes[*2]
Formatting the external memory device	Yes	No	No	Yes
Displaying or operating files and folders in the external memory device	Yes	No	No	Yes[*3]
Displaying the status or the system information	Yes	Yes	Yes	Yes
Displaying the operation logs	Yes	No	No	Yes
Command Line	Yes	Yes	Yes	Yes

● SmartAXIS, MICRO/I

YES: Supported, NO: Not supported

Function	SmartAXIS	MICRO/I	
	FT2J-7U	HG2J-7U	HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P
Change the ladder program to RUN or STOP	Yes	No	No
Downloading or Uploading a ZNV Project File (.znv)[*4]	Yes	Yes	Yes
Downloading the ZNX Project File (.znx)	Yes	Yes	No
Uploading data from the internal memory (Uploading log data)	Yes	Yes	Yes
Downloading files and folders to the external memory device	Yes	Yes	Yes
Uploading files and folders from the external memory device	Yes	Yes	Yes
Downloading or Uploading the values of device addresses	Yes	Yes	Yes
Deleting data from the internal memory or the external memory device	Yes	Yes	Yes
Formatting the external memory device	No	No	Yes
Displaying or operating files and folders in the external memory device	Yes	Yes	Yes
Displaying the status or the system information	Yes	Yes	Yes
Displaying the operation logs	Yes	Yes	Yes
Command Line	Yes	Yes	Yes

*1 FC5A-D12X1E only
*2 The internal memory only
*3 Only displaying, deleting, and uploading files and folders
*4 Only project file created by WindO/I-NV4

2 Starting and Exiting Data File Manager

2.1 Starting Data File Manager

1 Start Data File Manager

The **Connection Settings** dialog box is displayed.

2 Select the **Target Device** from the following items:

PLC, **HMI(FT2J-7U, HG2J-7U)**, **HMI(HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P)**

3 Select the **Port** from the following.

USB, **Ethernet**, **Serial**[*1]

4 Change the settings as necessary.

5 Click **Connect**.
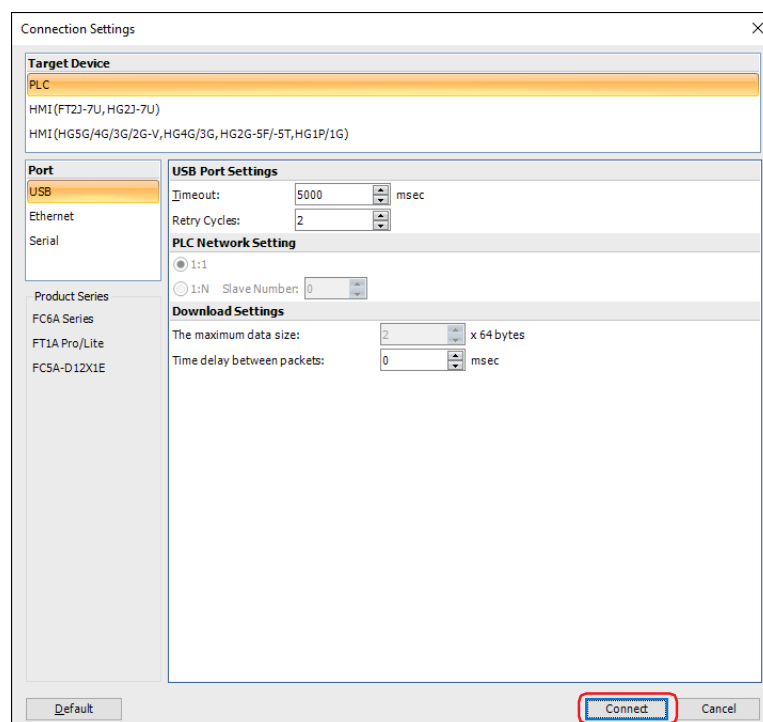
Open the main window of the Data File Manager, and then the status or the system information of the target device is displayed.

[*1] This option can only be configured when **PLC** is selected for **Target Device**.

● Connection Settings Dialog Box

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

■ **Target Device**

Select the target device from the following.

PLC: Communicate between a computer and MICROSmart or SmartAXIS Pro/Lite.

HMI (FT2J-7U, HG2J-7U): Communicate between a computer and SmartAXIS or MICRO/I.

HMI (HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P): Communicate between a computer and MICRO/I.

■ **Port**

Select the communication port on a computer from the following.

USB: Connect the USB port on a computer to the USB interface on the target device. This option can only be configured when **PLC** or **HMI (HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P)** is selected for the **Target Device**.

Ethernet: Connect the Ethernet port on a computer to the Ethernet interface on the target device.

Serial: Connect the serial port on a computer to the serial interface on the target device.
This option can only be set when **PLC** is selected as **Target Device**.

> When the **Serial** is selected for the communication port, an external memory device inserted in the target device cannot be accessed. However, when **Use Bluetooth communication** is selected, an external memory device inserted in the target device can be accessed.

■ **USB Port Settings**

This option can only be set when **USB** is selected for the **Port**.

Timeout: Specify the time to wait for a response from the target device as (5000 to 32767 ms units).

Retry Cycles: Specify the number of times to execute a reconnection when the target device cannot communicate with the external device. When the number of reconnect attempts reaches the number of times set here, a communication error is displayed. This option can only be configured when **PLC** is selected for the **Target Device**.

■ **Ethernet Port Settings**

This option can only be set when **Ethernet** is selected for the **Port**.

IP Address: Displays the IP address of the target device. This option can only be configured when **PLC** or **HMI (HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P)** is selected for the **Target Device**.

　　　　　　Target List: Change the IP address and port number for the target device. Click this button to open the Target List dialog box. For details, refer to "Target List Dialog Box for PLC" on page 1-7 or "Target List Dialog Box for HMI" on page 1-8.

Port Number: Specify the port number for the target device (0 to 65535). This option can only be configured when **PLC** or **HMI (HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P)** is selected for the **Target Device**.

(Target list): Displays the information of the target devices found by searching on the network. This option can only be configured when **HMI (FT2J-7U, HG2J-7U)** is selected for the **Target Device**.

　　　　　　IP Address: Displays the current IP address set in the target device.

　　　　　　Port No.: Displays the current port number set in the target device.

　　　　　　Type No.: Displays the type number of the target device.

　　　　　　MAC Address: Displays the MAC address of the target device.

　　　　　　Search: Updates the (Target list). Click this button to add the information of the target device that responded.

　　　　　　Target List: Change the settings of the **(Target list)**. Click this button to open the **Target List** dialog box. For details, refer to "Target List Dialog Box for HMI" on page 1-8.

Timeout: Specify the time to wait for a response from the target device. The time that can be set varies based on the **Target Device**.

　　　　　　PLC: 3,000 to 30,000 milliseconds

　　　　　　HMI (FT2J-7U, HG2J-7U), HMI (HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P): 0 to 20 minutes

Network Adapter: Select the network adapter to use with your computer. Only the enabled network adapaters are displayed. This option can only be configured when **HMI (FT2J-7U, HG2J-7U)** or **HMI (HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P)** is selected for the **Target Device** and **Ethernet** for the **Port**.

Retry Cycles: Specify the number of times (1 to 3) to reconnect when Data File Manager cannot communicate with the target device. When the number of reconnect attempts reaches the number of times set here, a communication error is displayed. This option can only be configured when **PLC** is selected for the **Target Device**.

> ⚠ If you select "HMI (FT2J-7U type, HG2J-7U type)" for the Target Device and your computer is not on the same subnet as the target device but has an active VPN, you will not be able to execute the function that adds IP addresses allowing your computer to join the same subnet.

■ **Serial Port Setting**

This option can only be set when **Serial** is selected as **Port**.

Port: Select the serial interface connected to the target device from **COM 1** to **COM 256**.

Baud Rate: Select the communication speed with the target device from the following.
1200 bps, 2400 bps, 4800 bps, 9600 bps, 19200 bps, 38400 bps, 57600 bps, 115200 bps

Data Bits: Select the data length as **7 bits** or **8 bits**.

Parity Select the parity from the following.
None, **Odd**, **Even**

Stop Bits: Select the stop bits as **1 bit** or **2 bits**.

Timeout: Specify the time to wait for a response from the target device (100 to 32767 ms units).

Retry Cycles: Specify the number of times (1 to 3) to reconnect when Data File Manager cannot communicate with the target device. When the number of reconnect attempts reaches the number of times set here, a communication error is displayed.

Automatic Detection: Detects automatically the communication settings of the target device via the serial port.

■ **PLC Network Setting**
This option can only be set when **PLC** is selected for the **Target Device**.

1:1:   Communicates with a single target device.

1:N: Communicates with a specified target device when there are multiple PLCs on the same network.

Slave Number: Specify the network number (0 to 31) of the target device which set on **Function Area Settings** in WindLDR. The values that can be set only when **Serial** is selected for the **Port**.

■ **Download Settings**
This option can only be set when **PLC** is selected for the **Target Device**.

The maximum data size: Specify the maximum size of the communication packets (1 to 64 (64 bytes units)). Adjust this size if the remote device does not have enough communication buffer.

Time delay between packets: Specify the communication interval between the communication packets (0 to 3000 ms units). Adjust this interval if Data File Manager sends communication packets to the remote device too fast.

■ **Communication Option**
This option can only be set when **PLC** is selected for the **Target Device** and **Serial** is selected for the **Port**.

User Bluetooth communication: Select this check box to communicate with the target device over Bluetooth communication.
For steps to use Bluetooth communication, refer to chapter 9 "BLUETOOTH COMMUNICATION" in the "FC6A Series MICROSmart Communication Manual".
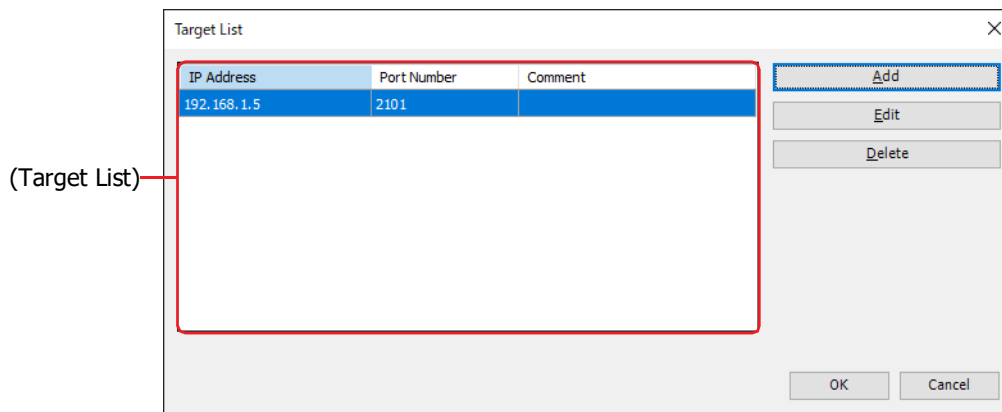
■ **Default**
Returns the configured values to their default values.

Target List Dialog Box for PLC

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

The IP settings for the target device is collectively managed on the Target IP Address List.

(Target List)

■ **(Target List)**

IP Address: Displays the IP address of the target device.

Port Number: Displays the port number of the target device.

Comment: Displays the comment of the target device.

■ **Add**

Adds a target information to the (**Target List**). Click this button to open the **Target IP Address Settings** dialog box.
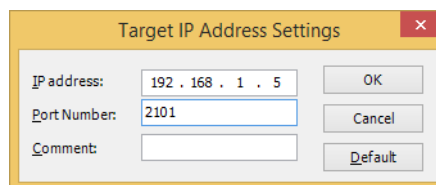
■ **Edit**

Changes the settings of the (**Target List**). Selects a target from the (**Target List**), and then click this button to open the **Target IP Address Settings** dialog box.

■ **Delete**

Deletes the selected settings from the (**Target List**).

Target IP Address Settings Dialog Box

Specify the IP address of the target device used for communication.

■ **IP Address**

Specify the IP address of the target device. The format is "xxx.xxx.xxx.xxx". "xxx" stands for a numeric value from 0 to 255.

■ **Port Number**

Specify the port number for the target device (0 to 65535).

■ **Comment**

Enter a comment for the IP Address. The maximum number is 80 characters.

■ **Default**

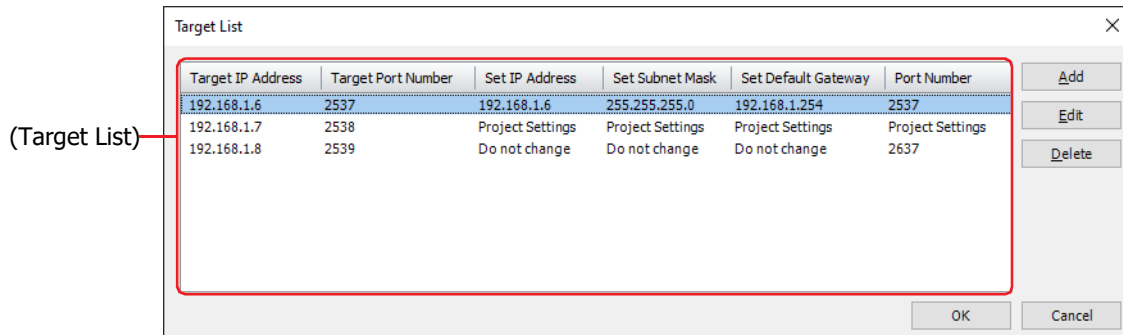Returns the configured values to their default values.

Target List Dialog Box for HMI

`FT2J-7U` `FC6A` `FC5A` `FC4A` `FT1A` `MICRO/I`

The IP settings for the target device is collectively managed on the Target List. Changing the IP settings (IP address, subnet mask, default gateway, and port number) for the target device to which you are downloading after ZNV project file is downloaded can be done here.

When the ZNX project file[1] is downloaded, the IP settings after download cannot be changed.

(Target List)

Target IP Address	Target Port Number	Set IP Address	Set Subnet Mask	Set Default Gateway	Port Number
192.168.1.6	2537	192.168.1.6	255.255.255.0	192.168.1.254	2537
192.168.1.7	2538	Project Settings	Project Settings	Project Settings	Project Settings
192.168.1.8	2539	Do not change	Do not change	Do not change	2637

Add
Edit
Delete
OK   Cancel

■ **(Target List)**

Target IP Address: Displays the current IP address that has been set in the target device.

Target Port Number: Displays the current port number that has been configured in the target device.

Set IP Address: Displays the IP address which is configured in the target device after downloading the ZNV Project File.

Set Subnet Mask: Displays the subnet mask which is configured in the target device after downloading the ZNV Project File.

Set Default Gateway: Displays the default gateway which is configured in the target device after downloading the ZNV Project File.

Port Number: Displays the port number which is configured in the target device after downloading the ZNV Project File.

■ **Add**
Adds the IP settings of the target device to the (**Target List**). Click this button to open the **Target IP Address Settings** dialog box. On this dialog box, specify the Ethernet settings for the target device.

■ **Edit**
Changes the settings of the (**Target List**).
Select a target from the (**Target List**), and then click this button to open the **Target IP Address Settings** dialog box.

■ **Delete**
Deletes the selected target from the (**Target List**).

*1 FT2J-7U, HG2J-7U only

Target IP Address Settings Dialog Box
Specify the IP address of the target device used for communication.

■ **Target IP Address**
Specify the IP address for the target device. The format is "xxx.xxx.xxx.xxx". "xxx" stands for a numeric value from 0 to 255.

■ **Target Port Number**
Specify the port number for the target device.

■ **After downloading, change the settings of Target**
Changes the IP settings of the target device after ZNV project file is downloaded. Select from the following setting methods.

Use the IP Settings in "Communication Interface" tab on "Project Settings" dialog box:

> Use the IP settings configured in the Communication Interface tab on the Project Settings dialog box of the ZNV project file to be downloaded.

Use the following settings: Uses the following IP settings. Select the check boxes to change items. Settings for which the check box is clear are not changed.

IP Address:	Enter the IP address which is configured in the target device after downloading the ZNV Project File.
Subnet Mask:	Enter the subnet mask which is configured in the target device after downloading the ZNV Project File.
Default Gateway:	Enter the default gateway which is configured in the target device after downloading the ZNV Project File.
Port Number:	Enter the TCP port number (1 to 65535) which is configured in the target device after downloading the ZNV Project File.

- When downloading a ZNX project file[1], the IP settings cannot be changed after the download.
- Even if the IP settings of the target device are changed by using the **Target IP Address Settings** dialog box when downloading a ZNV Project File, the IP settings in the ZNV Project File are not changed.
- When the target device is the HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, or HG1G/1P, the version of system software that is contained in ZNV Project File must be 4.52 or later to change the port number.
- Regarding TCP port number of SmartAXIS and MICRO/I, note the following points.

The numbers that cannot be used:
- 2101: for FC4A MICROSmart direct connection pass-through
- 2538: for pass-through
- 2539: Maintenance communication (Data Transfer)
- 2540: Maintenance communication (Control Function)

Duplicate numbers cannot be configured in the following functions:

- Maintenance communication (☞ WindO/I-NV4 User's Manual)
- Web server function (☞ WindO/I-NV4 User's Manual)
- FTP server function (☞ WindO/I-NV4 User's Manual)
- **TCP Server** is selected for the User Communication
  (☞ WindO/I-NV4 User's Manual)
- **Modbus** as **Manufacture** and **Modbus TCP Server** as **Communication Driver** are selected on the **Communication Driver** tab
  (☞ refer to the WindO/I-NV4 External Device Setup Manual)
- **YASKAWA Electric** as **Manufacture** and **MP2000(Ethernet)** as **Communication Driver** are selected on the **Communication Driver** tab
  (☞ refer to the WindO/I-NV4 External Device Setup Manual)

*1 FT2J-7U, HG2J-7U only
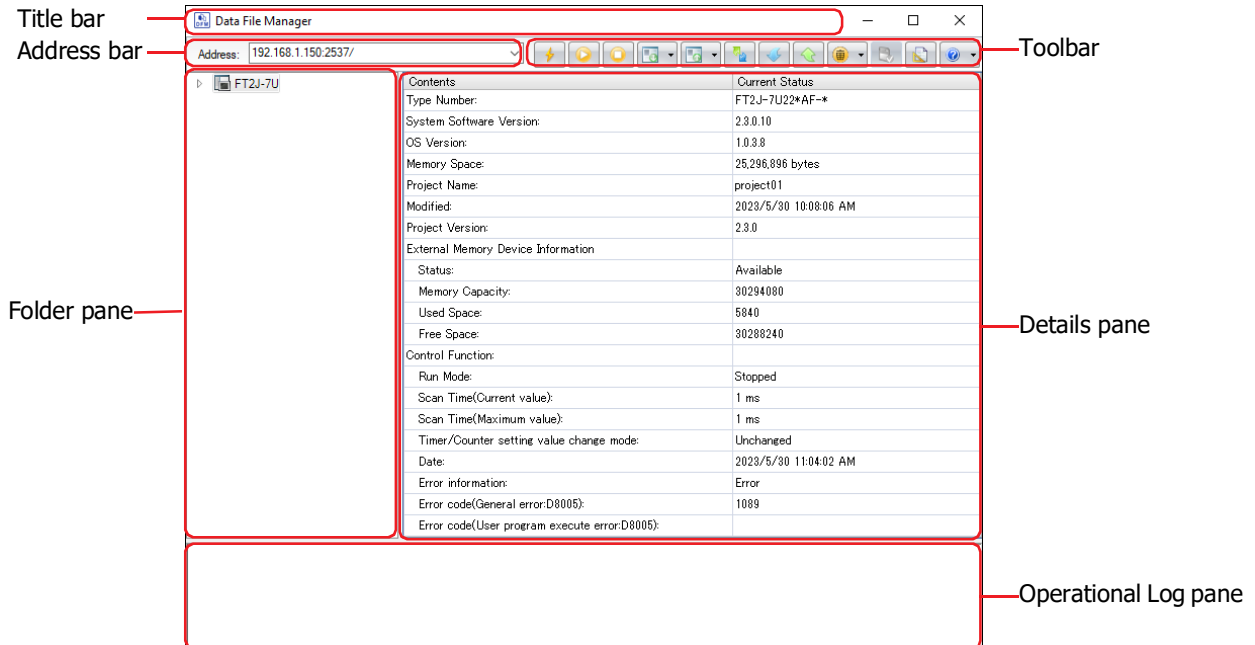
2.2 Exiting Data File Manager

Click ![×] in the upper-right corner of Data File Manager.

Data File Manager ends.
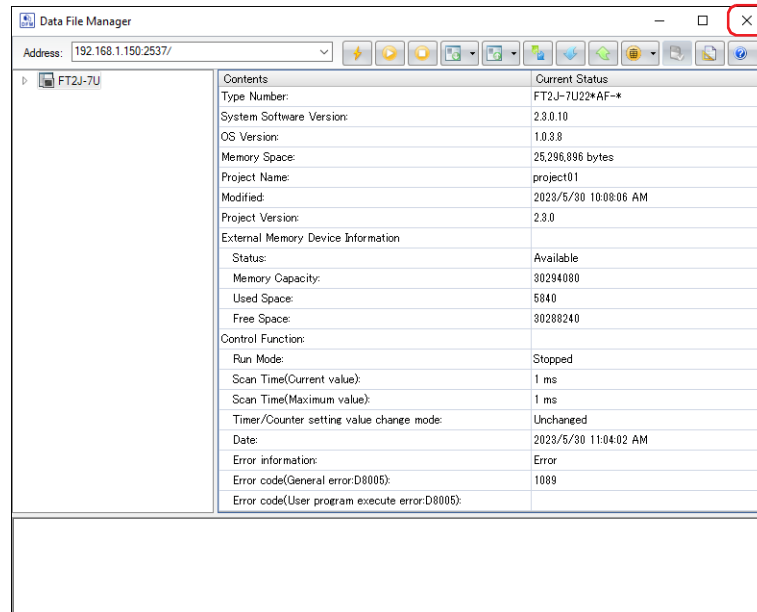
3   Configuration & Functions

3.1   Data File Manager Configuration

This section describes the names and functions that make up Data File Manager.

■ **Title bar**
The title bar shows the name of this software.

■ **Address bar**
Displays an address of the target device or a folder path of the external memory device inserted in the target device. The displayed content varies based on the target device. Clicking allows you to edit the displayed content.

PLC: For details, refer to Chapter 2 "Address bar" on page 2-1 and Chapter 2 "Address bar" on page 2-2.

HMI (FT2J-7U, HG2J-7U), HMI (HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P):

        For details, refer to Chapter 3 "Address bar" on page 3-1 and Chapter 3 "Address bar" on page 3-2.

The following characters cannot be used in the address bar:
        FT2J-7U, HG2J-7U: " # $ & ' ( ) * / : ; < > ? \ ` | ~
                                Two consecutive periods
        HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P: " * / : < > ? \ |

■ **Toolbar**
Display the Data File Manager's functions as buttons. For details, refer to "3.2 Toolbar" on page 1-14.

■ **Folder pane**
Display the type number, the external memory device and folders.

■ **Details pane**

Displays the file operational logs which is in the external memory device inserted in the target device, or the files and the folders selected in the

PLC: For details, refer to Chapter 2 "Details pane" on page 2-1 and Chapter 2 "Details pane" on page 2-3.

HMI (FT2J-7U, HG2J-7U), HMI (HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P):

            For details, refer to Chapter 3 "Details pane" on page 3-1 and Chapter 3 "Details pane" on page 3-3.

■ **Operational Log pane**

Displays the file operational logs. For details, refer to Chapter 2 "2 Display or Operate Files and Folders" on page 2-2.

PLC: For details, refer to Chapter 2 "Operational Log pane" on page 2-3.

HMI (FT2J-7U, HG2J-7U), HMI (HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P):

            For details, refer to Chapter 3 "Operational Log pane" on page 3-3.

Data File Manager Features & Basic Operations

1

3.2　Toolbar

The configuration of the toolbar varies based on the target device.

● PLC

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

Icon	Icon Command			Description	Reference
	Connect			Opens the **Connection Settings** dialog box.	Page 1-4
	Start			Changes the status of the target PLC from stop to run.	Page 2-7
	Stop			Changes the status of the target PLC from run to stop.	Page 2-7
	Download			Downloads the ZLD Project File (.zld) saved in a computer to the target device.	Page 2-8
		Download ZLD Project File (.zld)		This is the same as clicking the Download icon.	
		Download System Software		Downloads the system software to the target PLC.	Page 2-9
		Download Files		Copy from files saved in a computer to the SD memory card inserted in the target PLC.	Page 2-4
		Download Folder		Copy from folders saved in a computer to the SD memory card inserted in the target PLC.	Page 2-5
	Upload			Uploads a program in the target PLC to a computer, and saves it as the ZLD Project File (.zld).	Page 2-11
		Upload ZLD Project File (.zld)		This is the same as clicking the Upload icon.	
		Upload Files and Folders		Upload files and folders displayed in the Details pane and save them in a computer.	Page 2-6
	Refresh			Gets the latest information from the target device, and updates the display.	
	Download Device Address data (.csv)			Downloads the Device Address Data (.csv) saved in a computer to the target device, and writs values to the device addresses.	Page 2-14
	Upload Device Address data (.csv)			Gets values of the device addresses from the target device, and saves it as a CSV file in a computer.	Page 2-15
	Clear		Clear Values of All Device Addresses	Clears the values from device addresses stored in the internal memory of the target device. The target device types are as follows: Inputs, Outputs, Internal Relays, Shift Registers, Data Registers, Expansion data registers, Timer current values, and Counter current values	Page 2-16
			Clear Error	Clears error information stored in the internal memory of the target device.	
	Format SD Memory Card			Formats the SD memory card inserted in the target PLC.	Page 2-17
	Options			Configures the optional feature of the Data File Manager.	Page 1-17
	Help			Displays the Data File Manager help.	
		Help		This is the same as clicking the Help icon.	
		About Data File Manager		Displays the **About Data File Manager**.	

● HMI

`FT2J-7U` `FC6A` `FC5A` `FC4A` `FT1A` `MICRO/I`

Icon	Command		Description	Reference
⚡	Connect		Opens the **Connection Settings** dialog box.	Page 1-4
▶	Start[*1]		Changes the ladder program from STOP to RUN.	Page 3-7
■	Stop[*1]		Changes the ladder program from RUN to STOP.	Page 3-7
🖼▾	Download		Downloads the ZNV Project File (.znv) or ZNX Project File (.znx)[*2] saved on your computer to the target device.	Page 3-8
		Download ZNV/ZNX Project Files (.znv/.znx)	This is the same as clicking the Download icon.	
		Download Files to External Memory Device	Stops the target device and then download files saved in a computer to the external memory device inserted in the target device. The target device resumes running when files have finished downloading.	Page 3-11
		Download Files to External Memory Device while running	Downloads files saved in a computer to the external memory device inserted in the target device without stopping it.	
🖼▾	Upload		Uploads the project from the internal memory of the target device, and saves it as the ZNV Project File (.znv).	Page 3-12
		Upload ZNV Project File (.znv)	This is the same as clicking the Upload icon.	
		Upload All Log Data	Uploads all log data stored in the internal memory of the target device, and saves it to a computer.	Page 3-13
		Upload Alarm Log Data	Uploads the Alarm Log data stored in the internal memory of the target device, and saves it to a computer.	
		Upload Data Log Data	Uploads the Data Log data stored in the internal memory of the target device, and saves it to a computer.	
		Upload Operation Log Data	Uploads the Operation Log data stored in the internal memory of the target device, and saves it to a computer.	
		Upload Files from External Memory Device	Uploads files from the external memory device inserted in the target device, and saves it in a computer.	Page 3-14
🔄	Refresh		Gets the latest information from the target device, and updates the display.	
⬇	Download Device Address data (.csv)		Downloads the Device Address Data (.csv) saved in a computer to the target device, and writs values to the device addresses.	Page 3-17
⬆	Upload Device Address data (.csv)		Gets values of the device addresses from the target device, and saves it as a CSV file in a computer.	Page 3-18
❓▾	Help		Displays the Data File Manager help.	
		Help	This is the same as clicking the Help icon.	
		About Data File Manager	Displays the **About Data File Manager**.	

💡 The state of the ladder program can be changed with the value of the Special Internal Relay M8000. When the value of device address is set to 1, ladder program is set to RUN. If the value of device address is set to 0, the ladder program is set to STOP.

*1 FT2J-7U only
*2 FT2J-7U, HG2J-7U only

1

Data File Manager Features & Basic Operations

Icon	Command			Description	Reference
	Clear		Clear All data	Clears all of the data stored in the internal memory of the target device.	Page 3-19
			Clear Alarm Log Data	Clears all of the Alarm Log data stored in the internal memory of the target device.	
			Clear Data Log Data	Clears all of the Data Log data stored in the internal memory of the target device.	
			Clear Operation Log Data	Clears all of the Operation Log data stored in the internal memory of the target device.	
			Clear Values of All Device Addresses	Clears the values from all device addresses.	
			Clear Values of Control Device[*1]	Clears the values of the control device stored in the internal memory of the target device.	Page 3-19
			Clear Errors of Control Function[*1]	Clears the error information of the control function stored in the internal memory of the target device.	Page 3-19
			Clear Files stored in External Memory Device	Clears data saved to the external memory device inserted in the target device.	Page 3-19
	Format External Memory Device[*3]			Formats the external memory device inserted in the target device.	Page 3-21
	Options			Configures the optional feature of the Data File Manager.	Page 1-17
	Help			Displays the Data File Manager help.	
		Help		This is the same as clicking the Help icon.	
		About Data File Manager		Displays the **About Data File Manager**.	

*1 FT2J-7U only
*3 HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P only

4   Customizing the Data File Manager

4.1   Configure the Optional Feature

You can configure the Data File Manager settings such as the double-click action, and the saving the run history of the command line. The settings configured here are saved even when you exit the Data File Manager.
The procedure for configuring the optional feature is shown below.

1   Click (Options) on the toolbar.

The **Data File Manager Options** dialog box is displayed.
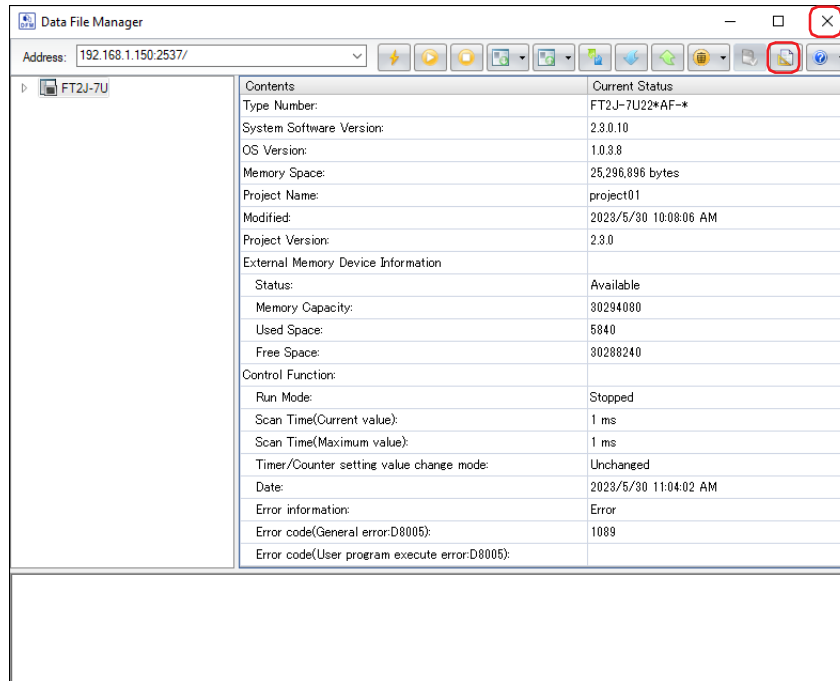
2   Change the settings on each tab as desired.
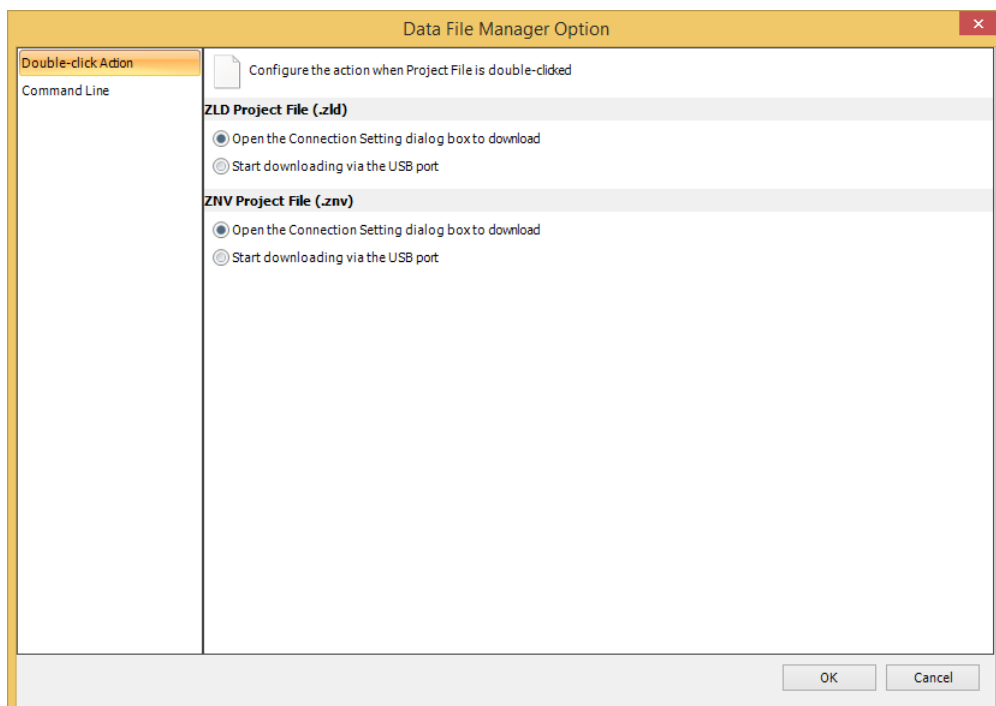
● Double-click Action Tab

Configure the action when Project File is double-clicked.
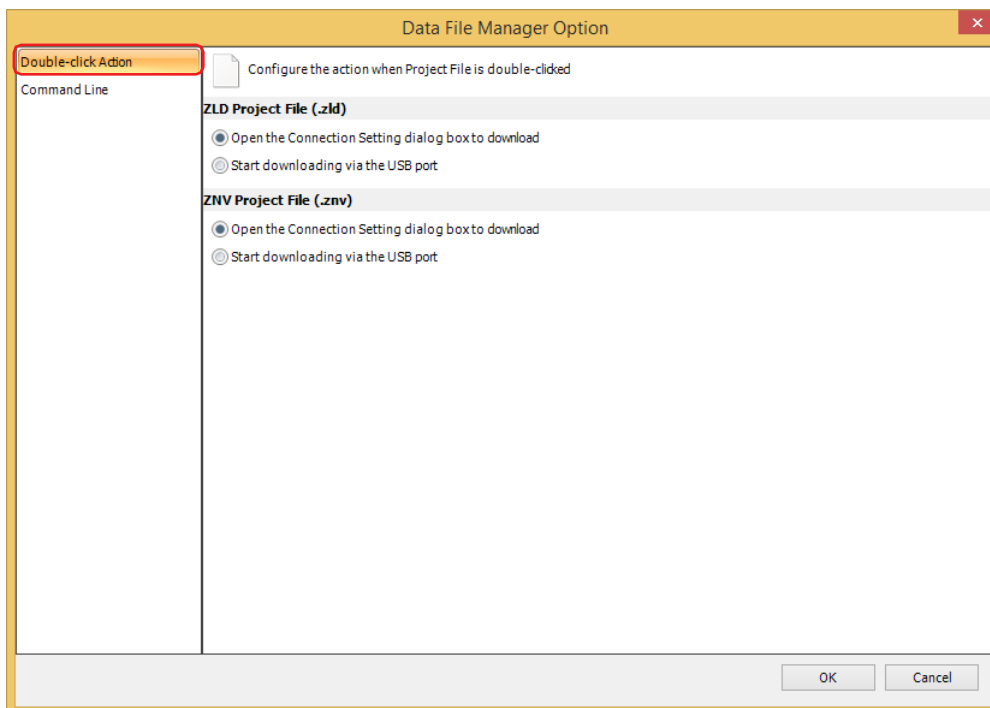
■ **ZLD Project File (.zld)**

This setting sets action for double-clicking a ZLD File. The main window of the Data File Manager doesn't open.

Open the Connection Setting dialog box to download:

> Opens the Communication Setting dialog box when you double-click a ZLD Project File. And then download it to the target device via the communication port which you specify in this dialog box.

Start downloading via the USB port: After you double-click a ZLD Project File, starts downloading it to the target device via the USB port.

■ **ZNV Project File (.znv)**

This setting sets action for double-clicking a ZNV File. The main window of the Data File Manager doesn't open.

Open the Connection Setting dialog box to download:

> Double-click the file to display the **Communication Setting** dialog box.
> The corresponding model set in the project to be downloaded is selected for the **Target Device**.

Start downloading via the USB port: After you double-click a ZNV Project File, starts downloading it to the target device via the USB port.

> Double clicking the ZNX project file displays the **Connection Settings** dialog box as well.
> The corresponding model set in the project to be downloaded is selected for the Target Device and Ethernet is selected for the Port.

*1 FT2J-7U, HG2J-7U only

● Command Line tab

Configures an optional feature of Command Line.
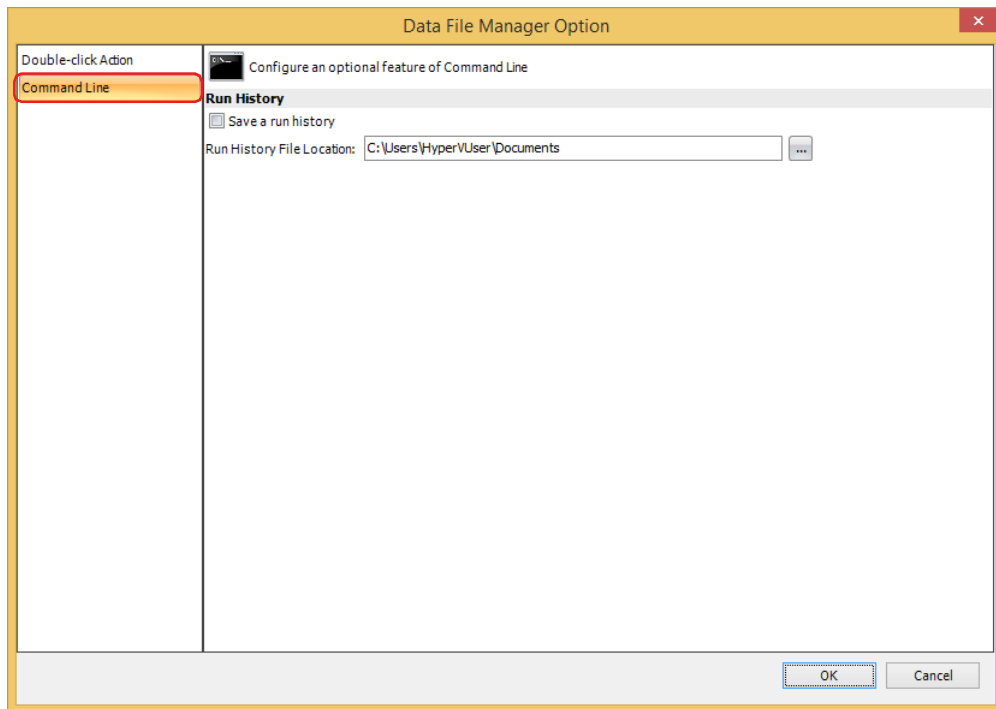
■ **Run History**

Save a run history: Save the description of the executed command line to a run history file.

Run History File Location: Specifiy the save location of the run history file. Click ⬚ to display the **Browse For Folder** dialog box. This option can only be set when **Save a run history** is selected.

Data File Manager User's Manual

This chapter describes how to use the Data File Manager when communicating with the PLC.

1 Display Status

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

You can confirm the status of the target device by clicking the type number on the Folder pane.
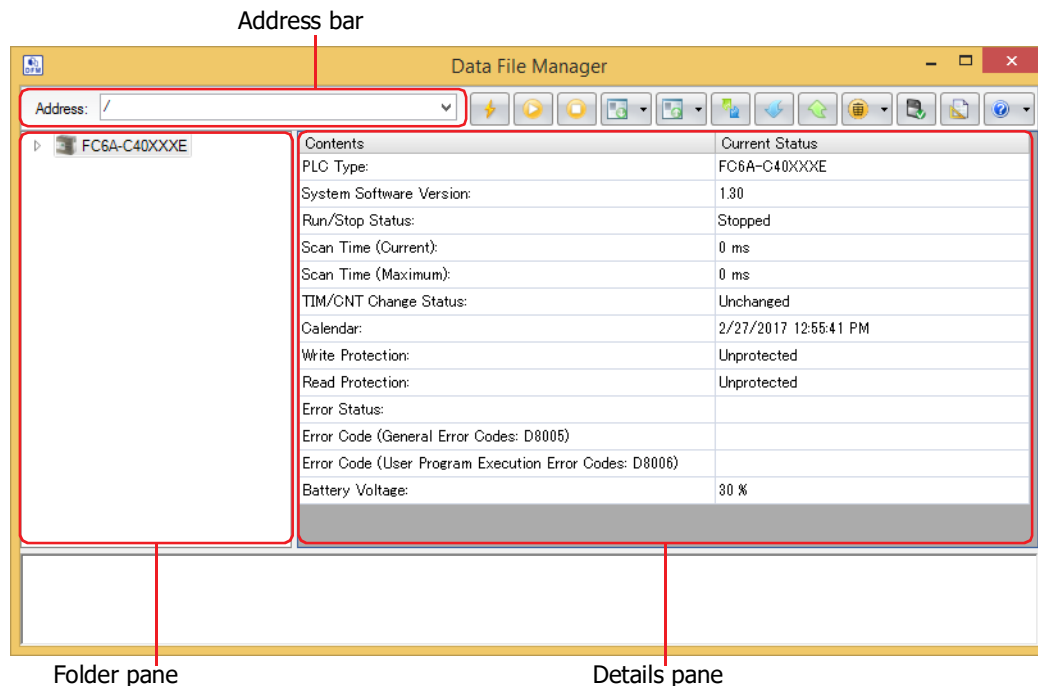
Address bar

Folder pane   Details pane

■ **Address bar**
The displayed content varies based on the selected communication port. Clicking allows you to edit the displayed content.

USB, Serial: / (slash)

Ethernet: IP Address:Port Number
                Example: 192.168.1.5:2101/

■ **Folder pane**
Displays the type number of the target device.

■ **Details pane**
Displays the status of the target device.

2   Display or Operate Files and Folders

2.1   Display Files and Folders

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

Data File Manager gets the information of files and folders from the SD memory card inserted in the target device[*1], and displays them in the Folder pane and the Details pane.

Address bar
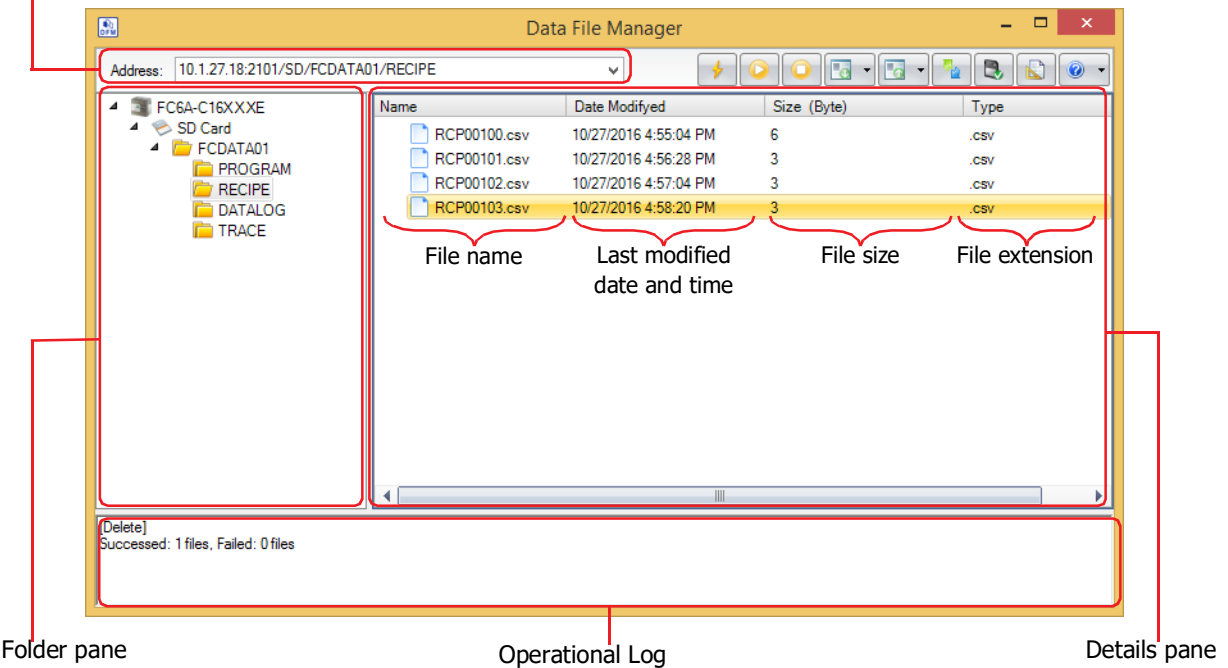
File name   Last modified date and time   File size   File extension

Folder pane   Operational Log   Details pane

■ **Address bar**
Displays the folder path of the external memory device selected in the Folder pane.
The displayed content varies based on the selected communication port. Clicking allows you to edit the displayed content.

USB:	/external memory device type (SD)/folder path
	Example: /SD/FCDATA01/
Ethernet:	IP address:port number/external memory device type (SD)/folder path
	Example: 192.168.1.5:2101/SD/FCDATA01/

■ **Folder pane**
Displays the folder structure as a tree. Click a folder to move to the level in that folder (up or down).

1st level (root):	Displays the target device as an icon and text.
2nd level:	Displays the SD memory card inserted in the target device as an icon and text.
3rd level and lower:	Displays the folders in the SD memory card as a tree.

*1 Only when under suspension for FT1A

■ **Details pane**
Displays a list of the files and folders in the folder selected on the Folder pane.
You can create a new folder, rename or delete files and folders.

> Don't operate a file or a folder during its reading or writing operation by following functions.
> • Recipe function
> • Saving log functions such as DLOG instruction or TRACE instruction.

- Create a new folder
  Click **Create Folder** on the right click menu.
- Rename a file or folder
  Selects a file or folder, and then click **Rename** on the right click menu or press the **F2** key.
- Delete files and folders
  Selects files and folders, and then click **Delete** on the right click menu or press the **DELETE** key.

■ **Operational Log pane**
On the Folder pane or the Details pane, the operational log is displayed by executing the following operations.

Operation	Description	Log format
Download	Displays the number of files that were successfully downloaded and the number of files that failed to be downloaded. For the operating procedures, refer to "2.2 Download Files and Folders" on page 2-4.	[Download] Success: ### file(s), Failed: ### file(s)
Upload	Displays the number of files that were successfully uploaded and the number of files that failed to be uploaded. For the operating procedures, refer to "2.3 Upload Files and Folders" on page 2-6.	[Upload] Success: ### file(s), Failed: ### file(s)
Delete	Displays the number of files that were successfully deleted and the number of files that failed to be deleted. For the operating procedures, refer to the above "Delete files and folders".	[Delete] Success: ### file(s), Failed: ### file(s)

###: Number of files

2.2 Download Files and Folders

Files and folders saved on the computer will be written to the SD memory card inserted in the target device.

> ⚠ Don't download to a folder during its reading or writing operation by following functions.
> • Recipe function
> • Saving log functions such as DLOG instruction or TRACE instruction.

● Download Files

1 Select download destination folder in folder pane.
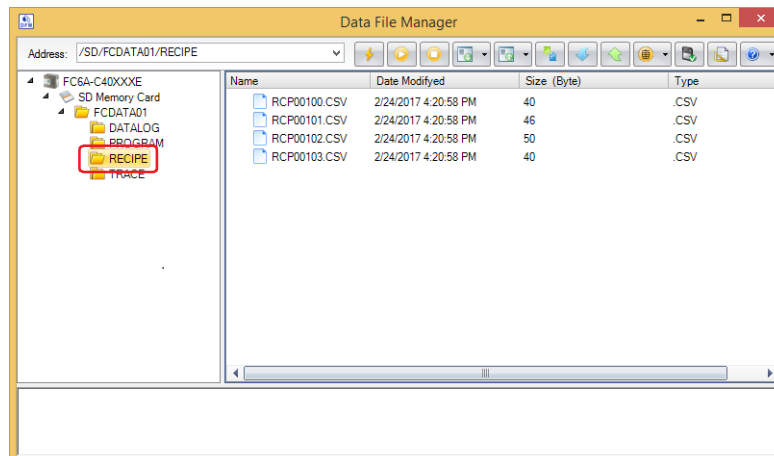
2 Click on ▼ to the right of [⬚ ▾] (Download), and then click the **Download Files**.

The **Open** dialog box is displayed.

3 Specify the files to download and click **Open**.

The download starts.
If there is a file with the same file name in the download destination folder, an overwrite confirmation message is displayed.
• Click **OK** to start downloading the files.
• Click **Cancel** to stop downloading the files.

This concludes downloading files.

> 💡 If files are selected with Explorer on the computer and then dragged and dropped to the details pane, those selected files can be downloaded to the SD memory card inserted in the target device.

● Download Folders

1 Select download destination folder in folder pane.
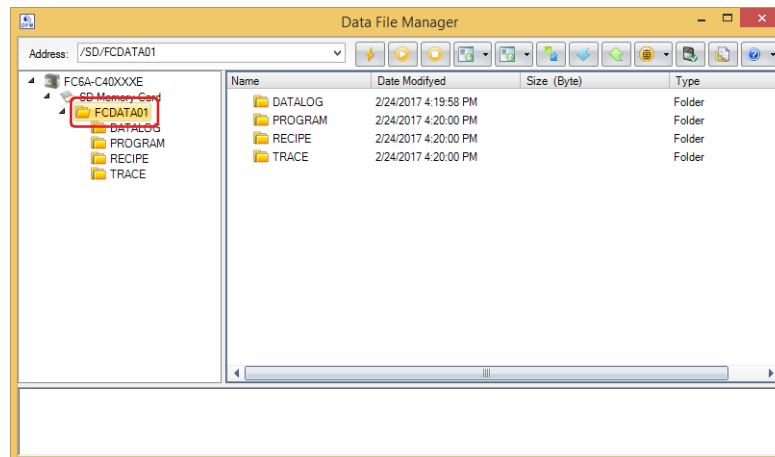
2 Click on ▼ to the right of (Download), and then click the **Download Folders**.

The **Browse For Folder** dialog box is displayed.

3 Select the folder to download and click **OK**.

The download starts.
If there is a folder with the same folder name in the download destination folder, an overwrite confirmation message is displayed.
• Click **OK** to start downloading the folder.
• Click **Cancel** to stop downloading the folder.

This concludes downloading folders.

If folders are selected with Explorer on the computer and then dragged and dropped to the details pane, those selected folders can be downloaded to the SD memory card inserted in the target device.

2.3 Upload Files and Folders

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

Files and folders displayed in the details pane will be saved to the computer.

> ⚠ Don't upload a file or a folder during its reading or writing operation by following functions.
> • Recipe function
> • Saving log functions such as DLOG instruction or TRACE instruction.

1 Select the files and folders to upload in the details pane.
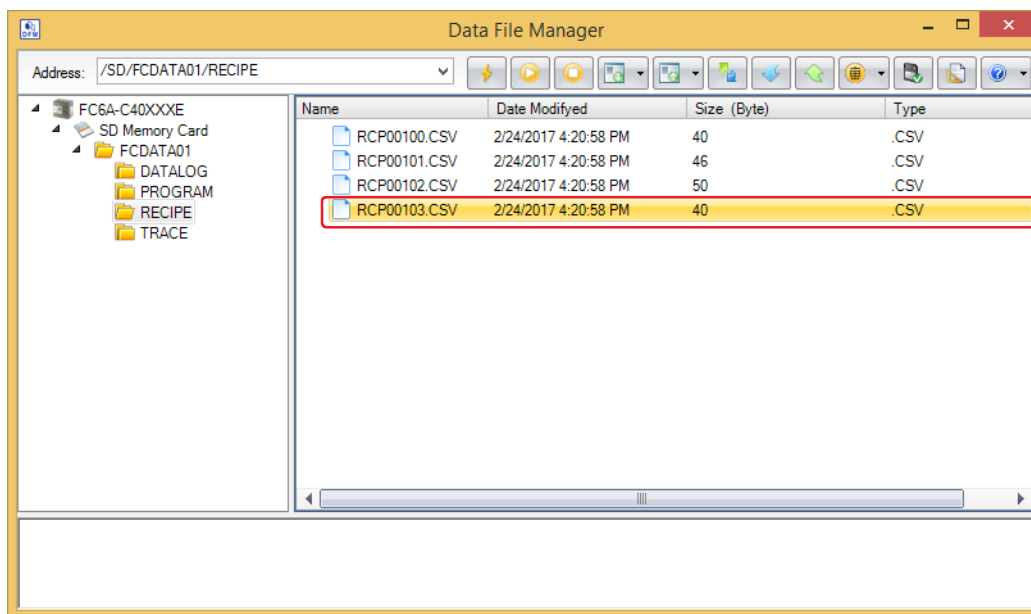
2 Click on ▼ to the right of 🔲▼ (Upload), and then click the **Upload Files and Folders**.

The **Browse For Folder** dialog box is displayed.

3 Enter the destination and the file name and then click **OK**.

The upload starts.
If there is a file or folder with the same file or folder name in the upload folder, an overwrite confirmation message is displayed.
• Click **OK** to start uploading the files and folders.
• Click **Cancel** to stop uploading the files and folders.

This concludes uploading files and folders.

> 💡 If files and folders are selected in the details pane and then dragged and dropped to Explorer on the computer, those selected files and folders can be uploaded.

3 Changing the PLC status

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Using PLC

3.1 Start procedure

The target PLC can be set to run using Data File Manager.

1 Click ⊙ (Start) on the toolbar.

A confirmation message is displayed.

2 Click **Yes**.

This concludes the start operation.

3.2 Stop procedure

The target PLC can be set to stop using Data File Manager.

1 Click ⊙ (Stop) on the toolbar.

A confirmation message is displayed.

2 Click **Yes**.

This concludes the stop operation.

4 Downloading

4.1 Download a ZLD Project File

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

A ZLD Project File (.zld) saved in a computer is downloaded to the target PLC.

> ⚠ • Do not turn off the target device while a ZLD Project File is downloading.
> • Turn the power of the target device off and on and download the ZLD Project File once again if the following conditions occur:
>   - The ZLD Project File downloading failed, then Data File Manager cannot communicate with the target device.
>   - The cable was disconnected or the power was turned off while Data File Manager and the target device were communicating, and the target device no longer responds.

1 Click 📋▾ (Download) on the toolbar.

The **Open** dialog box is displayed.

2 Specify the ZLD Project File (.zld) to download, and then click **Open**.

A confirmation message is displayed.

3 Click **Yes**.

The download starts.

> 📝 If the program in the target PLC is password protected, the **Enter Password** dialog box is displayed. Enter the password.

This concludes downloading the ZLD Project File (.zld).

> 💡 You can download by double-clicking the ZLD Project File. For details, refer to Chapter 1 "Double-click Action Tab" on page 1-18.

4.2 Download System Software

You can change the system software in the target PLC.

1 Click on ▼ to the right of ☐ (Download), and then click **Download System Software**.

The **System Software Download** dialog box is displayed.

2 Change the settings as necessary, and then click **Start System Software Download**.

The system software starts downloading.
Example: FC6A-C40XXXE
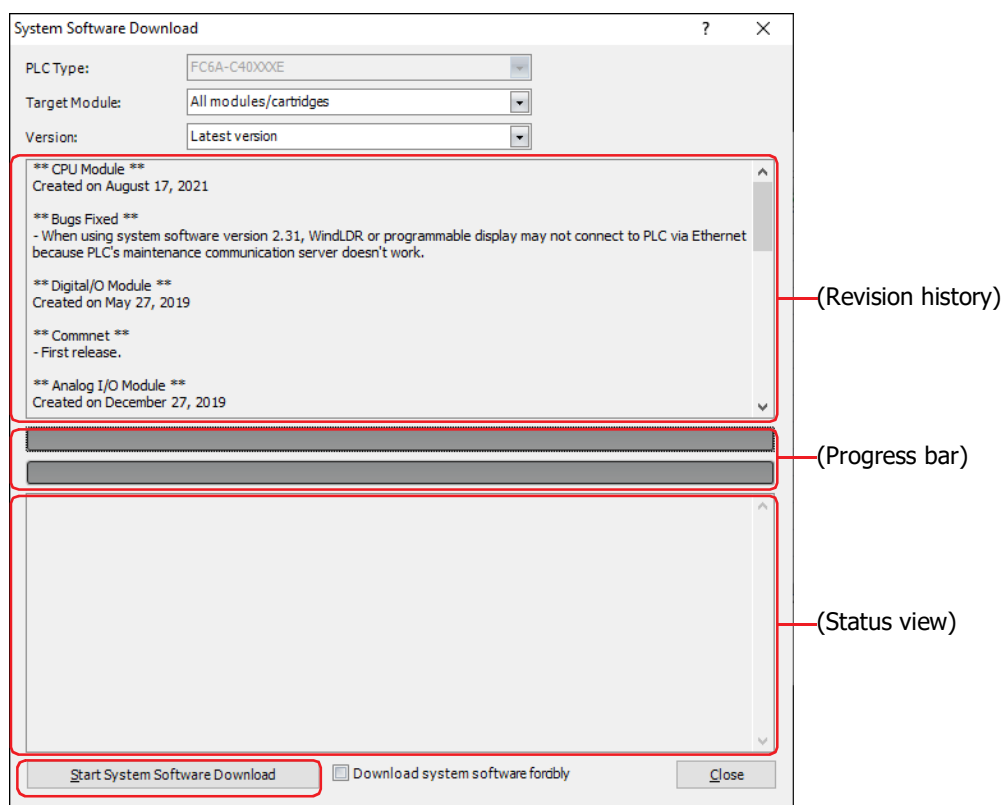
■ **PLC Type**
Displays the type number of the PLC which communicates with Data File Manager.

■ **Target Module**[*1]
Select the module to download the system software from the following.
All modules/cartridges, **CPU Module**, **Analog I/O Module**, **PID Module**, **HMI Module**,
Communication Module, **Expansion Interface Remote Master Module**[*2],
Expansion Interface Remote Slave Module[*2], **Bluetooth Communication Cartridge**

■ **Version**
Specify the version of the system software as **Latest version** or **Custom**. Select the version to download for each module when **Custom** is selected.

*1 FC6A only
*2 FC6A-D16XXCEE, FC6A-D32XXCEE only

■ **Configure button**[*1]
If you select **Custom** for **Version**, click this button to display the **System Software Version Selection** dialog box, which you can use to specify the module to download the system software to and the system software version. Select all the check boxes for the modules which you want to download. Select the system software version for each module, and then click **OK**.
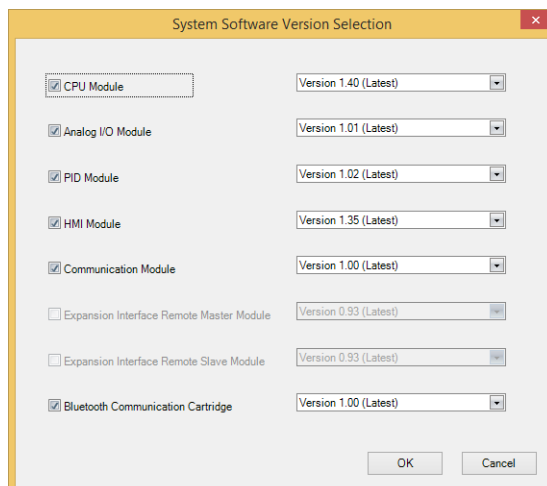
■ **Baud Rate**[*2]
Select Baud Rate for download.

■ **(Revision history)**
The revision history related to the system software of the module selected in the **Target Module**[*1] selection is displayed here.

■ **(Progress bar)**
System software download status is displayed by a progress bar.

■ **(Status display)**[*1]
The success or failure of the system software download for each target module is displayed here.
The slot position and the PLC type are both displayed for analog modules and PID modules.

■ **Download system software forcibly**[*1]
Select this check box, if you want to download system software forcibly regardless of the system software version in the target device. This check box is not recommended usual use.

> • If the PLC is running, it is stopped automatically before the system software download starts.
> • The system software download takes about one minute.

3 When system software download is completed, complete message is displayed.
Click **OK** button, then the **System Software Download** dialog box is closed.

> • After the system software has downloaded, the PLC will be in the STOP state. Use Data File Manager, WindLDR operations, FC6A MICROSmart function switch operations, or HMI module LCD operations to run the PLC.
> • The user program stored in the PLC before downloading the system software remains and is executed when the PLC is restarted. A user program execution error may occur if an older system software is downloaded to the PLC.
> • If the system software download fails, please try downloading it again.
> • When communicating with the target device over Bluetooth communication, the system software cannot be downloaded.

*1 FC6A only
*2 FC5A, FC4A only

5 Uploading

5.1 Upload a ZLD Project File

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

Uploads a program in the target PLC to your computer, and saves it as the ZLD Project File (.zld).

1 Click 🖼 ▾ (Upload) on the toolbar.

The **Save As** dialog box is displayed.

2 Enter the destination and the file name, and then click **Save**.

The upload starts.
If the file already exists with the same name in the upload folder, an overwrite confirmation message is displayed.
- Click **OK** to start uploading the ZLD Project File.
- Click **Cancel** to stop uploading the ZLD Project File.

> If the program in the target PLC is password protected, the **Enter Password** dialog box is displayed. Enter the password.

This concludes uploading the ZLD Project File (.zld)

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Using PLC

6 Downloading or Uploading the Device Address Data

FT2J-7U FC6A FC5A※ FC4A FT1A MICRO/I
※Only FC5A-D12X1E supports this function.

6.1 Device Address Data

● Data Format

The data of device addresses is consistent of the values for the amount of data specified by Number of Data on Device Address Data Setting dialog box.

"Value of Device Address",

"Value of Device Address address number+1",

"Value of Device Address address number+2",   } Number of Data n

"Value of Device Address address number (n-1)",

● Creating Device Address Data with a Text Editor

You can edit the device address data using Notepad, commercially available text editors, or spreadsheet software.

1 Write the data for the amount of data in "value of device address" comma (,) new line order.

Example: Number of Data is 5, the values are 1111, 2222, 3333, 4444, 5555 in order.

        1111,
        2222,
        3333,
        4444,
        5555,

2 Save the file with the ".csv" extension.

● Supported Device Address

The range of device address and the maximum number of data that can be read and written is as follows:

Bit Deivce

Device Name	FC6A-D16/-D32		FC6A-C16/-C24/-C40/-C40XEJ		FC5A-D12X1E	
	Device Address	Maximum number of data	Device Address	Maximum number of data	Device Address	Maximum number of data
Internal Relay	M0 to M7997	6400	M0 to M7997	6400	M0 to M2557	2048
	M10000 to M21247	9000	M10000 to M17497	6000		
Special Internal Relay	M8000 to M9997	1600	M8000 to M8317	256	M8000 to M8317	256
Shift Registers	R0 to R255	256	R0 to R255	256	R0 to R255	256

Device Name	FT1A-12		FT1A-24/-40/-48	
	Device Address	Maximum number of data	Device Address	Maximum number of data
Internal Relay	M0 to M317	256	M0 to M1277	1024
Special Internal Relay	M8000 to M8177	144	M8000 to M8177	144
Shift Registers	R0 to R127	128	R0 to R127	128

Word Device

Device Name	FC6A-D16/-D32		FC6A-C16/-C24/-C40/-C40XEJ		FC5A-D12X1E	
	Device Address	Maximum number of data	Device Address	Maximum number of data	Device Address	Maximum number of data
Timer current values	TP0 to TP1999	2000	TP0 to TP1023	1024	TP0 to TP255	256
Counter current values	CP0 to CP511	512	CP0 to CP511	512	CP0 to CP255	256
Data Register	D0 to D7999	8000	D0 to D7999	8000	D0 to D1999	2000
	D10000 to D61999	52000			D2000 to D7999	6000
	D70000 to D269999	200000	D10000 to D55999	46000	D10000 to D49999	40000
Special Data Register	D8000 to D8899	900	D8000 to D8499	500	D8000 to D8499	500

Device Name	FT1A-12		FT1A-24/-40/-48	
	Device Address	Maximum number of data	Device Address	Maximum number of data
Timer current values	TP0 to TP99	100	TP0 to TP199	200
Counter current values	CP0 to CP99	100	CP0 to CP199	200
Data Register	D0 to D399	400	D0 to D999	1000
			D1000 to D1999	1000
Special Data Register	D8000 to D8199	200	D8000 to D8199	200

You cannot handle bit devices as words or specify a bit in a word device.

6.2 Download Device Address Data

The device address data (.csv) saved in a computer can be downloaded to the target device and written the values to device addresses.

> ⚠️ • Do not turn off the target device while the device address data is downloading.
> • Turn the power of the target device off and on and download the ZLD Project File once again if the following conditions occur:
>   - The device address data downloading failed, then Data File Manager cannot communicate with the target device.
>   - The cable was disconnected or the power was turned off while Data File Manager and the target device were communicating, and target device no longer responds.

1 Click 🔽 (Downlaod DeviceAddress Data (.csv)) on the toolbar.

The **Device Address Data Setting** dialog box is displayed.

2 Specify the device address to write the values, and then click **OK**.

The **Open** dialog box is displayed.

■ **Device Type**
Select the device type of the device address to write the values.

■ **Address Number**
Specify the start address number of the device address to write the values.

■ **Number of Data**
Specify the number of data of the device address to write the values.

> 💡 For details about the device address that can be used with the target device, refer to "Supported Device Address" on page 2-13.

3 Select the Device Address Data (.csv), and then click **Open**.

This concludes downloading the device address data.

6.3 Upload Device Address Data

The values of device addresses can be read from the target device and saved it as a CSV file in a computer.

1 Click ![icon] (Upload Device Address Data (.csv)) on the toolbar.

The **Device Address Data Setting** dialog box is displayed.

2 Specify the device address to read the values, and then click **OK**.

The **Save As** dialog box is displayed.

■ **Device Type**
Selects the device type of the device address to read the values.

■ **Address Number**
Specify the start address number of the device address to read the values.

■ **Number of Data**
Specify the number of data of the device address to read the values.

For details about the device address that can be used with the target device, refer to "Supported Device Address" on page 2-13.
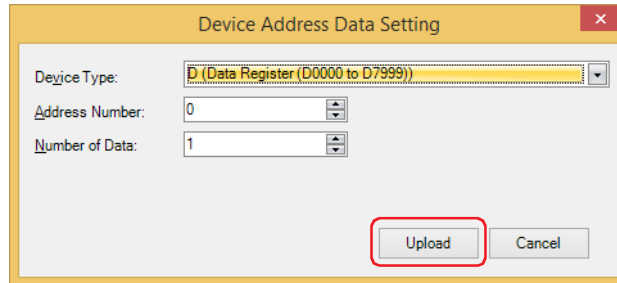
3 Enters a file name, and then click **Save**.

This concludes uploading the device address data.

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Using PLC

7 Clear

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

7.1 Clear Data from the Target Device

Deletes data from the internal memory of the target device.

1 Click on ▼ to the right of ⊙ ▾ (Clear) on the toolbar, and then select the menu for deleting data.

The progress dialog box is displayed, and then the data starts deleating.

■ **Clear Values of All Device Addresses**
Clears the values from device addresses stored in the internal memory of the target device. The target device types are as follows:
Inputs, Outputs, Internal Relays, Shift Registers, Data Registers, Expansion data registers, Timer current values, and Counter current values

■ **Clear Error**
Clears error information stored in the internal memory of the target device.

> 💡 Each error in the control function can be cleared by writing 0 to the value of the following special data registers.
> D8005: General Error
> D8006: Program Execution Error

2 Click **Close** on the progress dialog box.

This concludes clearing data.

8   Formatting the SD Memory Card

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

Formats an SD memory card inserted in a target PLC.

1   Click 🔃 (Format SD Memory Card) on the toolbar.

The confirmation message is displayed.

2   Click **Yes**.

The format is executed.

This concludes formatting the SD memory card.

> Formatting the SD memory card on the PLC is comparable to formatting it with the quick format option in Windows.

2

Using PLC

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

Data File Manager User's Manual

This chapter describes how to use Data File Manager when communicating with the HMI.

1   Display System Information

You can get the system information of the target device by clicking the type number on the Folder pane.
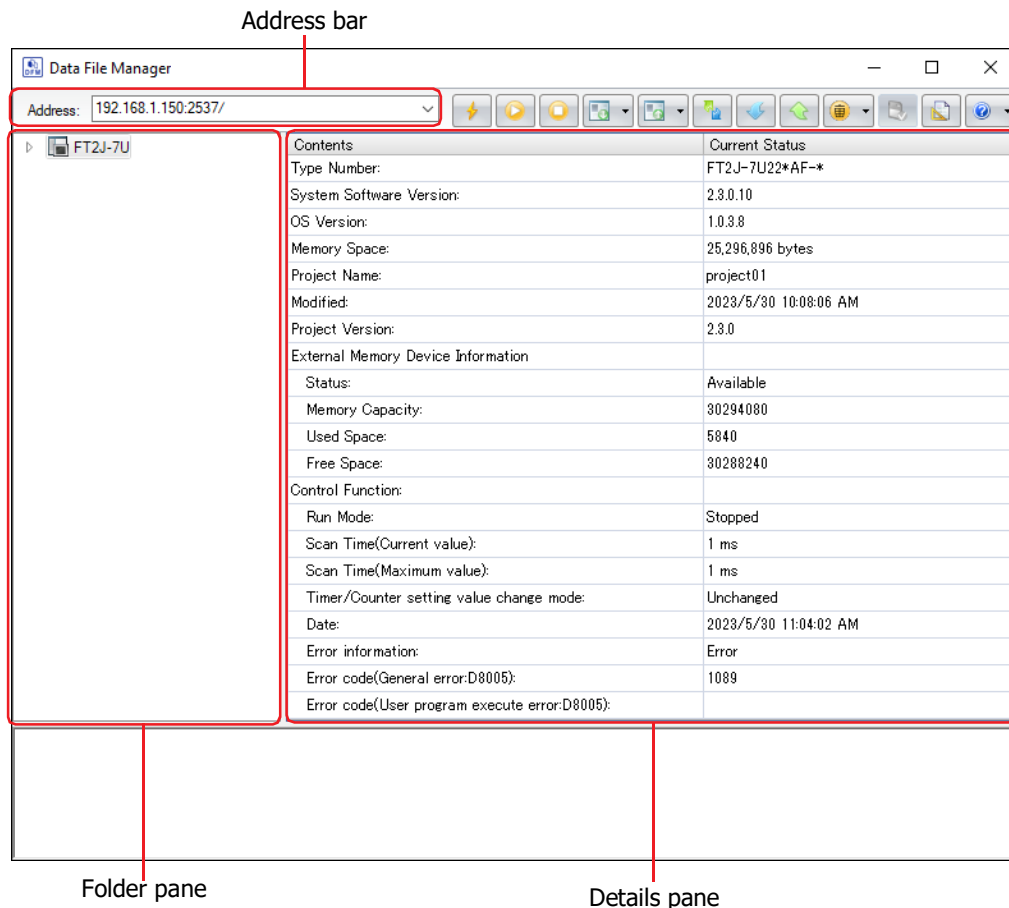
Address bar

Folder pane   Details pane

■ **Address bar**
The displayed content varies based on the selected communication port. Clicking allows you to edit the displayed content.

USB: / (slash)

Ethernet: IP Address:Port Number
                 Example: 192.168.1.6:2537/

> The following characters cannot be used in the address bar:
> FT2J-7U, HG2J-7U: " # $ & ' ( ) * / : ; < > ? \ ` | ~
>   Two consecutive periods
> HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P: " * / : < > ? \ |

■ **Folder pane**
Displays the type number of the target device.

■ **Details pane**
Displays the system information of the target device.

2   Display or Operate Files and Folders

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

2.1   Display Files and Folders

Data File Manager gets the information of files and folders from the external memory device[*1] inserted in target device inserted in the target device, and displays them in the Folder pane and the Details pane.
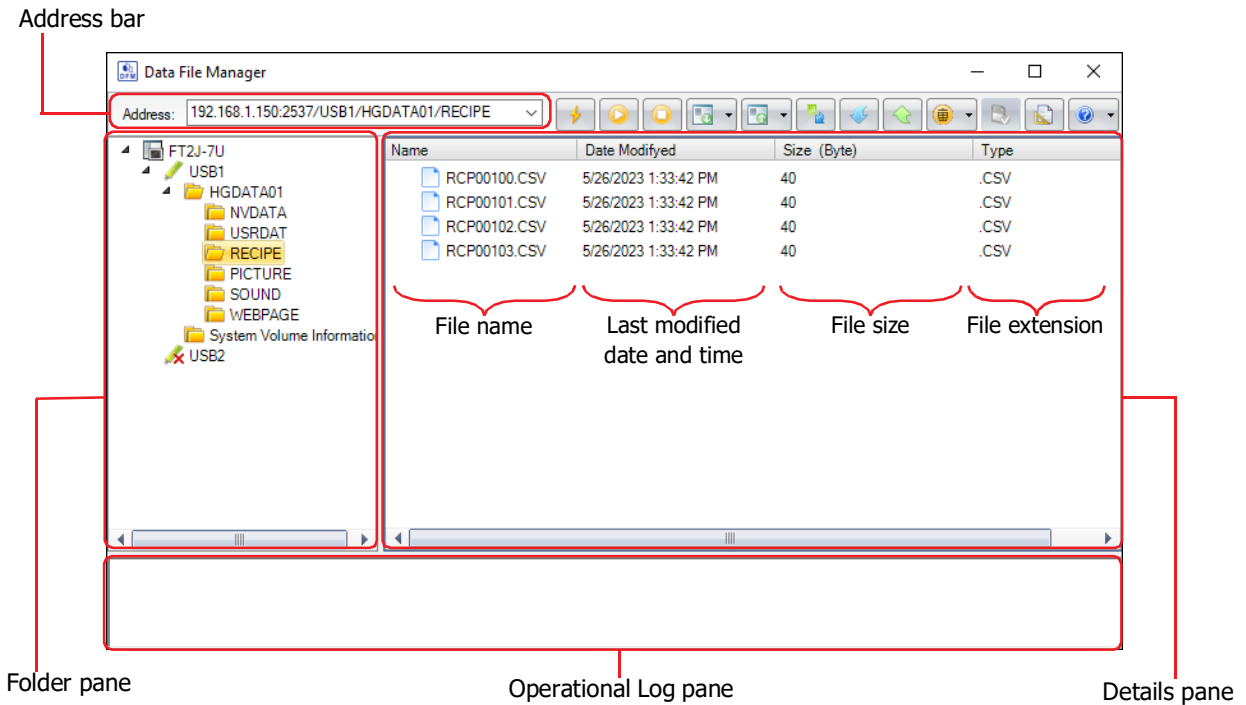
When the target device is the HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, or HG1G/1P, use the system software version 4.50 or later to display files and folders.

Address bar

Folder pane   Operational Log pane   Details pane

■ **Address bar**
Displays the folder path of the external memory device selected in the Folder pane.
The displayed content varies based on the selected model and communication port. Clicking allows you to edit the displayed content.

Model	Communication Port	Displayed Content
FT2J-7U, HG2J-7U	Ethernet	IP address: port number/external memory device type (USB 1, USB 2)/folder path Example: The external memory device is USB flash drive inserted in USB1, the folder path is HGDATA01/ALARMLOG. 192.168.1.6:2537/USB1/HGDATA01/ALARMLOG
HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P	USB	/external memory device type (SD, USB)/folder path Example: The external memory device is an SD memory card, the folder name is HGDATA01. /SD/HGDATA01/
	Ethernet	IP address: port number/external memory device type (SD, USB)/folder path Example: The external memory is USB flash drive, the folder path is HGDATA01/ALARMLOG. 192.168.1.6:2537/USB/HGDATA01/ALARMLOG

*1 Only USB flash drive for HG2G-5T, HG1G/1P

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The following characters cannot be used in the address bar:

FT2J-7U, HG2J-7U: " # $ & ' ( ) * / : ; < > ? \ ` | ~
                    Two consecutive periods

HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P: " * / : < > ? \ |

■ **Folder pane**

Displays the folder structure as a tree. Click a folder to move to the level in that folder (up or down).

1st level (root):   Displays the target device as an icon and text.

2nd level: Displays the external memory device inserted in the target device as an icon and text. If no external memory device is inserted, the icon will be marked with a red cross.

3rd level and lower: Displays the folders in the external memory device as a tree.

■ **Details pane**

Displays a list of the files and folders in the folder selected on the Folder pane.
You can create a new folder, rename or delete files and folders.

Don't operate a file or a folder during its reading or writing operation by following functions.
- Recipe function
- Alarm Log function
- Data Log function
- Operation Log function.
- Sound Function
- Multimedia Function

- Creates a new folder
  Click **Create Folder** on the right click menu.
- Rename a file or folder
  Selects a file or folder, and then click **Rename** on the right click menu or press the **F2** key.
- Deletes files and folders
  Selects files and folders, and then click **Delete** on the right click menu or press the **DELETE** key.

If the project of the target device is password protected, the **Enter Password** dialog box is displayed. Enter the user name and password.

■ **Operational Log pane**

On the Folder pane or the Details pane, the operational log is displayed by executing the following operations.

Operation	Description	Log format
Download	Displays the number of files that were successfully downloaded and the number of files that failed to be downloaded. For the operating procedures, refer to "2.2 Download Files and Folders" on page 3-4.	[Download] Success: ### file(s), Failed: ### file(s)
Upload	Displays the number of files that were successfully uploaded and the number of files that failed to be uploaded. For the operating procedures, refer to "2.3 Upload Files and Folders" on page 3-6.	[Upload] Success: ### file(s), Failed: ### file(s)
Delete	Displays the number of files that were successfully deleted and the number of files that failed to be deleted. For the operating procedures, refer to the above "Deletes files and folders".	[Delete] Success: ### file(s), Failed: ### file(s)

###: Number of files

3

Using HMI

2.2 Download Files and Folders

Files and folders saved on the computer will be written to the external memory device inserted in the target device.

> ⚠️ Don't download to a folder during its reading or writing operation by following functions.
> - Recipe function
> - Alarm Log function
> - Data Log function
> - Operation Log function.
> - Sound Function
> - Multimedia Function

● Download Files

1 Right-click a download destination folder on the folder pane, and then click **Download File**.

The **Open** dialog box is displayed.
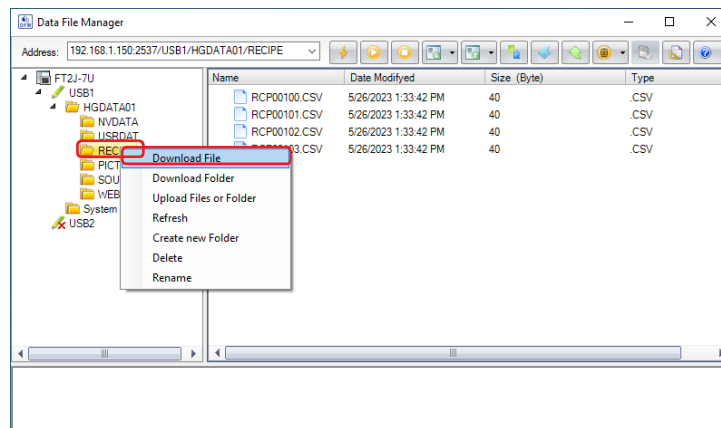
2 Specify the files to download and click **Open**.

The download starts.
If there is a file with the same file name in the download destination folder, an overwrite confirmation message is displayed.
- Click **OK** to start downloading the files.
- Click **Cancel** to stop downloading the files.

> 📝 • If the project of the target device is password protected, the **Enter Password** dialog box is displayed. Enter the user name and password.
> • Data File Manager only allows file with alphanumeric characters and symbols used for its file name. However, the file name with the following characters cannot be downloaded to the external memory device.
>   HG2J-7U: " # $ & ' ( ) * / : ; < > ? \ ` | ~
>   Two consecutive periods
>   HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P: " * / : < > ? \ |

This concludes downloading files.

> 💡 If files are selected with Explorer on the computer and then dragged and dropped to the details pane, those selected files can be downloaded to the External memory inserted in target device.

● Download Folders

1 Right-click a download destination folder on the folder pane, and then click **Download Folders**.

The **Browse For Folder** dialog box is displayed.

2 Select the folder to download and click **OK**.

The download starts.
If there is a folder with the same folder name in the download destination folder, an overwrite confirmation message is displayed.

- Click **OK** to start downloading the folder.
- Click **Cancel** to stop downloading the folder.

> If the project of the target device is password protected, the **Enter Password** dialog box is displayed. Enter the user name and password.
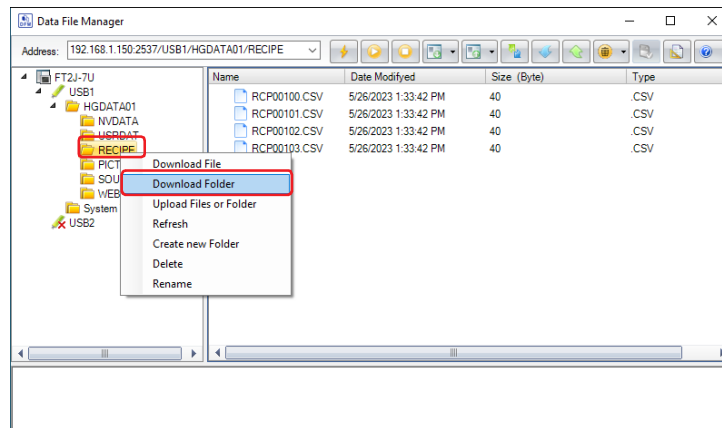
This concludes downloading folders.

> If files are selected with Explorer on the computer and then dragged and dropped to the details pane, those selected files can be downloaded to the External memory inserted in target device.

3

Using HMI

2.3   Upload Files and Folders

Files and folders displayed in the details pane will be saved to the computer.

> ⚠️ Don't upload a file or a folder during its reading or writing operation by following functions.
> • Recipe function
> • Alarm Log function
> • Data Log function
> • Operation Log function.
> • Sound Function
> • Multimedia Function

1   Right-click the files and folders to upload in the details pane, and then click the **Upload Files and Folders**.
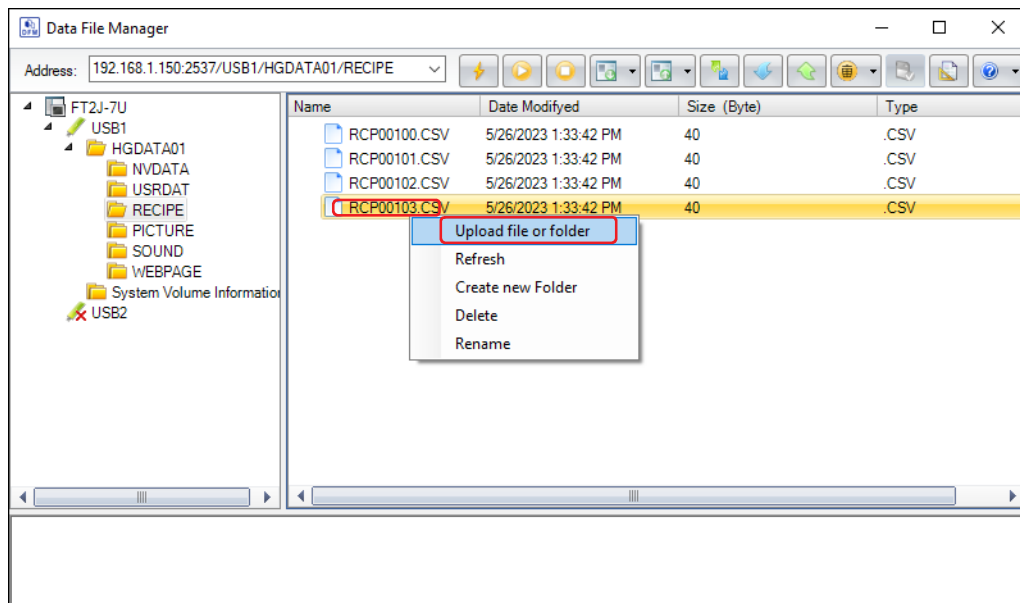
The **Browse For Folder** dialog box is displayed.

2   Enter the destination and the file name and then click **OK**.

The upload starts.
If there is a file or folder with the same file or folder name in the upload folder, an overwrite confirmation message is displayed.
• Click **OK** to start uploading the files and folders.
• Click **Cancel** to stop uploading the files and folders.

> 📝 If the project of the target device is password protected, the **Enter Password** dialog box is displayed. Enter the user name and password.

This concludes uploading files and folders.

> 💡 If files and folders are selected in the details pane and then dragged and dropped to Explorer on the computer, those selected files and folders can be uploaded.

3   Change the ladder program to RUN or STOP

3.1   Change to RUN

Change the state of the ladder program from "STOP" to "RUN" by using the Data File Manager.

1   Click ▶ (Start) on the toolbar.

A confirmation message is displayed.

2   Click Yes.

This concludes the operation to RUN the ladder program.

> 💡 The state of the ladder program can be changed by the value of the Special Internal Relay M8000. When the value changes to 1, it is set to RUN.

3.2   Change to STOP

Change the state of the ladder program from "RUN" to "STOP" by using the Data File Manager.

1   Click ⏹ (Stop) on the toolbar.

A confirmation message is displayed.

2   Click Yes.

This concludes the operation to STOP the ladder program.

> 💡 The state of the ladder program can be changed by the value of the Special Internal Relay M8000. When the value changes to 0, it is set to STOP.

3

Using HMI

4   Downloading

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

4.1   Download a ZNV Project File to the Target Device

A ZNV Project File (.znv) saved in a computer is downloaded to the target device.

> • Do not turn off the target device while a ZNV Project File is downloading.
> • Power cycle the target device then download the ZNV Project File once again if the followings occur.:
>   - The Data File Manager cannot communicate with the target device after the ZNV Project File download fails.
>   - The cable was disconnected or the power was turned off while Data File Manager and the target device were communicating, and the target device no longer responds.

1 Click 🖽▾(Download) on the toolbar.

The **Open** dialog box is displayed.

2 Select the ZNV Project File (.znv), and then click **Open**.

The **Download** dialog box is displayed, and then the ZNV Project File starts downloading.

> If the project of the target device is password protected, the **Enter Password** dialog box is displayed. Enter the user name and password.

3 Check the download data details, and then click **Download**.
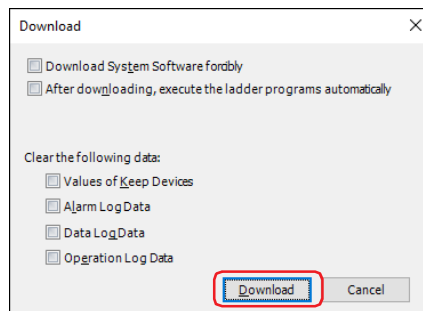
• Download System Software forcibly
Select this check box to force download system software included in the ZNV Project File.

• After downloading, execute the ladder programs automatically[*1]
Select this check box to execute the ladder programs automatically after the ZNV project file is downloaded. The value of the Special Internal Relay M8000 changes to 1 after ZNV project file is done downloading.

• Download Fonts and Kanji Dictionary Data[*2]
Select this check box to download the fonts and dictionary data included in the ZNV Project File to MICRO/I.

*1 FT2J-7U only
*2 HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P only

- Clear the following data
  After downloading the ZNV Project File, select the data to be cleared from the following.
  Values of Keep Devices[*3], **Alarm Log Data**, **Data Log Data**, **Operation Log Data**
  When the **Download System Software and OS forcibly** check box is selected, these check boxes are also selected.

> - When the ZNV project file that changes the settings of the data storage area is downloaded, all of the values of Keep Devices for the HMI function and control function, and log data are cleared.
> - When the ZNV project file that changes the settings of the Alarm Log Settings, the Data Log Settings or the Operation Log Settings is downloaded, all of the log data of HMI function are deleted.

> When the target device is the HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, or HG1G/1P, the **Download Fonts and Kanji Dictionary Data** and the **Clear the following data** options are supported by the system software version 4.63 or later included in the ZNV Project File to be downloaded.

3

Using HMI

4 Click **Close** on the **Download** dialog box.

This concludes downloading a ZNV Project File.

> You can download by double-clicking the ZNV Project File. For details, refer to Chapter 1 "Double-click Action Tab" on page 1-18.

---

*3 Includes control devices. However, the control device is only for FT2J-7U.

4.2   Download a ZNX Project File to the Target Device

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I※
※Only HG2J-7U supports this function.

A ZNX Project File (.znx) saved in a computer is downloaded to the target device.

> • Do not turn off the target device while a ZNV Project File is downloading.
> • Power cycle the target device then download the ZNV Project File once again if the followings occur.:
>   - The Data File Manager cannot communicate with the target device after the ZNV Project File download fails.
>   - The cable was disconnected or the power was turned off while Data File Manager and the target device were communicating, and the target device no longer responds.

1 Click ▣▾(Download) on the toolbar.

The **Open** dialog box is displayed.

2 Select the ZNX Project File (.znx), and then click **Open**.

The **Download** dialog box is displayed, and then the ZNX Project File starts downloading.

> If the project of the target device is password protected, the **Enter Password** dialog box is displayed. Enter the user name and password.

3 Check the download data details, and then click **Download**.
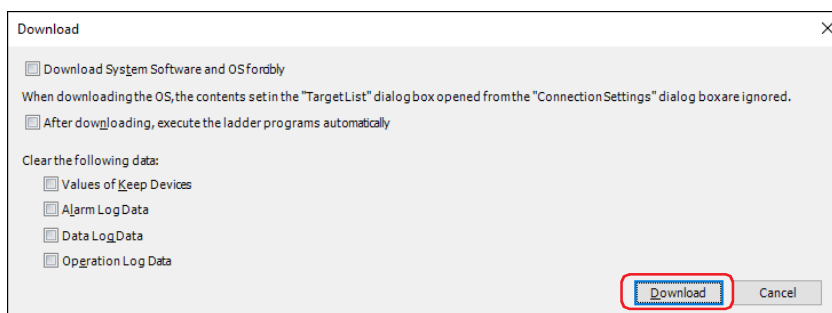
• Download System Software and OS forcibly

Select this check box to force download system software and OS included in the ZNX Project File.

• Clear the following data

After downloading the ZNX Project File, select the data to be cleared from the following.

Values of Keep Devices[*1], **Alarm Log Data**, **Data Log Data**, **Operation Log Data**

When the **Download System Software and OS forcibly** check box is selected, these check boxes are also selected.

> • When the ZNX project file that changes the settings of the data storage area is downloaded, all of the values of Keep Devices for the HMI function and control function, and log data are cleared.
> • When the ZNX project file that changes the settings of the Alarm Log Settings, the Data Log Settings or the Operation Log Settings is downloaded, all of the log data of HMI function are deleted.

4 Click **Close** on the **Download** dialog box.

This concludes downloading a ZNX Project File.

> You can download by double-clicking the ZNX Project File.

---

*1 Includes control devices. However, the control device is only for FT2J-7U.

4.3   Download Files to an External Memory Device Inserted in the Target Device

Specified files can be downloaded to an external memory device[*1] inserted in the target device. The files are downloaded to the External Memory Device folder specified on the Project Settings dialog box for the currently running project.

1   Insert the external memory device into the target device.

External Memory Device

SD memory card

USB flash drive

Main unit
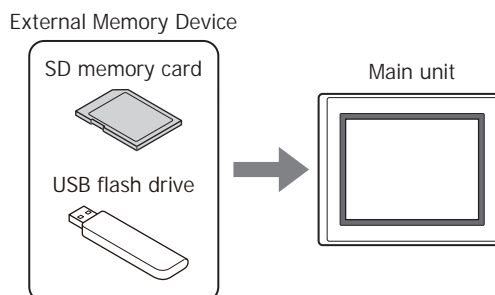
2   Click on ▼ to the right of (Download) on the toolbar, and then select the menu for downloading files to the external memory device.

The **Open** dialog box is displayed.

■ **Download Files to External Memory Device**
Stops operation of the target device, and then downloads files to the external memory device inserted in the target device. When the file download is complete, operation resumes.

■ **Download Files to External Memory Device while running**
Downloads the file to the external memory device inserted in the target device without stopping operation of the target device.

3   Select the file to download, and then click **Open**.

The **Download** dialog box is displayed, and then the file starts downloading.

> • If the project of the target device is password protected, the Enter Password dialog box is displayed. Please enter the user name and password.
>
> • Data File Manager only allows file with alphanumeric characters and symbols used for its file name. However, the file name with the following characters cannot be downloaded to the external memory device.
>
>   FT2J-7U, HG2J-7U: " # $ & ' ( ) * / : ; < > ? \ ` | ~
>   Two consecutive periods
>   HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P: " * / : < > ? \ |

4   Click **Close** on the **External Memory Device Maintenance** dialog box.

This concludes downloading files.

---

*1   USB flash drive inserted in USB1 for FT2J-7U and HG2J-7U, SD memory card for HG5G/4G/3G/2G-V, HG4G/3G and HG2G-5F, USB flash drive for HG2G-5T and HG1G/1P

5   Uploading

5.1   Upload a ZNV Project File from the Target Device

Upload the project used for operation on the target device and save it as the ZNV Project File (.znv) in a computer.

1 Click 🖼️ ▾ (Upload) on the toolbar.

The Upload dialog box is displayed.

> 📓 • When the target device is the HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, or HG1G/1P, use the system
> software version 4.36 or later to upload a ZNV Project File.
> • ZNX project files[*1] cannot be uploaded.

2 Check the project data details, and then click **Upload**.

The Upload dialog box is displayed, and then the file starts uploading.
If the file already exists with the same name in the upload folder, an overwrite confirmation message is displayed.
• Click **Yes** to start uploading the ZNV Project File.
• Click **Cancel** to stop uploading the ZNV Project File.

Upload	✕
Project Name:	project01
Type Number:	FT2J-7U22*AF-*
Modified:	5/26/2023 2:44:09 PM
Location:	D:\ ...
Upload files used in this project from the External Memory Device	
☐ Recipe files	
☐ Picture files	
☐ Sound files	
	Upload Cancel

■ **Project Name**
The uploaded ZNV Project File is saved with the currently displayed name.

■ **Type Number**
Displays the type number of the target device.

■ **Modified**
Displays the time that project downloaded to the target device was last saved.

■ **Location**
Specify the location for saving the uploaded ZNV Project File.
Click ... to display the **Browse folders dialog** box. Select the location for saving, then click **OK**.

■ **Upload files used in this project from the External Memory Device**
To upload files located on an external memory device inserted in the target device that are used by the project together with the ZNV Project File, select the file to be uploaded from the following.
Recipe Files, Picture Files, Sound Files[*2]

> 📓 If the project of the target device is password protected, the **Enter Password** dialog box is displayed.
> Please enter the user name and password.

*3* Click **Close** on the **Upload** dialog box.

This concludes uploading of ZNV Project File.

*1 FT2J-7U, HG2J-7U only
*2 FT2J-7U, HG2J-7U, HG5G/4G/3G-V and HG4G/3G only

5.2   Upload Log Data

The log data stored in the internal memory of the target device can be read and saved as a CSV format file.

1   Click on ▼ to the right of ⊞ ▾ (Upload) on the toolbar, and then select the menu for uploading data.

The **Browse For Folder** dialog box is displayed.

■ **Upload All Log Data**
Uploads the Alarm Log data, the Data Log data and the Operation Log data.

■ **Upload Alarm Log Data**
Uploads the data sampled by the Alarm Log function.

■ **Upload Data Log Data**
Uploads the data sampled by the Data Log function.

■ **Upload Data Operation Log Data**
Uploads the data sampled by the Operation Log function.

2   Specify the location to save the uploaded data, and then click **OK**.

The **Upload** dialog box displayed, and then the data starts uploading.

> If the project of the target device is password protected, the **Enter Password** dialog box is displayed. Please enter the user name and password.

3   Click **Close** on the **Upload** dialog box.

This concludes uploading log data.

5.3 Upload Files in the External Memory Device inserted in the Target Device

Specified files in an external memory device[*1] inserted in a target device can be read and saved to a computer. You can upload the files in the External Memory Device folder specified on the Project Settings dialog box for the currently running project.

1 Click on ▼ to the right of 🖼▾ (Upload) on the toolbar, and then click **Upload Files from External Memory Device**.

The **Upload Files from External Memory Device** dialog box is displayed.

2 Select the items to be uploaded, and then specify the destination folder in **Location**.
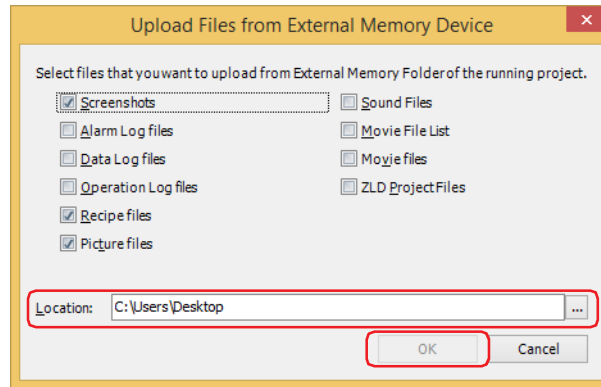
Uploadable data is as follows.
- Screenshots
- Alarm Log Files
- Data Log files
- Operation Log files
- Recipe files
- Picture files
- Sound Files[*2]
- Media File List[*3]
- Movie files[*3]
- ZLD Project Files

💡 Click 📖 to call up the Select a Folder dialog box and specify the destination folder for uploading.

3 Click **OK**.

The **External Memory Device Maintenance** dialog box is displayed, and then the files start uploading.

📝 If the project of the target device is password protected, the **Enter Password** dialog box is displayed. Enter the user name and password.

4 Click **Close** on the **External Memory Device Maintenance** dialog box.

This concludes uploading files.

*1 USB flash drive inserted in USB1 for FT2J-7U and HG2J-7U, SD memory card for HG5G/4G/3G/2G-V, HG4G/3G and HG2G-5F, USB flash drive for HG2G-5T and HG1G/1P
*2 FT2J-7U, HG2J-7U, HG5G/4G/3G-V and HG4G/3G only
*3 This is applicable for models with a video interface only.

6   Downloading or Uploading the Device Address Data

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

6.1   Device Address Data

● Data Format

The data of device addresses is consistent of the values for the amount of data specified by Number of Data on Device Address Data Setting dialog box.

"Value of Device Address",

"Value of Device Address address number+1",

"Value of Device Address address number+2",

Number of Data n

"Value of Device Address address number (n-1)",

● Creating Device Address Data with a Text Editor

You can edit the device address data using Notepad, commercially available text editors, or spreadsheet software.

1   Write the data for the amount of data in "value of device address" comma (,) new line order.

Example: Number of Data is 5, the values are 1111, 2222, 3333, 4444, 5555 in order.

        1111,
        2222,
        3333,
        4444,
        5555,

2   Save the file with the ".csv" extension.

3

Using HMI

● Supported Device Address

The range of device address and the maximum number of data that can be read and written is as follows:

Bit Devices

Device Name	Symbol	Device Address	Maximum number of data
Shift Register[*1]	R	000 to 127	128
Internal Relay[*1]	M	0 to 7997	6400
Special Internal Relay[*1]	M	8000 to 8177	144

Word Devices

Device Name	Symbol	Device Address	Maximum number of data
HMI Data Register	LDR	0 to 16383[*2] 0 to 8191[*3]	2000
HMI Keep Register	LKR	0 toR8191	2000
Timer Preset Values[*1]	TP	0 to 199	200
Counter Preset Values[*1]	CP	0 to 199	200
Data Register[*1]	D	0 to 3999	4000
Special Data Register[*1]	D	8000 to 8199	200

You cannot specify a bit in a word device.

*1 FT2J-7U only
*2 FT2J-7U, HG2J-7U only
*3 HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P only

6.2 Download Device Address Data

The device address data (.csv) saved in a computer can be downloaded to the target device and written the values to device addresses.

> ⚠️ • Do not turn off the target device while a ZNV Project File is downloading.
> • Power cycle the target device then download the ZNV Project File once again if the followings occur.:
>   - The Data File Manager cannot communicate with the target device after the ZNV Project File download fails.
>   - The cable was disconnected or the power was turned off while Data File Manager and the target device were communicating, and the target device no longer responds.

1 Click ⬇ (Downlaod DeviceAddress Data (.csv)) on the toolbar.

The **Device Address Data Setting** dialog box is displayed.

2 Specify the device address to write the values, and then click **OK**.

The **Open** dialog box is displayed.

■ Device Type
Select the device type of the device address to write.

■ Address Number
Specify the start address number of the device address to write the values.

■ Number of Data
Specify the number of data of the device address to write the values.

■ Reset the target device after writing the Device Address Data
Select this check box to reset the target device when the device address data download is complete.

> 💡 For details about the device address that can be used with the target device, refer to "Supported Device Address" on page 3-16.

3 Select the Device Address Data (.csv), and then click **Open**.

The **Write Device Address Data** dialog box is displayed, and then the device address data starts downloading.
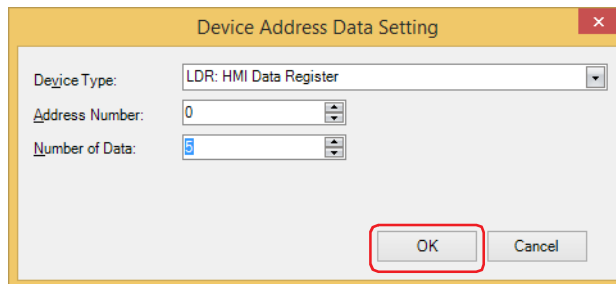
> 📝 If the project of the target device is password protected, the **Enter Password** dialog box is displayed. Enter the user name and password.

4 Click **Close** on the **Write Device Address Data** dialog box.

This concludes downloading the device address data.

6.3   Upload Device Address Data

The values of device addresses can be read from the target device and saved it as a CSV file in a computer.

1   Click (Upload Device Address Data (.csv)) on the toolbar.

The **Device Address Data Setting** dialog box is displayed.

2   Specify the device address to read the values, and then click **OK**.

The **Save As** dialog box is displayed.

■ **Device Type**
Select the device type of the device address to read.

■ **Address Number**
Specify the start address number of the device address to read the values.

■ **Number of Data**
Specify the number of data of the device address to read the values.

> For details about the device address that can be used with the target device, refer to "Supported Device Address" on page 3-16.

3   Enters a file name, and then click **Save**.

The **Read Device Address Data** dialog box is displayed, and then the device address data starts uploading.

> If the project of the target device is password protected, the **Enter Password** dialog box is displayed. Enter the user name and password.

4   Click **Close** on the **Read Device Address Data** dialog box.

This concludes uploading the device address data.

7 Clear

FT2J-7U FC6A FC5A FC4A FT1A MICRO/I

7.1 Clear Data from the Target Device

Deletes data from the internal memory of the target device.

1 Click on ▼ to the right of ▣ ▾ (Clear) on the toolbar, and then select the menu for deleting data.

A confirmation message is displayed.

■ **Clear All data**
Deletes project data, Alarm Log data, Data Log data, and Operation Log data. It also clears the values from all device addresses.

■ **Clear Alarm Log Data**
Deletes the data collected by the Alarm Log function.

■ **Clear Data Log Data**
Deletes the data collected by the Data Log function.

■ **Clear Operation Log Data**
Deletes the data collected by the Operation Log function.

■ **Clear Values of All Device Addresses**
Clears the values of all device addresses.

■ **Clear Values of Control Device**[*1]
Clears the values of the control device stored in the internal memory of the target device.

■ **Clear Errors of Control Function**[*1]
Clears the error information of the control function stored in the internal memory of the target device.

> Each error in the control function can be cleared by writing 0 to the value of the following special data registers.
>
> D8005: General Error
> D8006: Program Execution Error

■ **Clear Files stored in External Memory Device**
Clears data saved to the external memory device inserted in the target device.

> If the project of the target device is password protected, the **Enter Password** dialog box is displayed. Enter the user name and password.

2 Click **Yes**.

3 Click **Close** on the progress dialog box.

This concludes clearing data.

*1 FT2J-7U only

7.2 Clear Data from the External Memory Device inserted in the Target Device

After stopping operation of the target device, the data saved in the External Memory Device[*1] folder of the external memory device inserted in the targget device can be deleted.

1 Click on ▼ to the right of 🔶 ▾ (Clear) on the toolbar, and then click **Clear Files stored in External Memory Device**.

The Clear Files in External Memory Device dialog box is displayed.

2 Select the check box for the data items to be deleted from the External Memory Device folder.

Screenshot, Alarm Log files, **Data Log files**, **Operation Log files**, and **Recipe files**
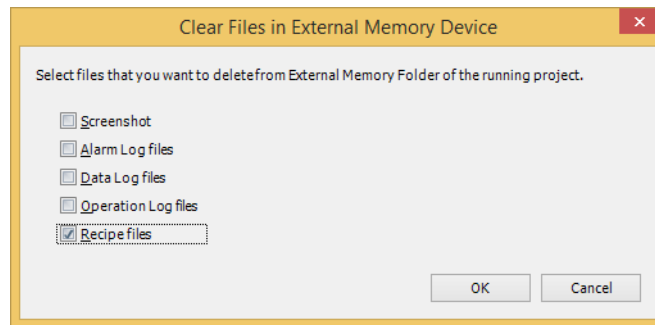
3 Click **OK**.

A confirmation message is displayed.

4 Click **Yes**.

The **External Memory Device Maintenance** dialog box is displayed, and then the files in the external memory device starts deleting.

> If the project of the target device is password protected, the **Enter Password** dialog box is displayed. Enter the user name and password.

5 Click **Close** on the **External Memory Device Maintenance** dialog box.

This concludes clearing files in the external memory device.

*1 USB flash drive inserted in USB1 for FT2J-7U and HG2J-7U, SD memory card for HG5G/4G/3G/2G-V, HG4G/3G and HG2G-5F, USB flash drive for HG2G-5T and HG1G/1P

8   Formatting

`FT2J-7U` `FC6A` `FC5A` `FC4A` `FT1A` **MICRO/I**

Stops operation of the target device and formats an external memory device[*1] inserted in the target device.

> The external memory device format function is only supported by the HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P.

8.1   Format an External Memory Device Inserted in the Target Device

1   Click 🔲 (Format an External Memory Device) on the toolbar.

A confirmation message is displayed.

> If the project of the target device is password protected, the **Enter Password** dialog box is displayed. Enter the user name and password.

2   Click **Yes**.

The **External Memory Device Maintenance** dialog box is displayed, and then the external memory device starts formatting.

3   Click **Close** in the **External Memory Device Maintenance** dialog box.

This concludes formatting the external memory device.

---

*1   SD memory card for HG5G/4G/3G/2G-V, HG4G/3G and HG2G-5F, USB flash drive for HG2G-5T, HG1G/1P

3

Using HMI

Chapter 4   Command Line

This chapter describes how to use the Data File Manager on command line.

1   Command line

1.1   Description Format

To execute various function by using a command line, type an executable file name of the Data File Manager and parameters corresponding to each functions. The description format is as follows.

DataFileManager.exe \### \$$$ %%% &&& user-+++ pass-@@@

Executable file name   Operation mode   File or Folder path   User name

Function   Communication target   Password
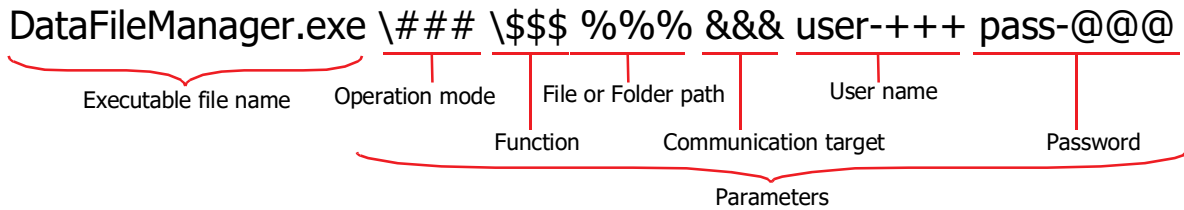
Parameters

> • A space is needed between a parameter and a parameter.
> • A space is needed when an option is specified.
> • A user name in parameters is needed only when \HMI, \normal, \HMI -S or \silent is specified.

1.2   Details of Parameters

● Operation mode (required)

Specify the operation mode. Supported parameters vary based on the target device.

YES: Supported, NO: Not supported

Parameters		Type	Description	PLC	HMI
\PLC		Normal mode	Data File Manager executes commands showing only the dialog boxes of each functions and messages without the main window.	YES	NO
\PLC	-S	Silent mode	Data File Manager executes only commands without any showing of dialog boxes and messages.		
\HMI		Normal mode	Data File Manager executes commands showing only the dialog boxes of each functions and messages without the main window.	NO	YES
\normal					
\HMI	-S	Silent mode	Data File Manager executes only commands without any showing of dialog boxes and messages.		
\silent					

● Function (required)

Specify the function to execute. Supported parameters vary based on the target device.

■ Download

> • The ZNX project file is only compatible with the FT2J-7U and HG2J-7U.
> • Please note that regardless of the specified parameters, the processing will be as follows depending on the conditions.
>   - If the system software or OS version contained in the ZNV project file or ZNX project file does not match the version of the target device, forcibly download the system software or OS along with the project data.
>   - If the alarm log, data log, and operation log settings do not match between the download destination and the ZNV project file or ZNX project file, all log data is cleared.
>   - Clear the keep devices and all log data if the Data Storage Area settings do not match between the download destination and the ZNV project file or ZNX project file.

Downlaoding a project to the internal memory

YES: Supported, NO: Not supported

Parameters			Description	PLC	HMI
\download	-C		Downloads the ZLD Project File.	YES	NO
			Downloads the ZNV Project File. This parameter cannot be specified with -CR or -CF at the same time.	NO	YES
	-CR	(No arguments)	Downloads the ZNV Project File or the ZNX Project File without downloading the system software or operating system[1]. However, if the system software of the OS version contained in the ZNV project file or the ZNX project file does not match the version of the target device, the same process as -C will be executed.	NO	YES
		-CK	Performs the same process as "(No arguments)" without clearing the Values of Keep Devices.	NO	YES[2]
		-CA	Performs the same process as "(No arguments)" without clearing the Alarm Log data.	NO	YES
		-CL	Performs the same process as "(No arguments)" without clearing the Data Log data.	NO	YES
		-COP	Performs the same process as "(No arguments)" without clearing the Operation Log data.	NO	YES
	-CF		Downloads the ZNV Project File without downloading the font and the Kanji dictionary data.	NO	YES

> When the target device is the HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, or HG1G/1P, to use the following parameters, it is required the corresponding version of the system software. Check the version of system software included in the ZNV Project File to be downloaded.
>   -CR, -CF, -CK: 4.55 or later
>   -CA, -CL, -COP: 4.63 or later
> For details about the notes on execution results, refer to "Download a ZNV Project File to the Target Device" on page 3-8.

> For ZNV Project File download, multiple parameters can be specified.
>
> Example: Download the ZNV Project File via the USB port under the following conditions:
>   • Do not download the system software or OS (-CR)
>   • Do not download fonts and Kanji dictionary data (-CF)
>   • Do not clear the Keep Device (-CK)
>   DataFileManager.exe \HMI \download -CR -CF -CK USB

*1 ZNX Project File only
*2 HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P only

Downloading files to the external memory device

YES: Supported, NO: Not supported

Parameters		Description	PLC	HMI
\cf_download	-R	Downloads the recipe files.	NO	YES
	-C	Downloads the picture files.	NO	YES
	-W	Downloads the sound files.	NO	YES
	-LD	Downloads the ZLD Project File	NO	YES
	-A	Downloads the Movie File List.	NO	YES
	-M	Downloads the movie files.	NO	YES

- When the Target Device is HMI, the external memory device is the USB flash drive inserted in USB1 for HG2J-7U, SD memory card for HG5G/4G/3G/2G-V, HG4G/3G and HG2G-5F or USB flash drive for HG2G-5T and HG1G/1P.
- Data File Manager only allows file with alphanumeric characters and symbols used for its file name. However, the file name with the following characters cannot be downloaded to the external memory device.
  HG2J-7U: " # $ & ' ( ) * / : ; < > ? \ ` | ~
          Two consecutive periods
  HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P: " * / : < > ? \ |

4

Command Line

Downloading files to the external memory device while running

YES: Supported, NO: Not supported

Parameters		Description	PLC	HMI
\cf_download	-U	Downloads the recipe files.	YES	YES
	-T	Downloads the picture files.	NO	YES
	-X	Downloads the sound files.	NO	YES
	-LR	Downloads the ZLD Project File	YES	YES
	-Y	Downloads the Movie File List.	NO	YES
	-G	Downloads the movie files.	NO	YES
	-PF	Downloads the mqtt_basic_settings.ini file or the server_tls.ini file to the FCDATA01 folder. This option allows you to download the autoexec.ini file. For details, refer to the Chapter 11 "SD Memory Card" in the FC6A MICROSmart User's Manual.	YES	NO
	-MRC	Downloads the **Root Certificate** of the server certificate used for MQTT communication to the TLS folder. This option supports pem or der format files. Data File Manager converts the pem format file to der format, then downloads the file. A file in der format larger than 2 Kbytes cannot be downloaded. The file name after the download becomes "mqtt_root_certificate.der".	YES	NO
	-MCC	Downloads the **Client Certificate** to the TLS folder. This option supports pem or der format files. Data File Manager converts the pem format file to der format, then downloads the file. A file in der format larger than 2 Kbytes cannot be downloaded. The file name after the download becomes "mqtt_client_certificate.der".	YES	NO
	-MCP	Downloads the **Client Private Key** to the TLS folder. This option supports pem or der format files. Data File Manager converts the pem format file to der format, then downloads the file. A private key, whose encryption method is not RSA or key length exceeds 3072 bits, cannot be downloaded. The file name after the download becomes "mqtt_private_key.der".	YES	NO
	-SC	Downloads the certificate used by the Web server function to the TLS folder. This option supports pem or der format files. Data File Manager converts the pem format file to der format, then downloads the file. A file in der format larger than 2 Kbytes cannot be downloaded.The file name after the download becomes "server_certificate.der".	YES	NO
	-SP	Downloads the private key used by the Web server function to the TLS folder. This option supports pem or der format files. Data File Manager converts the pem format file to der format, then downloads the file. A private key, whose encryption method is not RSA or key length exceeds 2048 bits, cannot be downloaded. The file name after the download becomes "server_private_key.der".	YES	NO

- When the Target Device is HMI, the external memory device is the USB flash drive inserted in USB1 for HG2J-7U, SD memory card for HG5G/4G/3G/2G-V, HG4G/3G and HG2G-5F or USB flash drive for HG2G-5T and HG1G/1P.
- Data File Manager only allows file with alphanumeric characters and symbols used for its file name. However, the file name with the following characters cannot be downloaded to the external memory device.

  HG2J-7U: " # $ & ' ( ) * / : ; < > ? \ ` | ~
              Two consecutive periods
  HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P: " * / : < > ? \ |

Downloading the Device Address Data

YES: Supported, NO: Not supported

Parameters		Description	PLC	HMI
\write_[***]_###	-R*3 (When don't reset a target device, this parameter isn't required.)	Downloads the Device Address Data. ***:Device Address ###:Number of data The supported device address varies based on the target device. For details, refer to the following pages. PLC:Chapter 2 "Supported Device Address" on page 2-13 HMI:Chapter 3 "Supported Device Address" on page 3-16 Example:The target device is PLC, the top device address of the destination is M8000, the number of data is 1, the location of the data to be downloaded is C:\app, the file name is M8000, and the communication port is USB. DataFileManager.exe \PLC \write_[M8000]_1 "C:\app\M8000.csv" USB	YES	YES

■ **Upload**

> • When the target device is the HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, or HG1G/1P, use the system software version 4.36 or later to upload a ZNV Project File.
> • ZNX project files*4 cannot be uploaded.

Uploading data from the internal memory

YES: Supported, NO: Not supported

Parameters		Description	PLC	HMI
\upload	-P	Uploads the ZLD Project File.	YES	NO
		Uploads the ZNV Project File.	NO	YES
	-P -R	Uploads the ZNV Project File from the internal memory and recipe files from the external memory device.	NO	YES
	-P -C	Uploads the ZNV Project File from the internal memory and picture files from the external memory device.	NO	YES
	-P -W	Uploads the ZNV Project File from the internal memory and sound files from the external memory device.	NO	YES
	-ALL	Uploads all log data.	NO	YES
	-A	Uploads the Alarm Log data.	NO	YES
	-L	Uploads the Data Log data.	NO	YES
	-OP	Uploads the Operation Log data.	NO	YES

> For the log data, multiple files can be uploaded.
> Example: The parameter for uploading the Alarm Log data and the Data Log data.
>   \upload -A -L

*3 HMI only
*4 FT2J-7U, HG2J-7U only

Uploading files from the external memory device

YES: Supported, NO: Not supported

Parameters		Description	PLC	HMI
\cf_upload	-S	Uploads the screenshot.	NO	YES
	-A	Uploads the Alarm Log files.	NO	YES
	-L	Uploads the files of the DLOG instruction. Uploads all files and subfolders under the "DATALOG" folder.	YES	NO
		Uploads the Data Log files.	NO	YES
	-OP	Uploads the Operation Log files.	NO	YES
	-R	Uploads the recipe files. When the target device is PLC, all files and subfolders under the "RECIPE" folder are uploaded.	YES	YES
	-C	Uploads the picture files.	NO	YES
	-W	Uploads the sound files.	NO	YES
	-LD	Uploads the ZLD Project File. When the target device is PLC, all files and subfolders under the "PROGRAM" folder are uploaded.	YES	YES
	-F	Uploads the Movie List File.	NO	YES
	-M	Uploads the movie files.	NO	YES
	-T	Uploads the files of the TRACE instruction. Uploads all files and subfolders under the "TRACE" folder.	YES	NO
	-ALL	Uploads all files in the specified folder.	YES	YES
	-SFDF	Uploads the specified file. This option cannot be used with other options. Also, user cannot upload multiple files at once or upload a folder.	YES	NO

When the Target Device is HMI, the external memory device is the USB flash drive inserted in USB1 for FT2J-7U and HG2J-7U, SD memory card for HG5G/4G/3G/2G-V, HG4G/3G and HG2G-5F or USB flash drive for HG2G-5T and HG1G/1P.

- Multiple files can be uploaded.
  Example: The parameter for uploading the recipe files and the ZLD Project File.
  \cf_upload -R -LD

- -ALL and the following options are the same. Both options upload all files.
  PLC: -L -R -LD -T
  HMI: -S -A -L -OP -R -C -W -LD -F -M

Uploading Device Address Data

YES: Supported, NO: Not supported

Parameters	Description	PLC	HMI
\read_[***]_###	Uplaods the Device Address data, and then saves it as a CSV format file. ***:Device Address \#\#\#:Number of data The supported device address varies based on the target device. For details, refer to the following pages. PLC:Chapter 2 "Supported Device Address" on page 2-13 HMI:Chapter 3 "Supported Device Address" on page 3-16 Example:The target device is PLC, the top device address of the source is M8000, the number of data is 1, the location for saving uploaded data is C:\app, the file name is M8000 and the communication port is USB. DataFileManager.exe \PLC \read_[M8000]_1 "C:\app\M8000.csv" USB	YES	YES

■ Clear

Clearing the data stored in the internal memory

YES: Supported, NO: Not supported

Parameters		Description	PLC	HMI
\initialize	-ALL	Clears all of the data.	NO	YES
	-A	Clears the Alarm Log data.	NO	YES
	-L	Clears the Data Log data.	NO	YES
	-OP	Clears the Operation Log data.	NO	YES
	-LK	Clears the values of all device addresses.	YES	YES
	-CD	Clears the values of the control device.	NO	YES[*5]
	-E	Clears the error information of the control function stored in the internal memory.	YES	YES[*5]

Each error in the control function can be cleared by writing 0 to the value of the following special data registers.

D8005: General Error

D8006: Program Execution Error

Clearing files in the external memory device

YES: Supported, NO: Not supported

Parameters		Description	PLC	HMI
\cf_initialize	-S	Clears the screenshot. All files in the "CAPTURE" folder under the External Memory Folder are deleted.	NO	YES
	-A	Clears the Alarm Log files. All files in the "ALARMLOG" folder under the External Memory Folder are deleted.	NO	YES
	-L	Clears the files of the DLOG instruction. All files and subfolders under the "DATALOG" folder are deleted.	YES	NO
		Clears the Data Log files. All files in the "DATALOG" folder under the External Memory Folder are deleted.	NO	YES
	-OP	Clears the Operation Log files. All files in the "OPERATIONLOG" folder under the External Memory Folder are deleted.	NO	YES
	-R	Clears the recipe files. All files in the "RECIPE" folder under the External Memory Folder are deleted.	YES	YES
	-T	Clears the files of the TRACE instruction. All files and subfolders under the "TRACE" folder are deleted.	YES	NO

When the Target Device is HMI, the external memory device is the USB flash drive inserted in USB1 for FT2J-7U and HG2J-7U, SD memory card for HG5G/4G/3G/2G-V, HG4G/3G and HG2G-5F or USB flash drive for HG2G-5T and HG1G/1P.

Multiple files can be cleard.

Example: The parameter for clearing the Data Log files and the recipe files.

\cf_initialize -L -R

■ Format

YES: Supported, NO: Not supported

Parameters	Description	PLC	HMI
\cf_format	Formats an external memory device inserted in the target device.	YES	YES[*6]

*5 FT2J-7U only

*6 HG2J-7U, HG5G/4G/3G/2G-V, HG4G/3G , HG2G-5F only

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Command Line

● File or Folder path

Specify the file to download, the file to upload, or the destination folder to upload.

Specify a location of the file or the folder with an absolute path. Absolute path must be enclosed in double quotation(").

When you download multiple files, each file name must be separated by a space.

Parameters	Description
File Path	Specify the file path. Example: Downloads SamplePloject.znv in the C:\USERDATA via the Ethernet port to the target device (IP Address: 192.168.1.150, Port Number: 2537). DataFileManager.exe \HMI \download -C "C:\USERDATA\SamplePloject.znv" USB When specifying multiple files, separate each file path with a space. Example: Downloads RCP0001.CSV and RCP0002.CSV in the C:\USERDATA via the USB port to the external memory device. DataFileManager.exe \HMI \cf_download -U "C:\USERDATA\RCP0001.CSV" "C:\USERDATA\RCP0002.CSV" USB
Folder Path	Specify the folder path. Example: Uploads the ZNV Project File of the target device (IP Address: 192.168.1.6, Port Number: 2537) via the Ethernet port and save it in the C:\USERDATA\uploaddata. DataFileManager.exe \HMI \upload -P "C:\USERDATA\uploaddata" 192.168.1.6:2537
File Path and Folder Path[*1]	Specify the file path to upload and the destination folder path to save by separating them with a space. User cannot upload multiple files at once or upload a folder. Example: Uploads RCP0001.csv in the RECIPE folder of FCDATA01 stored on the SD memory card to C:\USERDATA via the USB port. DataFileManager.exe \HMI \cf_upload -SFDF "/SD/FCDATA01/RECIPE/RCP0001.csv" "C:\USERDATA" USB

⚠ • Don't enter this parameter when the **Clear** or the **Format** is set for the **Function**.
• When the **Silent mode** is set for the **Operation mode**, this parameter is required.

📝 When the **Normal mode** is set for the **Operation mode** and this parameter is not entered, the Open dialog box or the Browse For Folder dialog box opens before start communicating.

● Communication target (required)

Specify the target communication port or IP address. The supported parameters vary based on the target device.

YES: Supported, NO: Not supported

Parameters	Communication port	Description	PLC	HMI
COM###:a:b:c:d COM###:BLUETOOTH	Serial	Specify the COM port and the communication settings. ###: Port Number a: Baud Rate, b: Data Bits, c: Parity (Even=1, Odd=2, None=0), d: Stop Bits When :a:b:c:d is not entered, the Data File Manager automatically detect the communication settings. Example: COM1:115200:7:0:1 When communicating with the target device over Bluetooth communication, specify the COM port and BLUETOOTH. Example: COM1:BLUETOOTH	YES	NO
USB	USB	Specify the USB.	YES	YES[*2]
xxx.xxx.xxx.xxx:###	Ethernet	Specify the target IP address. xxx: Value from 0 to 255 ###: Port number. Example: 192.168.1.5:2101 When ### is not entered, the target device is connected to the following port number. PLC: 2101 HMI: 2537	YES	YES

📝 When the **Serial** is selected for the communication port, an external memory device inserted in the target device cannot be accessed. However, when Bluetooth communication is used, an external memory device inserted in the target device can be accessed.

*1 Supported for \cf_upload -SFDF parameter only.
*2 HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T, HG1G/1P only

● User name

Specify the user name set for a project.

YES: Supported, NO: Not supported

Parameters	Description	PLC	HMI
user-+++	Specify the user name. When user name is specified, user- is always needed. +++: User name	NO	YES

> ⚠ When password corresponding to the specified user name is incorrect, error message is displayed.

> 📝 • When user name is specified, password is needed.
> If the target device is HG5G/4G/3G/2G-V, HG4G/3G, HG2G-5F/-5T or HG1G/1P and the system software version is 4.55 or later, the user name is needed when the security function is used in the project of the target device.
> • Please enclose the user name with double quotation marks (") if it contains a space.

> 💡 Example: The parameter for uploading the ZNV Project File if the target device has security setting of Administrator security group, User name set to "admin", and password set to "PASSWORD".
> DataFileManager.exe \HMI \upload -P USB user-"admin 1" pass-PASSWORD

● Password

Specify the password set for a project.

YES: Supported, NO: Not supported

Parameters	Description	PLC	HMI
pass-@@@	Specify the password. When password is specified, pass- is always needed. @@@: Password	YES	YES

> ⚠ When password is incorrect, error message is displayed.

> 📝 • When the **Normal mode** is set for the **Operation mode** and this parameter is not entered, the Enter Password dialog box is displayed.
> • Encloses the user name with double quotation marks (") when it contains a space.

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