Introducing

MELSOFT Navigator

Mitsubishi iQ Platform Compatible
FA Integrated Engineering Software
MELSOFT iQ Works

Navigating to an intuitive engineering environment
Engineering innovations start from MELSOFT Navigator

- Is selecting modules time consuming?
- Is setting the parameters for multiple systems bothersome?
- Are you manually inputting your device list?
- Are you connecting a cable to each device to backup your system?
- Is it difficult to search for project data during maintenance?

Here’s a more interactive and visible engineering style. Revolutionizing everything from the way you design system specifications and develop programs, to the way you perform field adjustments, operations, and maintenance.

Experience the ease-of-use

MELSOFT Navigator
Redefining engineering with MELSOFT Navigator

**Programmable Controller Engineering Software**
MELSOFT GX Works2

This software comprehensively supports programmable controller design and maintenance. In addition to inheriting program resources created with GX Developer, familiar functions have been refined to provide more intuitive operation and reduce engineering costs.

**Motion Controller Engineering Software**
MELSOFT MT Works2

This software comprehensively supports motion controller design and maintenance. Reductions to the motion system’s TCO are assisted by intuitive settings on a graphical screen, program functions, and convenient functions such as the digital oscillation simulator.

**Screen Design Software**
MELSOFT GT Works3

This software comprehensively supports creation of screens for Graphic Operation Terminal. User-oriented functions have been created with three concepts in mind: simplicity, aesthetics, and ease of use, to help the creation of creative screens in fewer steps.

System Management Software
MELSOFT Navigator

MELSOFT Navigator, along with GX Works2, MT Works2, and GT Works3, facilitates system level design and acts as the interface between each software. Useful functions include design of system configuration, parameter batch setting, system labels, and batch read.

Ease-of-use at your fingertips
MELSOFT iQ Works

Seamless integrated engineering environment to accelerate total cost reduction

System Specifications Design
- Module Selection
  Displays available options in a list. Easily arrange suitable modules in the workspace.
- Checking Power Supply Capacity/Number of I/O Points
  No need to look up manuals. Automatic check is available in module configuration.
- Creating Device List
  Use CSV files to easily create lists with Microsoft Excel.
- Creating System Configuration
  Directly apply your system designs in different locations.
- Managing reference documentations
  Manage files in a similar fashion as in Microsoft Windows desktop.
- Motion System Templates
  Templates with preset parameters and labels are available.

Program Development
- Parameter Batch Setting
  Batch set parameters for multiple systems.
- Label Sharing
  Changes are automatically reflected in all related projects.

Field Adjustments
- Multiple Device Data Backup
  Read out project data for multiple devices in batch.

Maintenance
- Project Data Maintenance
  Finding required data is a breeze with the workspace management method.
- Maintenance Software Automatic Startup
  The right software automatically starts up.
- Management of older sequence program
  Sequence programs for older equipment can be managed together.
- Instruction Manual Management
  Find target files instantaneously! Quickly and easily manage data.

FAQ

Main Specifications

Compatible Module List
Displays available options in a list. Easily arrange suitable modules in the workspace.

Catalogs to read, web sites to check. The first time-consuming task in designing a system is selecting the modules. With MELSOFT Navigator, all of current available modules are listed, and the specifications of selected modules can be easily confirmed. This simplifies the module selection process. Pick the most suitable module and drag & drop it into the system configuration.

No need to look up manuals. Automatic check is available in module configuration.

Until now, referencing the manual was essential for calculating power supply capacity and looking up number of I/O points. Since making new selections in case of a mistake is bothersome, users often select extra large power supplies and CPU modules.

With MELSOFT Navigator, power supply capacity and number of I/O points of the selected module are automatically checked for the selected module configuration. This makes it easy to change the power supply and CPU modules when necessary.
Manually inputting data into Microsoft® Excel® based on CAD drawings can make it quite time-consuming to prepare device lists for orders. With MELSOFT Navigator, the list of devices in your system configuration drawing can be output as a CSV file which can be used to easily create and output device lists with Microsoft® Excel®.

Use CSV files to easily create lists with Microsoft® Excel®.

Directly apply your system designs in different locations.

Documenting your system configuration takes time and manpower. Do you still manually input your network configurations, module configurations and parameter settings with Microsoft® Visio® or Microsoft® Word®?

Design your system using MELSOFT Navigator and reuse the design details in other documents. There is no need to start from scratch each time.

Incorporate design details into other documents!

Make it easier to order modules!

No longer create device lists with manual inputs.
Saving and managing vast amounts of reference documents used for designing is always a headache. In MELSOFT Navigator, link files to mechanical drawings and past design materials can be pasted into the system configuration. To open the file, just click on the icon as in a Microsoft® Windows® desktop. There is no need to search for each file individually. With link files to design documents readily available, MELSOFT Navigator becomes a convenient portal.

Just as settings for a programmable controller CPU can be complicated, so can settings for a motion controller. MELSOFT Navigator provides multiple templates to facilitate setting up multi-CPU configurations that include a programmable controller CPU and a motion controller. The parameters and labels are preset, allowing you to focus on the programming.
In the past, if the device assignments changed, the same corrections had to be made for each of the projects. This problem has been resolved by using MELSOFT Navigator which can share labels between the programmable controller, motion controller and GOT. If, for example, a device assignment is changed in a programmable controller project, those changes are automatically applied on the motion controller and GOT projects. This greatly reduces setting time and setting mistakes.

Changes are automatically reflected in all related projects.

Apply parameters from the system configuration to each station’s programmable controller/GOT in one shot!

Assign devices for multiple projects just by changing one setting!

Just when you thought you were finished, you have to set the parameters for the next system...

In the programming stage, setting the parameters for multiple systems is bothersome.

With MELSOFT Navigator, the information set in the system configuration is applied in batch onto each GX Works2, MT Works2 or GT Works3 project. There’s no need to start each software and check the consistency.

Detailed parameters must be set with each tool.

Apply parameters onto each software in batch!
Parameters are automatically generated from network configuration and module configuration.

Greatly reduce man-hours spent changing settings!
Use system labels to efficiently apply changes throughout the entire system.
Programmable controller, motion controller and GOT... The more equipment you connect to the system, the longer it takes to read out project data for backup. With MELSOFT Navigator, if a cable is connected to the master station’s programmable controller, to which multiple devices are connected via bus or network (MELSENET/CC-Link IE-Ethernet), the project data for the multiple devices can be read out in batch. It is unnecessary to connect cables to each device.

Previously, to read out each device’s project data, the operator had to start up each software (GX Works2, MT Works2, GT Works3), read from the project file, and then read data from the device. This process took several minutes per device. As the number of connected devices increased, the possibility of operation mistakes and overlooked backups increased. Now, with MELSOFT Navigator, after initial connections are defined for each software, data can be batch read without having to start up each software. This dramatically improves the efficiency of periodic backups and prevents data from being missed.

Read out project data for multiple devices in batch.

Read in batch without starting each software.

Point

Efficiently backup data periodically with no mistakes!
Batch read project data for multiple devices without complicated procedures.
Have you ever felt that when folders are made for each process and managed in nests, it’s still hard to find that project data you want to maintain? Once you find the folder, there are several files, and you don’t know which one to open.

With MELSOFT Navigator, the project data for several devices such as the programmable controller, motion controller or GOT can be managed as workspaces for a factory or a line. The project names are displayed with a tree structure in the workspace, and you can use Explorer to quickly find the project you need, etc.

Finding required data is a breeze with the workspace management method.

**Search for corresponding project**
- Programmable controller (GX Works3)
- Motion controller (MT Works2)
- GOT (GT Works3)

**Display project names with tree structure**
- Manage project data with workspaces

**Click to read data**

In MELSOFT Navigator, you can insert bitmap images to facilitate visualization of the system, and text boxes to write comments. The illustrations make searching for the desired device intuitive and fast. Reading project data is also made easy by simply clicking on the illustration.

**Illustration of the system expedites finding the device you need!**

**Perform intuitive searches with illustrations!**
- Paste bitmaps and text boxes into system configuration.

No longer manage with project names!
As easy as searching for the project name in the workspace!
The right software automatically starts up.

Various software, including GX Developer, GX Works2, MT Works2, and GT Works3, are used to edit project data used in a factory or line. It is often hard to know which software to start up. With MELSOFT Navigator, clicking on a project listed in the system configuration or workspace tree, starts up its corresponding software. The MELSOFT iQ Works Suite includes the license for these tools so you no longer need to manage licenses.

Sequence programs for older equipment can be managed together.

Are you having trouble managing your sequence programs for older equipment? With MELSOFT Navigator, you can work with GX Developer which is capable of editing A Series sequence programs. Even when using systems consisting of older and newer programmable controllers, the project data for each programmable controller can be managed together with MELSOFT Navigator.

*Excludes some modules.

Hassle-free management covers programs even for older equipment.

Start GX Developer from workspace tree

Manage data for equipment using start A Series

Compatible with GX Developer!

Use GX Developer to edit A Series sequence programs.

How easy! Click on the corresponding project to start up the right software!

MELSOFT collaboration

Click on a project in the workspace tree

Click on a device in the system configuration

Software for corresponding device automatically starts up

GX Works
MT Works
GT Works

Sequence programs for older equipment can be managed together.

Hassle-free management covers programs even for older equipment.

MELSOFT collaboration

Maintain your devices without worrying about software!

The correct software automatically starts up.
Find target files instantaneously! Quickly and easily manage data.

It’s hard to find the equipment’s instruction manual file when you need it most. MELSOFT Navigator manages GX Developer, GX Works2, MT Works2 and GT Works3 project, and allows document files created with tools such as Microsoft® Word®, Microsoft® Excel® or PDF to be pasted into the system configuration.

This ease-of-use is just like a portal tool for equipment related documents. Greatly improve the efficiency of design document and instruction manual data management.

Create a portal site of equipment-related documents

Click to display the target instruction file

Microsoft® Word® file
Microsoft® Excel® file
PDF file

Handy tool for operators!
Equipment related documents including instruction manuals can be easily searched and referred to by anyone.
Intuitive operations on graphical screens. Smoothly set even large-scale programs.

MELSOFT MT Works2

Motion controller programming is supported with various convenient functions:
- Graphical motion SFC program and mechanical system program
- Label, device comment and cross-reference
- Context editor and instruction help allow you to program without a manual.

Programming

Easily set servo amplifiers and modules on the graphical system setting screen. Parameters also can be set quickly without a manual by checking One-point help.

System Design

Graphical motion SFC program and mechanical system program

A vast array of monitor functions allow the operation status of the motion controller to be confirmed easily.

Variety of monitor functions

A vast array of monitor functions allow the operation status of the motion controller to be confirmed easily.

Digital oscillation function

Data which is synchronized with the motion operation cycle can be collected and displayed. It is possible to set the requested data string with specified purpose probe setting. Collected data can be saved in CSV format and analyzed with other tools.

Various test operation functions

In the test mode, basic startup can be confirmed without a program. Using the simulator function, theoretical debugging can be performed without an actual machine. In addition, the debug function is capable of step execution and break point settings.

Screen Creation

Such easy steps from “New Screen” to “Transfer to GOT”.

“Templates” reduce screen creation steps

Common screens and parts have been prepared as templates. Adjust these templates to quickly and easily create screens to match your target and applications with fewer screen creation steps.

Screen changes when the screen change switch is clicked.

“Screen Preview” makes it easy to create screens.

A variety of parts included colored piping parts and dial switch angle developments.

Refer to the GT Works3 Catalog <L(NA)08170ENG> for details.

Such easy steps from “New Screen” to “Transfer to GOT”.

Screen Design Software: MELSOFT GT Works3

“Sim Broze” simplifies setting confirmation and visualizes the settings for graphics used in the project are all listed.

20 points of collision types and safety functions can be added.

“Help Function” shows the information you need.

When the F1 key is pressed, help for the currently active dialog opens immediately! Easily check the information you need.

Screen changes when the screens change switch is clicked.

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Contact information

Q: Who do we consult with to make a purchase?
A: Contact your nearest Mitsubishi branch office or dealer.

Q: Who do we contact for information on the product technology?
A: Contact your nearest Mitsubishi branch office or dealer. Please see the back cover for contact information.

FAQ

Q: Our personal computers use DVD. Is MELSOFT iQ Works available on DVD?
A: MELSOFT iQ Works is available on CD and DVD. Select the medium which works on your system.

Main Specifications

List of Software Functions

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<td>Mitsubishi iQ Platform compatible Motion Controller Engineering Software [MELSOFT MT Works2]</td>
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<td>SW1DNC-MTWK2-EM</td>
<td>Microsoft® Windows® Vista® Ultimate Service Pack1, 2</td>
<td>Mitsubishi iQ Platform compatible Screen Design Software [MELSOFT GT Works3]</td>
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<td>SW1DNC-GTWK3-EM</td>
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MELSOFT iQ Works operation environment

- **OS**:
  - Windows® 2000 Professional Service Pack4, 5
  - Windows® XP Professional Service Pack2, 3
  - Windows® XP Home Edition Service Pack2, 3
  - Windows® Vista® Home Basic Service Pack1, 2
  - Windows® Vista® Home Premium Service Pack1, 2
  - Windows® Vista® Ultimate Service Pack1, 2
  - Windows® Vista® Business Service Pack1, 2
  - Windows® Vista® Enterprise Service Pack1, 2
  - Windows® 7 Ultimate
  - Windows® 7 Enterprise
  - Windows® 7 Professional
  - Windows® 7 Starter

- **CPU**:
  - Desktop: Celeron 2.8 GHz or more recommended
  - Laptop personal computer: PentiumM 1.7 GHz or more recommended

- **Memory**:
  - 1 GB or more recommended

- **Display**:
  - XGA (1024×768) or more

- **Free space**:
  - At installation: HD3 GB

- **Details**:
  - Laptop personal computer: PentiumM 1.7 GHz or more recommended
  - During operation: 512 MB of free virtual memory

MELSOFT iQ Works compatible version

- **MELSOFT iQ Works2**
  - Version 1.55H and higher
- **MELSOFT MT Works2**
  - Version 1.18U and higher
- **MELSOFT GT Works3**
  - Version 1.28E and higher
### Compatible Networks

**Ethernet**
- MELSECNET/H
- CC-Link IE control network

**Compatible Programmable Controller (MELSEC-Q Series)**

#### Category
- Base model QCPU
- High-performance model QCPU
- Universal model QCPU
- Motion CPU

#### Model
- Q00JCPU
- Q00CPU
- Q01CPU
- Q02CPU
- Q02HCPU
- Q06HCPU
- Q12HCPU
- Q25HCPU
- Q00UJCPU
- Q00UCPU
- Q01UCPU
- Q02UCPU
- Q03UDCPU
- Q03UDECPU
- Q04UDHCPU
- Q04UDEHCPU
- Q06UDHCPU
- Q06UDEHCPU
- Q10UDHCPU
- Q10UDEHCPU
- Q13UDHCPU
- Q13UDEHCPU
- Q20UDHCPU
- Q20UDEHCPU
- Q26UDHCPU
- Q26UDEHCPU
- Q50UDEHCPU
- Q100UDEHCPU
- Q172CPUN
- Q172CPUN-T
- Q173CPUN
- Q173CPUN-T
- Q172HCPU
- Q172HCPU-T
- Q173HCPU
- Q173HCPU-T
- Q172DCPU
- Q173DCPU
- Q33B
- Q35B
- Q38B
- Q38DB
- Q312B
- Q312DB

#### Compatible Programmable Controller (MELSEC-Q Series)

#### Category
- I/O module
- Analog I/O module
- Analog input
- Analog output
- Digital input
- Digital output
- Temperature input
- Temperature control

#### Model
- SY0HF
- SY0HF-TS
- SY0HF-5MM
- SY0HF-9MM
- SY0HF-12MM
- SY1HF
- SY2HF
- SY5
- SY6
- SY16A
- SY17
- SY17B
- SY17C
- SY17D
- SY17E
- SY17F
- SY17G
- SY17H
- SY17I
- SY17J
- SY17K
- SY17L
- SY17M
- SY17N
- SY17O
- SY17P
- SY17Q
- SY17R
- SY17S
- SY17T
- SY17U
- SY17V
- SY17W
- SY17X
- SY17Y
- SY17Z
- SY40
- SY40-TS
- SY40-4
- SY40-8
- SY40-16
- SY40-32
- SY40-64
- SY40-128
- SY40-256
- SY40-512
- SY40-1024
- SY40-2048
- SY40-4096
- SY40-8192
- SY40-16384
- SY40-32768
- SY40-65536
- SY40-131072
- SY40-262144
- SY40-524288
- SY40-1048576
- SY40-2097152
- SY40-4194304
- SY40-8388608
- SY40-16777216
- SY40-33554432
- SY40-67108864
- SY40-134217728
- SY40-268435456
- SY40-536870912
- SY40-1073741824
- SY40-2147483648
- SY40-4294967296
- SY40-8589934592
- SY40-17179489184
- SY40-34358978368
- SY40-68717956736
- SY40-137435913472

#### Base module
- Main base
- Extension base
- Power supply module
- Slim type power supply
- Redundant power supply

#### Input
- Analog input
- Analog output
- Digital input
- Digital output
- Temperature input
- Temperature control

#### Output
- Digital output
- High-speed output
- High-speed counter

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*Above listed modules are compatible with MELSOFT Navigator (Ver. 1.21X). These modules differ from the MELSOFT GX Works2, MELSOFT MT Works2 and MELSOFT GT Works3 compatible modules.*
## MELSOFT Navigator Compatible Module List

### Category Model
- **CC-Link IE controller network**
  - GT10Q/SX
  - GT11Q/SX
  - GT11Q/SX-ES
  - GT12Q/SX
  - GT13Q/SX

### Motion module
- **Screw external signal input**
  - GT10Q/SX
  - GT11Q/SX
  - GT12Q/SX

### Manual pulse generator input
- GT10Q/SX

### Compatible display
- **GOT 1000 Series**
  - GT16-88-X
  - GT16-88-S
  - GT16-88-V
  - GT15-88-X
  - GT15-88-S
  - GT15-88-V
  - GT155-8-V
  - GT15-88-Q
  - GT12-88-V
  - GT11-88-Q
  - GT11-88-Q8
  - GT11BDA (Q bus built-in)
  - GT11BQ (Q bus built-in)
  - GT10-88-Q
  - GT1030
  - GT1020

### Compatible Programmable Controller (MELSEC-FX Series)
- **FX3U Series CPU**
  - FX3U-80M/ES
  - FX3U-80M/ES/GS
  - FX3U-80M/DS

### Compatible Programmable Controller (MELSEC-L Series)
- **CPU**
  - L60CPU
  - L60CPU-BT
  - L63P
  - L61P
  - L6ADP-R2
  - L6EC

### I/O module
- **Input**
  - L0001R
  - L0001R/S
  - L0004R
  - L0004R/S

- **Output**
  - L0001T
  - L0001T/S
  - L0004T
  - L0004T/S

### Analog I/O
- L0001A

### Positioning
- L0001P

### Counter
- L0002

### Simple motion
- L0003

### Serial communication module
- L0004H

### Special block
- Ethernet block: FX1-EAR-10

### MEMO

- Above listed modules are compatible with MELSOFT Navigator (Ver. 1.21X).
- These modules differ from the MELSOFT GX Works2, MELSOFT MT Works2 and MELSOFT GT Works3 compatible modules.
Mitsubishi Electric Corporation’s Nagoya and Himeji Works are factories certified for ISO14001 (standards for environmental management systems) and ISO9001 (standards for quality assurance management systems).
Introducing MELSOFT Navigator
Mitsubishi FA Integrated Concept
Navigating to an intuitive engineering environment

Mitsubishi iQ Platform Compatible
FA Integrated Engineering Software
MELSOFT iQ Works

To use the products given in this publication properly, always read the relevant manuals before use.
The products have been manufactured as general-purpose parts for general industries, and have not been designed or manufactured to be incorporated in a device or system used in purposes related to human life.

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