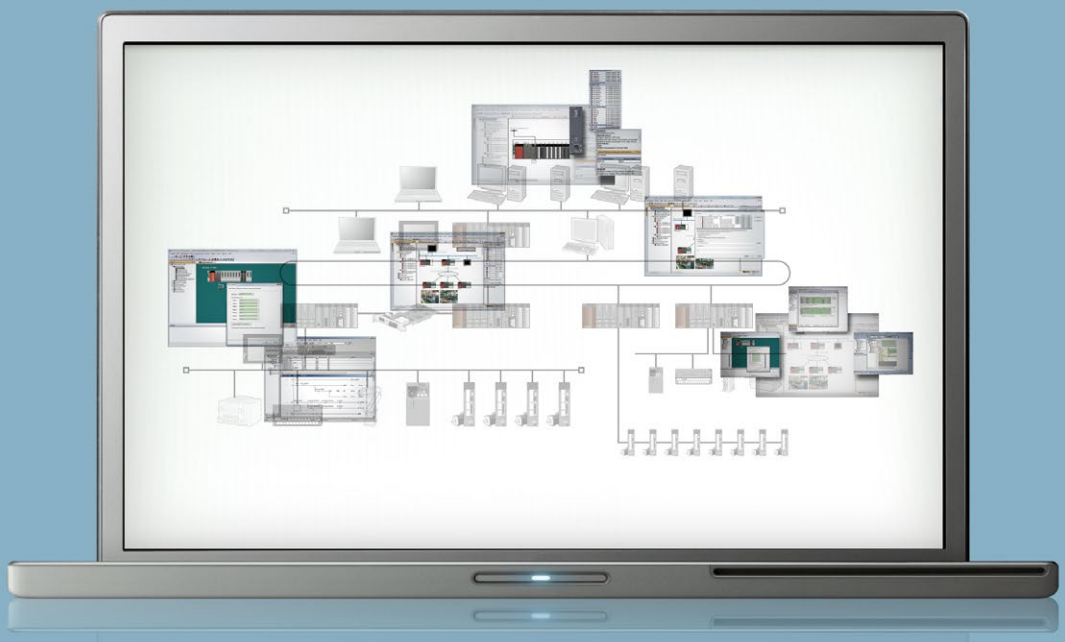
MITSUBISHI ELECTRIC

*Changes for the Better*

# Mitsubishi iQ Platform Compatible FA Integrated Engineering Software MELSOFT iQ Works

Introducing
+MELSOFT Navigator



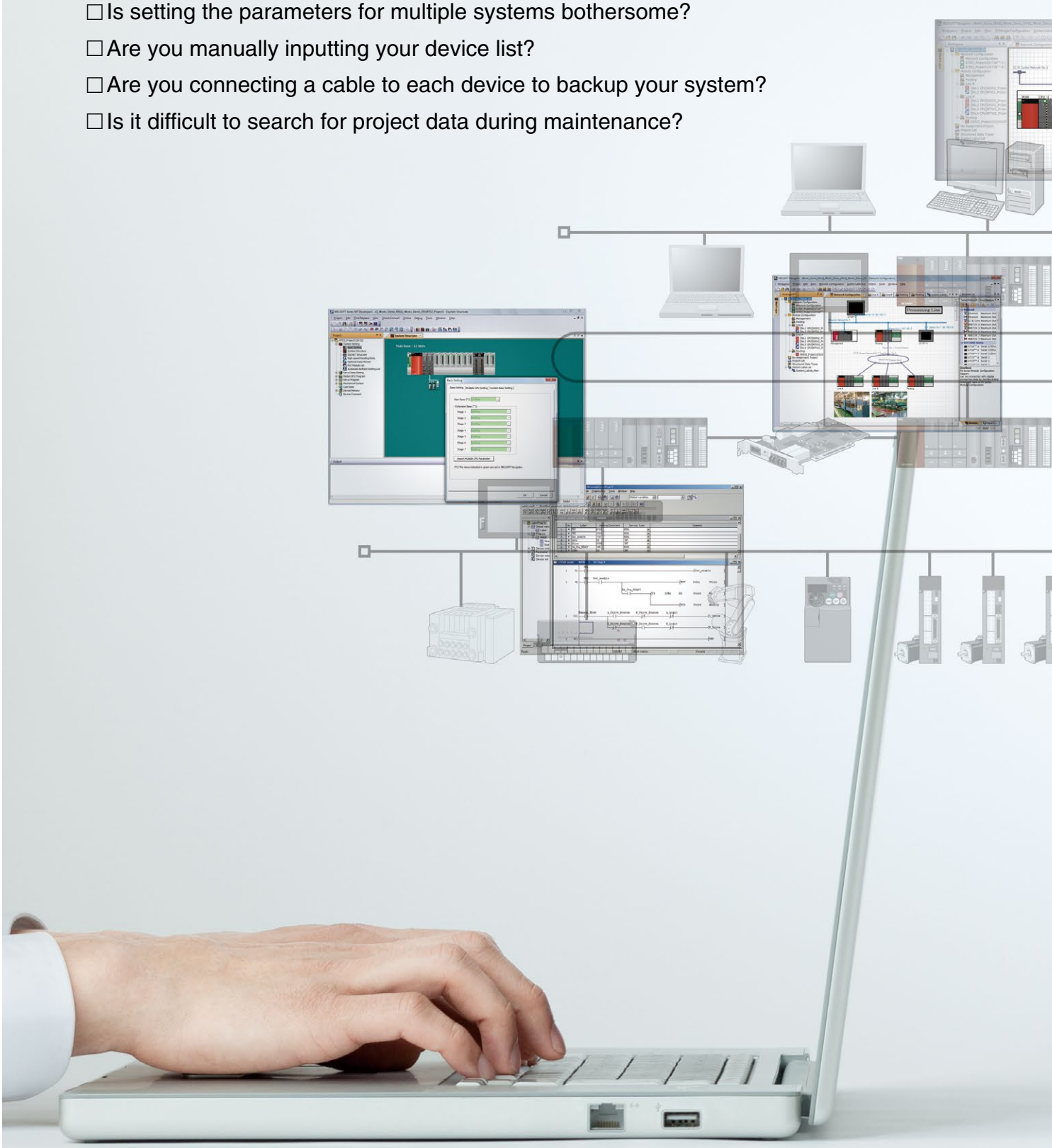
Navigating to an intuitive engineering environment

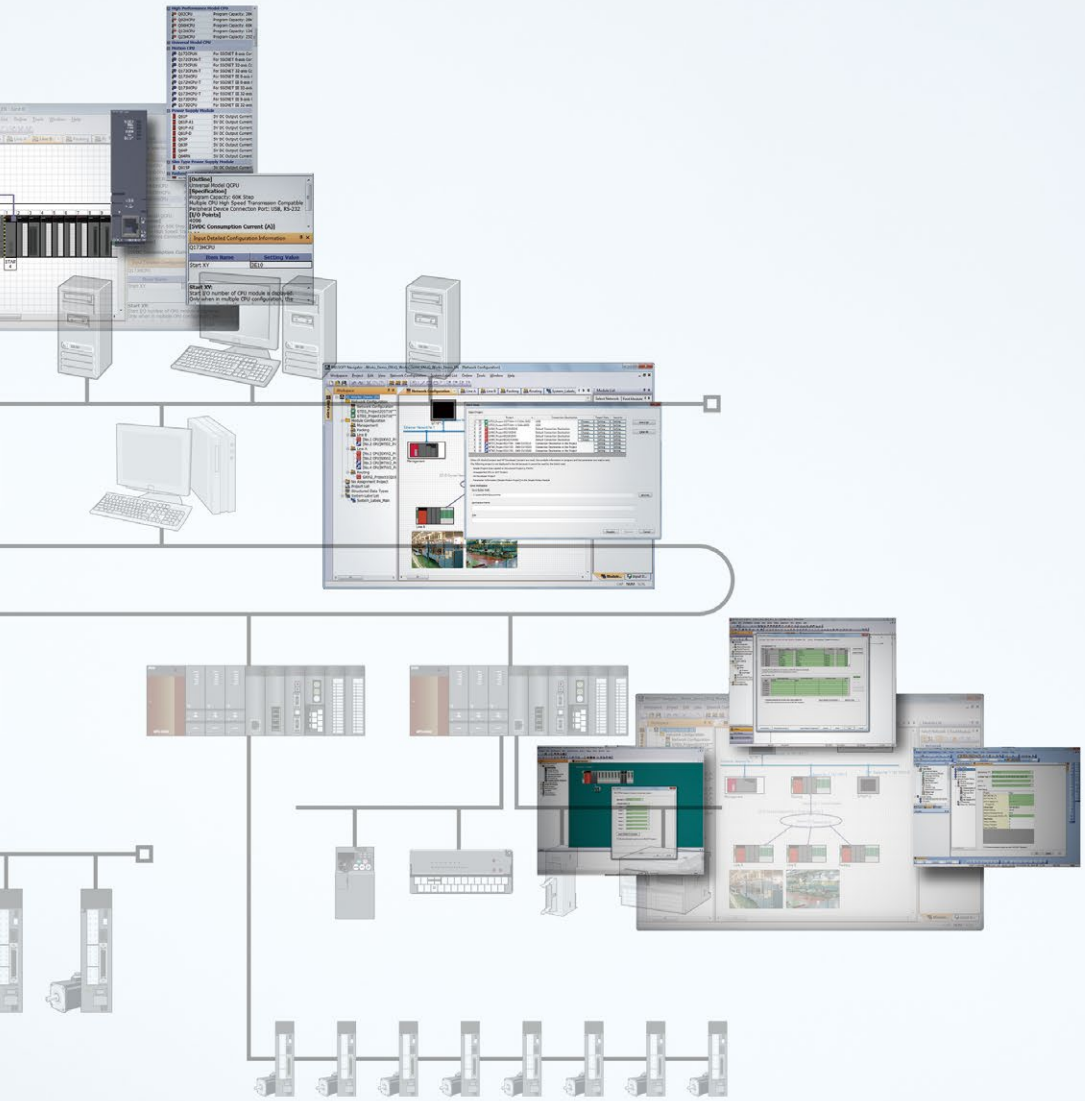
iQ Platform iQSS

**Mitsubishi Electric FA Integrated Concept**

# 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

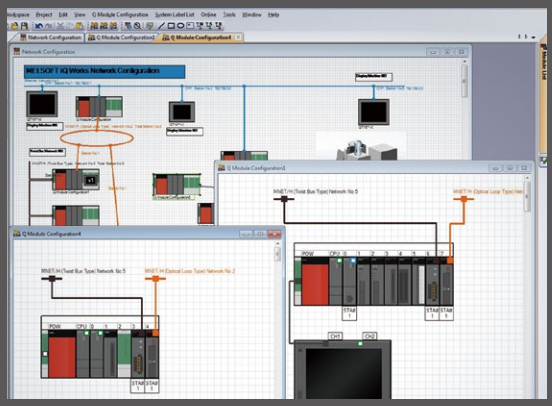
Seamless integrated engineering environment to accelerate total cost reduction

# MELSOFT iQ Works

System Management Software

## MELSOFT Navigator

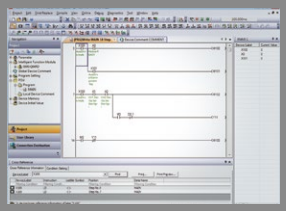
MELSOFT Navigator, along with GX Works2, MT Works2, GT Works3, and RT ToolBox2, facilitates system level design and acts as the interface between each software. Useful functions include design of system configuration, parameter batch setting, system labels, and batch read.



Redefining engineering with + MELSOFT Navigator

Programmable Controller Engineering Software

### MELSOFT GX Works2



This is the main programming and maintenance software for the PLC. Incorporating legacy support of programs created with GX Developer, further improving its functionality resulting in reduced engineering costs.

Motion Controller Engineering Software

### MELSOFT MT Works2

The motion control design and maintenance software includes intuitive graphic based programming together with a digital oscilloscope simulator, further helping to reduce a motion systems TCO.

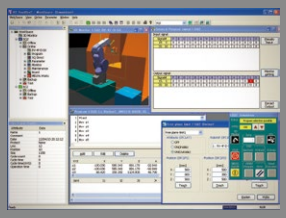
HMI/GOT Screen Design Software

### MELSOFT GT Works3

The GOT (Graphic Operation Terminal) screen creation software has been designed with 3 main features; Simplicity, Graphic Design, and Easy Usability, further helping to create graphic screens in fewer steps.

Robot Engineering Software

### MELSOFT RT ToolBox2



The robot setup software supports various steps from programming, to commissioning, evaluation, and maintenance. In addition to improving preventative maintenance by using the integrated 3D evaluation simulator to visualize parameterization and connected devices.

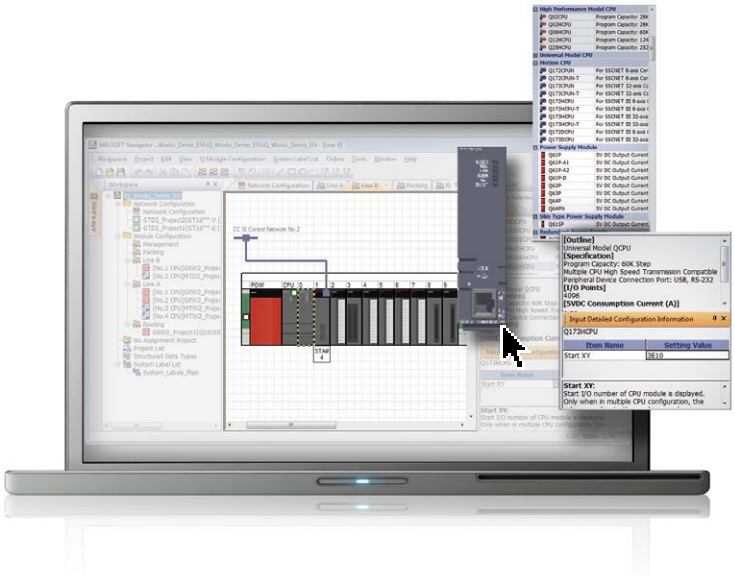

iQ Platform

Ease-of-use at your fingertips

# MELSOFT Navigator

You'll be amazed at how quickly
you can select the most suitable module.

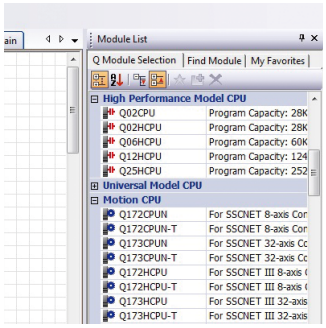
Convenient!



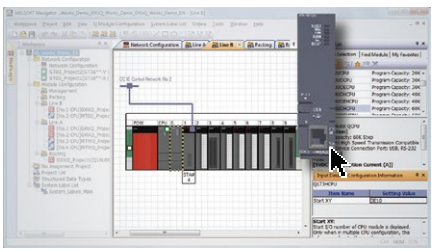
## Displays available options in a list. Easily arrange suitable modules in the workspace.

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.

Available modules are listed




Selected module is illustrated



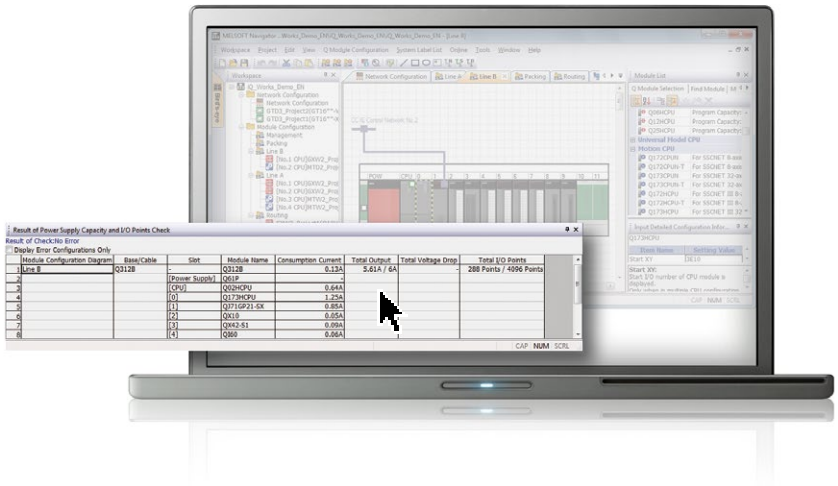
POINT

Complete the system configuration just by dragging & dropping modules!

The module list shows all modules including special I/O modules.

The power supply capacity and number of I/O points are automatically checked, so you don't need to rely on the manual!

Time saving!

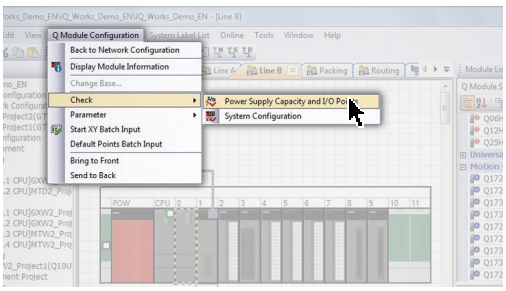


## No need to look up manuals. Automatic check is available in module configuration.

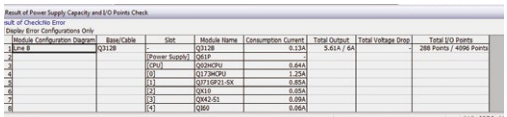
Until now, referencing the manual was essential for calculating power supply capacity and looking up number of I/O points. Since making new selections in case of a mistake is bothersome, users often select extra large power supplies and CPU modules.

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.

Module configuration drawing




Automatic check of power supply capacity/Number of I/O points



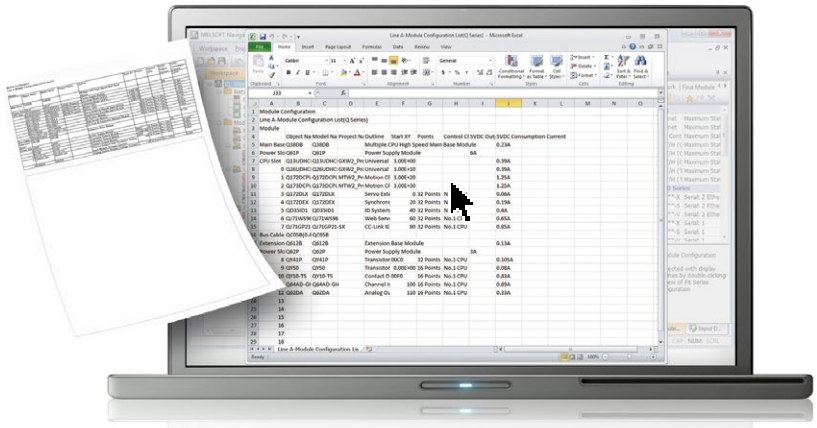
POINT

Select the appropriate power supply capacity and number of I/O points!

With automatic check, power supply modules and CPU modules can be re-selected easily.

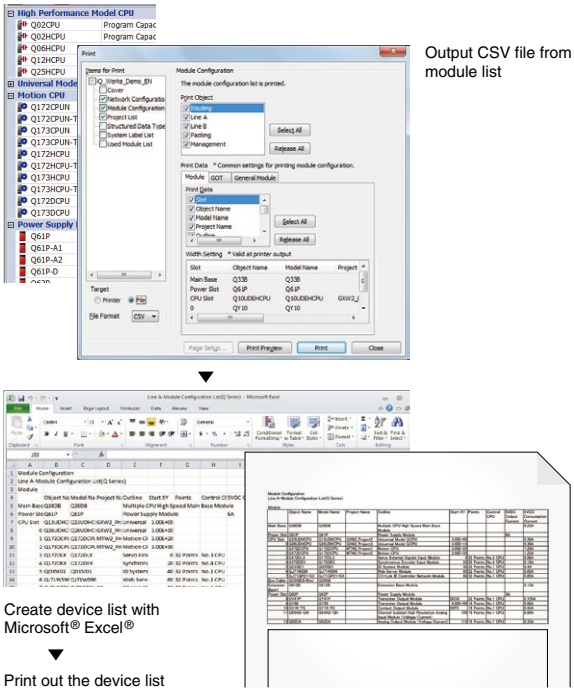
Document your device lists
without having to manually input data!

Easy!



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

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®.



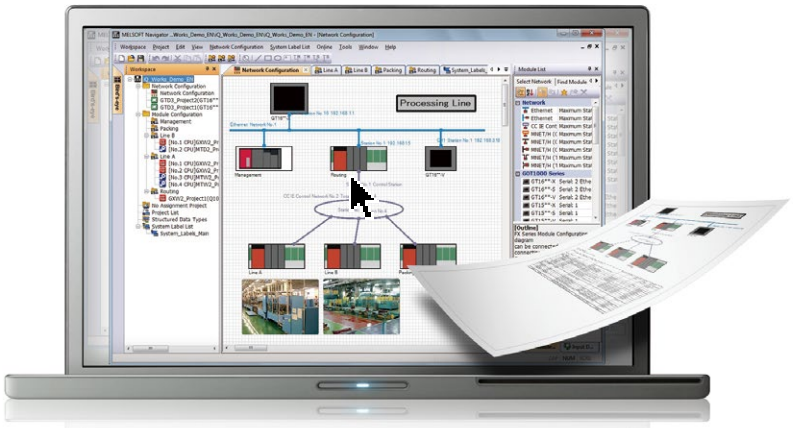

POINT

Make it easier to order modules!

No longer create device lists with manual inputs.

Effortlessly create system configurations without using Microsoft® Visio® or Microsoft® Word®!

Convenient!

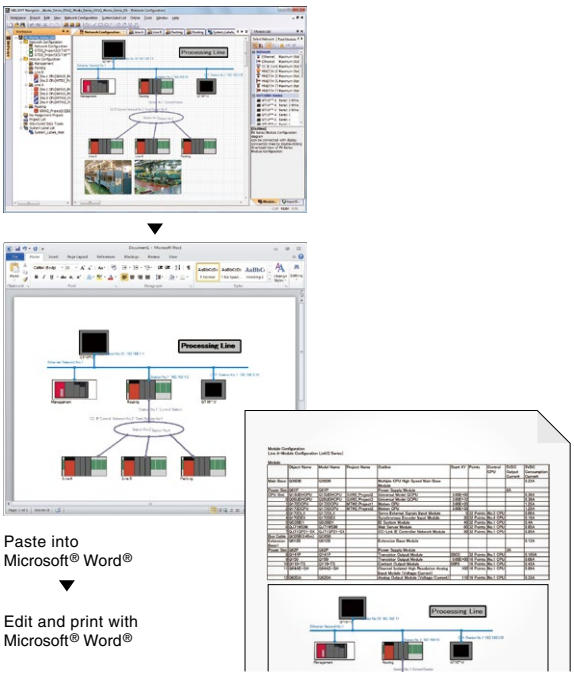



## Directly apply your system designs in different locations.

Documenting your system configuration takes time and manpower. Do you still manually input your network configurations, module configurations and parameters 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.

System configuration




Paste into Microsoft® Word®

Edit and print with Microsoft® Word®

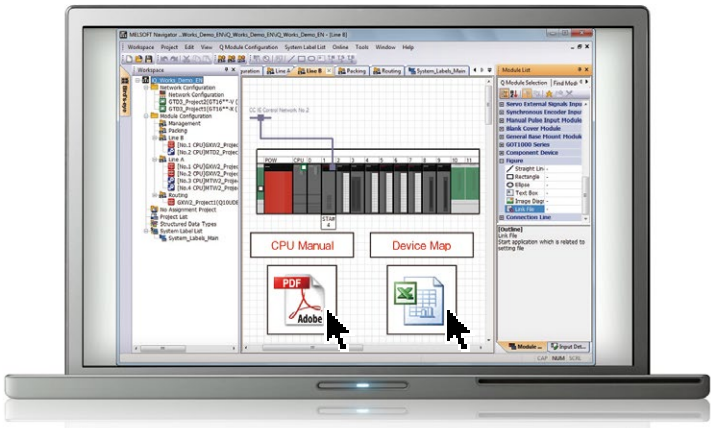
POINT

Incorporate design details into other documents!

Reuse everything from network configurations, module configurations and parameter settings.

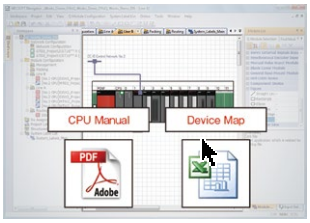
All relevant data are one-click away!

Convenient!

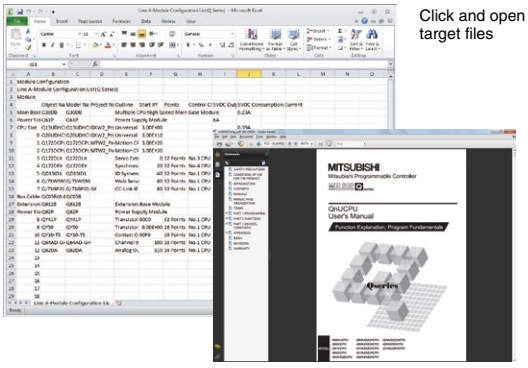



## Manage files in a similar fashion as in Microsoft® Windows® desktop.

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.




Paste the link file for reference and design documents




Click and open target files

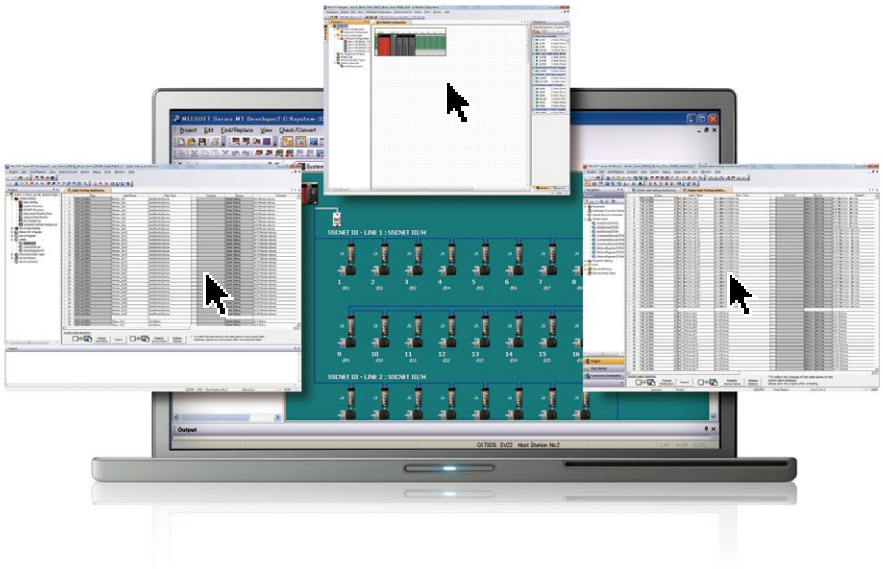
POINT

A portal to design documents!

Insert link files to design documentations.

Advanced multi-CPU settings are so easy when you use templates!

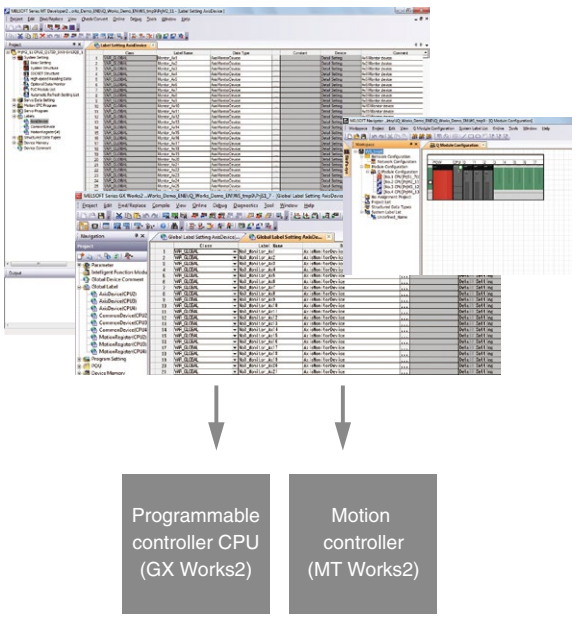
Easy!



## Templates with preset parameters and labels are available.

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.

Use templates with preset parameters and labels



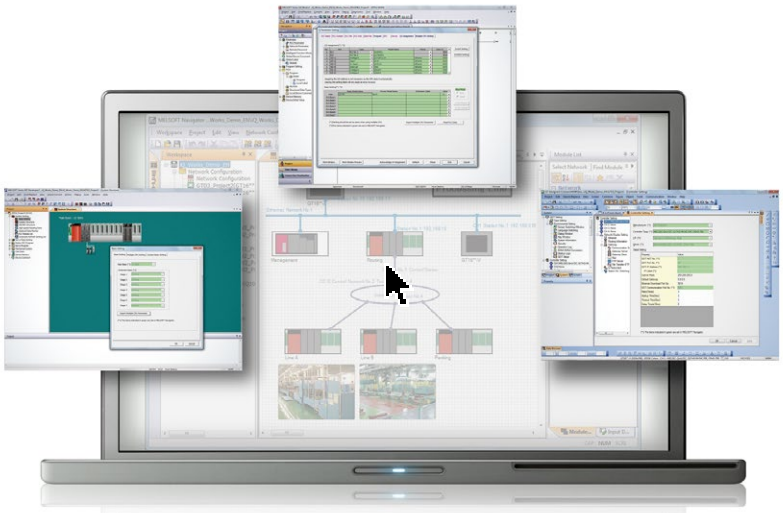

POINT

Set up a multi-CPU configuration in a short time!

No need to configure motion control from scratch!

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

MELSOFT collaboration!

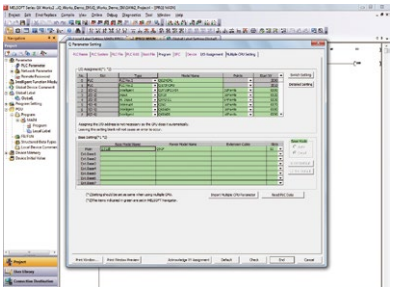


## Batch set parameters for multiple systems.

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.



Parameter setting information in system configuration

Applied in batch onto each development tool's data

Programmable controller (GX Works2)

Motion controller (MT Works2)

GOT (GT Works3)

POINT

Apply parameters onto each software in batch!

Parameters are automatically generated from network configuration and module configuration.

No need to individually setup each sensor using proprietary setup tools

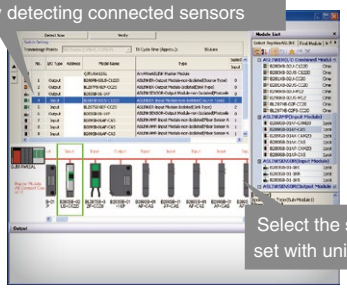
Convenience!

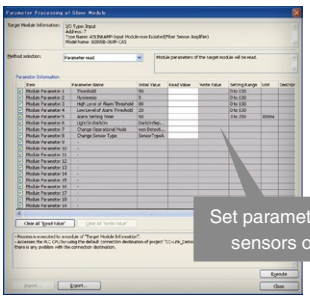

## One Tool to set parameters even between different sensor manufacturers

Setting parameters for each sensor can be difficult as setting methods can vary between setup tools. However, by using MELSOFT Navigator and GX Works2, the parameters for different iQSS*1 compatible sensors can be setup all from the same setup screen. There's no need to use a dedicated tool for each sensor, resulting an efficient way of setting various sensors all in one operation. In addition, sensors supporting CC-Link and AnyWireASLINK*2 networks, can be detected automatically within the system configuration diagram.

*1 Innovative solution for reducing TCO. iQ Sensor Solution
*2 Sensor network that centrally monitors (visualizes) the sensor statuses from the programmable controller, and contributes to improving operating rates and reducing engineering time.
*3 Refer to the iQSS catalog for further details. (Sensor Solution iQ Sensor Solution)
*4 AnyWireASLINK products are not available in some countries. Please consult your local Mitsubishi Electric representative for details.

Automatically generate the system configuration diagram by detecting connected sensors




iQSS

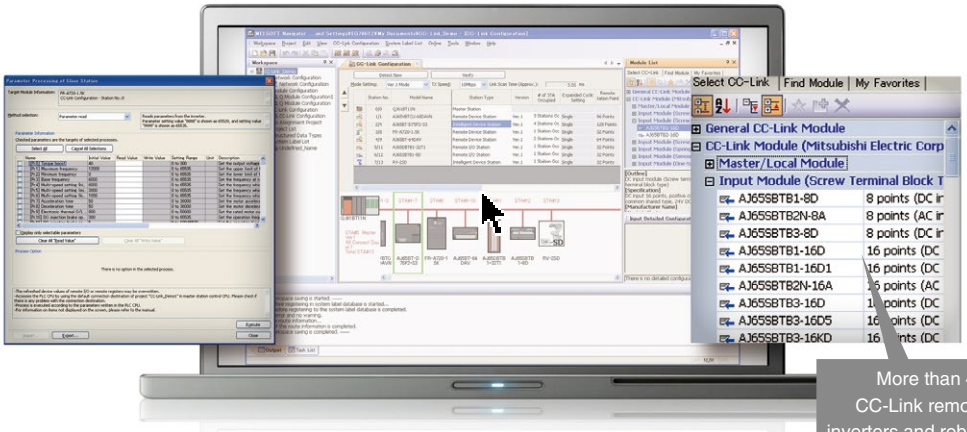
POINT

Reduce sensor setup time!

Automatic detection of connected sensors within the system configuration diagram.

Can you really set the CC-Link/AnyWireASLINK network without referring to a manual?!

Easy!

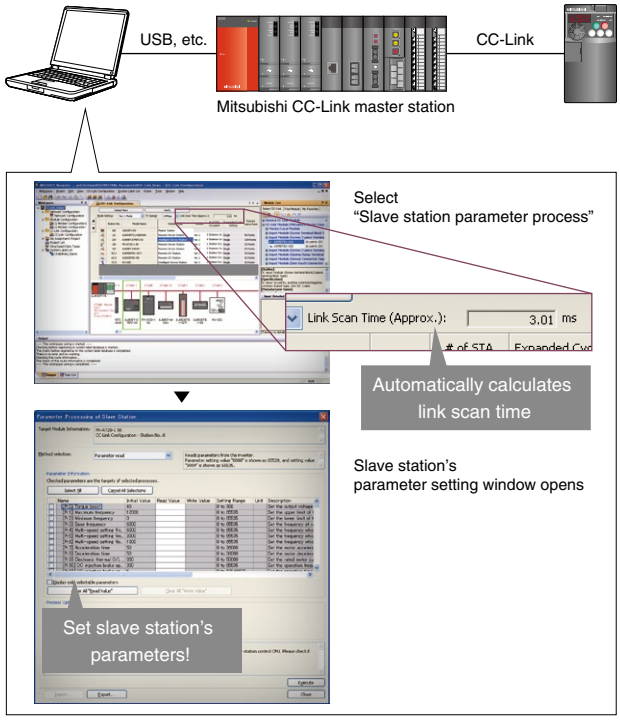



More than 400 types of CC-Link remote I/Os, GOTs, inverters and robots are supported!!

## Just select the device, ready for the design stage!

MELSOFT Navigator and GX Works2 use drag & drop and graphic based screens to create a intuitive setting environment for the CC-Link / AnyWireASLINK network. Easy operations mean the process from setting the various parameters to automatic calculation of the link scan time can be carried out at once. In addition, the slave station parameters settings can be confirmed and changed when required. New modules can be added to CC-Link by installing the CSP+*1 released from CLPA*2.

*1 CC-Link Association
*2 Profile prepared by vendors developing CC-Link family compatible products
*3 GX Works2 also supports CC-Link IE Field.



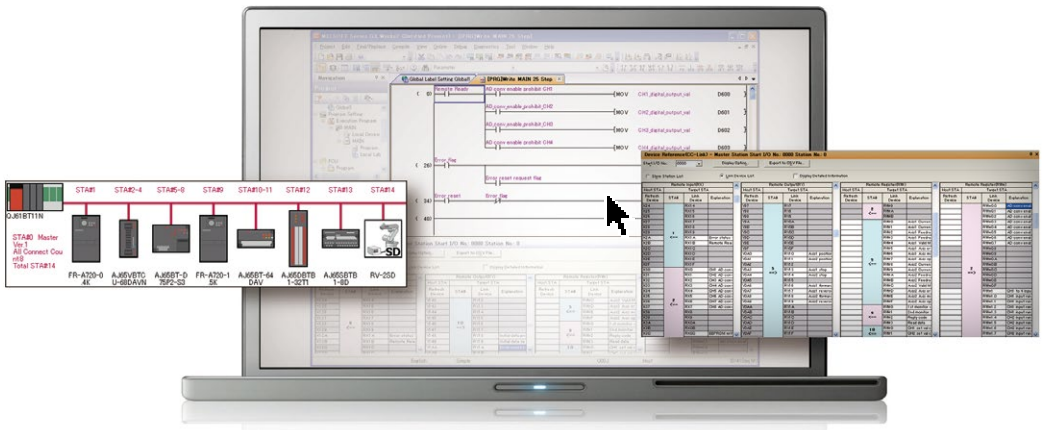

POINT

Easily set the master and slave stations without mistakes!

Set each device without a manual.

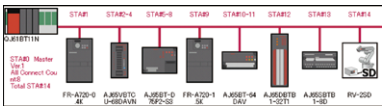
No need to consider device addresses!

Easy!

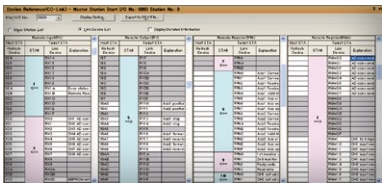


## Automatically generate device assignments from the configuration screen.

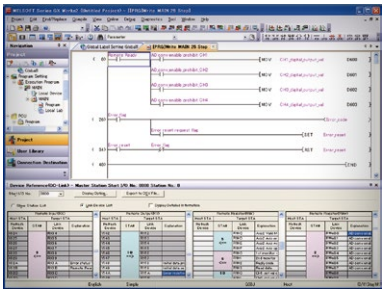
By using the new CC-Link configuration editor as part of the GX Works 2 package, device assignment tasks have been made much simpler. Just rearrange the illustrations on the editor screen using the mouse to complete the device configuration and finish programming. The devices are then automatically assigned and listed in an easy-to-view list.
This feature can be easily utilized for label programming.



Create the device configuration with the configuration editor



Automatically generate a list of device assignments



Program the ladder diagram while viewing the device assignments.

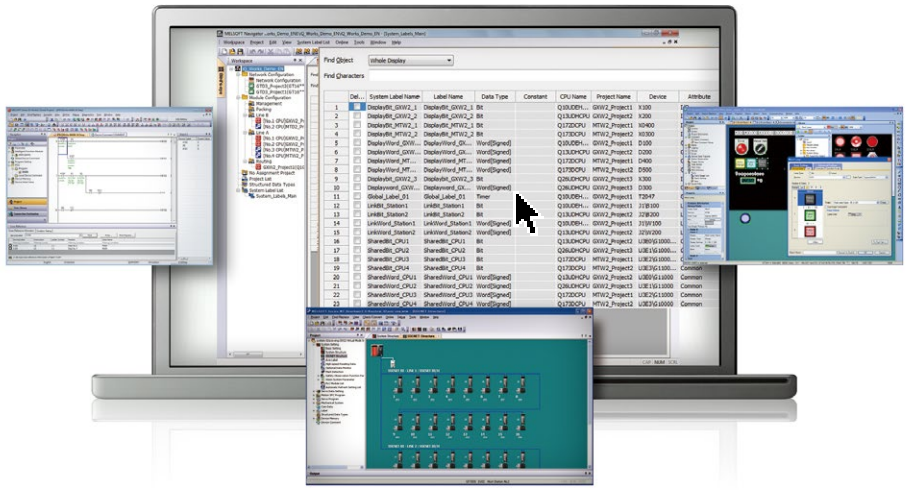
POINT

Making programming easier!

Easily and efficiently complete processes from device configuration to programming.

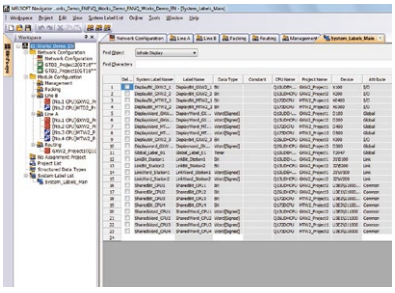
Assign devices for multiple projects
just by changing one setting!

MELSOFT collaboration!



## Changes are automatically reflected in all related projects.

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.



Define labels from one location

Changes in settings are automatically applied to each project

Programmable controller (GX Works2)

Motion controller (MT Works2)

GOT (GT Works3)

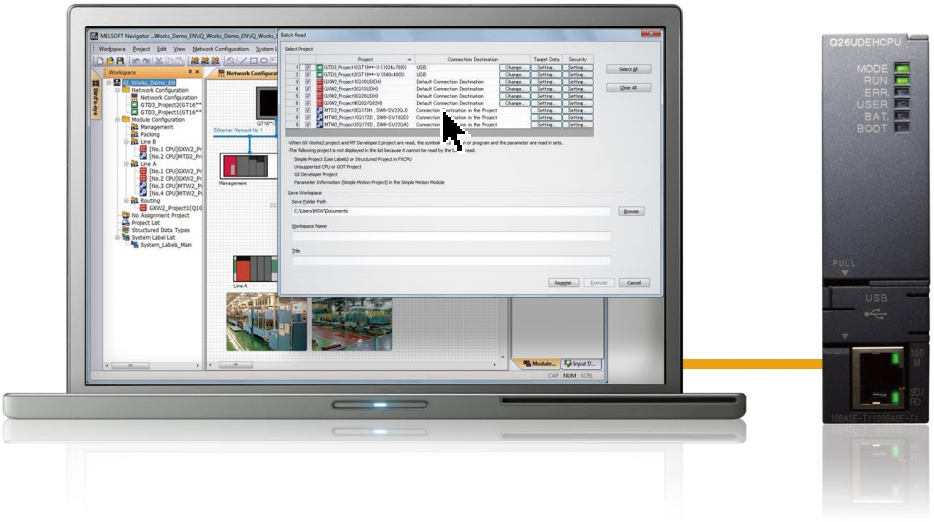
POINT

Greatly reduce man-hours spent changing settings!

Use system labels to efficiently apply changes throughout the entire system.

Can you really backup multiple devices without connecting cables to each one?

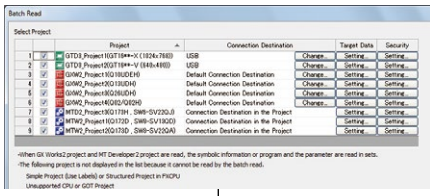
MELSOFT collaboration!



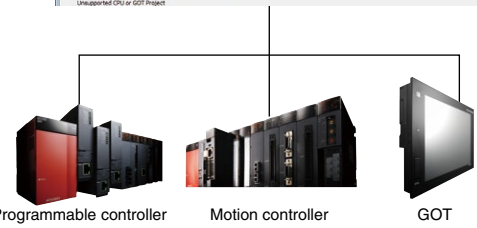

## Read out project data for multiple devices in batch.

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 (MELSECNET/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.

Cable connection to programmable controller (master station, etc.)



Read project data in batch



Programmable controller | Motion controller | GOT

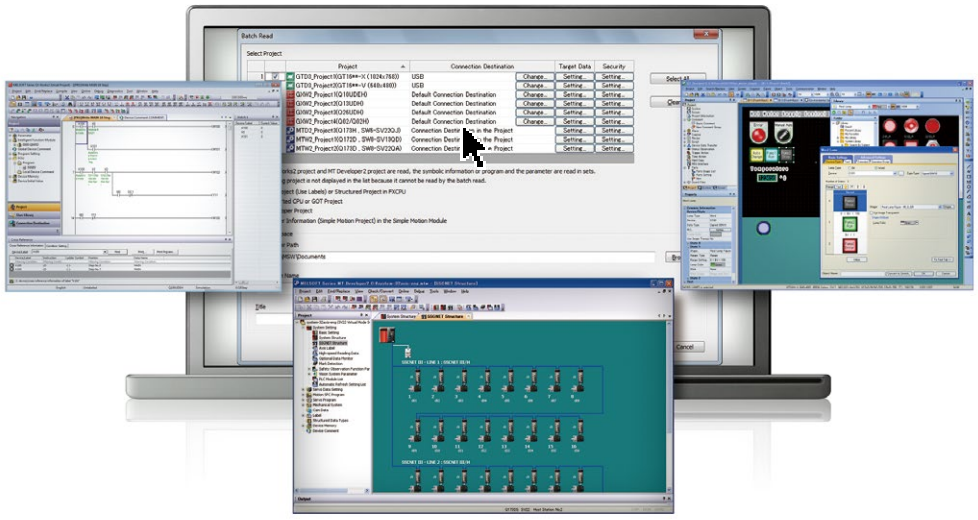
POINT

Read from multiple devices with one single cable!

There is no need to individual connect to each device.

No more operation mistakes
or overdue backups!

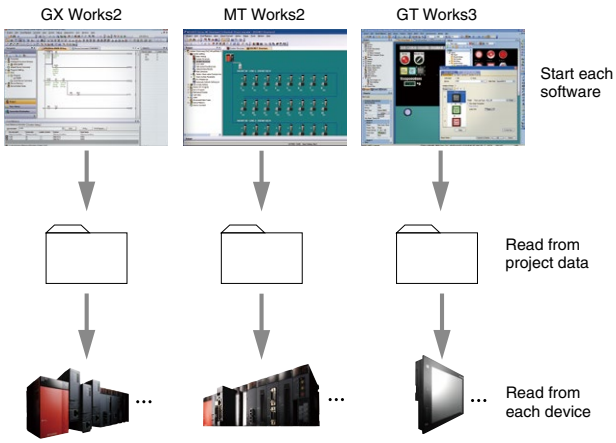
MELSOFT collaboration!



## Read in batch without starting each software.

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.

<Conventional>



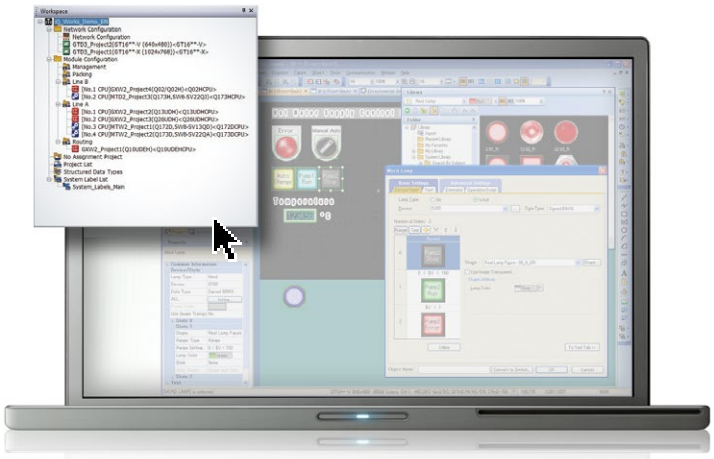

POINT

Efficiently backup data periodically with no mistakes!

Batch read project data for multiple devices without complicated procedures.

Find the desired project data at a glance!

MELSOFT collaboration!

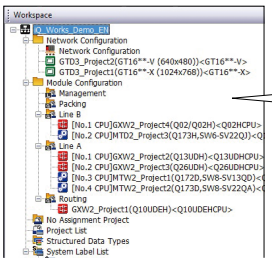


## Finding required data is a breeze with the workspace management method.

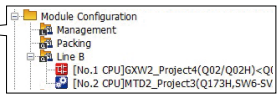
Have you ever felt that when folders are made for each process and managed in nests, it's still hard to find that project data you want to maintain? Once you find the folder, there are several files, and you don't know which one to open.

With MELSOFT Navigator, the project data for several devices such as the programmable controller, motion controller, GOT or robot 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.

Manage project data with workspaces




Display project names with tree structure




Search for corresponding project

▼

Programmable controller (GX Works2)

Motion controller (MT Works2)

GOT (GT Works3)

Robot (RT ToolBox2)

Click to read data

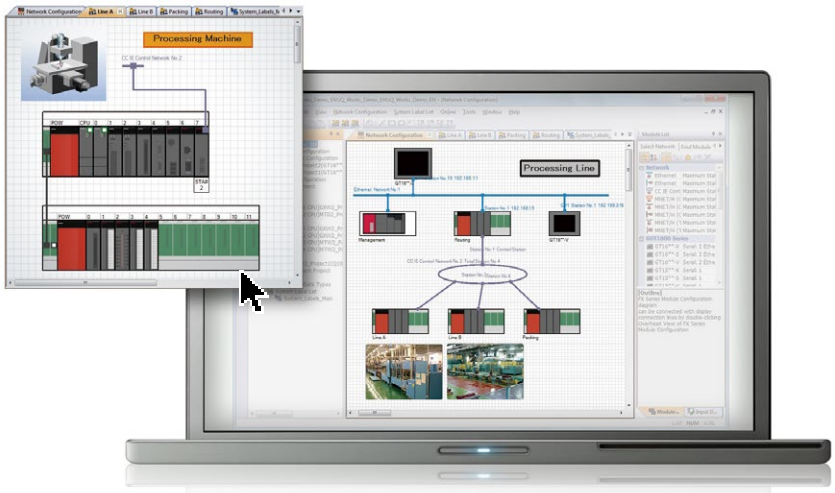
POINT

No longer manage with project names!

As easy as searching for the project name in the workspace!

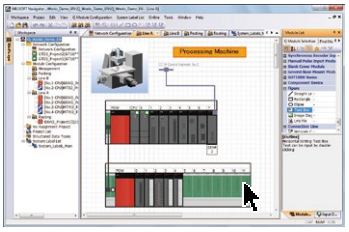
Illustration of the system expedites finding the device you need!

MELSOFT collaboration!




## Click on the illustration to read its device 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.



●Paste-able bitmap and text box

Processing Machine

●Visually search for the desired device

Read data by clicking the device illustration

- Programmable controller (GX Works2)
- Motion controller (MT Works2)
- GOT (GT Works3)
- Robot (RT ToolBox2)

POINT

Perform intuitive searches with illustrations!

Paste bitmaps and text boxes into system configuration.

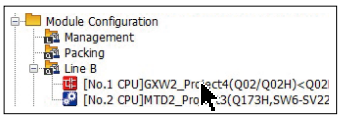
How easy! Click on the corresponding project to start up the right software!

MELSOFT collaboration!

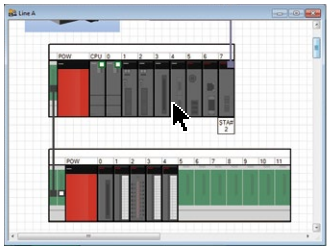
## The right software automatically starts up.

Various software, including GX Developer, GX Works2, MT Works2, GT Works3 and RT ToolBox2, 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.

Click on a project in the workspace tree




Click on a device in the system configuration



Software for corresponding device automatically starts up

- GX Works2
- MT Works2
- GT Works3
- RT ToolBox2

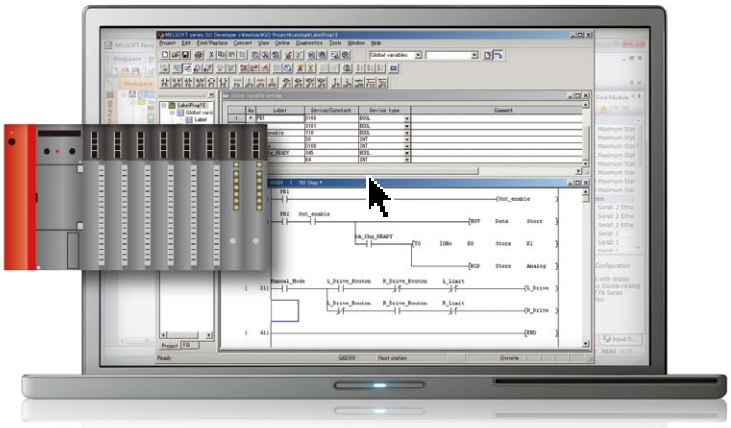
POINT

Maintain your devices without worrying about software!

The correct software automatically starts up.

Hassle-free management covers programs even for older equipment.

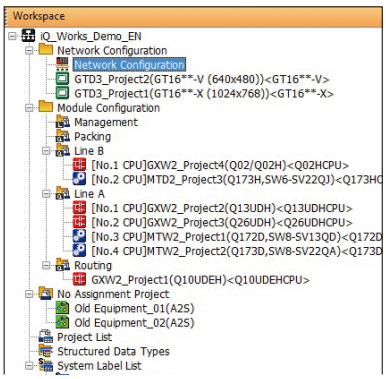
MELSOFT collaboration!



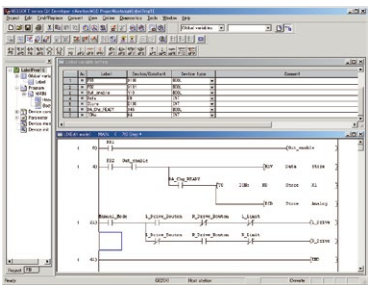
## Sequence programs for older equipment can be managed together.

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.




Start GX Developer from workspace tree



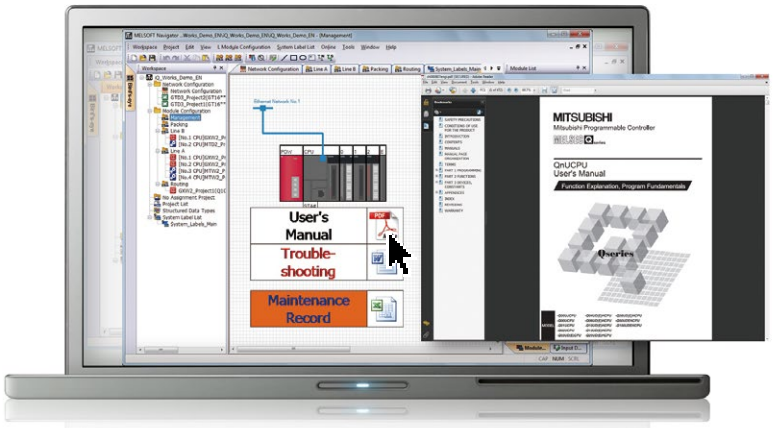
Manage data for equipment using older A Series

POINT

### Compatible with GX Developer!

Use GX Developer to edit A Series* sequence programs.

From now on, find the target instruction manual at a glance!

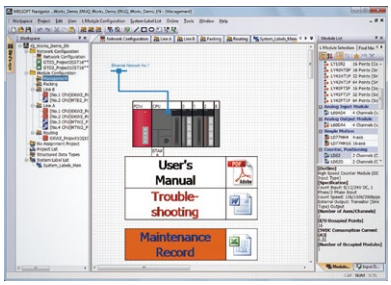



## Find target files instantaneously! Quickly and easily manage data.

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, GT Works3 and RT ToolBox2 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.

Insert link files to documents and data
(Microsoft® Word®, Microsoft® Excel® and PDF, etc.)




Create a portal site of equipment-related documents

▼

Click to display the target instruction file

| Microsoft® Word® file | Microsoft® Excel® file | PDF file |
|---|---|---|

POINT

Handy tool for operators!

Equipment related documents including instruction manuals can be easily searched and referred to by anyone.

**Completely updated user interface improves your design efficiency.**

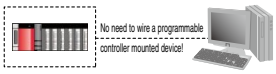
Programmable Controller Engineering Software
# MELSOFT GX Works2

## Integrating simulation functions with configuration functions! No need to purchase GX Simulator and GX Configurator separately.

In addition to programmable controller programming, GX Works2 integrates simulation and various intelligent module setting functions.

**[ Integration of simulation function ]**

The simulator can be started easily with a single button allowing debugging in the same circumstances as online even without an actual machine.




Debugging can be started with a personal computer immediately after designing even without wiring a programmable controller.

Operations can be confirmed while viewing movements on a personal computer so designs can be completed without reworking.

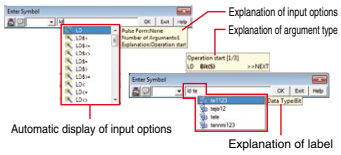
**[ Integration of configuration function ]**

By opening the setting screen from the project window, the parameters for each module can be set easily on the screen.

<Analog/Digital converter module> <Positioning module>


## Reduce operation steps and input mistakes with candidate displays!

Input options are automatically listed during command and label inputs. When inputting in an inline ST, label and command options are displayed.

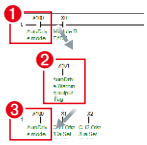



## Directly write operations into ladders with inline ST!

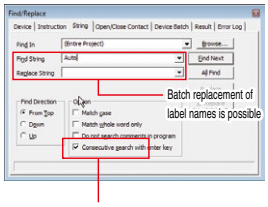
Operation processes can be written directly in the ladder program.
There's no need to add multiple lines of ladders or function blocks.

## Easily perform continuous searches of devices with user-friendly operations!

Read mode supports quick searches. Perform a continuous search by pressing the Enter key.



Press Ctrl + F keys to search the first "Auto"
Press the Enter key to search the next "Auto" (cursor moves)



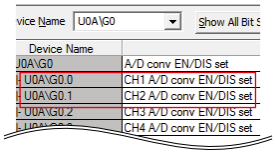

**■ Continuous search function**

When the search option is designated, a continuous search is made each time the Enter key is pressed.

## Identify similar devices in a glance!

Comments can be set for each bit and for word devices.

A comment can be set for a bit-specified word device and displayed on the ladder circuit.

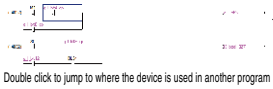




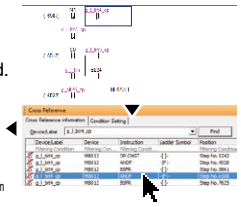
## Quickly find where the device is being used!

Cross reference information for the device pinpointed with the cursor is automatically displayed.

<Cross reference>



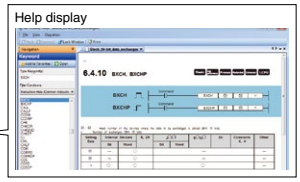
Double click to jump to where the device is used in another program



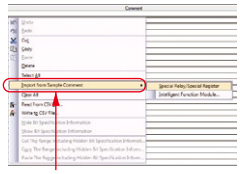
## One-touch displayable help function!

Help for the selected command is displayed immediately when the F1 key is pressed.

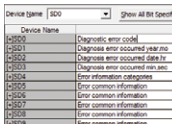

Help display



## Making it easier to use intelligent function modules through buffer memory and I/O signal comments!

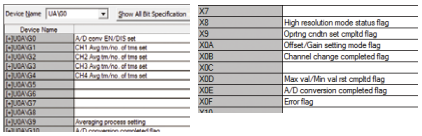


**■ For special relays and special registers**



**■ For intelligent function module**

The intelligent function's buffer memory and X/Y comments are supported.




Easily apply predefined comments from the right-click menu.

▶▶▶ Refer to the GX Works2 Catalog <L(NA)08122E> for details.

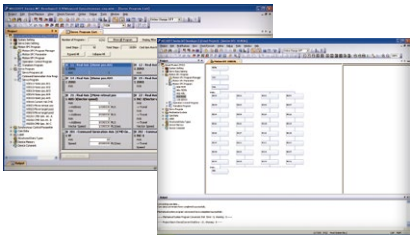
**Intuitive operations on graphical screens. Smoothly set even large-scale programs.**

Motion Controller Engineering Software
# MELSOFT MT Works2

## Programming

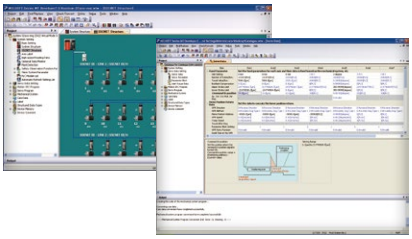
Motion controller programming is supported with various convenient functions.

- Graphical motion SFC program and mechanical system program
- Label, device comment and cross-reference
- Command wizard and Instruction help allow you to program without a manual.



## System Design

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.

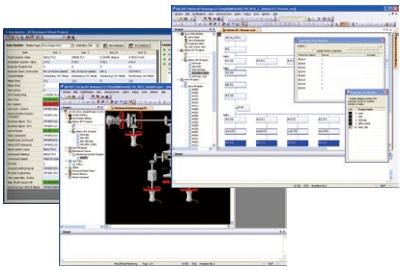


## Startup and Adjustment

**Supporting startup of the servo system with diverse functions.**

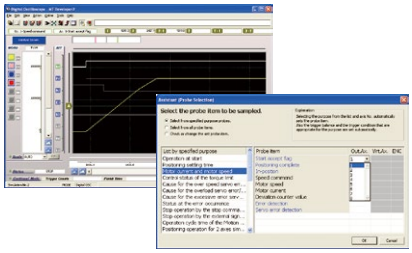
### ■Variety of monitor function

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



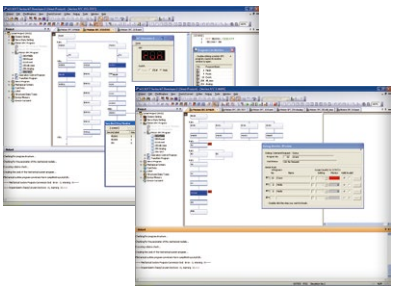
### ■Digital oscillation function

Data which is synchronized with the motion operation cycle can be collected and displayed. It is possible to set the requested data simply 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.



### ■Collaboration with MR Configurator2

Use the servo setup software "MR Configurator2", filled with Mitsubishi Electric's servo knowhow, to adjust your servo system effortlessly. Multi-axes servo system can also be adjusttuned via motion controller from PC.

## Such easy steps from "New Screen" to "Transfer to GOT".

Screen Design Software
# MELSOFT GT Works3

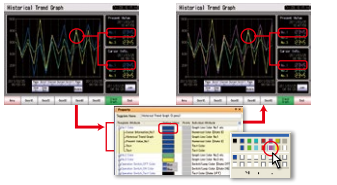
## Screen Creation

### ■ "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.

<Changing the color>

All colors for template attribute "No. 1 color" are changed in batch!



Template attribute "No. 1 color" includes:
- Historical trend graph line colors
- Numerical display value colors
- Character colors

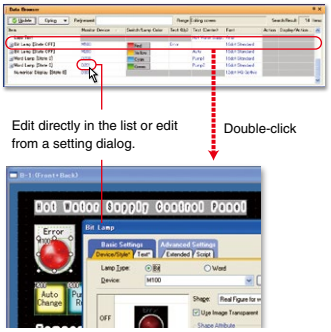
Change color

<Device monitor (bit)>

<Historical (graph + list)>

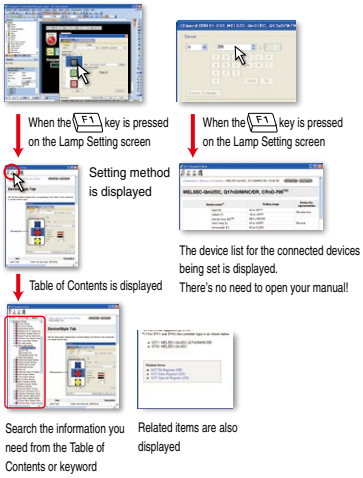
### ■ "Data Browser" simplifies setting confirmation and revisions

The settings for graphics used in the project are all listed.




### ■ "Help Function" shows the information you need

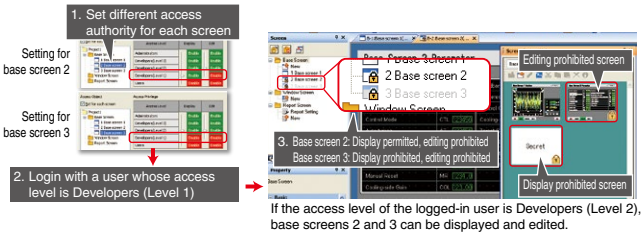
When the F1 key is pressed, help for the currently active dialog opens immediately! Easily check the information you need.




## Security Control

### ■ The User (OEM/End User) Security Function prevents your valuable data from being leaked or changed!

Protect your project data by setting access authority (availability of displaying and editing a project) with a five-stage access level not only for the project but also for screens. When the several people are involved in designing the screen, a specific screen can be protected by setting different access authority for each screen. The availability of displaying or editing the project can be confirmed with the work tree or the screen image list.




If the access level of the logged-in user is Developers (Level 2), base screens 2 and 3 can be displayed and edited.

## Simulation

### ■ Confirm operations with a single click

Screen data movements (alarm confirmations, screen transitions and device monitoring, etc.) can be confirmed on your personal computer. Efficiently debug while correcting your screen.

Communication/Monitor

GT Works3 Simulation function ◀ ▶ GT Works2 Simulator (virtual programmable controller)


❶ Start simulator
❷ Click with mouse to touch
❸ Device values and ON/OFF states can be changed.

When the screen has been revised, just click "Update"!

### ■ Simple simulation with "Screen Preview"

Simple simulations and screen changeovers can be confirmed with screen preview. A specific switch display can be turned ON and OFF, device values can be input, and random screen images can be printed and saved, making it easy to prepare specifications and operation procedures.

<Confirming screen change switch>

Screen changes when the screen change switch is clicked.

Screens can be changed on the screen preview. The editing screen can be opened in sequence with the preview screen so corrections can be made quickly while confirming on the preview screen.

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

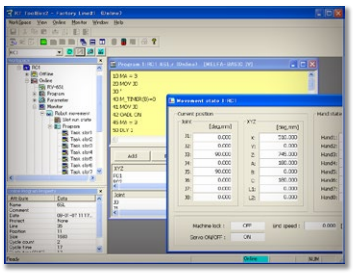
**Total support from program creation, to start up, adjustment and maintenance.**

Robot Engineering Software
# MELSOFT RT ToolBox2

## Programming

### ■Program editing

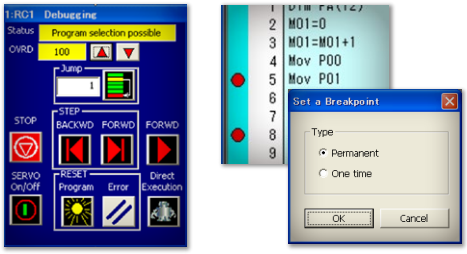
- Create programs with MELFABASIC IV, V or Movemaster languages.
- Efficiently perform work with multi-window method.
- With instruction templates and help functions, there's no need to refer to manuals.



## Startup and Adjustment

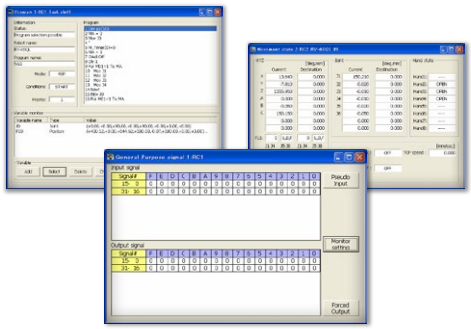
### ■Debugging function

A variety of convenient functions make it easy to confirm operations such as program step execution, break point setting and direct execution.




### ■Monitor function

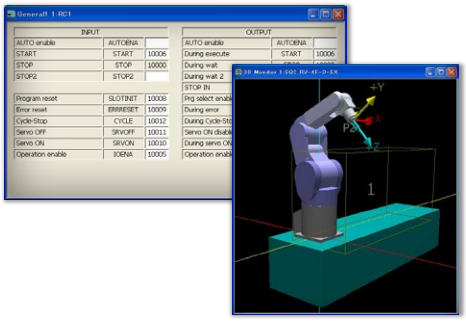
Monitor the program execution state, variables and input/output signals, etc. In addition, monitor the servo statuses such as the axis load status and current value.



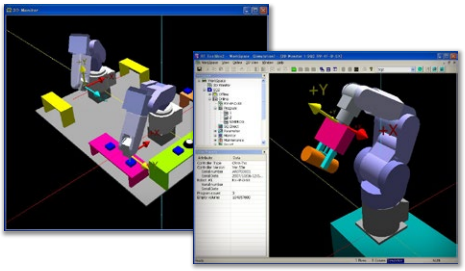
## Setting

### ■3D Viewer

Visually confirm the limit values for the user defined areas, etc., with 3D Viewer.



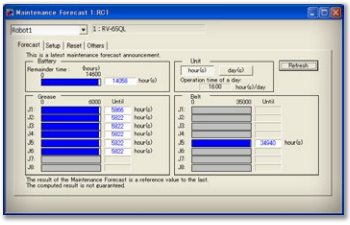
Use 3D Viewer to confirm the robot's posture and motions, and to virtually arrange the peripheral devices with basic objects.



## Maintenance

### ■Maintenance function

- Various maintenance functions include the maintenance forecast function that notifies operators of the robot grease up timing and battery consumption time, etc., and functions to restore the position in the event of trouble. These functions are effective for preventive maintenance and for shortening the recovery time.
- The entire system can be backed up in a batch using the project unit data control.



## Contact information

Q Who do we consult with to make a purchase?

A Contact your nearest Mitsubishi Electric branch office or dealer.

Q Who do we contact for information on the product technology?

A Contact your nearest Mitsubishi Electric branch office or dealer.
Please see the back cover for contact information.

## Lineup

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.

## List of Software Functions

| | | Model | Outline |
|---|---|---|---|
| iQ Platform compatible FA Integrated Engineering Software | MELSOFT iQ Works | SW1DNC-IQWK-E | Mitsubishi Electric iQ Platform compatible<br>FA Integrated Engineering Software suite with Additional Integrated Functions, CD-ROM Version<br>Mitsubishi Electric iQ Platform compatible<br>System Management Software [MELSOFT Navigator]<br>+ Mitsubishi Electric iQ Platform compatible<br>Programmable Controller Engineering Software [MELSOFT GX Works2]<br>+ Mitsubishi Electric iQ Platform compatible<br>Motion Controller Engineering Software [MELSOFT MT Works2]<br>+ Mitsubishi Electric iQ Platform compatible<br>Screen Design Software [MELSOFT GT Works 3]<br>+ Mitsubishi Electric iQ Platform compatible<br>Robot Engineering Software [MELSOFT RT ToolBox2 mini] |
| | | SW1DND-IQWK-E | Mitsubishi Electric iQ Platform compatible<br>FA Integrated Engineering Software suite with Additional Integrated Functions, DVD-ROM Version<br>Mitsubishi Electric iQ Platform compatible<br>System Management Software [MELSOFT Navigator]<br>+ Mitsubishi Electric iQ Platform compatible<br>Programmable Controller Engineering Software [MELSOFT GX Works2]<br>+ Mitsubishi Electric iQ Platform compatible<br>Motion Controller Engineering Software [MELSOFT MT Works2]<br>+ Mitsubishi Electric iQ Platform compatible<br>Screen Design Software [MELSOFT GT Works 3]<br>+ Mitsubishi Electric iQ Platform compatible<br>Robot Engineering Software [MELSOFT RT ToolBox2 mini] |
| | MELSOFT GX Works2 | SW1DNC-GXW2-E | MELSEC Programmable Controller Programming<br>SW Programming Function + Intelligent Module Function + Simulator Function |
| | MELSOFT MT Works2 | SW1DNC-MTW2-E | Mitsubishi Electric iQ Platform compatible Motion Controller Engineering Software |
| | MELSOFT GT Works3 | SW1DNC-GTWK3-E | Screen Design Software for GOT<br>+ Simple Data Conversion Function + GT SoftGOT 1000 Function + Simulator Function |
| | MELSOFT RT ToolBox2 | 3D-11C-WINE | Robot Engineering Software with Simulation Function CD-ROM Version |
| | | 3D-12C-WINE | Robot Engineering Software mini Simple Version CD-ROM Version |

## MELSOFT iQ Works operation environment

| | Details | |
|---|---|---|
| OS ✻ | Microsoft® Windows® 2000 Professional Service Pack4<br>Microsoft® Windows® XP Professional Service Pack2,3<br>Microsoft® Windows® XP Home Edition Service Pack2,3<br>Microsoft® Windows® Vista® Home Basic Service Pack1,2<br>Microsoft® Windows® Vista® Home Premium Service Pack1,2<br>Microsoft® Windows® Vista® Ultimate Service Pack1,2<br>Microsoft® Windows® Vista® Business Service Pack1,2<br>Microsoft® Windows® Vista® Enterprise Service Pack1,2 | Microsoft® Windows® 7 Ultimate Service Pack1<br>Microsoft® Windows® 7 Enterprise Service Pack1<br>Microsoft® Windows® 7 Professional Service Pack1<br>Microsoft® Windows® 7 Home Premium Service Pack1<br>Microsoft® Windows® 7 Starter Service Pack1<br>Microsoft® Windows® 8<br>Microsoft® Windows® 8 Pro<br>Microsoft® Windows® 8 Enterprise |
| 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: HD1GB (+ 390MB when installing manual) | During operation: 512 MB of free virtual memory |

✻ 32-bit OS supported. Microsoft® Windows® 7 and Microsoft® Windows® 8 supported with 64-bit version.

## MELSOFT iQ Works compatible version

| | Details |
|---|---|
| MELSOFT GX Works2 | Version 1.492N and higher |
| MELSOFT MT Works2 | Version 1.62Q and higher |
| MELSOFT GT Works3 | Version 1.74C and higher |
| MELSOFT RT ToolBox2 | Version 2.50C and higher |

## Compatible Networks

| |
|---|
| Ethernet |
| MELSECNET/H |
| CC-Link IE Controller Network |
| CC-Link IE Field Network |
| CC-Link |
| AnyWire ASLINK |

## Compatible Programmable Controller (MELSEC-Q Series)

| Category | | Model |
|---|---|---|
| CPU | Basic model QCPU | Q00JCPU |
| | | Q00CPU |
| | | Q01CPU |
| | High-performance model QCPU | Q02CPU |
| | | Q02HCPU |
| | | Q06HCPU |
| | | Q12HCPU |
| | | Q25HCPU |
| | Universal model QCPU | Q00UJCPU |
| | | Q00UCPU |
| | | Q01UCPU |
| | | Q02UCPU |
| | | Q03UDCPU |
| | | Q03UDECPU |
| | | Q03UDVCPU |
| | | Q04UDHCPU |
| | | Q04UDEHCPU |
| | | Q04UDVCPU |
| | | Q06UDHCPU |
| | | Q06UDEHCPU |
| | | Q06UDVCPU |
| | | Q10UDHCPU |
| | | Q10UDEHCPU |
| | | Q13UDHCPU |
| | | Q13UDEHCPU |
| | | Q13UDVCPU |
| | | Q20UDHCPU |
| | | Q20UDEHCPU |
| | | Q26UDHCPU |
| | | Q26UDEHCPU |
| | | Q26UDVCPU |
| | | Q50UDEHCPU |
| | | Q100UDEHCPU |
| | Motion CPU | Q172CPUN |
| | | Q172CPUN-T |
| | | Q173CPUN |
| | | Q173CPUN-T |
| | | Q172HCPU |
| | | Q172HCPU-T |
| | | Q173HCPU |
| | | Q173HCPU-T |
| | | Q172DCPU |
| | | Q173DCPU |
| | | Q172DSCPU |
| | | Q173DSCPU |
| | C Controller CPU | Q06CCPU-V |
| | | Q12DCCPU-V |
| Base module | Main base | Q33B |
| | | Q35B |
| | | Q38B |
| | | Q312B |
| | | Q35DB |
| Base module | Main base | Q38DB |
| | | Q312DB |
| | Slim type main base | Q32SB |
| | | Q33SB |
| | | Q35SB |
| | Redundant power supply main base | Q38RB |
| | Extension base | Q63B |
| | | Q65B |
| | | Q68B |
| | | Q612B |
| | | Q52B |
| | | Q55B |
| | Redundant power supply extension base | Q68RB |
| Power supply module | Power supply module | Q61P |
| | | Q61P-A1 |
| | | Q61P-A2 |
| | | Q61P-D |
| | | Q62P |
| | | Q63P |
| | | Q64P |
| | | Q64PN |
| | Slim type power supply | Q61SP |
| | Redundant power supply | Q63RP |
| | | Q64RP |
| I/O module | Input | QX10 |
| | | QX10-TS |
| | | QX28 |
| | | QX40 |
| | | QX40-TS |
| | | QX40-S1 |
| | | QX40H |
| | | QX41 |
| | | QX41-S1 |
| | | QX41-S2 |
| | | QX42 |
| | | QX42-S1 |
| | | QX50 |
| | | QX70 |
| | | QX70H |
| | | QX71 |
| | | QX72 |
| | | QX80 |
| | | QX80-TS |
| | | QX80H |
| | | QX81 |
| | | QX81-S2 |
| | | QX82 |
| | | QX82-S1 |
| | | QX90H |
| | Output | QY10 |
| | | QY10-TS |
| | | QY18A |
| | | QY22 |
| | | QY40P |
| | | QY40P-TS |
| | | QY41H |
| | | QY41P |
| | | QY42P |
| | | QY50 |
| | | QY68A |
| | | QY70 |
| | | QY71 |
| | | QY80 |

✻ Above listed modules are compatible with MELSOFT Navigator (Ver. 1.62Q).
These modules differ from the MELSOFT GX Works2, MELSOFT MT Works2, MELSOFT GT Works3 and MELSOFT RT ToolBox2 compatible modules.

## Compatible Programmable Controller (MELSEC-Q Series)

| Category | | Model |
|---|---|---|
| I/O module | Output | QY80-TS |
| | | QY81P |
| | | QY82P |
| | I/O | QH42P |
| | | QX48Y57 |
| | | QX41Y41P |
| | Interrupt input | QI60 |
| Analog I/O module | Analog input | Q68ADV |
| | | Q62AD-DGH |
| | | Q68ADI |
| | | Q64AD |
| | | Q64ADH |
| | | Q64AD-GH |
| | | Q64AD2DA |
| | | Q68AD-G |
| | | Q66AD-DG |
| | | Q61LD |
| | Analog output | Q68DAVN |
| | | Q68DAV |
| | | Q68DAIN |
| | | Q68DAI |
| | | Q62DAN |
| | | Q62DA |
| | | Q62DA-FG |
| | | Q64DAN |
| | | Q64DA |
| | | Q64DAH |
| | | Q66DA-G |
| | Temperature input | Q64RD |
| | | Q64RD-G |
| | | Q68RD3-G |
| | | Q64TD |
| | | Q64TDV-GH |
| | | Q68TD-G-H01 |
| | | Q68TD-G-H02 |
| | Temperature control | Q64TCRT |
| | | Q64TCRTBW |
| | | Q64TCTT |
| | | Q64TCTTBW |
| | | Q64TCRTN |
| | | Q64TCRTBWN |
| | | Q64TCTTN |
| | | Q64TCTTBWN |
| | Loop control | Q62HLC |
| | | Q68CT |
| Simple motion | With SSCNET Ⅲ/H connectivity | QD77MS2 |
| | | QD77MS4 |
| | | QD77MS16 |
| Positioning | | QD72P3C3 |
| | | QD73A1 |
| | | QD75P1 |
| | | QD75P2 |
| | | QD75P4 |
| | | QD70P4 |
| | | QD70P8 |
| | | QD75D1 |
| | | QD75D2 |
| | | QD75D4 |
| | | QD70D4 |
| | | QD70D8 |
| | | QD75M1 |
| | | QD75MH1 |

| Category | | Model |
|---|---|---|
| Positioning | | QD75M2 |
| | | QD75MH2 |
| | | QD75M4 |
| | | QD75MH4 |
| | | QD74MH8 |
| | | QD74MH16 |
| High-speed counter | | QD62 |
| | | QD62-H01 |
| | | QD62-H02 |
| | | QD62D |
| | | QD62E |
| | | QD63P6 |
| | | QD64D2 |
| | | QD65PD2 |
| Channel isolated pulse input | | QD60P8-G |
| Energy Measuring | | QE81WH |
| | | QE81WH4W |
| | | QE83WH4W |
| | | QE84WH |
| Isolation monitoring | | QE82LG |
| Web Server | | QJ71WS96 |
| MES interface | | QJ71MES96 |
| High-speed data logger | | QD81DL96 |
| Ethernet | | QJ71E71-100 |
| | | QJ71E71-B2 |
| | | QJ71E71-B5 |
| Serial communication | | QJ71C24N |
| | | QJ71C24N-R2 |
| | | QJ71C24N-R4 |
| Intelligent communication | | QD51 |
| | | QD51-R24 |
| MELSECNET/H | Optical loop (SI) | QJ71LP21-25 |
| | | QJ71LP21S-25 |
| | Optical loop (GI) | QJ71LP21G |
| | Coaxial bus | QJ71BR11 |
| | Twisted bus | QJ71NT11B |
| CC-Link | | QJ61BT11N |
| CC-Link/LT | | QJ61CL12 |
| FL-net (OPCN-2) | Ver. 2.00 | QJ71FL71-T-F01 |
| | | QJ71FL71-B2-F01 |
| | | QJ71FL71-B5-F01 |
| | Ver. 1.00 | QJ71FL71-T |
| | | QJ71FL71-B2 |
| | | QJ71FL71-B5 |
| AS-i | | QJ71AS92 |
| CC-Link IE Controller Network | | QJ71GP21-SX |
| | | QJ71GP21S-SX |
| CC-Link IE Field Network | | QJ71GF11-T2 |
| AnyWireASLINK | | QJ51AW12AL |
| Motion module | Servo external signal input | Q172LX |
| | | Q172DLX |
| | Synchronous encoder input (synchronization between master/slave) | Q172EX |
| | | Q172EX-S1 |
| | | Q172EX-S2 |
| | | Q172EX-S3 |
| | | Q172DEX |
| | Manual pulse generator input | Q173PX |
| | | Q173PX-S1 |
| | | Q173DPX |
| Partner products | Displacement sensor control | UQ1-01 |
| | | UQ1-02 |

✻ Above listed modules are compatible with MELSOFT Navigator (Ver. 1.62Q).
These modules differ from the MELSOFT GX Works2, MELSOFT MT Works2, MELSOFT GT Works3 and MELSOFT RT ToolBox2 compatible modules.

## Compatible Programmable Controller (MELSEC-L Series)

| Category | | Model |
|---|---|---|
| CPU | | L02SCPU |
| | | L02SCPU-P |
| | | L02CPU |
| | | L02CPU-P |
| | | L06CPU |
| | | L06CPU-P |
| | | L26CPU |
| | | L26CPU-P |
| | | L26CPU-BT |
| | | L26CPU-PBT |
| Branch / Extension module | | L6EXB |
| | | L6EXE |
| Power supply | | L61P |
| | | L63P |
| RS-232 adaptor | | L6ADP-R2 |
| End cover | | L6EC |
| | With error terminal | L6EC-ET |
| I/O module | Input | LX10 |
| | | LX28 |
| | | LX40C6 |
| | | LX41C4 |
| | | LX42C4 |
| | Output | LY10R2 |
| | | LY20S6 |
| | | LY41NT1P |
| | | LY42NT1P |
| | | LY40NT5P |
| | | LY40PT5P |
| | | LY41PT1P |
| | | LY42PT1P |
| Analog I/O | | L60AD4 |
| | | L60AD4-2GH |
| | | L60DA4 |
| Temperature Control | | L60TCRT |
| | | L60TCRTBW |
| | | L60TCTT |
| | | L60TCTTBW |
| Simple motion | | LD77MH4 |
| | | LD77MH16 |
| Positioning | | LD75P1 |
| | | LD75P2 |
| | | LD75P4 |
| | | LD75D1 |
| | | LD75D2 |
| | | LD75D4 |
| High-speed counter | | LD62 |
| | | LD62D |
| Network | CC-Link IE Field Network | LJ71GF11-T2 |
| | CC-Link | LJ61BT11 |
| | CC-Link/LT | LJ61CL12 |
| | Ethernet interface | LJ71E71-100 |
| | Serial communication | LJ71C24 |
| | | LJ71C24-R2 |
| AnyWireASLINK | | LJ51AW12AL |

## Compatible Programmable Controller (MELSEC-FX Series)

| Category | | Model |
|---|---|---|
| CPU | FX3G Series CPU | FX3G-✻✻M |
| | FX3U Series CPU | FX3U-✻✻M |
| | FX3UC Series CPU | FX3UC-✻✻M |
| Special block | Ethernet block | FX3U-ENET✻ |

## Compatible display

| Category | Model |
|---|---|
| GOT 1000 Series | GT16✻✻-X |
| | GT16✻✻-S |
| | GT16✻✻-V |
| | GT165✻-V |
| | GT15✻✻-X |
| | GT15✻✻-S |
| | GT15✻✻-V |
| | GT155✻-V |
| | GT15✻✻-Q |
| | GT14✻✻-Q✻BD |
| | GT14✻✻-Q✻BDE (Ethernet built-in) |
| | GT12✻✻-V |
| | GT11✻✻-Q |
| | GT11✻✻-Q✻BDQ (Q bus built-in) |
| | GT11✻✻-Q✻BDA (A bus built-in) |
| | GT10✻✻-Q |
| | GT1030 |
| | GT1020 |

✻ Above listed modules are compatible with MELSOFT Navigator (Ver. 1.62Q).
These modules differ from the MELSOFT GX Works2, MELSOFT MT Works2, MELSOFT GT Works3 and MELSOFT RT ToolBox2 compatible modules.

## Robot

| Category | | Model |
|---|---|---|
| Robot | SD Series | RV-2SD |
| | | RV-3SD Series |
| | | RV-6SD Series |
| | | RV-12SD Series |
| | | RH-SDH Series |
| | SQ Series | RV-2SQ |
| | | RV-3SQ Series |
| | | RV-6SQ Series |
| | | RV-12SQ Series |
| | | RH-SQH Series |
| | Ceiling mount type | RH-3SDHR/3SQHR |
| | RP Series | RP Series |
| | RV-TH/THL Series | RV-TH/THL Series |

## AnyWireASLINK equipment (Anywire Corporation)

| Category | | Model |
|---|---|---|
| ASLINKER | Input | B280SB-02U-C1220 |
| | | B280SB-02US-C1220 |
| | | B281SB-02U-CC20 |
| | | B281SB-02US-CC20 |
| | | B298SB-02U-M12 |
| | | B298SB-02US-M12 |
| | | BL287SB-02F-CC20 |
| | | BL287SB-02FS-CC20 |
| | Output | B280PB-02U-C1220 |
| | | B280PB-02US-C1220 |
| | | B281PB-02U-CC20 |
| | | B281PB-02US-CC20 |
| | | B298PB-02U-M12 |
| | | B298PB-02US-M12 |
| | | BL287PB-02F-CC20 |
| | | BL287PB-02FS-CC20 |
| | I/O | B280XB-02U-C1220 |
| | | B280XB-02US-C1220 |
| | | B281XB-02U-CC20 |
| | | B281XB-02US-CC20 |
| | | B298XB-02U-M12 |
| | | B298XB-02US-M12 |
| | | BL287XB-02F-CC20 |
| | | BL287XB-02FS-CC20 |
| ASLINKAMP | Input | B289SB-01AF-CAM20 |
| | | B289SB-01AF-CAS |
| | | B289SB-01AP-CAM20 |
| | | B289SB-01AP-CAS |
| ASLINKSENSOR | Input | B283SB-01-1KC |
| | Output | B283SB-01-1KP |
| ASLINKTERMINAL | Input | BL296SB-08F-20 |
| | | BL296SB-08FS-20 |
| | Output | BL296PB-08F-20 |
| | | BL296PB-08FS-20 |
| | I/O | BL296XB-08F-20 |
| | | BL296XB-08FS-20 |

✻ AnyWireASLINK products are not available in some countries.
Please consult your local Mitsubishi Electric representative for details.

✻ Above listed modules are compatible with MELSOFT Navigator (Ver. 1.62Q).
These modules differ from the MELSOFT GX Works2, MELSOFT MT Works2, MELSOFT GT Works3 and MELSOFT RT ToolBox2 compatible modules.

# Automation related products

## PLC | MELSEC-Q Series Universal Model

Introducing the high-speed QCPU (QnUDVCPU) for faster processing of large data volumes.

◎Realize high-speed, high-accuracy machine control with various iQ Platform compatible controllers and multiple CPUs.

◎Easily connect to GOTs and Programming tools using built-in Ethernet port.

◎25 models from 10 k step small capacity to 1000 k step large capacity, are available.

◎Seamless communication and flexible integration at any network level.

Product Specifications

| | |
|---|---|
| Program capacity | 10k steps to 1000k steps |
| Number of I/O points [X/Y], number of I/O device points [X/Y] | 256 points to 4096 points/8192 points |
| Basic instruction processing speed (LD instruction) | 120ns to 1.9ns |
| External connection interface | USB (all models equipped), Ethernet, RS-232, memory card, extended SRAM cassette |
| Function module | I/O, analog, high-speed counter, positioning, simple motion, temperature input, temperature control, network module |
| Module extension style | Building block type |
| Network | Ethernet, CC-Link IE controller network, CC-Link IE field network, CC-Link, CC-Link/LT, MELSECNET/H, SSCNETⅢ (/H), AnyWire, RS-232, RS-422 |

## Programmable Controller | MELSEC-L Series

"Light & Flexible" condensing various functions easily and flexibly.

◎CPU equipped as a standard with various functions including counter, positioning and CC-Link.

◎The base-less structure with high degree of freedom saves space in the control panel.

◎Easily confirm the system status and change the settings with the display unit.

◎Seven models are available in program capacities from 20 k steps to 260 k steps.

Product specifications

| | |
|---|---|
| Program capacity | 20 k steps/60 k steps/260 k steps |
| Number of input/output points [X/Y] | 1024 points/4096 points |
| Number of input/output device points [X/Y] | 8192 points |
| Basic instruction processing speed (LD instruction) | 60 ns/ 40 ns/ 9.5 ns |
| External connection interface | USB, Ethernet, RS-232, SD memory card, CC-Link (L26CPU-BT/PBT) |
| Function modules | I/O, analog, high-speed counter, positioning, simple motion, temperature control, network module |
| Unit expansion style | Base-less structure |
| Network | Ethernet, CC-Link IE Field network, CC-Link, CC-Link/LT, SSCNETIII(/H), RS-232, RS-422 |

## HMI | Graphic Operation Terminal GOT1000 Series GT16 Model

Full-flat face body integrating all the functions required of a HMI.

◎All models are equipped with Ethernet, RS-422/485 and RS-232 interfaces enabling a diverse range of communications.

◎A multimedia unit and a video/RGB unit (optional) are supported for smooth recording and playback of moving images.

◎USB host and device ports are provided as a standard on the front panel. Easily connect to a personal computer for data exchange.

◎Large 15MB memory capacity allows you to use optional functions and real parts, etc., without worrying about memory space.

Product Specifications

| | |
|---|---|
| Screen size | 15", 12.1", 10.4", 8.4", 5.7" |
| Resolution | XGA, SVGA, VGA |
| Intensity adjustment | 8-step or 4-step adjustment |
| Touch panel type | Analog resistive film |
| Built-in interface | RS-232, RS-422/485, Ethernet, USB, CF card |
| Applicable software | GT Works3 |
| Input power supply voltage | 100 to 240VAC (+10%, -15%), 24VDC (+25%, -20%) |

## AC Servo | Mitsubishi General-Purpose AC Servo MELSERVO-J4 Series

### Industry-leading level of high performance servo

◎Industry-leading level of basic performance: Speed frequency response (2.5kHz), 4,000,000 (4,194,304p/rev) encoder

◎Advanced one-touch tuning function achieves the one-touch adjustment of advanced vibration suppression control Ⅱ, etc.

◎Equipped with large capacity drive recorder and machine diagnosis function for easy maintenance.

◎2-axis and 3-axis servo amplifiers are available for energy-conservative, space-saving, and low-cost machines.

Product Specifications

| | |
|---|---|
| Power supply specifications | 1-phase/3-phase 200V AC, 3-phase 400V AC |
| Command interface | SSCNET Ⅲ/H, SSCNET Ⅲ (compatible in J3 compatibility mode), CC-Link IE Field Network interface with Motion, pulse train, analog |
| Control mode | Position/Speed/Torque/Fully closed loop |
| Speed frequency response | 2.5kHz |
| Tuning function | Advanced one-touch tuning, advanced vibration suppression control Ⅱ, robust filter, etc. |
| Safety function | STO, SS1<br>SS2, SOS, SLS, SBC, SSM (compatible when combined with motion controller) |
| Compatible servo motor | Rotary servo motor (rated output: 0.05 to 22kW), linear servo motor (continuous thrust 50 to 3000N), direct drive motor (rated torque: 2 to 240N•m) |

## Inverter | FR-A700 Series


### High-function, high-performance inverter

◎High-accuracy, high-response speed control using real sensor-less vector control is possible with a general-purpose inverter having no PLG (encoder) (200% torque/0.3 Hz (3.7 K or less)).

◎Full-scale vector control is possible when used in combination with a motor with PLG (when using option).

◎The built-in noise filter (EMC filter) helps reduce noise generated from the inverter.

◎This series supports IPM motor operation. Use auto tuning to operate with the optimum motor characteristics.

Product Specifications

| | |
|---|---|
| Inverter capacity | 200V class: 0.4kW to 90kW, 400V class: 0.4kW to 500kW |
| Control method | IPM control, Soft-PWM control, high-carrier frequency PWM control (Select from V/F, advanced flux vector, or real sensor-less vector), vector control (when using options) |
| Output frequency range | 0.2 to 400Hz (real sensor-less vector, upper frequency during vector control is 120Hz) |
| PM offline auto tuning | When using the MM-CF Series, the motor constants, etc., are automatically measured for operation with the optimum motor characteristics (IPM motors other than the MM-CF Series, and other IPM motor brands are also supported) |
| Starting torque | 200% 0.3Hz (3.7K or less), 150% 0.3Hz (5.5K or more)<br>(when using real sensor-less vector, vector control) |

## Robot | MELFA F Series


### High speed, high precision and high reliability industrial robot

◎Compact body and slim arm design, allowing operating area to be expanded and load capacity increased.

◎The fastest in its class using high performance motors and unique driver control technology.

◎Improved flexibility for robot layout design considerations.

◎Optimal motor control tuning set automatically based on operating position, posture, and load conditions.

Product Specifications

| | |
|---|---|
| Degrees of freedom | Vertical:6 Horizontal:4 |
| Installation | Vertical:Floor-mount, ceiling mount, wall mount (Range of motion for J1 is limited)<br>Horizontal:Floor-mount |
| Maximum load capacity | Vertical:2-20kg Horizontal:3-20kg |
| Maximum reach radius | Vertical:504-1503mm Horizontal:350-1,000mm |

# MEMO

# MEMO

# Mitsubishi iQ Platform Compatible
# FA Integrated Engineering Software MELSOFT iQ Works

**Precautions before use**

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L(NA)08232ENG-C 1309(IP)

New publication, effective September 2013.
Specifications are subject to change without notice.