

GOT-F900

Renewal Guide





The results of 25 years of support from our loyal customers.

In 1984 the FX-DU series was launched which then led to the GOT-F900 series of Human Machine Interface products. For 25 years we have enjoyed the support of customers for our pioneering small and super small displays. The period for repair has ended for the FX-DU series and will end within 10 years for the GOT-F900 series. This limitation is necessary due to the difficulty in acquiring certain parts and the increasingly rigorous environmental standards our products have to comply with. Please use this document as a guide to help you to renew your products with GOT1000 series HMIs.



For certain parts and products preventative maintenance can avert a breakdown. Have you started your preventative maintenance yet?

Renewal circumstances

Parts have a limited lifespan

Our goal is and always has been to create products with the highest quality possible. However, GOTs are made up of many electronic components, and while some parts may function virtually forever without breaking, other parts (capacitors, batteries, backlights, liquid crystal display, touch panel) have finite lifetimes. Although the rest of the GOT may be perfectly capable of functioning, if one part cannot perform its functionality anymore the whole GOT may be affected.

If a problem occurs it is already too late

Environmental factors play a major role in the rate of deterioration of certain parts. In harsh environments outside of the normal use range replacement of products may be required sooner. The cost and effort required for preemptive replacement is nothing when compared to unexpected stoppages in production. It is important to consider many factors when planning to replace products. In the case of environmental factors affecting the lifespan, periodic replacement of products is necessary.















Renewal Merits

- Quick exchange of the HMI without any manipulation of the PLC
- Color display, 16-shade monochrome, or 3-color backlight, many options for required visibility
- The current generation of HMIs comply with the latest environmental standards
- Reduced power consumption lowers the energy requirements of the system
- GOT1000 series products have advanced performance allowing for room for growth

Steps for renewal



Investigation

The first step is to investigate if renewal is necessary or not. Starting with a table of a basic summary of the number of units and functions required. Any remaining drawings, programs, and wiring diagrams help to facilitate this stage.



Diagnosis

A diagnosis is made based on the length of service and the environmental operating conditions. Priority is given to cases with long term use and adverse environments within the exchange timeline.



Select Equipment

A replacement model is chosen with consideration given to functional and spatial requirements.



Convert Data

The original program must be in a compatible format for current units. Perform all necessary conversion and other changes.



Replacement

The unit replacement is arranged and the new unit is exchanged with the older one.



Debug

After exchange confirm that the new unit is operating correctly with no errors or loss of functionality.

The GT1030 and GT1020 have a 5V power supply

the communications cable with no other power

type, allowing for power to be delivered via

GOT1000 series General Merits

Extensive driver library for support of numerous PLCs and other equipment from a variety of manufacturers

supply required.

Modbus RTU compatibility gives the GOT1000 series access to a wide range of different Modbus devices

Multiple Mitsubishi inverters and AC servo amplifiers can be directly connected to a GOT1000 HMI

The entire lineup of GOT1000 series products are programmed using a common software package: GT Works3

Expanding portfolio of communication options with USB, Ethernet, and CC-Link available on some models



Production termination and replacement products

Since the amount of available internal devices increases in newer PLCs and the devices are configured in a different way, the renewal method for each model is different. Please use this guide to assist in making a decision for upgrading your PLC.



Repair Period Ended March, 2011



F900 series production termination plan summary

(Entire worldwide product line)



F920 / F930 Keypad GOT

F930 GOT

F940 / F940 Wide Screen GOT











F920 Handy GOT

F940 / A950 Handy GOT

ET940 (Electronic operation terminal)



The F920 does not have a direct replacement model. Select a product that best fits the application.





The ET940 does not have a direct replacement model. Select a product that best fits the application.

FX-DU

Repair Period
Ended

FX-DU series production termination plan summary

For information on the FX-DU series end of production, consult Tech News -0057.

25DU

30DU

40DU

50DU



















GOT1000 series replacement products summary



Refer to the Replacement Guidance Manual [JY997D393011] for more information about GOT1000 substitution.

GT10





GT1030







5.7 GT1050,GT1055

GT11





GT1155













GOT1000 series replacement products summary

GT10







GT1050, GT1055





Since the screen sizes are different in older models and GOT1000 HMIs the method for renewal is different depending on the model. This is a summary of the methods to update products with currently available tools.

Currently used products

F940GOT







F930GOT



Program read-out



Replacement Products







F920GOT



FX-DU













The GT Works3

software suite includes all necessary software for renewal

F900 series screen design software:

GT Designer 2 Classic

F900 -> GOT1000 conversion software and GOT1000 series screen design software

GT Designer 3

For the FX-DU series, two software applications are necessary.

FX-DU screen design software

FX-PCS-DU/WIN

Software for the F900 -> GOT1000 conversion for FX-PCS-DU/WIN DUP files

GT Works3





GT1030

GT10

Renewal method P12







GT1030, GT105□

GT10



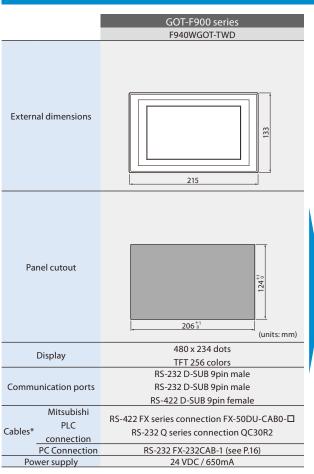


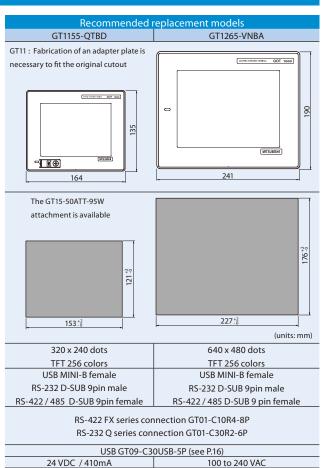
F940W substitution recommendation

The recommendation for replacing a F940W GOT with a GOT1000 series is to use either a GT1155-QSBD or GT1265-VNBA depending on the functionality required. These models offer the most comparable functionality. Other models can be used so confirm the required specifications and functionality before selecting a replacement model.



F940W compared with recommended replacement models





^{*:} It may be physically possible to connect other cables between the PC and equipment. Make sure to confirm the cable used. For the minimum required depth spacing required by cables, refer to relevant product manuals.

Conversion of project data is necessary

When a F900 series GOT is replaced with a GOT1000 series it is necessary to convert the project data to into a GOT1000 series project. With GT Works3 installed conversion is simple, but if the screen sizes are different or key windows are needed, then the screen data must be modified. Please refer to page 16 and 17 to see the requirements for connection to a PC and the necessary software.



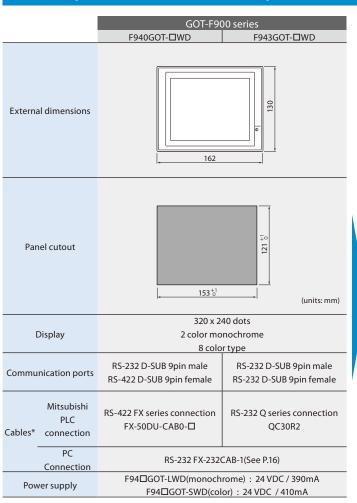


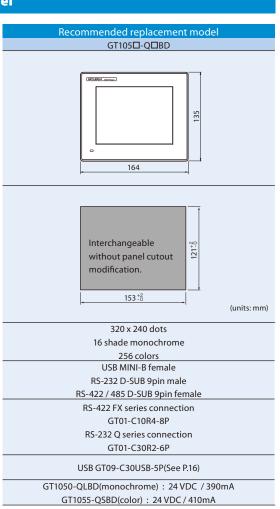
F940 substitution recommendation

The recommendation for replacing a F940 GOT with a GOT1000 series is to use either a GT1050 or GT1055. These models offer the most comparable functionality. Other models can be used so confirm the required specifications and functionality before selecting a replacement model.



F940 compared with recommended replacement model





^{*:} It may be physically possible to connect other cables between the PC and equipment. Make sure to confirm the cable used. For the minimum required depth spacing required by cables, refer to relevant product manuals.

Conversion of project data is necessary

When a F900 series GOT is replaced with a GOT1000 series it is necessary to convert the project data to into a GOT1000 series project. With GT Works3 installed conversion is simple, but if the screen sizes are different or key windows are needed, then the screen data must be modified. Please refer to page 16 and 17 to see the requirements for connection to a PC and the necessary software.

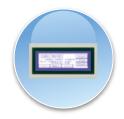


Refer to the Replacement Guidance Manual [JY997D393011] for more information about GOT1000 substitution.

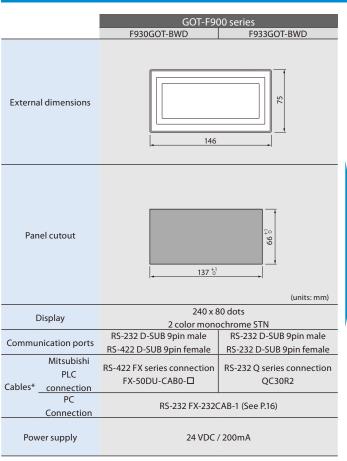


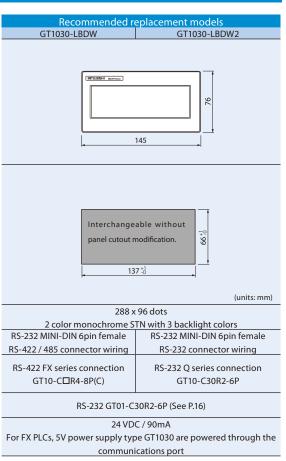
F930T substitution recommendation

The recommendation for replacing a F930T GOT with a GOT1000 series is to use a GT1030. These models offer the most comparable functionality. Other models can be used so confirm the required specifications and functionality before selecting a replacement model.



F930 compared with recommended replacement models





^{*:} Since the connectors for the PC connection cables are different, purchase a GOT1000 cable separately. For the minimum required depth spacing required by cables, refer to relevant product manuals.

Conversion of project data is necessary

When a F900 series GOT is replaced with a GOT1000 series it is necessary to convert the project data to into a GOT1000 series project. With GT Works3 installed conversion is simple, but if the screen sizes are different or key windows are needed, then the screen data must be modified. Please refer to page 16 and 17 to see the requirements for connection to a PC and the necessary software.



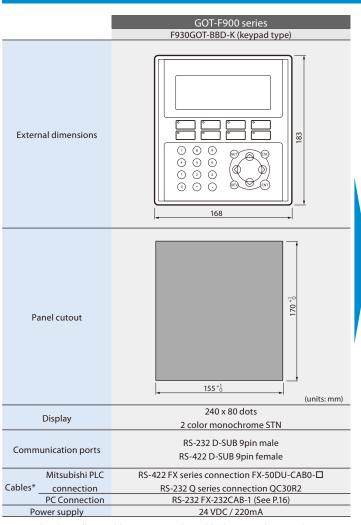


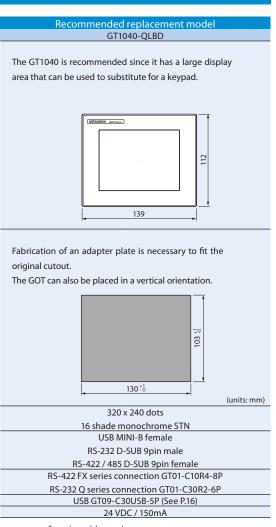
F930 with keypad substitution recommendation

The recommendation for replacing a F930 GOT with keypad with a GOT1000 series is to use a GT1040. This model offers the most comparable functionality. Other models can be used so confirm the required specifications and functionality before selecting a replacement model.



F930 keypad type compared with recommended replacement model





^{*:} It may be physically possible to connect other cables between the PC and equipment. Make sure to confirm the cable used. For the minimum required depth spacing required by cables, refer to relevant product manuals.

Conversion of project data is necessary

When a F900 series GOT is replaced with a GOT1000 series it is necessary to convert the project data to into a GOT1000 series project. With GT Works3 installed conversion is simple, but if the screen sizes are different or key windows are needed, then the screen data must be modified. Please refer to page 16 and 17 to see the requirements for connection to a PC and the necessary software.



Refer to the Replacement Guidance Manual [JY997D393011] for more information about GOT1000 substitution.

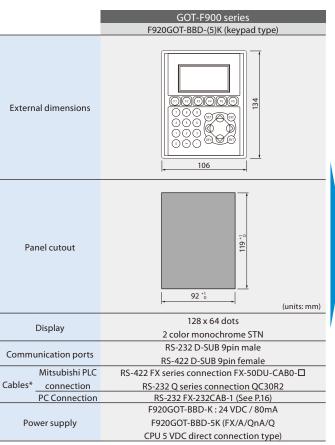


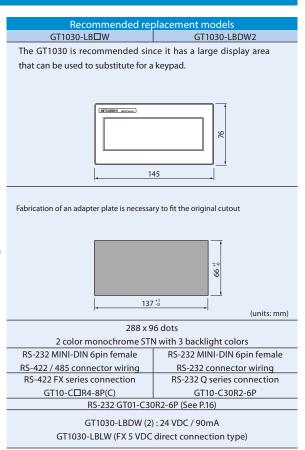
F920 substitution recommendation

The recommendation for replacing a F920 GOT with a GOT1000 series is to use a GT1030. This model offers the most comparable functionality. Other models can be used so confirm the required specifications and functionality before selecting a replacement model.



F920 type compared with recommended replacement models





^{*:} Since the connectors for the PC connection cables are different, purchase a GOT1000 cable separately. For the minimum required depth spacing required by cables, refer to relevant product manuals.

Conversion of project data is necessary

When a F900 series GOT is replaced with a GOT1000 series it is necessary to convert the project data to into a GOT1000 series project. With GT Works3 installed conversion is simple, but if the screen sizes are different or key windows are needed, then the screen data must be modified. Please refer to page 16 and 17 to see the requirements for connection to a PC and the necessary software.



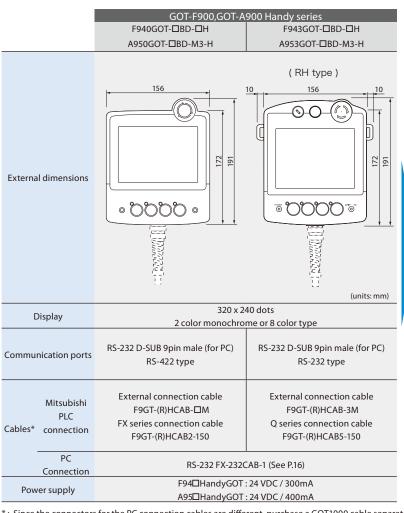


Handy GOT series substitution recommendation

The recommendation for replacing a F940 or A950 handy GOT with a GOT1000 series handy GOT is to use a GT115XHS-QXBD. This model offers the most comparable functionality. Before selecting a replacement model confirm the required specifications and functions.



F940 (RH) Handy GOT compared with recommended replacement model



^{*:} Since the connectors for the PC connection cables are different, purchase a GOT1000 cable separately.

For the minimum required depth spacing required by cables, refer to relevant product manuals.

Recommended replacement model GT115□HS-Q□BD 50 $\overline{\mathbb{Q}}$ 204 (units: mm) 320 x 240 dots 16 shade monochrome or 256 color type RS-232 MINI- DIN 6pin female (for PC) connector can be changed internally to RS-232 or RS-422 External connection cable GT11H-C□-37P FX series connection cable GT11H-C15R4-8P O series connection cable GT11H-C15R2-6P USB GT09-C30USB-5P (See P.16) GT1150HS-QLBD: 24 VDC / 390mA GT1155HS-QSBD: 24 VDC / 410mA

Conversion of project data is necessary

When a F900 series GOT is replaced with a GOT1000 series it is necessary to convert the project data to into a GOT1000 series project. With GT Works3 installed conversion is simple, but if the screen sizes are different or key windows are needed, then the screen data must be modified. Please refer to page 16 and 17 to see the requirements for connection to a PC and the necessary software.



Refer to the Replacement Guidance Manual [JY997D393011] for more information about GOT1000 substitution.

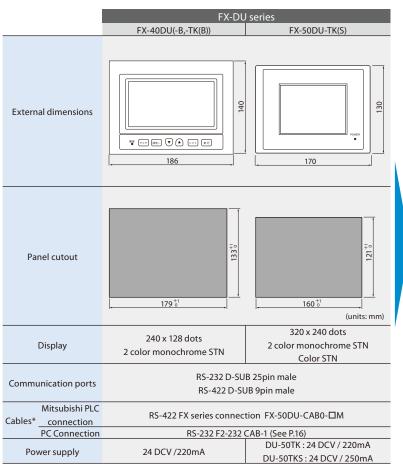


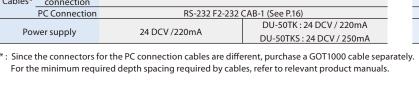
FX-40DU and FX-50DU substitution recommendation

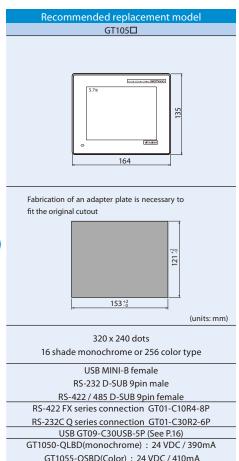
The recommendation for replacing a FX-40DU or FX-50DU with a GOT1000 series is to use a GT1050 or GT1055. These models offer the most comparable functionality. Other models can be used so before selecting a replacement model confirm the required specifications and functions.



FX-40DU and FX-50DU compared with recommended replacement model







GT1055-QSBD(Color): 24 VDC / 410mA

Conversion of project data is necessary

When a FX-DU series is replaced with a GOT1000 series it is necessary to convert the project data first into a F900 project and then into a GOT1000 project. Using FX-PCS-DU/WIN and GT Works3 project data can be converted easily, but depending on the screen functions used and connected equipment, modification of the converted project may be necessary. Please refer to page 16 and 17 to see the requirements for connection to a PC and the necessary software.



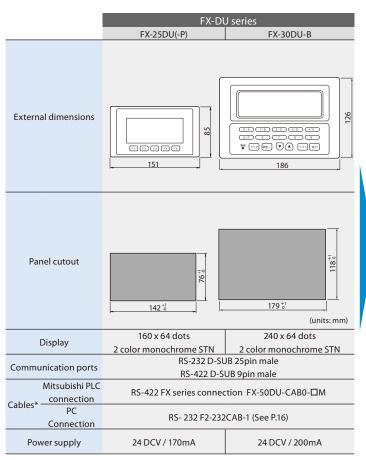


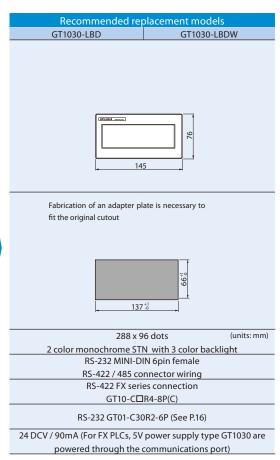
FX-25DU and FX-30DU substitution recommendation

The recommendation for replacing FX-25DU or a FX-30DU with a GOT1000 series is to use a GT1030. This model offers the most comparable functionality. Other models can be used so before selecting a replacement model confirm the required specifications and functions.



FX-25DU and FX-30DU compared with recommended replacement models

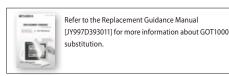




^{*:} Since the connectors for the PC connection cables are different, purchase a GOT1000 cable separately. For the minimum required depth spacing required by cables, refer to relevant product manuals.

Conversion of project data is necessary

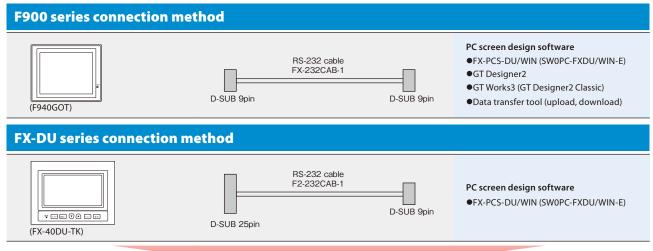
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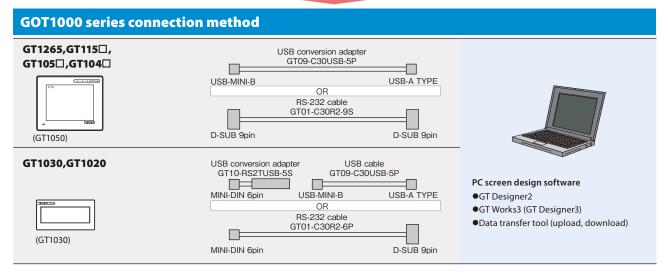


PC connection

Connection cables for each model and the personal computer is necessary to replace the project data from an old model with the GOT1000 series. Please prepare necessary communications cables.



Conversion of project data



GOT1000 installation spacing

Please confirm the installation space of the equipment for substitution.

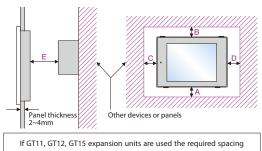


*2: If used in vertical orientation, 80 or more (20 or more)



- *1 : When using the RS-232/USB conversion adapter, 50 or more
- *2 : When using the PC connection cable or connecting to multiple GOTs with the RS-232 interface,80 or more. When using the RS-232 interface with the RS-232/USB conversion adapter, 50 or more.
- *3: When using the USB cable or memory board, 80 or more.

Dimensions shown in parentheses apply when there are no devices nearby (contactor, etc) which produce radiated heat or noise. Even in this circumstance the ambient air temperature must never exceed 55 °C.Depending on the unit and cable being used, a cable length longer than A (D for GT1020 and GT1030) may be required.



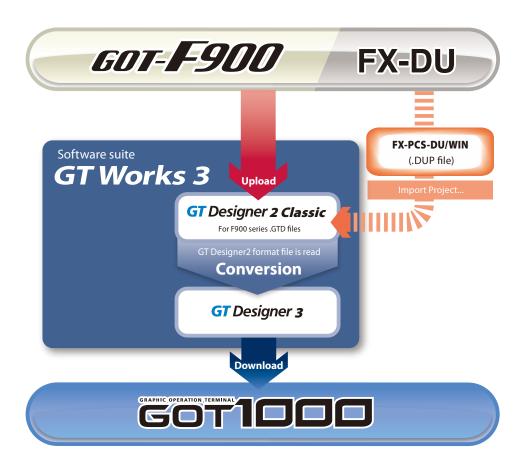


Project data conversion

For converting to GOT1000 project data

A PC and GT Works3 are required to read F900 project data, as well as convert that data into GOT1000 series format. With FX-PCS-DU/WIN and GT Works3, FX-DU series project data can be read and converted into GOT1000 series format. GT Works3 also includes the previous generation screen software GT Designer2 Classic and simulation tool GT Simulator2 which are compatible with F900 series project data.

The below description outlines the process for converting project data existing in a FX-DU or F900 series to a GOT1000 series. To perform conversion with other software, including GT Designer2 ver. 2, refer to the Replacement Guidance manual and product manuals.



Conversion of project data is necessary

When the screen resolution is different, a key window is present, or other non-updateable elements exist in the F900 series project data, modifications to the project data are necessary to fully convert it to a GOT1000 series project. GT Works3 contains automated conversion functions for screen size.

For a detailed guide on converting projects please refer to the Replacement

Guidance Manual [JY997D39301].





7points

to easily create new screens and transfer them to the GT10

Point 1 Work tree

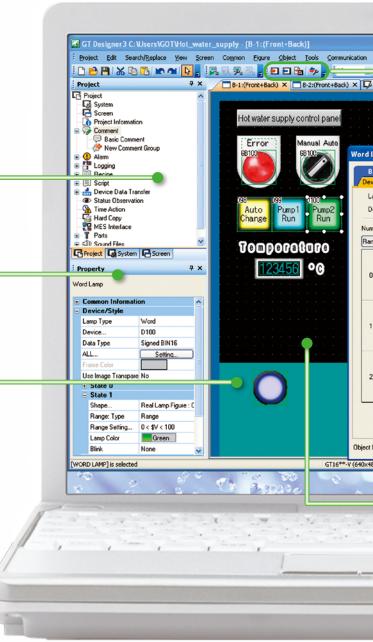
View the whole project, create a new screen, and add and delete screens – with ease.

Point 2 Property sheet

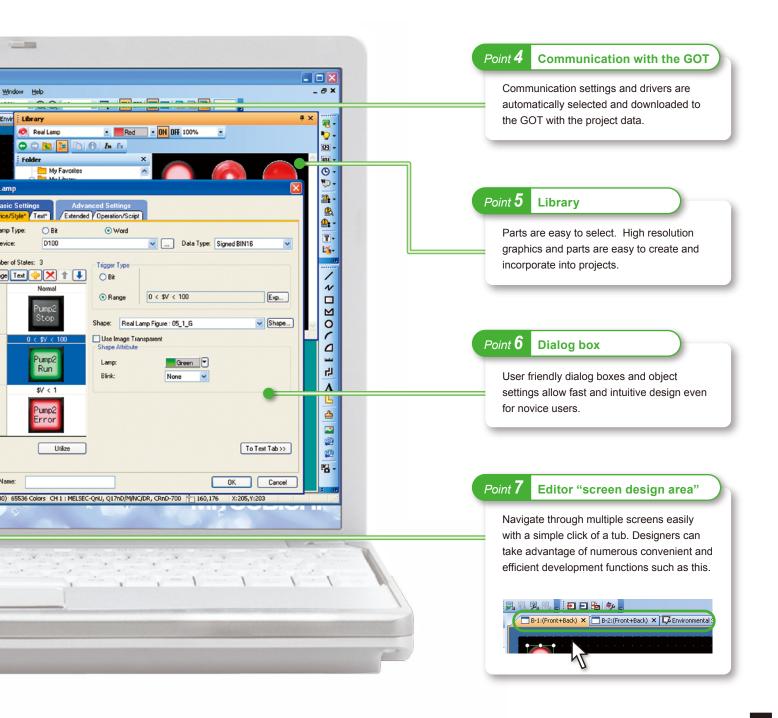
A selected object or graphic's settings are displayed in a tree view. Set colors, devices, etc., on the property sheet without opening a dialog box. When selecting the same objects or graphics, change color, character size, etc., all at the same time.

Point 3 Temporary area

Reduce workspace clutter by moving objects off the display area.



Visualization now offers much more than just what you see is what you get - This 3rd generation screen design software incorporates more user-friendly and customizable features to match users of all skill levels and provide the fastest, most intuitive method to create screen display programs we have ever created.



A tradition in refining excellence.

The ground breaking FX3 series is the 3rd generation of compact controller produced by Mitsubishi Electric.

Coming from a heritage of pioneering compact controllers, the FX3 series continues to build on its cornerstone

concepts: ease of use, flexibility, affordability, and customer confidence.









Controllable I/O: 14 - 256 points (With CC-Link remote I/O's) (Main Unit I/O: 14/24/40/60 points)





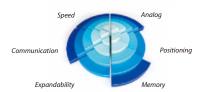


Controllable I/O: 16 - 384 points (With CC-Link remote I/O's) (Main Unit I/O: 16/32/48/64/80/128 points)





Indonesia



Controllable I/O: 16 - 384 points (with CC-Link remote I/O's) (Main Unit I/O: 16/32/64/96 points)

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