



### FACTORY AUTOMATION



Graphic Operation Terminal GOT2000 Series GOT Mobile Function Application Examples



### New proposals to expand possibilities within factory systems

- Reduce downtime
  - "Visualize" information from each worksite
    - Improve the safety of the operators
- Manage multiple lines effectively
  - Improve the operation rate of the equipment
    - Remote monitoring of a clean room



Remotely monitor and operate equipment using the web browser on a tablet







### Easily change screen sizes depending on used device

You can design screens easily using HMI/GOT screen design software GT Works3.





Smartphone size

PC size

Full HD size

10000

2106

21%

2



# Visualizing factories using the GOT Mobile function reduces total cost of production



System configuration and product list	P.10
Related materials	P.11

3



**бот** *Mobile* Case **①** 

### **Reduce downtime**



After

Monitoring production from a remote office reduces downtime!

### Problems

- · When an error was detected, operators reported to their manager and asked for help
- Time was lost between error occurrence and maintenance team response
- · Managing multiple lines took time

### Why use the GOT Mobile function?

Monitoring multiple lines in a factory from one computer is effective and reduce downtime.

### Benefits

· Monitoring the whole factory at a glance from a remote personal computer realizes remote management.

GOT Mobi

· Since errors are promptly handled, time lost due to downtime can be reduced drastically.

### **Required products**

- Mitsubishi Electric product
- GOT (GT27, GT25)
- GOT Mobile function license (GT25-WEBSKEY-□)
- Commercially available product
- · Mobile terminal such as a tablet
- Access point





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**GGT Mobile** Case 2

### "Visualize" information from each worksite

### Before

Creating screens suited for each worksite was costly.

### After

Screens can be customized freely for each application and information device. Worksites are easily "visualized"!

### Problems

- Desired screens and screen sizes differ depending on the worksite.
- Existing equipment did not support such needs readily, which increased time and labor.

### Why use the GOT Mobile function?

Screens can be customized flexibly, and different terminals such as a tablet, personal computer, and large-screen monitor can be used according to the application.



### Benefits

- Worksites can be monitored on the optimum sized screen suited for the resolution of the information device.
- Various screens such as the operation screen, the process management screen, and the equipment monitoring screen can easily be designed according to the application to "visualize" worksites.

### Required products

Mitsubishi Electric product

- GOT (GT27, GT25)
- GOT Mobile function license (GT25-WEBSKEY-□)
- Wireless LAN communication unit (GT25-WLAN)\*

### Commercially available product

- Large-screen monitor for ANDON
- Stick personal computer
- · Mobile terminal such as a tablet
- \* Compatible standards (usable countries) differ depending on the hardware version of the unit. In the countries where the unit cannot be used, an access point is required separately. For the details, please refer to page 11.



**Бот** *Mobile* Case **3** 

### Improve the safety of the operators





**GGT Mobile** Case **4** 

### Manage multiple lines effectively





### **GGT Mobile** Case **б**

### Improve the operation rate of the equipment



Time lost during product changeovers adversely affected operation efficiency.

### After

Checking the changeover schedule beforehand reduces equipment downtime drastically!

### Problems

- When using the existing equipment, the time taken for product changeovers tightened the actual operation time.
- To meet the needs of growing high-mix low-volume production, product changeovers need to be performed efficiently.

### Why use the GOT Mobile function?

By using the GOT Mobile function, information can be collected in the GOT on the central control panel so that appropriate instructions can be transferred to the terminal of the operators in the worksite in a timely manner.



### Benefits

 The information of remaining parts is collected in the GOT and can be checked from a remote office.

GOTMO

 Since instructions can be issued in a timely manner, time lost during product changeovers can be reduced and the operation rate of the equipment can be improved.

#### **Required products**

Mitsubishi Electric product

- GOT (GT27, GT25)
- GOT Mobile function license (GT25-WEBSKEY-□)
- Wireless LAN communication unit (GT25-WLAN)\*

Commercially available product

- Mobile terminal such as a tablet
- \* Compatible standards (usable countries) differ depending on the hardware version of the unit. In the countries where the unit cannot be used, an access point is required separately. For the details, please refer to page 11.



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### Remote monitoring of a clean room

# Before

Before entering a clean room, preparation was always time-consuming.

After

Monitoring the clean room from outside reduces unnecessary work!

### Problems

- Preparation before entering a clean room, such as wearing a clean suit and taking an air shower, was time-consuming.
- The number of room entries should be minimized to reduce the risk of letting dust and dirt in.

### Why use the GOT Mobile function?

By using the GOT Mobile function, the equipment can be checked from outside the clean room so that the manager can issue instructions without entering the room.



### Benefits

- Monitoring the equipment without entering the clean room can reduce the number of room entries drastically.
- Checking the alarm details and issuing instructions quickly from outside the clean room enables the operator in the worksite to handle errors smoothly.

#### **Required products**

### Mitsubishi Electric product

- GOT (GT27, GT25)
- GOT Mobile function license (GT25-WEBSKEY-D)
- Wireless LAN communication unit (GT25-WLAN)\*

Commercially available product

- Mobile terminal such as a tablet
- \* Compatible standards (usable countries) differ depending on the hardware version of the unit. In the countries where the unit cannot be used, an access point is required separately. For the details, please refer to page 11.



### System configuration



2. GOT Mobile function license (GT25-WEBSKEY)

can access the server (GOT) simultaneously.

This license is required to use the GOT Mobile function. The function

allows you to monitor and operate connected devices from tablets,

Without registering the license number, you can try the GOT mobile function for a cumulative amount of 30 minutes starting from the GOT

startup. During the trial, the mobile screen displays a watermark saying

[License unregistration.] and the remaining trial time. Up to two clients

mobile terminals, and personal computers using web browsers

\* 1 license is required for 1 GOT unit.

#### 1. Wireless LAN communication unit (GT25-WLAN)

This unit allows you to connect tablets, mobile terminals and personal computers to the GOT through a wireless LAN. Connect your mobile devices simply to GOT via wireless LAN communication unit<sup>\*</sup>.

\* GT Works3 Version 1.144A supports the access point mode setting. The BootOS included in the version is required.

Up to five stations can be connected to the access point. Compatible standards (usable countries) differ depending on the hardware version of the unit.

\* For the details, please refer to the product list below.

### Product list

### GOTs

GOTs							
Cla	assification	Model	Screen size	Display section/Display color	Panel color	Power	Remarks
	GT2715	GT2715-XTBA	15" XGA	TFT color 65536 colors	Black	100 to 240 V AC	Multimedia & Video/RGB compatible Multi-touch compatible
	G12715	GT2715-XTBD				24 V DC	
		GT2712-STBA	- 12.1" SVGA		Black	100 to 240 V AC	
	GT2712	GT2712-STBD				24 V DC	
	GI2/I2	GT2712-STWA			White	100 to 240 V AC	
		GT2712-STWD				24 V DC	
		GT2710-STBA	10.4" SVGA		Black	100 to 240 V AC	
		GT2710-STBD				24 V DC	
GT27	GT2710	GT2710-VTBA				100 to 240 V AC	
	G12/10	GT2710-VTBD	10.4" VGA			24 V DC	
		GT2710-VTWA	10.4" VGA		White	100 to 240 V AC	
		GT2710-VTWD				24 V DC	
		GT2708-STBA	8.4" SVGA		Black	100 to 240 V AC	
	GT2708	GT2708-STBD				24 V DC	
	012/08	GT2708-VTBA	8.4" VGA			100 to 240 V AC	
		GT2708-VTBD				24 V DC	
	GT2705	GT2705-VTBD	5.7" VGA		Black	24 V DC	Multi-touch compatible
		GT2512-STBA	12.1" SVGA	TFT color 65536 colors	Black	100 to 240 V AC	Open frame model
	GT2512	GT2512-STBD				24 V DC	
	012512	GT2512F-STNA			-	100 to 240 V AC	
		GT2512F-STND				24 V DC	
		GT2510-VTBA	10.4" VGA		Black	100 to 240 V AC	
		GT2510-VTBD				24 V DC	
	GT2510	GT2510-VTWA			White	100 to 240 V AC	
	012010	GT2510-VTWD				24 V DC	
GT25		GT2510F-VTNA			-	100 to 240 V AC	Open frame model
		GT2510F-VTND				24 V DC	openniane moder
		GT2508-VTBA			Black	100 to 240 V AC	
		GT2508-VTBD				24 V DC	_
	GT2508	GT2508-VTWA			White	100 to 240 V AC	
	012000	GT2508-VTWD				24 V DC	
		GT2508F-VTNA				100 to 240 V AC	Open frame model
		GT2508F-VTND				24 V DC	
	GT2505	GT2505-VTBD	5.7" VGA		Black	24 V DC	-

10



### GOTs

Class	sification	Model	Screen size	Display section/Display color	Panel color	Power	Remarks
		GT2510-WXTBD			Black		
GT25	GT2510	GT2510-WXTSD	10.1" WXGA	TFT color	Silver*1	241400	
(Wide)	GT2507	GT2507-WTBD	711 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	65536 colors	Black	24 V DC	-
GI		GT2507-WTSD	7" WVGA	-	Silver*1	-	
GT25 (Rugged)	GT2507T	GT2507T-WTSD	7" WVGA	TFT color 65536 colors	Silver	24 V DC	-
GT25 (Handy)	GT2506HS	GT2506HS-VTBD	6.5" VGA	TFT color	Black	241/20	
	GT2505HS	GT2505HS-VTBD	5.7" VGA	65536 colors	BIACK	24 V DC	-

\*1 The lower part of the panel including the USB environmental protection cover is black.

### Communication unit/License

Product name	Model	Specifications
Wireless LAN communication unit*1*8 GT25-WLAN connection to personal computer, tablet, smartphone		IEEE802.11b/g/n compliant, built-in antenna, wireless LAN access point (base station) <sup>*2</sup> , station (client), connection to personal computer, tablet, smartphone Compliance with: Japan Radio Law <sup>*3</sup> , FCC standards <sup>*4</sup> RE Directive <sup>*7</sup> (R&TTE Directive <sup>*4</sup> ), SRRC <sup>*5</sup> , KC <sup>*5</sup>
	GT25-WEBSKEY-1	1 license
GOT Mobile function license*6	GT25-WEBSKEY-5	5 licenses
	GT25-WEBSKEY-10	10 licenses
	GT25-WEBSKEY-20	20 licenses
Ethernet communication unit*9	GT25-J71E71-100	Data transfer method: 100BASE-TX, 10BASE-T, Compatible software: GT Works3 Ver.1.160S or later

\*1 Data transfer in wireless LAN communication may not be as stable as that in cable communication. A packet loss may occur depending on the surrounding environment and the installation location. Be sure to perform a confirmation of operation before using this product.

\*2 When [Operation Mode] is set to [Access Point] in [Wireless LAN Setting] of GT Designer3, up to five stations are connectable. The access point mode setting is supported by GT Works3 Ver.1.144A or later, and the BootOS included in the version is required.

\*3 The product with hardware version A or later complies with the regulation. The product with hardware version A can be used only in Japan.

\*4 The product with hardware version B or later complies with the regulation. The product with hardware version B or later can be used in Japan, the United States, the EU member states, Switzerland, Norway, Iceland, and Liechtenstein.

\*5 The product with hardware version D or later complies with the regulation. The product with hardware version D or later can be used in Japan, the United States, the EU member states, Switzerland, Norway, Iceland, Liechtenstein, China (excluding Hong Kong, Macau, Taiwan), and South Korea.

\*6 1 license is required for 1 GOT unit.

\*7 The product complies with the RE Directive from March 31, 2017.

\*8 Cannot be used with GT2505 or GT25 handy models.
\*9 Cannot be used with GT2505, GT25 wide models, GT2507T, or GT25 handy models.

### **Related materials**

Various catalogs and leaflets are available.

### GOT2000 Series



GOT2000 Series Catalog L(NA)08270ENG

#### iQ Monozukuri ANDON



iQ Monozukuri ANDON L(NA)08487ENG



GOT2000 Series Wide Model L(NA)08461ENG

### **GOT Mobile Function**



GOT Smart Web-based Remote Solutions L(NA)08399ENG



GOT2000 Series

Rugged Model

L(NA)08555ENG



GOT Mobile Function Quick Start Guide L(NA)08385ENG

### GOT2000 Series Handy GOT



GOT2000 Series Handy GOT L(NA)08506ENG

### Ethernet **Communication Unit**



GOT2000 Series Ethernet Communication Unit L(NA)08424ENG



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▲ Precautions for safe use

The release date varies depending on the product and your region. For details, please contact your local sales office.

The actual color may differ slightly from the pictures in this catalog. The actual display may differ from what are shown on GOT screen images.

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To use the products given in this publication properly, always read the relevant manuals before beginning operation.

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