Pro-face®

Technique collection

With GP-Pro EX

INDEX

■ For Maintenance Personnel

Downtime Reduction Master Edition

BF/IP0811-TEQ_E05A-01

SECTION
01 Control and monitor production site screens from the office

Solution Rating ★★★★★ 100%

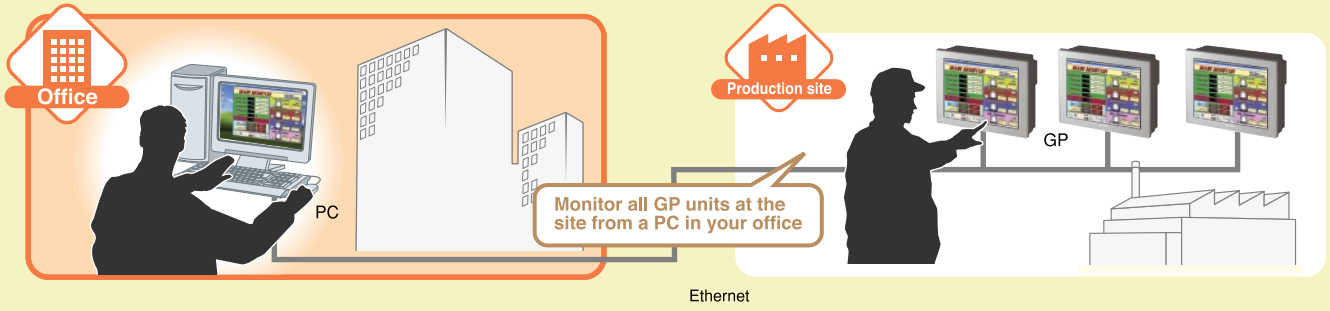
Q QUESTION

Do you go to the production site to deal with the situation every time there is a problem?

A Pro-face's solution

With GP-Viewer EX you can check what is going on at the production site from the office via an Ethernet connection.

Pro-face offers REMOTE MAINTENANCE VIA GP UNIT



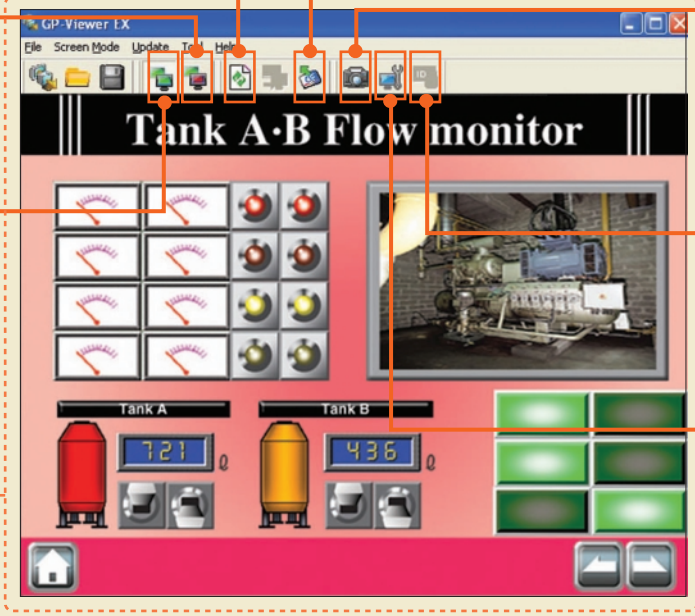
Operating screen

Refreshes alarm, logging, and other data manually.

Asynchronous Mode: Allows you to operate and monitor only the screen you want to. The screen you see is unaffected when a production site display changes.

Synchronous Mode: Displays the same screen as that currently displayed at the production site, allowing you to check exactly what is happening at the site in real time.

Check production site display screens from the office in real time without the need to visit the production site.



External Storage: Obtains the latest information regarding images and audio on a CF card or USB flash drive.

Capture Screen Shot: Saves a screen shot of the current screen. Useful for checking system status when problems occur and for creating documentation.

Switch User IDs: Restricts personnel who can display data and perform operations with GP-Viewer EX. Useful for security administration.

Settings: Allows you to set screen position at startup, automatic data refresh frequency, and CPU usage. This lets you adjust PC or GP unit load and the speed at which data is refreshed.

It is necessary to purchase a separate license in order to use GP-Viewer EX.

SECTION
02 Check PLC ladder programs from a GP unit

Solution Rating ★★★★½ 90%

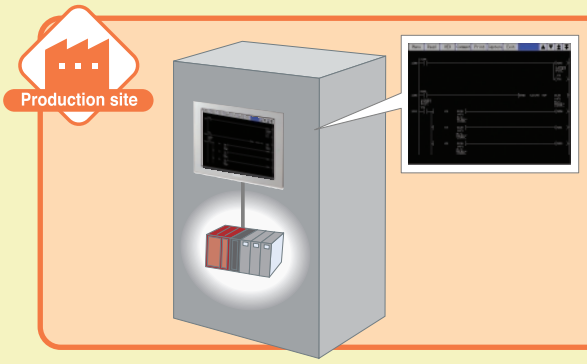
Q QUESTION

Do you take a PC to the production site and use a ladder tool to identify problem causes when something goes wrong with your equipment?

A Pro-face's solution

Pro-face lets you monitor ladder programs made by other manufacturers from the production site with a GP unit - very handy for determining the causes of errors.

Pro-face offers MONITORING OF OTHER FIRM'S LADDER PROGRAMS



PLC ladder program can be monitored online.

Supported PLCs

Mitsubishi Electric Corporation
A Series CPU Direct
A Series Computer Link
Q Series CPU Direct
Q/QnA Series Ethernet

OMRON Corporation
CS/CJ Series HOST Link
CS/CJ Series Ethernet

Main screen

Monitored data values can be switched between familiar decimal and hexadecimal display.

Capture screen shots of ladder monitor screens and save them to CF card - a handy feature for checking system status when problems occur or for creating documentation.

Easy menu selection.

Menu
Step Search
Device Search
Coil Search
Timer/Counter Setting
Device Monitor

Display ladder program file names and headings, making it easy to find the files you want to check.

View device comments to confirm program details at a glance.

※Mitsubishi Electric Corporation Q Series

It is necessary to purchase a separate license in order to use ladder monitors.

SECTION
03 Immediately determine the causes of errors

Solution Rating ★★★★½ 90%

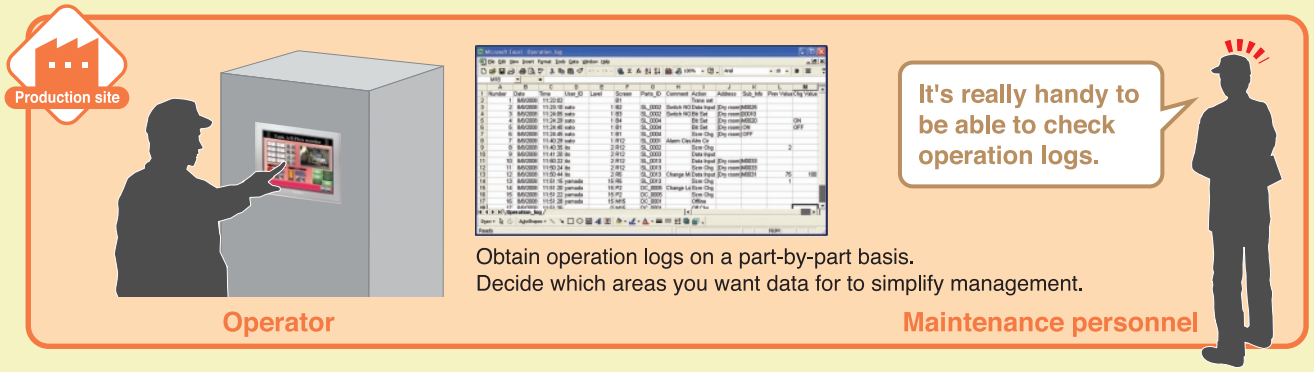
Q QUESTION

Does it take you a long time to solve problems because you don't know what is causing them?

A Pro-face's solution

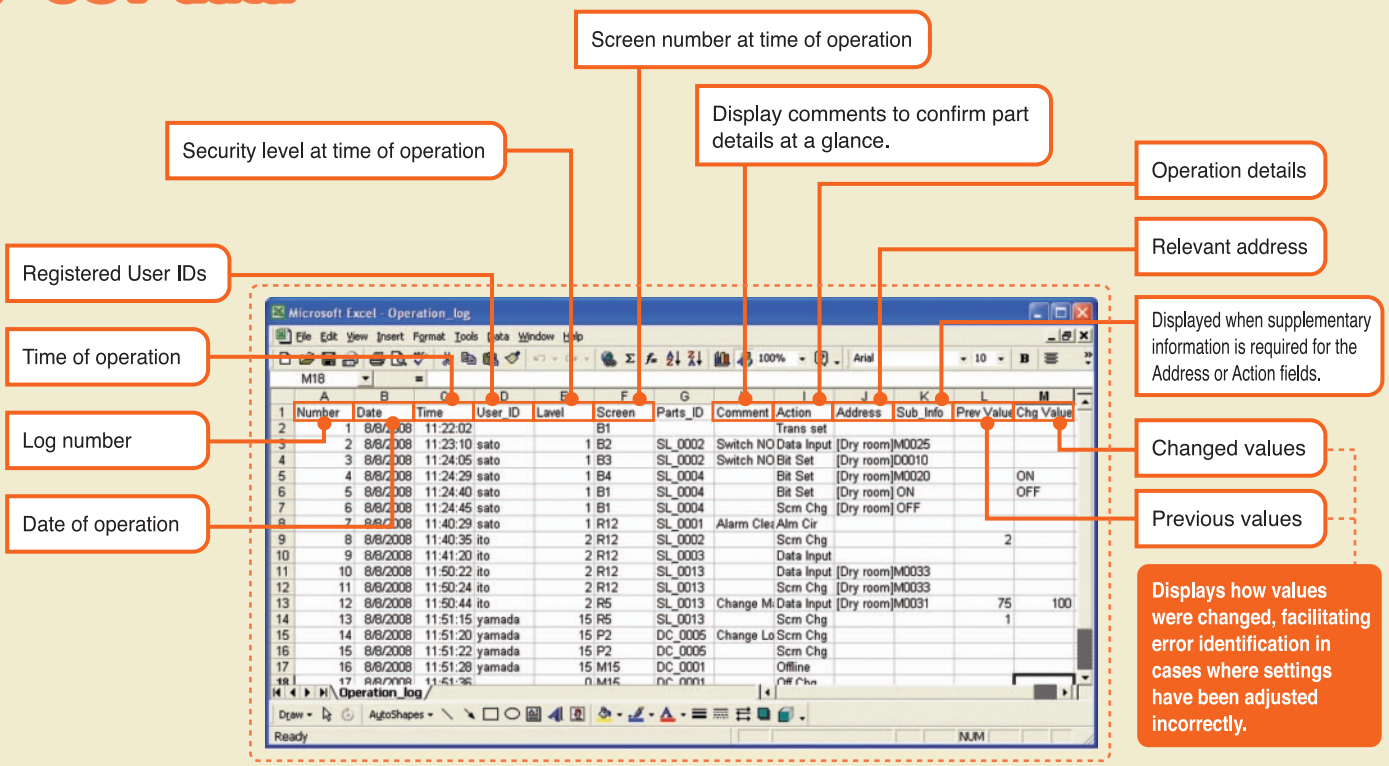
Pro-face lets you check exactly when an operation was performed and who performed it, speeding up the process of determining error causes.

Pro-face offers ABILITY TO CHECK OPERATIONAL HISTORY



Obtain operation logs on a part-by-part basis.
Decide which areas you want data for to simplify management.

CSV data



Number	Date	Time	User_ID	Level	Screen	Parts_ID	Comment	Action	Address	Sub_Info	Prev Value	Chg Value
1	8/8/2008	11:22:02			B1			Trans set				
2	8/8/2008	11:23:10	sato	1	B2	SL_0002	Switch NO	Data Input	[Dry room]M0025			
3	8/8/2008	11:24:05	sato	1	B3	SL_0002	Switch NO	Bit Set	[Dry room]D0010			
4	8/8/2008	11:24:29	sato	1	B4	SL_0004		Bit Set	[Dry room]M0020			ON
5	8/8/2008	11:24:40	sato	1	B1	SL_0004		Bit Set	[Dry room] ON			OFF
6	8/8/2008	11:24:45	sato	1	B1	SL_0004		Scm Chg	[Dry room] OFF			
7	8/8/2008	11:40:29	sato	1	R12	SL_0001	Alarm Clea	Alm Cir				
8	8/8/2008	11:40:35	ito	2	R12	SL_0002		Scm Chg			2	
9	8/8/2008	11:41:20	ito	2	R12	SL_0003		Data Input				
10	8/8/2008	11:50:22	ito	2	R12	SL_0013		Data Input	[Dry room]M0033			
11	8/8/2008	11:50:24	ito	2	R12	SL_0013		Scm Chg	[Dry room]M0033			
12	8/8/2008	11:50:44	ito	2	R5	SL_0013	Change Mi	Data Input	[Dry room]M0031		75	100
13	8/8/2008	11:51:15	yamada	15	R5	SL_0013		Scm Chg			1	
14	8/8/2008	11:51:20	yamada	15	P2	DC_0005	Change Lo	Scm Chg				
15	8/8/2008	11:51:22	yamada	15	P2	DC_0005		Scm Chg				
16	8/8/2008	11:51:28	yamada	15	M15	DC_0001		Offline				

A maximum of 10,000 items can be logged.
A new file is created when the limit is reached.
Save the time,actions performed,and operator on a CF Card or USB storage in CSV format.You can view it by using [Show CSV] on the GP screen or on a PC.

SECTION

04 Acquire device values simultaneously with alarm messages

Solution Rating ★★★★☆ 80%

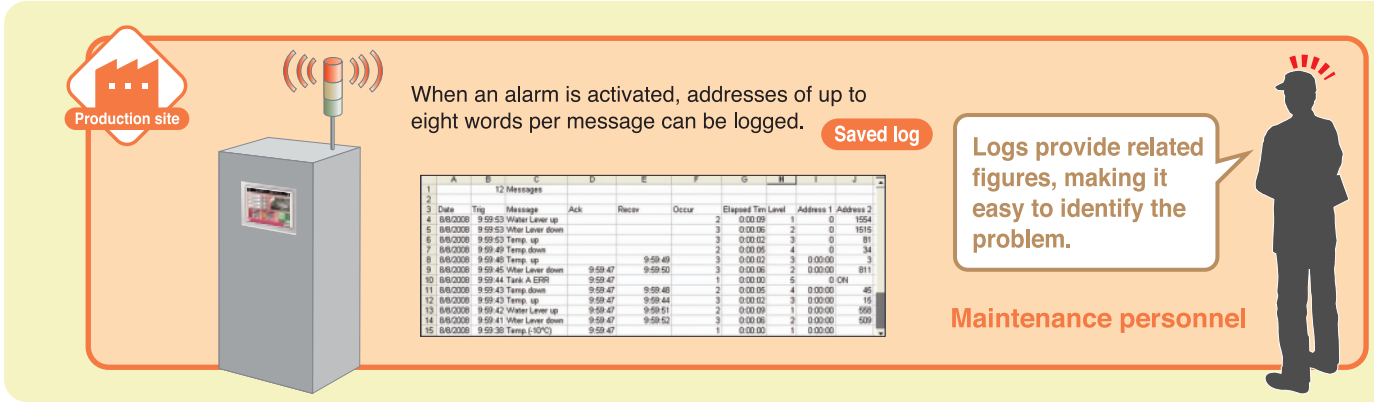
Q QUESTION

Does it take you a long time to work out the causes of errors when it appears that there may be multiple causes?

A Pro-face's solution

Pro-face lets you simultaneously obtain messages and registered device values when an alarm is activated, making it easy to grasp the causes of the problem.

Pro-face offers QUICK IDENTIFICATION OF ERROR CAUSES



Alarm messages and device values

Time alarm recovered

Time alarm message was checked

Alarm message

Date alarm was activated

Time alarm was activated

Number of times alarm was activated

The elapsed time the alarm has been activated

Level of importance assigned to alarm message

Registered device value at time alarm was activated

	A	B	C	D	E	F	G	H	I	J
1			12 Messages							
2										
3	Date	Trig	Message	Ack	Recov	Occur	Elapsed Tim	Level	Address 1	Address 2
4	8/8/2008	9:59:53	Water Lever up			2	0:00:09	1	0	1554
5	8/8/2008	9:59:53	Wter Lever down			3	0:00:06	2	0	1515
6	8/8/2008	9:59:53	Temp. up			3	0:00:02	3	0	81
7	8/8/2008	9:59:49	Temp.down			2	0:00:05	4	0	34
8	8/8/2008	9:59:48	Temp. up		9:59:49	3	0:00:02	3	0:00:00	3
9	8/8/2008	9:59:45	Wter Lever down	9:59:47	9:59:50	3	0:00:06	2	0:00:00	811
10	8/8/2008	9:59:44	Tank A ERR	9:59:47		1	0:00:00	5	0	ON
11	8/8/2008	9:59:43	Temp.down	9:59:47	9:59:48	2	0:00:05	4	0:00:00	45
12	8/8/2008	9:59:43	Temp. up	9:59:47	9:59:44	3	0:00:02	3	0:00:00	15
13	8/8/2008	9:59:42	Water Lever up	9:59:47	9:59:51	2	0:00:09	1	0:00:00	558
14	8/8/2008	9:59:41	Wter Lever down	9:59:47	9:59:52	3	0:00:06	2	0:00:00	509
15	8/8/2008	9:59:38	Temp.(-10°C)	9:59:47		1	0:00:00	1	0:00:00	

Register addresses (maximum of eight) associated with problems to obtain device values for related causes at the same time as messages in the event that a problem occurs. You can also save these values on a CF Card or USB storage in CSV format or confirm these values on a PC.This allows you to quickly identify the reasons why an alarm was activated.

SECTION
05 Display past data in graph format

Solution Rating ★★★★½ 90%

Q QUESTION

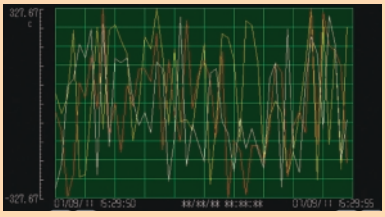
Do you hook up to a PC to check past data for possible precursors of trouble?

A Pro-face's solution

Past log data can be searched chronologically and displayed in graph format. All graph values can then be displayed.

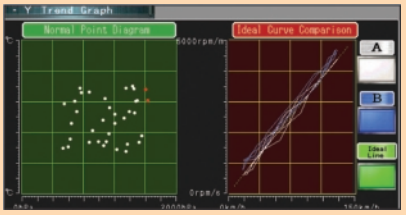
Pro-face offers LOG DATA HISTOGRAMS

Historical trend Graph



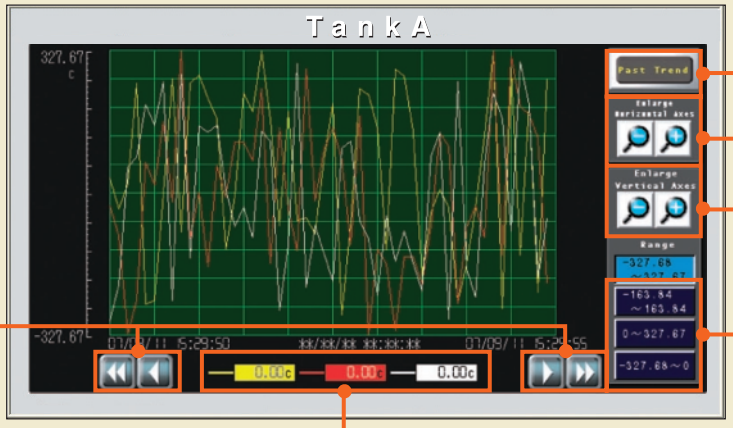
Data from CF cards and USB flash drives can be graphed in chronological order.
Graphing error logs makes for easy analysis.

XY Graph



Two word addresses (for example, Weight and Pressure) can be translated into XY coordinates and displayed in point or line format. This can be used to display distribution graphs and loci of measured values.

Historical trend Graph



Display past graphs.

Adjust time and volume intervals to view fine trends.

Specify data width to decide the range of data to focus on.

Simply scroll back to see past data.

Complex graphs can be narrowed down to a single line, making it possible to display only the channel you want to check.

Times are displayed for data at either end of the graph, making it easy to check exact times at a glance.

SECTION
06 Use video in operating instructions to make procedures easier to understand

Solution Rating ★★★★★ 100%

Q QUESTION

Do personnel in charge have to go to the production site for even relatively minor maintenance tasks?

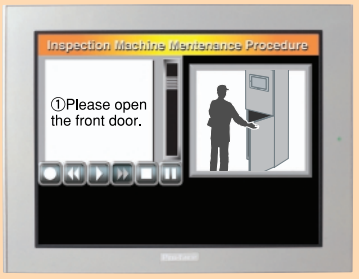
A Pro-face's solution

Video content can be included in operating instructions, letting you create simpler maintenance instructions that any operator can follow.

Pro-face offers VIDEO INSTRUCTIONS FOR EASY MAINTENANCE

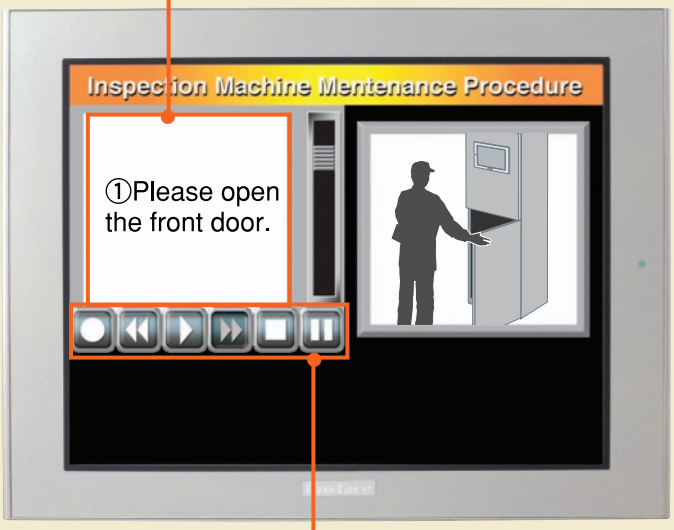
Production site

Operating and maintenance instructions are provided in video format, making it easy for anyone to perform maintenance tasks.



Operating screen

Operating instructions displayed in text format on GP unit. Can be quickly called up when the operator needs to check.



Able to show clear instructions to make beginners easily understand.

Video can be paused, rewound, and played in slow motion using the touch panel controls - very handy for checking particular instructions in detail!

SECTION

07 Adding extra sensors to decrease downtime is easy

Solution Rating ★★★★★ 100%

Q QUESTION

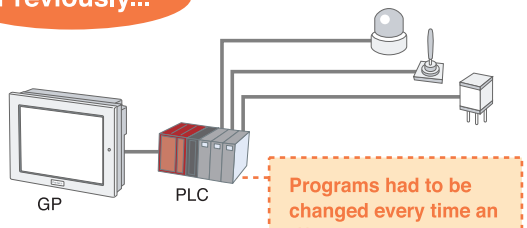
Do you change PLC programs just to add a sensor or when implementing other minor system changes?

A Pro-face's solution

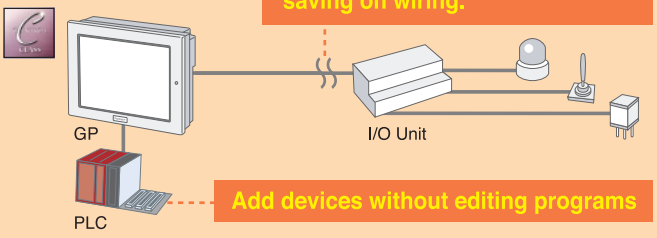
Pro-face lets you add a variety of I/O devices directly without stopping the line or changing ladder programs you have created.

Pro-face offers EASY ADDITION OF I/O DEVICES

Previously...



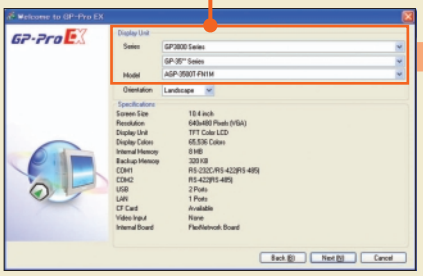
With C Class...



Easy setting procedures

Adding a sensor

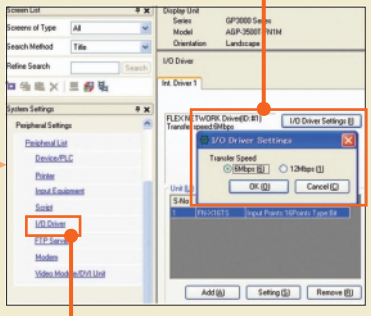
1 Select the appropriate C Class model.



2 Menu Bar → "Project" → "System Settings"

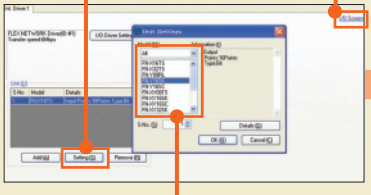
3 Click "I/O Driver".

4 Select the appropriate I/O driver settings.

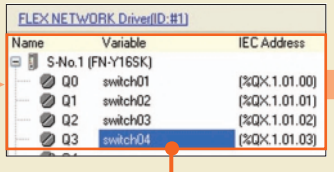


5 Click "Setting".

7 Click "I/O Screen".



6 Complete the unit settings.



8 Allocate an address for each terminal.

9 Position the start switch and double-click it.

10 Select a "Bit Address" and a "Bit Action".