Mitsubishi <14> Mitsubishi Electric Corporation
Q Series (Q01 / Q00 / Q00J) CPU Direct + Link Unit Connection

Selecting PLC Type

Start up GP-PRO /PBIII.

Select the following PLC Type when creating the project file.

MITSUBISHI MELSEC-QnA(LINK)

Communication Setting Sample

[Connecting Directly]

GP Setup		PLC Settings
Baud Rate	19200 bps	———
Data Length	8bit (fixed)	———
Stop Bit	1bit (fixed)	———
Parity Bit	Odd (fixed)	———
Data Flow Control	ER Control (fixed)	———
Communication Format	RS-232C (fixed)	———
Unit No.	0 (fixed)	———

NOTE The range of data transmission speed is from 9,600bps to 15,200bps. However, the maximum speed available with GP70 series units (except for GP series) is 38,400bps.

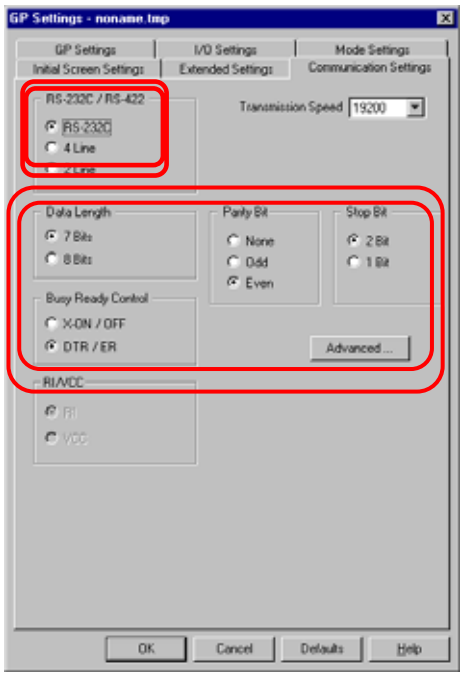
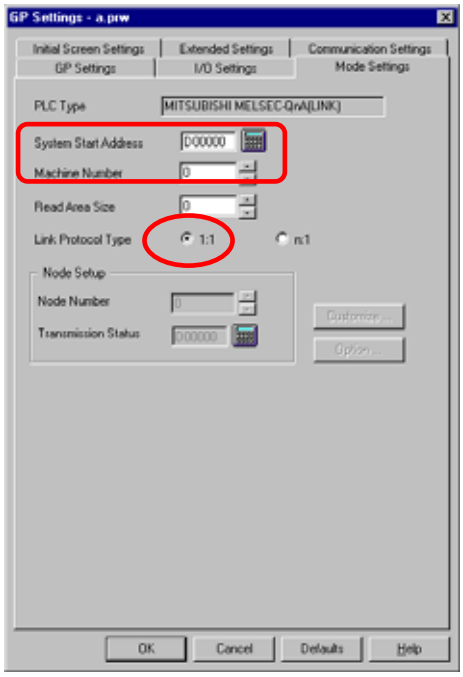
[Using Serial Communication Unit]

GP Setup		Serial Communication Unit Settings	
Baud Rate	19200bps	Baud Rate	19200 bps
Data Length	7 bits	Data Bit	7 bits
Stop Bit	2 bits	Stop Bit	2 bits
Parity Bit	Even	Parity Check Parity setting even/odd	Yes Even
Data Flow Control	ER Control	---	
Communication Format (RS-232C)	RS-232C	Mode Setup (RS-232C)	4 (Format 4 Protocol Mode)
Communication Format (RS-422)	4-wire type	Mode Setup (RS-422)	4 (Format 4 Protocol Mode)
———		Sum Check	Yes
Unit No.	0	Station Number	0

Communication Settings [GP]

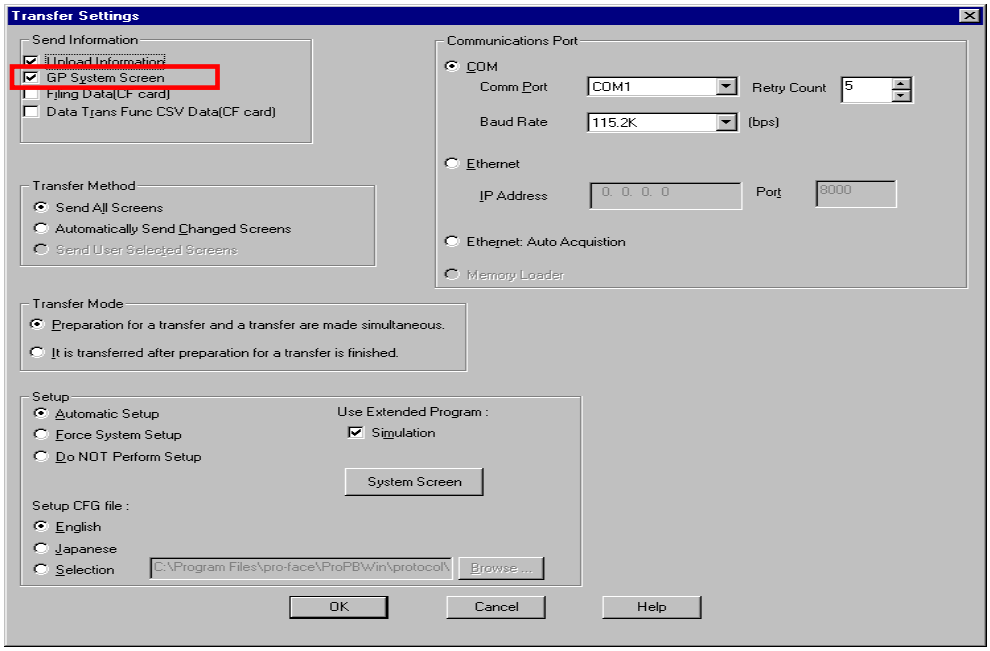
1 [GP-PRO/PBIII C-Package Setting]

Select [GP Setup] on Project Manager.

1) Communication Settings 	1) Communication Settings [Direct] / [Link] Transmission Speed: 19200bps / 19200bps Data Length: 8Bits / 7Bits Stop Bit: 1Bit / 2Bits Parity Bit: Odd / Even Busy Ready Control : DTR / ER / DTR / ER RS-232C/ RS-422: RS-232C / RS-232C or 4 Line * Select one for each in [ ].
2) Mode Settings 	2) Mode Settings System Start Address: Arbitrary Address Machine Number: 0 Link Protocol Type: 1:1 (Only when using Serial Communication Unit)

Select [Transfer] --> [Setup] --> [Transfer Settings].

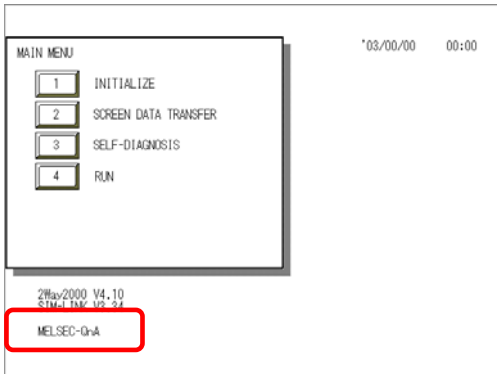
3) Transfer Settings



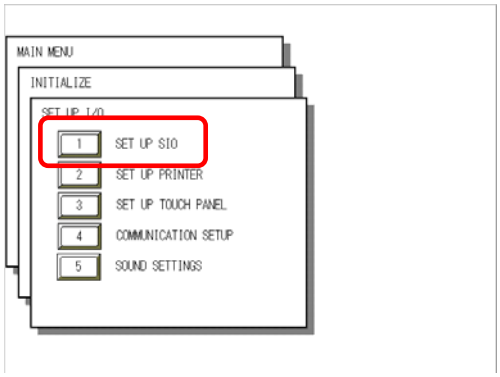
3) Transfer Settings GP System Settings: Checked

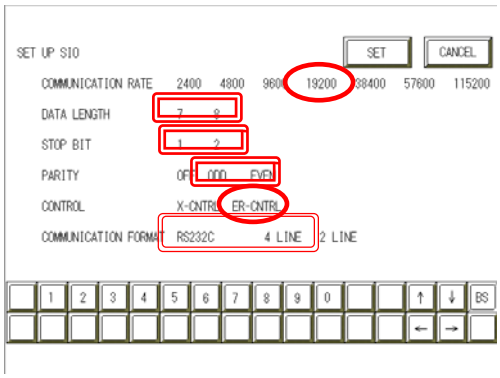
Transfer to GP after settings completed.

2 [GP Settings]

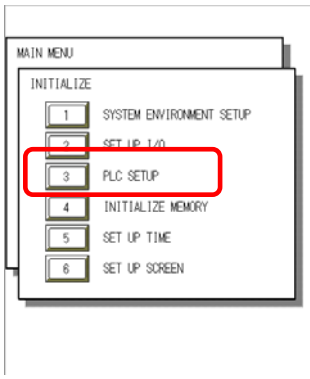
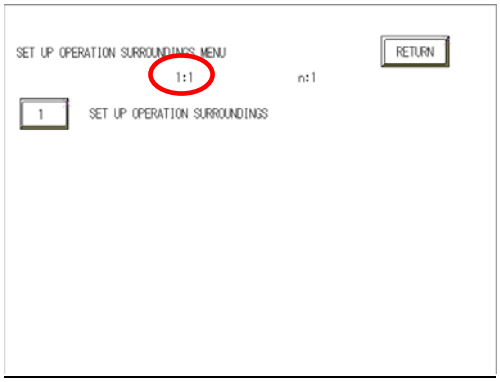
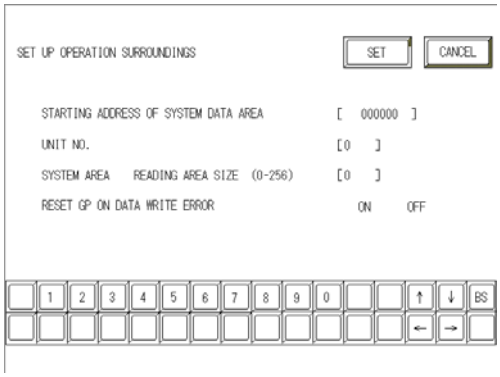
<table>
<tr>
<td>1) Checking GP Type
 
</td>
<td>1) Checking GP Type

If you have selected Mitsubishi MELSEC-QnA (LINK), the following will be shown.

”MELSEC-QnA”</td>
</tr>
<tr>
<td>2) Communication Settings
 
</td>
<td>2) Communication Settings

[MAIN MENU]
↓
[INITIALIZE]
↓
[SET UP I/O]
↓
[SET UP SIO]</td>
</tr>
<tr>
<td> 
</td>
<td>[Direct] / [Link]
Communication Rate: 19200bps / 19200bps
Data Length: 8Bits / 7Bits
Stop Bit: 1Bit / 2Bits
Parity: Odd / Even
Control: ER Cntrl/ER Cntrl
Communication Format: RS-232C/RS-232C
or 4 Line

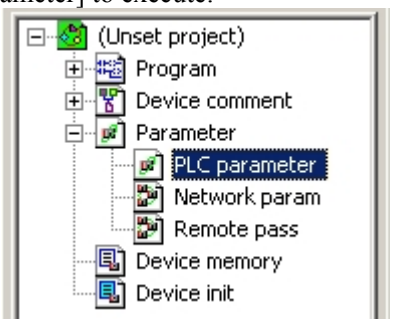
* Select one in ▭ .</td>
</tr>
</table>

3) Setting up Operation Surroundings	3) Setting up Operation Surroundings
	[MAIN MENU] ↓ [INITIALIZE] ↓ [PLC SETUP] ↓ [PLC SETUP]
	SET UP OPERATION SURROUNDINGS MENU: 1:1 (Only when using Serial Communication Unit)
	Starting Address of System Data Area: Arbitrary Address Unit No.: 0

Communication Settings [PLC]

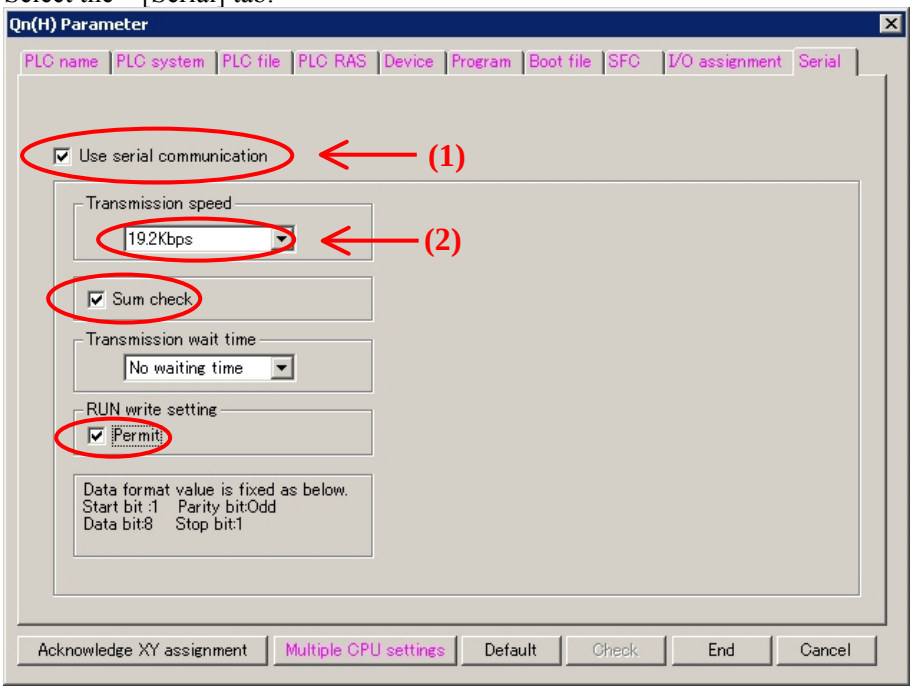
[Connecting Directly]

1. Start up the ladder tool "GX Developer". Double-click [PC Parameter] under [Parameter] to execute.



A dialog box below opens.

2. Select the [Serial] tab.



1) Check [Use serial communication].

2) Set [Transmission speed] and click [End].

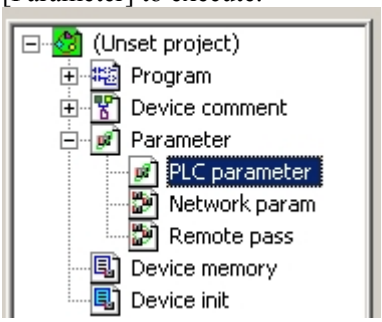
Keep [Sum check] checked. If you check it off, an error of receiving data will be occurred when communicating with the GP.

3. Select [Offline]--> [Write to PLC] to open the [Write to PLC] dialog box.
   Check [PC/Network] under [Parameter]. Click [Execute] to start downloading the parameter file to the PLC.

   After downloading completed, power off and on the PLC to restart up.

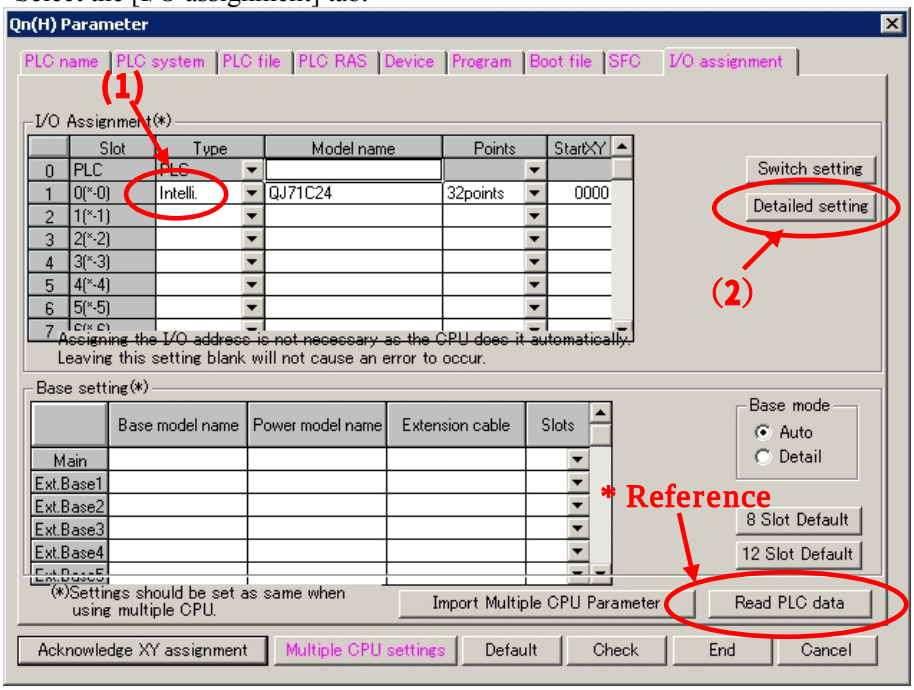
[Using Link Unit]

1. Start up the ladder tool "GX Developer". Double-click [PC Parameter] under [Parameter] to execute.



A dialog box below opens.

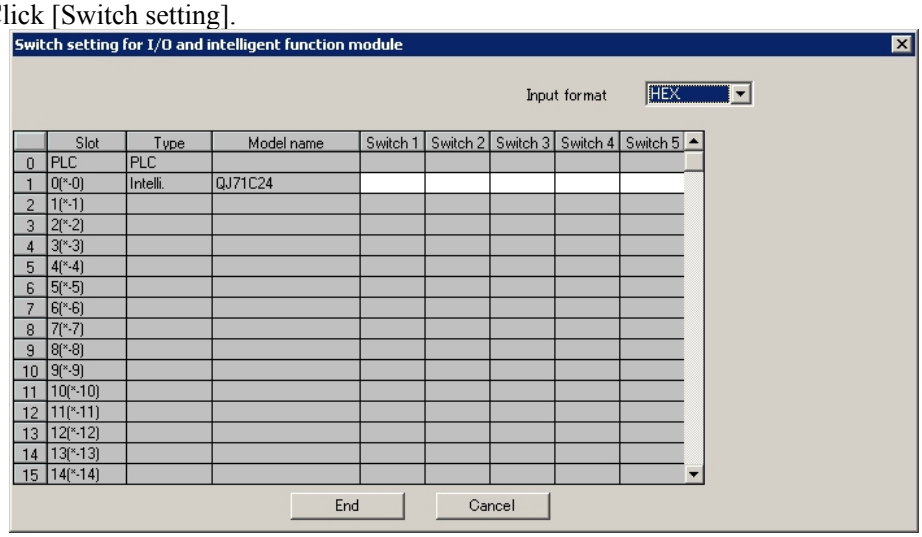
2. Select the [I/O assignment] tab.



1) Click [Type] to select [Intelli.]

* By clicking the [Read PLC data] button, the type(s) and points of the unit(s) inserted currently into the base unit can be read automatically.
(The PC needs to be connected to the CPU via ladder cable.)

2) Click [Switch setting].



A dialog box above opens.
Set [Switch setting] as below.

Settings Switch1 and Switch2 are for the RS-232C interface on CH1.
Settings Switch3 and Switch4 are for the RS-422/485interface on CH2.
Settings Switch5 are for the machine number on both CH1 and CH2.

In this sample here, a sample setting only for CH1 is introduced, but set CH2 in a same way as CH1.

	Slot	Type	Model name	Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
0	PLC	PLC						
1	0(*-0)	Intelli.	QJ71C24	07FC	0004			0000
2	1(*-1)							

Please see the setting description as below.

<table>
<tr><td>Switch No.</td><td>Set Value</td><td colspan="3">Setting Description</td></tr>
<tr><td rowspan="10">Switch 1</td><td rowspan="10">07FC</td><td colspan="3">07 --> Transmission Speed 19,200bps</td></tr>
<tr><td>Bit</td><td>Settings</td><td>Item / Content</td></tr>
<tr><td>Bit0</td><td>OFF</td><td>Operation Setting / Independent</td></tr>
<tr><td>Bit1</td><td>OFF</td><td>Data Bit / 7 bits</td></tr>
<tr><td>Bit2</td><td>ON</td><td>Parity Bit / Yes</td></tr>
<tr><td>Bit3</td><td>ON</td><td>Even/Odd Parity / Even</td></tr>
<tr><td>Bit4</td><td>ON</td><td>Stop Bit / 2 bits</td></tr>
<tr><td>Bit5</td><td>ON</td><td>Sum Check Code / Yes</td></tr>
<tr><td>Bit6</td><td>ON</td><td>Write during RUN / Enabled</td></tr>
<tr><td>Bit7</td><td>ON</td><td>Change Setting / Enabled</td></tr>
<tr><td>Switch 2</td><td>0004</td><td colspan="3">Communication Protocol Setting -->
MC Protocol Type 4</td></tr>
<tr><td>Switch 3</td><td></td><td colspan="3">Same as Switch 1</td></tr>
<tr><td>Switch 4</td><td></td><td colspan="3">Same as Switch 2</td></tr>
<tr><td>Switch 5</td><td>0000</td><td colspan="3">Machine Number : 0</td></tr>
<tr><td colspan="5">Note: When communicating CH1 and CH2 at the same time, set 115200 bps for the total of the transmission speed of both interfaces.</td></tr>
</table>

After completing the above settings, click [End].

The [Switch Setting] dialog box returns to the [Parameter Setting] dialog box. Click [End] again.

3) Select [Offline]--> [Write to PLC] to open the [Write to PLC] dialog box.
Check [PC/Network] under [Parameter]. Click [Execute] to start downloading the parameter file to the PLC.

After downloading completed, power off and on the PLC to restart up.