33 Setting Up Environment

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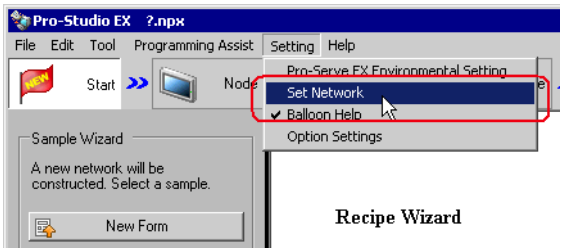
33.1 Setting Up the Environment of 'Pro-Server EX'

This section describes how to set the environment of 'Pro-Server EX'.

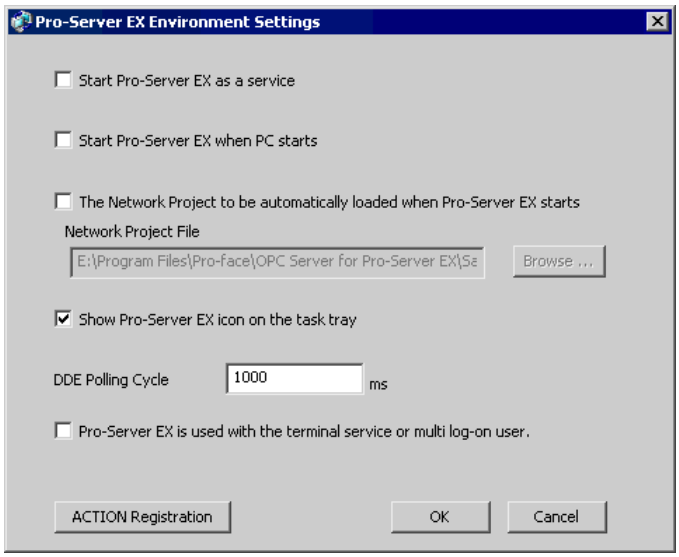
NOTE

- Effective range of "Pro-Server EX Environmental Setting" is Whole personal computer".
  The environment setting specified in the network project file "X" on the PC "A", for example, is reflected in the network project file "Y" created and edited on the PC "A" later.

1 Click [Set Network] from [Setting] on the start screen.



2 Specify each item on the "Pro-Server EX Environmental Settings" screen.



NOTE

- Change of "Pro-Server EX Environmental Setting" becomes valid by restarting 'Pro-Server EX'.

Setting item	Setting content
Start Pro-Server EX as a service	Starts "Pro-Server EX" at the same time as the PC starts.(Service Mode) ☞ "29 Starting 'Pro-Server EX' in the Service Mode"
Start Pro-Server EX when PC starts	Starts 'Pro-Server EX' at the same time as the PC starts.

Setting item	Setting content
The Network Project to be automatically loaded when Pro-Server EX starts Network Project File	Loads automatically a network project file when 'Pro-Server EX' starts. Click the [Browse] button and select the network project file on the PC on the "Open File" screen. **NOTE** • This function is useful for system operation like 'Pro-Server EX' running. Specifying the network project file beforehand makes it unnecessary to start 'Pro-Studio EX' and load the file to 'Pro-Server EX'.
Show Pro-Server EX icon on the task tray	If unchecked, hides the 'Pro-Server EX' icon in the task tray. **NOTE** • Please use this function when you wish to prevent the setting from being changed by third person without permission. • To display the Pro-Server EX icon again, select the following buttons in this order: [Start] (on Windows), [Program], [Pro-face], [Pro-Server EX] and then [Pro-Server EX Environmental Setting].
Pro-Server EX is used with the terminal service or multi log-on user.	If checked, 'Pro-Server EX' can be used by multiple logon users, or with the terminal service.
DDE Polling Cycle	Enter the polling cycle at DDE access. The default value is 1000ms (1sec). ☞ "27.6 Monitoring Using Excel Graphs"
ACTION Registration	Register ACTION created by a user to 'Pro-Server EX'. The "Open File" screen appears. Specify the file name of ACTION to be newly registered.

33.2 Network Setup

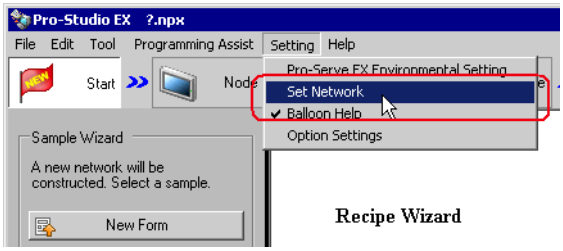
This section describes the network setup of 'Pro-Server EX'.

The setting contents vary according to node type: GP Series (GP2000 Series, GLC Series and FGW), Pro-Server EX/GP3000/WinGP/LT3000.

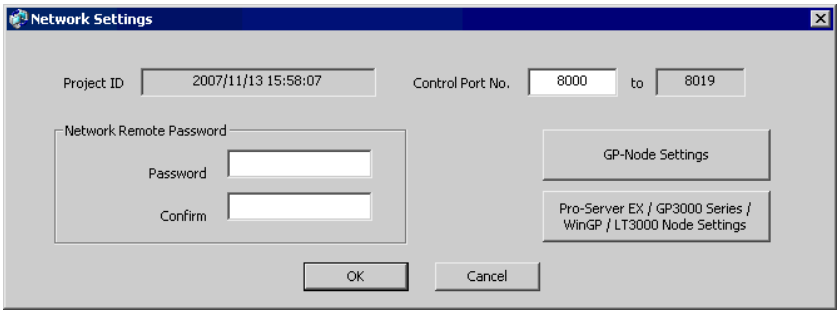
NOTE

- "Set Network" is to be stored in the network project file.
  If you wish to switch between multiple network project files on one PC, network setup is required for every file.

1 Click [Set Network] from [Setting] on the start screen.

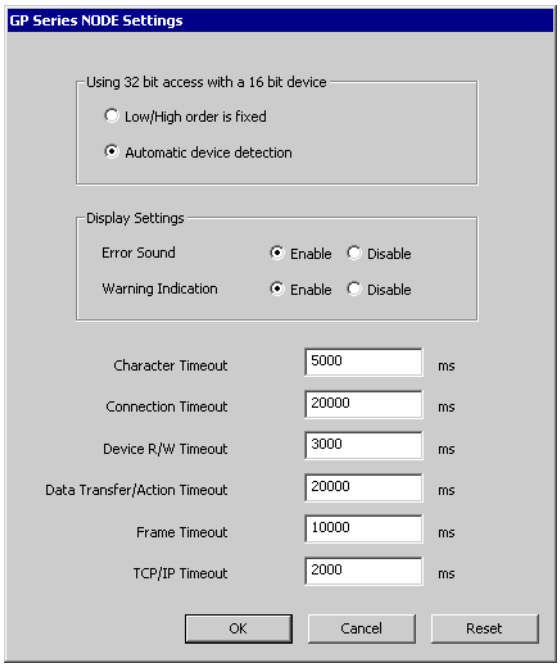


2 Specify each item on the "Network Settings" screen.



Setting item		Setting content
Project ID		Displays the date and time when the project was created.
Control Port No.		Specify the port numbers for TCP and UDP. 'Pro-Server EX' uses 10 ports beginning with the port number specified here. **NOTE** • If you may find the overlapped port number on other application software, please change the setting. You also need to change the GP port number to be the same when changing the setting.
Network Remote Password		Set the password necessary for remote connecting. ☞"22.1.1 Remote Access"
Set Each Node		"Pro-Server EX/GP3000/WinGP/LT3000 Node" is provided with two types of protocols: The same type of 2way protocol mounted on "GP Series Node" and the upgraded 2way protocol offering safer and more prompt communication. 'Pro-Server EX' and "Pro-Server EX/GP3000/WinGP/LT3000 Node" automatically select more efficient protocol judging from the communication contents and type of the partner node. Therefore, you need to separate between "GP Series Node Setting" (GP Series node) and "Set Pro-Server EX/GP3000/WinGP/LT3000 Node" (Pro-Server EX node/GP3000 Series node/WinGP node/LT3000 node) when setting.
	GP Node Settings	The "GP Series Node Settings" screen appears when you make the network setting for GP Series node. Refer to "■ "GP Series Node Settings" Screen" for more details.
	Pro-Server EX / GP3000 / WinGP / LT3000 Node Settings	The "Pro-Server EX /GP3000 Series /WinGP /LT3000 node Settings" screen appears when you make the network setting for Pro-Server EX node/GP3000 Series node/ WinGP node/LT3000 node. Refer to "■ "Pro-Server EX / GP3000 Series / WinGP / LT3000 node Settings" Screen" for more details.

■ "GP Series Node Settings" Screen



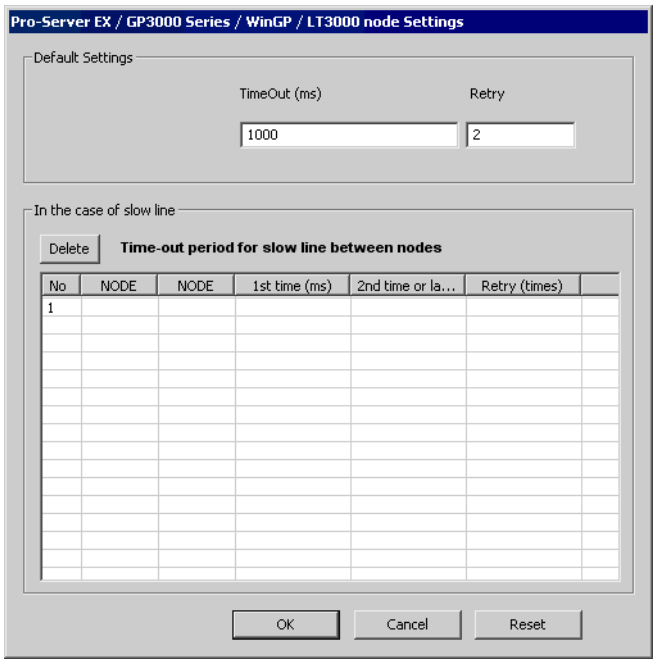
Setting item		Setting content
Using 32 bit access with a 16 bit device		Selects the access order of sequential two 16-bit devices that are regarded as a single 32-bit device.
Display Settings	Error Sound	Select whether the buzzer beeps or not when error occurs. **NOTE** • Pro-Server EX node / GP3000 Series node / WinGP node / LT3000 node have auto-detecting function against error occurrence.
	Warning Indication	Select whether GP displays alarms or not.
Character Timeout		Reserved.
Connection Timeout		While currently establishing connection, if there is no communication via the connection for the period of time specified here, the connection will be terminated. (You can establish only one connection for one consumer node, in TCP.)
Device R/W Timeout		If there is no response within the time specified here after 'Pro-Server' raised a read/write request, it will be regarded as timeout. Adjust the timeout period including the time required for the line speed and read/write process. **NOTE** • When the network is quite busy or the delay is observed in the communication between GP and Device/PLC, timeout error may possibly occur even under the normal operation. In this case, set a longer time in [Device R/W Timeout]. If the set time is too long, however, it takes much time to detect the communication error (like packet lost) when it occurs.

Setting item	Setting content
Data Transfer/ACTION Timeout	If there is no response within the time specified here after data transfer or ACTION is executed, it will be regarded as timeout. In the case of data transfer, however, this is effective only when you checked [Response Check] and [Use Distribution Timeout of Network Settings] in the [Detail Settings] tab. **NOTE** • Some of the ACTIONs use application software on the PC, like Excel, and need so much processing time as to cause timeout depending on your PC performance. In this case, please set a longer time in [Data Transfer/ACTION Timeout].
Frame Timeout	When working on mass data, a provider node sends data dividing those into more than one packet, while a self node receives a packet sent in turn. If a self node cannot receive the next packet within the time specified here after receiving one packet, it will be regarded as timeout.
TCP/IP Timeout	In TCP communication, "ACK" will be returned to data sent. If "ACK" is not returned, it will be retried, however, if "ACK" is not returned even at retry time, it will be disconnected. Time specified here is maximum waiting time for one action from data sending till ACK return.

■ "Pro-Server EX / GP3000 Series / WinGP / LT3000 node Settings" Screen

By using [Time-out period for slow line between nodes], you can specify the setting of communication between particular nodes in details, when transmission speed of communication with a particular node differs from that with other nodes due to different pathway.

As for the communication with the node not specified in [Time-out period for slow line between nodes], [Default Settings] is adopted.



Setting item		Setting content
Default Settings	TimeOut	Enter a timeout period for communication (ms). You can specify the period in the range from min. 300ms to max. 86400000ms (24 hours). When receiving the requests for writing and reading simultaneously, each request will be processed in order. Adjust the timeout period using the following reference. For GP-3200/3400/3500/3600/3700 Series, WinGP, LT3000 or Pro-Server EX Nodes Timeout period = 300ms + Number of receiving requests simultaneously x 60ms or more For GP-3300 Series Timeout period = 300ms + Number of receiving requests simultaneously x 120ms or more
	Retry	Specifies the number of retry frequency under communication. You can set the number up to 32. Retrying is not performed by entering "0".

Setting item		Setting content
Time-out period for slow line between nodes	Node	Select the node where the communication timeout period is specified, Pro-Server EX node, GP3000 Series node, WinGP node or LT3000 node. You can specify the communication timeout period for each pair of nodes. Click the display list and select the nodes to be specified.
	1st time 2nd time or Later	Specifies the first and the later timeout period under communication. Click the display field and enter the timeout period to be specified. **NOTE** • When initial connection to the network takes some time like a dial-up connection, you can specify the timeout period for the first and later individually.
	Retry	Specifies the number of retry frequency under communication. Click the display field and enter the retry frequency to be specified.

33.3 Restrictions

The following restrictions will be applied when 'Pro-Server EX' is used by multiple logon users, or with the terminal service.

- You must give the right of "Create global objects" to a user in the local security settings, and on the server side, you must register the 'Pro-Server EX' user on the network.
  Make the setting as follows:
  1. After you click the [Start] button on the task bar, select "Administrative Tools" and "Local Security Policy" under the "Control Panel".
  2. Select "Local Policies" from "Security Settings", and double-click "Create global objects" under "User Rights Assignment".
  3. Register the 'Pro-Server EX' user.
- The log viewer functions only in one location when 'Pro-Server EX' is used by multiple logon users, or with the terminal service.