

The right choice for the ultimate yield!

LS ELECTRIC strives to maximize your profits in gratitude for choosing us as your partner.

Human Machine Interface

XP-Remote

XGT Panel Series

User Manual



Safety Instructions


- Read this manual carefully before installing, wiring, operating, servicing or inspecting this equipment.
- Keep this manual within easy reach for quick reference.


LSELECTRIC

Before using the product...

To use the product safely and effectively, please read this instruction manual thoroughly before use.


- ▶ Please keep to the safety precaution, for it is to prevent accidents and potential danger from occurring.
- ▶ Safety precaution is classified into 'Warning' and 'Caution' and their meanings are as follows.

 **Warning** Violating the instruction may result in serious personal injury or death.

 **Caution** Violating the instruction may result in slight personal injury or product damage.

The indicated illustrations on the product and in the manual have the following meanings.

 Be cautious, for danger may be present.

 Be cautious, for there is a possibility of an electric shock.

After reading the instruction manual, keep it handy for quick reference.

Design Precautions



Warning

- ▶ **Install a safety circuit external to the HMI to protect the whole control system in case of external power supply trouble.**

Serious trouble may occur to the entire system due to erroneous output/operation of the HMI.

Design Precautions



Caution

- ▶ **In/output signal or communication cable should be at least 100mm apart from High-voltage/power wires.**

Otherwise, it may cause erroneous output/operation.

Installation Precautions



Caution

- ▶ **Use the HMI in an environment that meets the general specification contained in this manual or datasheet.**

Otherwise, it could result in electric shock, fire, erroneous operation or deterioration.

- ▶ **In case of much vibration in the installed environment, be sure to insulate the HMI from direct vibration.**

Otherwise, it could result in electric shock, fire or erroneous operation.

- ▶ **Be sure not to let foreign substances such as conductive debris inside the product.**

Otherwise, it could result in electric shock, fire or erroneous operation.

Wiring Precautions



Warning

- ▶ **Be sure to turn off the HMI and external power before wiring.**

Otherwise, it may result in an electric shock or damage to the product.



Caution

- ▶ **Wire correctly by checking each of the product's rated voltage and terminal layout.**

Otherwise, it may result in fire, electric shock or erroneous operation.

- ▶ **Tighten terminal screws with specified torque when wiring.**

If terminal screws are loose, it may result in short circuits, fire or erroneous operation.

- ▶ **Use the exclusive HMI 3-type grounding for the FG terminal.**

If not grounded, it may result in erroneous operation.

- ▶ **Be sure not to let any foreign substances such as wiring debris inside the module.**

Such debris may cause fire, damage or erroneous operation.

Startup and Maintenance Precautions



Warning

- ▶ **Do not touch the terminals while power is on.**
Otherwise, it may cause electric shock or erroneous operation.
- ▶ **Turn off the PLC and external power when cleaning or tightening the terminal.**
Otherwise, it may cause electric shock or erroneous operation.
- ▶ **Do not charge, disassemble, heat, short circuit, solder, etc. the battery.**
Mishandling the battery may cause overheating, crack, fire and may result in injury or fire.



Caution

- ▶ **Do not disassemble PCB from the product case or modify the product.**
Otherwise, it may result in fire, electric shock or erroneous operation.
- ▶ **Use cellular phone or walky-talky at least 30cm away from the PLC.**
Otherwise, it may result in erroneous operation.

Disposal Precaution



Caution

- ▶ **When disposing of this product or battery, treat it as industrial waste.**
Otherwise, it may cause poisonous pollution or explosion.

Revision History

Version	Date	Main Changes	Revision Page
V1.0	'11.10	The Initial edition issued	-
V1.0	'14.09	Added 6.7, 6.8, 6.9	54, 55, 56
V1.0	'14.09	Deleted 7.1	58
V1.32	'15.01	V1.32 Version Up Added XP-VNC Operation control	46
V1.33	'15.03	V1.33 Version Up	-
V3.10	'20.05	Updated according to the change of company name LSIS to LS ELETRIC	-
V3.20	'20.08	V3.20 Version Up Revision according to error correction and content supplementation	-
V3.40	'21.02	V3.40 Version Up Add content to the XP-Remote Setup menu	17
V3.80	'23.06	V3.80 Version Up Applied Solution Square link	-

Thank you for purchasing LS ELECTRIC's HMI.

Before using the product, please read this User's Manual to understand the functions, performances and installation and programming method of the product you have purchased and ensure this User's Manual is well distributed to the end user and the responsible person for maintenance.

The following User's Manual is the one regarding to this product.

Also, visit our Solution Square <https://sol.ls-electric.com> and download the manual in PDF file.

List of Relevant Manuals

Manual Title	Manual Contents
Communication User Manual	User's Manual on XGT Panel communication describing Circuit Diagram to connect XGT Panel products with control devices such as PLC and inverter and their communication setting
XP-Builder User Manual	User's Manual on XP-Builder software describing screen data, communication, environment setting, logging/recipe data backup, simulator and printing function needed to use XGT Panel products
XGT Panel User Manual	It describes dimensions, special features and system configuration of XGT Panel series.
XP-Manager User Manual	XP-Manger is software that can support XGT Panel's various functions and perform data communication between XGT panels via XP Link.

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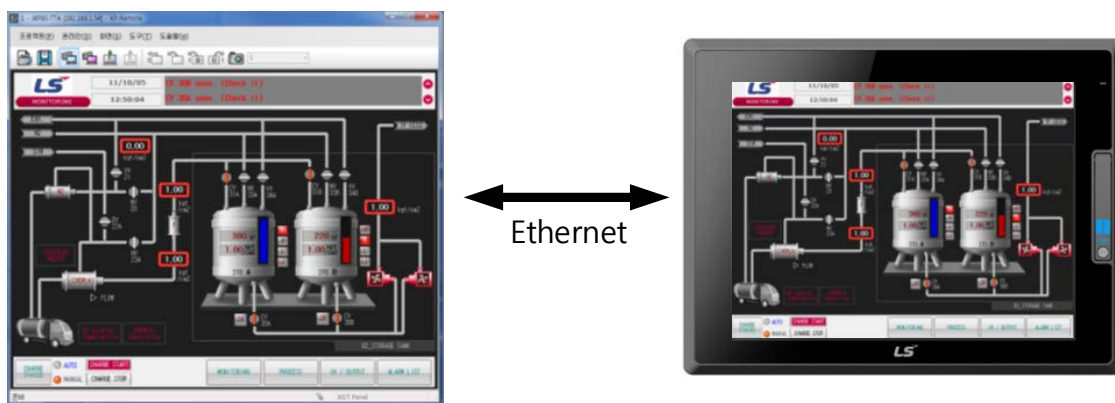
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1. Chapter 1 Start

1.1. Special Features of the XP-Remote

XP-Manger is a tool to monitor and control the XGT Panel installed in the office or in the plant. The XGT Panel can be monitored by several people at the same time.

(1) Remote monitoring of XGT Panel is available



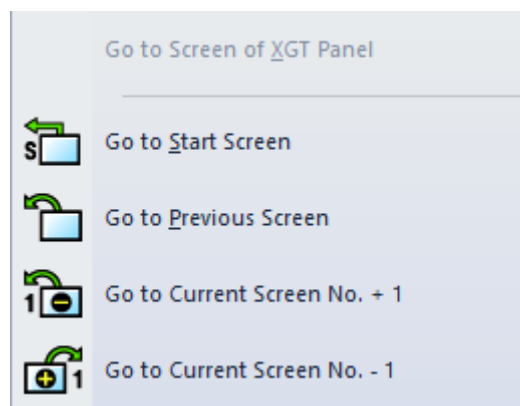
(2) The XGT Panel can be controlled remotely in the same way as at the site.

(3) Fast monitoring and controlling is available even from a remote area.

(4) It consists of big icons to use its functions easily.

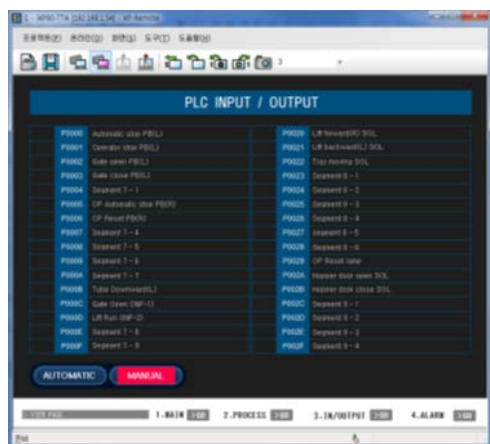


(5) It is easy to convert to a particular screen regardless of drawing contents.

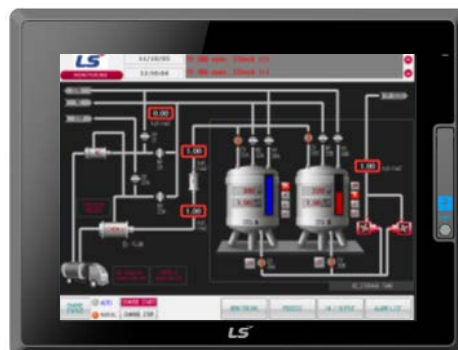


(6) It can reduce uploading time when saving the project and re-starting monitoring.

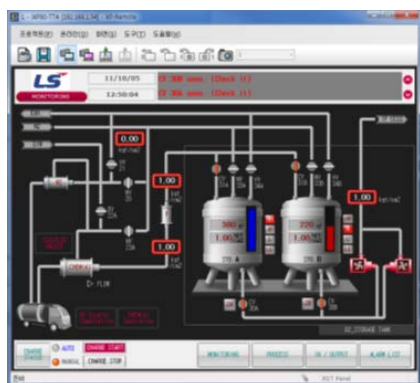
(7) Available to monitor the XGT Panel and other screens.



↔ Ethernet ↔

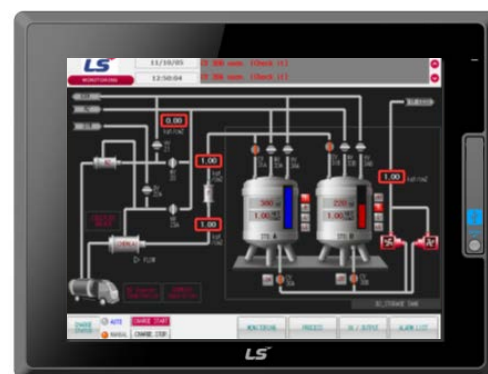
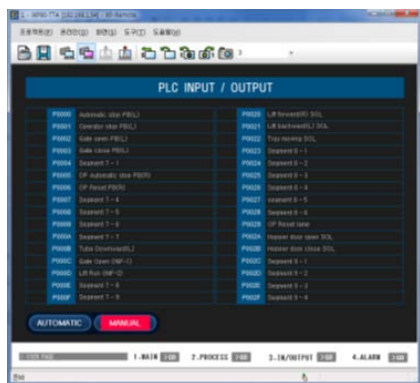


(8) Multiple users can monitor one XGT Panel.



↔ Ethernet ↔

↔ Ethernet ↔



1.2. System Requirements for Executing the XP-Remote

(1) Personal Computer and Memory

A computer with memory of at least 512MB or higher in the CPU of Pentium 4 or higher

(2) Communication Port

Ethernet ports

(3) Hard Disc

Available area of at least 100MB or above

(4) Mouse

Mouse that can be connected with the computer.

(5) Monitor

Resolution of 1024 X 768 or above

(6) Computer Operation System

Execution is available on the version of Window XP or above.

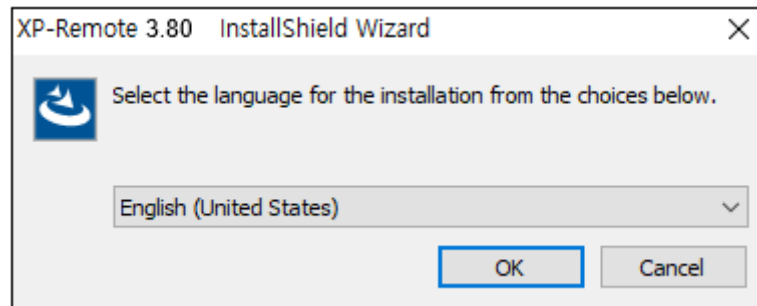
OS: Windows XP, Windows Vista, Windows 7, Windows 8 or Windows 10

1.3. Installation of the XP-Remote

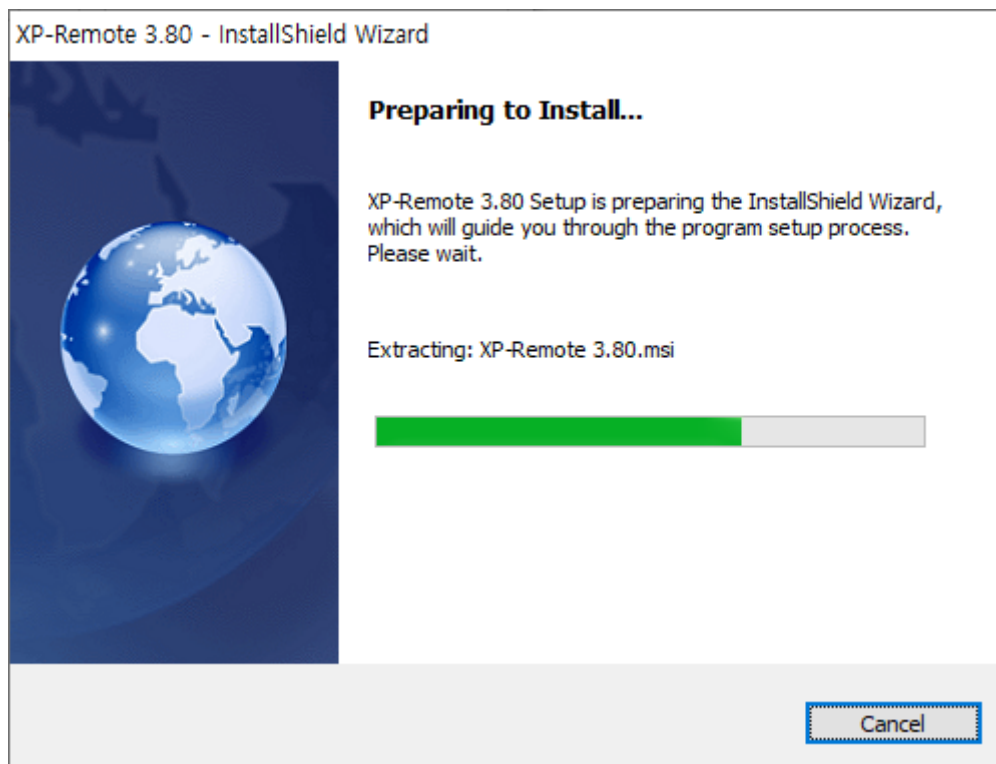
[Installation Sequence]

(1) Execute installation files

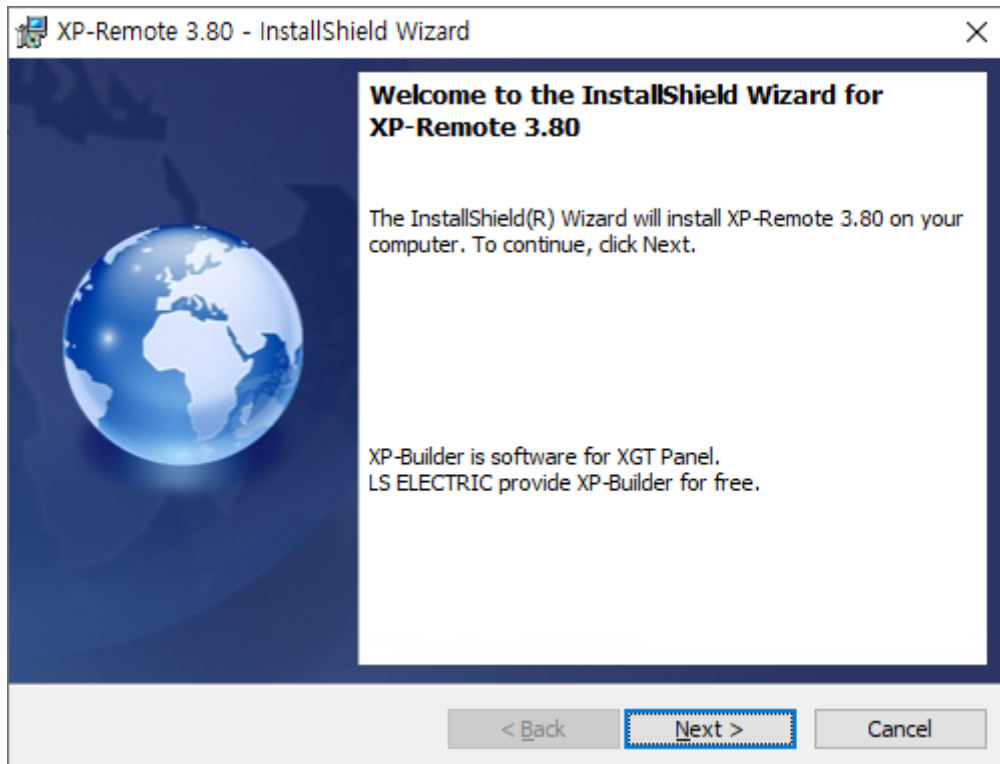
(2) Select a language to be installed



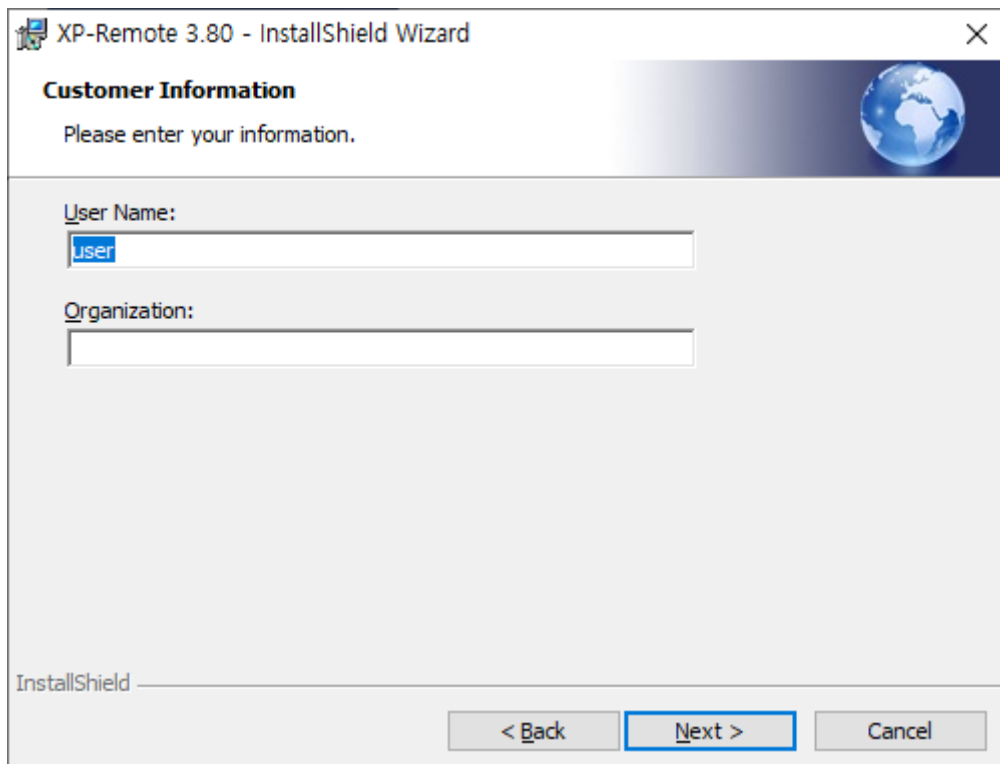
(3) Prepare for installing the installation wizard as follows:



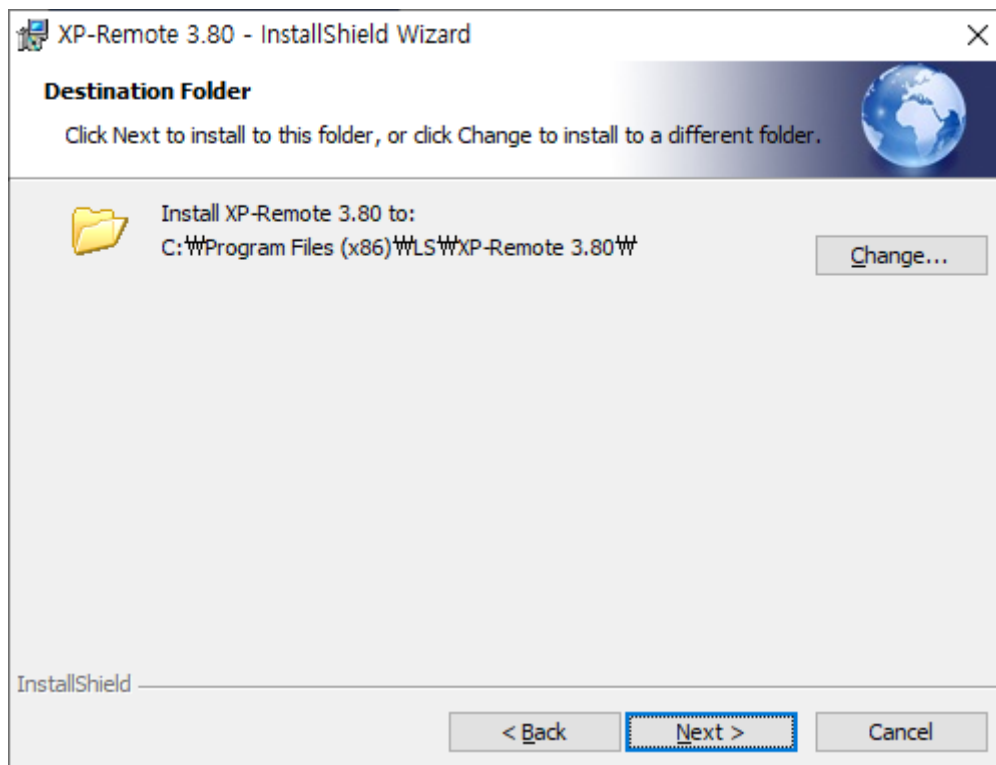
(4) 'Starting the XP-Remote Installation' is displayed as seen in the following screen. Press the [Next] button to continue installation.



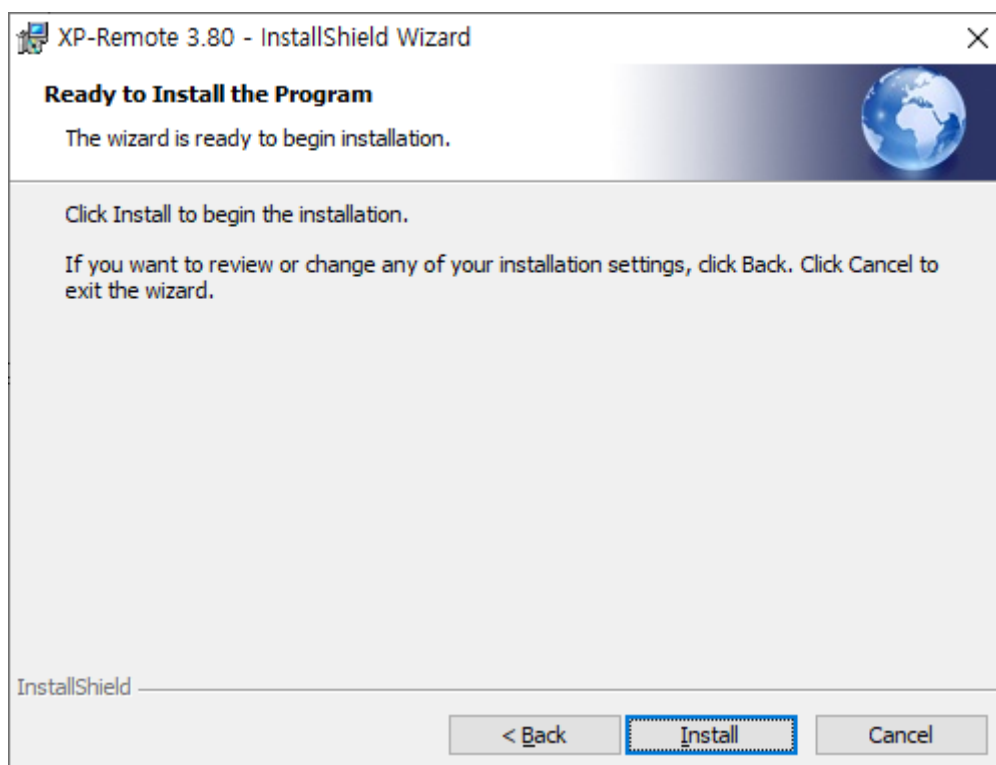
(5) After inputting the user information, press the Next button.



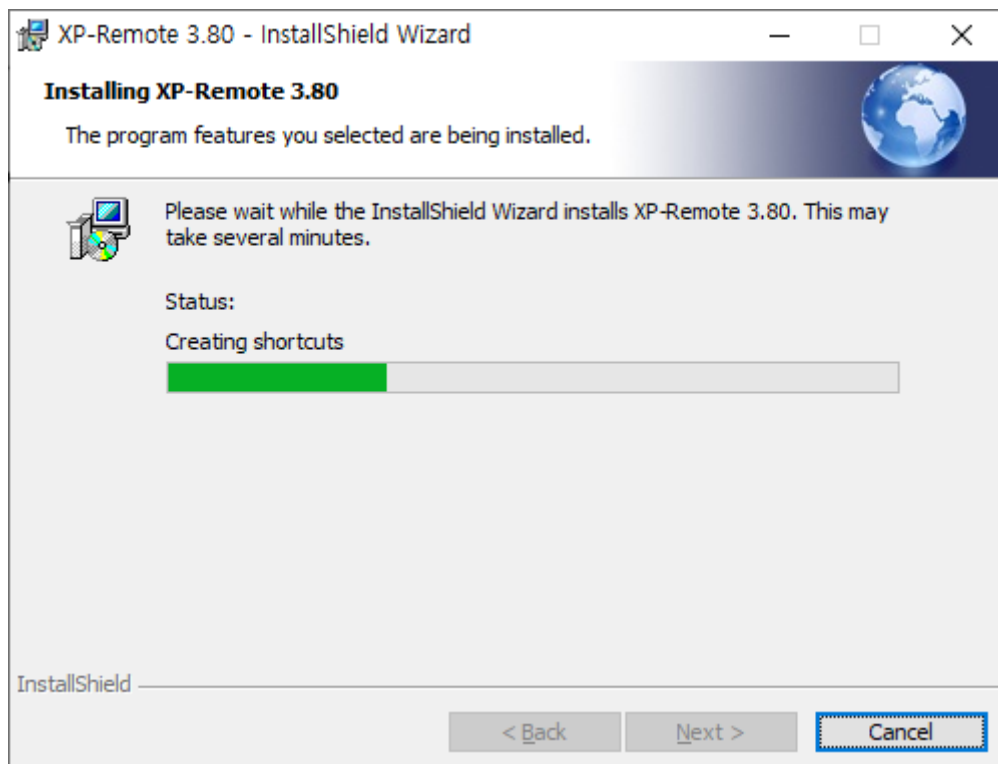
(6) Specify a folder location to install the XP-Remote. About 100MB installation space is needed for the XP-Remote. Check if there is sufficient space in the folder subject to installation. If the installation space is not sufficient, warning message will appear and proceeding to the next step is impossible. Press the [Next] button after selecting a folder.



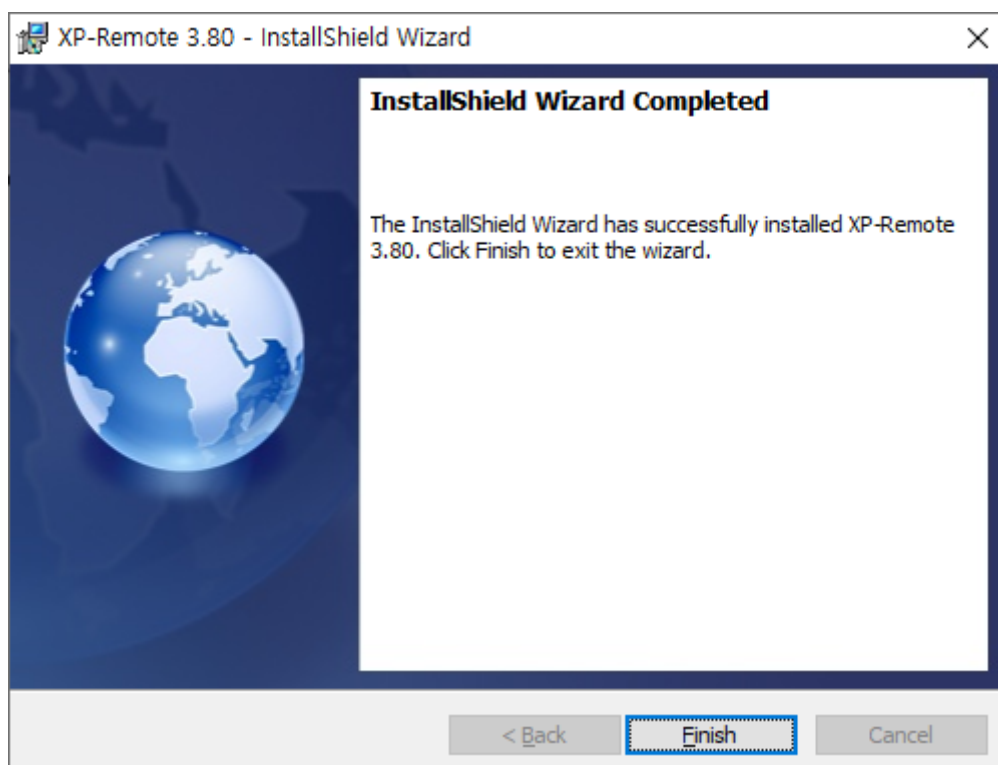
(7) Preparing for installation is completed. Press the Installation button to start installing.



(8) Installation progress is displayed.

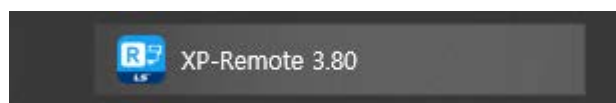


(9) Press the End button to end installation normally.



(10) execute the XP-Remote from the [Start] Menu or execute 'Go To Directly' generated on the background screen to

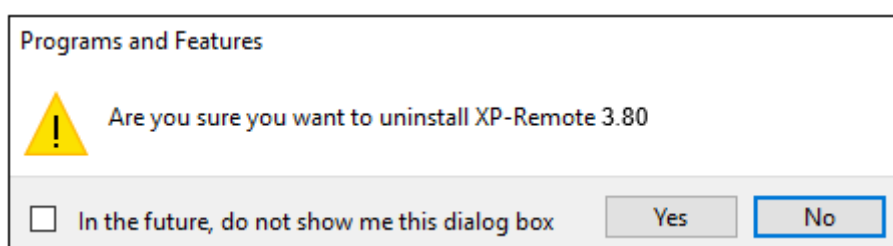
start the task.



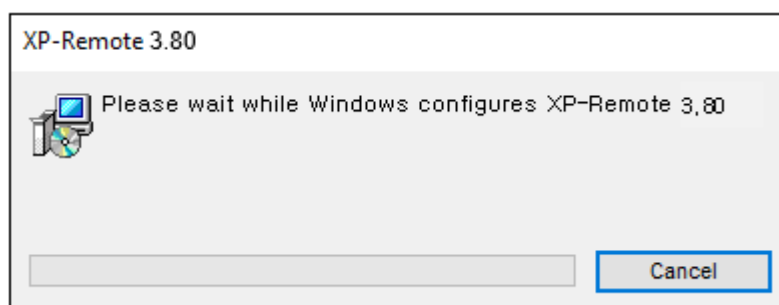
[Deleting Sequence]

(1) To remove the XP-Remote, use the Control Panel's [Programs and Features].

(2) Select a Yes



(3) Information on the installed programs is collected and those programs are deleted.



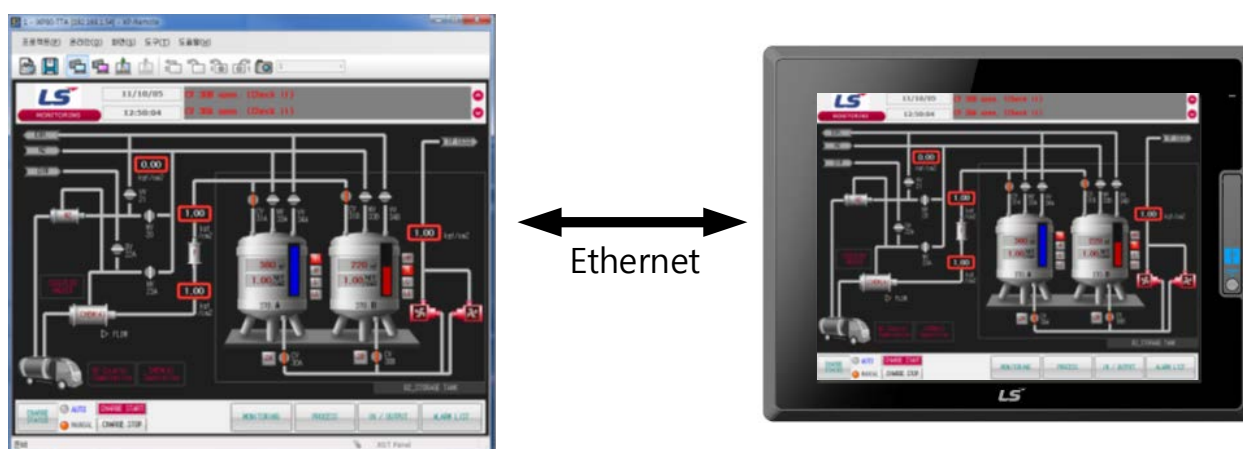
2. Chapter 2 Introduction and Demonstration of the XP-Remote

2.1. Introduction of the XP-Remote

2.1.1. What is the XP-Remote?

The user can remote monitor and control the XGT Panel by using the XP-Remote. The user can perform the XGT Panel's functions above with the office computer not with the site's XGT Panel.

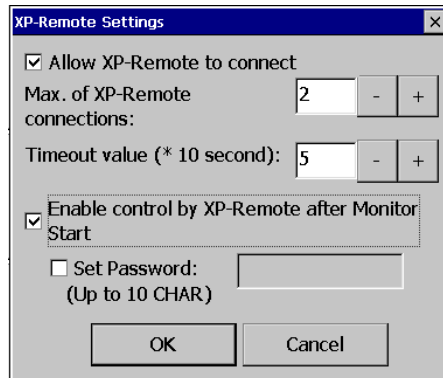
Users no longer need to work in the field.



2.1.2. Execution Condition of the XP-Remote

The XP-Remote shall be satisfied the following conditions to ensure remote monitoring and controlling:

- (a) XP-Builder 1.30 or above
- (b) XGT Panel 1.30 or above
- (c) Environment under which LAN communication is available
- (d) Check the XGT Panel Setting [Settings]-[XP-Remote]-[XP-Remote]'s [Allow XP-Remote to connect] options



Note

(1) Allow XP-Remote to connect

- Allow connection of remote XP-Remote

(2) Max. of XP-Remote

- Specify the maximum number of XP-Remote that can be connected to XGT Panel.

(3) Timeout value

- If there is no communication request from XP-Remote within the designated time, communication is stopped, If XP-Remote has operation authority, it recovers operation authority. (10 seconds ~ 300 seconds)

(4) Enable control by XP-Remote after Monitor Start

- After XGT Panel starts to monitor, operation permission status is automatically set.

(5) Set Password

- You can set it to enter a password when you request a connection from XP-Remote.

(If a password is set, remote monitoring begins only when the password is entered in the UI when connecting to XP-Remote.)

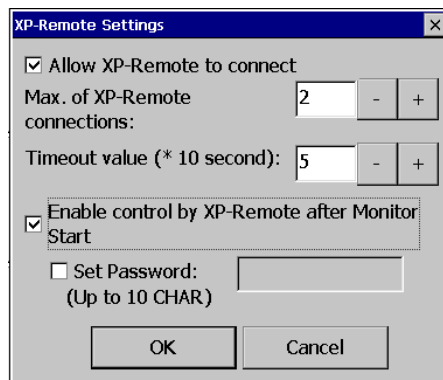
2.2. Demonstration

The user can understand easily on overall methods to use the XP-Remote through the following demonstration processes.

2.2.1. Execution of the XGT Panel Monitor

[Sequence]

- (a) Turn the XGT Panel on.
- (b) Send drawings by using the XP-Builder (1.30 version or above)
- (c) Check the XGT Panels button [Settings]-[XP-Remote]'s [Allow XP-Remote to connect] options.



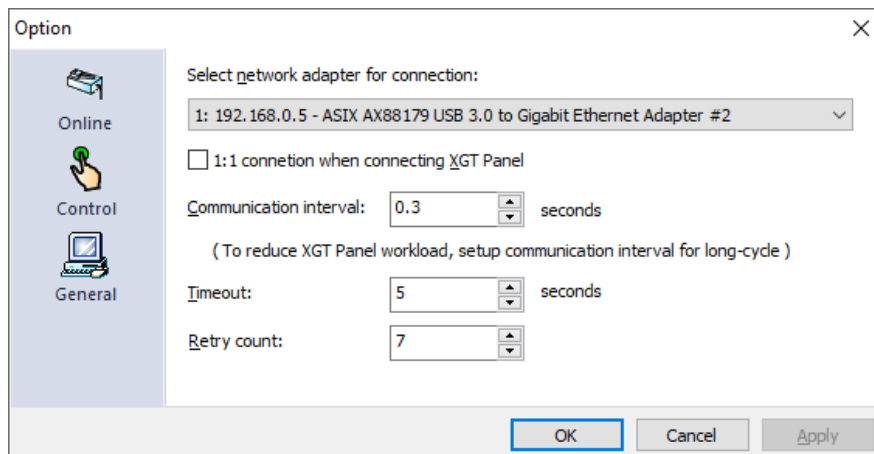
- (d) Press the XGT Panel button [Start] to start monitoring.

2.2.2. Monitoring with the XP-Remote

The XP-Remote shall be executed to monitor the XGT Panel from any remote computer.

[Sequence]

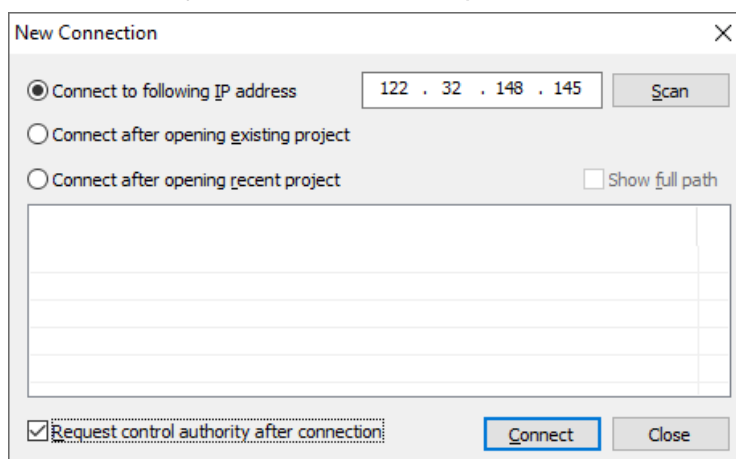
- (a) Execute [XP-Remote] from the widows' starting program
- (b) Select XP-Remote Menu [Tools]-[Options]-[Online] tap.
- (c) Select a network adopter with the same band with the XGT Panel's IP band and close the dialog box by pressing Confirm.



Note

(1) 'The same band with the XGT Panel's IP band' means that it is the same IP band if the XGT Panel's IP Address is "122.32.148.26 and the notebook's IP is "122.32.148.26

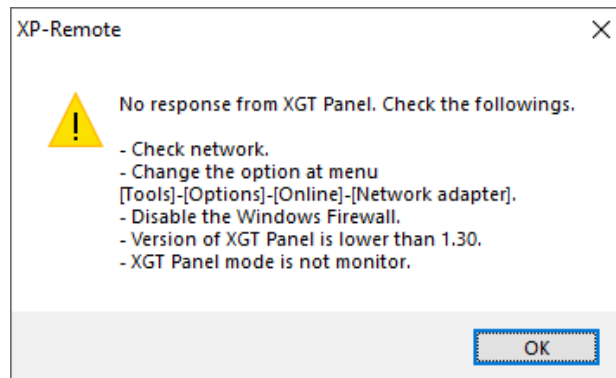
(d) Select XP-Remote Menu [Project]-[Reconnect] and input the XGT Panel's IP Address.



(e) Press the [Connect] button to connect with the XGT Panel.

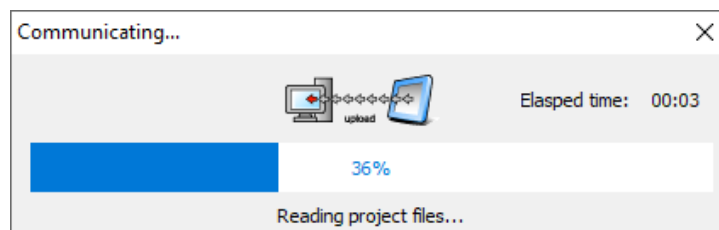
Note

- (1) The following message will appear in case that communication with the XGT Panel is failed. Check communication errors and attempt again to make a Reconnect.



- (2) For detailed solution when communication fails, refer to “Appendix 1 Problem Solving”.

- (f) The XGT Panel's data connected with the XP-Remote will be synchronized.



- (g) The XP-Remote monitor will start.



2.2.3. Controlling the XGT Panel with the XP-Remote

For remote controlling with the XP-Remote, the following procedures are necessary. Basically, only connecting with the XP-Remote does not allow remote controlling.

[Sequence]

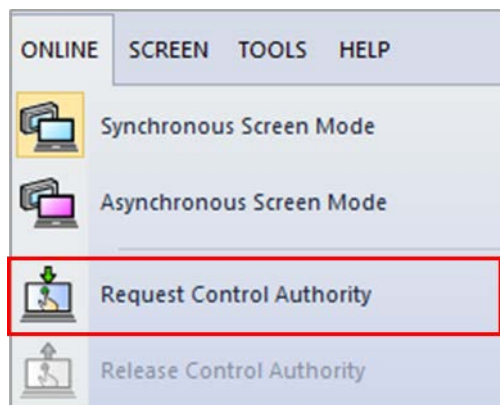
- (a) Press and hold the empty space of the XGT Panel screen about 2 seconds.
- (b) Press the [Enable control by XP-Remote] button and allow the XP-Remote to control.



Note

- (1) When displaying the Status Bar by pressing the XGT Panel's empty space once again, this button is displayed in [Disable control by XP-Remote].

- (c) Press the XP-Remote Menu [Online]-[Request Control Authority] to obtain a control right.



Note

- (1) If the control right is not obtained, the mouse cursor will have the following shape when it is moved on the screen.



- (2) If the control right is not obtained, the XP-Remote's Status Bar will display the following icons:



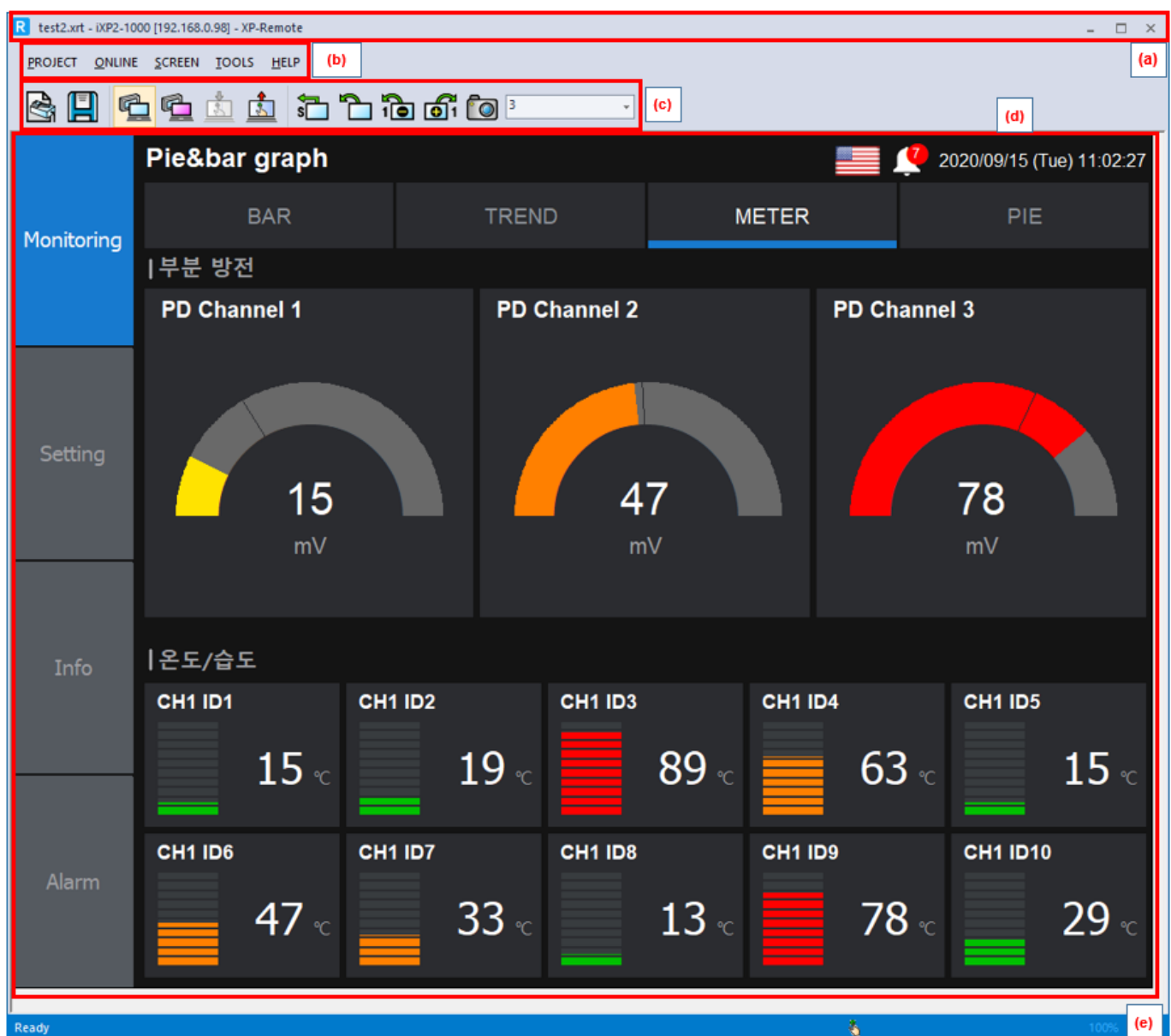
- (d) Press the mouse's left button to control the XGT Panel.

3. Chapter 3 XP-Remote Configuration

3.1. Screen Configuration

The XP-Remote screen consists of the following components:

- (1) Screen



[Window Description]

Item	Description
Title Bar (a)	Project Name - XGT Panel Machine Type [XGT Panel's IP Address] - XP-Remote is displayed. It appears on the window's working window.
Menu Bar (b)	Basic menu for programs.
Tool Bar (c)	Button to execute commands directly from the menu.
Screen Window (d)	XGT Panel's screen. In case of non-sync mode, different screen will be seen.
Status Bar (e)	Description or movement of the currently selected file is displayed. Obtain the Whether there is a control right or not and the entity who owns the control right are displayed.



Note

If a project is not saved, its project name is not displayed on the Title Bar.

(2) Status Bar



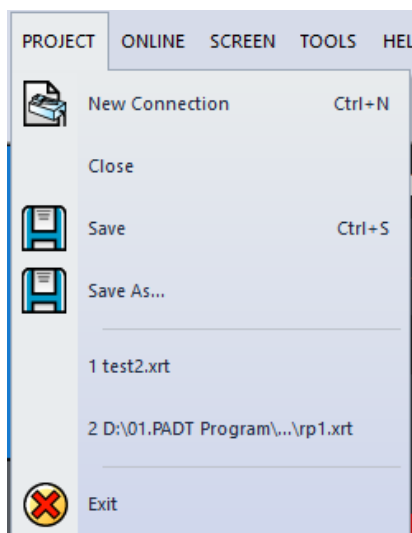
[Status bar Description]

Item	Description
Description (a)	The selected menu is described and displayed.
Display (b)	Possession status of the control right over the XP-Remote is displayed. No control right  Possession of control right 
Control Right information (c)	If there is no control right, information on other node that owns the control right is displayed. If other XP-Remote owns the control right, the IP Address of the computer in which the corresponding XP-Remote is executing is displayed. If the XGT Panel own this control right, "XGT Panel" is displayed.
Scale (d)	Displays the magnification scale on the screen

3.2. Menu Configuration

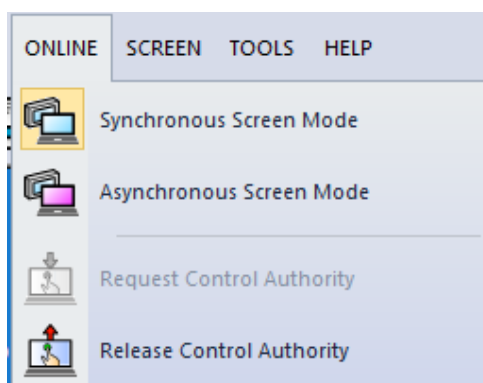
The XP-Remote menu is described. For the menus with short-cut keys, their commands are implemented through pressing short-cut keys only.

(1) Project



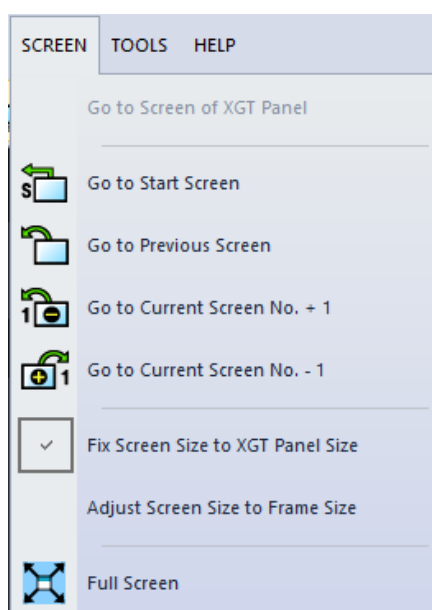
Command	Description
New Connection	Close the opened project and connect with the XGT Panel again. Open a saved project and connect with the XGT Panel.
Close	Close the opened project.
Save	Save the opened project.
Save as Different Name	Save the opened project under a different name
Recent File	List of the currently opened files is displayed
Exit	The XP-Remote exits.

(2) Online



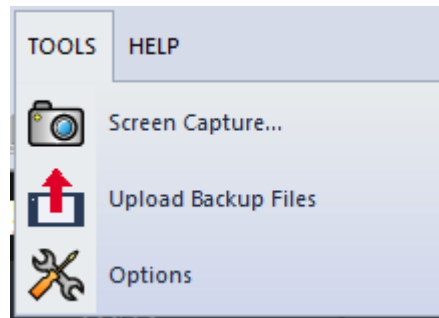
Command	Description
Synchronous Screen Mode	Always show the same screen with the XGT Panel.
Asynchronous Screen Mode	Show different screen from the XGT Panel.
Request Control Authority	Press the mouse's left button and the XGT Panel's switch to control.
Release Control Authority	The control authority is returned to the XGT Panel. Controlling is not available any more.

(3) Screen



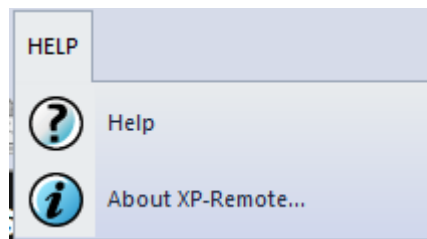
Command	Description
Go to Screen of XGT Panel	In case of the screen in non-sync mode, Go to Screen of XGT Panel.
Go to Start Screen	Convert to the starting project in the drawing
Go to Previous Screen	If converting to screen has been performed before, Go to Previous Screen
Go to Current Screen No. +1	Convert to the screen that adds 1 from the current one
Go to Current Screen No. -1	Convert to the screen that subtracts 1 to the current one.
Fix Screen Size to XGT Panel Size	The screen size is fixed to XGT panel size, even if the frame size is changed.
Adjust Screen Size to Frame Size	The screen sized is adjusted according to the frame size
Full Screen	The screen size is adjusted according to the full screen sized

(4) Tools



Command	Description
Screen Capture	The displayed screen on the XP-Remote is captured and saved in a bitmap file.
Upload Backup Files	Uploads the XGT Panel's backup file to the path specified by the user.
Options	The XP-Remote's environment settings can be changed.

(5) Help



Command	Description
Help	The XP-Remote Help File is executed.
About XP-Remote	The XP-Remote's version information and license are displayed.

3.3 Toolbar Configuration



Command	Image	Description
New Connection		Close the opened project and connect with the XGT Panel again. Open a saved project and connect with the XGT Panel.
Save		Save the opened project.
Synchronous Screen Mode		Always show the same screen with the XGT Panel.
Asynchronous Screen Mode		Show different screen from the XGT Panel.
Request Control Authority		Press the mouse's left button and the XGT Panel's switch to control.
Release Control Authority		The control right is returned to the XGT Panel. Controlling is not available any more.
Go to Start Screen		Convert to the starting project in the drawing
Go to Previous Screen		If converting to screen has been performed before, Go to Previous Screen
Go to Current Screen No. +1		Convert to the screen that subtracts 1 from the current one
Go to Current Screen No. -1		Convert to the screen that adds 1 to the current one.
Screen Capture		The displayed screen on the XP-Remote is captured and saved in a bitmap file.
Screen Combo Box		The current screen number is displayed. If the Combo Box is unfolded, the screen number list can be seen.

4. Chapter 4 Project

4.1. New Connection

The XP-Remote can move only when it is connected with the XGT Panel through Online. The following three methods can be used for new connection.

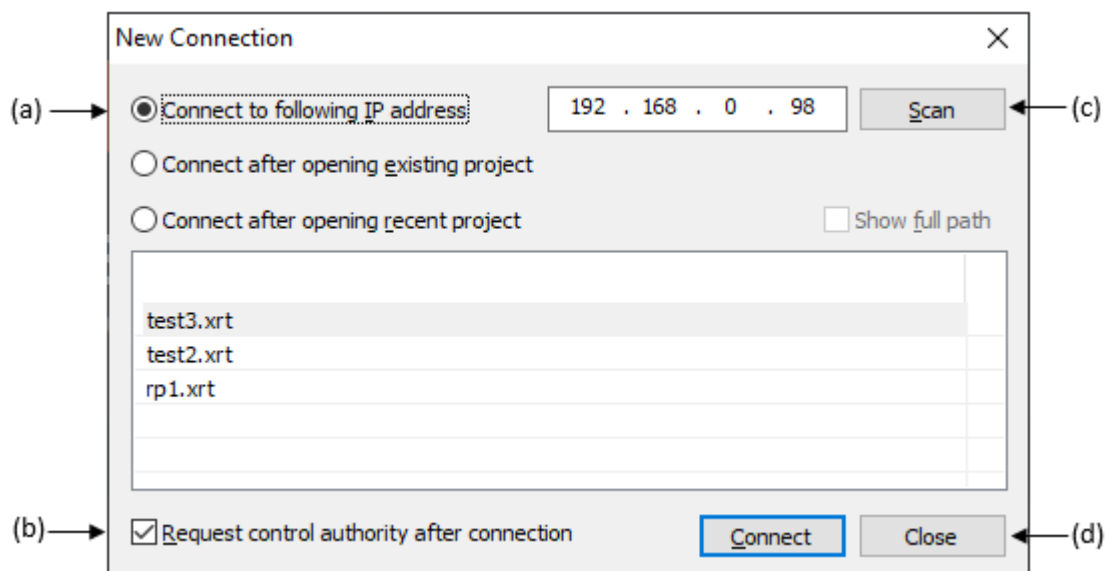
4.1.1. Connect to the following IP address

Connecting is available after directly inputting the XGT Panel's IP Address. The XGT Panel's IP Address to be connected shall be known in advance.

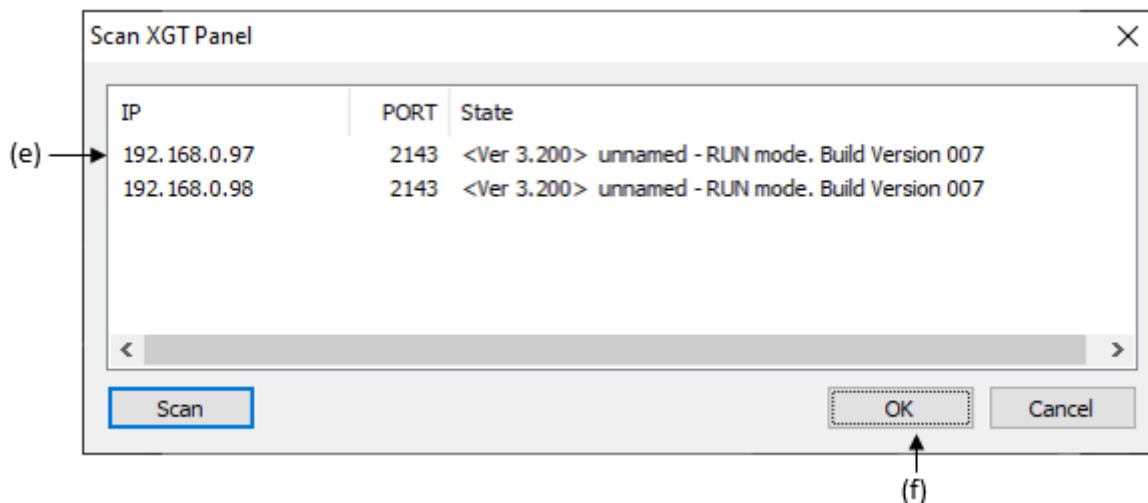
Monitoring is possible by connecting with the XGT Panel with the inputted IP address and synchronizing the project with it.

[Sequence]

- (1) Select Menu [Project]-[New Connection]
- (2) Select Option [Connect to following IP address]
- (3) Input IP Address.



- (4) Or press the [Scan] button to search and select the XGT Panel on the network.



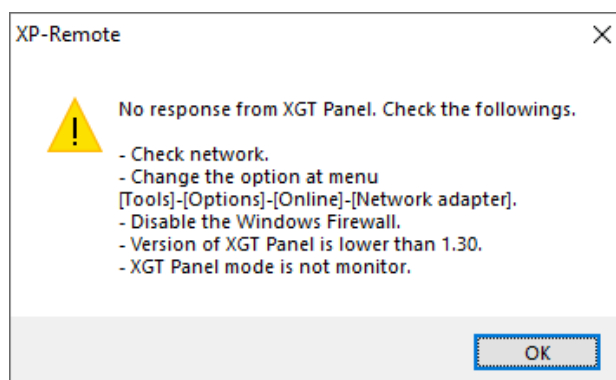
(5) Press the [OK] button to connect with the XGT Panel.

[Dialog Box Description]

Item	Description
Connect to following IP address (a)	The inputted IP Address's XGT Panel is connected. Input an accurate IP Address.
Request control authority after connection (b)	Obtaining the control right is attempted automatically after connecting with the XGT Panel. If the XGT Panel does not allow the control right, that attempt might be turned into failure.
Scan (c)	XGT Panels are scanned and selected on the network.
Connect (d)	A project is generated after connecting with the XGT Panel
XGT Panel List (e)	A list of XGT Panels that respond on the network is displayed. IP address and status information are displayed.
OK (f)	The selected XGT Panel's IP Address is returned.

Note

(1) In case that communication with the XGT Panel is failed, the following message will appear. Check communication errors and attempt reconnection.

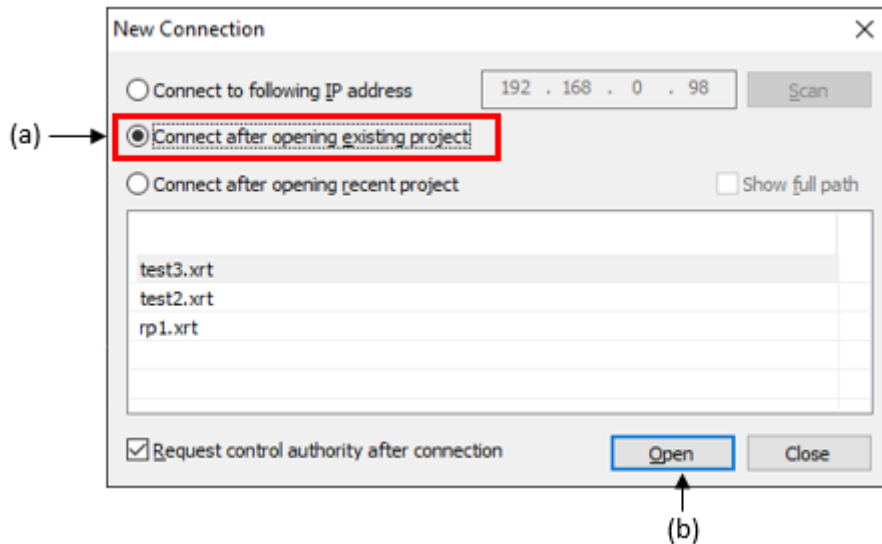


(2) For detailed solutions in case of communication failure, refer to "Appendix 1 Problem Solving"

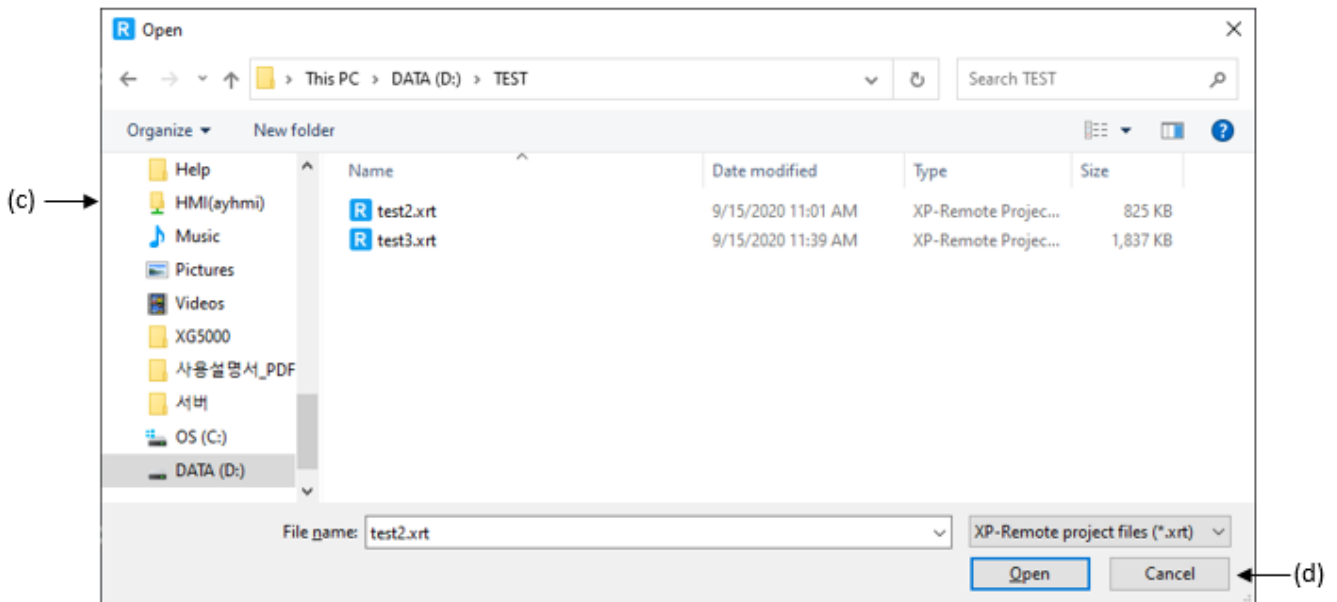
4.1.2. Connect after opening existing project

[Sequence]

- (1) Select Menu [Project]-[New Connection].
- (2) Select Option [Connect after opening existing project].



- (3) Press the [Open] button.
- (4) A dialog box to find a file appears. After finding a file, press the [Open] button.



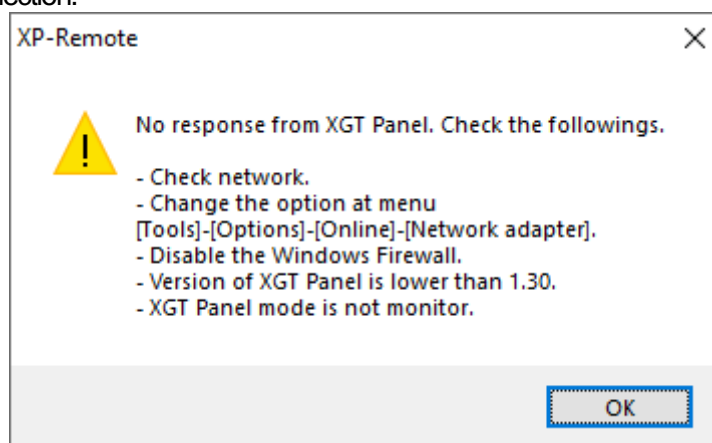
- (5) After opening the selected file by pressing the [Open] button, connect with the XGT Panel with the saved IP Address.

[Dialog Box Description]

Item	Description
Connect after opening existing project (a)	Find and open a XP-Remote file among the saved files. Find an xrt file. xrt files are XP-Remote project files.
Open (b)	Call a dialog box to find a file.
File List(c)	An xrt file list is seen in the selected folder. If there is no xrt file, no list is displayed.
Open(d)	A selected xrt file is opened. After opening, the XGT Panel is connected with the saved IP Address.

Note

- (1) When communication with the XGT Panel is failed, the following message will appear. Check communication errors and attempt reconnection.

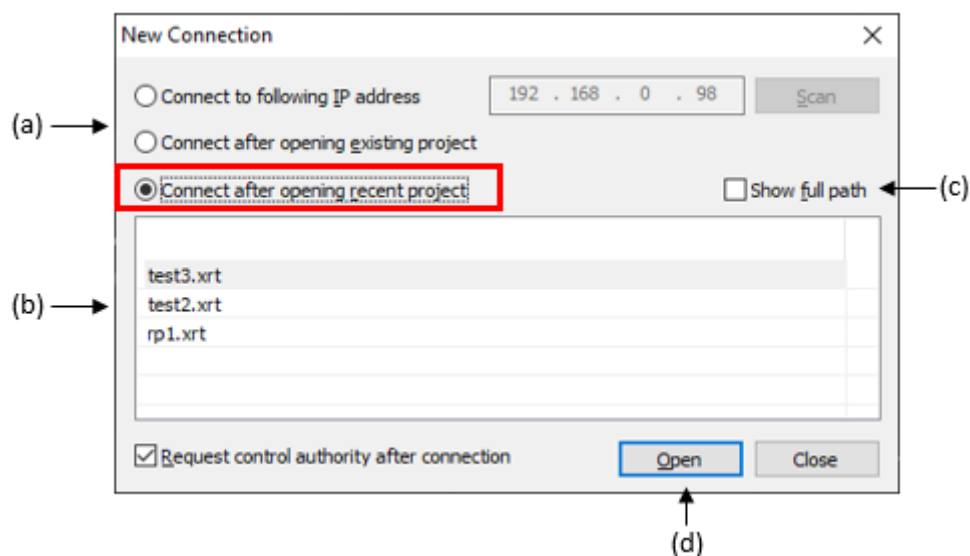


- (2) For detailed solutions in case of communication failure, refer to “Appendix 1 Problem Solving”
- (3) Basically, the file list shows only xrt files and folders. When changing the file type into “All” type, all of files in the folder can be seen.

4.1.3. Connect after opening recent project

[Sequence]

- (1) Select Menu [Project]-[New Connection]
- (2) Select option [Connect after opening recent project]
- (3) Select a file from the list.



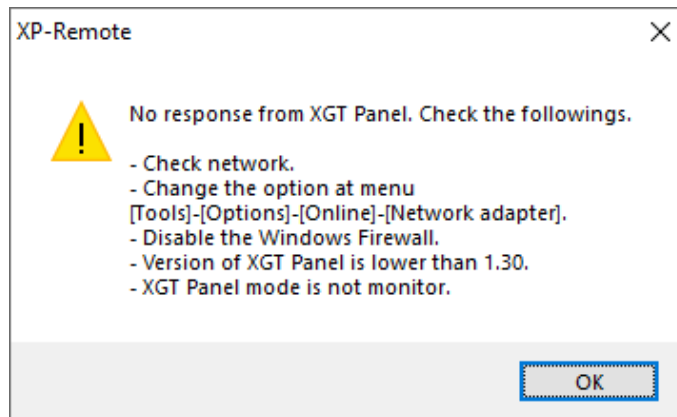
Press the [Open] button and connect with the XGT Panel.

[Dialog Box Description]

Item	Description
Connect after opening recent project (a)	After opening a selected file among the list that has been opened before on the XP-Remote, connect it with the XGT Panel.
Project List (b)	Display the Project List that has been opened before.
Show full Path (c)	Show the entire path on which files are located.
Open (d)	After opening a selected file, connect it with the XGT Panel with the saved IP Address.

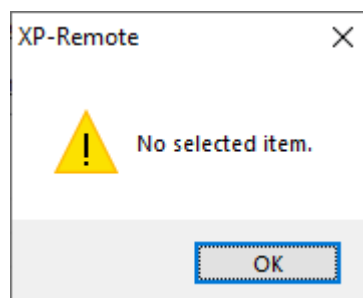
Note

In case that communication with the XGT Panel is failed, the following message will appear. Check communication errors and attempt reconnection.

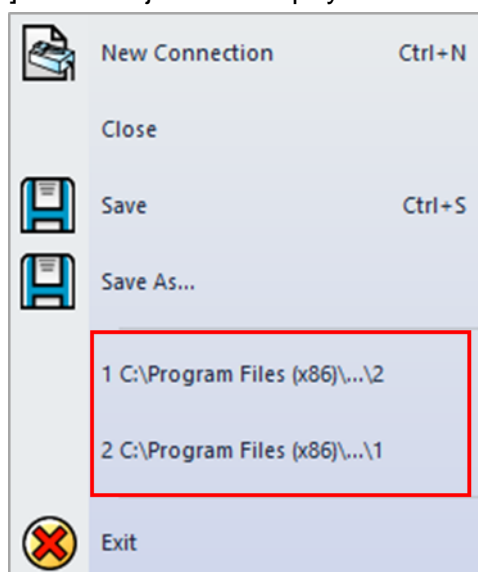


(2) For detailed solutions in case of communication failure, refer to "Appendix 1 Problem Solving."

(3) If there is no selected project, the following error message will appear.



(4) The same list with the Menu [Project]'s latest Project List is displayed.

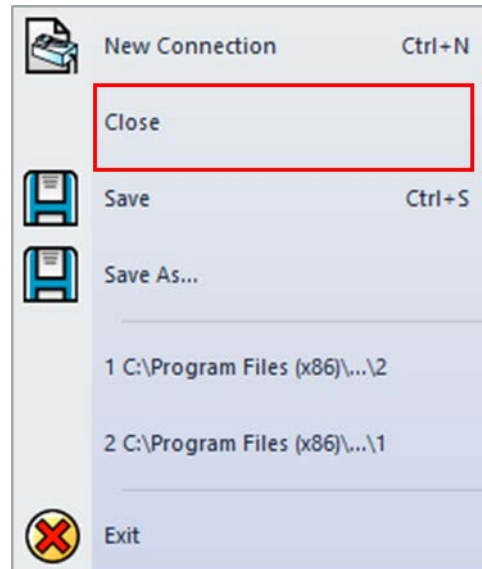


4.2 Close

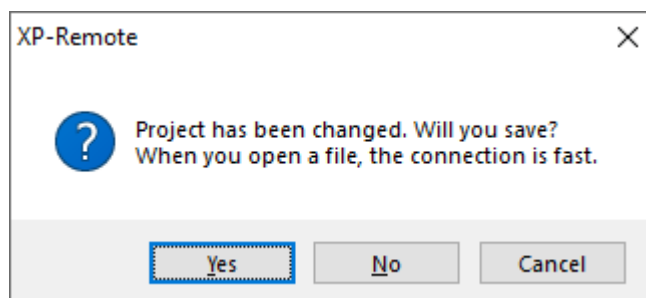
Close the opened project.

[Sequence]

- (1) Select 'Menu [Project]-[Close]'



- (2) In case that any opened project is closed without being saved or the connected XGT Panel's drawing is revised, it checks whether to save changes or not.

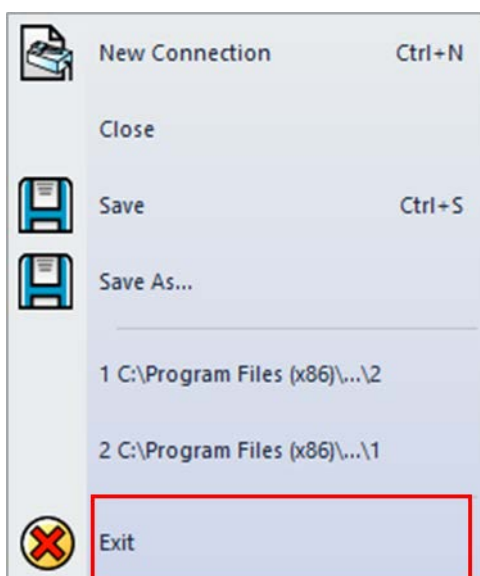


4.3 Exit

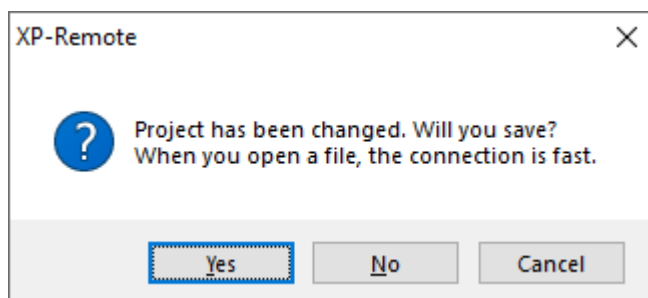
Close the opened project and end the XP-Remote.

[Sequence]

(1) Select Menu [Project]-[Exit].



(2) In case that any opened project is closed without being saved or the connected XGT Panel's drawing is revised, it checks whether to save changes or not.



(3) The XP-Remote will be ended.

5. Chapter 5 Online

5.1. Synchronous Screen Mode

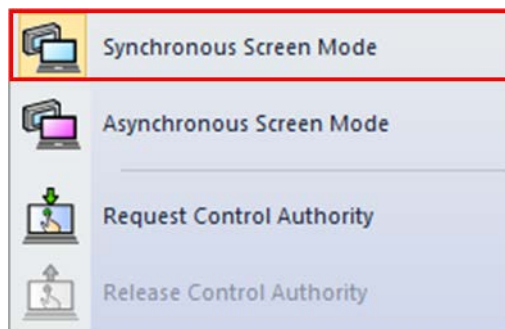
After the XP-Remote is connected with the XGT Panel, always the same screen is displayed. The same screen is displayed with the basic screen, Global Window1 and Global Window2.

In case that a screen is converted from the XGT Panel, the XP-Remote also converts the screen.

In case that a screen is converted from the XGT Panel after the control right is obtained, the XP-Remote also converts the screen.

[Sequence]

- (1) Select Menu [Online]-[Synchronous Screen Mode].



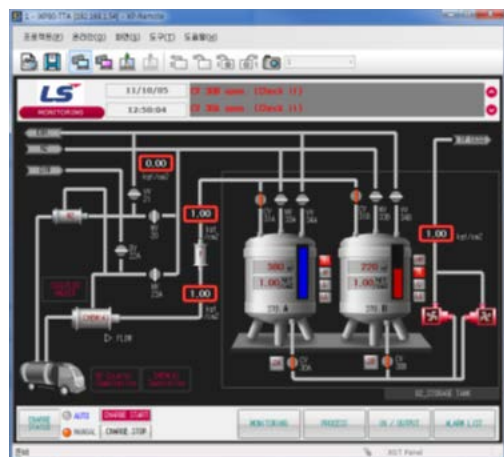
- (2) The same screen with the XGT Panel is displayed.

Note

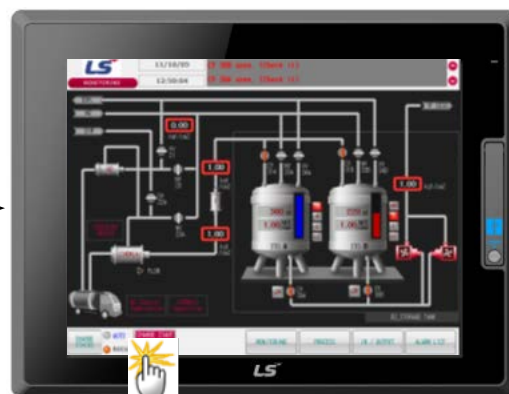
- (1) If the current mode is the Synchronous Screen Mode, Menu [Synchronous Screen Mode] has been already checked.
- (2) In case that it is in the Asynchronous Screen Mode and a different screen from the XGT Panel is displayed, it converts into the same screen with the XGT Panel if the Synchronous Screen Mode is selected.
- (3) The Synchronous Screen Mode can be implemented regardless of owning the control right.
- (4) Any window generated upon pressing any window switch or the pressure keypad screen is not synchronized.
- (5) Device values are always synchronized regardless of the Synchronous Screen Mode.

5.1.1. Convert Screen by the XGT Panel

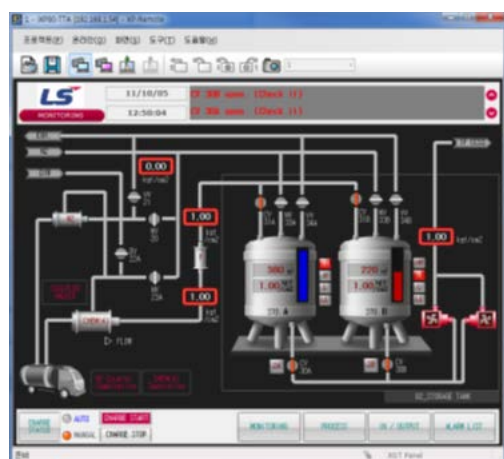
When a screen is converted by the XGT Panel, a screen is converted also on the XP-Remote.



Ethernet



Convert screen by the
channel number2



Screen sync

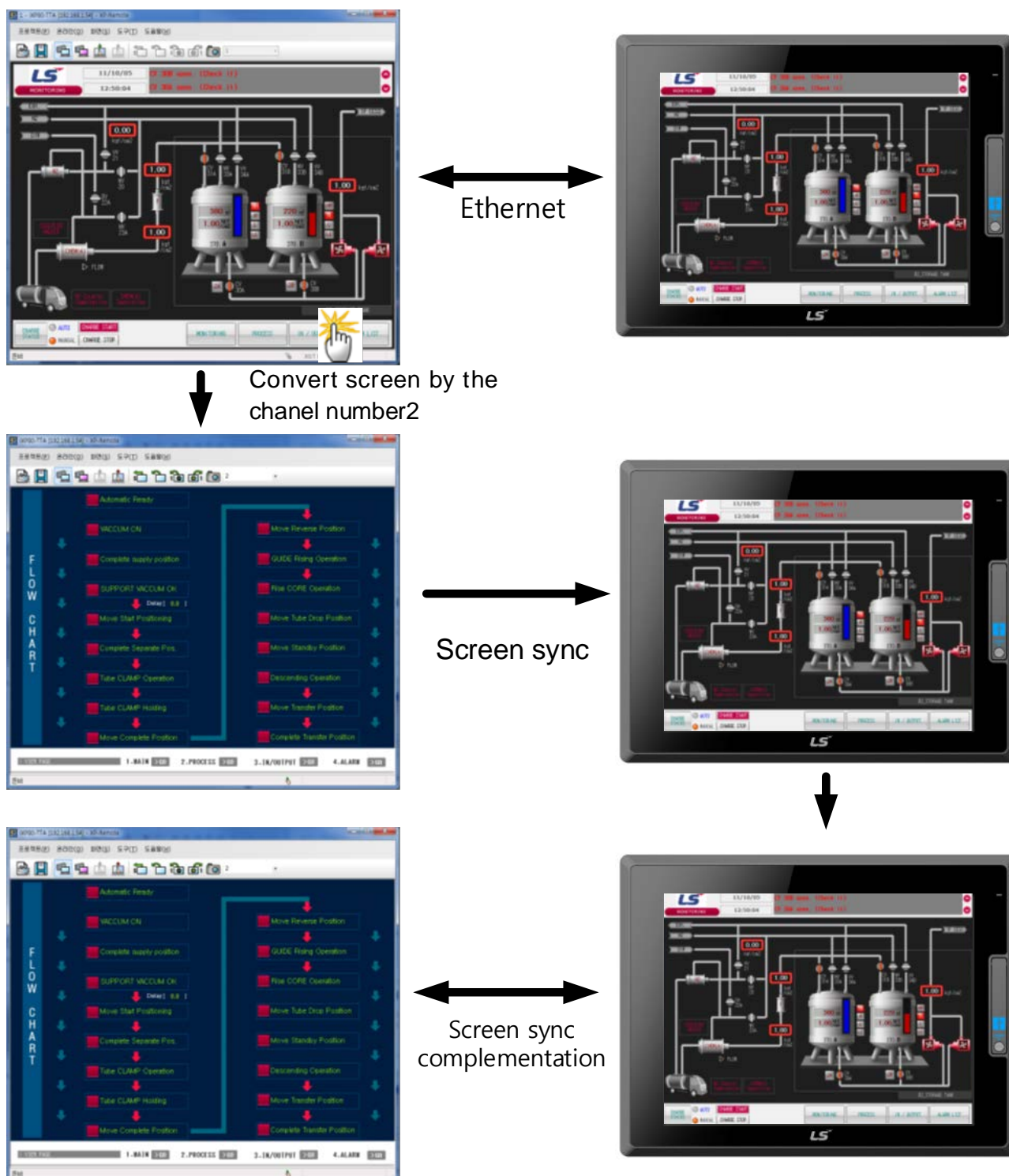


Screen sync
complementation



5.1.2. Convert Screen on the XP-Remote

When the XP-Remote owns the control right, a screen is converted also on the XGT Panel as a screen is converted on the XP-Remote.



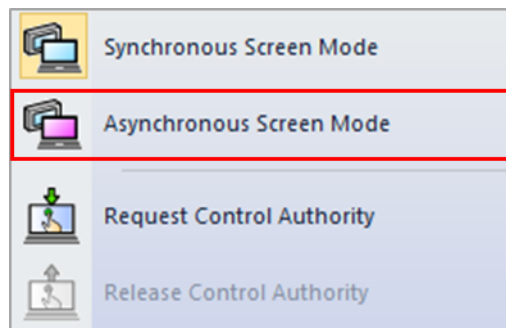
5.2. Asynchronous Screen Mode

Different screen from the XGT Panel can be monitored on the XP-Remote. The basic screen, Global Window1 and Global Window2 can be seen differently.

Even a screen is converted on the XGT Panel, the current screen is continuously displayed on the XP-Remote. In contrary, in case that a screen is converted on the XP-Remote, the XGT Panel continuously displays the current screen.

[Sequence]

- (1) Select Menu [Online]-[Synchronous Screen Mode].

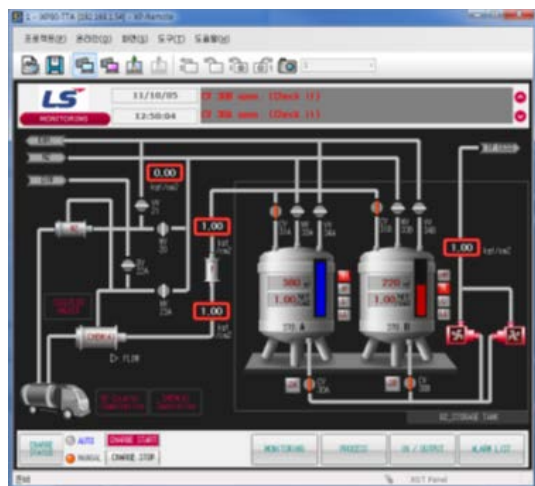


Note

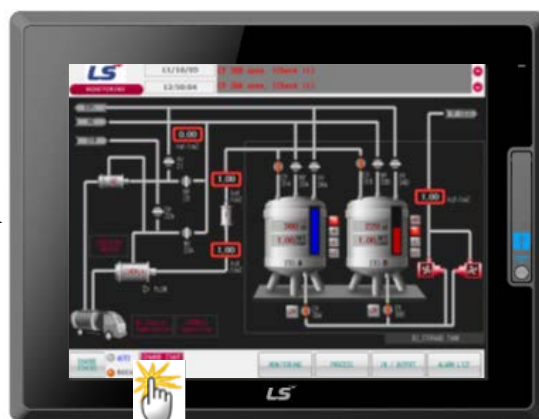
- (1) If the current screen is the Asynchronous Screen Mode, Menu [Asynchronous Screen Mode] has been already checked.
- (2) The Synchronous Screen Mode can be implemented regardless of owning the control right
- (3) Device values are always synchronized regardless of the Synchronous Screen Mode.
- (4) In case that the XP-Remote does not have any control right, a screen can be converted by using the screen Conversion menu. For details, refer to "Chapter 6 Screen" in the Users Manual.

5.2.1. Convert Screen by the XGT Panel

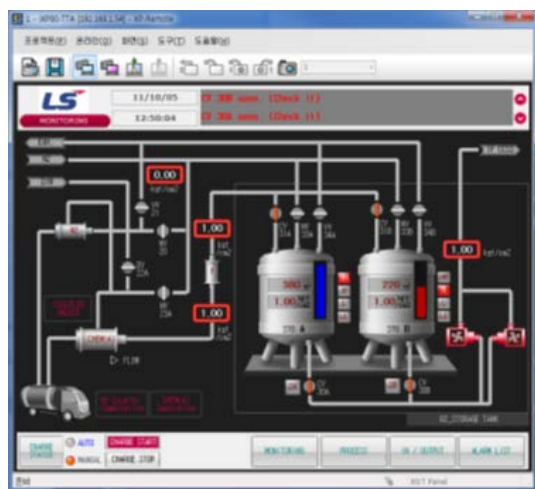
Even though a screen is converted by the XGT Panel, any screen is not converted on the XP-Remote.



↔
Ethernet

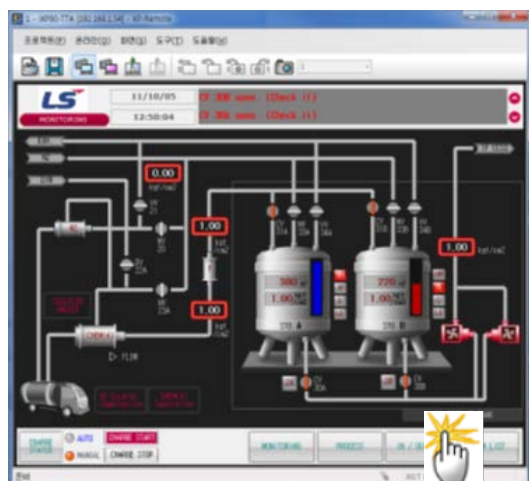


Convert screen by the
chanel number2

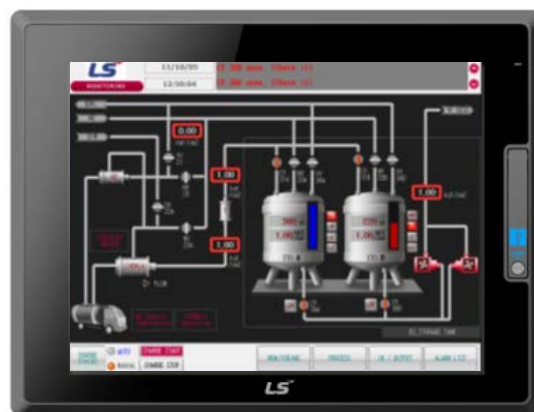


5.2.2. Convert Screen on the XP-Remote

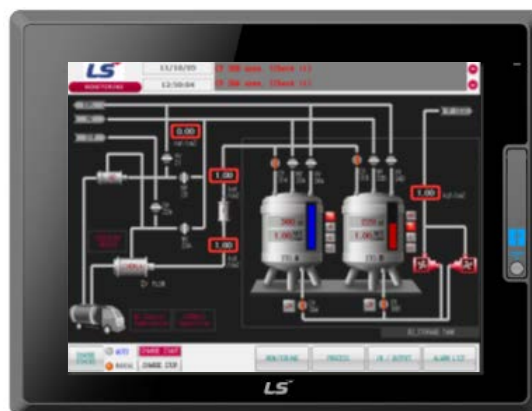
Even though a screen is converted on the XGT Remote, any screen is not converted on the XGT-Panel.



↔ Ethernet



Convert screen by the
channel number2

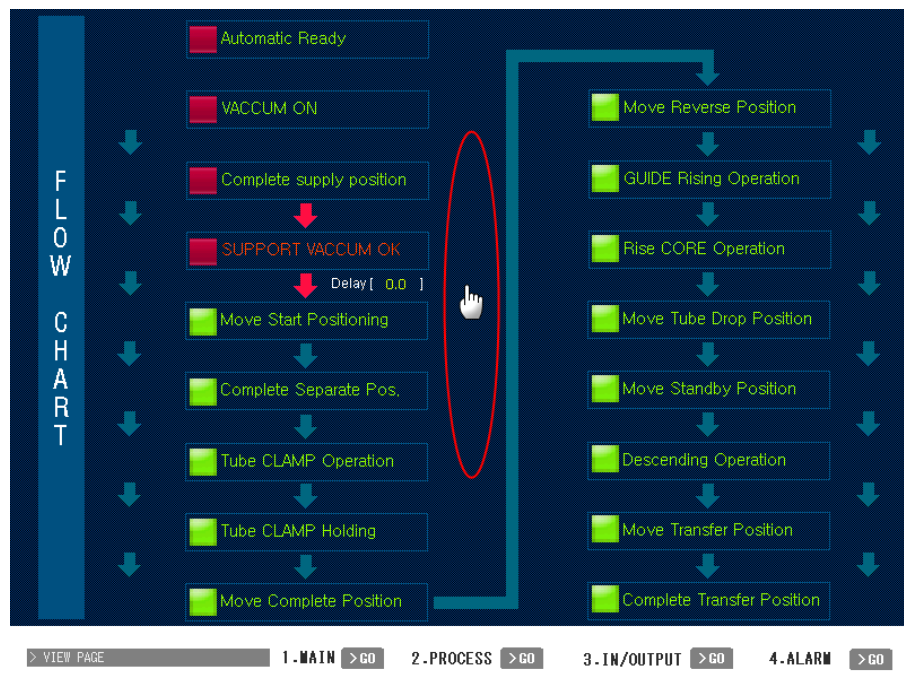


5.3. Request Control Authority

At the first implementation, the XP-Remote does not own the control right. Therefore, the XGT Panel's switches cannot be controller. Only after a control right is obtained from the XGT Panel, they can be controlled.

[Sequence]

- (1) Press non-screen of the XGT Panel's screen about 2 seconds.

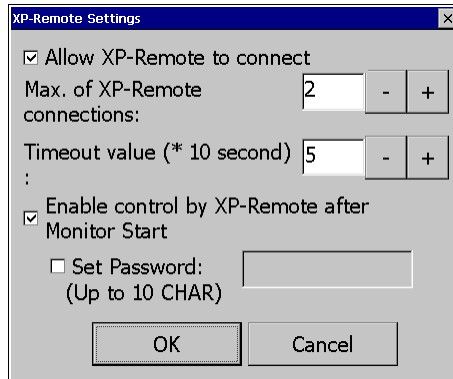


- (2) Press the [Enable control by XP-Remote] button in the dialog box at the bottom of the screen.

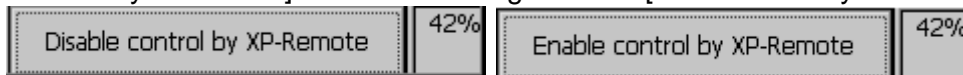


Note

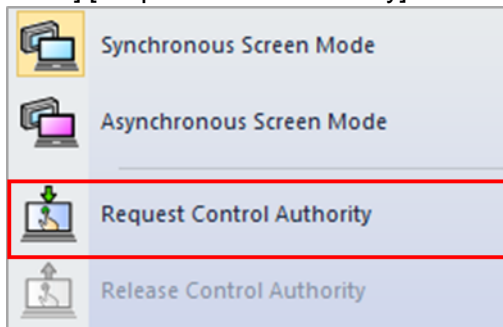
(1) If Option [Allow XP-Remote to connect] is not checked in the XGT Panel's Menu [Settings]-[XP-Remote] Setting dialog box, the [Enable control by XP-Remote] button cannot be seen.



(2) The [Enable control by XP-Remote] button will be changed into the [Disable control by XP-Remote] one.



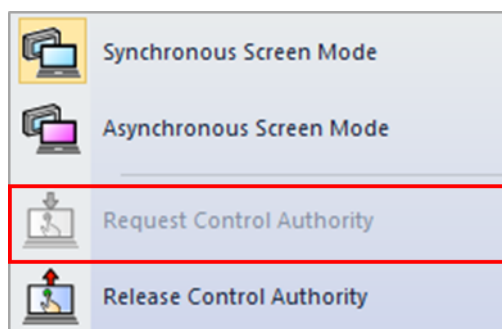
(3) Select XP-Remote Menu [Online]-[Request Control Authority].



(4) When the XP-Remote obtains the control right, the XGT Panel can be controlled by pressing switches.

Note

(1) If the XP-Remote obtains the control right, [Online]-[Request Control Authority] Menu will be inactive.



(2) The XGT Panel's [Enable control by XP-Remote] button is changed into the [Disable control by XP-Remote].

If the XP-Remote obtains the control right,  Control Right icon is displayed on the Status Bar

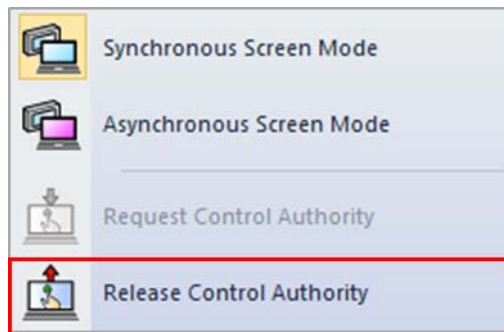


5.4. Release Control Authority

In case that controlling is not needed any more on the XP-Remote or other XP-Remote needs the control right, the control right shall be returned to the XGT Panel. After the control right is returned, switches cannot be controlled from XP-Remote.

[Sequence]

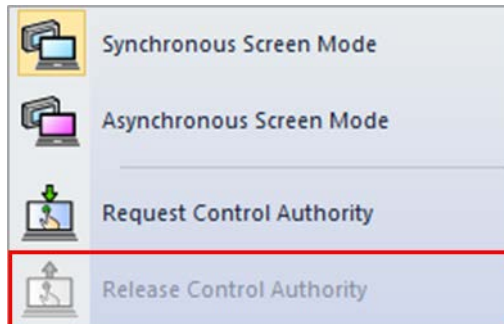
- (1) Select XP-Remote Menu [Online]-[Release Control Authority]



- (2) The control right is returned to the XGT Panel.

Note

- (1) If the XP-Remote returns the control right, [Online]-[Release Control Authority] Menu will be inactive.



- (2) If the XP-Remote returns the control right, the Status Bar will show No Control Right icon.

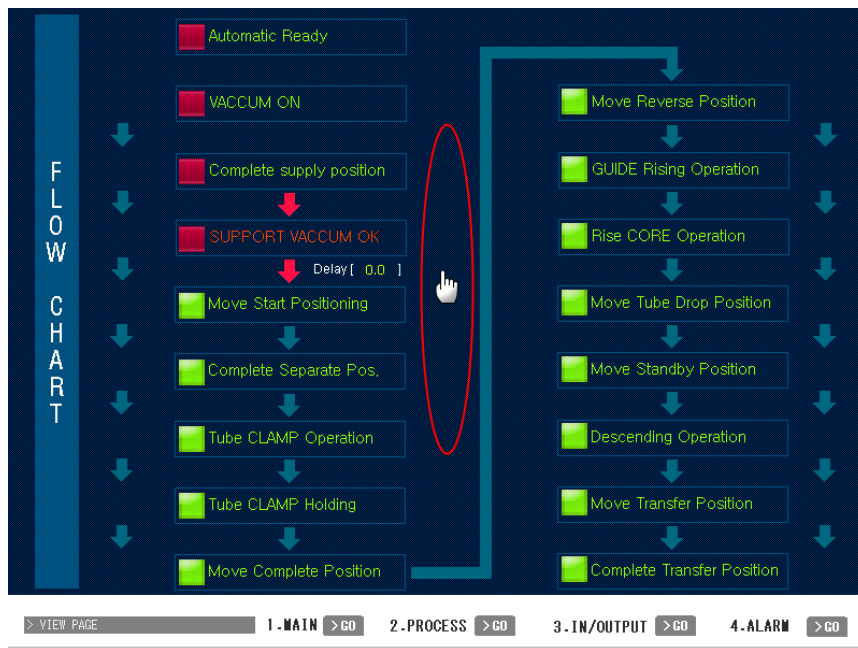


5.5. Request Control Authority from the XGT Panel

When the XGT Panel does not have the control right and it is urgently needed for the XGT Panel to control, the XP-Remote's control right can be forcefully taken. Since then, the XP-Remote loses the control right.

[Sequence]

- (1) Press non-screen of the XGT Panel's screen about 2 seconds.



- (2) Press the [Disable control by XP-Remote] button in the dialog box at the bottom of the screen.



6. Chapter 6 Screen

Since the XP-Remote provides the Screen Conversion Tool Bar, screen conversion movement in a drawing or converting to other screen is possible.

The screen is convertible under the following conditions:

XP-Remote Control Right Possession	Screen Mode	Available to Convert Screen
No Control Right	Asynchronous Screen Mode	Available
No Control Right	Synchronous Screen Mode	Not available
Control Right	Asynchronous Screen Mode	Available
Control Right	Synchronous Screen Mode	Available

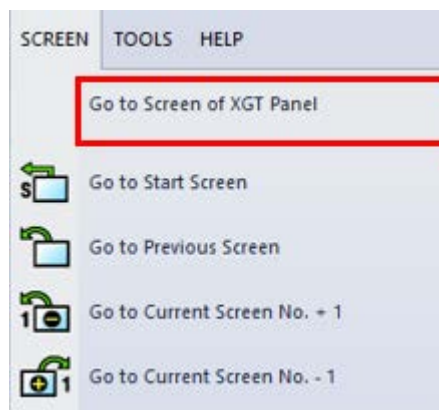
If the XP-Remote has the control right and it is in the sync mode, the XGT Panel screen is also convertible on the XGT Panel when the screen is converted.

6.1. Go to Screen of XGT Panel

If the XP-Remote is in the Asynchronous Screen Mode, it is an available function when a different screen is displayed from the XGT Panel's screen. It converts to the screen that the XGT Panel is currently displaying.

[Sequence]

- (1) Select XP-Remote Menu [Screen]-[Go to Screen of XGT Panel]



- (2) It converts to the same screen with the XGT Panel's current screen.

Note

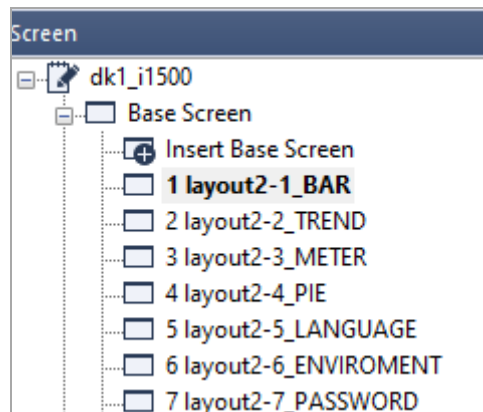
If the screen displays the same screen with the XGT Panel, the screen won't be converted even [Go to Screen of XGT Panel] Menu is selected.

6.2. Go to Start Screen

A designated screen in a drawing file of the XGT Panel is converted to the starting screen

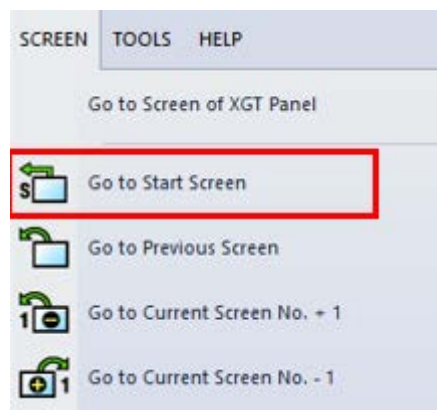
Note

Starting screen: The basic screen in bold font in the XP-Builder project window is the starting screen.
The starting screen is No. 1 screen in the following figure.



[Sequence]

(1) Select XP-Remote Menu [Screen]-[Go to Start Screen].



(2) The starting screen is converted.

Note

If the current screen is the starting screen, the screen won't be converted even [Go to Start Screen] Menu is selected.

6.3. Go to Previous Screen

This function is available if the XP-Remote has converted screens before. It converts to the previous screen.

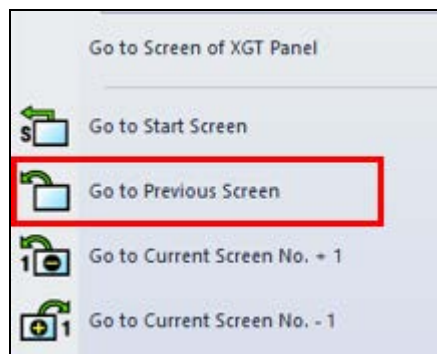
Note

Example of Go to Previous Screen

The current screen is NO. 10. → Convert to NO. 5 screen → Select the [Go to Previous Screen] Menus → Convert to NO.10 screen

[Sequence]

(1) Select XP-Remote Menu [Screen]-[Go to Previous Screen].



(2) Converting to the previous screen is performed.

Note

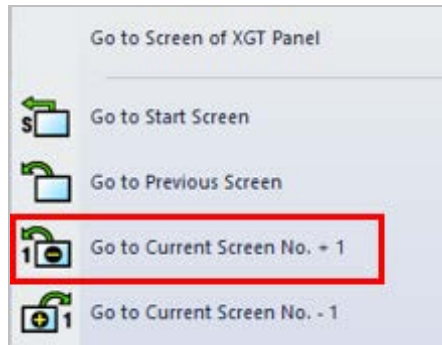
If the connected XGT Panel upon the start of the XP-Remote has converted screens before, it is possible to Go to Previous Screen

6.4. Go to Current Screen No.+1

The current screen is converted to the screen that adds 1 from the current one.

[Sequence]

- (1) Select XP-Remote Menu [Screen]-[Go to Current Screen No. +1].



- (2) Convert to the screen that adds 1 from the current one.

Note

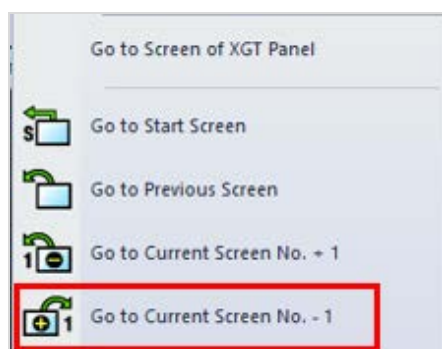
- (1) No. 0 screen is not converted.
- (2) If the screen that adds 1 from the current one does not have any drawing, the screen is not converted.

6.5. Go to Current Screen No.-1

The current screen is converted to the screen that subtracts 1 to the current one.

[Sequence]

- (1) Select XP-Remote Menu [Screen]-[Go to Current Screen No. -1].



- (2) Convert to the screen that subtracts 1 to the current one.

Note

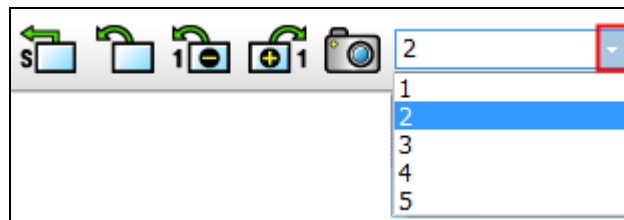
- (1) No. 0 screen is not converted.
- (2) If the screen that subtracts 1 to the current one does not have any drawing, the screen is not converted.

6.6. Screen Conversion Combo Box

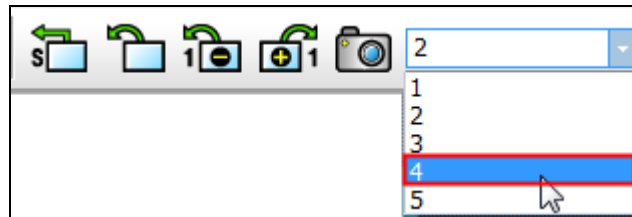
Screen Conversion Combo Box exists on the XP-Remote Tool Bar. Immediate converting to a particular screen number is possible.

[Sequence]

- (1) Select an arrow of screen number combo box to unfold the combo.
- (2) A screen number list is displayed in the drawing.



- (3) Select a screen number you want to move from the list.



- (4) Convert to the selected screen.

Note

- (1) Input a number directly in the combo box and press the Enter button to make the applicable screen converted.
- (2) If the inputted screen number does not exist in the drawing, converting is not performed. "screen number – NG" is displayed as follows:

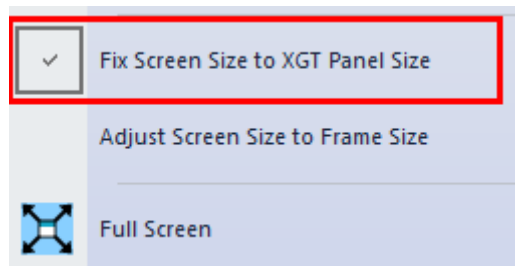


6.7. Fix Screen size to XGT Panel Size

Regardless of the frame size of XP-Remote, it is fixed the same as the screen sized of XGT Panel.

[Sequence]

- (1) Select the menu [Screen]-[Fix Screen Size to XGT Panel Size] menu.



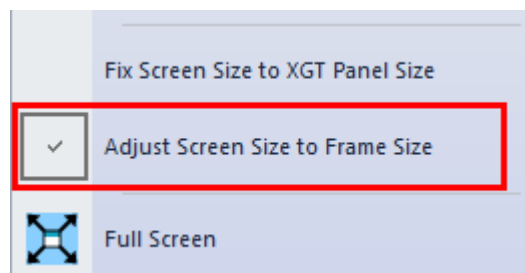
- (2) If the screen size is enlarged or reduced, the screen size is adjusted to be the same as the XGT Panel size
- (3) Even if the frame size of XP-Remote is adjusted, the screen size does not increase or decrease.

6.8. Adjust Screen Size to Frame Size

The screen can be automatically enlarged or reduced according to the frame size of XP-Remote.

[Sequence]

- (1) Select the menu [Screen]-[Adjust Screen Size to Frame Size] menu.



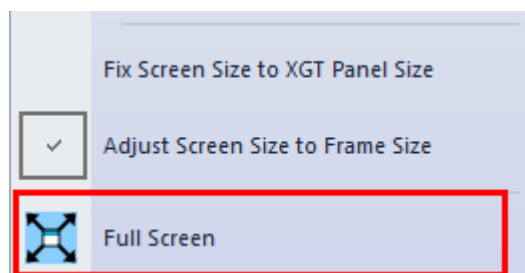
- (2) The screen size is automatically enlarged or reduced according to the size of the frame.
- (3) When adjusting the size of the frame by dragging it with the mouse, it is automatically enlarged or reduced.

6.9. Full Screen

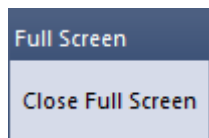
Enlarges the screen to the size of the monitor.

[Sequence]

- (1) Select the menu [Screen]-[Full Screen] menu.



- (2) Enlarge the screen to match the size of the monitor running XP-Remote.
- (3) The toolbar disappears, and the [Close Full Screen] button is displayed.



- (4) Click the [Close Full Screen] button or press the [ESC] button on the keyboard to return to the original screen size.

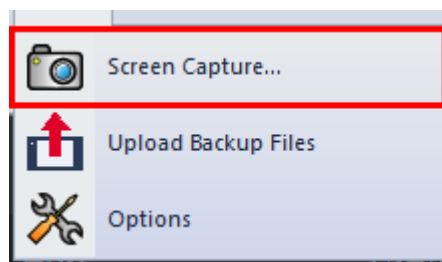
7. Chapter 7 Tools

7.1. Screen Capture

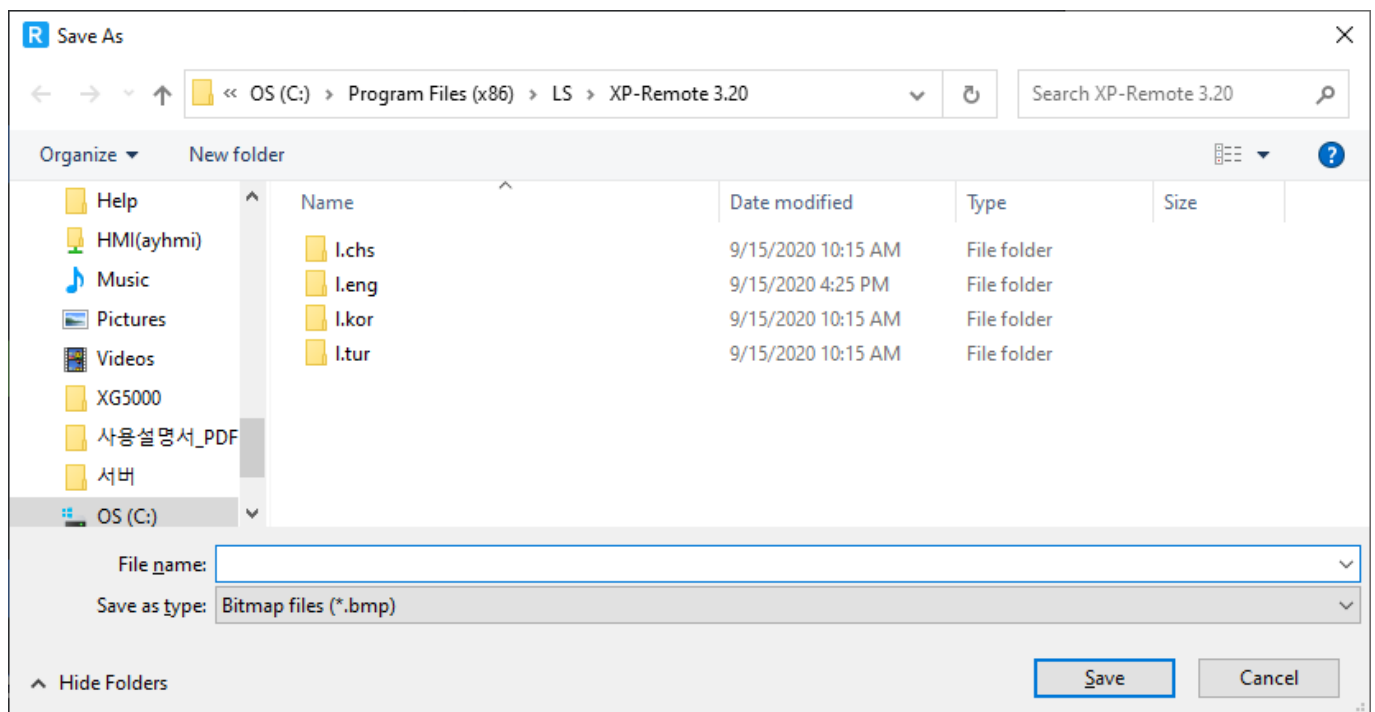
A screen displayed on the XP-Remote is saved in a bitmap file.

[Sequence]

(1) Select XP-Remote Menu [Tools]-[Screen Capture]



(2) A dialog box of saving as other name appears.



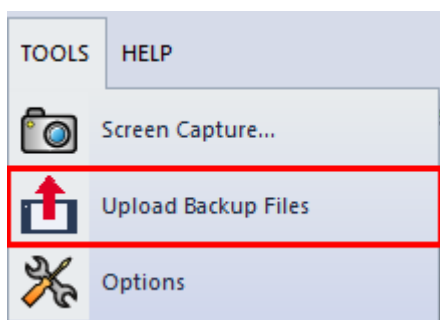
(3) Input a file name and press the Save button to save the file.

7.2. Upload Backup Files

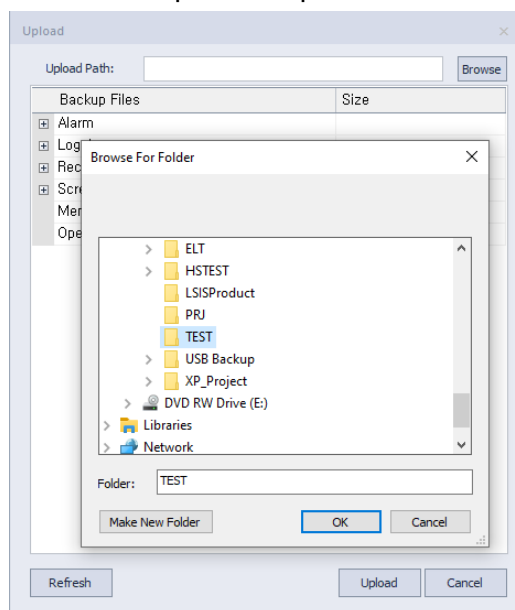
Upload the backup file in XGT Panel and save it in the set path.

[Sequence]

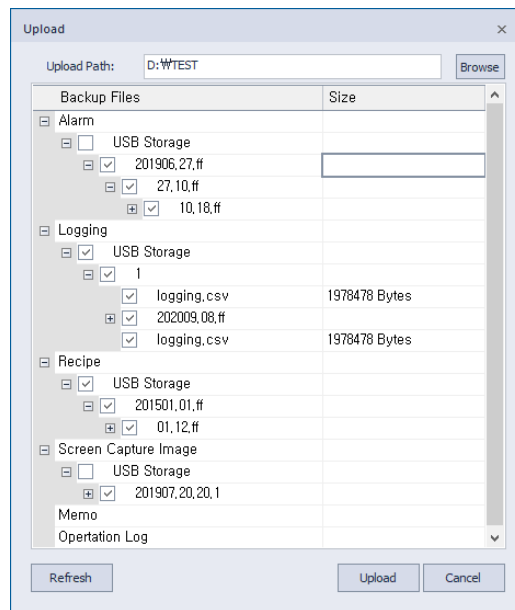
(1) Select XP-Remote Menu [Tools]-[Upload Backup Files]



(2) Click the [Browse] button to set the backup file save path

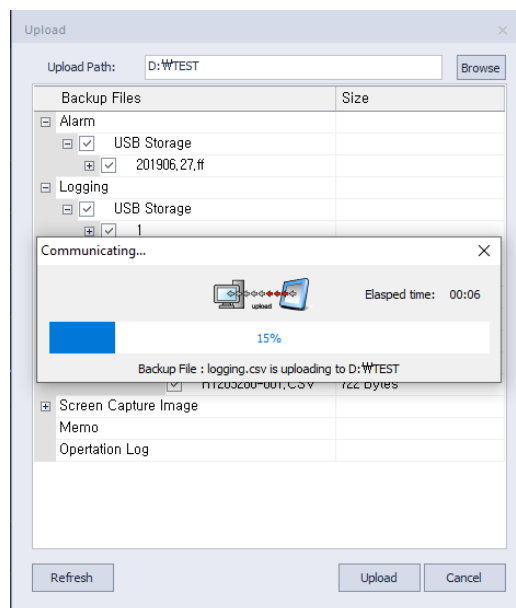


(3) Select the files on the list that needs to be backup. Alarm, Logging, Recipe, Screen Capture Image, Memo, Operation Log and etc. can be backed up.



(4) Click the [Refresh] button to update the changes in the backup file or update to the latest list.

(5) Click the [Upload] button to upload the backup file to the set path.



(6) Click the [Cancel] button to close the window without uploading the backup file.

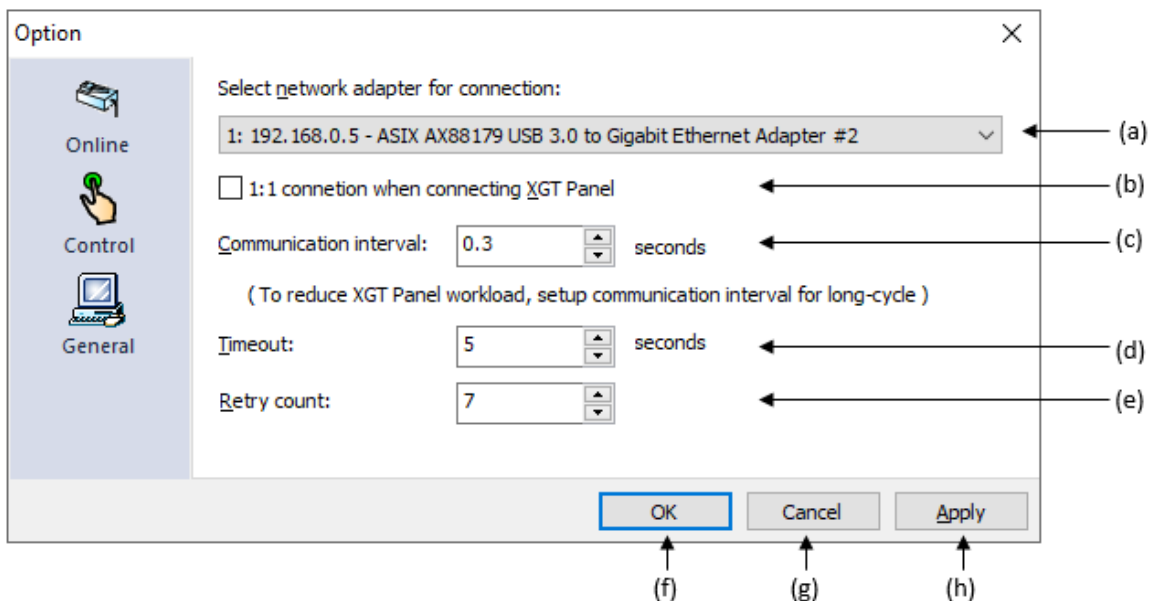
7.3. Option

7.3.1. Online

Settings related to online can be changed.

[Sequence]

(1) Select XP-Remote Menu [Tools]-[Options]-[Online] tap.



(2) Revise items and press the Confirm button.

[Dialog Box Description]

Item	Description
Select network adapter for connection (a)	Select a network adopter mounted on the computer. Data are sent or received via the selected network adopter to the XGT Panel.
1:1 connection when connecting XGT Panel (b)	If the selected adopter's IP band is different from that of the XGT Panel, add a virtual IP Address to the computer and attempt communication. But, on Windows Vista and Windows 7, it is not supported.
Communication interval (c)	Interval to collect device values on the screen (0.1second ~ 1.0 second)
Timeout (d)	Waiting time for response during the communication with the XGT Panel (1second ~ 10seconds)
Retry count (e)	The number of retry counts when communication with the XGT panel
OK (f)	Save the changed contents and close the dialog box
Cancel (g)	Close the dialog box without saving the changes
Apply (h)	Apply the changes.

Note

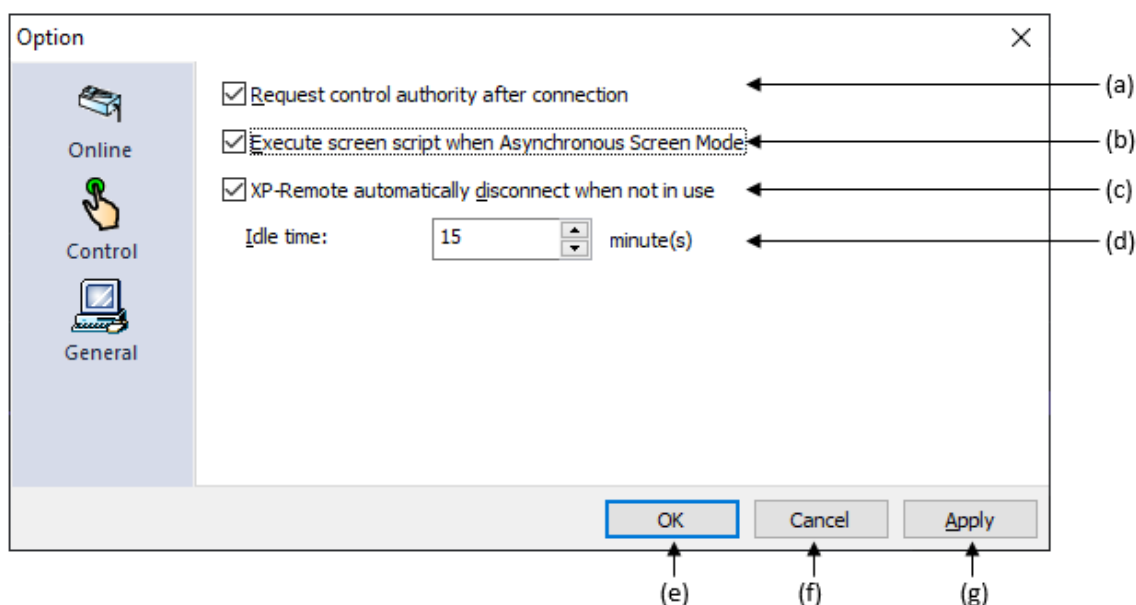
- (1) Select a network adopter whose IP band adopter is the same with that of the XGT Panel to reduce communication error.
- (2) If the XGT Panel is a PLC communication timeout, xp-remote communication timeout may occur if the time-out time of the XP-Remote is less than the timeout time of the XGT Panel.

7.3.2. Control

Settings regarding to control can be changed.

[Sequence]

- (1) Select XP-Remote Menu [Tools]-[Options]-[Control] tap.



- (2) Revise the item and click the OK button

[Dialog Box Description]

Item	Description
Request control authority after connection (a)	After connecting with the XGT Panel, automatically attempt to Request Control Authority. For details on the control right, refer to “Chapter 5 Online” of the User’s Manual.
Execute screen script when Asynchronous Screen Mode (b)	On the XP-Remote, screen script is not implemented. When this option is selected, screen script will be implemented upon converting to the screen synchronized with Screen Script.
XP-Remote automatically disconnect when not in use (c)	If you don’t use XP-Remote during the idle time, it automatically disconnects the connection with XGT Panel.
Idle time (d)	Waiting time until disconnecting XP-Remote. The time can be set from 10 to 30minutes.
OK (e)	Save the changed contents and close the dialog box
Cancel (f)	Close the dialog box without saving the changes
Apply (g)	Apply the changes.

Note

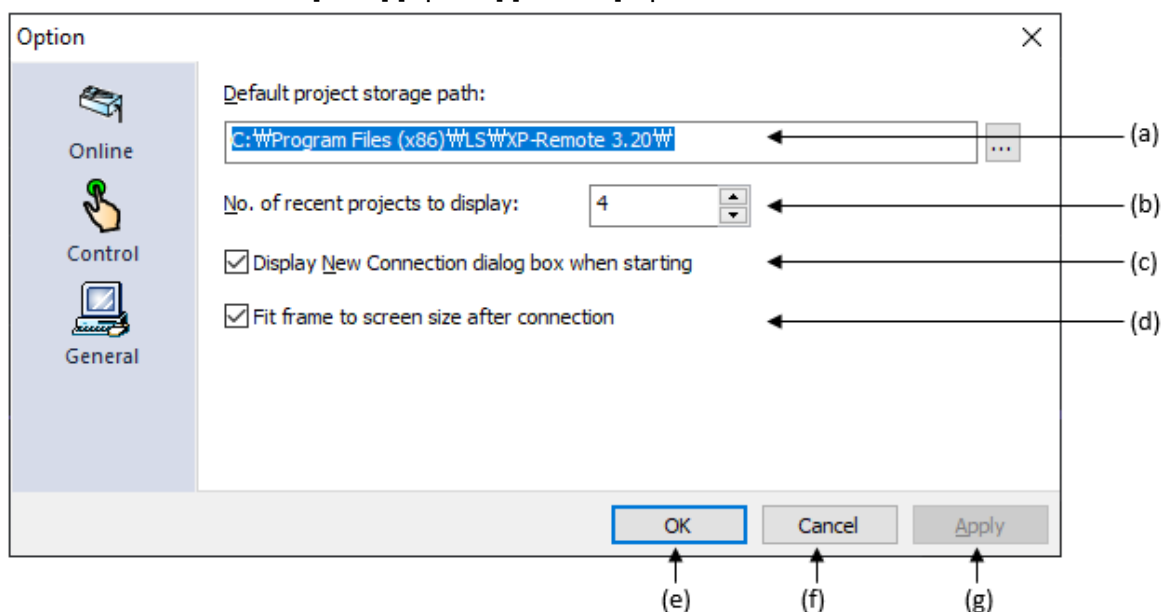
PLC Control might be malfunctioning when any different screen script from that of the XGT Panel and that of the XP-Remote is implemented in asynchronous mode. That is why Screen Script is not used.

7.3.3. General

The XP-Remote's general settings can be changed.

[Sequence]

- (1) Select XP-Remote Menu [Tools]-[Options]-[General] tap.



- (2) Modify items and press the Confirm button.

[Dialog Box Description]

Item	Description
Default project storage path (a)	Specify a path to save a project for the first time.
No. of recent project to display (b)	Specify the number of displayed recent project list.
Display New Connection dialog box when starting (c)	Set up whether to display a dialog box of reconnection when the XP-Remote starts.
Fit frame to screen size after connection (d)	After the XP-Remote is connected with the XGT Panel, screen size is automatically adjusted.
OK (e)	Save the changed contents and close the dialog box
Cancel (f)	Close the dialog box without saving the changes
Apply (g)	Apply the changes.

8. Chapter 8 Restriction

8.1. Restriction

The following functions are not available on the XP-Remote even though they are available on XGT Panel while using the XP-Remote:

function	Description
Global Script	Global script in the drawing does not move.
Screen Script	Screen script in the drawing does not move. But, it moves if [Options]-[Control] [Implement Screen Script in the Asynchronous Screen Mode] option is selected.
Script Function	<p>The following Script Functions do not move.</p> <ul style="list-style-type: none"> Buzzer Backlight On SetBuzzerEnable ShowStatusbar HMIExit SetTime WriteToIO ReadFromIO PrintAlarm PrintScreen
Special Switch	<p>The following Special Switches do not move.</p> <ul style="list-style-type: none"> [History Alarm]-[Print Data] [Print Screen] [View History Alarm List]-[Delete the Selected Data] [View History Alarm List]-[Delete the Generation Times of All History Alarms] [View History Alarm List]-[Delete the Generation Times of Selected History Alarms] [View History Alarm List]-[Delete All Recovered Data] [View History Alarm List]-[Delete the Current Page Data] [Recipe]-[Search and Transmit Basic Recipes]-[Send NVRAM -> PLC] [Recipe]-[Search and Transmit Basic Recipes]-[Send PLC->NVRAM] [Recipe]-[Search and Transmit Basic Recipes]-[Send NVRAM -> Internal Device] [Recipe]-[Search and Transmit Basic Recipes]-[Send Internal Device ->NVRAM] [Recipe]-[Search and Transmit Basic Recipes]-[Send Internal Device -> PLC] [Recipe]-[Search and Transmit Basic Recipes]-[Send IPLC -> Internal Device] [Recipe]-[Search and Transmit File Recipes]-[Send Controller -> XP] [Recipe]-[Search and Transmit File Recipes]-[Send XP -> Controller]

	[Memo Pad]-[Save] [Memo Pad]-[Delete Memo] [Memo Pad]-[Delete All Saved Memos] [Running Completed] [Execute External Program] [Program Monitoring]
Object	The following objects are not displayed on the screen. Motion image player

8.2. Difference in Movement between XP-Remote and XGT Panel

The following functions may move differently depending on the condition of using the XP-Remote:

In general, VNC is operated in such a manner as to share a mouse event / touch. But XP-Remote takes the approach that shares the values of the XGT Panel and the device. Because of this, the screen does not remain the same, there are limitations as follows.

function	Description	
PLC Device	Always show the same values	
INTERNAL Device	HW, HX and HK device always show the same values. The following HS devices always show the same values.	
	Bit Device	
	Address	Description
	HS0000.3	XGT Panel's back light status
	HS0070.0	XGT Panel's N:1 master status
	HS0051.0 ~ HS0051.2	XGT Panel's outsourcing memory mounting
	HS0100.0	XGT Panel's VNC server movement status
	HS0100.1	XGT Panel's Web server movement status
	HS0501.0	XGT Panel's N:1 Master Holder Status
	HS0503.0	XGT Panel's VNC Interlock status
	HS0504.0	XGT Panel's allowing XP-Remote Connection
	HS0950.0 ~ HS0951.7	XGT Panel's system alarm status
	HS0952.0 ~ HS0953.F	XGT Panel's communication driver error
	Word Device	
	Address	Description
	HS0001 ~ HS0002	XGT Panel's version
	HS0027 ~ HS0064	XGT Panel's external memory size and consumption amount
	HS0071 ~ HS0073	XGT Panel's N:1 communication information
	HS0076 ~ HS0077	XGT Panel's XP-Remote communication information
	HS0952	XGT Panel's PLC communication timeout
HS0990 ~ HS1005	XGT Panel's PLC communication status information	

Local Window	Window, which appears upon the window switch, is not displayed on the XP-Remote even though it is displayed on the XGT Panel. Ex) Input Ten key Window
Convert Language	If language conversion is not caused by devices, different languages may be displayed on the XGT Panel and the XP-Remote.
Display the Current Screen	If the XP-Remote is in the Asynchronous Screen Mode, different screens may be displayed on the XGT Panel and the XP-Remote.
Global Window1, 2	If the XP-Remote is in the Asynchronous Screen Mode, different Global Windows may be displayed.
Clock Object	Clock Object on the XP-Remote displays computer clock.
Memo Pad	Memo pad contents on the XP-Panel are not displayed on the XP-Remote.
History Alarm Viewer	<p>Since the reasons as shown below, it can be displayed in the different History Alarm Viewer.</p> <p>Line down / up, and page down / up, operation of the filtering operation is not affecting the device value. It is only intended to change the behavior when you run the historical alarm view. Most of the special switch operation XP-Remote side individually operated without affecting each other. For example, if you have a history of alarm side will be deleted from the XGT Panel alarm history data in the SRAM. The SRAM data is deleted, but not the XP-Remote (PC) side has to be removed.</p> <p>XGT Panel / XP-Remote alarm occurs, the number of occurrences and the time that occurs between orders may be displayed differently. It is a monitoring device reads the destination specified period of operation that made history alarm is generated and recovered. In the case of XGT Panel it will enable loading of the device being monitored, depending on the controller's communication controller driver settings (monitoring cycle alarm / timeout / retry count).</p> <p>If the alarm monitoring target devices quick On / Off toggle XP side, but the moment of alarm detection, XP-Remote side cannot get caught occur.</p> <p>If an alarm occurs XGT Panel side to "A, B, C" sequence, XP-Remote side "B, C, A" alarm may occur in the order.</p> <p>Alarm / recovery time of the XGT Panel are written based on the current time of XGT Panel, alarm generation / recovery time in the XP-Remote is because the records based on the current time of your PC, you can have different information displayed to each other.</p>
Logging Trend Graph	Logging that is old and deleted may be displayed in a different figure.
Logging Distribution Graph	For logging that is old and deleted, it may be displayed in a different figure.
Trend Graph	Since the time of data collection is different, it can be displayed in a different graph.
Real-Time Distribution Graph	Since the time of data collection is different, it can be displayed in a different graph.

Note

If you have other problems in addition to behavior differences that are defined in the table, you must update to the latest version of the XP-Remote.

The same as the version of XP-Remote with the XGT Panel connected, or a higher version, you must be able to operate as XGT Panel.

You can check the current version of the XP-Remote from the Menu ([Help] - [XP-Remote Information]).



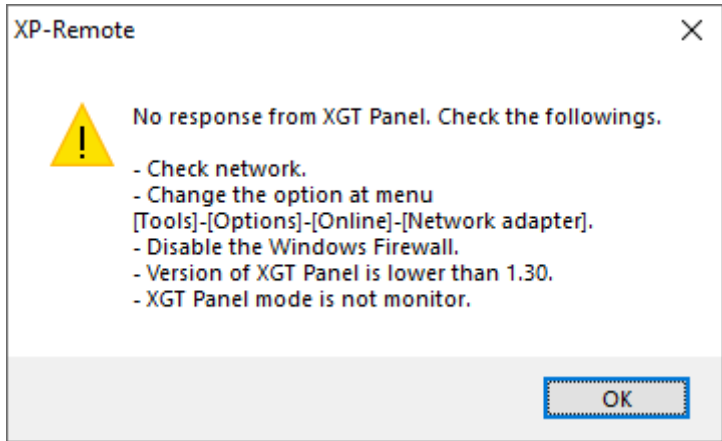
9. Appendix 1. Problem Solving

9.1. Problem Type

This Appendix describes problems that might occur during the use of the XP-Remote and solution methods to those problems. Refer to the following problems.

Problem Category	Description
communication Problems	Communication is not performed between the XP-Remote and the XGT Panel ➤ Refer to 9.2 Communication Problems
Control Right Problems	Functions related to the control right do not work well. ➤ Refer to 9.3 Control Right Problems

9.2. Communication Problems

Question	The XGT Panel communication connection does not work well on the XP-Remote
Phenomenon	<p>When communicating, the following error messages appear</p> 

<Cause>

More than one of the following examples is the cause of the problem.

- 1) The XGT Panel with an applicable IP address of the object node does not exist on the network.
- 2) No Ethernet cable is connected with the XGT Panel.
- 3) The Ethernet cable is not correct. It might be short cut or disconnected.
- 4) The network administrator blocks UDP/IP connection.
- 5) The object XGT Panel's IP band is not equal to the gateway band set up on the PC.
- 6) The XGT Panel is not in the monitor mode.
- 7) The computer's Window firewall blocks the XP-Remote communication.
- 8) The XGT Panel's version is less than 1.30.
- 9) "XP-Remote <-> HMI <-> PLC" if the connection is active communication between the PLC and HMI termination or due to an HMI PLC Nak error cannot be normal communication. Due to this XP-Remote cannot communicate with the HMI properly.

<Solution>

- 1) Connect the Ethernet cable with the object node's XGT Panel to join it in the network.
- 2) Connect the XGT Panel's Ethernet cable.
- 3) Check the wiring status of the Ethernet cable and check its movement. In case that the XGT Panel and the PC are directly connected and they use cross cable hub, use direct cables.
- 4) Contact the network administrator.
- 5) Change the XGT Panel's IP. Since IP Address can conflict, contact the network administrator.
- 6) Convert to the XGT Panel's monitor mode.
- 7) Change the computer's Window [Control edition] firewall settings to cancel the blocked items related to the XP-Remote.
- 8) The XP-Remote connection is supported from the XGT Panel version 1.30 or higher. Upgrade the XGT Panel.
- 9) Therefore, after the communication between the "HMI <-> PLC" a normal opening, please use the XP-

Remote again.

Note

Most of communication connection problems occur under the conditions above. If the same problem occurs even after taking the actions above, contact LS ELECTRIC customer center.

9.3. Control Right Problems

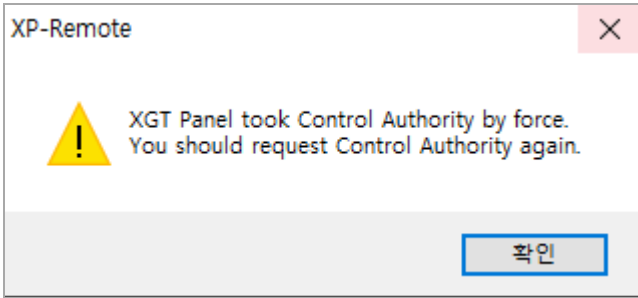
Question	Switches on the screen are not pressed.
Phenomenon	Switches or number input on the drawing screen do not pressed down.

<Cause>

- 1) The control right is not obtained.

<Solution>

- 1) Request Control Authority. For details, refer to “Chapter 5 Online” of the User’s Manual.

Question	Even though the control right is obtained, it is not controlled from a certain moment
Phenomenon	<p>After the control right is obtained; it is not controlled any more from a certain moment. The following messages appear.</p> 

<Cause>

- 1) The control right is forcefully taken from the XGT Panel by pressing the [Disable control by XP-Remote] button by somebody.
- 2) In the XGT Panel, the user presses the XP-Remote non-operateable special switch to force the control to the XGT Panel.

<Solution>

- 1) After checking if there is the control right by asking the site operator who is near the XGT Panel, and if not, obtain it again.



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