

Derwent
Top 100
Global
Innovator
2020

XGT Panel

Human Machine Interface





XGT Panel

iXP2 Series

intelligent XGT Panel



High functioning, user friendly and robust choiec for your system, iXP2



Durability

- Slim and durable design with aluminum frame and a reinforced glass
- IP66 Certification with enhanced waterproofing and protection against dust.



Flexibility

- Dual Monitor function clone/extended mode
- Multi-touch setting to prevent malfunction



Connectivity

- Various external interfaces to provide IoT solutions
- Ethernet 2ch., HDMI/Audio output, USB host/device, multimedia (video)



Convenience

- Same as iXP panel cut that can be replaced
- Depending on touch sensitivity, you can set it up with bare hands or gloves.



Responsive touch screen

- Touch sensitivity is improved by applying responsive touch screen.
- Use touch screen either with bare hands or with gloves.
- Various types of touch setting function can be used according to user's work environment



Dual-Core CPU offers high-speed communication and processing

High luminance/resolution LCD with an LED backlight and 24 bit colors to express clear and vivid colors of 16,777,216.



XGT
Panel



XGT Panel

iXP Series

intelligent XGT Panel

Convenient control with a single touch!

A user-oriented interface, enhanced performance, and soft and quick screen switching and respond speed to touch!
Meet iXP series of LS ELECTRIC that genuinely and fully connects humans with equipments.



It is highly competitive using the user-friendly technologies.

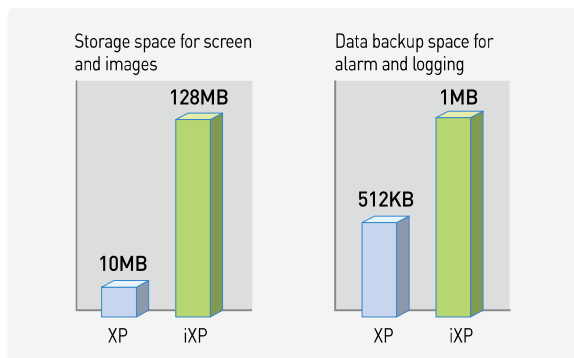
- ☑ Quick screen switching and response speed to touch
- ☑ 16.7M TFT colored LCD
- ☑ Large drawing / backup memory (Drawing-128MB, Backup-1MB)
- ☑ Sound Output support
- ☑ Various interfaces
 - USB Host 3ch (Front: 1, Rear: 2), Device 1ch (Front)
 - SD card
 - Various communication drivers provided
- ☑ Presence sensor applied (within 1m)

High Speed

High-performance 1GHz CPU is installed to improve the data and screen switching speed, and Windows CE 6.0 OS is adopted to execute NET-based external applications.

Large Memory

Large device memory is provided to save mass data.



Presence Sensor

Sensor detects movement within 1m, to control the backlight, ensuring a longer life of the product.

More Colorful

High luminance/resolution LCD with an LED backlight and 24 bit colors to express clear and vivid colors of 16,777,216.



Customize

- Put your company's brand on the front of HMI (inquire of your sales person about minimum order quantity condition).
- Purchase only hardware of HMI minus monitoring software if you do not need it (.NET Framework 3.5 included).



NEW
Product

XGT Panel

eXP Series

efficient XGT Panel



Effective Control and Monitoring Solution Cost-Efficient eXP!

- Simple Design
- 4.3", 7" and 10.2" wide-screen sizes TFT color LCD
- Wide variety of communication interfaces
 - 2-3-channel serial communication
 - Ethernet
- Large memory for drawing (64MB)
- RTC function (maintained by battery)
- Convenient downloading/uploading of drawings via USB port in the front

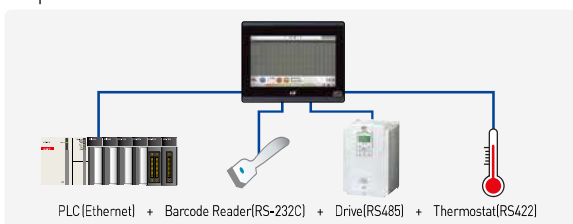


Higher Level of Performance

Gives superior performance with improved CPU compared with the existing products

Wider Variety of Communication Interfaces

Communicable simultaneously with PLC, barcode reader, VFD, temperature controller



Slimmer and Lighter in Weight

20% lighter than previous products, provides more space and lightens user's panels



Customize

Put your company's brand on the front of HMI (inquire of your sales person about minimum order quantity condition).



Products Line-up

Window CE-based new HMI developed with advanced technologies of LS ELECTRIC to optimize the user experience

XGT Panel

iXP2 Series		15" (38Cm)	12.1" (31Cm)	10.4" (26Cm)
	<p>Premium</p> <div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> Ethernet I/F USB I/F </div> <div style="text-align: center;"> Serial I/F (RS-232C) SD Card I/F </div> <div style="text-align: center;"> Serial I/F (RS422/485) HDMI I/F </div> </div>	<p style="text-align: center;">iXP2-1500</p>  <p style="text-align: center;">TFT 16,777,216 colors XGA(1024 X 768)</p>	<p style="text-align: center;">iXP2-1200</p>  <p style="text-align: center;">TFT 16,777,216 colors XGA(1024 X 768)</p>	<p style="text-align: center;">iXP2-1000</p>  <p style="text-align: center;">TFT 16,777,216 colors XGA(1024 X 768)</p>
iXP Series		15" (38Cm)	12.1" (31Cm)	10.4" (26Cm)
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eXP Series				10.2" (25.9Cm)
	<p>Standard</p> <div style="display: flex; justify-content: space-between;"> <div style="text-align: center;"> Serial I/F (RS-232C) USB I/F </div> <div style="text-align: center;"> Serial I/F (RS422/485) Ethernet I/F </div> <div style="text-align: center;"> Serial I/F (RS-485) </div> </div>			<p style="text-align: center;">eXP60-TTA *2 *3 *4</p>  <p style="text-align: center;">TFT 65,536 colors WVGA(800 X 480)</p>

8.4"(21Cm)

iXP2-0800



TFT 16,777,216 colors
SVGA(800 X 600)

8.4"(21Cm)

iXP50-TTA *2



TFT 16,777,216 colors
SVGA(800 X 600)



7"(17.7Cm)

5.6"(14.2Cm)

4.3"(10.9Cm)

eXP40-TTA *2 *3 *4
eXP40-TTE *1 *2 *3 *4



TFT 65,536 colors
WVGA(800 X 480)

eXP30-TTA *2 *3 *4
eXP30-TTE *1 *2 *3 *4



TFT 65,536 colors
VGA(680 X 480)

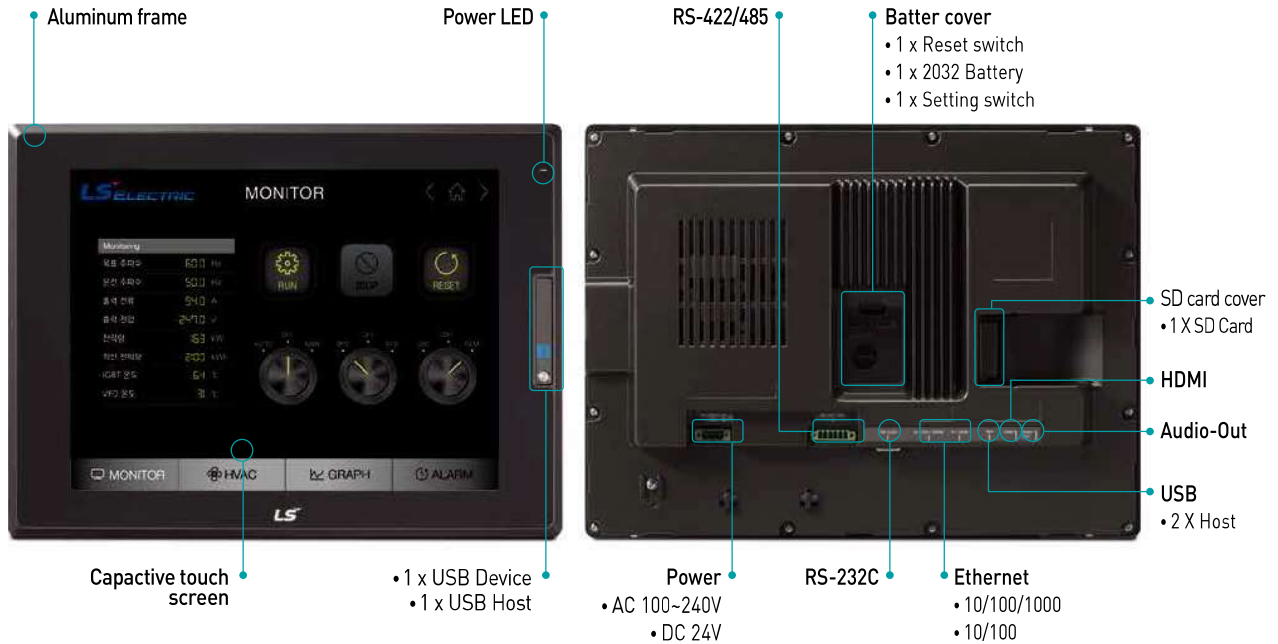
eXP20-TTA *2 *3 *4



TFT 16,7M colors
VGA(480 X 272)

*1: Ethernet I/F not supported. *2: CF card I/F not supported. *3: Expansion port not supported. *4: SD card not supported.

High functioning, user friendly and robust choice for your system, **iXP2**



iXP2 Multiple interface methods to cope with the Internet of Things

Ethernet 2ch., HDMI / Audio output, USB host/device, multimedia (video)

* Multimedia function scheduled for release in '18.10



iXP2 Multi-touch and gesture-control screens

Multi-touch maximizes operating stability and safety.
Use gesture-control to view logging trend graphs and to change screens.



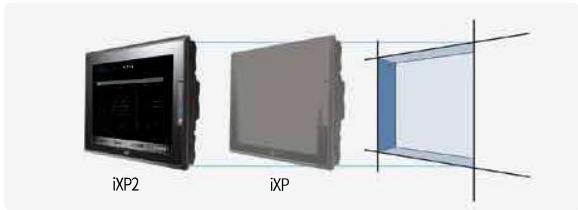
iXP2 Robust IP66 aluminum frame

Reinforced protection against water and dust. Conforms to NEMA 4X standard.



iXP2 One to one interchangeability with existing iXP series

Offers equivalent panel cut to iXP.



iXP2 Screen gesture

Flick to change screens.
No extra switching button is needed to change screens.



iXP2 Object gesture

Select the object you want and then swipe and flick it.
Object list

- Logging trend graph • View logging history • View history alarms



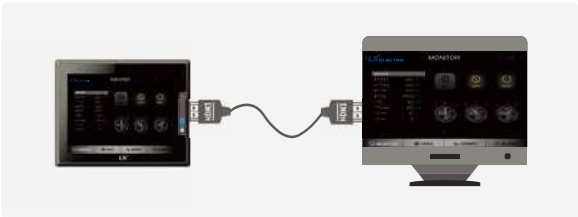
iXP2 Multi-touch

Use multi-touch to protect your system from undesired errors.



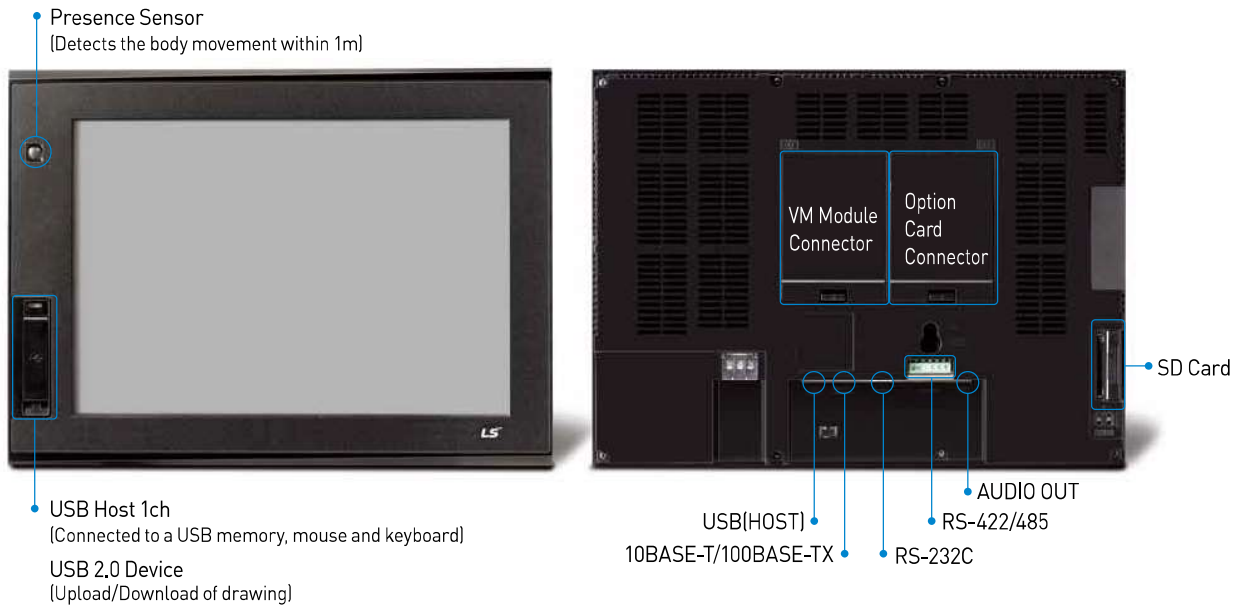
iXP2 Dual monitor mode and extension mode

Increase your convenience by duplicating or extending your screens.



* Extension display mode scheduled for release in '18.09

Hardware Related Functions **iXP**



iXP 1 Respective Front USB Host/Device Channel

- An additional USB host channel is installed in the front panel.
- A front USB host is used to connect to a USB memory, mouse and keyboard.
- A front USB device port is used to change the XP-Runtime without opening a control panel or download/upload the drawing file created using XP-Builder.
- USB cable: USB-301A 2.0



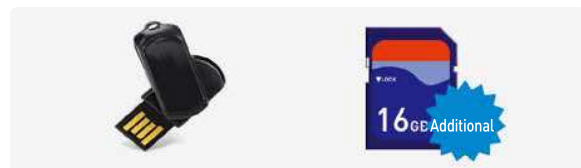
iXP Sound Output Function (For all iXP models)

- The sound files (wav, mp3) registered using XP-Builder can be output to speakers connected to HMI.
- An alarm is generated via speakers to warn operators.
- Up to 512 sound files can be saved.



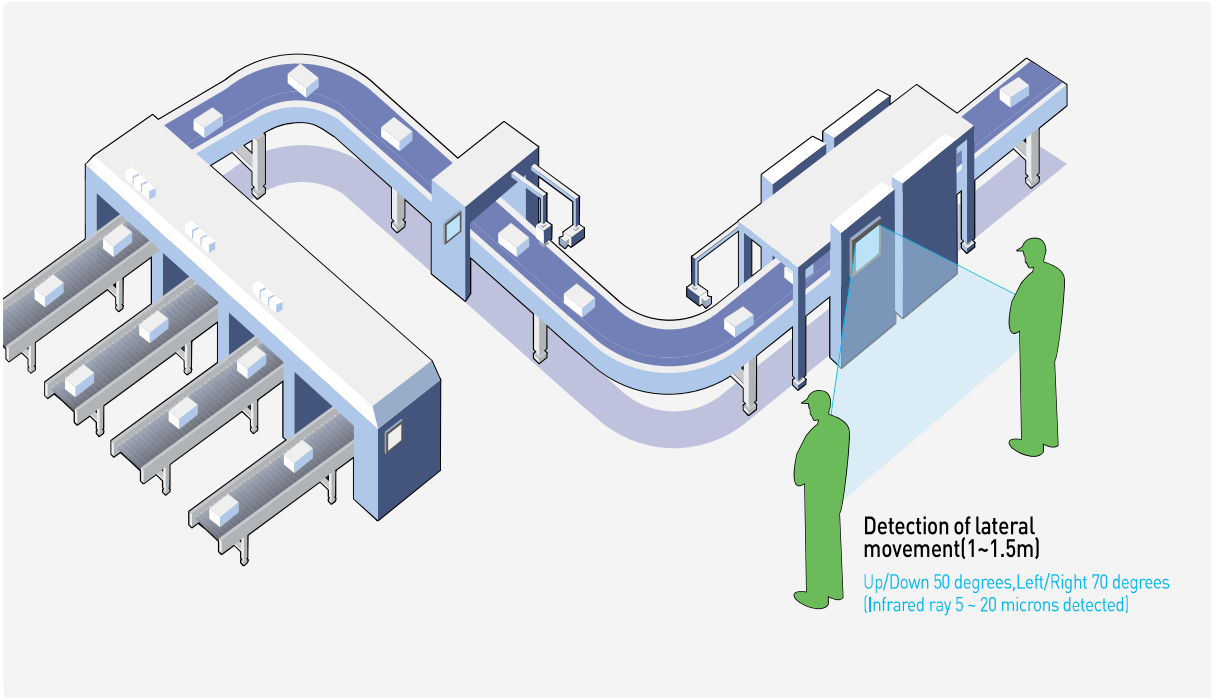
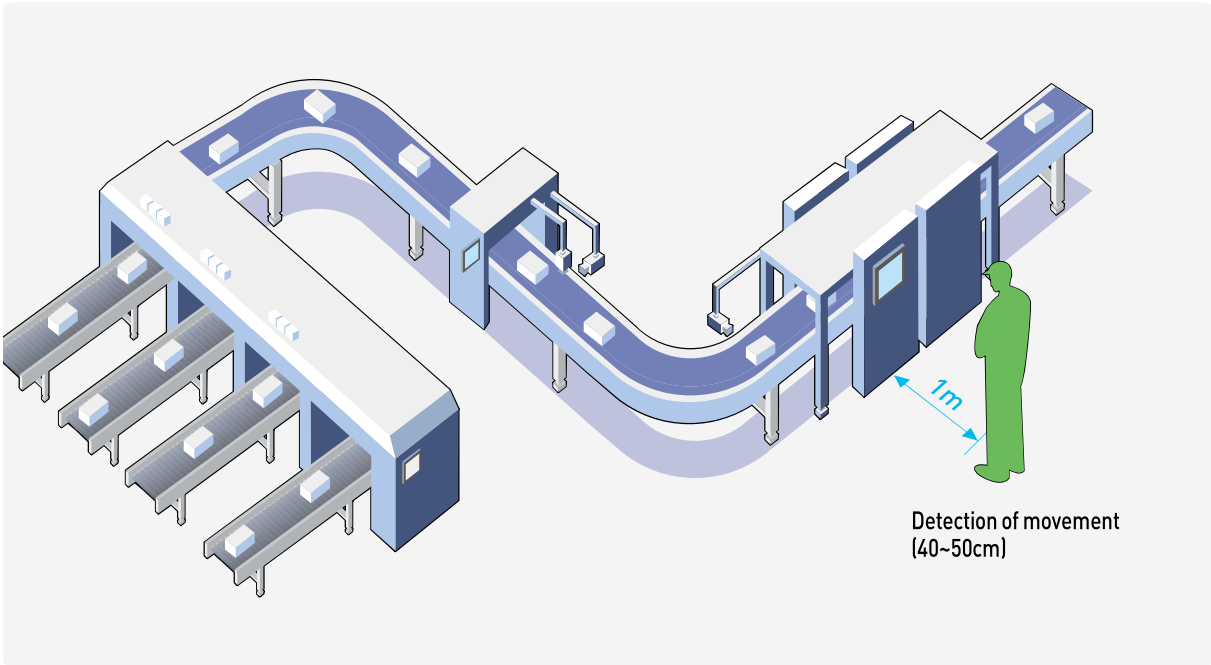
iXP Function to use SD Cards

iXP supports additional SD memory cards along with previous USB memory to diversify the backup means.

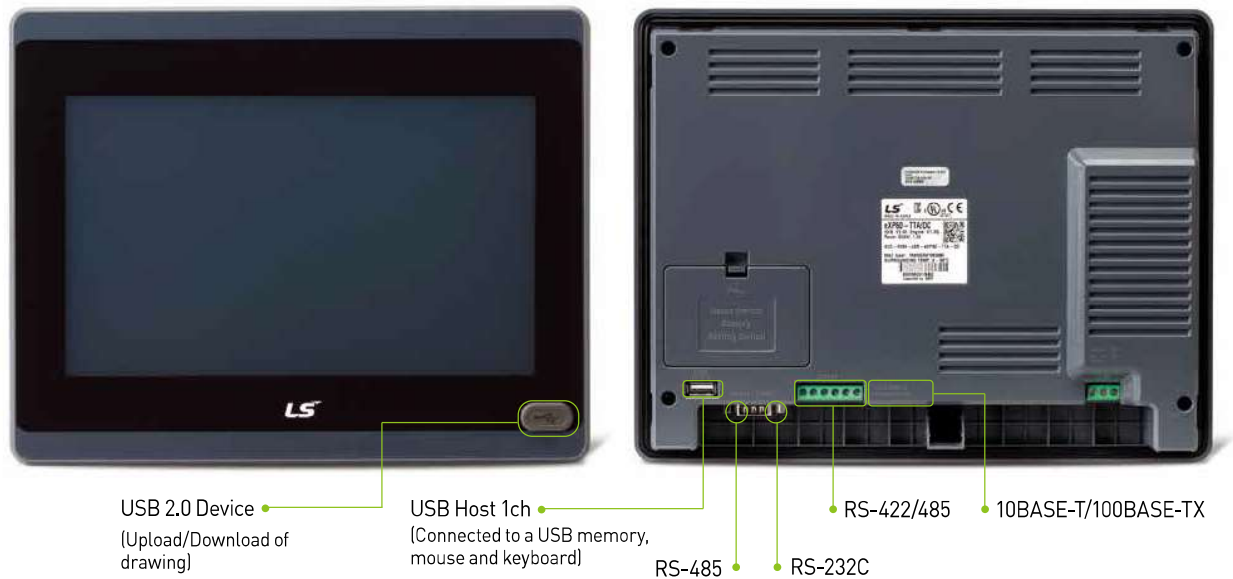


iXP Presence Sensor

- The XP presence sensor detects movement within 1m to turn on a backlight.
- When not used, it turns OFF the screen to maintain a longer lifespan of the backlight.



Hardware Related Functions **eXP**



eXP USB Port in the Front for Devices

- With USB port in the front, no need to open the control panel to apply changes to XP-Runtime or download/upload drawing files made in XP-Builder
- USB cable: USB-301A 2.0

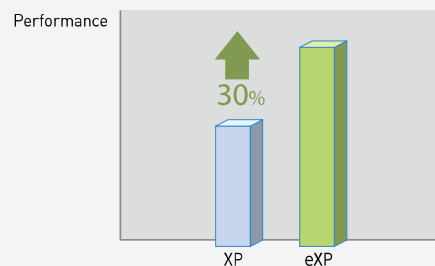


eXP RTC Function

- RTC (Real Time Clock) function operates with a battery even with the power off
- HMI time setting is adjustable quickly using XP-Builder

eXP High Performance

- About 30% better performance



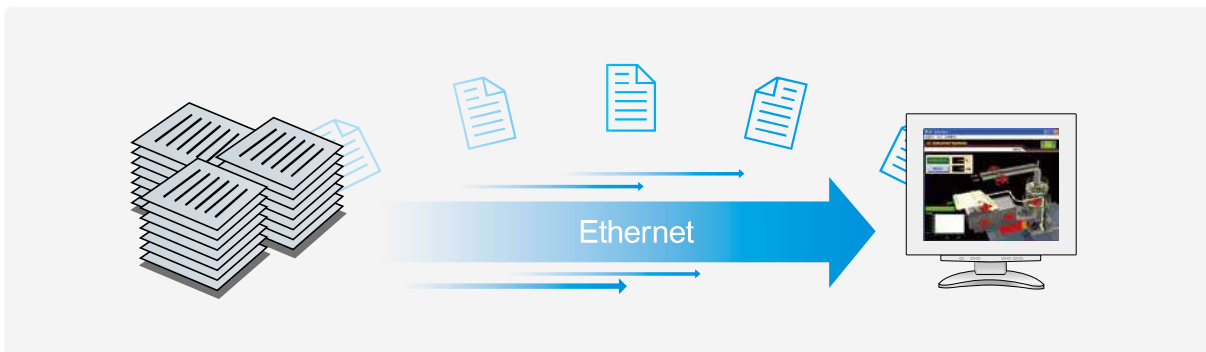
eXP 3-Channel Serial Communication

- Simultaneously communicable by RS-485, RS-232C, RS-422/485
- D-Sub 9-pin terminal includes COM1 and COM2

Hardware Related Functions **iXP2** **iXP** **eXP**

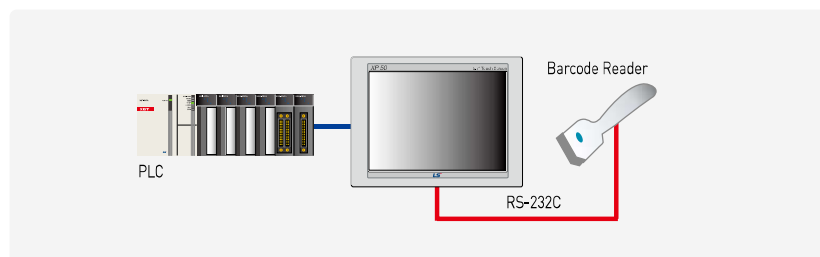
Ethernet method for Quick Transmission of Mass Data

- Ethernet method has improved the transmission speed. Compared to the conventional RS-232C method, a quicker transmission speed: 115kbps → 10/100Mbps
- Regardless of the memory capacity, the drawing files can be quickly uploaded/ downloaded, and logging/alarm/recipe data can be conveniently used.
- Ethernet method is used for various production data collection, monitoring and control using PC.



Barcode Scanner Communication

- ASCII data imported by accessing a barcode scanner from XGT Panel can be saved in the user-assigned PLC or XGT Panel's internal memory.
- Complete Bit can be randomly saved. It allows users to check whether the XGT Panel has read the data without errors.
- Communication with barcodes is possible by using the RS-232C interface installed in the XGT Panel.



Providing Various Communication Channels

Using RS-232C, RS-422/485 and Ethernet, XP/eXP and iXP2/iXP are capable of communicating with up to 4 and 6 types of controllers, respectively. Refer to the system block diagram (TTE type does not have an Ethernet module).

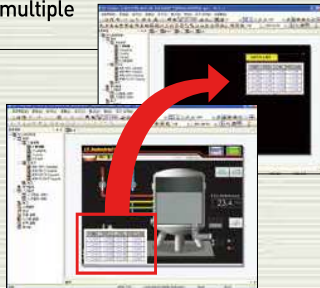
XP-Builder

XGT Panel offers easy and user-friendly multi-interface.

XP-Builder Functions

Implementation of multiple programs

In order to use the previously created drawing data for a new drawing, more than 2 XP-Builder programs are executed simultaneously.



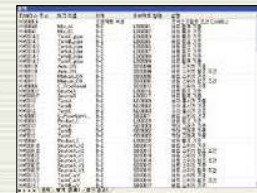
Function to check data

- To check for any error on the data created, and errors can be corrected by clicking on them.
- The specific description of error created is displayed.



Cross-reference function of devices

Devices used for drawing data and tags are displayed.



Animation function

- When GIF format is used, animation effects can be realized depending on the state of given bit.
- When a video clip on given site is created into GIF to be added to a drawing screen, more accurate information can be delivered to users. [Video clip files can be created using the commercial software for GIF creation]



Drawing Editor: XP-Builder

Project Window

Add, delete and edit project property, logging, recipe and alarm conveniently.

Data Element Window

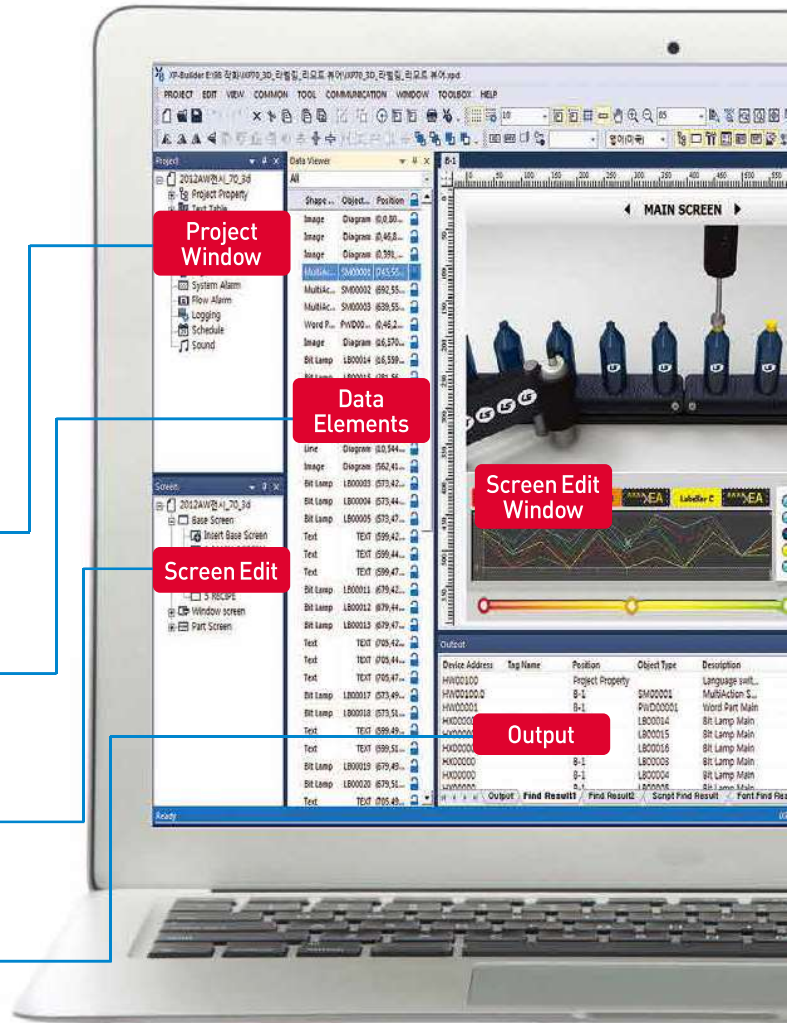
- Displays the objects on a screen currently shown.
- When double-clicked, a window on setting the properties appears.

Screen Window

Add, delete and edit basic screens, window screens and part screens easily

Output Window

- Displays the error checked on drawing data and the search results.
- It displays the specific description of the errors created.



Tag function

- Users can set device address by desired name, which can be used in an object.
- When a set device is tagged to an object, addresses can be changed, collectively
- Up to 10,000 tags can be registered.

이름	타입	이동할 수 있는	주소	비고
StauK0A	BIT	Y/N	10000	
StauK0B	BIT	Y/N	10001	
StauK0C	BIT	Y/N	10002	
StauK0D	BIT	Y/N	10003	
StauK0E	BIT	Y/N	10004	
StauK0F	BIT	Y/N	10005	
StauK0G	BIT	Y/N	10006	
StauK0H	BIT	Y/N	10007	
StauK0I	BIT	Y/N	10008	
StauK0J	BIT	Y/N	10009	

Various fonts with convenient setting options

- Windows fonts used in a PC can be transmitted to HMI for use.
- When using Windows fonts, font attributes (Italic, bold and underline) can be used as well.
- Various font sizes including True Type are supported.
- Supports the Unicode, characters of other countries such as the standard font and high-quality fonts are beautifully displayed.
- Sophisticated and elegant text can be used to create a screen using various fonts.

Arial : ABCDEFGHIJKLMNOPQRSTUVWXYZ
 Book : ABCDEFGHIJKLMNOPQRSTUVWXYZ
 Impact : ABCDEFGHIJKLMNOPQRSTUVWXYZ
 Helvetica : ABCDEFGHIJKLMNOPQRSTUVWXYZ
 Tahoma : ABCDEFGHIJKLMNOPQRSTUVWXYZ
 Time : ABCDEFGHIJKLMNOPQRSTUVWXYZ
 Verdana : ABCDEFGHIJKLMNOPQRSTUVWXYZ

가나다라마바사아자차카타파하
 가나다라마바사아자차카타파하
 가나다라마바사아자차카타파하
 가나다라마바사아자차카타파하

User-oriented screen UI

Providing a flexible script language

- Provides a screen UI that can be easily used considering user's experiences.
- Divided into categories so that a graphic library can be easily searched.
- Various graphic libraries are offered for enhanced usability.



Property Window

This function enables users to change properties of numerous objects at once, so that users do not have to open each object like a button or a lamp for modification.

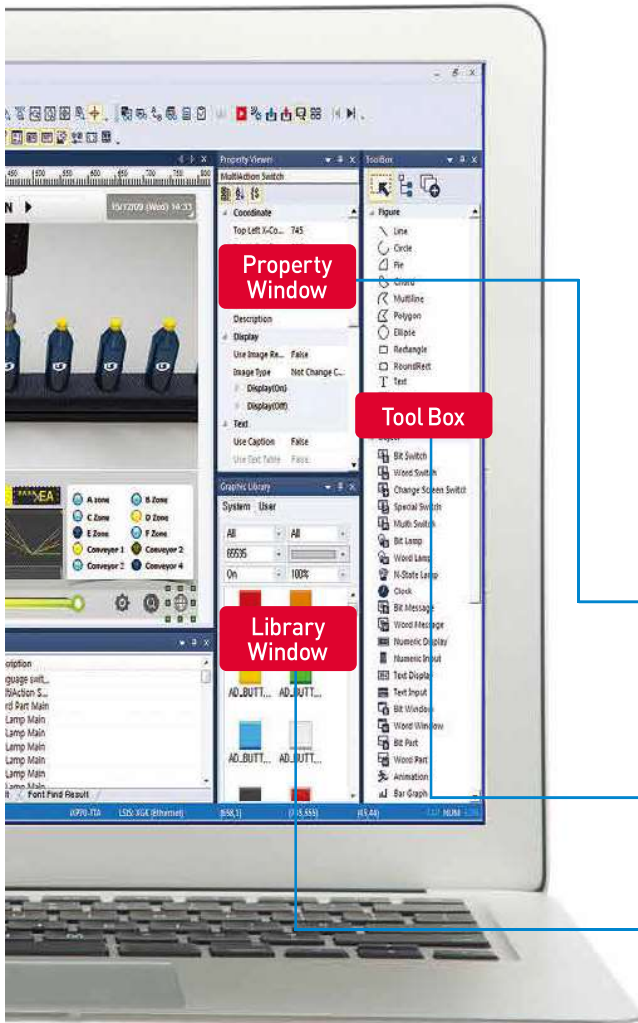
- Numerous objects on the screen can be selected at once to replace the pictures, enhancing users' convenience.
- When modifying several objects, only the objects with the same function should be selected.
- Users can correct both pictures and properties.

Tool Box

Used to select an object or draw a shape.

Library Window

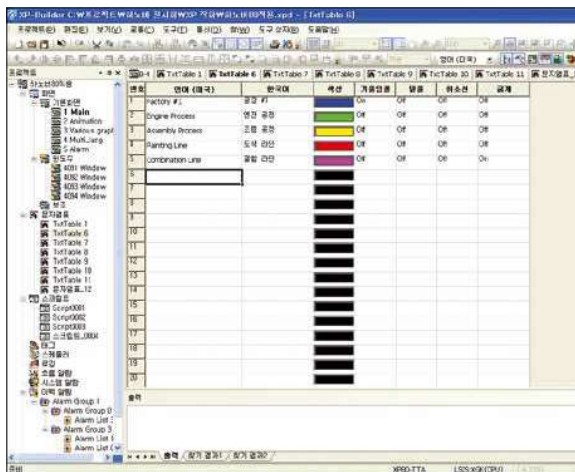
- Library is divided by category for easier use, and preview is used for drawing.
- Convenient for users to register and delete the Library.
- Drag & Drop is used for a screen insertion.



Software Related Functions

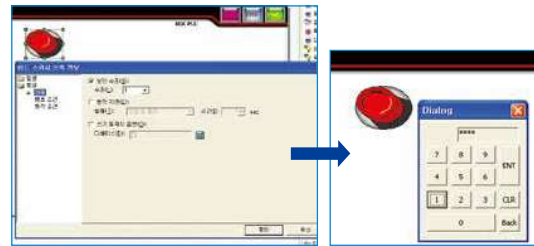
Multi-lingual support & conversion to respond to the global enterprise environments

- In response to enterprise environment of global era, up to 12 languages can be simultaneously converted and users can select a language depending on his/her nationality.
- When desired character string is registered in a table, a language can be converted into a device value and switched upon operation.
- The languages supported include Korean, English, Chinese (PRC/Taiwan), Japanese, French, Turkish, Iranian (Persian), German, Greek, Russian, Italian, Norwegian, Polish, Portuguese and Spanish, all of which are supported in Windows.



Strict control management using security setting

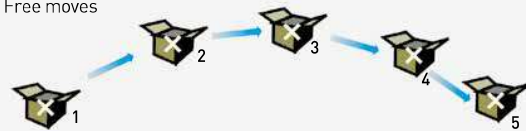
- Upon PLC control using objects like a switch or an input method editor, only the authorized users can perform controls depending on the set security level.
- It supports 10 security levels in total, and the password of a sub-level can be accessed using the password of a main level.
- When the security level is authorized, a session is disconnected after a certain period of time, asking for the password again.



Free and easy moving of parts

- The fixed values and the parts related to the word device are selected/ switched to be displayed on a screen, and the images registered as the given parts can be used.
- A mouse is used to set the movement points for free moves, linear moves, and moves based on the XY coordinates, which can be chosen by users.

Free moves



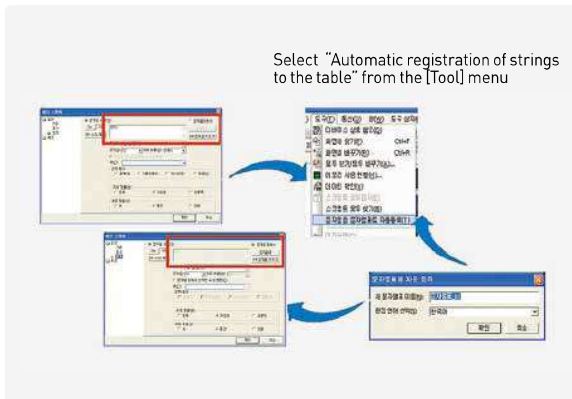
Linear moves



Automatic registration of a character string table

This function enables the character string input by users in the objects to be automatically registered.

- When the file created using a single language is to be changed to a character string table for the purpose of multi-lingual support, it can be automatically registered to the character string table without inconvenience of users.
- All the static strings used in objects can be registered in the character string table.
- Up to 10,001 character strings can be added to a character string table, and the name of a new character string table and the editing languages can be set and registered by users.



Memo pad function

Function to create or save a short message by selecting various pen thicknesses and colors on XGT Panel.

- It is useful in exchanging messages between operators working in turns.
- The user chooses the thickness and color of the pen and writes on a screen in order to input the message.
- Such memo can be saved in a CF card or a USB memory, and the data are archived even when the power is turned off.
- Users touch the screen and drag to create a memo.
- When creating a memo, users can UNDO/REDO the memo, the thickness/color of a pen can be changed, and a specific memo or all memos can be deleted.

