

QuickPanel+2

USER MANUAL



Warnings, Caution Notes as Used in this Publication

WARNING

Warning notices are used in this publication to emphasize that hazardous voltages, currents, temperatures, or other conditions that could cause personal injury exist in this equipment or may be associated with its use.

In situations where inattention could cause either personal injury or damage to equipment, a Warning notice is used.

CAUTION

Caution notices are used where equipment might be damaged if care is not taken.

***Notes:** Notes merely call attention to information that is especially significant to understanding and operating the equipment.*

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Section 1: Overview

This manual specifically describes the QuickPanel+2 IC762CxS07Cxx, IC762CxS10Cxx, IC762CxS12Cxx, IC762CxS15Cxx display units.

The QuickPanel+2 is an all-in-one micro-computer designed for maximum flexibility. The design is based on an ARM Cortex-A53 processor to combine a high-resolution touchscreen operator interface with a variety of communications options. Users can connect to most industrial equipment using the QuickPanel+2 communications ports.

The QuickPanel+2 is equipped with LPDDR4 SDRAM with ECC to satisfy the most demanding applications. QuickPanel+2 is preloaded with Windows 10 IOT Enterprise 2021 LTSC image to provide more flexibility to the users.

1.1 Specifications

1.1.1 Physical Specifications and Mounting Options

Size (Inch)		7"	10"	12"	15"
Processor		i.MX8M Plus (ARM Cortex-A53 1.6GHz QC)			
Operating Systems		Windows 10 IoT Enterprise LTSC 2021			
Main Memory		LPDDR4 SDRAM with ECC 4 GB			
Storage		eMMC 64 GB			
Back-up Memory		Battery Backup RAM 512 KB			
Buzzer		On-board buzzer			
Display	Type	7" Standard/SLR Luminance	10.1" Standard/SLR Luminance	12.1" Standard/SLR Luminance	15.6" Standard/SL R Luminance
	Resolution	1024 x 600 (WSVGA)	1280 x 800 (WXGA)	1280 x 800 (WXGA)	1920 x 1080 (FHD)
	Color	65,536	65,536	65,536	65,536
	Brightness For Standard LCD	500 cd/m2	500 cd/m2	600 cd/m2	450 cd/m2
	Brightness For SLR Luminous	1000 cd/m2	1200 cd/m2	1000 cd/m2	1200 cd/m2
	Backlight	LED	LED	LED	LED
Touch screen	Touch Panel Type	Projected Capacitive Touch Panel			
	Input Method	Finger			

Size (Inch)		7"	10"	12"	15"
	Multi-touch	Max. 10 points			
Interface	USB	USB3.0 x 2 (TYPE-A)			
	Ethernet	10BASE-T/100BASE-TX/1000 BASE-Tx2 (RJ-45)			
	Serial	RS232 x 1			
		RS422 /485 x 1			
		(Terminal Block)			
	Memory Card	SDXC x 1			
	Audio	MIC-IN / Sound-OUT x 1 (3.5mm Jack connector)			
	Battery	Primary battery			
	RTC	RTC / back-up battery			
Input Power	Rated Voltage	DC 12/24 V			
	Power Consumption for Standard Luminance	25 W	30 W	36 W	40 W
	Power Consumption for SLR Luminance	27 W	35 W	36 W	50 W
	Insulation	Charge (DC IN, GND) and FG (Frame GND) are insulated FG (Frame GND) is connected to SG (Signal GND) internally			
	Voltage Endurance	AC1000 V 20 mA for 1minute (Between charge and FG terminals)			
	Insulation Resistance	10 MΩ or higher at DC 500 V (Between charge and FG terminals)			
	Dimensions Outline (WxHxD mm)		196x141 x63	271.5x 190 x65	329x244 x 65
Weight (Kg) for Standard Luminance		1.2	1.8	2.8	4.0
Weight (Kg) for SLR Luminance		1.2	1.8	2.8	4.2
Mounting Options	Panel Cut (WxH, mm)	183.5x128.5	255.5x174	302x228	302x228
	Vesa Mount(mm)	75x75		100x100	
Back-up Battery		BR2032			

1.1.2 Environmental Specifications

Item	IC762CxS07Cxx	IC762CxS10Cxx	IC762CxS12Cxx	IC762CxS15Cxx
Ambient Operating Temperature	-20 to 60 °C			
Ambient Humidity	10RH to 85%RH (non-condensing, wet-bulb temperature:39°C or less)			
Storage Temperature	-20 to 60°C			
Storage Humidity	10RH to 85%RH (non-condensing, wet-bulb temperature:39°C or less)			
Dust	No Ingress of dust			
Corrosive Gases	Free of corrosive gas			
Pollution	Pollution Degree 2, Indoor use			
Altitude	800 hPa to 1114 hPa (Altitude up to 2000m)			
Vibration Resistance	IEC61131-2 compliant 5 to 9 Hz single-amplitude 3.5mm 9 Hz to 150 Hz constant-accelerated velocity 9.8 m/s ² X, Y, Z directions 10 time (100minutes)			
RoHS	Compliant with EU RoHS Directive 2011/65/EU			
Enclosure Rating	IP66 Rating for front surface UL Type 4X Rating for front surface			

1.2 Glossary

Term	Description
ARM	Advanced RISC Machine
VESA	Video Electronics Standard Association
QP+2	QuickPanel+2
OSK	On-Screen Keyboard

1.3 Revisions in this Manual

Rev	Date	Description
A	Jul 2026	Initial Release

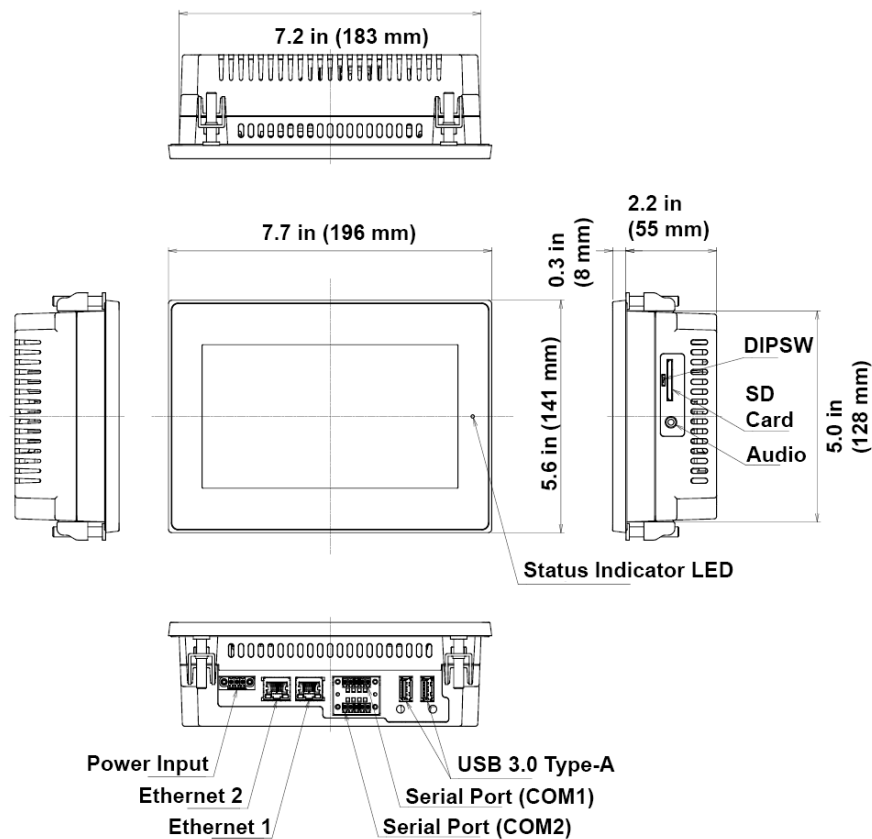
Section 2: Hardware

This Section describes the QuickPanel+2 hardware features, including physical characteristics and LED indicators.

2.1 Physical Characteristics

In addition to the primary touchscreen interface, the QuickPanel+2 supports a variety of communication ports. The following diagrams illustrate the physical layout of the QuickPanel+2, including locations of status LEDs, communications ports, and connectors.

Figure 1: Four-Sided View of IC762CxS07Cxx and Dimensions



Note: Dimensions are in millimeters (mm).

Figure 2: IC762CxS07Cxx Rear View and Dimensions

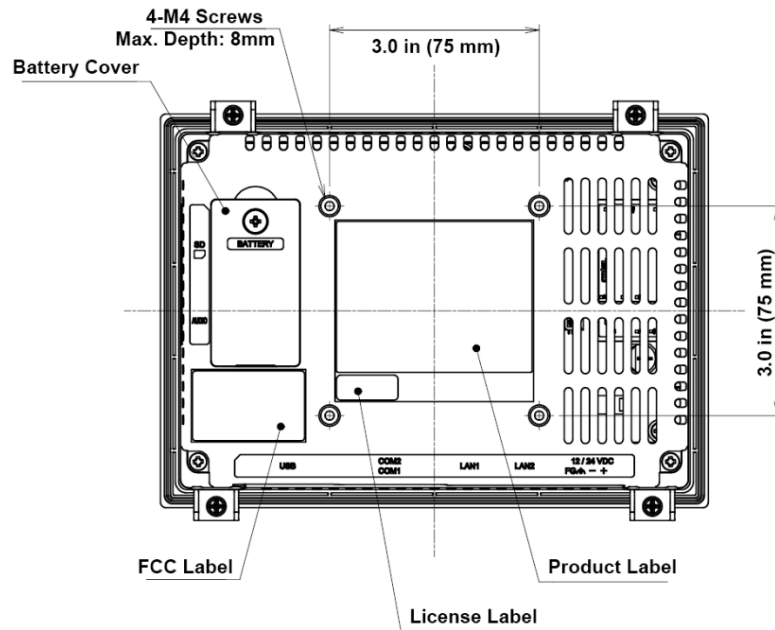


Figure 3: Four-Sided View of IC762CxS10Cxx and Dimensions

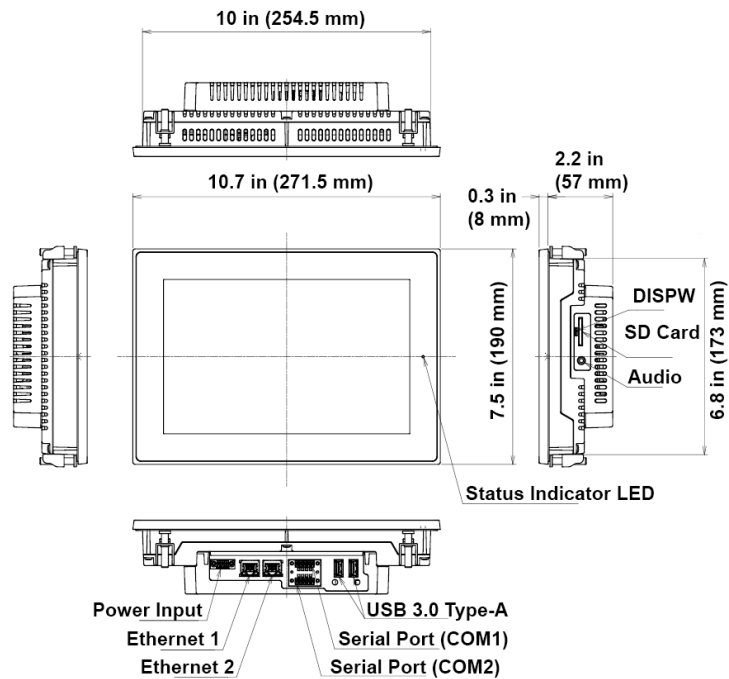


Figure 4: IC762CxS10Cxx Rear View and Dimensions

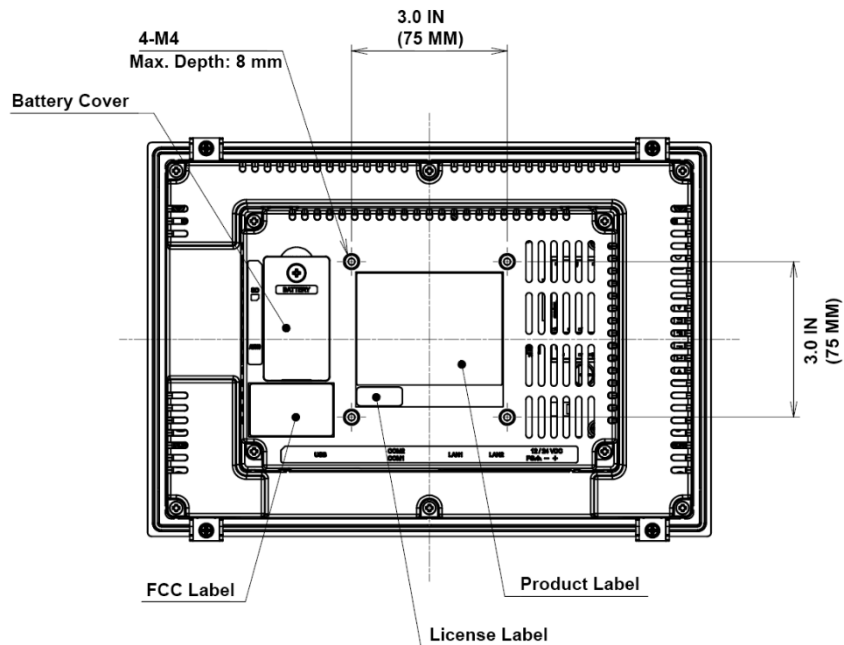


Figure 5: Four-Sided View of IC762CxS12Cxx

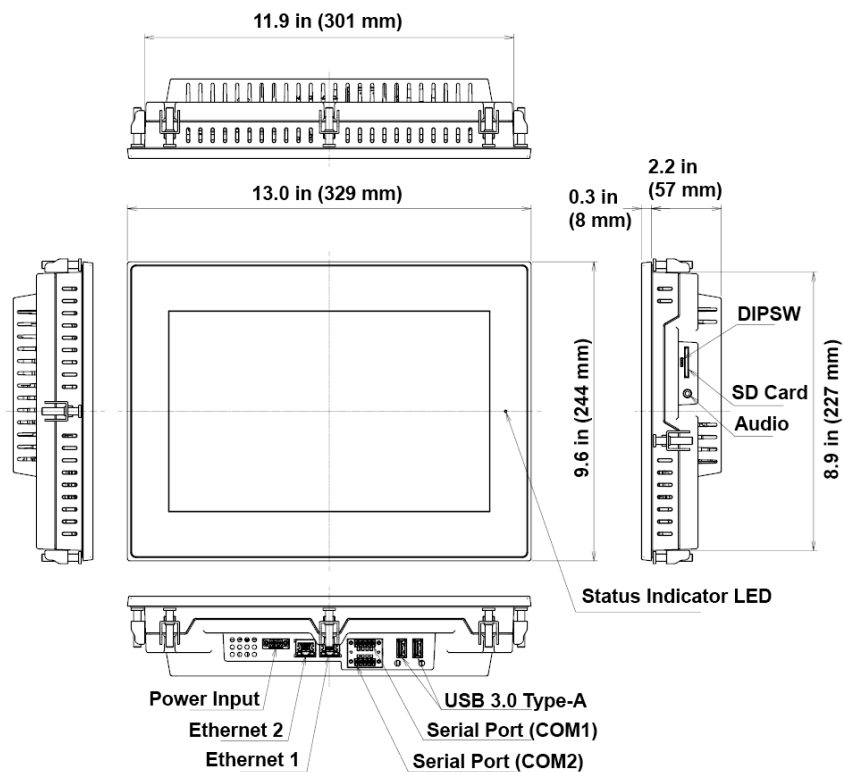


Figure 6: IC762CxS12Cxx Rear View & Dimensions

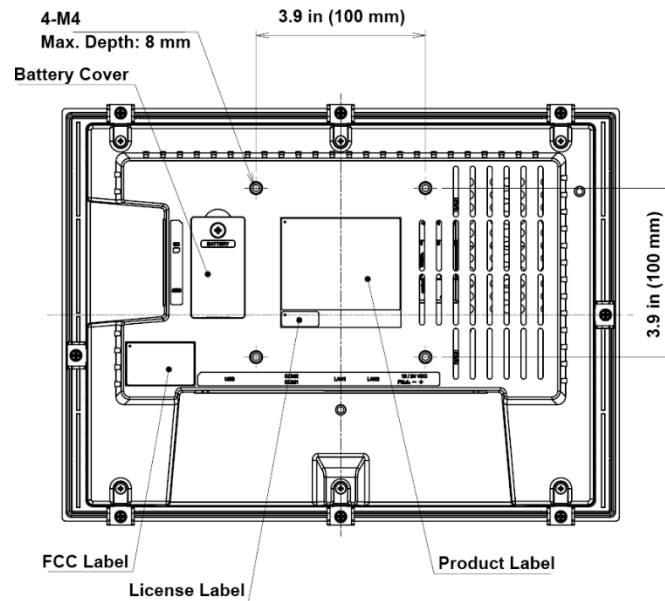


Figure 7: Four-Sided View of IC762CxS15Cxx

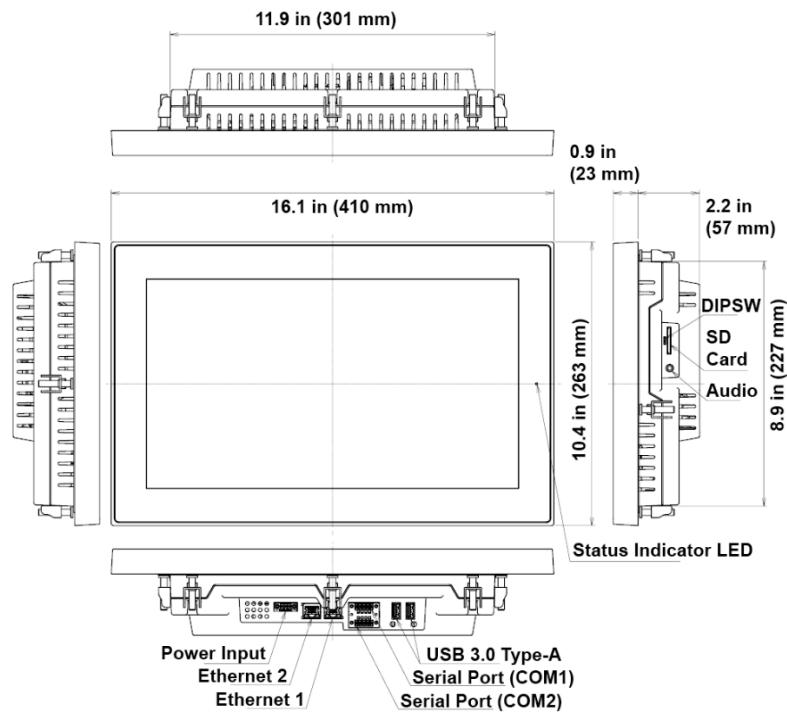
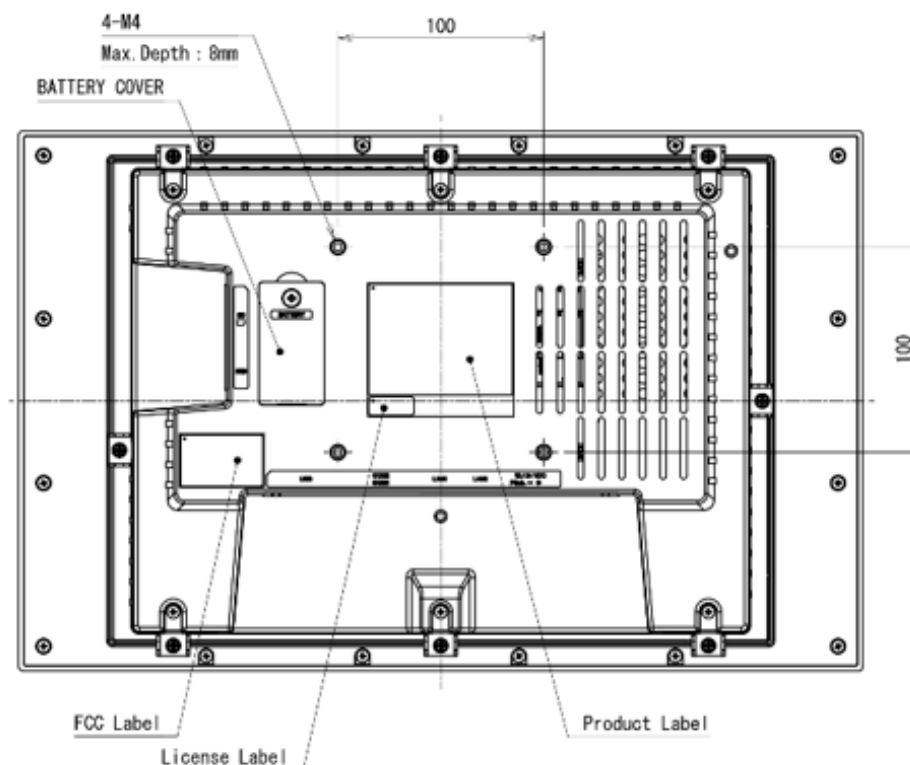


Figure 8: Rear View & Dimensions IC762CxS15Cxx



2.2 LED Indicators

The QuickPanel+2 provides LED indications for the following:

- Operation status
- Ethernet Port operation

2.2.1 Operation Status LEDs

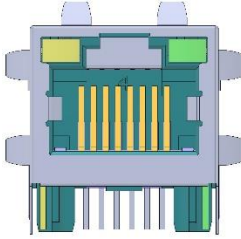
The QuickPanel+2 has one tri-color LED that provides visual operation status indication for IC762CxS07Cxx, IC762CxS10Cxx, IC762CxS12Cxx and IC762CxS15Cxx units.

LED State	QuickPanel+2 State
Amber, solid	Operating system starting
Green, solid	Normal operating state
Green, blinking	Backlight off

LED State	QuickPanel+2 State
Red, blinking	Backlight failure
Off	Power not applied to unit

2.2.2 Ethernet Port Operation LEDs

The Ethernet port has two LED indicators: Speed and Link Activity.

	LED	LED State	Operating State
	Speed	Yellow, on	100BASE-TX Link / Active
	Link Activity	Green, on	1000BASE-T Link / Active

Section 3: Windows Activation on QuickPanel+2

Each QuickPanel+2 (OI) is shipped with a preloaded **Windows 10 IoT Enterprise 2021 LTSC** image that is **activated by default**. The Windows product key is embedded within the operating system.

By default, each device must be enabled individually for activation. Depending on the device's connectivity and license status, one of the following activation states will apply:

Activated State: When connected to the Internet, the device automatically completes activation online.

Deferred activation State: If the device is not connected to the Internet, it remains in a deferred activation state until a connection is established.

Not Activated State: If the device connects to the Internet but activation fails—due to an invalid or expired license key, or one that has exceeded its activation limit—the system will enter a Not Activated state.

Figure 9: Activation Page

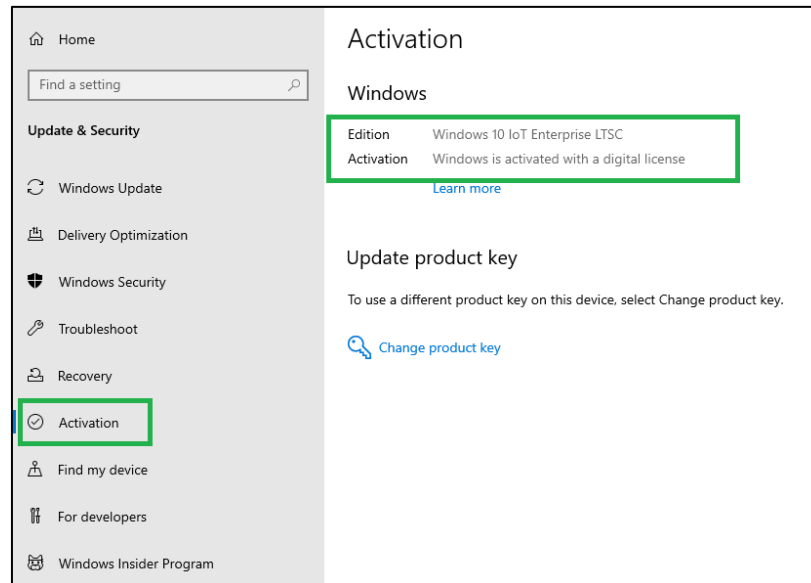
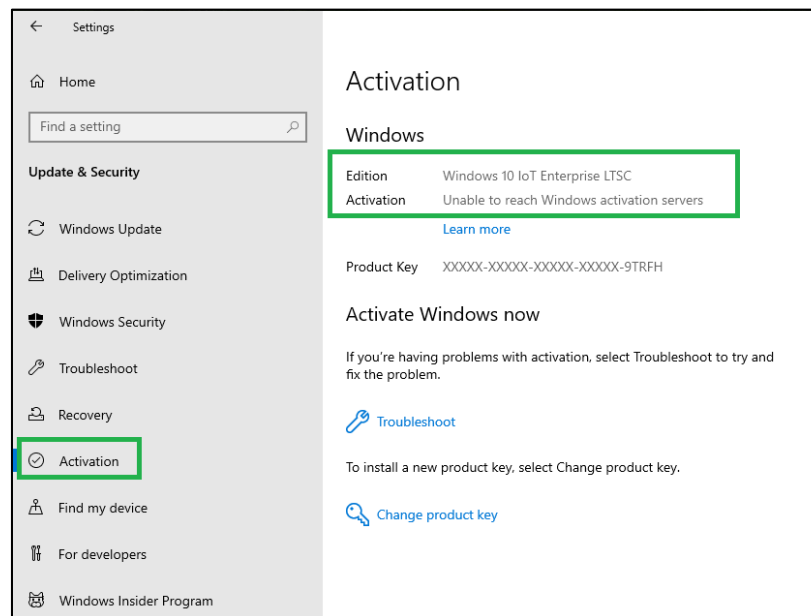
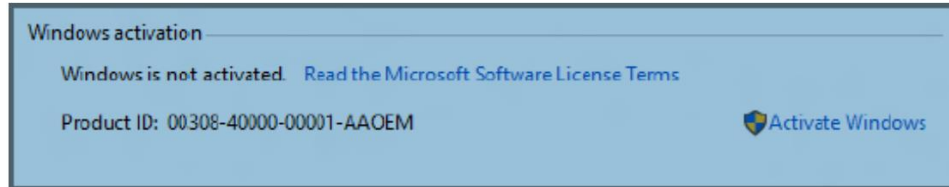


Figure 10: Activation Page



Note: The Windows Activation dialog box will display **Unable to reach Windows activation servers**, but it may not display the **Activate Windows** icon nor reduce functionality.

Figure 11: Windows Activated



After a device has been activated, it will remain activated unless a significant change triggers a need to reactivate the device, such as a motherboard replacement or completely reimaging the device.

Section 4: Software

4.1 QuickPanel+2 Target Configuration

A **QuickPanel+2 (OI) target** represents the specific OI unit on which your application will execute. Each QuickPanel+2 runs **Windows 10 IoT Enterprise 2021 LTSC** as its operating system.

4.1.1 Components

You can configure the following components within a QuickPanel+2 target:

HMI Component

The HMI component includes Graphical Panels, Application Scripts, Alarm Groups, Logging Groups, Message Grids, HTML Dashboard, UDT and PLC Access drivers [Connex Drivers].

Note: To add an HMI component to a target, you must have View installed on your system.

Logic Component

Composed of the Ladder Program folder, the Sequential Function Chart (SFC) folder, and the Control I/O node.

Note: To add a Logic component (ladder, SFC, ST, FBD, IL) to a target, you must have Logic Developer- PC installed on your system.

4.1.2 Target Creation

1. Launch the PAC Machine Edition editors from the desktop shortcut or the Start Menu.
2. Click on **My Computer** and create an **Empty Project**

Figure 12: My Computer

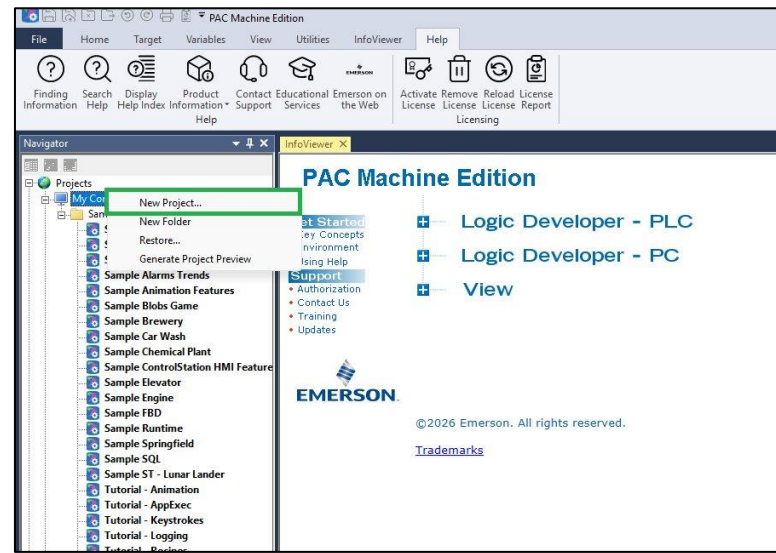
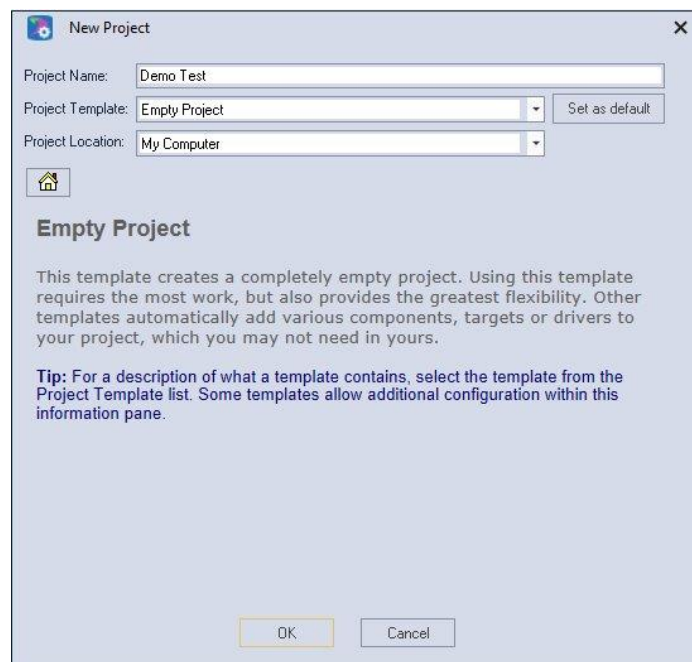
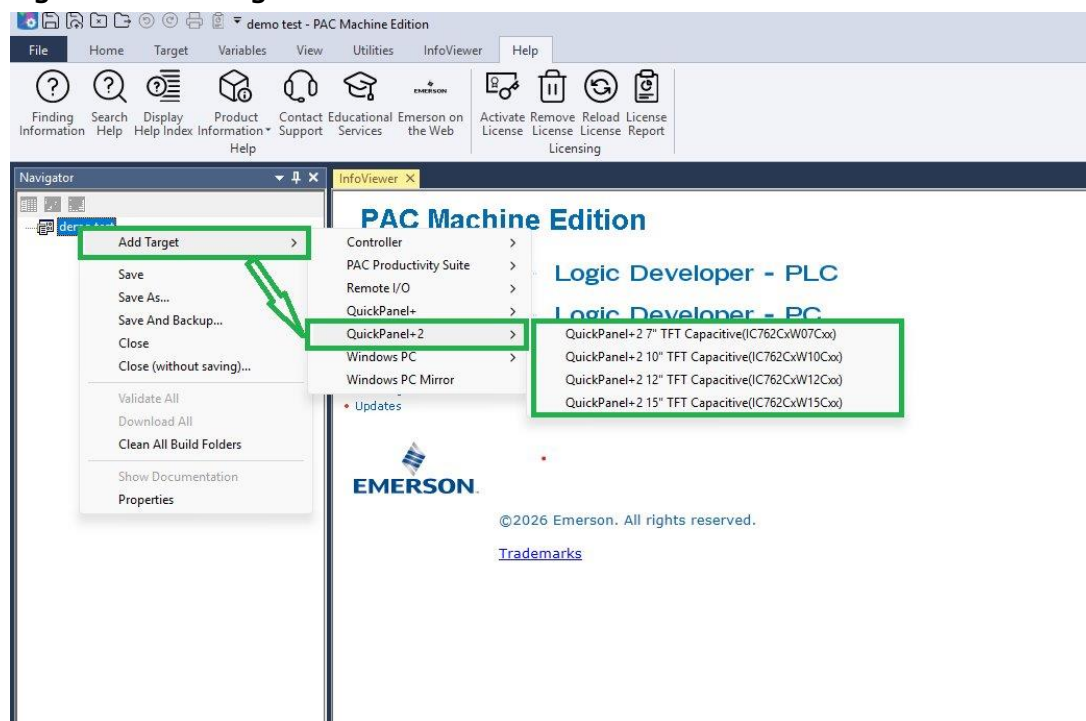


Figure 13: New Project



3. Provide a name for the Project Name
4. Click on **Add Target** to select any of **QuickPanel+2 Target** variants.

Figure 14: Add Target



5. Once the Target is added:
 - a. Select **Add Component-> HMI** to add HMI component or
 - b. **Add Component-> Logic** to add Logic Component or
 - c. **Add All Components** to add both Logic and HMI components.

Figure 15: Add All Components

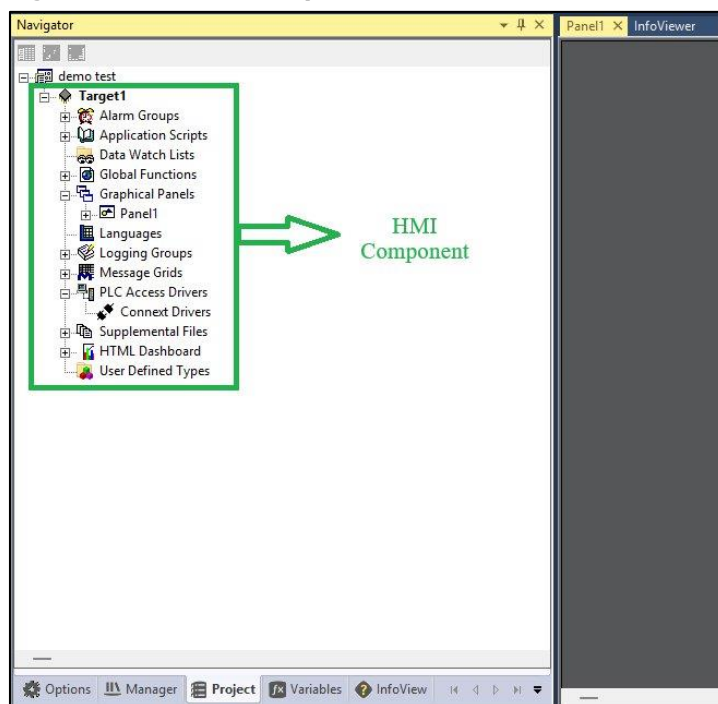
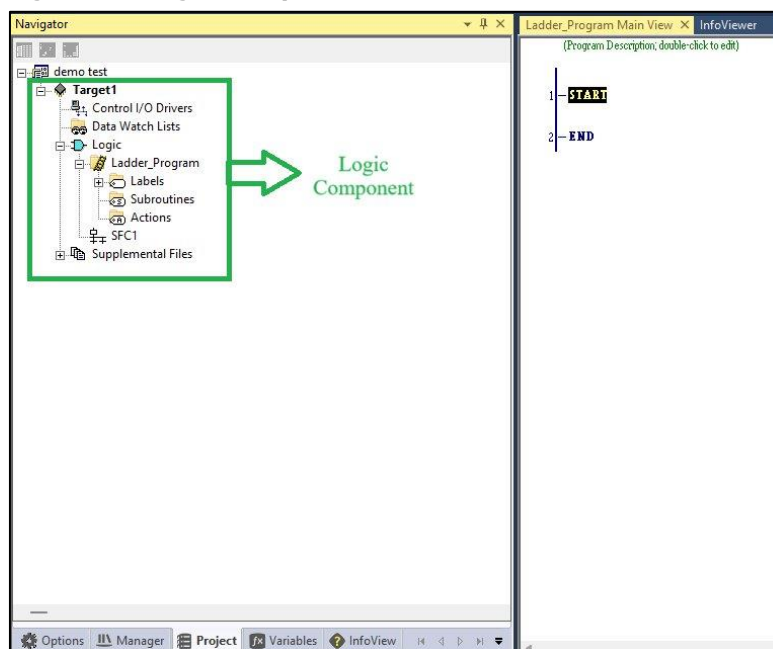
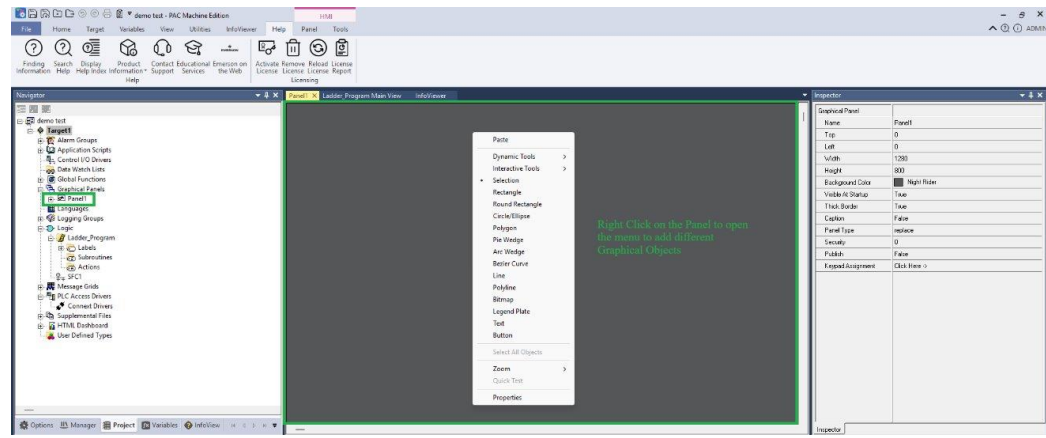


Figure 16: Logic Component



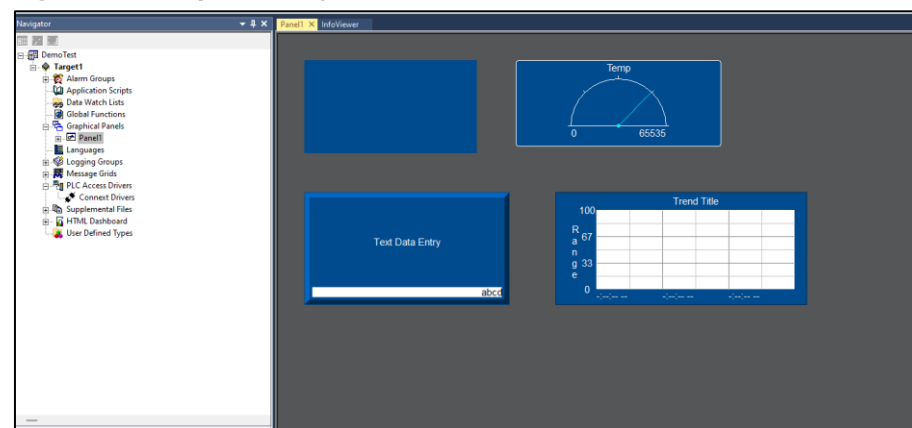
7. Right-click on the opened panel to add different graphical objects.

Figure 17: Panel1 to Add Graphical Objects



8. Select different options in the menu to add different graphical objects.

Figure 18: Graphical Objects



4.1.3 Connex Driver Configuration

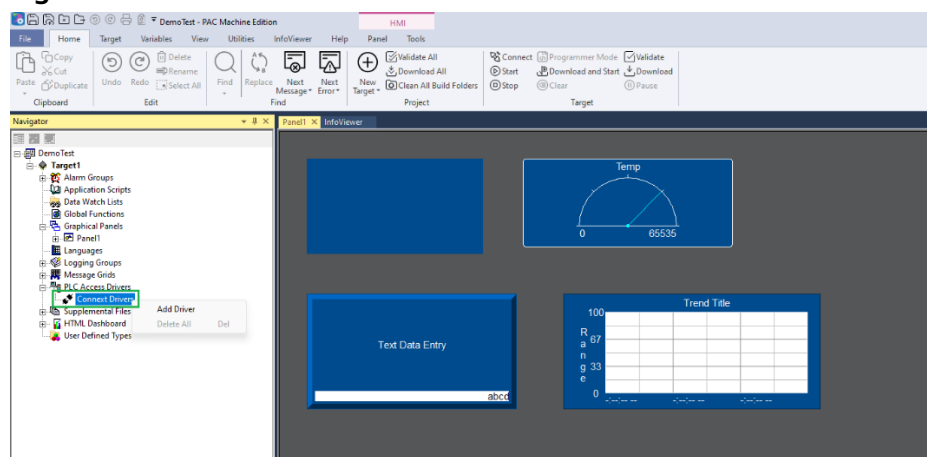
Note: QuickPanel+2 Target and HMI component must be added before you start adding Connex Driver. Please refer to the PAC Machine Edition help for more detailed information.

This section illustrates the addition of an **Emerson SRTP** Driver.

Driver Addition

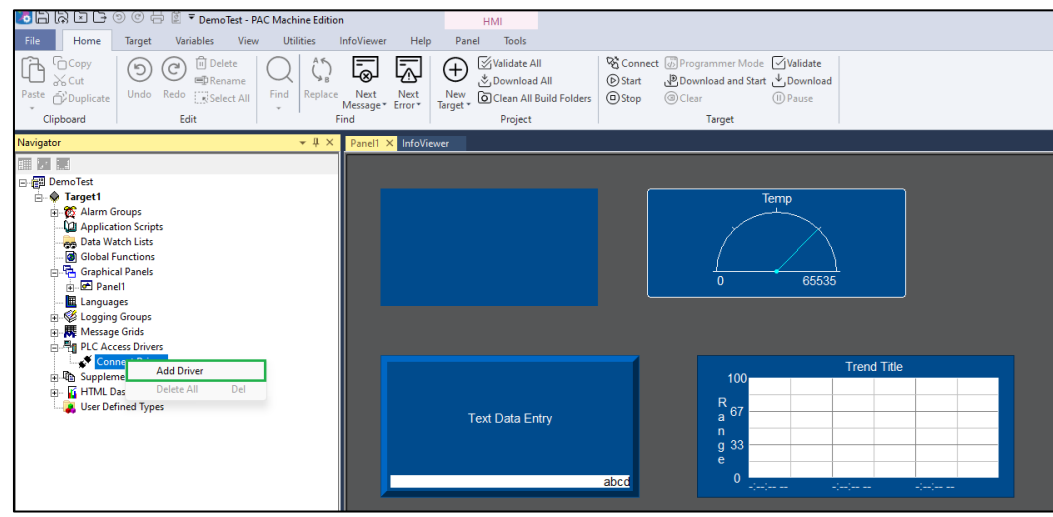
1. Right-click on **Connexx Drivers** node to display the menu

Figure 19: Connexx Drivers



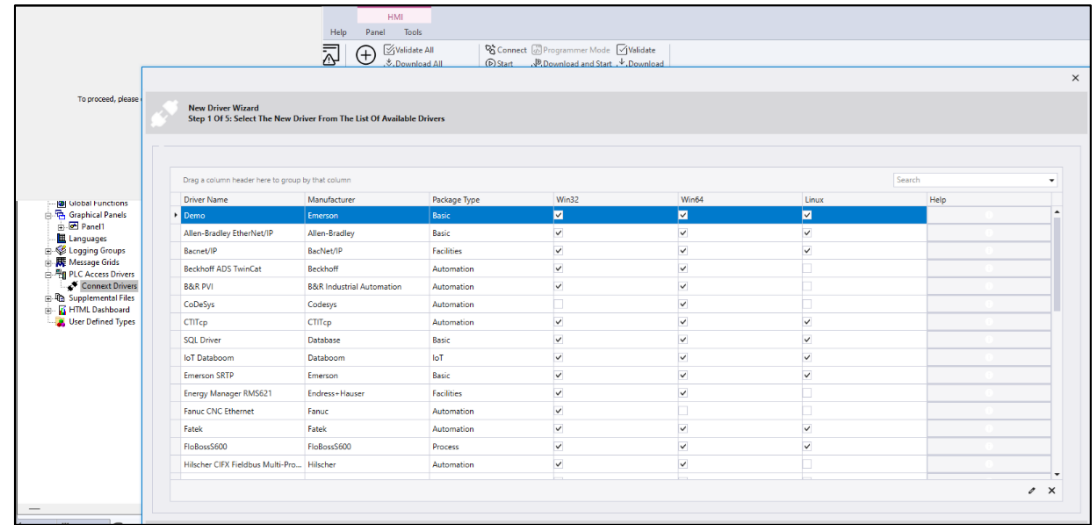
2. Click on **Add Driver**.

Figure 20: Add Driver



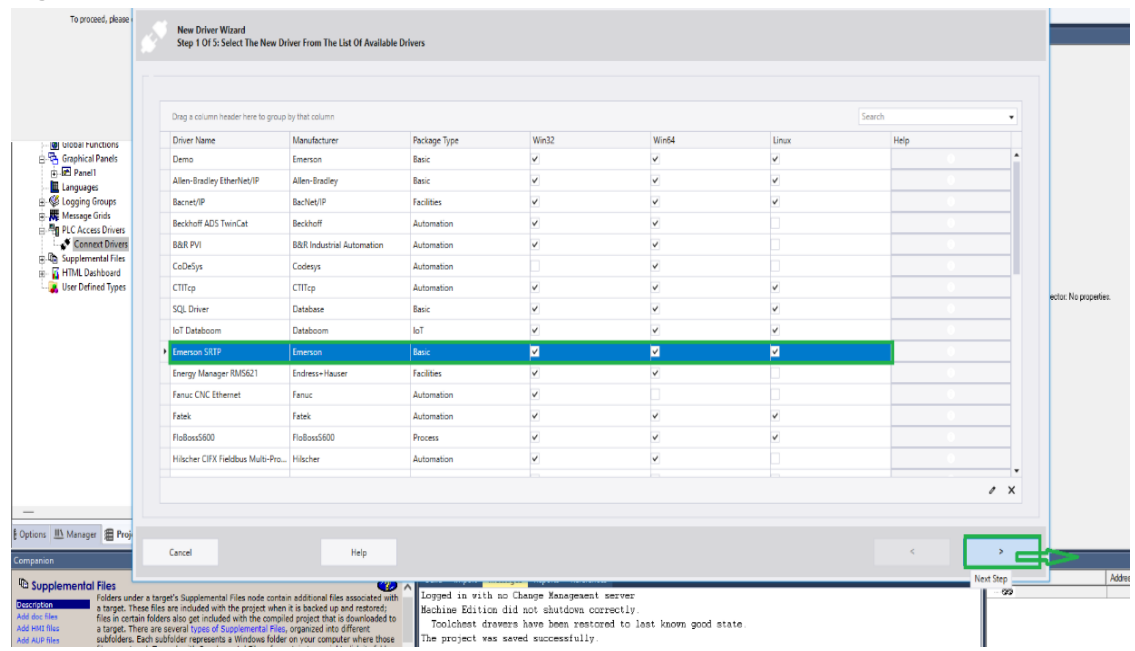
- The New Driver Wizard window will open, allowing users to select a different driver option.

Figure 21: New Driver Wizard



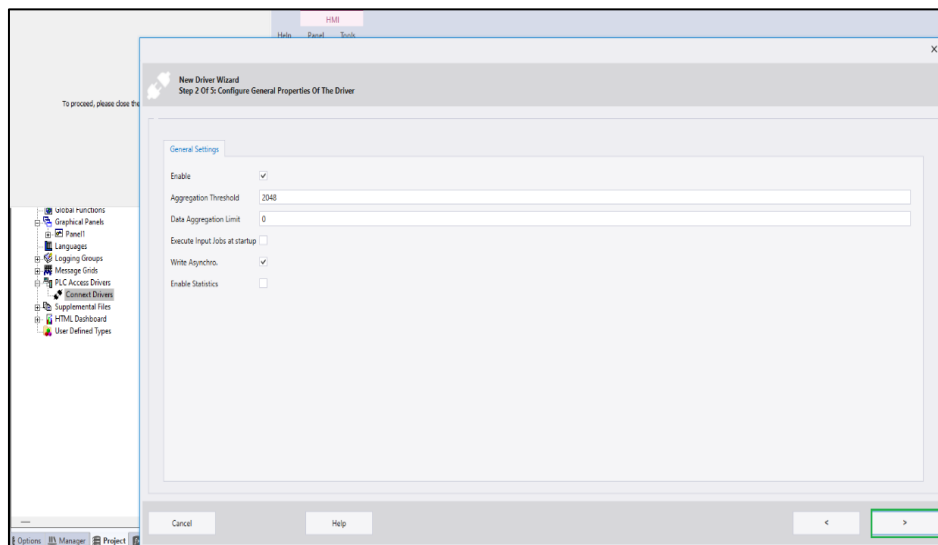
- Select **Emerson SRTP** driver and click on > button to proceed.

Figure 22: Emerson SRTP



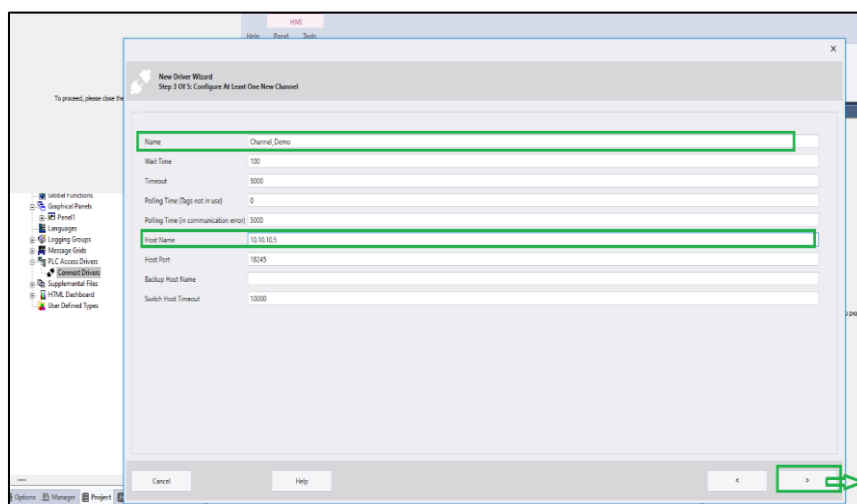
5. Modify the driver's general properties based on the requirements and click on > to proceed.

Figure 23: Click > to Proceed



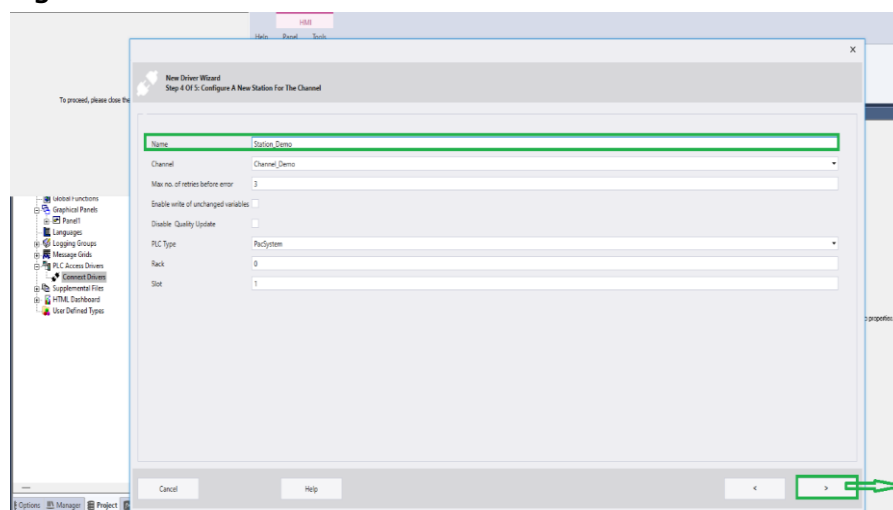
6. Modify the channel parameters like **Station Name** and enter the **Host Name**. You can modify other parameters based on the need. **Host Port** shall remain the same.
7. Click on > to proceed.

Figure 24: Channel Parameters



8. Modify the Station parameters like **Name**. You can modify other parameters based on the need.
9. Click on > to proceed.

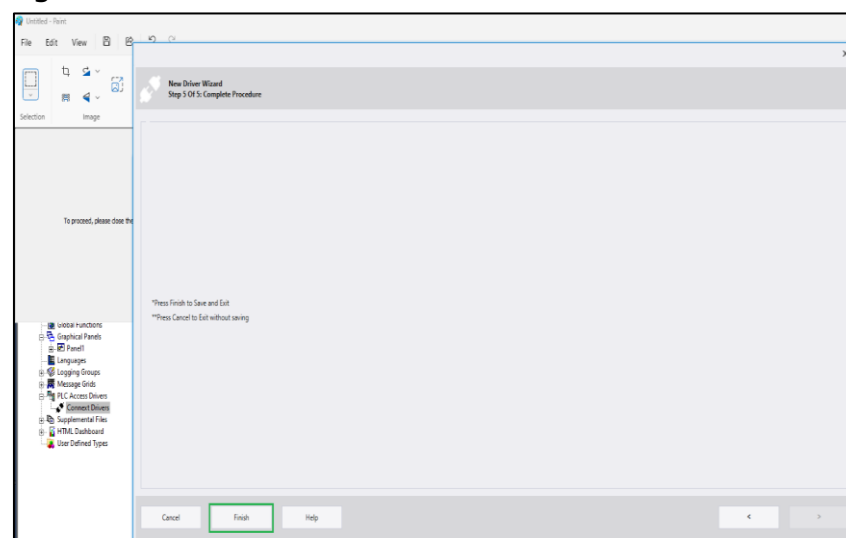
Figure 25: Station Parameters



Note: Name should be fewer than 32 characters. Names can be from 1 through 32 characters, must begin with a letter, can use the characters A through Z (Uppercase or Lowercase), the numerals 0 through 9, the underscore character (" _"), and cannot include any spaces.

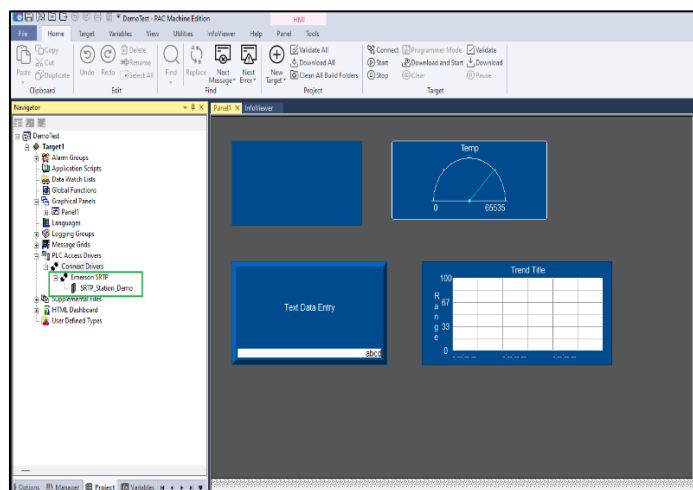
10. Click on **Finish**.

Figure 26: Finish



- Once the Driver is added, the driver name is added to the Connexx Driver node.

Figure 27: Connexx



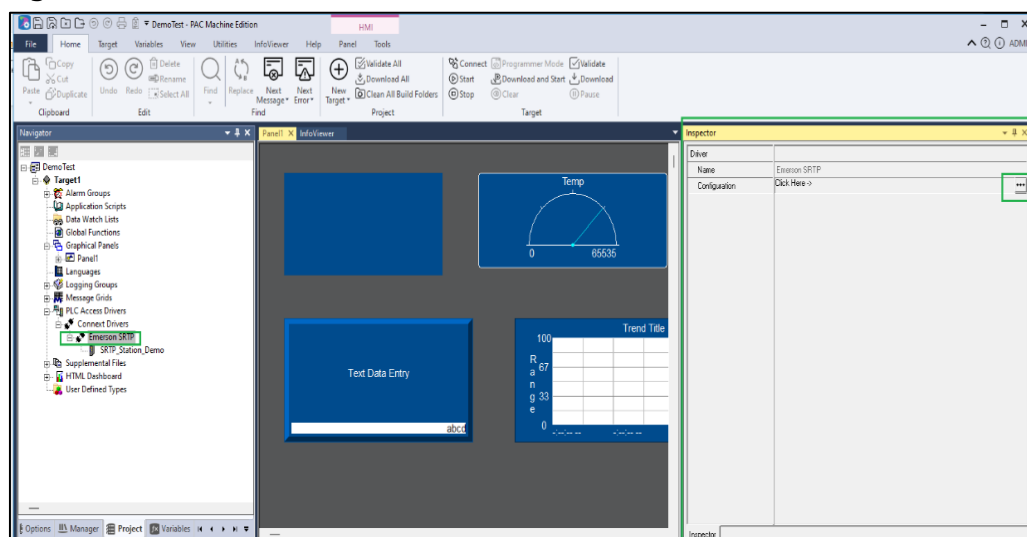
Channel and Station Parameters Modification

The user can modify the channel and station parameter for the added driver or can add new channel or station.

Prerequisite: The driver should be added before modifying any parameter.

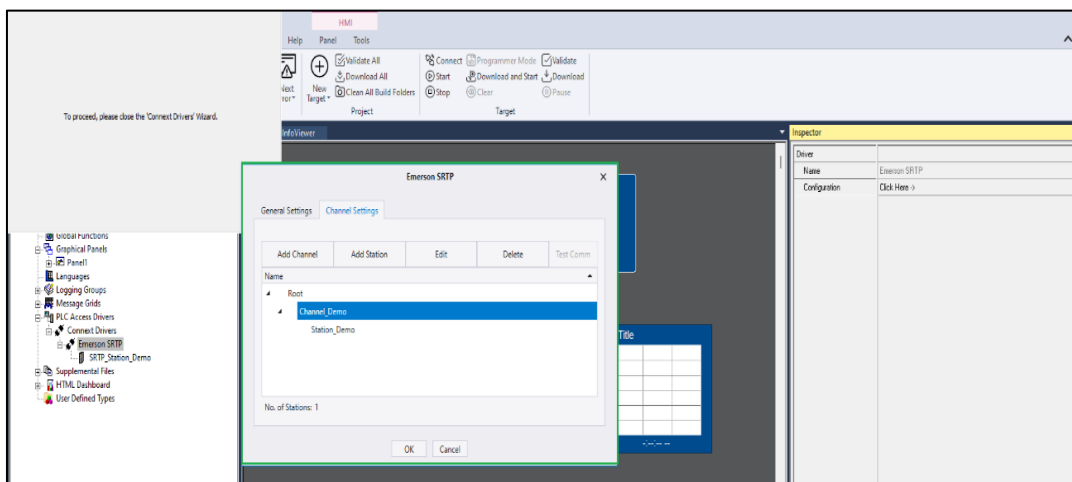
- Select **Emerson SRTP** Driver node and click on ...

Figure 28: SRTP Emerson



2. The added Connex Driver Wizard opens.

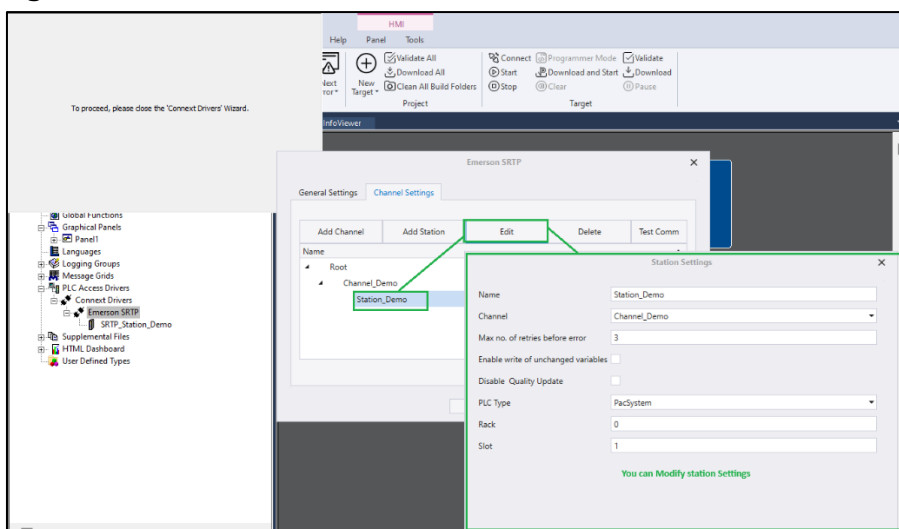
Figure 29: Connex Driver Wizard



Note: You can add/Delete/Edit Channel or Station using the UI.

3. Select added the station same **Station_Demo** and click the **Edit** button to modify the station's parameter.

Figure 30: Station Demo



4. Select the added channel name **Channel_Demo** and click on **Add Station** button to add a new station. Click on **OK** button to close the opened Wizards (Station Settings and Driver).

Figure 31: Add Station

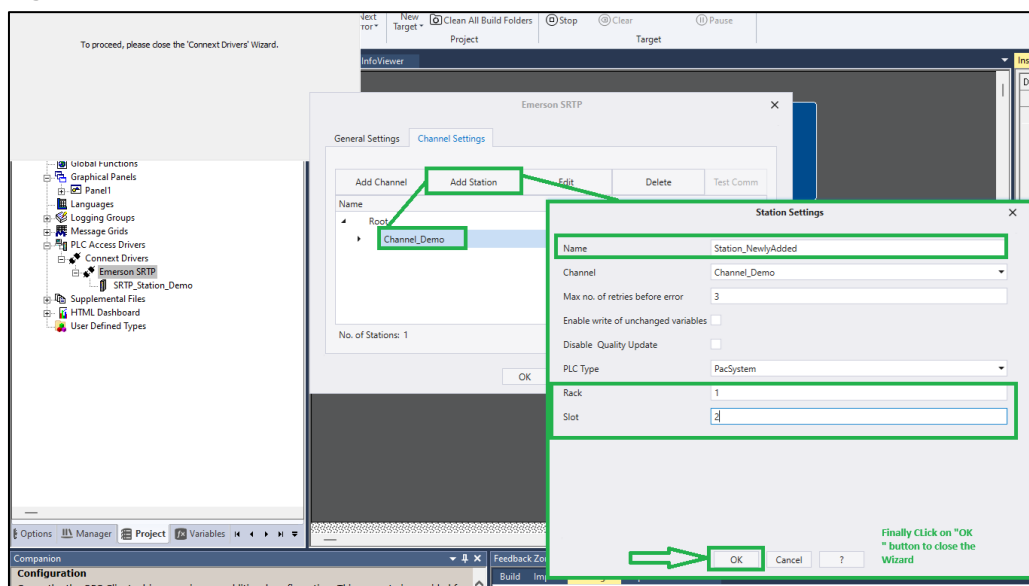
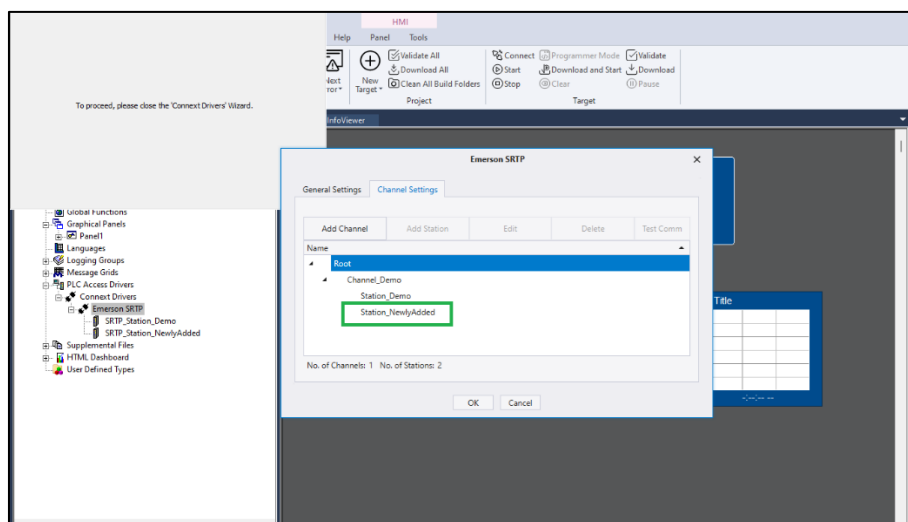
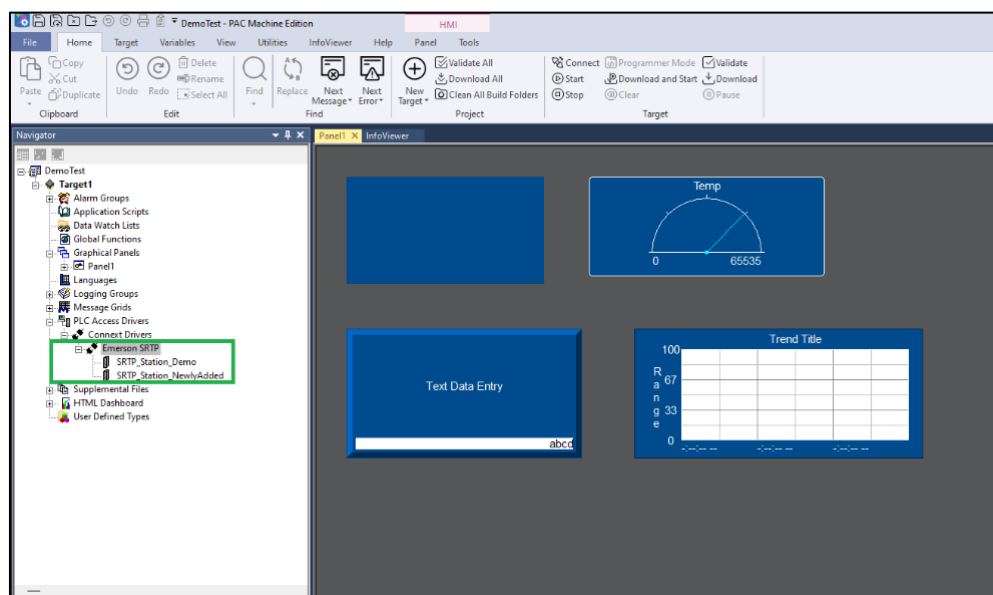


Figure 32: Station Newly Added



5. Once a new station is added then it appears in Connexx Driver Node.

Figure 33: Connexx Driver Node

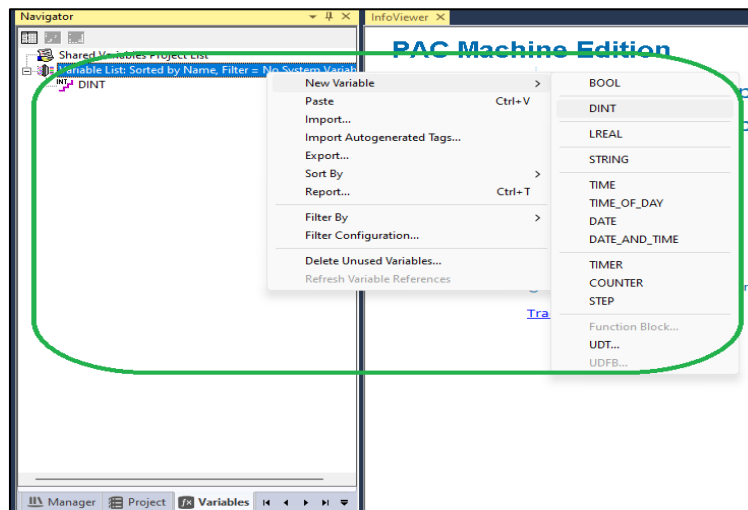


Tag I/O Address Mapping

The following section illustrates how to add variables to the target and assign the PLC Access IO address to the variables.

1. Go to **Variables** Tab and add a **New Variable**.

Figure 34: Variables Tab



2. Go to **Inspector Properties** of the variable and set the data source property to PLC Access.

Figure 35: Inspector Properties



3. Select any one of the configured devices from the list of device properties.

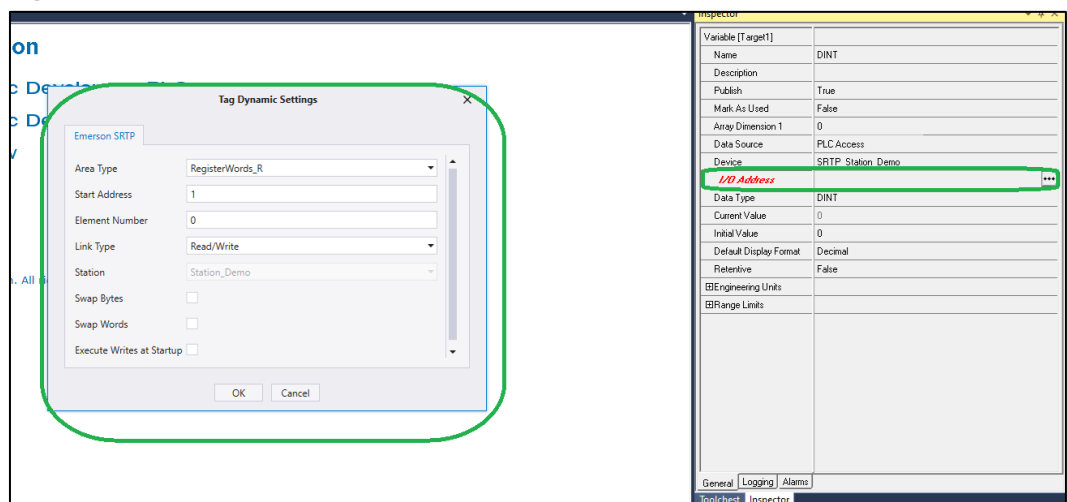
Figure 36: List of Device Properties



4. Click on **I/O Address** property, click on (...) to configure the IO address for the selected device.

The **Tag Dynamic Settings** wizard will be displayed as shown below:

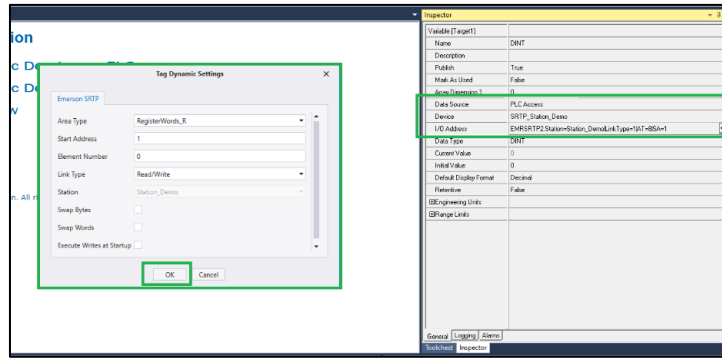
Figure 37: I/O Address



- Configure the required settings in the Tag Dynamic Settings wizard and click on **OK** button to generate the IO address for the variable.

Note: I/O Address field is read-only and can be edited through the Tag Dynamic Settings Wizard only.

Figure 38: Tag Dynamic Settings



4.1.4 Historian Configuration

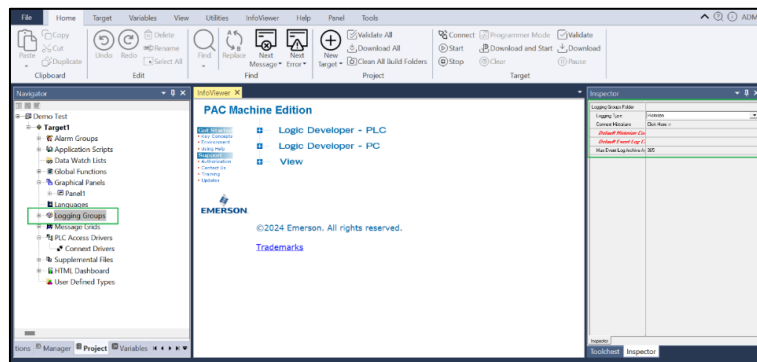
Note: QuickPanel+2 Target and HMI component must be added before you start adding Connexx Driver. Please refer to the PAC Machine Edition help for more detailed information.

Target Creation instructions are provided in Section 4.1.2.

This selection illustrates configuring Connexx Historian to QuickPanel+2 target.

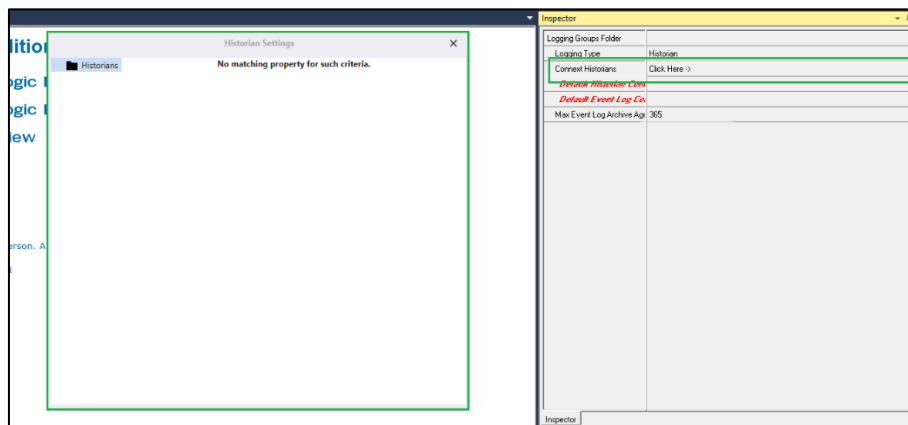
- To configure Historian, Go to the **Logging Groups** node and change the logging type property to Historian.

Figure 39: Historian



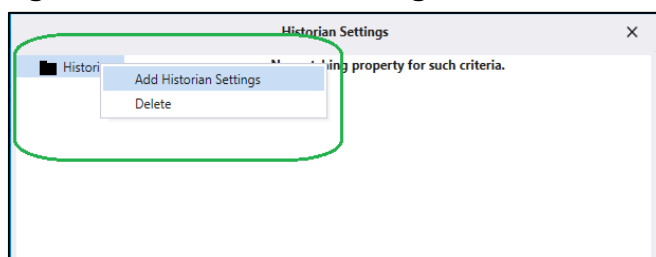
2. Click on the **Connex Historians (...)** Property to open Historian Settings Wizard for configuring Historians.

Figure 40: Connex Historian



3. Right Click on **Historian Node** in Historian Settings wizard to add new Historian Settings.

Figure 41: Add Historian Settings



- Configure all the required historian settings to the added historian as shown below.

Figure 42: Historian Settings

The 'Historian Settings' dialog box contains the following sections and fields:

- General**
 - Historian Name: Historian
 - Enabled: ☐
- Database Settings**
 - DB Connection String: [Field with expand/collapse icons]
 - Max. Age: 1 (Days) 00 : 00 : 00
 - Table Name: [Field with expand/collapse icons]
- Advanced**
 - Connection Wait Time: 60
 - Max. Retries: 3
 - Cache Size: 10000
 - Record Only On Quality Good: ☐
- Execution**
 - Deviation Type: AbsoluteValue
 - Deviation Value: 0
 - Min. Interval: 0 (Days) 00 : 00 : 00
 - Max. Interval: 0 (Days) 00 : 00 : 00

- To select the database to the configured Historian: Click on **DB Connection String (...)** to configure the required database in the Historian.

Figure 43: DB Connection String

The 'DB Connection String' dialog box contains the following fields and options:

- SQL Server: [Dropdown menu]
- Database: [Dropdown menu]
- Login name: sa
- Password: [Field]
- Authentication:
 - ☒ Windows Authentication
 - ☐ SQL Server Authentication
- Connection String: XpoProvider=MSSqlServer;data source=(local);integrated security=SSPI;initial catalog=
- Buttons: OK, Cancel

6. Select the required database from the 3 databases (SQL Server, My SQL and PostgreSQL) and configure the required settings and click on **OK** to save the database connection string.

Figure 44: DB Connection String

The screenshot shows the 'Historian Settings' dialog box with the 'Database Settings' tab selected. The 'DB Connection String' field is highlighted with a green box and contains the text: 'XpoProvider=MSSqlServer;data source=(local);integrated security=SSPI;initial catalog=Emerson'. Other fields include 'Historian Name' (Historian), 'Enabled' (checkbox), 'Max. Age' (1 (Days) 00 : 00 : 00), 'Table Name' (empty), 'Connection Wait Time' (60), 'Max. Retries' (3), 'Cache Size' (10000), 'Record Only On Quality Good' (checkbox), 'Deviation Type' (AbsoluteValue), 'Deviation Value' (0), 'Min. Interval' (0 (Days) 00 : 00 : 00), and 'Max. Interval' (0 (Days) 00 : 00 : 00).

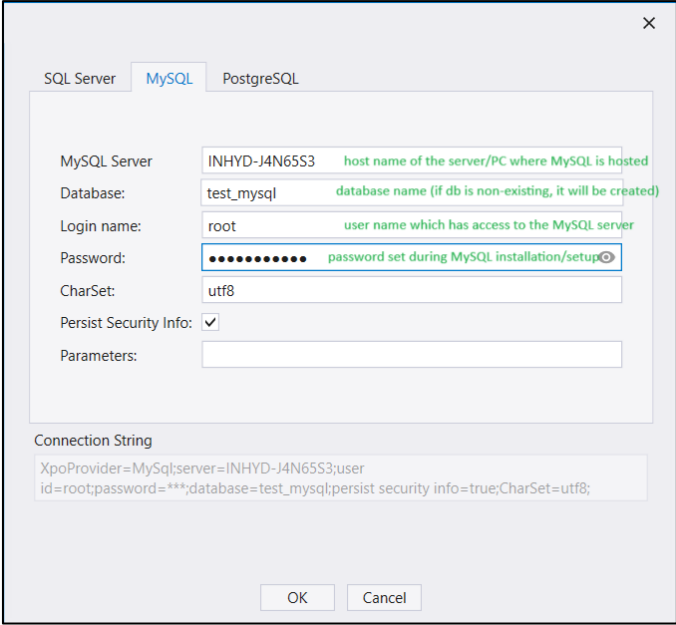
SQL Server Configuration

Figure 45: SQL Server Configuration

The screenshot shows the 'SQL Server Configuration' dialog box with the 'SQL Server' tab selected. The 'SQL Server' field is 'INHVD-J4N65S3' with a dropdown arrow. The 'Database' field is 'PACOI_Historian' with a dropdown arrow. The 'Login name' field is 'sa'. The 'Password' field is masked with dots. The 'Authentication' section has 'SQL Server Authentication' selected. The 'Persist Security Info' checkbox is checked. The 'Parameters' field is empty. The 'Connection String' field at the bottom contains the text: 'XpoProvider=MSSqlServer;data source=INHVD-J4N65S3;user id=sa;password=***;initial catalog=PACOI_Historian;Persist Security Info=true;'. The 'OK' and 'Cancel' buttons are at the bottom.

MySQL Configuration

Figure 46: MySQL Configuration



The MySQL Configuration dialog box is shown with the 'MySQL' tab selected. It contains the following fields and options:

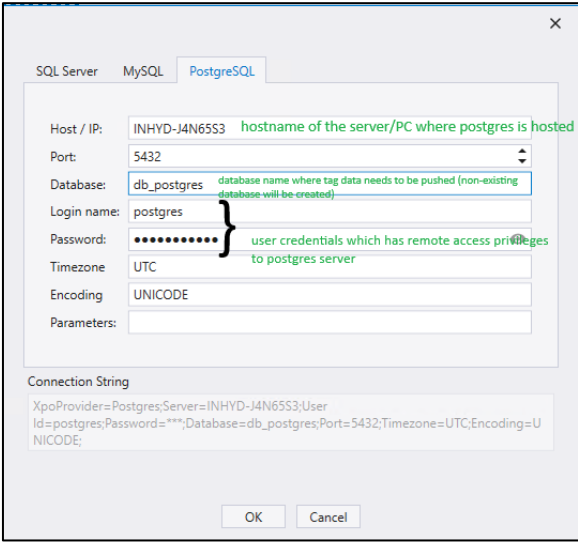
- MySQL Server:** INHYD-J4N65S3 (host name of the server/PC where MySQL is hosted)
- Database:** test_mysql (database name (if db is non-existing, it will be created))
- Login name:** root (user name which has access to the MySQL server)
- Password:** (password set during MySQL installation/setup)
- CharSet:** utf8
- Persist Security Info:** ☒
- Parameters:** (empty field)

Connection String:
XpoProvider=MySql;server=INHYD-J4N65S3;user id=root;password=***;database=test_mysql;persist security info=true;CharSet=utf8;

Buttons: OK, Cancel

PostgreSQL Configuration

Figure 47: PostgreSQL Configuration



The PostgreSQL Configuration dialog box is shown with the 'PostgreSQL' tab selected. It contains the following fields and options:

- Host / IP:** INHYD-J4N65S3 (hostname of the server/PC where postgres is hosted)
- Port:** 5432
- Database:** db_postgres (database name where tag data needs to be pushed (non-existing database will be created))
- Login name:** postgres
- Password:** (user credentials which has remote access privileges to postgres server)
- Timezone:** UTC
- Encoding:** UNICODE
- Parameters:** (empty field)

Connection String:
XpoProvider=Postgres;Server=INHYD-J4N65S3;User Id=postgres;Password=***;Database=db_postgres;Port=5432;Timezone=UTC;Encoding=UNICODE;

Buttons: OK, Cancel

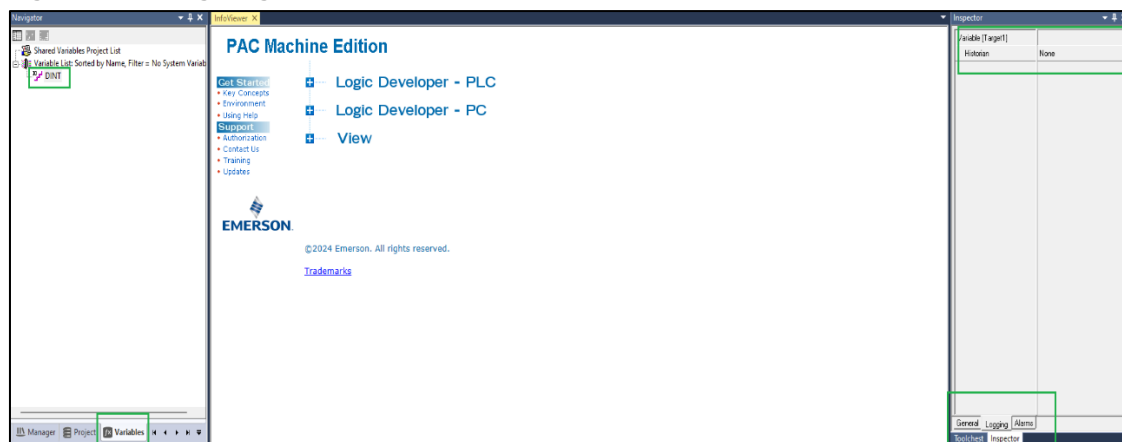
1. Close the **Historian Settings (x)** wizard to save the settings.
2. Configure the default historian connection and default event log properties in the logging group for the historian. These configurations serve as default settings. If no database is selected for a specific historian, these default properties will be applied.

Assigning Historians to the Variables

This section illustrates the procedure to assign variables to Historian.

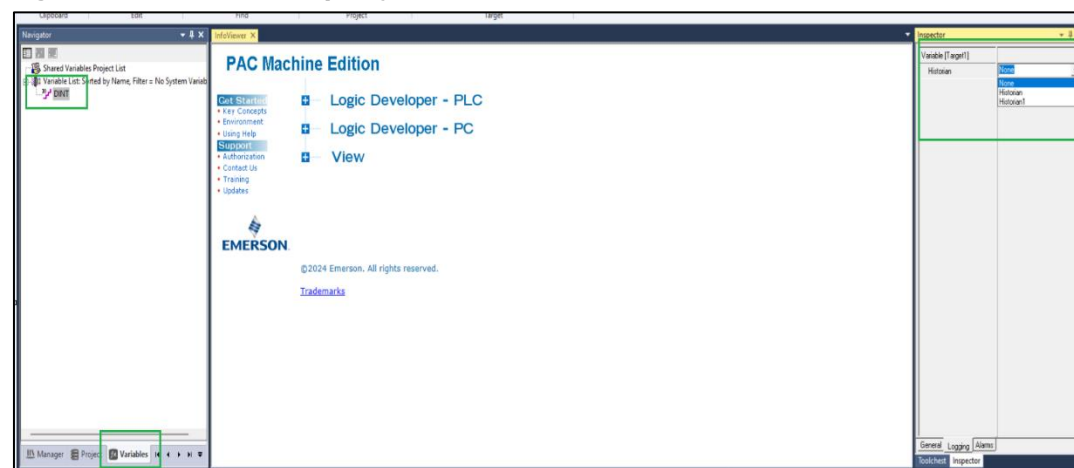
1. To assign variables to the configured historian, go to the **Variables** tab. Click on any variable and go to logging window in the Inspector tab.

Figure 48: Assigning Variables



2. Click on **Historian Property** and select the required historian from the list of configured historians to map the variable to the historian.

Figure 49: Historian Property



4.1.5 Control I/O Drivers

The Control I/O Drivers folder is used to configure drivers, devices and variables with a Control I/O data source for I/O controlled by Machine Edition directly—such as through a ladder logic program created with Logic Component of QuickPanel+2 target.

Control I/O drivers are displayed in the Control I/O window in a tree. The organization of the I/O tree depends on the manufacturer but usually consists of drivers at the highest level and I/O terminals at the lowest level.

Supported Control I/O Drivers:

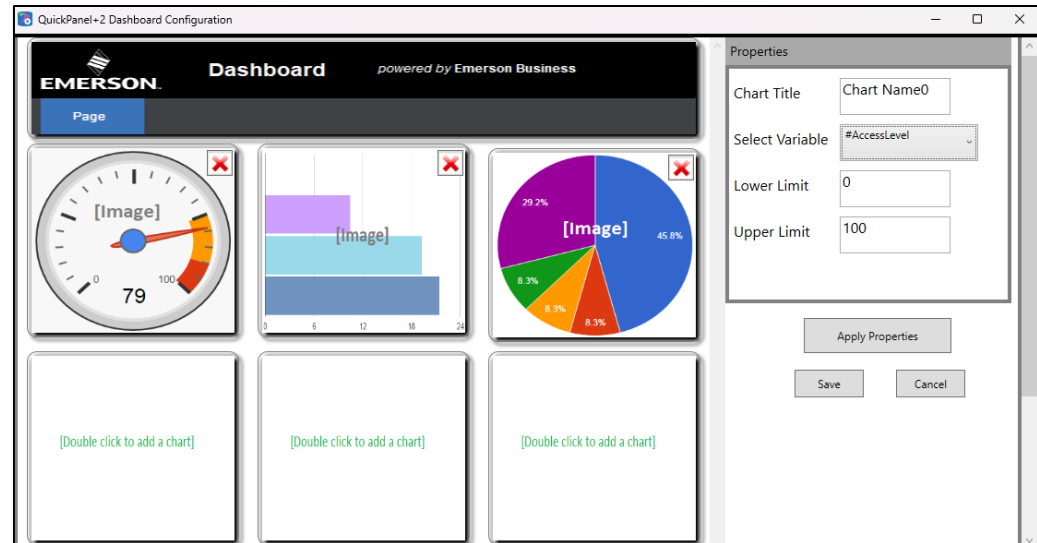
- Ethernet I/O
- Modbus Slave

Note: Refer to PME Help with more detailed information for configuring these drivers.

4.1.6 HTML Dashboard Configuration

1. Configure the HTML Dashboard in the QuickPanel+2 Target within PME and then download the project to the QuickPanel+2 Device.

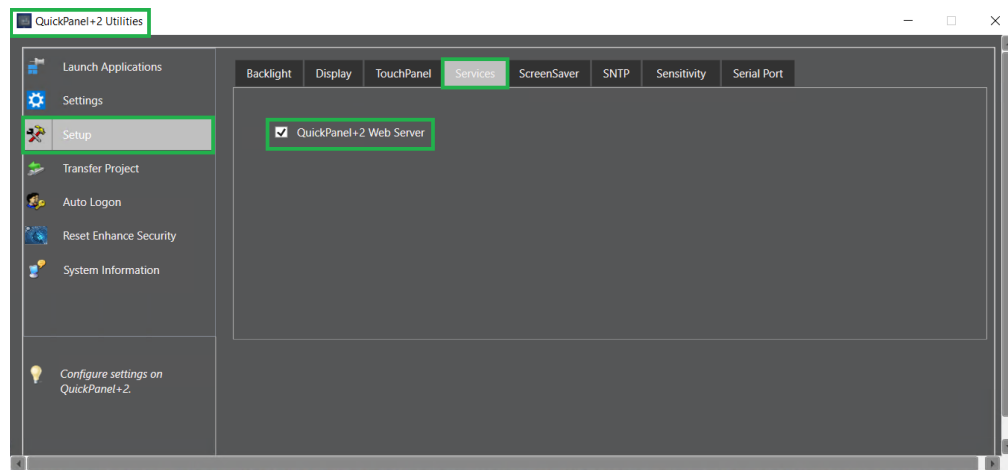
Figure 50: HTML Dashboard Configuration



2. Enable the QuickPanel+2 Web Server on the target device. For detailed instructions, refer to Section 4.3, QuickPanel+2 Utilities.

To monitor the tags in runtime through HTML Dashboard, the QuickPanel+2 Web Server must be enabled. In QuickPanel+2 Utilities, open the **Setup** page, select the **Services** tab, and enable the **QuickPanel+2 Web Server** Option.

Figure 51: QuickPanel+2 Web Server



3. Open any browser and enter following URL:
Error! Hyperlink reference not valid.

Note: Replace < **QuickPanel+2 Device IP address** > with your device's IP address.

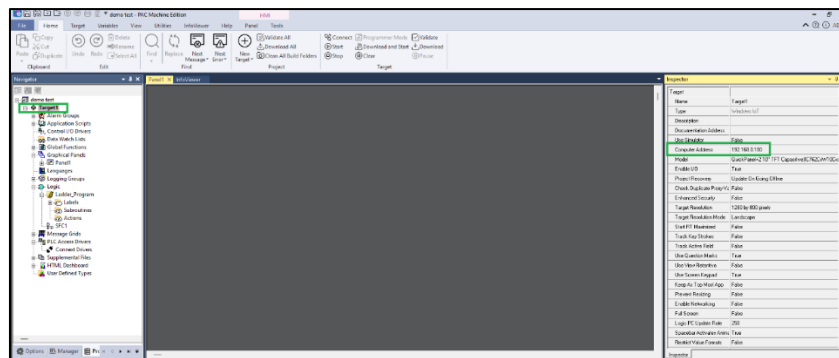
4. The variable values are displayed in the browser window like HTML Dashboard.

4.1.7 Download and Start

This section illustrates how to download and start the QuickPanel+2 runtime on the QuickPanel+2 device.

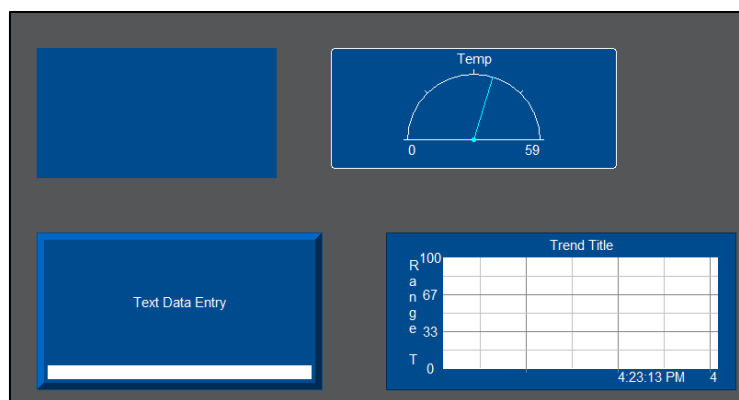
1. Click on the target and give the computer address of the QuickPanel+2 device.

Figure 52: QuickPanel+2 Device IP Address



2. Click on **Download and Start (F9)** to download the target to QuickPanel+2 device and start the View runtime.

Figure 53: Download and Start



4.1.8 Supported Connex Drivers

Driver Name	Manufacturer	Supported Devices	Package Type
CTITcp	CTITcp	Devices supporting Common ASCII Messaging Protocol(CAMP)	Automation
Fatek	Fatek	All Fatek Plc supporting FATEK Communication Protocol.	Automation
Melsec FX Series	Mitsubishi Electric	FX FX0N FX1N FX2N FX3U	Automation
Meslec FX TCP Series	Mitsubishi Electric	FX3U	Automation
Melsec Q TCP	Mitsubishi Electric	MELSEC-Q Series	Automation
MTConnect	MTConnect	TCP/IP is used to communicate with both adapter and agent.	Automation
Panasonic FP MEWTOCOL	Panasonic	Panasonic FP Series Panasonic FP7 Series	Automation
Saia Data Mode	SAIA Burgess Controls	All Saia PCD PLCs	Automation
Demo	Emerson	Simulation driver that doesn't communicate with any external device	Basic
Allen Bradley - EtherNet/IP	Allen Bradely	PLC-5 SLC-500 MicroLogix ControlLogix CompactLogix FlexLogix	Basic
SQL Driver	Database	Connect database to Movicon.NExT	Basic
Emerson SRTP	Emerson	Series 90-30 311/313,331/341,350,360 Series 90-70 731/732,771/772,781/782 PACSystems RX3i PACSystems RX7i Micro series	Basic
Modbus Serial RTU/ASCII	Modbus	Modbus Compatible Devices	Basic

Driver Name	Manufacturer	Supported Devices	Package Type
Modbus TCP-IP Master	Modbus	Any standard Modbus slave device	Basic
Modbus TCP-IP Slave	Modbus	Any standard Modbus Master device	Basic
Omron Ethernet/IP	Omron	Omron NJ 301 Omron NJ 501 Omron NX Series	Basic
Omron FINS Ethernet	Omron	CS1/CJ1 PLCs CV Series C200HX/C200HG/C200HE PLCs CP/CPM2x PLCs	Basic
OPC UA Client	OPC Foundation	OPC UA Server DA OPC UA Server AE OPC UA Server HA	Basic
Siemens PC Adapter-MPI	Siemens	Siemens S7-300 Siemens S7-400 Vipa 200V Series Vipa 300V Series Vipa 300S Series Vipa 500S Series	Basic
Siemens PPI	Siemens	Siemens S7-200 devices and compatible	Basic
Siemens S7 TCP	Siemens	Siemens S7-200 Siemens S7-300 Siemens S7-400 Siemens S7-1200 Siemens S7-1500 Vipa 200V Series Vipa 300V Series Vipa 300S Series	Basic
BacNet/IP	BacNet/IP	Device that uses the BACNet Protocol	Facilities
KNX EIBUS (Falcon)	Konnex KNX	Building automation device supporting or compliant with Konex System	Facilities
SNMP Manager	SNMP	Device supporting SNMP protocol acting as SNMP Agents	Facilities
MQTT Client	MQTT	Support MQTT servers (brokers)	IoT
DNP3Master	DNP3Master	Devices supporting DNP3(Level 1,2,3) protocol	Process
FloBossS600	FloBossS600	FloBoss S600 + flow computer	Process

Driver Name	Manufacturer	Supported Devices	Package Type
ROC	Emerson	Device supporting ROC Protocol	Process
IEC 60870-5-104 TCP/IP	IEC 60870-5-104	Any server supporting IEC 60870-5-104 via TCP/IP networking.	Telemetry
IEC 61850 MMS Client	IEC 61850	IEC 61850 MMS servers	Telemetry

4.2 Historian Server Configuration

QuickPanel+2 provides support for three different databases using Connex Historian.

- SQL Server Express 2019
- MySQL
- PostgreSQL

⚠ CAUTION

The supported databases should not be installed on QuickPanel+2 Devices.

Connex Historian fully supports connections with the DB listed in the table below:

Database Engine	Ver.
SQL Server Express	From version 2019
MySQL	Version 8.0.26
PostgreSQL	Version 16.0

4.2.1 SQL Server 2019 Configuration

SQL Server 2019 Installation

1. Check the installed ODBC driver version on the machine. If the installed version is earlier than 17.10, upgrade it to 17.10.1.1 or later. Accept the default installation settings and do not modify any modification options.

Microsoft ODBC Driver 17 for SQL Server	Microsoft Corporation	1/21/2024	4.14 MB	17.10.5.1
---	-----------------------	-----------	---------	-----------

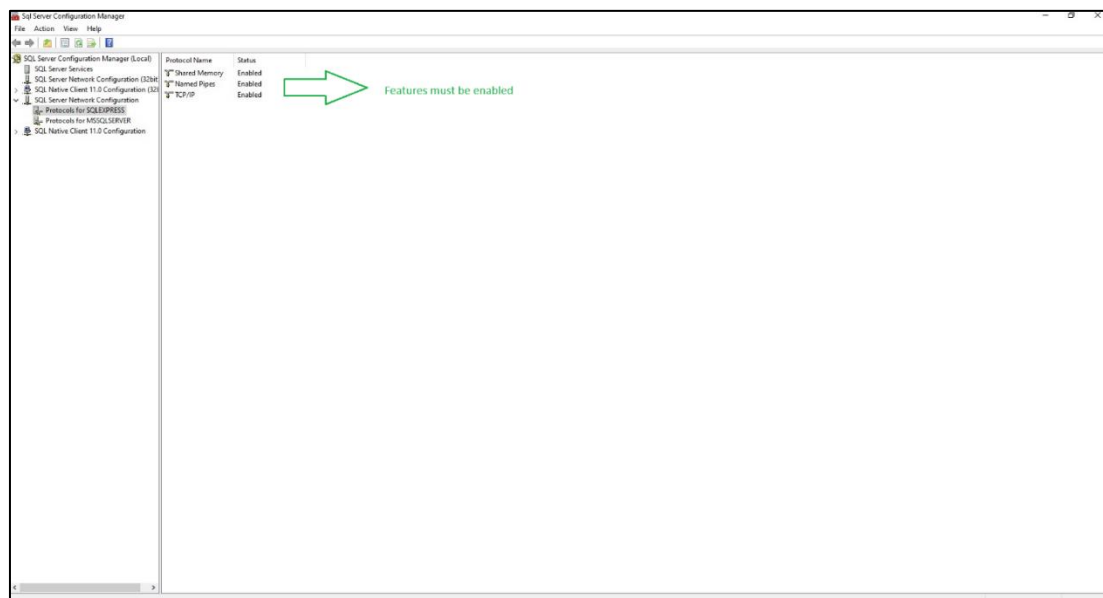
2. Download and install the standalone Microsoft SQL Server Express installer.
3. Specify a unique instance name for the SQL Server installation (for example: SQLServer)
4. During the SQL Server 2019 installation, configure the server to use **Mixed Mode Authentication** (Windows Authentication and SQL Server Authentication).
5. Specify a strong password for the SQL Server system administrator (sa) account and complete the installation.

SQL Server Configuration Manager

Enable the Properties

1. Click the **Search icon** on the taskbar and type SQL Server Configuration Manager (SSCM)
2. Open **SQL Server Configuration Manager**, expand **SQL Server Configuration**, and enable the following protocols for the SQL Server instance:
 - **Shared Memory**
 - **Named Pipes**
 - **TCP/IP**

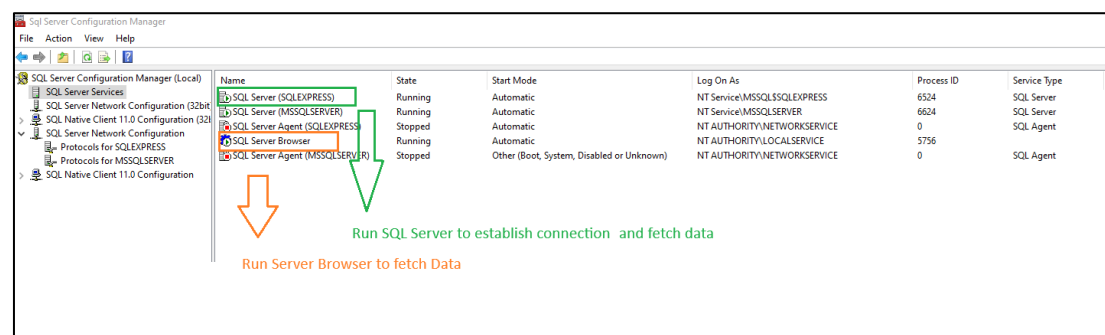
Figure 54: Features Must Be Enabled



Restart SQL Server Services

1. Open **SQL Server Services**.
2. Start the **SQL Server Browser** and restart the SQL Server Service.

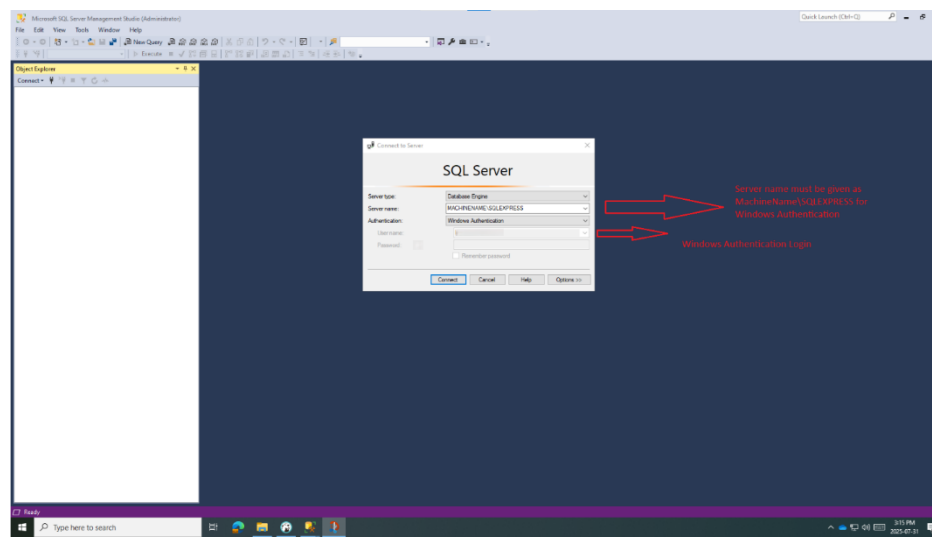
Figure 55: SQL



Microsoft SQL Server Configuration Management Settings (MSSCM)

1. Click the **Search icon** on the taskbar and type **MSSCM**.
2. Open **MSSCM** and provide the SQL server's name.
3. There are two options for authentication:
 - a. If you wish for the current user credentials are to be used at login, select **Authentication as Windows**.
 - b. Otherwise, if SQL Server credentials are available, select **SQL Server Authentication**.

Figure 56: Credentials



4.2.2 MySQL Configuration

- Download MySQL community edition from [MySQL :: Download MySQL Installer](#) according to the machine architecture.
- Grant the remote access privileges to user from historian configuration which is being used to login to database.

```
GRANT ALL PRIVILEGES ON *.*  
TO '<USER NAME>' @'%'  
IDENTIFIED BY '<USER PASSWORD>'  
WITH GRANT OPTION;
```

4.2.3 PostgreSQL Configuration

This step ensures that the QuickPanel+2 is configured with the appropriate database settings to support data logging, alarms, and application storage functions.

Customers must download and install the appropriate PostgreSQL configuration file based on their system architecture. This configuration enables reliable communication between the target device and the PostgreSQL database engine.

4.3 QuickPanel+2 Utilities

The QuickPanel+2 Utilities can be launched from the desktop using the shortcut icon as shown below.

Figure 57: Desktop Icon

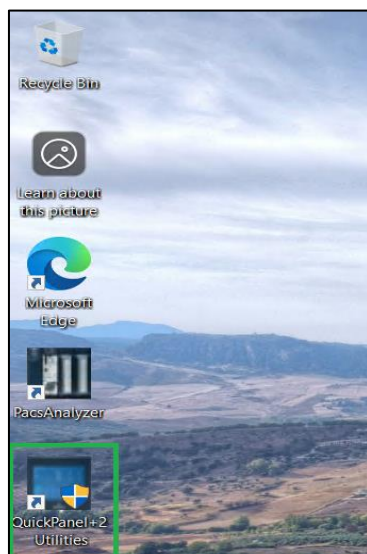
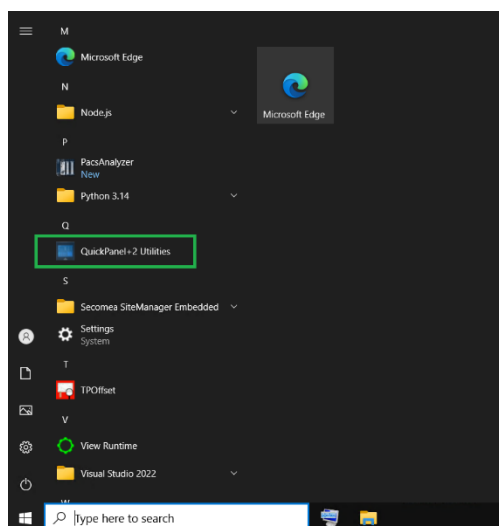
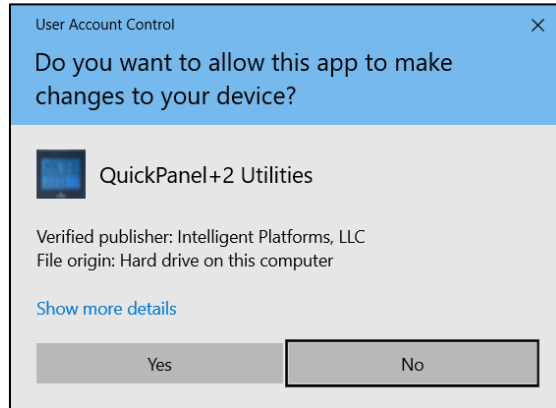


Figure 58: Start Menu Icon



Note: Once the user clicks the QuickPanel+2 Utilities, the UAC dialog will be prompted. Click **Yes** to launch the application.

Figure 59: UAC prompt

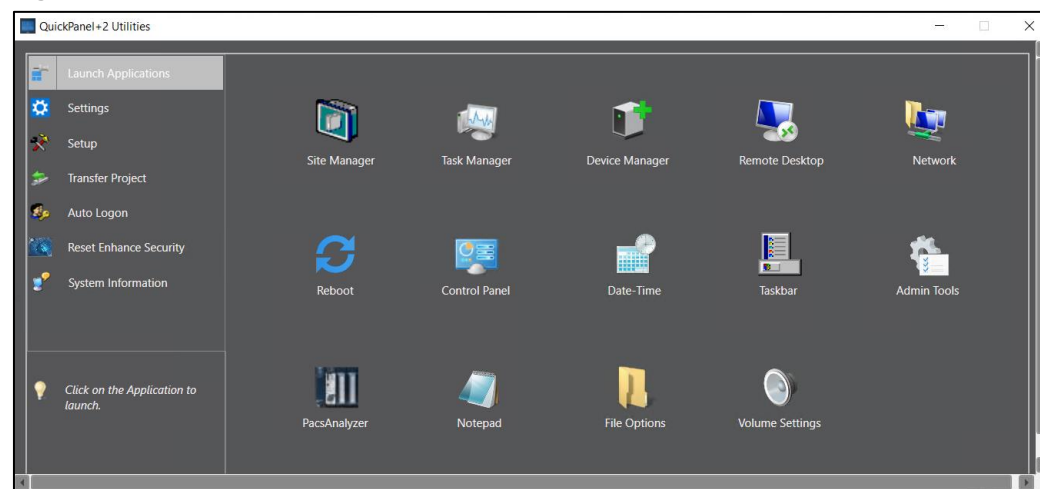


4.3.1 Launch Application

Launch Application contains frequently QuickPanel+2 applications. The user needs to click on the icon to launch the application. An application like SiteManager Embedded, Task Manager, Device Manager, Remote Desktop, VNC Server, Reboot to reboot the QuickPanel+2 device, Control Panel, Date-Time, Taskbar, Admin Tools, PacsAnalyzer, Notepad, File Options, Volume Settings, Network.

1. Launch **QuickPanel+2 Utilities**. Select **Yes** on the UAC prompt dialog.
2. Navigate to the **Launch Application** page under **QuickPanel+2 Utilities**.
3. Click the icons to launch the application.

Figure 60: Launch Tool



4.3.2 Settings

The Settings page allows users to save configuration parameters of a QuickPanel+2 to a file (.rbs). These saved settings can later be applied or restored to the same Operator Interface or to another QuickPanel+2 as needed.

1. Launch **QuickPanel+2 Utilities**. Select **Yes** on UAC prompt dialog.
2. Navigate to the **Settings** page under **QuickPanel+2 Utilities**.

The settings page has two associated tabs:

1. System
2. Registry

System Tab – This tab has different names of different settings that the user can select to save the setting's value to the file.

Note:

1. The System tab of the settings page is not used for setting the values for any device parameters. It is only used to make the selection of the parameter settings, that the user wants wishes to a file.
2. The feature supports saving and restoring static IP addresses.
3. Saving and restoring Date-Time will save or restore Time Zone information.
4. Restoring Display (Screen Rotation) is not allowed using Remote Desktop.

Registry Tab – The Registry tab allows users to modify registry key values on a QuickPanel+2 and save these settings to a file. The saved registry values can later be restored to the same Operator Interface or applied to another QuickPanel+2, as needed.

Figure 61: QuickPanel+2 Settings - System Tab

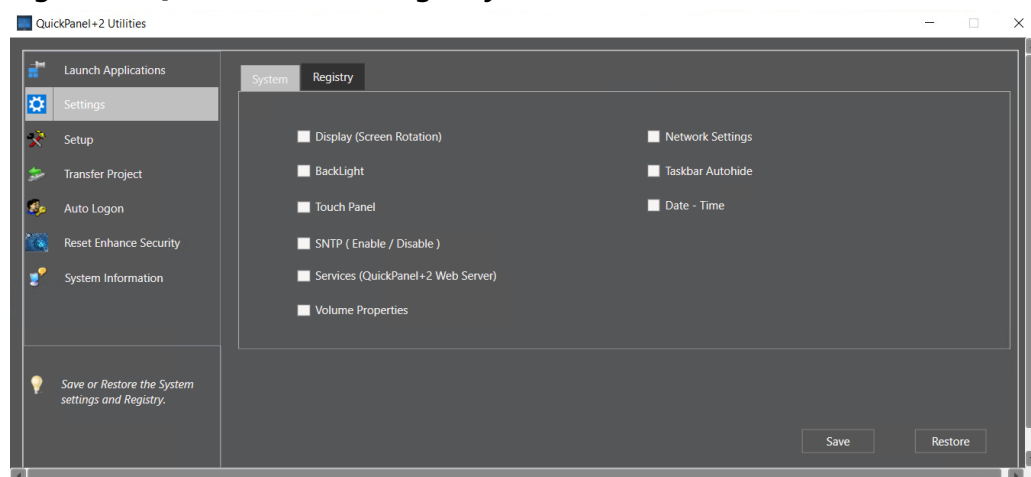
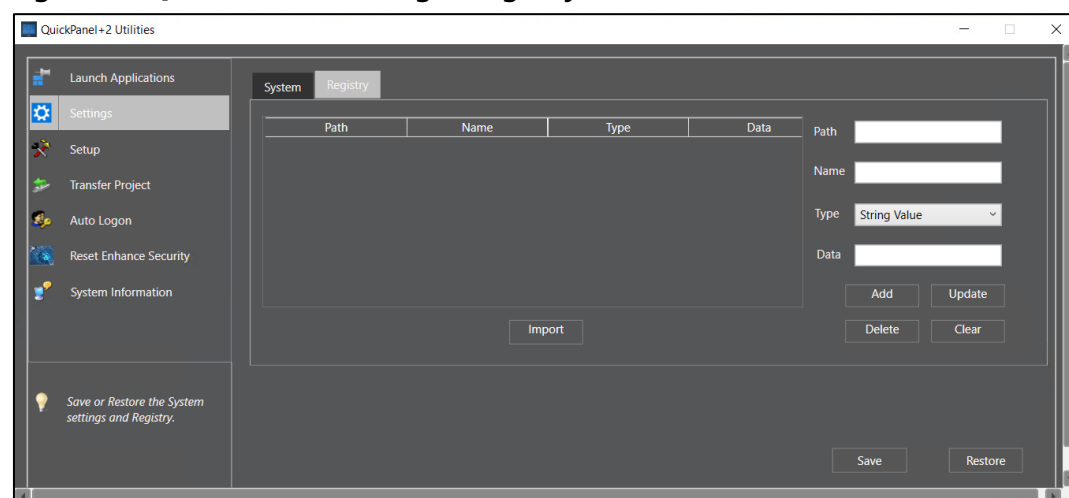


Figure 62: QuickPanel+2 Settings - Registry Tab



To update the registry key value, click the **Update** button shown in the figure below. The corresponding fields for Key Path, Name, Type, and Data will be displayed. Enter the required values, then click Add to save the data. The entered information will appear as a record in the Registry tab.

Figure 63: Add Registry Key on Registry Tab

Path

Name

Type String Value ▾

Data

The entered data can be modified by selecting the desired record from the list and clicking the **Update** button to apply changes. To remove a registry entry from the list, click the **Delete** button. Clicking the **Clear** button will remove all entries displayed in the list.

Figure 64: Registry List Display on Registry Tab

QuickPanel+2 Utilities

Launch Applications

Settings

Setup

Transfer Project

Auto Logon

Reset Enhance Security

System Information

Save or Restore the System settings and Registry.

System Registry

Path	Name	Type	Data
Computer\HKEY_LOCAL_	string	String Value	path

Import

Path

Name

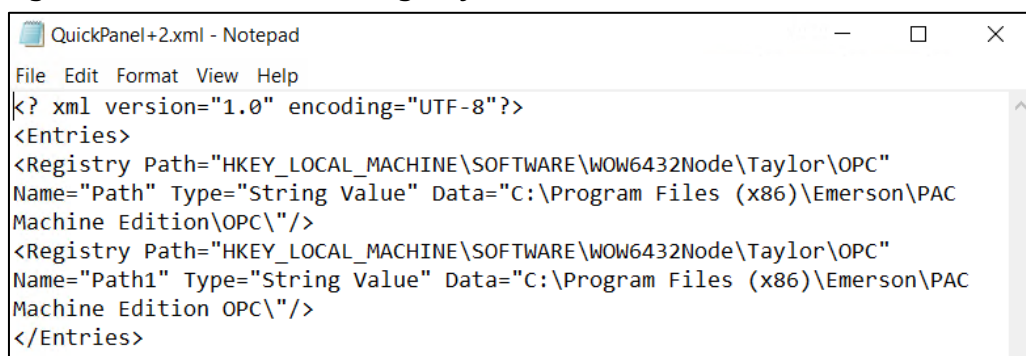
Type String Value ▾

Data

Import Registry Data from XML File

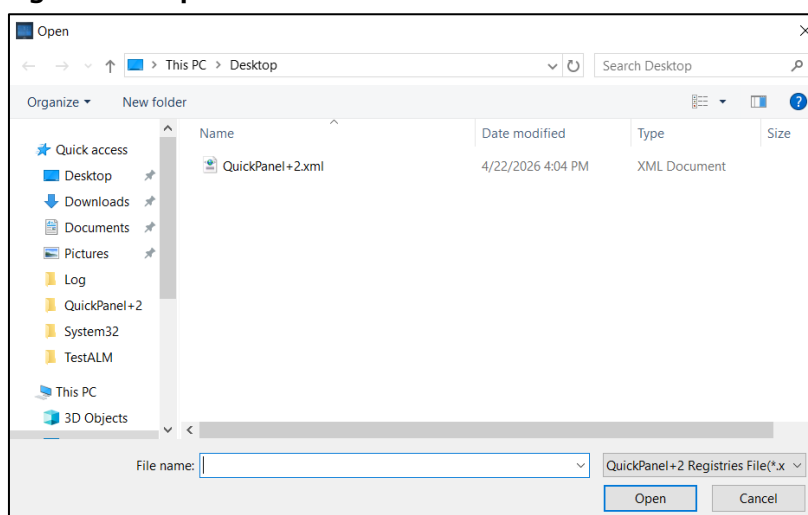
An alternate method to input the data into the registry is by using the **Import** option. If the registry values are available in an XML file and then imported using the Import option in the dialog. The schema of the XML data can be seen in the screenshot below.

Figure 65: XML Schema for Registry



1. Click the **Import** button and browse for the XML file to be imported.

Figure 66: Import XML Feature

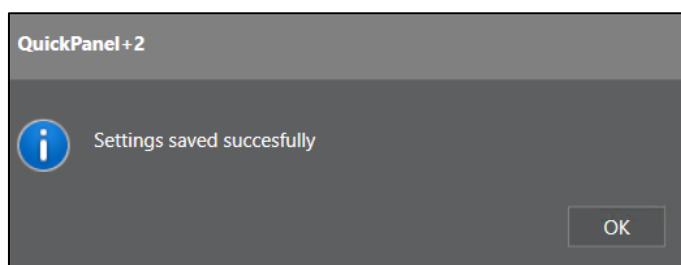
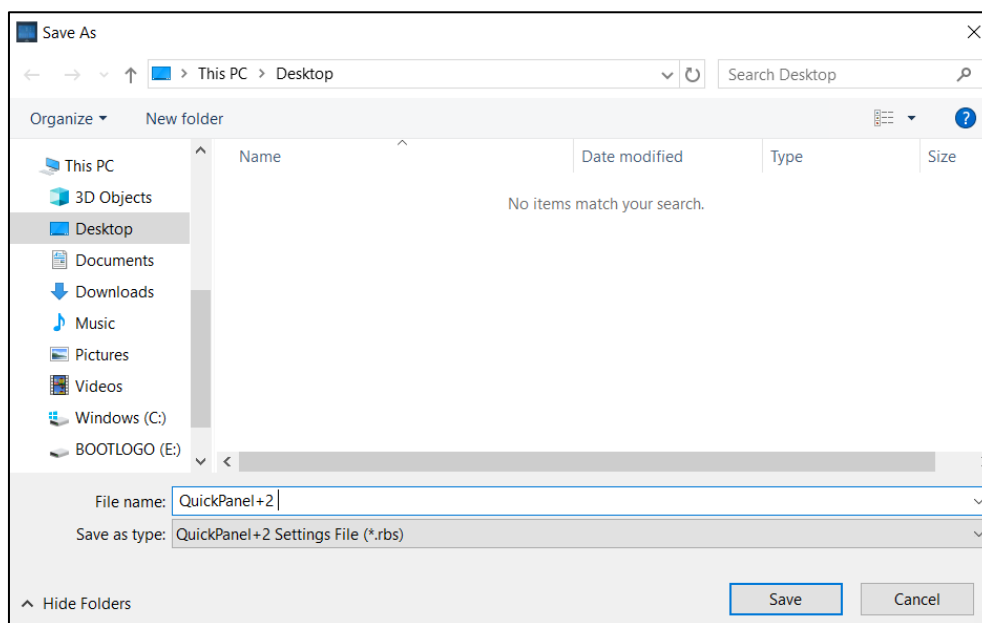


Note: The feature does not support editing any registry keys inside HKEY_CLASSES_ROOT.

Save the Settings to a File

To save the settings and registry values to a file, click on the **Save** button. It displays the file save dialog, allowing the user to select the folder location and provide the file name. Click the **OK** button to save the file.

Figure 67: Save File



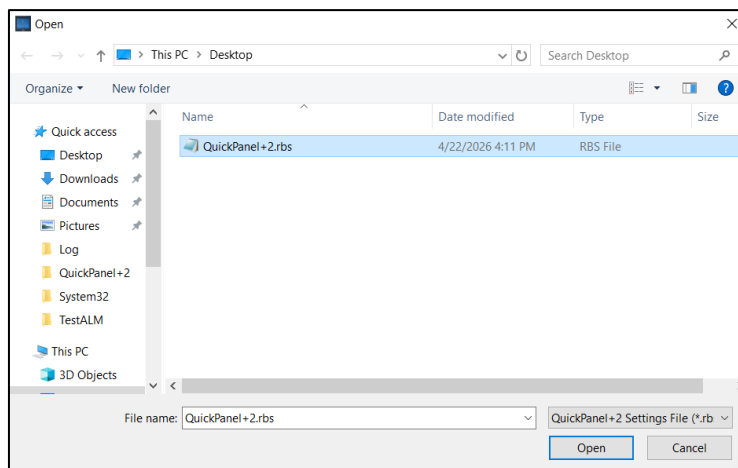
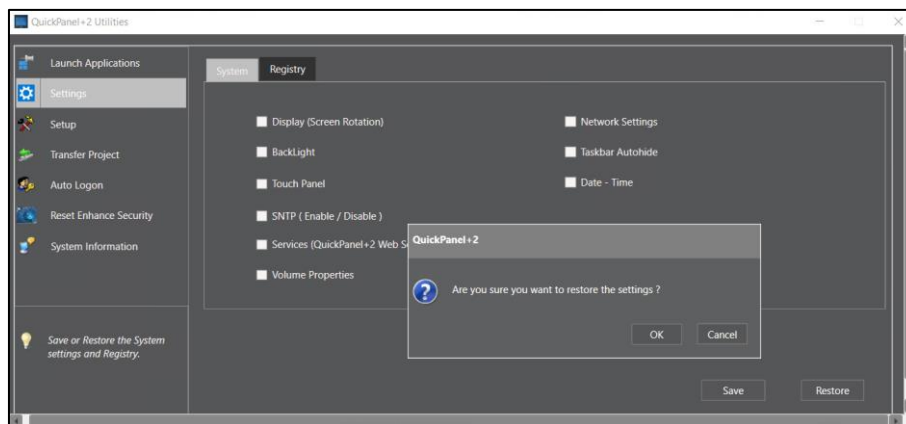
Restore the Settings from a (.rbs) File

To restore the settings from a file to QuickPanel+2, the following steps need to be executed:

1. Make sure that the file is browsable from the target QuickPanel+2.
2. Click on the **Restore** button, select **OK** when prompted for confirmation.

3. In the Open File dialog, browse and select the (.rbs) file from which you would like to restore the data, then click on the **Open** button.
4. Once the .rbs file is restored then It will ask to restart the QuickPanel+2 to apply the settings.

Figure 68: Restore the Settings from a (.rbs) File

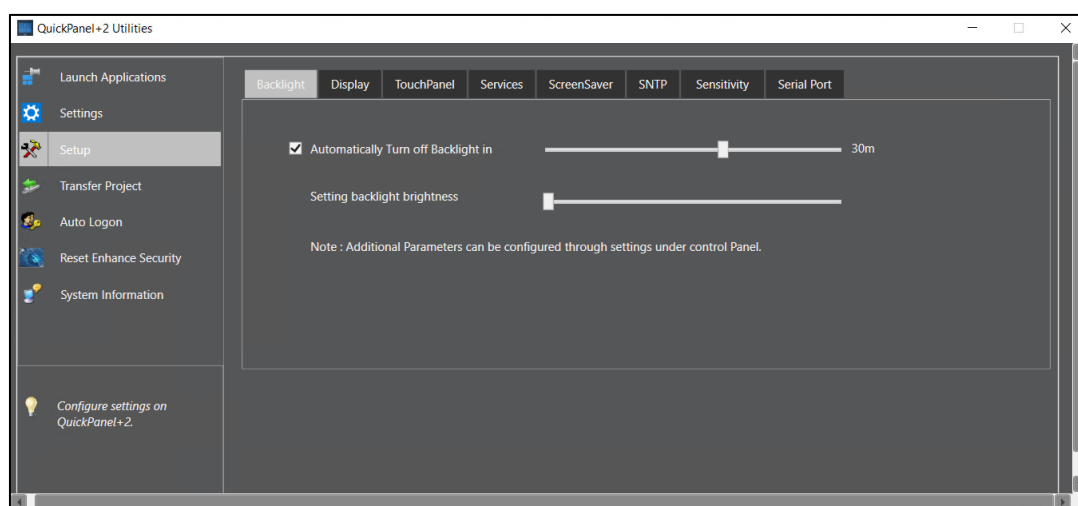


4.3.3 Setup

The Setup page under QuickPanel+2 Utilities allows the user to configure settings on the QuickPanel+2 HMI. It contains various tabs which will provide multiple operations on QuickPanel+2.

Parameter	Descriptions
Backlight	Allows the user to adjust the display backlight or brightness settings.
TouchPanel	Allows the user to enable/disable touch beep sound.
Display	Allows the user to change the screen display rotation like 0, 90, 180, and 270 degrees of QuickPanel+2 HMI.
Services	Allows the user to enable the QuickPanel+2 WebServer for HTML Dashboard functionality.
SNTP	Allows the user to fetch the network time settings from the configured SNTP server.
Screen Saver	Allows the user to set screen saver.
Sensitivity	Allows the user to set the screen sensitivity like low, medium and high.

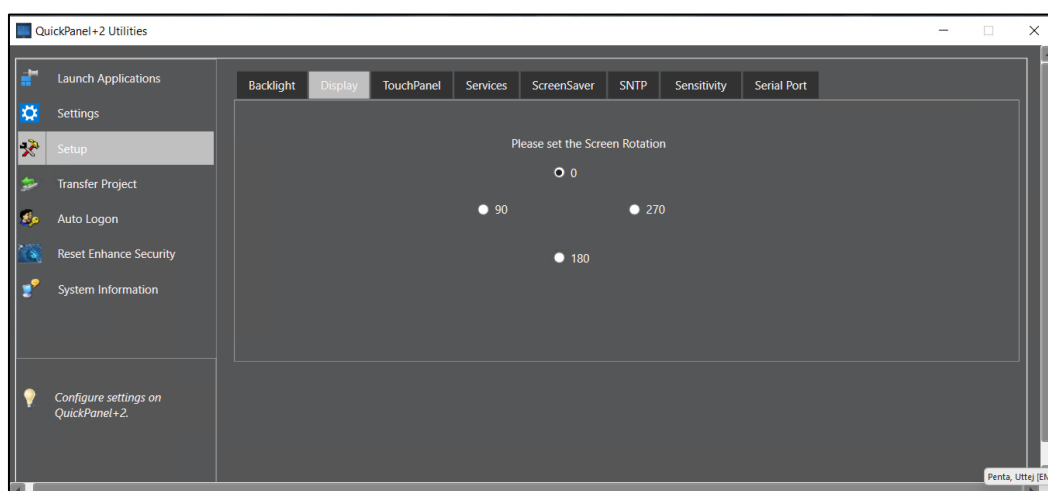
Figure 69: Backlight



Display Tab

1. The **Display** tab has QuickPanel+2 screen rotation operations.
2. The user could set the display screen rotations on QuickPanel+2 like:
 - 0° degree Rotation.
 - 90° degree Rotation.
 - 180° degree Rotation.
 - 270° degree Rotation.

Figure 70: Screen Rotation



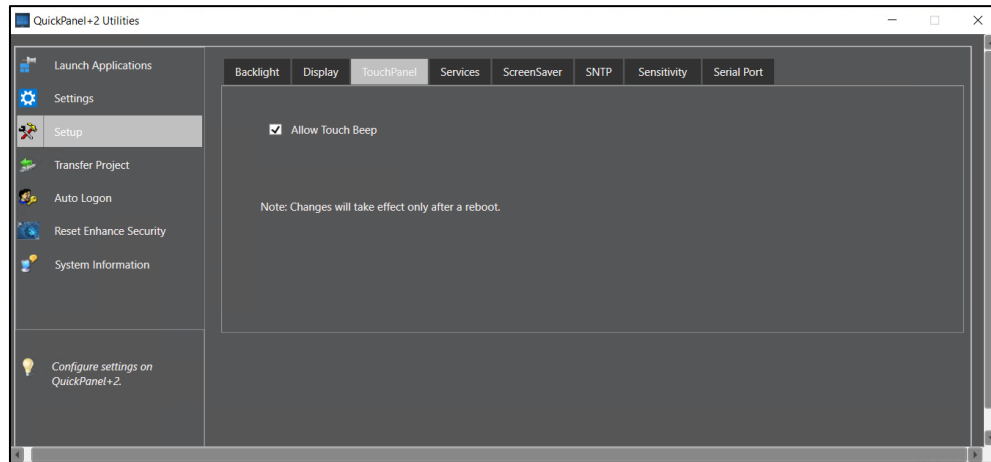
Note: Display Screen Rotation cannot be changed when QuickPanel+2 Device is connected through Remote Desktop.

TouchPanel Tab

1. The TouchPanel tab in the QuickPanel+2 Utilities allows users to configure touch-related settings.
2. Select the **TouchPanel** tab to access touch settings.
3. The user can enable the **Allow Touch Beep** option to activate an audible sound when the screen is touched.
4. This feature is controlled via a checkbox:
 - **Checked:** A beep sound is played each time the screen is touched.

- **Unchecked:** No sound is played on touch.
5. The beep provides **auditory feedback**, confirming that the touch input has been registered.

Figure 71:TouchPanel Tab



Services Tab

The **Services** tab in **QuickPanel+2 Utilities** allows users to configure and manage the network services available on the device.

Web Server

The **Web Server** section allows users to enable or disable the embedded web server.

Enable – Starts the web server service.

Disable – Stops the web server service.

The **Web Server Status** field displays the current operational state of the service.

Running – The web server service is active.

Stopped – The web server service is inactive.

VNC Server

The **VNC Server** section allows users to enable or disable remote access using the **Virtual Network Computing (VNC)** service.

Enable – Starts the VNC server and allows remote connections.

Disable – Stops the VNC server and prevents remote connections.

The **VNC Server Status** field displays the current operational state of the VNC service.

Running – The VNC server is active and ready to accept remote connections.

Stopped – The VNC server is inactive and not accepting remote connections.

Note

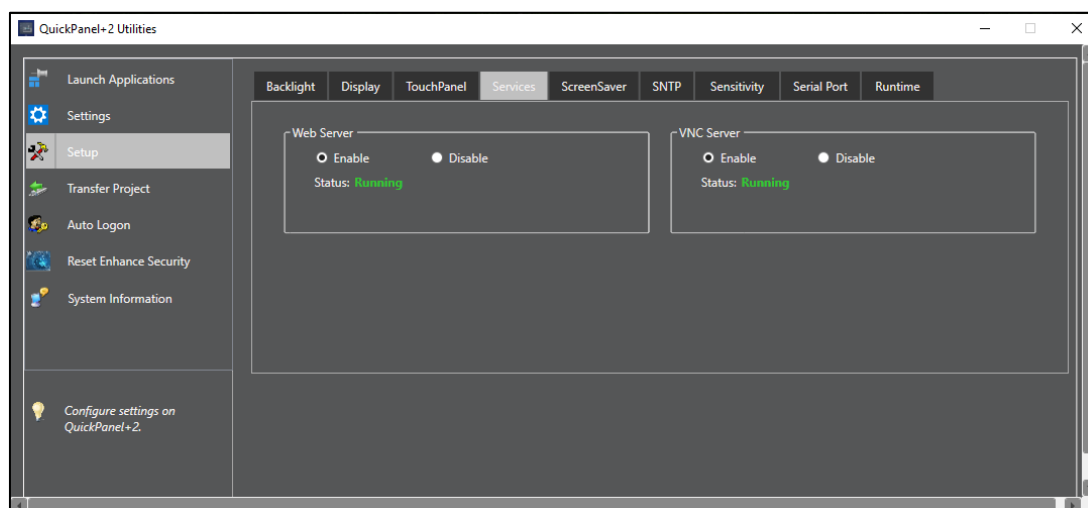
After enabling the **Web Server** and downloading an HTML Dashboard project to the **QuickPanel+2** device, the dashboard can be accessed using the following URL:

`https://<ip_address>:9090/dashboard.html`

Replace <ip_address> with the IP address assigned to the **QuickPanel+2** device.

For information on configuring and downloading an HTML Dashboard project, refer to **Section 5.1.5, "HTML Dashboard Configuration,"** in the **PACSystems IPC 2010 Hardware Reference Manual**.

Figure 72: Services Tab



ScreenSaver Tab

The **ScreenSaver** tab in **QuickPanel+2 Utilities** allows users to configure the screen saver settings for the device.

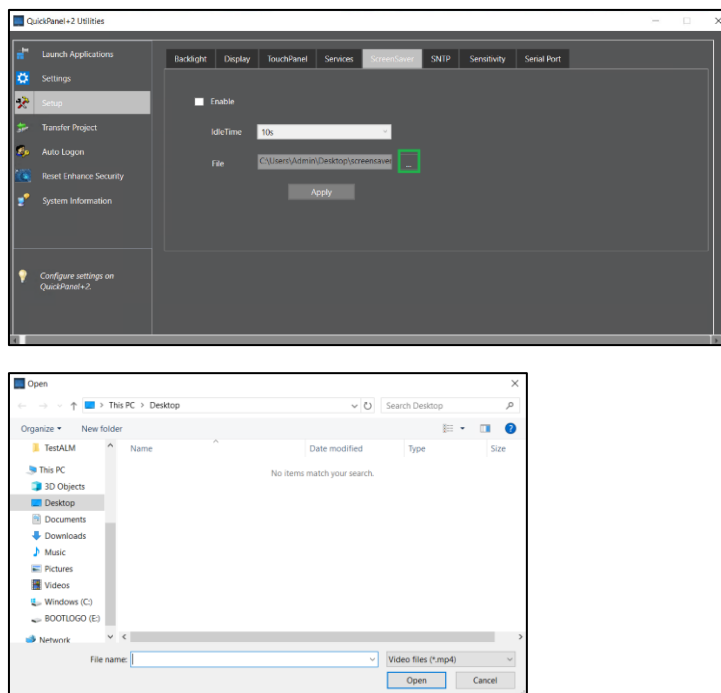
The following options are available:

- **Enable** – Select this checkbox to enable the screen saver.
- **Idle Time** – Specifies the period of inactivity before the screen saver starts.
- **File** – Specifies the path to the screen saver media file. Only **.mp4** video files are supported.

To select a screen saver file:

1. Click the **Browse (...)** button next to the **File** field.
2. In the file browser dialog:
 - Navigate to the folder containing the desired **.mp4** file.
 - Select the file and click **Open**.
3. The full path to the selected file is displayed in the **File** field.

Figure 73: Locating the File



Screen Saver Behavior

The screen saver operates as follows:

- **Enable** selected – The QuickPanel+2 device plays the selected **.mp4** file after the configured idle time has elapsed.
- **Enable** cleared – The screen saver is disabled, and no media is displayed during periods of inactivity.

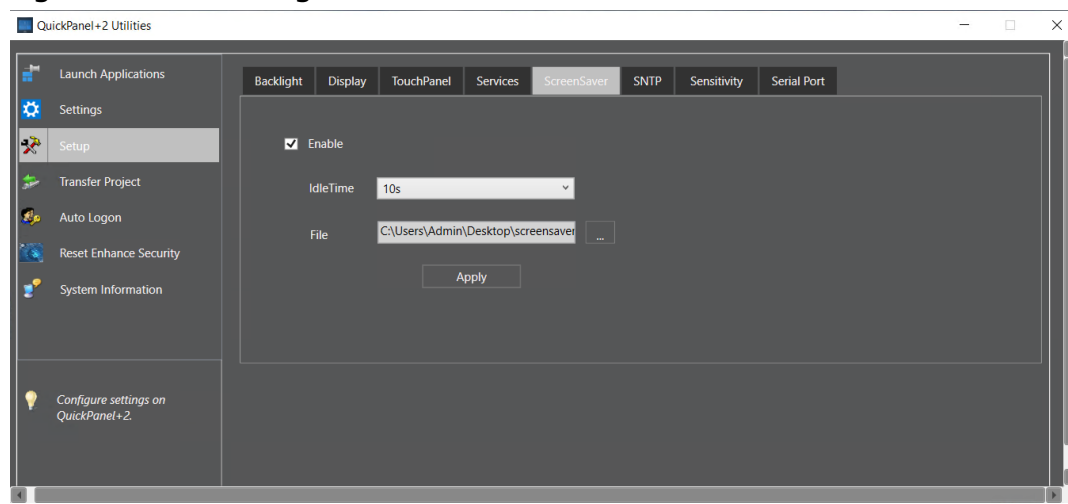
After changing any screen saver setting (such as enabling or disabling the feature, modifying the **Idle Time**, or selecting a different media file), the **Apply** button becomes available. Click **Apply** to save and activate the new settings.

Note:

Only .mp4 video files are supported for screensaver playback.

Ensure the selected file is accessible from the QuickPanel+2 device's local storage.

Figure 74: Local Storage



SNTP Tab

The **SNTP** tab allows users to configure network time synchronization settings for the QuickPanel+2. This feature ensures that the QuickPanel+2 system time is accurately maintained using an external SNTP server.

1. Select the SNTP tab to access and update the QuickPanel+2 system time.
2. The SNTP server included with the QuickPanel+2 supports SNTP Version 4 for IPv4, IPv6, and OSI protocols.
 - By default, the SNTP server is **disabled**.

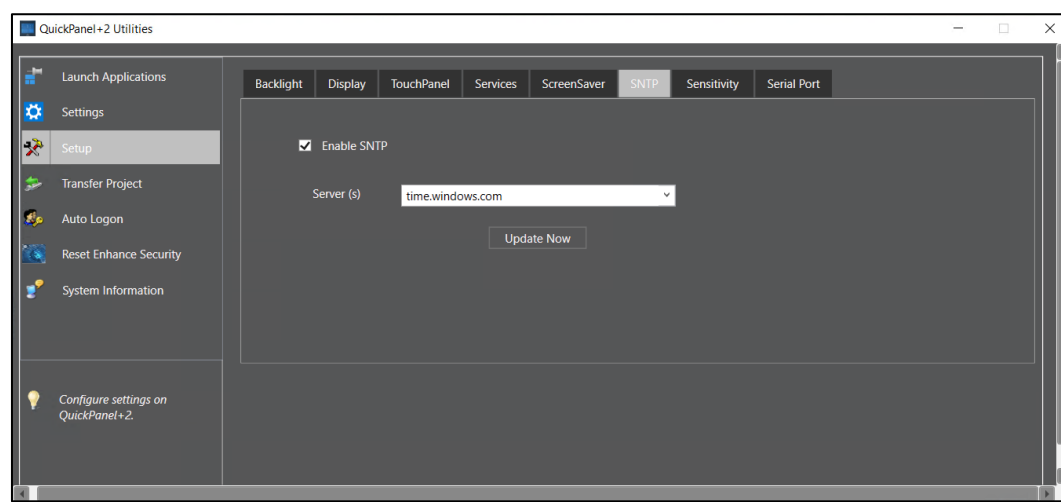
- It operates over **non-secure UDP port 123**.
3. To enable and configure SNTP:
 - Check the Enable SNTP checkbox.
 - Select a server from the dropdown list or manually enter the server name.
 4. Click **Update Now** to fetch the current date and time from the configured SNTP server.

Note:

Multiple SNTP server names can be entered using **comma-separated values**.

Ensure network connectivity to the specified SNTP server(s) for successful synchronization.

Figure 75: Synchronization



Sensitivity Tab

1. The **Sensitivity** tab in the QuickPanel+2 Utilities allow users to adjust the touch sensitivity level of the interface.
2. The available options under this tab include:

Select Sensitivity Level: Users can choose one of the following levels using radio buttons:

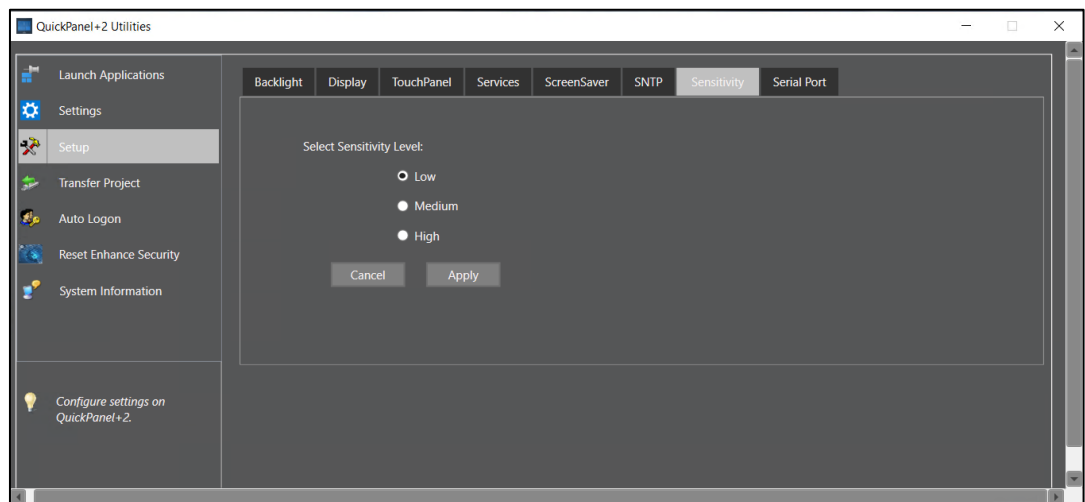
- **Low** (default)
- **Medium**

- **High**
3. The **Apply** button is context-sensitive:
 - It becomes **enabled** only when the selected sensitivity level is changed from the previously saved value.
 - Clicking **Apply** will save and apply the new sensitivity level to the QuickPanel+2 device.
 5. The **Clear** button resets the selection to the previously saved value:
 - After clicking **Clear**, both the **Apply** and **Clear** buttons become **disabled** until a new change is made.

Note:

- The default sensitivity level is Low, but the Clear button restores the last saved configuration, not necessarily the default.
- Sensitivity changes take effect immediately after clicking **Apply**.

Figure 76: Sensitivity

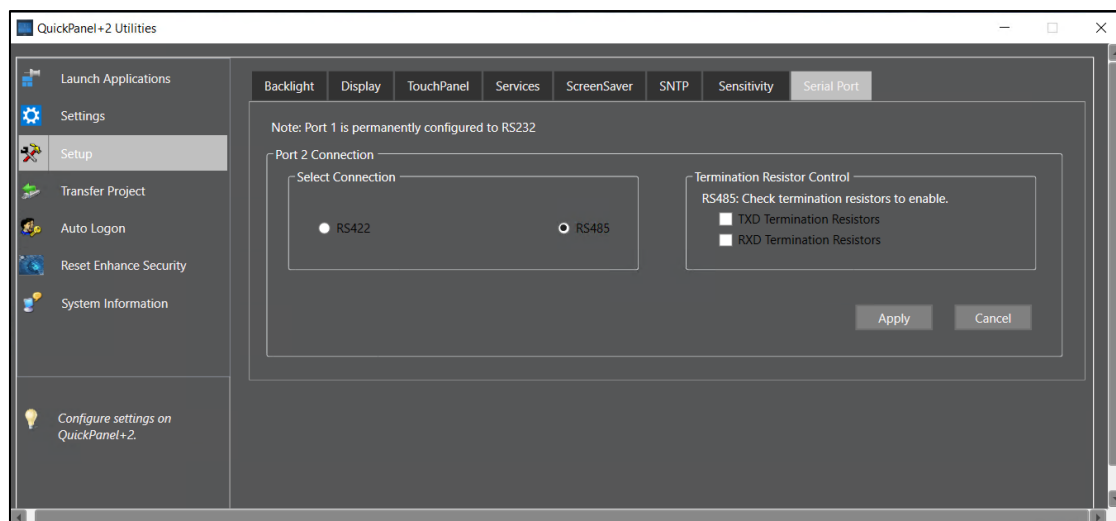


Serial Port Tab

The Serial Port tab in the QuickPanel+2 Utilities allows users to configure communication settings for Port 2, including the connection type and termination resistor options.

Note: Port 1 is permanently configured to RS232 and cannot be modified.

Figure 77: Serial Port



Port 2 Connection

Select **Connection**. This section allows the user to choose the communication standard for Port 2.

Communication Standards for Port 2	Description
RS422	Select this option to configure Port 2 for RS422 communication.
RS485	Select this option to configure Port 2 for RS485 communication.

Users can select one radio button based on the desired communication interface.

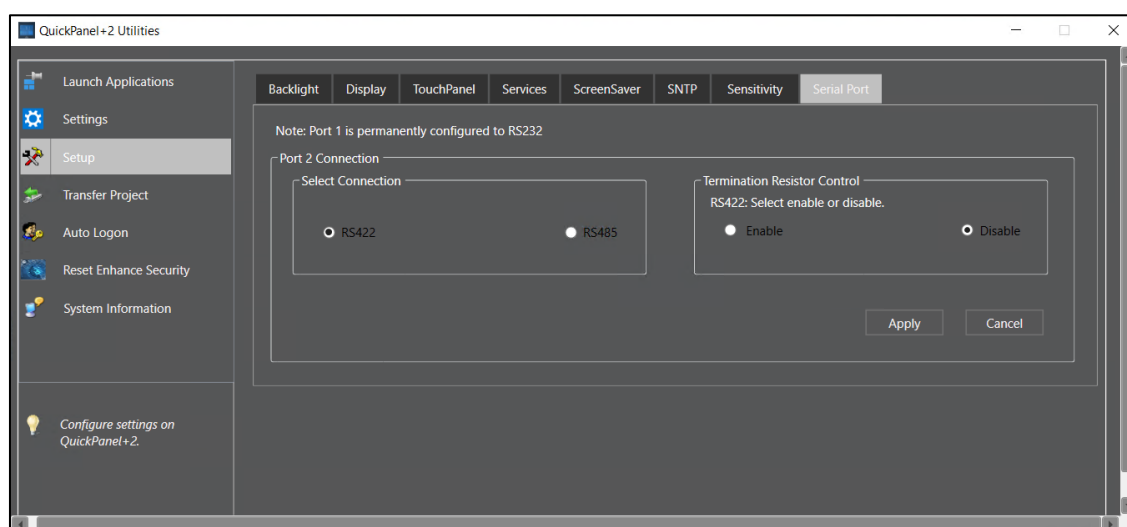
Termination Resistor Control

The options displayed in this section depend on the selected communication mode.

Communication Standards for Port 2	Description
TXD Termination Resistors:	Enable this checkbox to apply termination to the transmit line.
RXD Termination Resistors:	Enable this checkbox to apply termination to the receive line.

Users may enable one or both checkboxes, depending on system requirements.

Figure 78: Serial Port



Communication Standards for Port 2	Description
Enable	Activates the built-in termination resistors.
Disable	Deactivates termination resistors (default option).

Only one of these options can be selected at a time.

Applying Changes

After configuring the desired connection type and termination settings:

Click **Apply** to save and activate the changes.

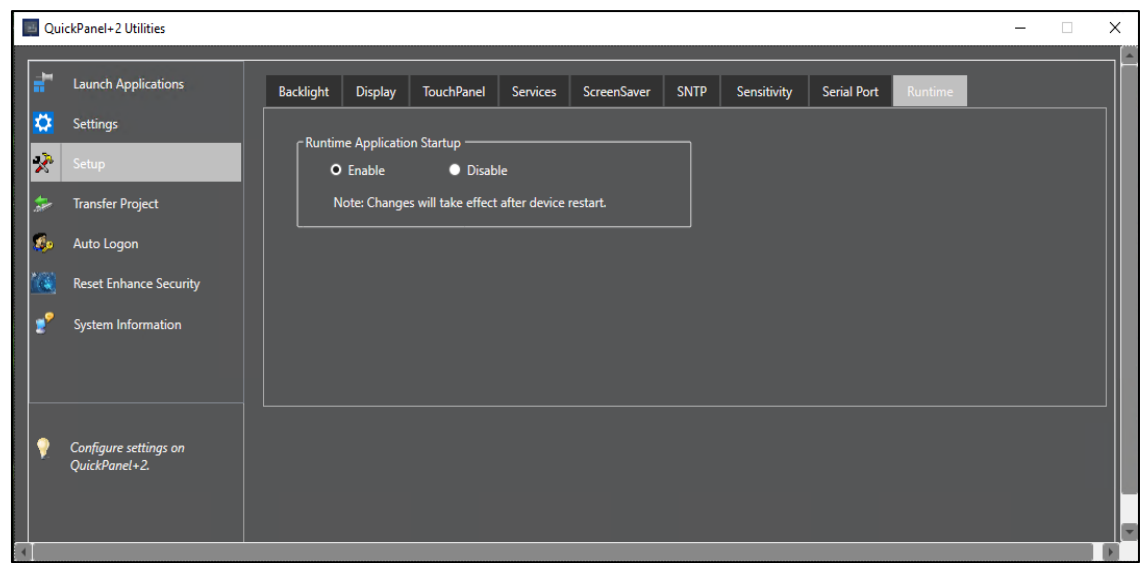
Click **Cancel** to discard changes and revert to previous settings.

Runtime Tab

1. The Runtime Application Startup section allows the user to configure whether the runtime application starts automatically when the device boots.
 - Enable: Automatically launches the runtime application during device startup.
 - Disable: Prevents the runtime application from launching automatically during device startup.

Note: Changes will take effect after device restart.

Figure 79: Runtime



4.3.4 Transfer Project

The Transfer Projects Page will allow the user to perform multiple operations on QuickPanel+2, which are listed below:

1. **Copy Project:** This operation copies the projects of QuickPanel+2 to Removable Media transfers using SD cards.
2. **Restore Project:** This operation restores the saved projects to any other QuickPanel+2 from the Removable Media.

Copy Project

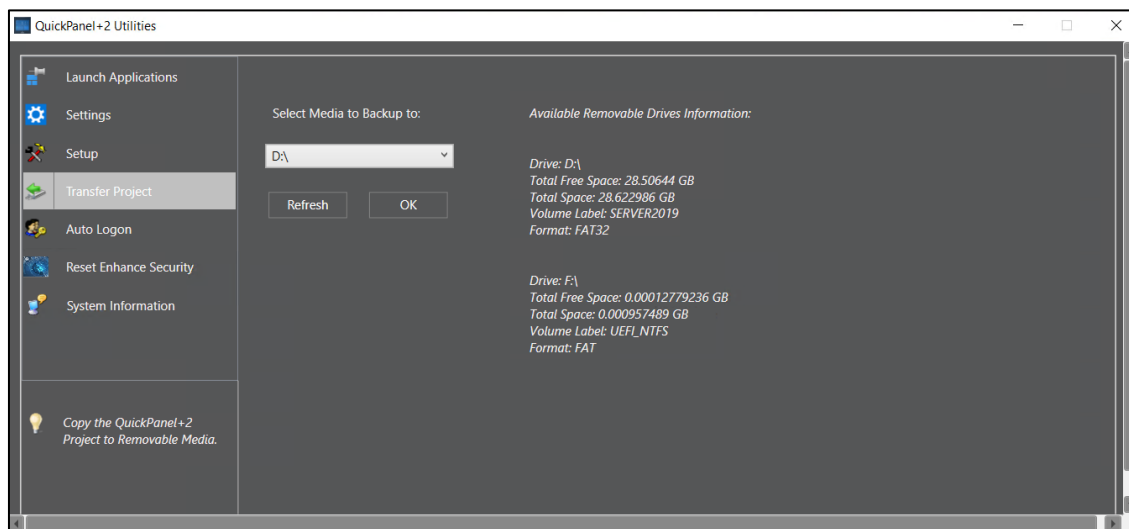
⚠ CAUTION

Before disconnecting power, verify that the copy or update operation is complete (There should not be a busy message or a WAIT cursor).

To Copy a Project to a Removable Media:

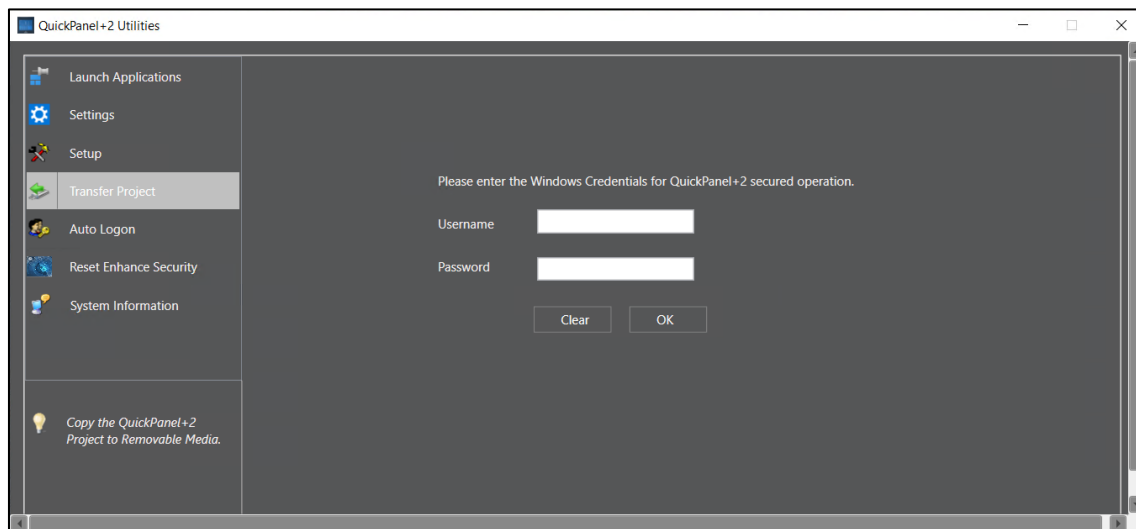
1. Verify that there is a blank USB plugged into QuickPanel+2. FAT32 type is supported.
2. Launch **QuickPanel+2 Utilities**. Select **Yes** on the UAC prompt dialog.
3. Navigate to the Transfer Projects page in **QuickPanel+2 Utilities**.
4. The user may need to select the target removable media if more than one is available on the QuickPanel+2.

Figure 80: QuickPanel+2 Utilities



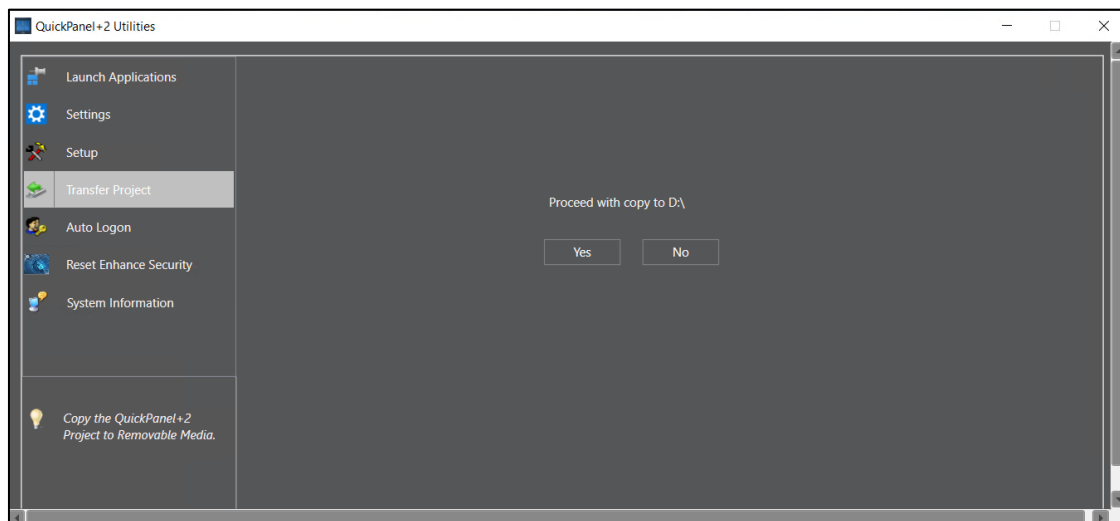
5. After the user selects specific media (drive) or the default media (when only a single removable drive is available), the system will request the user's profile credentials (Windows credentials)

Figure 81: Credentials



6. After successful credentials, it will launch the below dialog. The user needs to click on the Yes button to proceed with copying the projects.

Figure 82: Confirmation to Proceed



7. Once the user clicks on the **Yes** button, the projects will be copied to removable media as shown below.

Figure 83: Copy Done

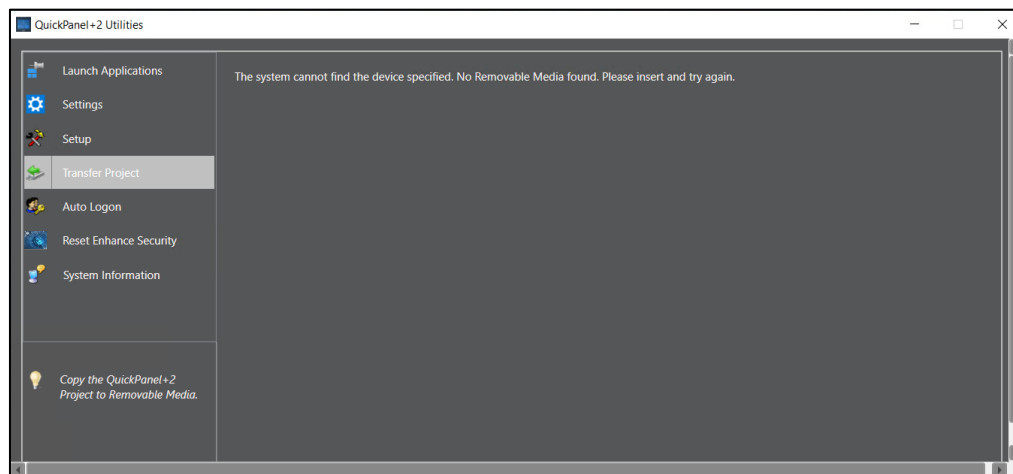


8. The status dialog box will prompt a Copy Done message once projects are copied to the removable media. Click **OK**.

Note:

- After selecting the **Transfer Projects** tree item, if QuickPanel+2 cannot find the Removable Media, then the user will be prompted with the below message

Figure 84: Transfer Project



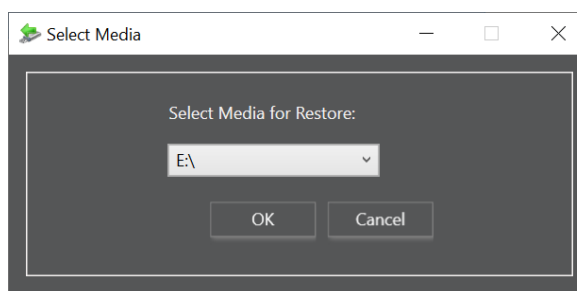
Restore Project from Removable Media

The Restore Project function restores the saved projects to any other QuickPanel+2 from the Removable Media.

To restore a project to a QuickPanel+2:

1. After successfully copying the projects to the removable media, insert the removable media into the QuickPanel+2 hardware and reboot the unit.
2. After powering up, the unit will prompt the user with the below dialog to proceed to restore copied projects from the removable media to the QuickPanel+2.
3. The user will now see the drive selection screen as shown.

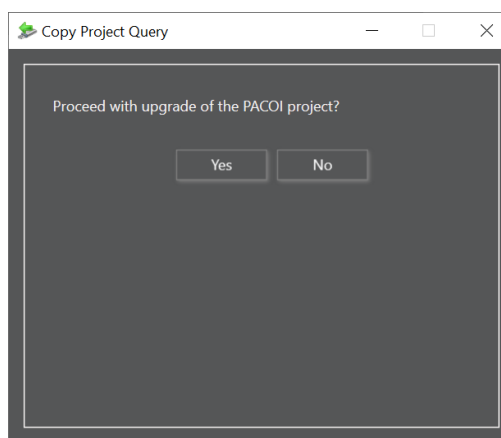
Figure 85: Media for Restore



Note: If there is only one removable media in the QuickPanel+2 device, the hardware will default to the mounted drive.

4. The user will see the prompt to proceed with the upgrade of the QuickPanel+2 project. Click the **Yes** button to proceed.

Figure 86: Upgrading the QuickPanel+2 Project



5. Once the project files are copied from removable media to the QuickPanel+2 device, the user will see a Copy Done message as shown below.

Figure 87: Copy Done



6. In a few seconds, a shortcut is created on the desktop and the runtime launches in full-screen mode.

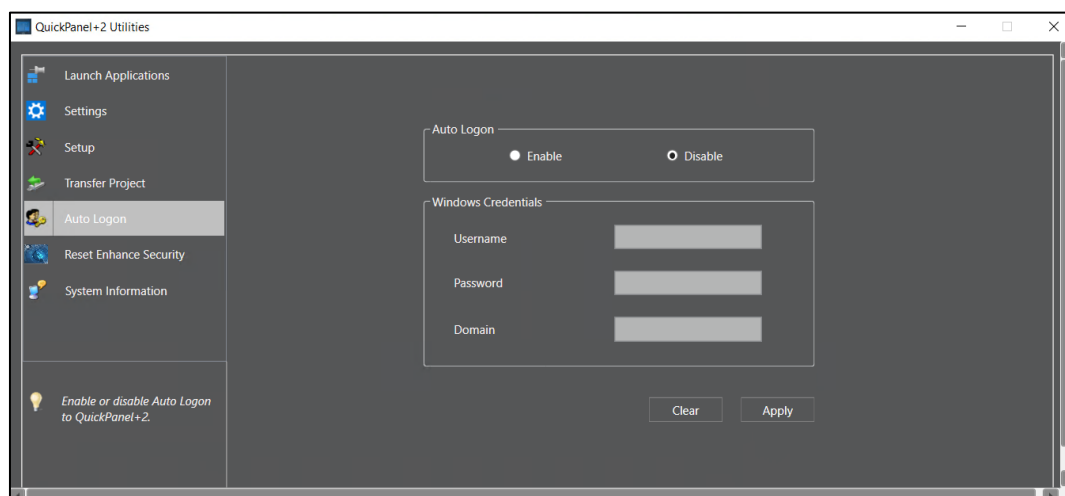
4.4 Auto Logon

Users can configure the **QuickPanel+2** for auto logon. To enable/disable the feature:

1. Launch **QuickPanel+2 Utilities**.
2. Select **Yes** on the UAC prompt dialog.
3. Navigate to the **Auto Logon** page under **QuickPanel+2 Utilities**.
4. Select the **Enable/Disable** option as shown below.

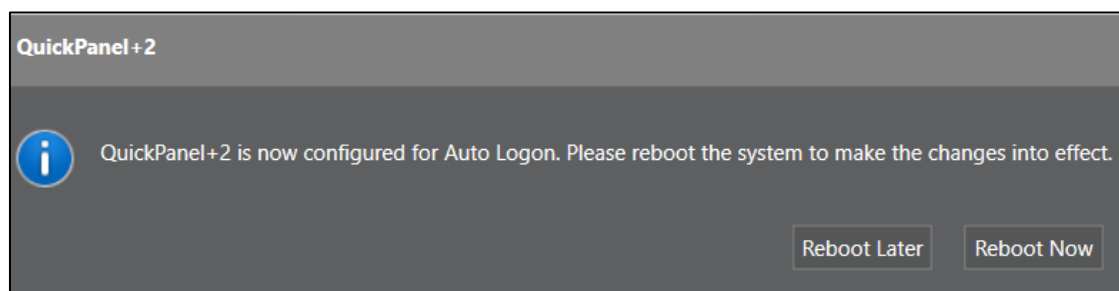
Enter the username, password, and domain (if available), and click **Apply**. If the entered credentials are valid, then the Auto Logon feature will be enabled/disabled for the specific user.

Figure 88: Auto Logon



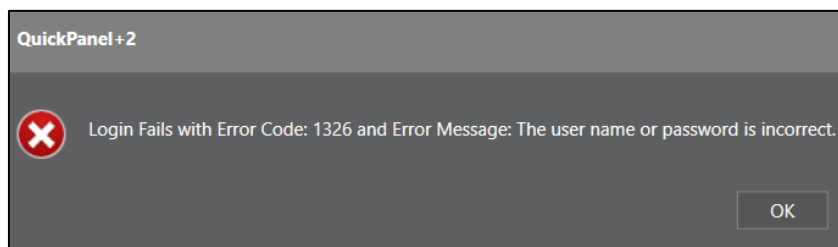
5. The user will be prompted to either **Reboot Now** or defer to later as shown in

Figure 89: Auto Logon



6. If the entered credentials are not valid, an appropriate failure message will be shown to the user.

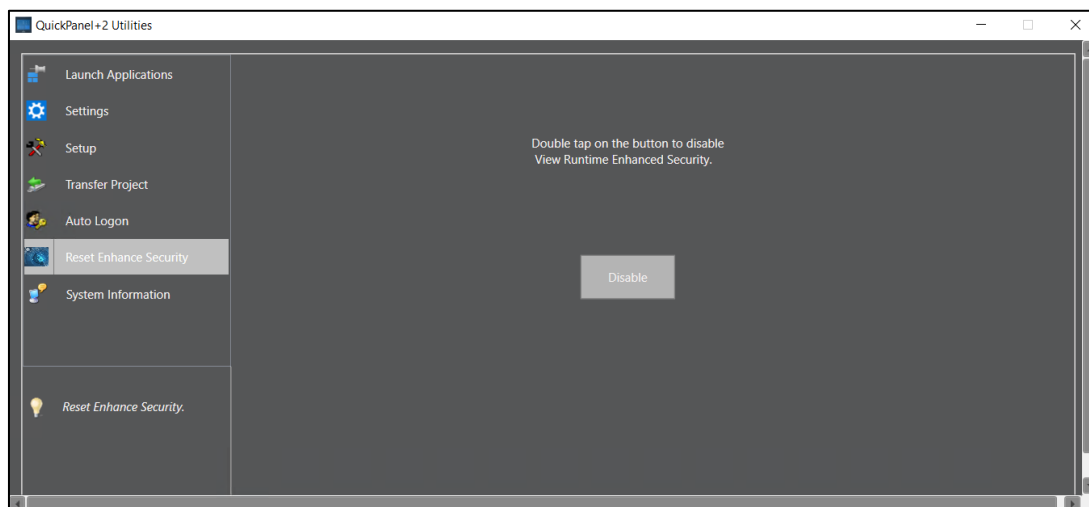
Figure 90: Not Valid



5.3.5 Reset Enhanced Security Tab

1. The **Reset Enhanced Security** tab in the QuickPanel+2 Utilities allows users to disable the **View Runtime Enhanced Security** feature.
2. The interface provides the following instruction: **Double-tap the button to disable View Runtime Enhanced Security.**
3. A **Disable** button is available to act.

Figure 91: Disable



Note: This action only works with touch input.

5.3.6 System Information

The Device Information section in QuickPanel+2 Utilities provides a centralized view of the system's hardware and configuration status. This tab is essential for diagnostics, performance monitoring, and verifying system readiness. The information presented may vary depending on the hardware and software configuration of the system.

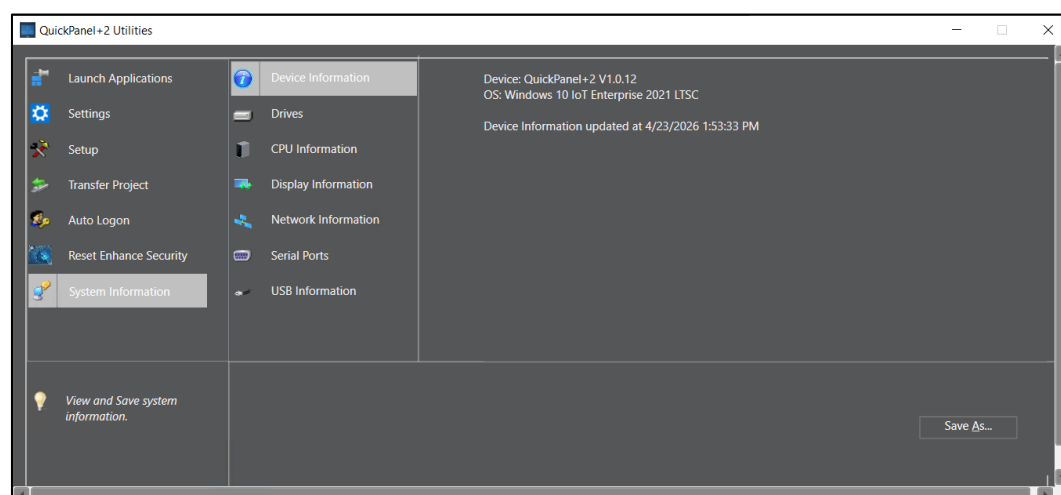
Parameter	Description
Device Information	Displays general system identifiers such as domain name, username, machine name, installed and available RAM, and processor specifications.
Drives	Shows details of internal storage including drive letters, total and free space, volume labels, file system format, and drive type.
CPU Information	Provides processor details such as model, number of cores, enabled cores, and clock speeds.
Display Information	Lists graphics adapter details, video processor type, and screen resolution.
Network Information	Displays Ethernet interface configurations including MAC address, IP address, subnet mask, gateway, DNS, and DHCP status.
Serial Ports	Shows available serial communication ports with their names, hardware IDs, descriptions, and operational status.
USB Information	Lists connected USB devices with their device IDs, descriptions, and status.

Device Information Tab

The **Device Information Tab** in **QuickPanel+2 Utilities** displays essential details about the system's identity and operating environment. This includes:

Parameter	Description
Device Name and Version	Displays the name and version of the installed QuickPanel+2 software. <i>Example: QuickPanel+2 V1.0.1</i>
Operating System	Shows the operating system running on the device. <i>Example: Windows 10 IoT Enterprise 2021 LTSC</i>

Figure 92: System Information

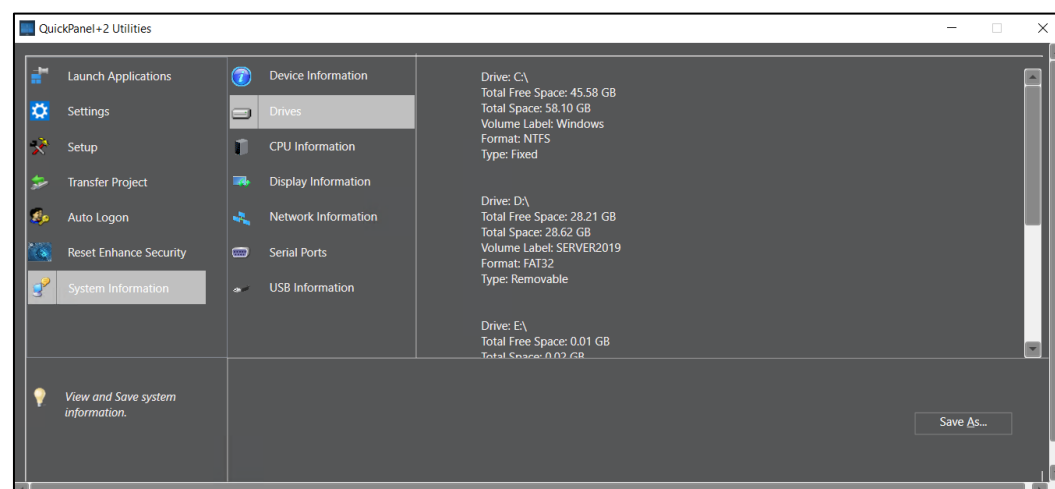


Drives Tab

Displays detailed information about all storage volumes:

Parameter	Description
Drive Letter	(e.g., C:, D:)
Total Space and Free Space	Shows the total capacity and available space for each drive. <i>Example: Total Space – 58.10 GB, Free Space – 43.98 GB</i>
Volume Label	(e.g., OSDisk, New Volume)
File System Format	(e.g., NTFS)
Drive Type	(e.g., Fixed, Removable)

Figure 93: System Information

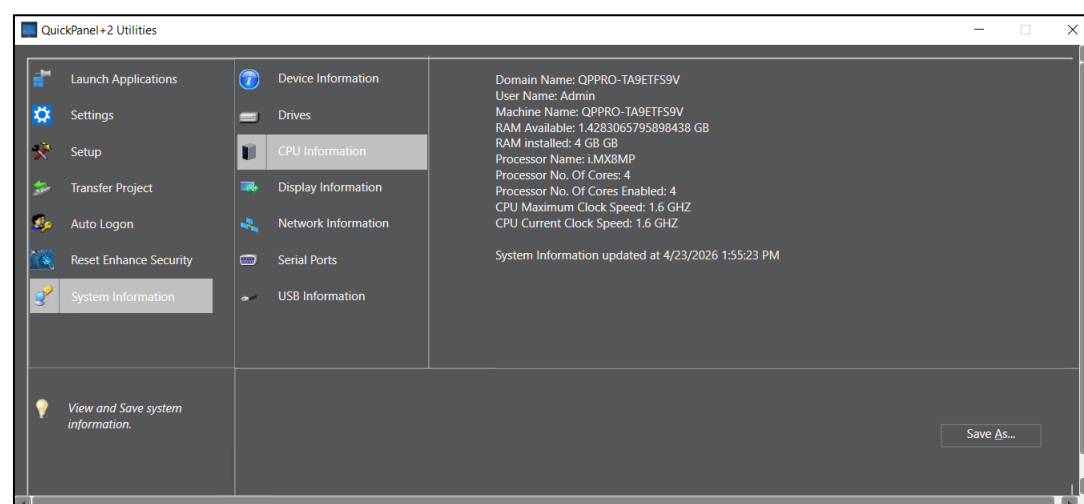


CPU Information Tab

Displays detailed information about the system's processor and memory configuration:

Parameter	Description
Domain Name	Shows the domain to which the device is connected. <i>Example: PACOI-EIEN441V3</i>
User Name	Displays the currently logged-in user. <i>Example: Admin</i>
Machine Name	Identifies the name of the device. <i>Example: PACOI-EIEN441V3</i>
RAM Available / Installed	Indicates the available and total installed memory. <i>Example: Available – 0.96 GB, Installed – 4 GB</i>
Processor Name	Displays the processor model. <i>Example: iMX8MP</i>
Processor Number of Cores / Enabled Cores	Shows the total number of cores and how many are currently enabled. <i>Example: 4 cores, 4 enabled</i>
CPU Current Clock Speed / Maximum Clock Speed	Displays the current and maximum operating frequency of the CPU.

Figure 94: CPU Information

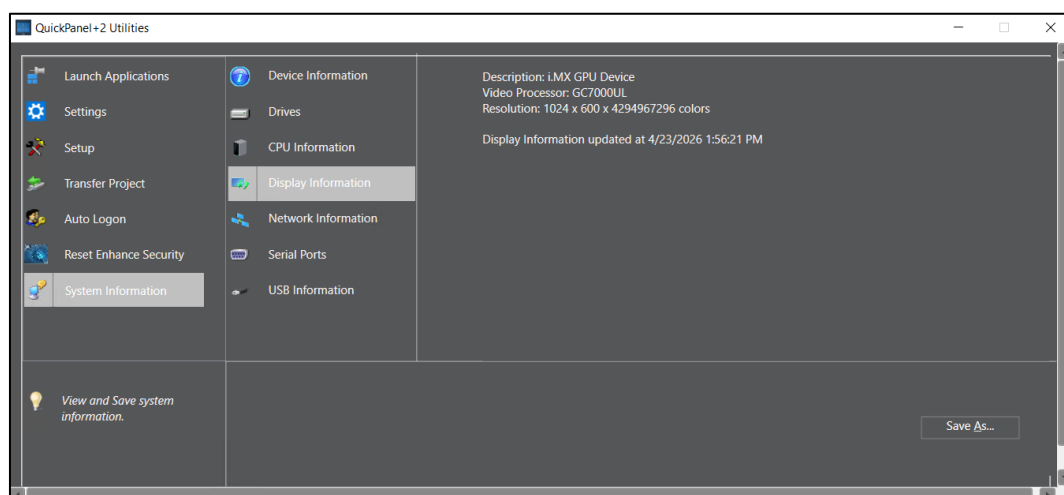


Display Information Tab

Displays detailed information about the system's display hardware and configuration:

Parameter	Description
Description	Identifies the display adapter or GPU device. <i>Example: i.MX GPU Device, Microsoft Remote Display Adapter</i>
Video Processor	Specifies the type of video processor used. <i>Example: GC7000UL</i>
Resolution	Shows the screen resolution and color depth. <i>Example: 1024 x 600 x 4294967296 colors, 1920 x 1080 x 4294967296 colors</i>

Figure 95: Display Information

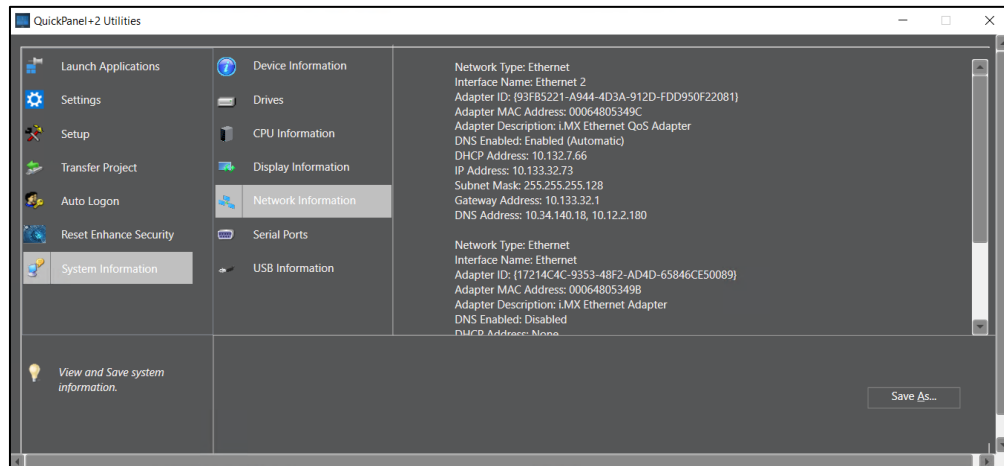


Network Information Tab

Displays detailed information about all active network interfaces:

Parameter	Description
Network Type	Indicates the type of network connection. <i>Example: Ethernet</i>
Interface Name	Shows the name of the network interface. <i>Example: Ethernet, Ethernet 2</i>
Adapter ID	Unique identifier for the network adapter. <i>Example: {A336896C-C28B-4907-BC66-2789E357E7F9}</i>
Adapter MAC Address	Displays the physical address of the network adapter. <i>Example: 0006A805349C</i>
Adapter Description	Provides details about the network adapter hardware. <i>Example: i.MX Ethernet QoS Adapter</i>
IP Address	Shows the assigned IP address for the interface. <i>Example: 10.133.32.10, 192.168.0.102</i>
Subnet Mask	Indicates the subnet mask used for the network. <i>Example: 255.255.255.128, 255.255.255.0</i>
Gateway Address	Displays the default gateway address. <i>Example: 10.133.32.1</i>
DNS Enabled	Indicates whether DNS is enabled. <i>Example: True</i>
DNS Address	Shows the DNS server address. <i>Example: 10.34.140.18</i>
DHCP Address	Displays the DHCP-assigned address. <i>Example: 10.133.33.162</i>

Figure 96: Network Information



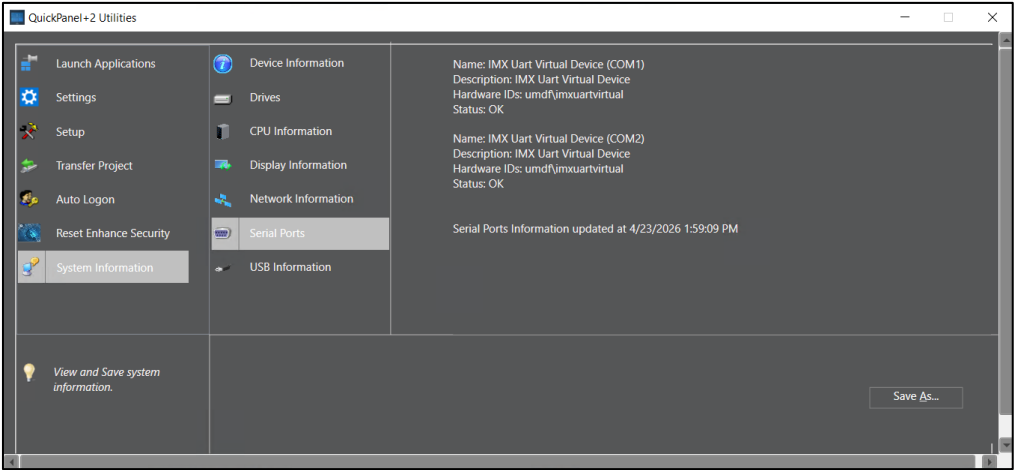
Serial Ports Tab

Displays available serial communication ports:

- Port Name (e.g., COM3)
- Description
- Hardware IDs
- Status (e.g., OK)

It is useful for systems that interface with external devices via serial communication.

Figure 97: Serial Ports

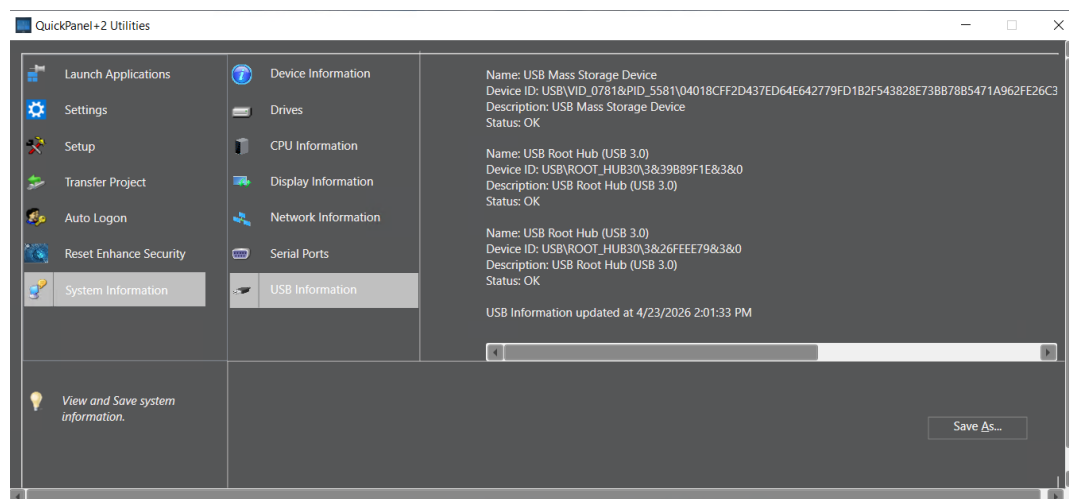


USB Information Tab

Displays detailed information about all USB devices connected to the system:

Parameter	Description
Name	Identifies the USB device type. Example: USB Root Hub (USB 3.0), USB Composite Device, USB Mass Storage Device
Device ID	Shows the unique identifier assigned to each USB device. Example: USB\VID_0781&PID_5581\401C06A9626F82AF73567735D72C6D204BE926D11642C77C2790
Description	Provides a brief description of the USB device. Example: USB Root Hub (USB 3.0), USB Composite Device
Status	Indicates the operational status of the device. Example: OK

Figure 98: USB Information



Section 5: Mounting and Installation

This Section provides the following procedures to mount and install the QuickPanel+2:

- Mounting Location
- Panel Mounting
- VESA Arm Mounting
- Battery Installation and Replacement
- Connectors

5.1 Mounting Location

When mounting on the panel, please provide the following minimum clearance on the back side to ensure good ventilation.

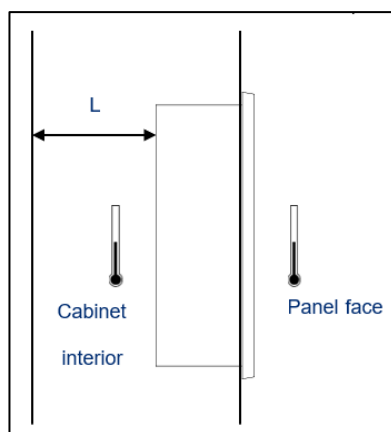
- PAC OI 7W, 10.1W: L=5cm

- PAC OI 12.1W, 15.6W: L=10cm

Be sure that the ambient operation temperature and the ambient humidity are within the specified ranges.

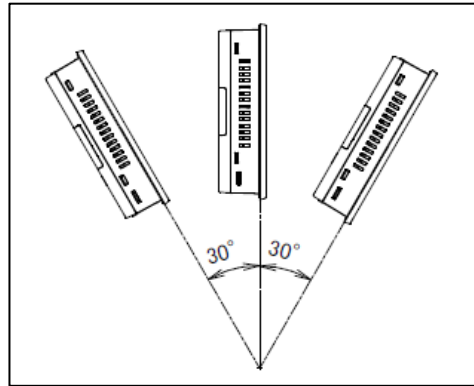
“Ambient operation temperature” indicates both the panel face and cabinet or enclosure’s internal temperature.

Figure 99: Mounting Location



When mounting the QuickPanel+2, ensure the installation area provides sufficient space to insert and remove the SD card, cables, and mounting brackets. Choose a location that allows natural bottom-to-top airflow for proper convection cooling. Do not mount the unit at an angle greater than 30° from the vertical, as shown in the following figure.

Figure 100: Mount at an Angle no Greater than 30° from Vertical



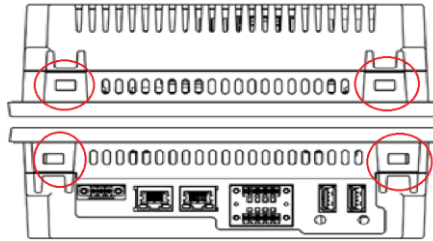
5.2 Panel Mounting

To mount the QuickPanel+2 in an enclosure, you will need the following equipment:

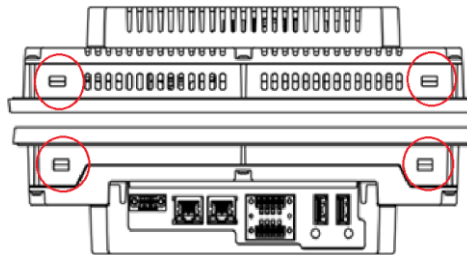
- One #2 Phillips head screwdriver
- Mounting brackets (supplied)

The mounting holes for the: IC762CxS07Cxx and IC762CxS10Cxx are located on the top and bottom sides of the unit.

Mounting Holes (top & bottom edges) IC762CxS07Cxx

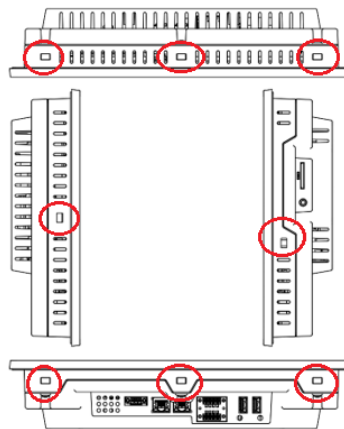


Mounting Holes (top & bottom edges) IC762CxS10Cxx

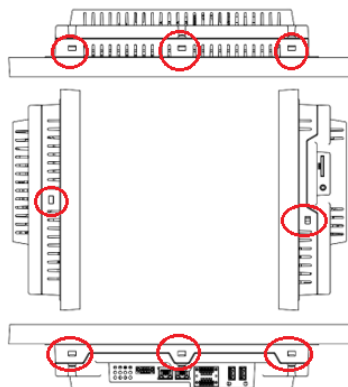


The IC762CxS12Cxx and IC762CxS15Cxx mounting holes are located on the top, bottom, and sides of the unit.

Mounting Holes (top, bottom edges & Sides) IC762CxS12Cxx



Mounting Holes (top, bottom edges & Sides) IC762CxS15Cxx



5.3 Mounting and Installation Procedure

Follow these guidelines to ensure proper mounting and installation of the QuickPanel+2:

- Use a metal enclosure panel to provide the necessary strength and durability.
- Verify that the panel thickness and rigidity are sufficient to minimize mechanical stress on the Operator Interface.
- For the 10", 12", and 15" display models, the **recommended torque** for the plastic back cover and internal metal cover (accessed during panel updates or when adjusting serial port DIP switches) is **4.4 in-lb (0.5 Nm)**.
- To prevent gasket wear or degradation, minimize repeated insertions, removals, and re-tightening of the mounting clips. Always use a new gasket to maintain a proper seal.
- Ensure that no cables or the power supply plug are connected when inserting the unit through the panel cutout.

⚠ CAUTION

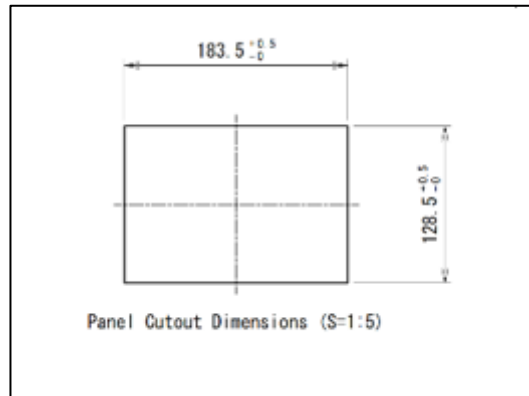
When installing the QuickPanel+2 into the panel, handle the unit carefully to prevent dropping or causing damage during installation.

5.3.1 To install the QuickPanel+2

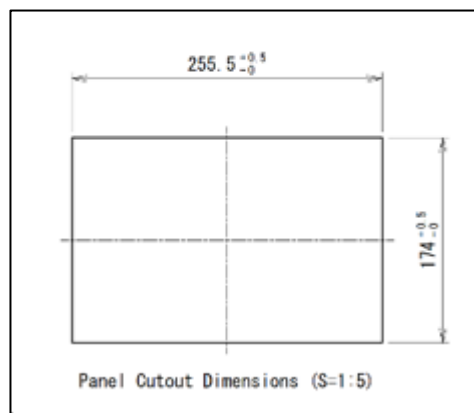
1. Cut an opening in the panel according to the specifications in the following figures

Panel Cutout Dimensions IC762CxS07Cxx

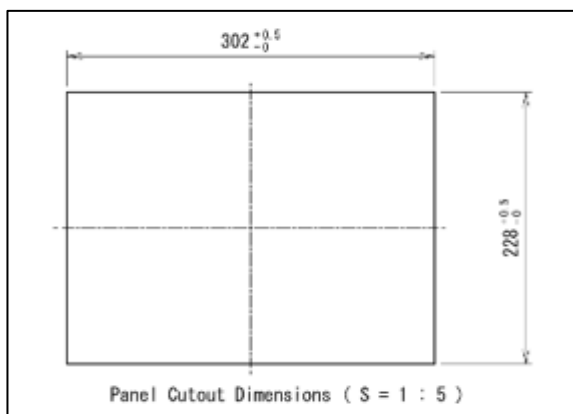
Figure 101: Panel Cutout Dimensions



Panel Cutout Dimensions IC762CxS10Cxx

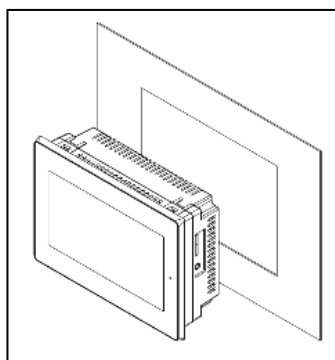


Panel Cutout Dimensions IC762CxS12Cxx and IC762CxS15Cxx



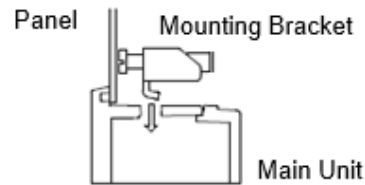
-
2. Verify that the gasket is present and properly seated in the bezel channel located on the sides of the unit.
 3. Insert the QuickPanel+2 into the mounting panel cutout.
-

Figure 102: Installing the Operator Interface



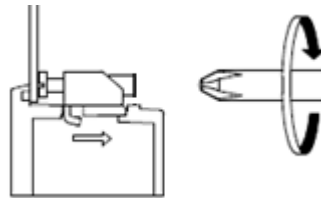
4. Insert the hook of the mounting bracket into the mounting hole as displayed in the following figure.

Figure 103: Align and Set Hook



5. Tighten the screws on the mounting bracket in a clockwise direction. Tighten all mounting brackets a little at a time, in a diagonal sequence.

Figure 104: Tighten Screws



Notes:

- If the screw of the mounting bracket is not perpendicular to the panel, the unit might fall off the panel.
- If the screw is too tight, the unit might deform or be damaged. Please tighten with appropriate torque.
- When installing the PAC OI into the panel, pay careful attention while handling the unit so it does not drop and damage the unit.

Torque Range for Mounting Clamp Screws

Model (LCD Size)	Torque Range
7 W	0.5 Nm
10.1 W	1.0 Nm
12.1 W	1.0 Nm
15.6 W	1.0 Nm

5.4 Gasket Installation

Note:

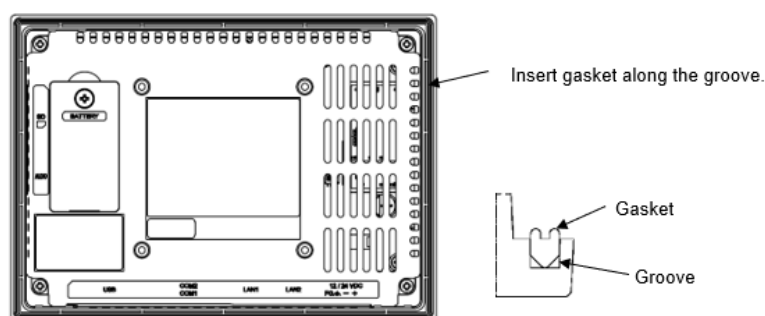
A gasket is preinstalled on the unit before shipment.

Before using the product, please verify that the gasket is positioned correctly in its groove.

5.4.1 Installation Steps

- Locate the gasket groove on the unit.
- Insert the gasket firmly along the entire groove, ensuring it sits evenly without twists or gaps.
- Inspect the gasket after installation to confirm it is properly seated and secure.

Figure 108: Gasket Installation



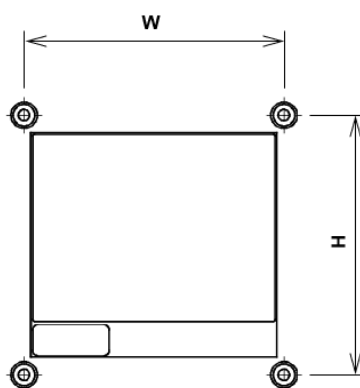
5.5 VESA Arm Mounting

The QuickPanel+2 can be installed on a commercially available Video Electronics Standards Association (VESA) MIS-D arm, stand, or apparatus that complies with the UL1678 standard.

To mount the QuickPanel+2, use the mounting holes located on the back of the unit.

The mounting holes for **IC762CxS07Cxx**, **IC762CxS10Cxx**, **IC762CxS12Cxx**, **IC762CxS15Cxx** attach with M4 screws that are 8 mm (0.32 in) or less in length.

VESA Mounting Holes Dimensions



Mounting hole dimensions, screw lengths, and tightening torques are as follows.

Model (LCD Size)	Mounting Holes Dimensions	Screw Lengths	Torque Range
7 "	75x75 mm	6 to 8mm	0.8 Nm
10.1"	75x75 mm	6 to 8mm	0.8 Nm
12.1"	100x100 mm	6 to 8mm	0.8 Nm
15.6"	100x100 mm	6 to 8mm	0.8 Nm

5.6 Battery Installation and Replacement

WARNING

Batteries can pose a risk of fire, explosion, or chemical burns if handled improperly. Do not crush, disassemble, short-circuit, or expose batteries to fire.

Only use batteries approved for the QuickPanel+2. Using unapproved batteries may result in fire or explosion.

Do not recharge, disassemble, heat, or incinerate lithium batteries.

Dispose of lithium batteries in compliance with all federal, state, and local regulations. Consult the appropriate regulatory agencies before disposal.

CAUTION

1. Only trained personnel should perform battery replacement, and it must be done in a non-hazardous environment.
2. If the QuickPanel+2 is VESA mounted, detach from the VESA arm when replacing the battery.
3. Ensure the unit is powered off before replacing the battery.
4. Insert the battery carefully, ensuring correct polarity is observed.
5. Do not use metallic tools (e.g., screwdrivers, knives, pliers) to remove the battery.
6. Take care not to drop the battery or any screws into the unit.
7. Be cautious of sharp edges inside the enclosure and frame during replacement.

NOTE:

1. The PC controller will not start automatically after the battery is replaced in the QuickPanel+2. After replacing the battery, start the controller using the #Command in the PAC Machine Edition runtime.
2. The symbol next to the battery indicates important safety information regarding battery replacement. Refer to "QuickPanel+2 Battery Installation" for detailed instructions.

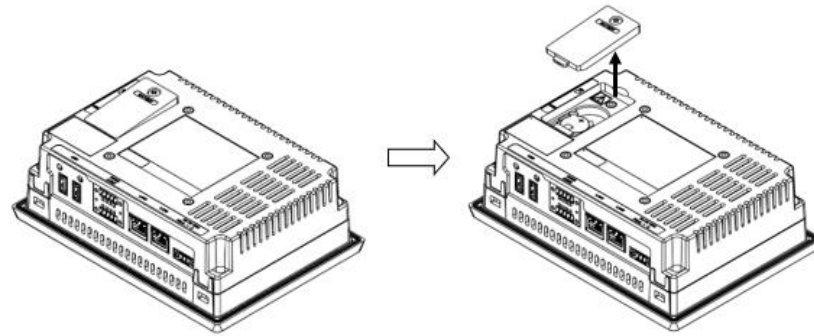
5.6.1 To install or replace the battery for IC762CxS07Cxx, IC762CxS10Cxx, IC762CxS12Cxx, IC762CxS15Cxx

⚠ CAUTION

Replace the battery for the **IC762CxS07Cxx**, **IC762CxS10Cxx**, **IC762CxS12Cxx**, **IC762CxS15Cxx** only with Emerson battery part number BR2032.

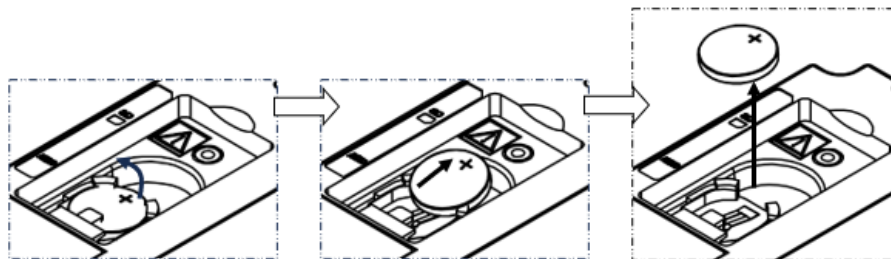
1. Loosen the screw and remove the battery cover.

Figure 9: Remove the Battery Cover



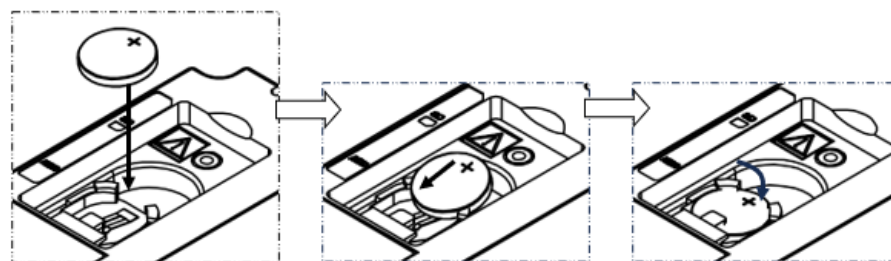
2. Remove the old battery.

Figure 105: Remove the Old Battery



3. Install the new battery.

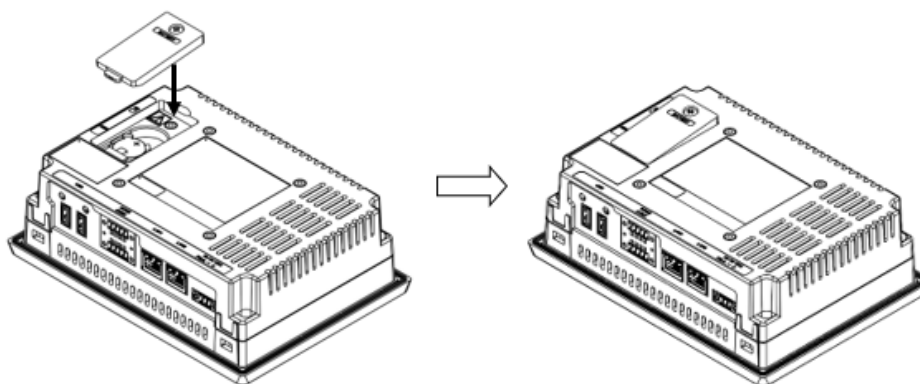
Figure 106: Install the New Battery



Note: Check the polarities and make sure they are not inserted in the wrong direction.

4. Install the battery cover and tighten the screws to **7 in-lb (0.8 Nm)**.

Figure 107: Install the Battery Cover and Tighten the Screws.



5.7 Connectors

5.7.1 Power Connector Pin-Out for IC762CxS07Cxx, IC762CxS10Cxx, IC762CxS12Cxx, IC762CxS15Cxx

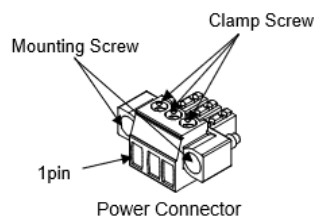
Connector: 3.5mm pitch Terminal Block

Pin No.	Signal	Pin Arrangement
1	FG	
2	GND	
3	DC IN	

Note: This product includes a terminal block connector for power. Use the provided accessory cable to connect the power supply.

Connector Specification

Figure 108: Connector Anatomy



Connection Specification

Item	Power Connector
Mounting Screw Tightening torque	0.3 Nm
Clamp Screw Tightening torque	0.22 - 0.25 Nm
Conductor size*	AWG 24 - 16
Wire Stripping Length	7 mm

*Select a conductor size that is appropriate for the application, taking into consideration the current draw, voltage drop, and wiring losses.

⚠ CAUTION

Power Supply Wiring

1. Be sure to wire the power supply, input/output equipment, and the power equipment of the PAC IO.
2. Do not bundle main circuit (High voltage, high current) wires, signal wires, and power cables, nor put them close to each other.
3. Twist the power cable as short as possible to improve noise immunity.
4. Attach a ferrite core to the power cable if affected by noise.
5. Use a Safety Extra Low Voltage (SELV) and Limited Energy Circuit or SELV and Class 2 DC power supply.
6. Connect a lightning surge absorber if necessary.

CAUTION

Grounding

1. FG should be dedicated grounding. "Installation should be D-class grounding, grounding resistance of 100Ω or less."
 2. SG (Signal Ground) and FG (Frame Ground) are connected internally inside the PAC IO. When connecting the connecting device and the SG, design the system so that there is no short circuit loop.
-

CAUTION

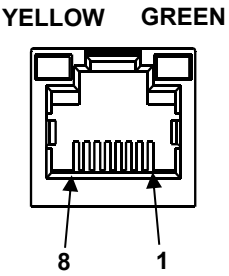
Wiring of Signal Lines

1. Signal cables should be routed in a separate wiring system from power cables and power circuit cables.
 2. Use a shielded cable and ground the shield end if affected by noise.
 3. Attach a ferrite core to the signal cables if affected by noise.
-

5.7.2 Ethernet for IC762CxS07Cxx, IC762CxS10Cxx, IC762CxS12Cxx, IC762CxS15Cxx

The QuickPanel+2 display is equipped with two 10BASE-T/100BASE-TX/1000 BASE-T Ethernet port(s). Connect an Ethernet network cable (unshielded-twisted pair, CAT 5) to the unit through the RJ-45 Modular jack Connector(s) on the bottom of the enclosure. LED indicators on the port indicate channel status. The port can be accessed by Windows 10 IOT Enterprise 2021 LTSC network communications or by the View Runtime application.

Ethernet Port Details

Pin No.	Signal		Pin Arrangement
	10BASE-T 100BASE-TX	1000BASE-T	
1	TX+	TP0+	
2	TX-	TP0-	
3	RX+	TP1+	
4	NC	TP2+	
5	NC	TP2-	
6	RX-	TP1-	
7	NC	TP3+	
8	NC	TP3-	

IP Address Setting

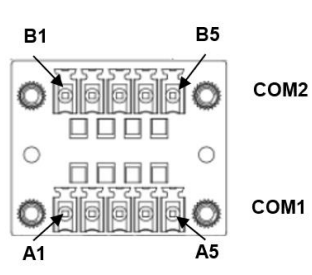
The QuickPanel+2 provides two methods to set an IP address:

Item	Description
DHCP (Dynamic Host Configuration Protocol)	The network server assigns an IP address during QuickPanel+2 initialization. There must be a DHCP server on the connected network for a valid IP address to be assigned. Contact your network administrator to ensure the correct DHCP server configuration.
Manual Method	Specify the numeric addresses obtained from your network administrator for the QuickPanel+2 IP Address, Subnet Mask, and Default Gateway (if applicable).

5.7.3 Serial Port Details

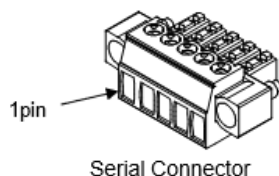
The QuickPanel+2 display is equipped with two serial port connections. Connect these devices using the pin-out configuration seen below.

Serial Port COM1 and COM2 Pin-Out

Pin No.	Signal		Pin Arrangement
COM1	RS232		
A1	TXD		
A2	RXD		
A3	RTS		
A4	CTS		
A5	SG		
COM2	RS422	RS485	
B1	TXD+	DATA+	
B2	TXD-	DATA-	
B3	RXD+	NC	
B4	RXD-	NC	
B5	SG	SG	

Note: This product includes a terminal block connector for power. Use the provided accessory cable to connect the power supply.

Figure 109: Connector Specification



Item	Serial Connector
Mounting Screw Tightening torque	0.3 N·m
Clamp Screw Tightening torque	0.22-0.25 N·m
Conductor size*	AWG 28-16
Wire Stripping Length	7 mm

*Select a conductor size that is appropriate for the application, taking into consideration the current draw, voltage drop, and wiring losses.

5.7.4 Universal Serial Bus (USB) Ports

USB Host Port Details for IC762CxS07Cxx, IC762CxS10Cxx, IC762CxS12Cxx, IC762CxS15Cxx

The QuickPanel+2 has two Super speed 3.0 Type- A host ports. A variety of third-party USB peripheral devices are also available. Each connected USB device requires a specific driver. The driver supplied with the QuickPanel+2 is for optional keyboard or mouse support; other devices require installation of custom driver software.

Interface: USB 3.0

Number of Ports: Two

Connector: Type-A connector

Maximum Supply Current: 0.9 A (per port)

Pin No.	Signal	Pin No.	Signal	Pin Arrangement
1	VBUS(5V)	5	SSRX-	
2	D-	6	SSRX+	
3	D+	7	SG	
4	SG	8	SSTX-	
		9	SSTX+	

5.7.5 Audio (MIC-IN / Sound-OUT) Details

Interface: MIC-IN / Sound-OUT

Number of Ports: One

Connectors: 3.5 mm Stereo jack (CTIA Standard)

Maximum output level: 0.605V RMS

Pin No.	Signal	Pin Arrangement
1	L	
2	R	
3	SG	
4	MIC	

5.7.6 SD Card Slot and Storage

The QuickPanel+2 is equipped with one standard SD Card port. SDXC memory cards are supported. The SD card slot is spring-loaded for easy insertion and removal

Connectors: SD card slot (push in-push out method)

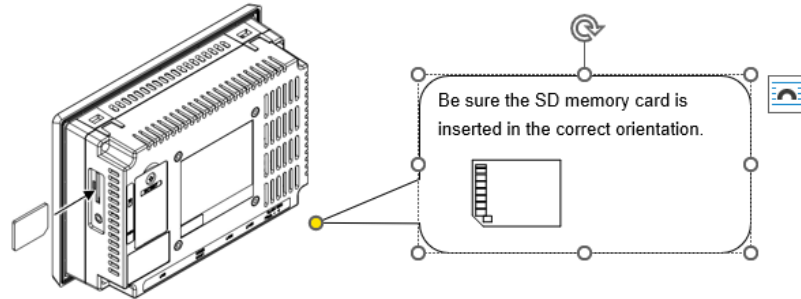
Card support: SDXC memory card

Maximum capacity: 2 TB

Inserting the SD Memory Card

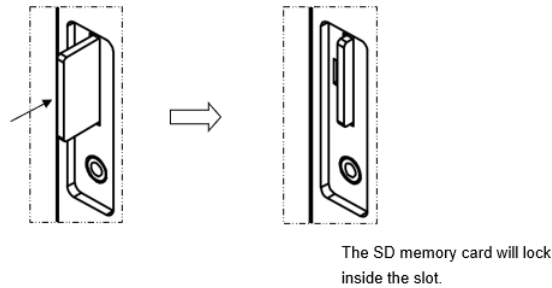
1. Insert the Memory card in the SD memory card slot on the side of the unit.

Figure 110: Insert SD Memory Card



2. Push the SD memory card in by finger until it locks.

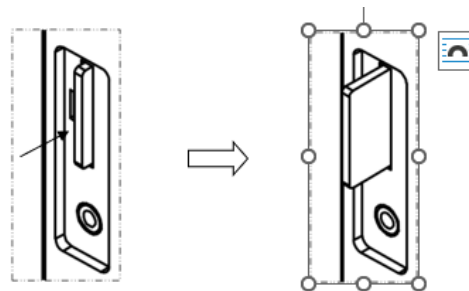
Figure 111: Push Until Locked in Place



Removing the SD Memory Card

To remove the card, push the card a second time to eject.

Figure 112: Eject Card



Note:

- Be careful of the direction of the SD memory card when inserting. Do not insert in the wrong direction.
- Be sure to take back up data of the SD memory card assuming unexpected accidents.
- Do not attempt to forcibly pull out the SD memory card.
- Do not remove the SD memory card when card is in access.

Section 6: Operation

6.1 Touchscreen Display

The QuickPanel+2 features an LED Backlight LCD touchscreen display with maximum ten-point touch technology. The touch technology is based on projected capacitance that allows finger tracking without pressured contact. It is conducive to smooth scrolling and multi-touch gesturing capability. Display brightness and backlight operation can be configured using the QuickPanel+2 Utilities tool available in the program system menu or from desktop using the shortcut icon.

CAUTION

Although Emerson recommends the use of the protective sheet, do not operate the touchscreen with any hard materials, such as a screwdriver. This could damage the touchscreen display.

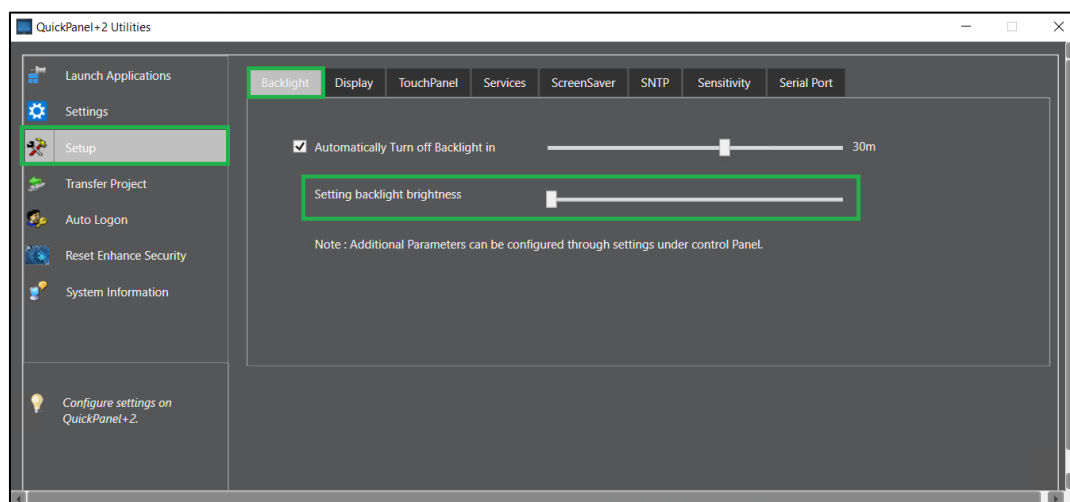
6.1.1 Display Brightness Adjustment

To adjust the brightness of the display

1. Open the **QuickPanel+2 Utilities Tool** and Navigate to the Setup page.
2. Select the **Backlight** tab to configure the brightness under Setup Page.
3. The user can adjust the brightness using the slider. The leftmost slider movement is set to low brightness, and the rightmost slider movement is set to higher brightness. The value varies from 0 to 100.

Brightness Slider in Backlight Tab

Figure 113: Setting Backlight Brightness



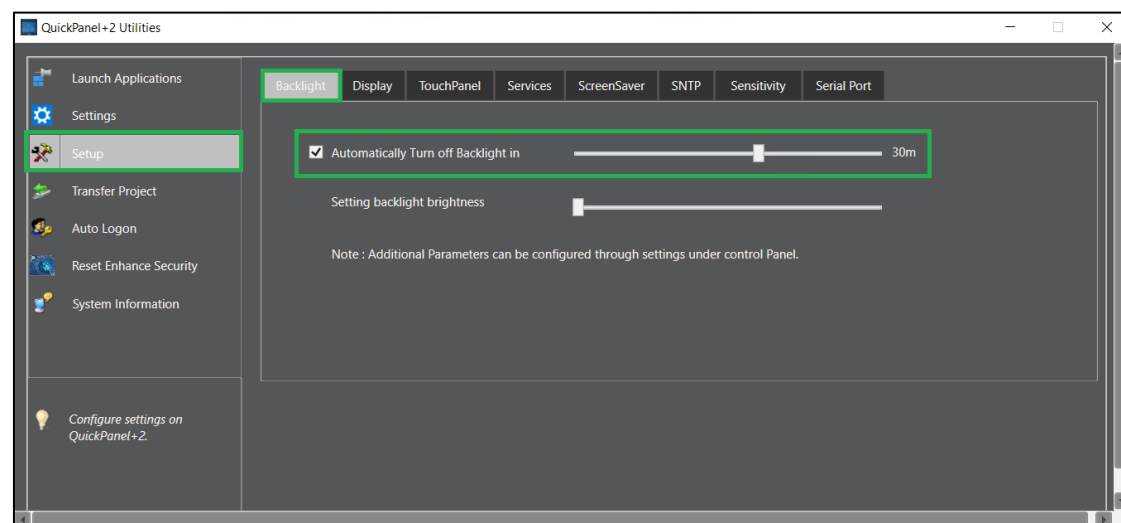
6.1.2 Display Backlight Configuration

To Configure the display backlight:

1. Open the **QuickPanel+2 Utilities Tool** and Navigate to the Setup page.
2. Select the **Backlight** tab to configure the brightness under Setup Page.
3. The user can enable the **Automatically Turn off Backlight** in and specify an amount of time. The time intervals can be configured for 0 seconds (min.) to 5 hours (max.).
4. The user can set the backlight using the slider.

Backlight Adjustment

Figure 114: Auto Turnoff



6.2 7.2 Keyboard Configuration

The QuickPanel+2 can be configured to use either or both a hardware keyboard and a software emulation keyboard as operator data input devices. Typically, an optional external hardware keyboard is used when in development mode, while the embedded **Touch Keyboard or On-Screen Keyboard (OSK)** is more applicable in an operational environment.

6.2.1 External Keyboard (Optional)

Any USB-compatible keyboard may be used as an input device for the unit. The USB driver for the keyboard is included in the operating system and no configuration is required. To use an external keyboard, connect the keyboard to the unit using the USB cable.

6.2.2 Touch Keyboard

The **Touch keyboard** is a touchscreen keyboard that may be used in place of a standard hardware keyboard. This option is enabled by default in QuickPanel+2 Windows OS Image. **Touch Keyboard** appears automatically when the user taps a text field, and no physical keyboard is attached.

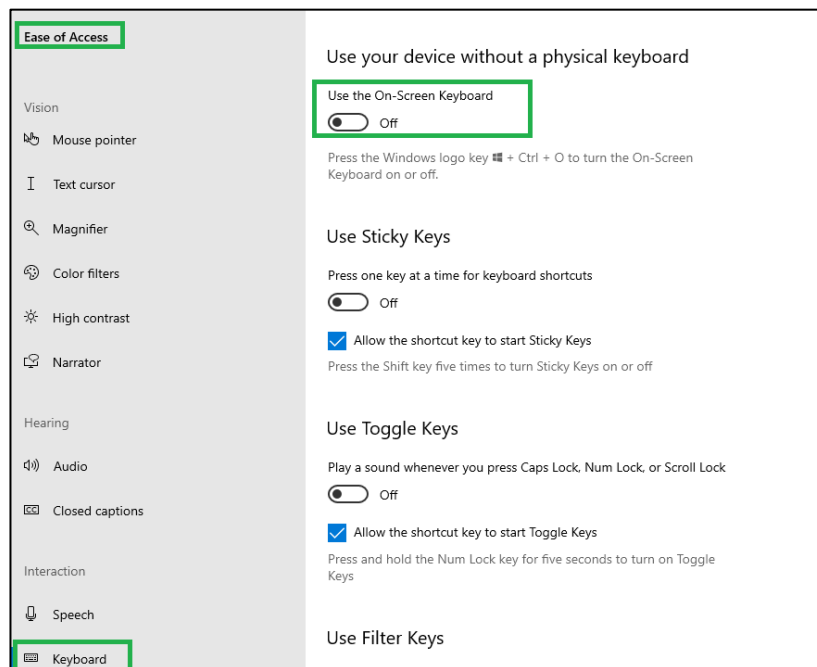
6.2.3 On-Screen Keyboard (OSK)

Windows has a built-in accessibility feature called On-Screen Keyboard that displays a virtual keyboard onto your screen. This option is disabled by default and need to be launched manually.

To enable OSK:

- Use Windows + I or select the Start menu's gear icon to open Settings
- Navigate to Ease of Access -> Keyboard
- Turn on "Use the On-Screen Keyboard". The keyboard will appear on your screen

Figure 115: OSK



6.3 Mouse

Any USB-compatible mouse may be used as an input device for the unit. The USB driver for the mouse is included with the operating system and no configuration is required. To use an external mouse, plug it into the appropriate port.

6.4 QuickPanel+2 – Diagnostics

This guide helps you understand basic diagnostics in QuickPanel+2 in simple, easy-to-read language. It explains what the system logs mean and how you can troubleshoot common issues.

6.4.1 What Is the Diagnostics Log?

QuickPanel+2 automatically records important system activity in a file called **IODataServerLog**. This file shows how devices, data storage, and the system itself are working.

Log file location in QuickPanel+2 device:

C:\\Emerson\\fxViewRuntime\\Software\\PACSystemsTemplateWizard\\Log\\IODataServerLog

6.4.2 Message Types

Message Types	Description
Server Messages	Show if the system is starting, running, or shutting down.
Driver Messages	Show whether QuickPanel+2 can communicate with connected devices.
Historian Messages	Show whether data is being saved successfully.

6.4.3 Examples of Common Messages

Message Types	Description
Driver Initialized	Device communication is working
Timeout Occurred	Device not responding
Unable to Write Data	Historian cannot save information
Returning Connection	System is trying to reconnect

6.4.4 How to Troubleshoot Issues

1. Open the IODataServerLog file.
2. Scroll to the bottom for the latest messages.
3. Look for WARN or ERROR messages.
4. Check whether the issue is related to the Driver, Historian, or Server.
5. If the errors repeat, check network cables, device connections, or restart the system.
6. Contact support if the issue continues.

Section 7: Image Recovery

7.1 Recovery/Upgrade Image

Image Recovery Solution (RCV) can be used to restore/reset a Windows installation on a unit initially delivered with a preloaded Windows image that is not able to boot any longer. This can also be used to upgrade to the new Major version of QuickPanel+2 device.

7.2 Create a Bootable USB Flash/SD Card Device

This outlines the steps necessary to create a bootable USB flash/SD cards device and copy Windows PE for Windows image deployment to it.

Note: Use FAT32 type USB Flash Drive or SD card that is between 16 and 32 GB.

1. Insert the USB device and open a command window. Use **Run as Administrator** if you work on a system with UAC active. Alternatively, you can choose to open a non-elevated console window. This will cause the UAC dialog when you call the diskpart utility in the next step.
2. At the console prompt enter: **Diskpart**
3. Enter: **list disk** to identify the CORRECT disk number corresponding to your USB stick

Figure 116: list disk

```
DISKPART> list disk
```

Disk ###	Status	Size	Free	Dyn	Gpt
Disk 0	Online	476 GB	1025 MB		*
Disk 1	Online	29 GB	16 GB		*

4. Identify and select the disk inserted in step 1.

Figure 117: select disk 1

```
DISKPART> select disk 1

Disk 1 is now the selected disk.

DISKPART> list disk

   Disk ###  Status              Size       Free      Dyn  Gpt
   -----  -
   Disk 0      Online             238 GB     2048 KB
*  Disk 1      Online              28 GB           0 B
```

5. Erase your USB stick, using **clean** command.

Figure 118: Clean command

```
DISKPART> clean

DiskPart succeeded in cleaning the disk.
```

6. Enter **list disk** to verify that that the space has been reclaimed

Figure 119: List Disk to Verify Cleanup

```
DISKPART> list disk

   Disk ###  Status              Size       Free      Dyn  Gpt
   -----  -
   Disk 0      Online             238 GB     2048 KB
*  Disk 1      Online              28 GB      28 GB
```

7. Enter create a partition primary to create a primary partition

Figure 120: Create Partition Primary

```
DISKPART> create partition primary

DiskPart succeeded in creating the specified partition.
```

8. Check the volumes and be sure the partition you selected is already selected (noted by the asterisk '*'). Otherwise, issue the command select vol 4 (in this case).

Figure 121: List Vol

```
DISKPART> list vol
```

Volume ###	Ltr	Label	Fs	Type	Size	Status	Info
Volume 0	C	WINDOWS	NTFS	Partition	129 GB	Healthy	Boot
Volume 1	D	New Volume	NTFS	Partition	107 GB	Healthy	
Volume 2		SYSTEM	FAT32	Partition	1000 MB	Healthy	System
Volume 3			NTFS	Partition	668 MB	Healthy	Hidden
* Volume 4	E		RAW	Removable	28 GB	Healthy	

- Issue command **format fs=fat32 label=RecoveryUSB** quick to format the selected volume/partition.

Note: Specifying a label for the partition is optional but recommended.

Figure 122: Format Fat32

```
DISKPART> format fs=fat32 label=RecoveryUSB quick

100 percent completed

DiskPart successfully formatted the volume.
```

- Issue command **list vol** to check volumes

Figure 123: List Vol Command

```
DISKPART> list vol
```

Volume ###	Ltr	Label	Fs	Type	Size	Status	Info
Volume 0	C	WINDOWS	NTFS	Partition	129 GB	Healthy	Boot
Volume 1	D	New Volume	NTFS	Partition	107 GB	Healthy	
Volume 2		SYSTEM	FAT32	Partition	1000 MB	Healthy	System
Volume 3			NTFS	Partition	668 MB	Healthy	Hidden
* Volume 4	E	RECOVERYUSB	FAT32	Removable	28 GB	Healthy	

12. Use the assign command to assign a drive letter.

Figure 124: Assign Command

```
DISKPART> assign

DiskPart successfully assigned the drive letter or mount point.
```

13. Check the assignment with the **list vol** command

```
DISKPART> list vol

Volume ###  Ltr  Label          Fs      Type        Size      Status       Info
-----
Volume 0      C   WINDOWS       NTFS    Partition   129 GB    Healthy      Boot
Volume 1      D   New Volume    NTFS    Partition   107 GB    Healthy
Volume 2              SYSTEM        FAT32    Partition   1000 MB    Healthy      System
Volume 3              NTFS         Partition   668 MB    Healthy      Hidden
* Volume 4     F   RECOVERYUSB   FAT32    Removable    28 GB    Healthy
```

14. Enter **Exit** to exit the diskpart utility.

Figure 125: Exit Command

```
DISKPART> exit

Leaving DiskPart...

C:\PE>
```

7.3 Copy the Windows PE Image

1. Copy the file tree structure below the Contents folder of the USB stick. (**Do not copy the file tree to the Contents folder itself.**)

Note: The number of files copied in this step may vary depending on how many files are in the Contents folder of the environment in which you copy.

Figure 126: RecoveryUSB

```
C:\PE>dir F:
Volume in drive F is RECOVERYUSB
Volume Serial Number is 9C1D-B65B

Directory of F:\

File Not Found
```

2. Copy the Recovery Image(s) (QuickPanel+2_Win10_2021_rxxx.swm to the images folder. These are typically .swm-files or a .wim-file.
3. Eject and remove the WinPE USB stick just created.

7.4 Install the Windows 10 Recovery/Upgrade Image

To install the Windows 10 Recovery Image on QuickPanel+2, follow the instructions below:

1. Create a bootable USB Flash/SD Card Device as described in Section 7.2, *Create a Bootable USB Flash/SD Card Device*. Use a USB Stick or SD card that is between 16 and 32 GB in size.
2. Insert the bootable USB Flash Device into the QuickPanel+2 and Power on the device.
3. A console window opens. Enter **go** at the user prompt if you are sure you want to proceed.
4. The image installation will execute by applying the image to the hardware unit and system restart will occur.
5. Windows will initialize and finally end up at the Windows Welcome screen.

Section 8: Secomea Secure Remote Access

8.1 About Secomea Secure Remote Access

Secomea provides secure remote access solutions for industrial equipment and automation systems. Its technology enables authorized personnel to remotely monitor, diagnose, maintain, and support industrial devices over the Internet while maintaining strict access control and cybersecurity. Secomea solutions are widely used in manufacturing, process automation, utilities, and machine-building applications.

The Emerson QuickPanel+2 includes Secomea SiteManager Embedded, a software-based secure remote access gateway that is pre-installed on the device. SiteManager Embedded enables the QuickPanel+2 to become part of a secure remote access infrastructure, allowing authorized engineers and service personnel to securely access the HMI and connected industrial equipment from a remote location for maintenance, troubleshooting, and support.

When configured with a Secomea GateManager server, SiteManager Embedded establishes secure outbound connections through existing network firewalls without requiring inbound firewall ports to be opened. User access can be centrally managed, allowing organizations to control who is authorized to access equipment and when access is permitted.

Benefits of SiteManager Embedded

- SiteManager Embedded provides the following capabilities:
- Secure remote troubleshooting and diagnostics
- Remote software updates and maintenance
- Reduced travel time and service costs
- Faster response to operational issues
- Secure, role-based access to industrial devices and networks for authorized personnel

Note:

SiteManager Embedded and its associated software remain inactive until they are configured and licensed. Licenses and subscriptions are available through Secomea and its authorized distributors. To request a license or obtain additional information, visit secomea.com/license.

Network Configuration

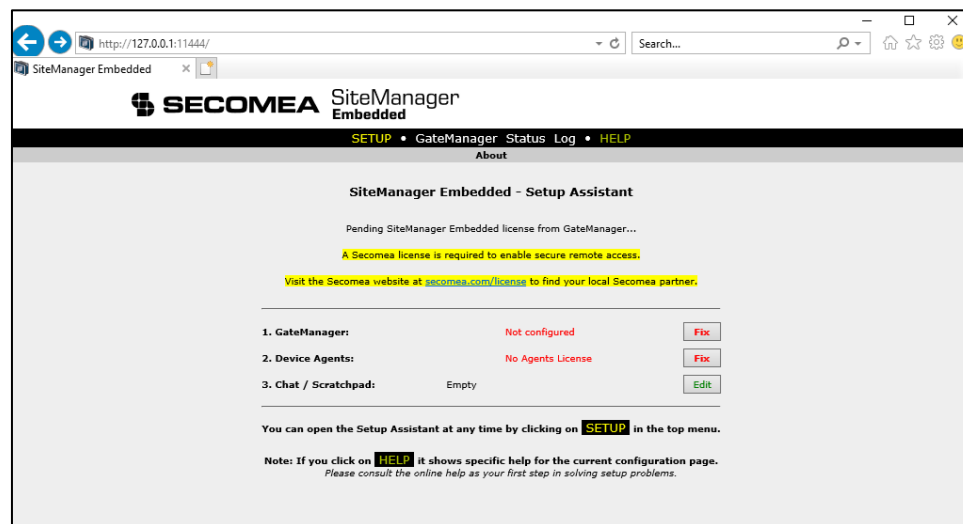
The **Secomea SiteManager Embedded** application can be launched from the **QuickPanel+2** desktop using the **SiteManager Embedded** shortcut.

Figure 127: SiteManager Embedded



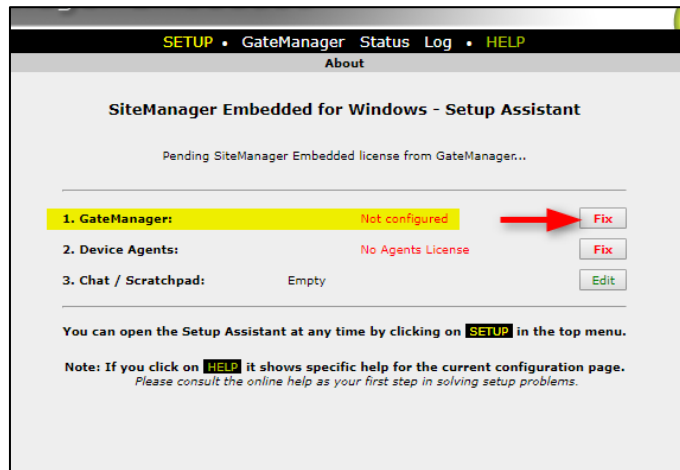
1. Double-click the **SiteManager Embedded** shortcut on the desktop.
2. The **SiteManager Embedded** web interface opens in the default web browser.

Figure 128: Site Manager



3. In the **GateManager** section, click **Fix** next to **GateManager (Not Configured)** to launch the **GateManager Setup Assistant**.

Figure 129: Gate Manager



4. In the GateManager Setup Assistant, enter the following information provided by your Secomea distributor when the license was purchased:

Figure 130: GateManager

SECOMEA SiteManager Embedded

SETUP • GateManager Status Log • HELP

About

GateManager Settings - Setup Assistant

You should have received information about the GateManager IP address and GateManager Domain Token to enter here.

Note: Use the [Connect] button after saving the settings.

You can continue to configure the SiteManager without these settings, but the SiteManager will not be fully operational until it can connect to a GateManager.

Help **Continue Setup >**

GateManager not connected.

Remote Management: **Enabled**

GateManager Address: *

Domain Token: *

Appliance Name: SiteManager

Web-proxy Address:

Web-proxy Account:

Web-proxy Password:

Local SiteManager Address:

* = Mandatory field

Save **More >>** **Connect**

- Click **Save**, and then click **Connect** to establish a connection to the GateManager server.

Figure 131: Click Connect

SECOMEA SiteManager Embedded

SETUP • GateManager Status Log • HELP

About

GateManager Settings - Setup Assistant

You should have received information about the GateManager IP address and GateManager Domain Token to enter here.

Note: Use the [Connect] button after saving the settings.

You can continue to configure the SiteManager without these settings, but the SiteManager will not be fully operational until it can connect to a GateManager.

Help Continue Setup »

GateManager **not** connected. 🔄

Remote Management: Enabled ▼

GateManager Address: *

Domain Token: *

Appliance Name: SiteManager

Web-proxy Address:

Web-proxy Account:

Web-proxy Password:

Local SiteManager Address:

* = Mandatory field

Save More >> **Connect**

- In the **Device Agents** section, click **Fix** next to **Device Agents (No Agents License)** to open the **Device Agents Setup Assistant**.

Figure 132: Device Agents

SECOMEA SiteManager Embedded

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About

SiteManager Embedded - Setup Assistant

Pending SiteManager Embedded license from GateManager...

A Secomea license is required to enable secure remote access.

Visit the Secomea website at secomea.com/license to find your local Secomea partner.

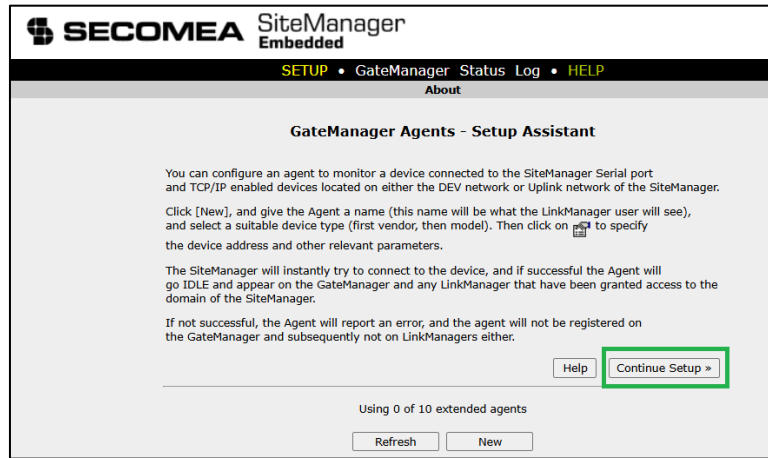
1. GateManager:	Not configured	Fix
2. Device Agents:	No Agents License	Fix
3. Chat / Scratchpad:	Empty	Edit

You can open the Setup Assistant at any time by clicking on **SETUP** in the top menu.

Note: If you click on **HELP**, it shows specific help for the current configuration page.
Please consult the online help as your first step in solving setup problems.

7. In the **Device Agents Setup Assistant**, click **Continue Setup**.

Figure 133: Continue Setup



SECOMEA SiteManager Embedded

SETUP • GateManager Status Log • HELP

About

GateManager Agents - Setup Assistant

You can configure an agent to monitor a device connected to the SiteManager Serial port and TCP/IP enabled devices located on either the DEV network or Uplink network of the SiteManager.

Click [New], and give the Agent a name (this name will be what the LinkManager user will see), and select a suitable device type (first vendor, then model). Then click on  to specify the device address and other relevant parameters.

The SiteManager will instantly try to connect to the device, and if successful the Agent will go IDLE and appear on the GateManager and any LinkManager that have been granted access to the domain of the SiteManager.

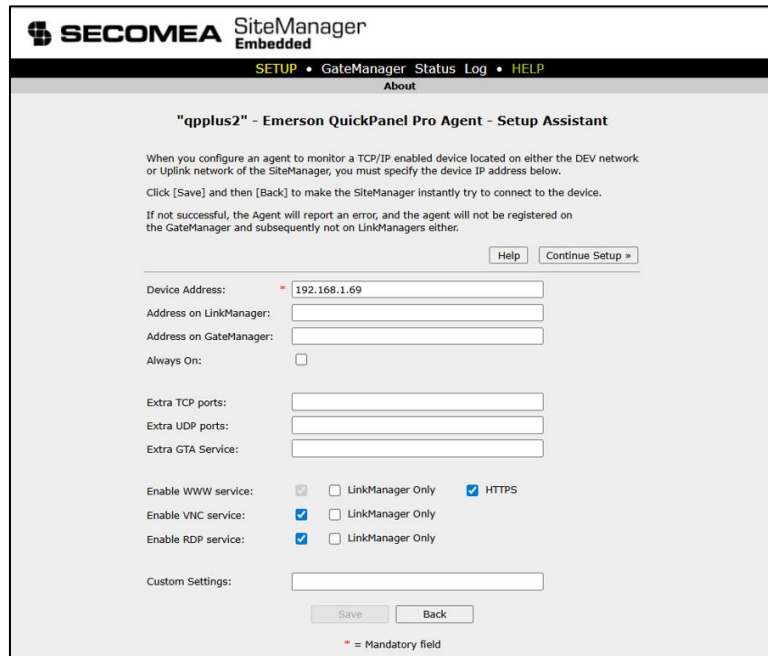
If not successful, the Agent will report an error, and the agent will not be registered on the GateManager and subsequently not on LinkManagers either.

Help **Continue Setup >**

Using 0 of 10 extended agents

Refresh New

8. In the **Emerson QuickPanel+2 Agent Setup Assistant**, enter the **QuickPanel+2 Device Address** to configure the connection between the device and **Secomea SiteManager Embedded**.



SECOMEA SiteManager Embedded

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"qpplus2" - Emerson QuickPanel Pro Agent - Setup Assistant

When you configure an agent to monitor a TCP/IP enabled device located on either the DEV network or Uplink network of the SiteManager, you must specify the device IP address below.

Click [Save] and then [Back] to make the SiteManager instantly try to connect to the device.

If not successful, the Agent will report an error, and the agent will not be registered on the GateManager and subsequently not on LinkManagers either.

Help **Continue Setup >**

Device Address: * 192.168.1.69

Address on LinkManager:

Address on GateManager:

Always On: ☐

Extra TCP ports:

Extra UDP ports:

Extra GTA Service:

Enable WWW service: ☒ LinkManager Only ☒ HTTPS

Enable VNC service: ☒ LinkManager Only

Enable RDP service: ☒ LinkManager Only

Custom Settings:

Save Back

* = Mandatory field

8.2 Secomea Remote Access Components

The Secomea secure remote access solution consists of several software components that work together to provide secure access to industrial equipment and automation systems.

8.2.1 SiteManager Embedded

SiteManager Embedded is installed on the QuickPanel+2 and acts as the secure remote access gateway. When enabled, it establishes an encrypted outbound connection to the Secomea GateManager server and provides controlled remote access to the QuickPanel+2 and, when permitted, other devices on the same industrial network.

8.2.2 GateManager

GateManager is the central management and tunnel proxy server of the Secomea solution. It authenticates users, manages access permissions, and brokers secure connections between authorized users and remote equipment. Rather than allowing direct inbound connections to industrial devices, GateManager acts as a secure intermediary, routing encrypted communication between LinkManager clients and SiteManager Embedded devices. GateManager maintains secure connections with registered SiteManager devices and provides centralized user management, access control, auditing, and connection logging. GateManager can be deployed as a cloud-hosted service or installed on-premises.

8.2.3 LinkManager

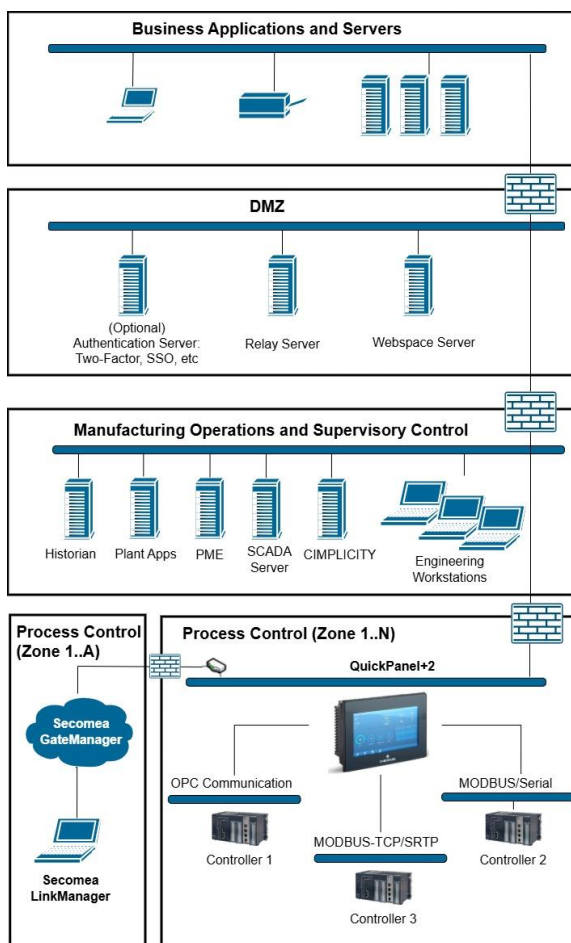
LinkManager is the client application used by authorized users, such as service engineers and system administrators. After authentication, LinkManager provides secure access to devices connected through SiteManager Embedded, allowing remote monitoring, troubleshooting, maintenance, and support activities.

How the components work together

1. SiteManager Embedded on the QuickPanel+2 establishes a secure outbound connection to GateManager.
2. An authorized user logs into GateManager using LinkManager.
3. GateManager verifies the user's credentials and access rights.
4. A secure connection is established between the user and the authorized equipment.
5. All access is controlled and logged according to the organization's security policies.

This architecture enables remote support and maintenance without exposing industrial devices directly to the Internet or requiring inbound firewall ports to be opened.

Figure 134: Secomea Products used with QuickPanel+2s in Application



Appendix A Appendix A Product Certifications and Installation Guidelines

The QuickPanel+2 is intended for use in industrial environments and, when properly installed, shall comply with the agency's approvals listed in this document.

A-1 Agency Approvals

Note: The agency approvals listed in the following table and on the Declaration of Conformities are believed to be accurate; however, the product's agency approvals should be verified by the marking on the unit itself.

Description	Agency Marking	Comments
N.A. Safety for Programmable Controller for use in Hazardous locations Class I Division 2 Groups A, B, C, D (applicable to 7",10",12", 15" Display units) Class I Division 2 Groups A, B, C, D; Class 2 Division 2 Groups F, G;		Certification by Underwriter's Laboratories (UL) to UL 61010-1; UL 61010-2-201; UL62368-1 CSA C22.2 No 142-1987; CSA 61010-1; CSA 61010-2-201 ISA 12.12.01 standard and CSA C22.2 No 213-M1987

Description	Agency Marking	Comments
Explosive Atmospheres Directive European Safety for Hazardous Areas Equipment Group II, Category 3, Gas Groups IIC, Dust Group IIIC		Certification in accordance with the ATEX Directive 14/34/EU with an Independent 3rd Party Assessment Certificate only applies to the 12" and 15" Display units: EN 60079-0/A11, EN 60079-15, and EN 60079-31; Part numbers: IC762CxS07Cxx, IC762CxS10Cxx, IC762CxS12Cxx, IC762CxS15Cxx
Electromagnetic Compatibility Directive European Electromagnetic Compatibility (EMC) for Industrial Control Equipment		Self-declaration in accordance with European Directives EN61000-6-2, EN61000-6-4
Maritime Society Certification	Product not marked, verified by certificate	American Bureau of Shipping (ABS), Det Nordske Veritas /Germanischer Lloyds (DNV-GL), and Bureau Veritas (BV) certification on conformal coated 7, 10, 12, 15" units only.

A-2 Conditions of Safe Use for Installation in Hazardous Location

The following information applies to products bearing the UL marking for Hazardous areas and the ATEX marking for Zone 2 explosive atmospheres:

- Suitable for use in Class I Division 2 Groups A, B, C, D; Class 2 Division 2 Groups F, G; Class 3 Division 1 and Division 2.

- Suitable for Group II, Category 3, Gas Groups IIC, Dust Group IIIC (applicable only to the IC762CxS07Cxx, IC762CxS10Cxx, IC762CxS12Cxx, and IC762CxS15Cxx Display units):

1. The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.

Note: Pollution degree 2 can be achieved when the installation is in a controlled environment with suitably controlled condensation or airborne pollution.

2. The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with IEC 60079-0.
3. .3Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.

⚠ WARNING

EXPLOSION HAZARD - Do not connect or disconnect equipment power, communication, audio, or battery unless power has been removed or the area is known to be non-hazardous.

EXPLOSION HAZARD - Substitution of components may impair suitability.

EXPLOSION HAZARD - DO NOT VESA-MOUNT. Panel-mount only with enclosures that shall only be opened with the use of a tool in an area where the risk of impact is low.

SAFETY INSTRUCTION – INTENDED USE: This equipment is not designed for use by children. Do not allow children to play with, install, or operate this product. Keep the product and its accessories out of reach of children. Improper use may result in electric shock, fire, or injury.

RESTRICTED USE NOTICE: This equipment is intended for professional users only. It is not suitable for use by children or persons without appropriate supervision

DO NOT MAKE ANY CONNECTIONS TO THE MINI-USB/MIC TERMINAL AS IT WILL INVALIDATE THE ATEX APPROVAL.

A-3 EMC Installation and Operation Considerations

This equipment is intended for industrial use only and complies with a minimum level of EMC performance as defined by EN 61000-6-2 and EN 61000-6-4 standards. To meet these requirements, the following installation and operation considerations were taken into account:

- Shielding USB cables

- Limiting RS-232 cables to 15 m (49.2 ft) in length
- Using Audio ports only during operational maintenance

Although these considerations were deliberated during testing, actual EMC environments vary greatly. Therefore, these considerations may not be necessary. Likewise, additional measures, such as filtering, wire separation, and cable routing, may need to be considered to ensure the intended operation of the overall system.

A-4 Government Regulations

The FCC requires the following note to be published according to FCC guidelines:

Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Changes or modifications to this unit that are not expressly approved by Emerson could void the user's authority to operate the equipment.

Industry Canada requires the following note to be published:

Note:

This Class A digital apparatus complies with Canadian CAN ICES 3 (A)/NMB 3(A).

Contact Information and Support Guide

Questions? We are here to help.

Try searching the Knowledge Base system on our Customer Center website before starting a case or picking up the phone.

Search our Knowledge Base	Open a Support Ticket	Register for a Customer Account
 pacsystems.co/knowledge	 pacsystems.co/support	 pacsystems.co/signup

Customer Center Home Page	Commercial Website	Contact Information
 pacsystems.co/customercenter	 pacsystems.co/commercial	 pacsystems.co/contactus

Note: If the product is purchased through an Authorized Channel Partner, please contact the seller directly for any support.

Emerson reserves the right to modify or improve the designs or specifications of the products mentioned in this manual at any time without notice. Emerson does not assume responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use and maintenance of any Emerson product remains solely with the purchaser.

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