

Experion PKS R431.1 General Release Software Change Notice

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Release 431.1

Honeywell

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1 Introduction



Note

Known Issues are covered in this SCN, for other information refer to the Experion R431 General Release SCN.

Related topics

- "About Experion R431.1" on page 8
- "About this document" on page 9
- "Check for updates on Honeywell Process Solutions website" on page 10
- "Who must read this document?" on page 11

1.1 About Experion R431.1

The Experion Process Knowledge System provides a single, integrated platform encompassing continuous and batch control, safety, security, electrical, SCADA, and asset management. With R431.1, Experion introduces new features and enhancements that improve security, reliability, and performance.

Following are some of the new features and enhancements:

- Enhancements for Experion installation and migration (such as, automated detection and repair of database inconsistencies; virtualized on-process migration; enhancements to the Upgrade tool; ETN migration support improvements to migration guides; support for previous Experion releases, and so on).
- Enhancements for Station and Server (such as, Collaboration station productization; and so on).
- Enhancements for SCADA (such as, new device types been added to suit standard Modbus devices (such as GE and Modicon PLCs); enhanced communications and point processing subsystems; support for Electronic Flow Measurement (EFM) devices been expanded to include Spirit IT Flow-X; support an enhanced interface to the IEC 61850 networks configuration; support for an interface for the Remote Terminal Unit (RTU)/devices using IEC 60870-5-101 and IEC 60870-5-104 protocols and so on).
- Controller and I/O enhancements (DPV1 read/write configuration in DSBs; enhancements for Profibus Gateway Module, C300 controllers, and HART; introduction to PROFIBUS HART IOM block and IO channel block, and so on).
- IEC 61850 support on C300 Controller (integration of the IEC 61850 (MMS) protocol and data model with C300 Controller using an 850M interface module).
- Enhanced security for Experion communication (Secure Communications).
- Enhancements for Experion TPS integration (such as, enhanced TPS Node; enhanced Universal Control Network Part II; enhanced Universal Control Network Part 2B; replacement of TDC Hiway boxes with C300 emulationsand, and so on).
- Enhancements to documentation.

For a complete list, refer to "New features and enhancements".

1.2 About this document

This Software Change Notice contains information for all the users of Experion R431.1. This SCN must be read prior to installing and managing the system. The document describes the new features and enhancements introduced with the R431.1 release. Additionally, it contains resolved PARs, issues, special considerations, and last minute documentation updates.

1.2.1 Revision history

Version	Date	Description
A	February 2015	Initial version

1.3 Check for updates on Honeywell Process Solutions website

The Honeywell Process Solutions website, http://www.honeywellprocess.com contains software updates, documentation, and recommended antivirus updates.

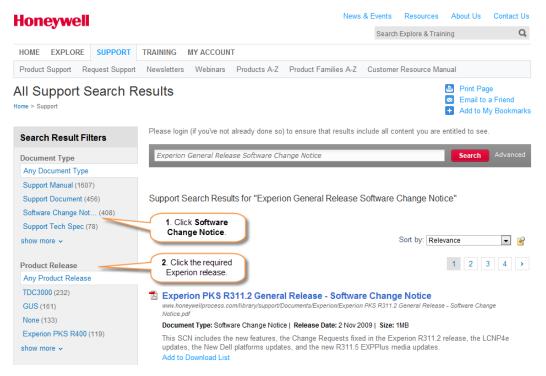
In our effort to provide the most up-to-date information, updates to this SCN are available on the Honeywell Process Solutions website.

To access the Honeywell Process Solutions website

- 1 In a web browser, type the following URL. https://www.honeywellprocess.com/support
 - The **Product Support** page appears.
- 2 If you are a new user, register at this website. Click **Register**, and follow the on-screen instructions.
- 3 If you are already registered, type your user name and password, and click **Login** to logon. Your account logon name appears in the top-right of the page.

To download documents, security updates, or antivirus notifications

- 1 In the Search box, type the name of the required document, security update, or antivirus notification.
 For example, to download the SCN, type Experion General Release Software Change Notice or Experion Support Media Software Change Notice in the Search box.
- 2 Click Search.
 - The All Support Search Results page appears with the search results.
- 3 In the left pane, use the **Search Result Filters** to further filter the document, security update, or antivirus notification. For example, if you are locating a Software Change Notice:
 - a In Document Type, click Software Change Notice.
 - b Inl **Product Release**, click the required Experion product release.



4 Click the document, security update, or antivirus notification link to open it.

1.4 Who must read this document?

The information in this SCN is useful if you are planning to install, migrate, or configure the Experion system. See the *Experion General Release Software Change Notice* and the *Experion Support Media Software Change Notice* to understand the overall product, release interoperabilities, system dependencies, problem resolutions, known issues, and special considerations. These SCNs must be readily available for reference at any stage of Experion system setup.

1 INTRODUCTION

2 Contents of this release

Related topics

"Contents of Experion R431.1 software media kit" on page 14

[&]quot;Experion R431.1 PDF Collection" on page 15

2.1 Contents of Experion R431.1 software media kit

The **Experion R431.1 software media kit (EP-PKS431)** consists of following two DVD kits and Experion Read Me First Instructions.

- Experion R431 Multi DVD Kit-1 (Part number 51155808)
- Experion R431 Multi DVD Kit-2 (Part number 51155809)
- Experion Read Me First Instructions (Part Number 51154497)

Following are the contents of Experion R431 Multi DVD Kit-1 (Part number 51155808).

Description of media item	Model/Part number	Media version	Compatible with Experion
Experion® PKS Installation DVD	51155884	R431	R431
Experion® PKS Support Software DVD	51155885	R431	R431
Microsoft® Visual Studio 2012 Professional for CAB Developers DVD - Disk 1	51155285-430	R430	R430, R431
Microsoft® Visual Studio 2012 Professional for CAB Developers DVD - Disk 2	51155309-430	R430	R430, R431
Microsoft® SQL Server 2012 SP2 Standard DVD	51155926	R431	R431
Experion® Support and Maintenance (ESM) DVD	51155286	R230.1	R4xx
Experion® PKS System Initialization DVD	51155281	R122.1	R4xx.x
Experion® PKS System Initialization Updates DVD	51155287	R122.1	R4xx.x

Following are the contents of Experion R431 Multi DVD Kit-2 (Part number 51155809).

Description of media item	Model/Part number	Media version	Compatible with Experion
Microsoft Windows 7 Professional SP1 64-bit (x64) HPS Reinstallation DVD	51154757	R111.2	R410, R430, R431
Experion PKS Upgrade Tool Components Media	51155347	R431	R431
Experion PKS OperTune R321 Software DVD	51155256	R321	R4xx
Experion PKS R431.1 PDF Collection DVD	51155346	R431	R431
HMIWeb Solution Pack Installation Media	51155327	R431	R431
Microsoft Windows Server 2008 R2 Standard SP1 64-bit (x64) HPS Reinstallation DVD	51154758	R111.2	R410, R430, R431

2.2 Experion R431.1 PDF Collection

The PDF Collection media contains the following two installer files and the Adobe Reader folder.

- Experion_PKS_ R431.1_SCN_Installation_Migration_PDF_Installer.msi
 - This Windows Installer Package installs the SCN, installation, and migration documentation.
- Experion_PKS_ R431.1_PDF_Collection_Installer.msi
 - This Windows Installer Package installs all other user documentation, such as, configuration, operations, and troubleshooting-related documents.
- Adobe Reader folder

This folder includes the Adobe Reader application.

Related topics

- "Viewing the PDF Collection" on page 15
- "Searching the PDF Collection" on page 16
- "Contents of Experion R431.1 System Documentation PDF Collection" on page 16
- "Contents of Experion R431.1 SCN, Installation, and Migration PDF Collection" on page 21

2.2.1 Viewing the PDF Collection

Prerequisites

- Adobe Reader must be installed on your computer before you can view the PDF Collection.
 - If Adobe Reader is not installed on your computer, browse to the *Adobe Reader* folder on the Experion PDF Collection media, double-click the Adobe Reader installer .exe file, and then complete the on-screen instructions.
- You have installed the PDF Collections from the Experion PDF Collection media.
 - Attention
 - Starting R410, the Experion PDF Collection media contains two installer files.
 - Experion PKS SCN Installation Migration PDF Installer.msi
 - Experion_PKS_PDF_Collection_Installer.msi

To ensure that you have access to all documentation, you must run both the installers. Additionally, the Experion PDF Collection media may contain a patch (.msp) file, in addition to the two installer (.msi) files. If this patch (.msp) file is present, you must install it after installing the *Experion_PKS_PDF_Collection_Installer.msi* file. This patch file contains updated documentation and it replaces or installs the required documents within your PDF Collection installation. By installing this patch, you have access to the latest documentation.

To view the PDF Collection

- 1 Choose Start > All Programs > Honeywell Experion PKS > Documentation, and then click the name of the PDF Collection you want to use.
- 2 Perform the following steps if a message about loading a Catalog Index file appears.
 - a Select the Don't ask me again for this index check box.
 - b Click Load.

The **DocumentList.pdf** file and **Search** window appears.



Attention

Clicking **Load** prevents this message appearing again and automatically loads the index each time you open the PDF Collection.

3 Click the appropriate document category tab and then click the document name you want to view.

2.2.2 Searching the PDF Collection

You can search across the documents contained in the PDF Collection.

To search the PDF Collection

- 1 Choose **Start > All Programs > Honeywell Experion PKS > Documentation**, and then click the name of the PDF Collection you want to use.
- 2 Perform the following steps if a message about loading a Catalog Index file appears.
 - a Select the Don't ask me again for this index check box.
 - b Click Load.

The **DocumentList.pdf** file and **Search** window appears.



Attention

- Clicking Load prevents this message appearing again and automatically loads the index each time you
 open the PDF Collection. The index enables you to search across the documentation.
- Click Cancel in the Search window, to exit from searching the PDF Collection.
- If the DocumentList.pdf file and Search window overlap each other, at the top of the Search window, click Arrange Windows.
- 3 In the **What word or phrase would you like to search for?** box, type your search phrase. By default, Adobe Reader performs an exact phrase search.
- 4 Click Search.

2.2.3 Contents of Experion R431.1 System Documentation PDF Collection

Experion user documentation is available on the Honeywell Process Solutions website (http://www.honeywellprocess.com/), and the PDF Collection. The Honeywell Process Solutions website contains the latest user documentation, including document revisions after the Experion R431.1 release. To ensure that you are accessing the latest documentation, use the Honeywell Process Solutions website.

The following table lists the Experion user documentation contained in the System Documentation PDF Collection.

Document name	Document ID
Allen-Bradley Interface Reference	EPDOC-XXX3-en-431A
Application Control Environment User's Guide	EPDOC-XXX4-en-431A
Application Development Guide	EPDOC-XXX5-en-431A
ASEA Interface Reference	EPDOC-XXX6-en-431A
Batch Implementation Guide	EPDOC-X161-en-431A
Batch Overview and Planning Guide	EPDOC-XXX7-en-431A
Bristol Babcock Interface Reference	EPDOC-XXX8-en-431A
Bristol Babcock OpenBSI Interface Reference	EPDOC-XXX9-en-431A
C200/C200E Controller Troubleshooting and Maintenance Guide	EPDOC-XX10-en-431A
C300 Controller User's Guide	EPDOC-XX11-en-431A
CL Server User's Guide	EPDOC-XX12-en-431A
Collaboration Station User's Guide	EPDOC-X245-en-431A
Configuration Studio Overview Guide	EPDOC-X113-en-431A

Document name	Document ID
Configuration Utility User's Guide	EPDOC-XX14-en-431A
Control Builder Components Reference	EPDOC-XX15-en-431A
Control Builder Components Theory	EPDOC-XX16-en-431A
Control Builder Error Codes Reference	EPDOC-XX17-en-431A
Control Builder Parameter Reference	EPDOC-XX18-en-431A
Control Building User's Guide	EPDOC-XX19-en-431A
Control Component Library (CCL)	EPDOC-X152-en-431A
Control Firewall User's Guide	EPDOC-XX20-en-431A
Control Hardware Installation Guide	EPDOC-XX21-en-431A
Control Hardware Planning Guide	EPDOC-XX23-en-431A
Control Hardware Notifications Theory	EPDOC-XX22-en-431A
ControlNet Fiber Optic Implementation Guide	EPDOC-XX24-en-431A
ControlNet Installation Guide	EPDOC-XX25-en-431A
Custom Algorithm Block and Custom Data Block User's Guide	EPDOC-XX26-en-431A
DELL OPTIPLEX 3010 Station Installation and Configuration Guide	HWDOC-X231-en-A
DELL OPTIPLEX 3020 Planning Installation and Service Guide	HWDOC-X294-en
DeviceNet Interface Implementation Guide	EPDOC-XX27-en-431A
Diagnostic Studio User's Guide	ESDOC-XX28-en-230A
Dictionary	EPDOC-XX29-en-431A
DNP3 Interface Reference	EPDOC-XX31-en-431A
Enron Modbus Interface Reference	EPDOC-X233-en-431A
Enterprise Model Builder User's Guide	EPDOC-XX32-en-431A
Ethernet Implementation Guide	EPDOC-XX34-en-431A
ETN Quick Start Guide	EPDOC-XX81-en-431A
Experion Cluster Communication for ACE Interface Reference	EPDOC-XX13-en-431A
Experion Legacy IO Link Module Parameter Reference Dictionary	EPDOC-X151-en-431
Experion Mobile Access User's Guide	EPDOC-XX72-en-431A
Experion On-Process Migration in Virtualized Environment Guide	EPDOC-X328-en-4311A
EXTIO 1 Remote Peripheral Solutions Installation Kit Instruction	EP-DPCX20
EXTIO 2 Remote Peripheral Solutions Installation Instructions	EP-DPCX24
Fault Tolerant Ethernet Bridge Implementation Guide	EPDOC-XX35-en-431A
Fault Tolerant Ethernet Installation and Service Guide	EPDOC-XX36-en-431A
Fault Tolerant Ethernet Overview and Implementation Guide	EPDOC-XX37-en-431A
Fault Tolerant Ethernet Status Server and Auxiliary Display User's Guide	EPDOC-XX38-en-431A
FMC 722 on ACE Configuration Guide	EPDOC-X332-en-100A
FMC 722 on ACE Parameter Reference	EPDOC X333-en-100
Gas Operations Suite Configuration Guide	EPDOC-X264-en-431A
Gas Operations Suite User's Guide	EPDOC-X265-en-431A
GE Fanuc Series 90 Interface Reference	EPDOC-XX39-en-431A
GEC GEM80 Interface Reference	EPDOC-XX40-en-431A
Getting Started with Experion Software Guide	EPDOC-X112-en-431A

Document name	Document ID
Guidelines for Replacing Hiway Boxes with LCN-connected C300 Emulations	EPDOC-X268-en-431A
GUS Basic Script User's Guide	EPDOC-XX41-en-431A
GUS Basic Scripting Language Reference	EPDOC-XX42-en-431A
GUS Display Authoring Tutorial	EPDOC-XX43-en-431A
GUS Display Builder User's Guide	EPDOC-XX44-en-431A
GUS Display Scripting User's Guide	EPDOC-XX45-en-431A
GUS Display Search Tool User's Guide	EPDOC-XX46-en-431A
GUS Display Translator User's Guide	EPDOC-XX47-en-431A
GUS Faceplate, Alarm, and Message Scripting User's Guide	EPDOC-XX48-en-431A
GUS Remote Display User's Guide	EPDOC-XX49-en-431A
Hardware and Point Build Reference	EPDOC-XX50-en-431A
HART IO Implementation Guide	EPDOC-XX51-en-431A
HCIOPC Data Access User's Guide	EPDOC-XX52-en-431A
Hitachi Interface Reference	EPDOC-XX53-en-431A
Hiway Slot Emulation Creator User Guide	EPDOC-X267-en-431
HMIWeb Display Building Guide	EPDOC-XX54-en-431A
HMIWeb Object Specification	EPDOC-X174-en-431A
HMIWeb Solution Pack Operator and Alarm Philosophy	EPDOC-X173-en-431A
Honeywell DPR Interface Reference	EPDOC-XX55-en-431A
Honeywell FSC Integration Reference	EPDOC-XX56-en-431A
Honeywell Icon Series Console Planning, Installation, and Service Guide	EP-DCNXX4
Honeywell Icon Series Console Read Me First	EP-DCNXX3
Honeywell LCS620 Interface Reference	EPDOC-XX57-en-431A
Honeywell Modbus TCP Firewall User's Guide	EPDOC-X162-en-431A
Honeywell Series 9000 Integration Reference	EPDOC-XX60-en-431A
Honeywell TDC 3000 Data Hiway Interface Reference	EPDOC-XX61-en-431A
Honeywell Turbine Control Solution Parameter Reference	EPDOC-XX62-en-431A
Honeywell UDC Integration Reference	EPDOC-XX63-en-431A
Honeywell Universal Modbus Interface Reference	EPDOC-XX64-en-431A
HP DL 380 G7 Honeywell Planning, Installation, and Service Guide	HWDOC-X232-en-A
HP ProLiant DL360P Gen8 Honeywell Server Planning Installation and Service Guide	HWDOC-X330-en
IEC 60870 SCADA Configuration Reference Guide	EPDOC-X358-en-431A
IEC 60870 SCADA Parameter Reference Guide	EPDOC-X376-en-431A
IEC 61850 SCADA Configuration Reference Guide	EPDOC-X375-en-431A
Integrated Experion TPS User's Guide	EPDOC-XX66-en-431A
LCNP Status User Guide	EPDOC-XX67-en-431A
LLMUX2 TC and RTD FTAs User Guide	EPDOC-XX68-en-431A
Modbus Interface Reference	EPDOC-XX71-en-431A
Moore Mycro Interface Reference	EPDOC-XX73-en-431A

Document name	Document ID
Native Windows User's Guide	EPDOC-XX74-en-431A
Network and Security Planning Guide	EPDOC-XX75-en-431A
OEP IKB and Touch Screen Device Adapters Installation Instructions	EP-DPCXX3
Omni Interface Reference	EPDOC-XX77-en-431A
OPC Client Interface Reference	EPDOC-XX78-en-431A
OPC Gateway for ACE Interface Reference	EPDOC-XX79-en-431A
Operator's Guide	EPDOC-XX80-en-431A
Overview	EPDOC-XX81-en-431A
Parallel Operation Keyboard Users Guide	EPDOC-XX82-en-431A
Parameter Definition Editor Reference	EPDOC-XX83-en-431A
PE SC1430 Honeywell Server Planning Installation and Service Guide	EP-DPCXX6
PE2850 Honeywell Server Planning, Installation, and Service Guide	EP-DCX554
PE2900-based Honeywell Server Planning Installation, and Service Guide	EP-DPCXX7
PE2900iii-based Honeywell Server Planning Installation, and Service Guide	EP-DPCX10
PE2950 Honeywell Server Planning Installation and Service Guide	EP-DPCXX8
PE2950III Honeywell Server Planning Installation and Service Guide	EP-DPCX11
Peer Control Data Interface Implementation Guide	EPDOC-XX84-en-431
PM IO Hardware Troubleshooting and Maintenance Guide	EPDOC-XX85-en-431
Procedure and Sequence Custom Display Building Guide	EPDOC-XX86-en-431
PROFIBUS Gateway Module Parameter Reference	EPDOC-XX87-en-431A
PROFIBUS Gateway Module User's Guide	EPDOC-XX88-en-431A
PROFIBUS Interface Implementation Guide	EPDOC-XX89-en-431
Qualification and Version Control Users Guide	EPDOC-XX90-en-431
Quick Builder Users Guide	EPDOC-XX91-en-431
R320 Honeywell Server Planning Installation Service Guide	HWDOC-X238-en
R5500 Honeywell Workstation Planning Installation and Service Guide	EP-DPCX25
R710 Honeywell Server Planning Installation and Service Guide	EP-DPCX16
R7610 Honeywell Workstation Planning Installation Service Guide	HWDOC-X273-en
Rail IO Series A Implementation Guide	EPDOC-X114-en-431
Rail IO Series H Implementation Guide	EPDOC-X115-en-431
Redirection Manager Users Guide	EPDOC-X116-en-431
Redundant Power Supply Installation Guide	EPDOC-X117-en-431
Safety Manager Integration Guide	EPDOC-X119-en-431
SafeView Users Guide	EPDOC-X120-en-431
Search Utility Users Guide	EPDOC-X121-en-431
Secure Communications User Guide	EPDOC-X270-en-431
Sequential Control Users Guide	EPDOC-X122-en-431
Serial Interface Module Implementation Guide	EPDOC-X123-en-431
Series A Fieldbus Module Interface Users Guide	EPDOC-X124-en-431
Series C Fieldbus Interface Module Users Guide	EPDOC-X125-en-431
Series C IEC 61850 Interface Module User's Guide	EPDOC-X374-en-431A

Document name	Document ID
Series C IO Users Guide	EPDOC-X126-en-431
Server and Client Configuration Guide	EPDOC-X127-en-431
Server and Client Planning Guide	EPDOC-X128-en-431
Server Scripting Reference	EPDOC-X129-en-431
Siemens S7 Interface Reference	EPDOC-X130-en-431
SIM ACE Users Guide	EPDOC-X131-en-431
SIM C300 Users Guide	EPDOC-X133-en-431
SIM-C200E Implementation Guide	EPDOC-X132-en-431
SIM-FFD User Guide	EPDOC-X134-en-431
Site Planning Guide	EPDOC-X135-en-431
Spirit IT FlowX Interface Reference	EPDOC-X297-en-431
Startup and Shutdown	EPDOC-X137-en-431
Supplementary Installation Tasks Guide	EPDOC-X138-en-431
Switch Configuration Tool Users Guide	EPDOC-X246-en-431
System Administration Guide E	PDOC-X139-en-431
System Alarms Reference	EPDOC-X140-en-431
System Management Configuration Guide	EPDOC-X141-en-431
System Management Operations Guide	EPDOC-X142-en-431
T105 Honeywell Server Planning Installing and Service Guide	EP-DPCX19
T310 Honeywell Server Planning Installation and Service Guide	EP-DPCX21
T320 Honeywell Server Planning Installation Service Guide	HWDOC-X239-en
T3400 Honeywell Workstation Planning Installing and Service Guide	EP-DPCX22
T3500 Honeywell Workstation Planning Installation and Service Guide	EP-DPCX23
T3600XL Honeywell Workstation Planning Installation Service Guide	HWDOC-X230-en
T5400 Honeywell Workstation Planning Installation and Service Guide	EP-DPCXX9
T5500 Honeywell Workstation Planning Installation and Service Guide	EP-DPCX14
T610 Honeywell Server Planning Installation and Service Guide	EP-DPCX15
TPN Server Users Guide	EPDOC-X143-en-431
TPS File Transfer Installation and User's Guide	EPDOC-X144-en-431
Troubleshooting Guide	EPDOC-X243-en-431
Turbine Control Users Guide	EPDOC-X145-en-431
Virtualization Planning and Implementation Guide	EPDOC-X147-en-431
Virtualization with BladeCenter S Guide	EPDOC-X241-en
Windows Domain and Workgroup Implementation Guide	EPDOC-X148-en-431
Windows Domain and Workgroup Planning Guide	EPDOC-X250-en
Windows Domain Implementation Guide for Windows Server 2008 R2	EPDOC-X251-en
Windows Domain Implementation Guide for Windows Server 2012	EPDOC-X263-en
WS490 Honeywell Workstation Planning Installation and Service Guide	EP-DPCXX5
Wyse R10L Remote Peripheral Solution Installation Instructions	EP-DPCX26
Wyse Z90DE7 Thin Client Planning Installation and Service Guide	HWDOC-X280-en
Yamatake MA500 Interface Reference	EPDOC-X149-en-431

Document name	Document ID
Z620 Honeywell Planning Installation and Service Guide	HWDOC-X223-en

2.2.4 Contents of Experion R431.1 SCN, Installation, and Migration PDF Collection

Document name	Document ID
ACE and SCE Off-Process Migration Guide	EPDOC-XXX1-en-431A
Collaboration station migration guide	EPDOC-X355-en-431
Control Hardware and IO Modules Firmware Upgrade Guide	EPDOC-X150-en-431
Controller Interoperability Reference for Controller Migration	EPDOC-X240-en-431A
EApp Off-Process Migration Guide	EPDOC-X176-en-431A
EAS Off Process Migration Guide	EPDOC-X242-en-431
eServer Off-Process Migration Guide	EPDOC-XX33-en-431A
Experion On Process Migration in Virtualized Environment Guide	EPDOC-X328-en-R431
Experion PKS R431.1 General Release Software Change Notice	EPDOC-X166-en-431A
Experion PKS R431.1 Support Software Media Software Change Notice	EPDOC-X175-en-431A
Experion Support and Maintenance Software Change Notice	ESDOC-X183-en-230A
Experion Support and Maintenance Installation Guide	ESDOC-X165-en-230A
Getting Started with Experion Software Guide	EPDOC-X112-en-431A
HMIWeb Solution Pack Installation Guide	EPDOC-X171-en-431
HMIWeb Solution Pack Migration Guide	EPDOC-X170-en-431
HMIWeb Solution Pack Software Change Notice	EPDOC-X171-en-431A
Installation Builder Users Guide	ESDOC-XX65-en-230
Migration Planning Guide	EPDOC-XX70-en-431A
R31x.x to R431.1 Process System: Off-Process Migration Guide	EPDOC-XX97-en-431A
R31x.x to R431.1 Process System: On-Process Migration Guide	EPDOC-XX98-en-431A
R31x.x to R431.1 SCADA System: Off-Process Migration Guide	EPDOC-XX99-en-431A
R31x.x to R431.1 SCADA System: On-Process Migration Guide	EPDOC-X100-en-431A
R31x.x to R431.1 SCADA to Process System Conversion Guide	EPDOC-X109-en-431A
RPS Migration Guide for Extio1	EPDOC-X118-en-431A
RPS Migration Guide for Extio2	EPDOC-X163-en-431A
Software Installation User's Guide	EPDOC-X136-en-431A
Supplementary Installation Tasks Guide	EPDOC-X138-en-431
System Initialization Media Software Change Notice (SCN)	EPDOC-X185-en-1211A
Upgrade Tool Components Media Software Change Notice (SCN)	EPDOC-X153-en-431A
Upgrade Tool User's Guide	EPDOC-X146-en-431A

2 CONTENTS OF THIS RELEASE

3 Getting started

Related topics

- "About Experion installation and migration documents" on page 24
- "Supported server/client migration paths" on page 26
- "Supported controller migration paths" on page 27

3.1 About Experion installation and migration documents

This section contains a brief description of the documents required for Experion R431.1 installations and migrations.

The Read Me First-Experion PKS is provided in printed form with the Experion R431.1 media. All the other documents, such as, the Software Change Notices, Software Installation User's Guide, and the scenario-specific migration guides (for migration from Experion R31x.x to R431.1) are available in a printer-friendly PDF format in the Experion R431.1 PDF collection CD. For migration from Experion R400.x to R431.1, see the Upgrade Tool Components Media Software Change Notice.

The following table lists the documents to be used during the installation or migration. These documents must be read and followed to install or migrate an Experion system.

Name of the document	Document usage
Experion R431.1 General Release Software Change Notice	Before installing or upgrading to Experion R431.1.
Experion R431.1 Support Software Media Software Change Notice	Before installing or upgrading to Experion R431.1.
Getting Started with Experion Software Guide	To get an overview of the Experion system, and the overall installation or migration task flow.
Software Installation User's Guide	To perform a clean installation of Experion R431.1.
Migration guides Depending on the migration path, the migration guides are classified as scenario-specific and site-specific migration guides.	To migrate from Experion R31x.x to R431.1 (off-process or on-process).
	Scenario-specific migration guides: The scenario-specific migration guides provide complete information about the migration instructions for a single supported migration scenario. These guides are provided for the R31x to R431.1 migration path. The National Action of the R31x to R431.1 migration path.
	Site-specific migration guides: The Upgrade Tool uses the migration guides available on the Experion Upgrade Tool Components media and depending on the site configuration, generates the site-specific migration guides. The site-specific migration guides contain complete information about the migration instructions for a component or node with a particular configuration. The site-specific migration guides are specifically for the R400.x to R431.1 migration path.
Supplementary Installation Tasks Guide	To complete additional tasks once you have completed installation or upgrade of Experion.
Integrated Experion-TPS User's Guide	If you have TPS nodes in your system, use this document to perform additional mandatory tasks after the Experion installation is complete.
System Initialization Media Software Change Notice	The SCN provides the latest information about the Experion PKS System Initialization media and the platforms supported through that Initialization media.

Name of the document	Document usage
Windows Domain and Workgroup Planning Guide	The document provides the planning information for the Windows domain and workgroups.
	For R431.1, the Experion domain controller user documentation is aligned with the qualification of domain controller operating systems. For more information about instructions to install and configure a domain controller for Experion, see the following documents.
	Windows Domain Implementation Guide for Windows Server 2008 R2
	Windows Domain Implementation Guide for Windows Server 2012

3.2 Supported server/client migration paths

The following are the supported server migration paths for Experion R431.1.

- Experion R310.3 to R431.1 (on-process and off-process migration)
- Experion R311.2 to R431.1 (on-process and off-process migration)
- Experion R311.3 to R431.1 (on-process and off-process migration)
- Experion R400.1 to R431.1 (on-process and off-process migration)
- Experion R400.2 to R431.1 (on-process and off-process migration)
- Experion R400.3 (with or without R400.4/R400.5/R400.6 patch) to R431.1 (on-process and off-process migration)
- Experion R410.1 to R431.1 (on-process and off-process migration)
- Experion R410.2 (with or without R410.3/R410.4/R410.5/R410.6 patch) to R431.1 (on-process and off-process migration)
- Experion R430.1 to (with or without R430.2 patch) to R431.1 (on-process and off-process migration)
- Experion R430.1 to (with or without R430.3 patch) to R431.1 (on-process and off-process migration)

3.3 Supported controller migration paths

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Attention

Contact HPS Migration Center of Excellence (COE) or your local Honeywell Technical Assistance Center (TAC) before migrating.

The following controller migration paths are qualified for Experion R431.1.

- Experion R310.2 Controller Patch 1
- Experion R310.3 Controller Patch 3
- Experion R310.3 Controller Patch 4
- Experion R310.3 Controller Patch 5
- Experion R310.3 Controller Patch 6
- Experion R310.3 Controller Patch 7
- Experion R311.2 Controller Patch 1
- Experion R311.2 Controller Patch 2
- Experion R311.2 Controller Patch 3
- Experion R311.3
- Experion R311.3 Controller Patch 1
- Experion R311.3 Controller Patch 2
- Experion R311.3 Controller Patch 3
- Experion R311.3 Controller Patch 4
- Experion R311.3 Controller Patch 5
- Experion R311.3 Controller Patch 6
- Experion R311.3 Controller Patch 7
- Experion R400.1
- Experion R400.1 Controller Patch 1
- Experion R400.1 Controller Patch 2
- Experion R400.1 Controller Patch 3
- Experion R400.2
- Experion R400.2 Controller Patch 1
- Experion R400.2 Controller Patch 2
- Experion R400.2 Controller Patch 3
- Experion R400.2 Controller Patch 4
- Experion R400.2 Controller Patch 5
- Experion R400.2 Controller Patch 6
- Experion R400.2 Controller Patch 7
- Experion R400.2 Controller Patch 8
- Experion R400.3
- Experion R400.4
- Experion R400.5
- Experion R400.6
- Experion R400.7
- Experion R410.1
- Experion R410 Controller Patch 3
- Experion R410 Controller Patch 4

- Experion R410.2
- Experion R410.3
- Experion R410.4
- Experion R410.5
- Experion R410.6
- Experion R410.7
- Experion R430.1
- Experion R430.2
- Experion R430.3

The Controller Migration wizard is used for migrating process controller firmware and control hardware firmware. The Controller Migration wizard automates many of the tasks performed during controller migration and is used for both on-process and off-process migration. The Controller Migration wizard can be accessed from the Controller menu in Control Builder.

For more information, see the Experion Migration Planning Guide and the Upgrade Tool User's Guide.

4 Supported software / hardware / firmware

Related topics

- "Platform hardware" on page 30
- "Antivirus software" on page 32
- "Microsoft Office compatibility" on page 33
- "Microsoft security updates" on page 34
- "Windows operating system" on page 35
- "Experion Backup and Restore" on page 36
- "RSLinx software" on page 37

4.1 Platform hardware

The following physical and virtual platforms are supported.



Attention

Variations from the tested configuration may negatively impact the operation and/or performance of the hardware when used as the specified node types.

Physical platforms

· HP platforms

The following HP platforms are supported.

Workstation	Server
HP Z620 workstation	HP Proliant DL380 G7 server
	HP Proliant DL360p Gen8 server

For more information about the HP platforms, see the following documents.

- DL380 Honeywell Server Planning Installation and Service Guide.
- Z620 Honeywell Planning Installation and Service Guide.

Dell platforms

The following Dell servers and workstations are supported.

Workstation	Server
Dell Precision P490 workstation	Dell PowerEdge 1800 server *
Dell Precision T5400 workstation	Dell PowerEdge 2850 server
Dell Precision T5500 workstation	Dell PowerEdge 2900 server
Dell Precision T3400 workstation	Dell PowerEdge 2900III server
Dell Precision T3500 workstation	Dell PowerEdge 2950 server
Dell Precision R5500 workstation	Dell PowerEdge 2950III server
Dell Precision T3600XL workstation	Dell PowerEdge SC1430 server
Dell Precision R7610 workstation	Dell PowerEdge T610 server
	Dell PowerEdge R710 server
	Dell PowerEdge T105 server
	Dell PowerEdge T310 server
	Dell PowerEdge T320 server
	Dell PowerEdge R320 server

^{*} Dell 1800 server platform is not supported on Microsoft Windows Server 2008 R2 operating system.



Note

The performance workstation hardware can be used as a Flex Server.

Virtual platforms

Honeywell provides qualified virtual platforms that can be used with supported applications. The entire solution is supplied and supported by Honeywell. The virtual platforms can be used for clean installation or migration.

The following virtual platforms are supported.

VMware Virtual workstation

• VMware Virtual server

For more information about virtualization support, see the following documents on the Honeywell Process Solutions website.

- HPS Virtualization Specification
- Experion Virtualization Planning and Implementation Guide

For more information about the hardware supported for Experion, see the latest *System Initialization Media Software Change Notice*.

In addition, you may download the following spreadsheet from http://www.honeywellprocess.com.

• Experion Update Matrix

4.2 Antivirus software

To obtain the latest antivirus software information, you may access the following links in the Honeywell Process Solutions website. If you are a new user, you must register at http://www.honeywellprocess.com.

- Click the following link for Antivirus Software Guidelines.
 https://www.honeywellprocess.com/library/support/Documents/Trusted/Experion/anti-virus-software-guidelines.pdf
- Click the following link for Antivirus Quick Reference.
 https://www.honeywellprocess.com/library/support/notifications/Experion/anti-virus-quick-reference-guide.pdf

Whitelisting

Whitelisting is the process of preventing unwanted programs from running on a system by defining the list of files/programs that are allowed to run on a system. Whitelisting does not replace Antivirus but must be used in conjunction with the Antivirus software.

For more details refer to Experion PKS Whitelist Implementation Guide and Experion PKS Whitelist Software Change Notice.

4.3 Microsoft Office compatibility

The following Microsoft Office packages are qualified for Experion R431.1.

- Microsoft Office 2013 Service Pack 1
- Microsoft Office 2010 Service Pack 2
- Microsoft Office 2007 Service Pack 3

Click the following link for latest information about the qualified Microsoft Office packages for the Experion products.

https://www.honeywell process.com/library/support/Documents/Trusted/Experion/certified-microsoft-office-packages.pdf

The latest Microsoft Office package information is available at the Honeywell Process Solutions website. If you are a new user, you must register in the website at http://www.honeywellprocess.com

4.4 Microsoft security updates

You can access the latest Microsoft security updates at the Honeywell Process Solutions website. If you are a new user, you must register in the website at http://www.honeywellprocess.com.

- To access the latest Microsoft security update information at the Honeywell Process Solutions website, click the following link.
 - https://www.honeywellprocess.com/library/support/security-updates/Customer/Honeywell-Qualification-Matrix.zip
- After you register at the website, click the following link for ISO User Guide.
 https://www.honeywellprocess.com/library/support/security-updates/Entitled/suit-iso-user-guide.pdf

4.5 Windows operating system

Honeywell has an Original Equipment Manufacturer (OEM) agreement with Microsoft for supplying operating system media for Experion releases. The following Windows operating systems (English edition) are supported.

- Windows operating system supported on client nodes
 - Windows 7 Professional (64-bit) Service Pack 1
- Windows operating system supported on server nodes
 - Windows Server 2008 R2 Standard (64-bit) Service Pack 1
 - Windows 7 Professional (64-bit) Service Pack 1

4.6 Experion Backup and Restore

Experion Backup and Restore (EBR) R431.1 solution for Experion nodes is qualified for Experion R431.1. For more information about the supported platforms, backup strategies, and instructions, see the *Experion Backup and Restore User's Guide*.

4.7 RSLinx software

Starting with Experion R410, Allen-Bradley RSLinx software is not included with the Experion media.

The RSLinx software is available from Rockwell or their distributors. Version 3.6 of RSLinx is qualified for Experion R431.1. RSLinx can be installed using the RSLinx installation guide provided by Rockwell.

The RSLinx software is required for systems that connect to the following:

- Rockwell Automation networks and devices
- Ethernet supervisory network including C200/C200E controllers
- ControlNet supervisory network including C200/C200E controllers

4 SUPPORTED SOFTWARE / HARDWARE / FIRMWARE

5 New features and enhancements

Related topics

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"Experion software installation" on page 40
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[&]quot;Experion migration" on page 41

[&]quot;Station" on page 42

[&]quot;Experion-TPS integration" on page 43

[&]quot;Control Builder" on page 49

[&]quot;Series C I/O" on page 51

[&]quot;Profibus Gateway Module" on page 55

[&]quot;IEC 61850 support on C300 Controller" on page 57

[&]quot;Security" on page 58

[&]quot;Field Device Manager" on page 59

[&]quot;FMC722 on ACE solution" on page 60

[&]quot;SCADA" on page 61

[&]quot;MasterLogic Server interface enhancements" on page 63

[&]quot;FTE enhancements" on page 64

5.1 Experion software installation

5.1.1 Installation enhancements

Collaboration station node

Collaboration station can be installed using the Experion PKS Installation media. During Experion installation, Collaboration Station is listed as a node in the **Setup type of Node to install** page. You can select Collaboration Station and install it like other Experion nodes.

For installing Collaboration Station, see the Software Installation User's Guide.

5.2 Experion migration

5.2.1 Virtualized on-process migration

Experion on-process migration in a virtualized environment provides a new method for performing complex migration with reduced risk. The reduction in risk is achieved by:

- Performing migration offline in a isolated virtualized Staging area.
- Performing migration on a cloned image of the Production system.
- Increasing system availability by reducing the unavailability of redundant servers.
- Increasing the availability of ACE.

5.2.2 Experion migration tool enhancements

Upgrade Tool enhancements

Starting from Experion R431, the following enhancements have been made to the Upgrade Tool.

- You can use the **Repair** option in the ECC tool for any failed checks which has the repair script. The repair scripts included in the ECC installer are only applicable for some of the ECC checks.
- Detects Honeywell supported Cisco switches and identifies obsolete Cisco switches.
- The Collaboration Station Migration Guide is generated by the Upgrade Tool, however, Collaboration Station node is not detected.
- The IEC61850M On-process and Off-Process Migration guides are generated by the Upgrade Tool, and the node is also detected.

For more information about the Upgrade Tool, see the *Upgrade Tool User's Guide*.

5.2.3 Experion migration enhancements

ETN migration support

If you are migrating an existing LCNP4 T-node to K4LCN with ETNI, this migration enhancement enables you to migrate the physical T-nodes to a virtual environment.

For more information about ETN migration, see the *Configuration Utility Users Guide*, *Scenario-Specific Migration Guide*, and *Site-Specific Migration Guide*.

Secure Communication node migration support

Starting from Experion R431, Secure Communication node migration is supported for the migration path R430 to R431.

For more information about Secure Communication node migration support, see the *Site-Specific Migration Guide*, *Secure Communications User's Guide*, and *Migration Planning Guide*.

5.3 Station

5.3.1 Collaboration Station

Collaboration Station is a licensable option of Experion. A Collaboration Station is a type of Experion Station that presents your operations on a large interactive touchscreen in a view designed to facilitate communication and collaboration.

Collaboration Station is highly flexible and can be customized to meet the collaboration requirements at your facility. It is intended for use whenever two or more people need to discuss operational matters and share relevant material. This might include operational meetings such as shift handovers, troubleshooting meetings to diagnose and solve problems, and facility showcases.

Collaboration Station integrates with the Microsoft Lync Unified Communications platform to enable remote collaboration.

Collaboration Station can be used for gathering a range of key content for it to be easily accessible during a collaboration. This can include Experion displays, documents, websites, and other common file types.

For more information about Collaboration Station, see the Collaboration Station User's Guide.

5.4 Experion-TPS integration

5.4.1 Enhanced TPS Node

Experion R431 introduces the Enhanced TPS Node (ETN), which enables virtualization of computer hardware by removing LCNP4 cards and replacing them with a combination of Enhanced TPS Node Interface (ETNI) and K4LCN processor boards installed in the LCN chassis. Virtualization of the computer hardware eliminates the issues related to hardware and platform obsolescence. ETNI acts as an interface between the TPS emulator software and the K4LCN processor board.

The ETN nodes can be installed in either a cabinet or a console. The ETN nodes are connected to a L2 FTE switch, refer to the latest *Experion Network Best Practices* document for information on configuring FTE network connections and best practices.



Attention

Cisco 2960 switch or later is supported for ETN. Cisco 2950 switch can be used, but it does not meet the required Quality of Service (QoS) setting required for ETN.

There are two options available with ETN:

• **Physical ETN**: Comprises of a physical server/workstation that connects to the K4LCN-ETNI processor boards through the FTE.

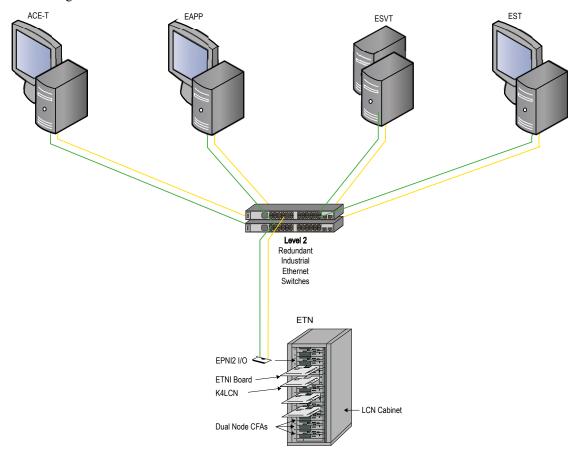


Figure 1: Physical ETN

• **Virtual ETN**: Comprises of a virtual machine on a server that connects to the K4LCN-ETNI processor boards through the FTE. Thin clients are used for providing user interaction with virtual machines.

ESVT Thin Client Thin Client Level 2 DELL Cabinet Redundant Industrial Ethernet Switches Rack Mounted VM Serve ETN EPNI2 I/O ETNI Board K4LCN LCN Cabinet Dual Node CFAs

For information on virtualization, refer to the Virtualization Planning and Implementation Guide.

Figure 2: Virtual ETN

For information on configuration of ETN, refer to the Integrated Experion-TPS User's Guide.

5.4.2 Enhanced Universal Control Network Part 2B

Experion R431 supports direct CDA access to the EHPM from HMIWeb displays and other applications executing on the TPS-connected Experion Server and console stations. Experion Server and console stations redirect majority of EHPM point read requests to CDA after you set the configuration option (while configuring an EHPM block in Control Builder) to **Peer to Peer and ExpServer** and then load the EHPM block to the Monitoring side in Control Builder.



Attention

To access the EHPM points over CDA, you must first import the EHPM points into ERDB.

Importing of EHPM points into ERDB means that the particular EHPM point's information like point name, point type, and point hardware address and some additional information which are necessary to access the EHPM point through CDA are imported into ERDB.

The manual import of EHPM points into ERDB using the EHPM Point Import Utility uses the ENIM checkpoint file to import EHPM points into ERDB. Beginning with Experion R431, you can enable automatic import of EHPM points into ERDB, thereby reducing the engineering effort whenever updates to EHPM points need to be synchronized between TPN and ERDB. Automatic import of EHPM points can be enabled by selecting the Enable automatic point import while configuring the EHPM block in Control Builder. Automatic import operation is serviced by the Experion PKS EHPM AutoImport Service executing on the Experion Server.



Note

Checkpointing EHPM from Native Window triggers automatic transfer of EHPM points into ERDB.

For more information about enabling automatic import of EHPM points into ERDB through CDA, see the *Control Building User's Guide*.

5.4.3 Replacement of TDC Hiway boxes with C300 emulations

Experion R431 enables on-process cutover of Hiway Gateway (HG) to Experion Hiway Bridge (EHB).

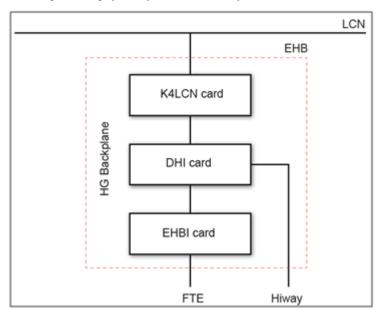
EHB enables the TDC Hiway customers to replace their legacy controllers with the Experion C300 Controllers. At a high-level, this replacement is accomplished by performing the following:

- Enhance the existing Hiway Gateways to coexist in the LCN and the Experion FTE Network EHB is the enhanced HG that is capable of connecting to the Hiway boxes on the LCN as well as their C300 emulations that are loaded on to the Experion C300 controllers.
- Create emulations of Hiway boxes and their algorithms to run in Experion controllers Emulated boxes run
 in the C300 controller using CEE block strategies, which are functional equivalents of the legacy algorithms
 supplied by the Hiway box. The emulations supply parameters, which are linked to the HG point in the same
 way as the original box. Behavior of the emulations in terms of control, parameter access, and alarms closely
 matches that of the original algorithms.

Enhanced HG

EHB is the enhanced HG that is capable of connecting to the Hiway boxes on the LCN as well as their C300 emulations that are loaded on to the Experion C300 controllers.

The EHB functions as a junction gateway, which can simultaneously connect to the physical Hiway boxes through the coaxial cable, in addition to connecting to the emulated boxes through the FTE. The FTE connectivity is established by upgrading the HG with the EHBI card. The EHBI card enables communication to the emulated boxes through the FTE. The remaining network hardware components of the HG - the K4LCN and the DHI cards remain unchanged both physically and functionally.



Upgrading HG to EHB

The migration process supports the hardware and software upgrade of redundant and non-redundant HG nodes to EHB. The procedure to upgrade HG to EHB is discussed in the HG to EHB Upgrade Kit Instructions.

The following table provides information about the various migration scenarios.



Note

The Upgrade procedure for simple gateway and junction gateway configurations vary. Therefore, ensure that you review the appropriate sections in the HG to EHB Upgrade Kit Instructions.

HG to EHB migration scenarios

HG Node type	Configuration type
Non-redundant nodes	Simple gateway configuration
	Junction gateway configuration
Redundant nodes	Simple gateway configuration
	Junction gateway configuration

The *HG to EHB Upgrade Kit Instructions* provide information about upgrading Hiway Gateway (HG) to Experion Hiway Bridge (EHB). It provides installation instructions for the following four upgrade kits models:

- MP-ZEHBMS
- MP-ZEHBMR
- MP-ZEHBSC
- MP-ZEHBRC

Emulations of Hiway boxes in C300

The replacement of the legacy Hiway boxes with the Experion C300 controllers can be achieved by creating emulations of the Hiway boxes and their algorithms to run in Experion controllers. Hiway box emulations are created by using a tool, which translates the HG point configurations.

The emulated boxes, Basic Controllers (CB) or Extended Controllers (EC), have an Experion function block strategy which is an equivalent of the points/algorithms available in the Hiway box. The emulations supply parameters which are linked to the HG point in the same way as the original box. Behavior of the emulations in terms of control, parameter access and alarms closely matches that of the original algorithms.

With Experion R431, the following algorithms of the Basic Controllers (CB) and Extended Controllers (EC) can be emulated.

Basic Controller Algorithms

CB AUTOBIAS	CB PIDCM	
CB AUTOMAN	CB PIDCMA	
CB AUTRATIO	CB PIDERSQG	
CBSUMR	CB PIDERSQI	
CB DAS	CB PIDGAP	
CB DIVIDR	CB PIDNORM	
CB HISEL	CB PIDRATIO	
CB LEADLAG	CB PIDSPC	
CB LOSEL	CB RVAI	
CB MULT	CB SQRT	
CB MULTWMAN	CB SQRTPROD	
CB OVEHISEL	CB SUMRWMAN	
CB OVERLOSEL	CB SUMSQRT	
	CB SWITCH	
Extended Controller Algorithms		
EC AUTOMAN	EC MULTDIV	
EC CHARACT	EC PIDDDC	
EC DAS	EC PIDDDCSP	
EC DEADTM	EC PIDNORM	
EC DI	EC PIDSPC	
EC LEADLAGS	EC PIDGAP	
EC LEADLAGM	EC RAMPSOAK	
EC LOGIC	EC SELOVDDC	
EC MASSFLOW	EC SUMR	
	EC SWITCH	

Combo point functionality

During the creation of emulations, the CMs that are created are named identical to the tag names of the associated HG points. However, such CMs cannot be successfully loaded to ES-VT because of duplicate tag names. To avoid such conflicts, the combo point functionality is introduced. The Combo Point functionality extends the operation of the TPS point. Combo point functionality enables to configure the tag names of the algorithm CMs as a Combo Point, if the same tag name exists in the HG.

When a point is configured as a Combo Point, any parameter which can be found in the EHB is accessed from its HG point first. If a parameter cannot be found in the EHB, then it is accessed from the algorithm CM in the CEE. In addition, the parameters of the HG point and the emulation CM can be viewed from the server in the same tag name, as though all parameters are part of a single combo point.

Key features/benefits of this replacement

This replacement solution enables TDC customers to:

- Migrate to Experion through hot or cold cut-over. This technique of migration distributes the investment needed over customer-defined span of time compared to a rip-and-replace method of migration, in addition to minimizing the production loss during switchover.
- Minimize the cost and effort required to migrate the TDC-2000 Data Hiway and Hiway boxes to the latest generation Experion controllers for LCN/Hiway systems.
- Reduce operator training cost.

Setup required for using the EHB gateway functionality

To use the EHB gateway functionality with the Basic controllers and Extended controllers and the algorithms mentioned in the Emulations section, the following setup is required.

- HSE Creator Tool The HSE Creator Tool facilitates the translation of the Hiway box and slot configuration into the standard Experion Control Builder configuration files (.CNF.XML files). These files can then be imported into the Experion engineering repository database using Control Builder to create Control Module configuration that emulate the functionality of Hiway slots.
 - For more information, see the Hiway Slot Emulation User Guide.
- C300 Controller loaded with an emulated CB The Hiway box and the slot configuration which is translated into the .cnf.xml files must be imported into the Experion engineering repository database and loaded to the C300 Controller.
- Simple gateway or Junction gateway configuration The simple gateway is capable of connecting to the Hiway box emulations in the C300 Controller through the FTE network. The emulated boxes are functionally equivalent to the Hiway boxes. A new card called the EHBI is introduced to establish connection with the FTE network. The HG's LCN connectivity through its K4LCN card remains unchanged. The configuration of the simple gateway is done through the EHB platform block.

In a junction gateway configuration, an EHB interfaces to both a physical Hiway and to FTE resident Hiway box emulations. EHB functions as a one-to-two gateway, in which the LCN nodes can connect to the Data Hiway and the FTE. Junction gateway supports the co-existence of Hiway boxes and the C300 controllers that emulate the Hiway boxes. The Junction gateway can simultaneously connect to the physical Hiway boxes through the coaxial cable and connect to the emulated boxes through the FTE. The FTE connectivity is established by upgrading the HG with the EHBI card. The EHBI card enables communication to the emulated boxes through the FTE. The remaining network hardware components of the HG - the K4LCN and the DHI cards remain unchanged both physically and functionally.

For more information about replacing the Hiway Boxes with Experion C300 Controllers, see the *Guidelines for replacing Hiway Boxes with LCN-connected C300 Emulations* document.

Cutover Management display

Replacing Hiway boxes with C300-resident emulations can be performed in one of the following ways:

- Shutting down Hiway boxes and re-routing field cables from the legacy boxes to the C300 controllers while control is off-process.
- Performing a box-by-box hot cutover procedure in which a Cutover Management Display is used for
 operating through the Experion data access, while field wiring is being moved.
 - Hot-cutover is managed from a display called the Cutover Management Display. This display focuses on supporting process operation during the transition of a box in a box-by-box method of hot cut-over.
 - The Cutover Management display enables the operator to maintain the access to view and control the cutover process during the transition from physical HG boxes (CB and EC) to emulated boxes.

The Cutover Maintenance Display is a pop-up display invoked from the Cutover Management Display. It helps the maintenance engineer to view, maintain, and alter key identified process parameters during the transition from physical HG boxes (CB and EC) to emulated boxes.

For more information, refer to the document, Guidelines for Replacing Hiway Boxes with LCN- connected C300 Emulations.

EHB Redundancy

EHB supports redundancy to provide a level of availability equivalent to that provided by redundant Hiway Gateways (HG). Each partner of a redundant EHB pair is capable of supporting all the communication and management functions required in Hiway emulation when its partner fails.

For more information about EHB redundancy, refer to the document, *Guidelines for Replacing Hiway Boxes with LCN- connected C300 Emulations*.

5.5 Control Builder

5.5.1 Reference blocks

I/O Reference blocks are available as basic function blocks and they provide a mechanism to the CM for referencing the Input/Output channel of the supported I/O families or parameter values of any block. The references can be made to the PM I/O channels, Series C I/O channels, or parameter values of any block. The Reference blocks in strategies eliminate the dependency between the strategies and IOMs.

Types of Reference blocks

There are four types of Reference blocks listed under the IOREFERENCES library. The types of Reference blocks are:

- 1. AIREF (Analog Input Reference) block
- 2. AOREF (Analog Output Reference) block
- 3. DIREF (Digital Input Reference) block
- 4. DOREF (Digital Output Reference) block

For more information about Reference blocks and configuring the I/O channels using Reference blocks, see *Control Builder Components Theory* and *Control Builder Components Reference*.

5.5.2 Enhancements to Load dialog box

Starting with R431, the "Load Group" concept helps you in visualizing and managing the load dependency that can exist between the items selected for loading and the related items to be loaded. Generally, the system builds the complete set of all load dependent items and groups them to ensure that all the related items must be loaded together. As a result, all the load dependency between various components are satisfied and they are loaded without any manual intervention. You can view the information about each item in the **Selected Item Details** list box.

The following are the enhancements made to the **Load Operation** dialog box.

- Pre-validation errors are displayed in a single line for each error.
- The selected group and the selected item in a group are highlighted with a background color.
- The items that are selected for loading are bold-faced. This helps in differentiating between the items that are selected for loading and the dependent items identified by the system.
- The symbol * indicates that the item belongs to more than one group.
- The following text is added next to the **Group of Items to be Loaded** list. Items in Bold represent user-selected items. Items with a * belongs to multiple groups.
- Checkpoint Restore Warning dialog box is eliminated by adding a Warning text and attention icon to the left of the Load button in the Load Operation dialog box.
- The list of items in the **Load Operation** dialog box are organized into load groups to manage the dependencies that may exist between the selected of items or system-discovered related items, which need to be loaded together.
- Selected Item Details list box is included to display any additional information to be aware of certain
 conditions when loading items such as CMs, channels and IOMs.
- The loading of I/O channels and CMs are dissociated from each other. Therefore, there are some conditions that the user must be aware of including information about the items being loaded and the related-items that must be loaded at the same time.
- The visualization of the current state and required state check boxes is changed. A warning icon is added to the **Change state to Required State before load** check box.

- Info column is added in the Group of Items to be Loaded list for indicating either some information or a
 warning is available that must be reviewed before proceeding with the Load operation. In addition, the
 corresponding message is displayed in the Selected Item Details list box.
- An Information icon **1** is displayed in the **Info** column to indicate that the input channel is referenced in a strategy from a different controller.
- A warning icon <u>\(\ldot\)</u> is displayed in the **Info** column to indicate the output channels are swapped or moved and you are loading the swapped channels.

The following figure displays the enhancements made to the Load dialog box.

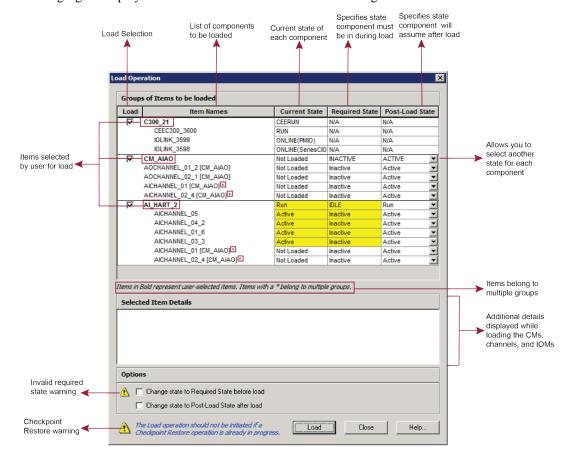


Figure 3: Load dialog box

5.6 Series C I/O

5.6.1 Enhancements to PM I/Oand Series C I/O channel configuration

Prior to R431, the I/O channel configuration for PM I/Oand Series C I/O modules had dependency on the hardware design.

When an I/O channel is configured using the containment method, the I/O channels are tightly coupled with the Control Module. If any of the following operations performed on the CM, the I/O channels are also affected.

- Loading a CM inactivates the channel and the channel input becomes NaN.
- Deleting a loaded CM from the Monitoring view causes the channel to become un-configured and the output goes to unpowered state.

In addition, modifying the channel assignment is difficult as the channel is contained by the CM. Hence, the functional testing is required whenever the physical design is available, and the strategies must be recreated to match the physical design.

To separate the I/O channel configuration from the CM, the following modifications are made.

- I/O channels are named as "SPARE" in the IOMs.
- Reference blocks are introduced to reference the I/O channels in the CM.
- I/O channels can be loaded independent of the CM.
- Simulation IOM (SIM IOM) is introduced.
- Load dialog box is modified to list the dependent items while loading a CM. The dependent items can be one of the following:
 - Referenced I/O channel
 - IOM from which the channel is referenced
 - Dependent CMs

These modifications to the Load dialog eliminates the , the dependency between the I/O channels and the strategies. As a result, the physical and functional design activities of the I/O modules and channels can be performed independently. The loading or deleting of a CM does not affect the I/O channel. As the channels are represented as "SPARE," the following modifications can be made.

- Assigning a channel to an IOM and the channel number is simplified. Therefore, the channels can be configured, loaded, and tested independent of the CM.
- An IOM can be assigned to a C300 Controller running in a simulation environment for testing purpose.
- Configuration support for the unassigned channels.
- Unassigned channels can be configured.

In addition, the SIM IOM causes application testing with the channels that are not assigned to an IOM and a channel number.

The PM I/O and Series C I/O channel name supports up to 40 characters.

For a brief introduction about the Load dialog box, see "Enhancements to Load dialog box" on page 49.

For a brief introduction about the Reference blocks, see "Reference blocks" on page 49.

When a new IOM is created, I/O channels are marked as "SPARE" rather than channel blocks. These SPAREs must be converted to the supported channel type before associating them with a Reference block.



Attention

The SPAREs do not support any configuration in the Control Module.

The following figure displays an example tree view representation of an AI module based on new style of I/O channel configuration.

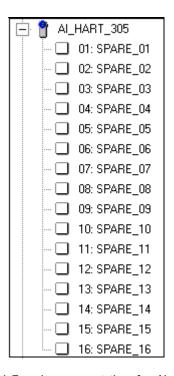


Figure 4: Tree view representation of an Al module

5.6.2 Simulation Input/Output Module

Simulation Input/Output Module (SIM IOM) contains a group of Series C I/O channels and facilitates application testing with the channels that are not assigned to an IOM and a channel number. The SIM IOM can be assigned and loaded to an IOLINK when the I/O Family (IOLINKTYPE) parameter is set as "SERIES C IO." A single SIM IOM can support up to 2048 channels.



Attention

- The SIM IOM does not represent a physical IOM and can only be loaded to a C300 Controller that is executed in a simulation environment.
- The channels assigned to a SIM IOM do not have any channel number.

You can create multiple SIM IOMs and assign them to the IOLINKs. However, the sum of the channels assigned to a SIM IOM cannot exceed 2048.

When you create the SIM IOM, there are no channels assigned to the SIM IOM. To configure the channels in the SIM IOM, see "Configuring a SIM IOM".



Attention

You can load up to 2048 I/O channels in a C300 Controller.

The following figure displays an example view of the SIM IOM (without channels) in the Project view.

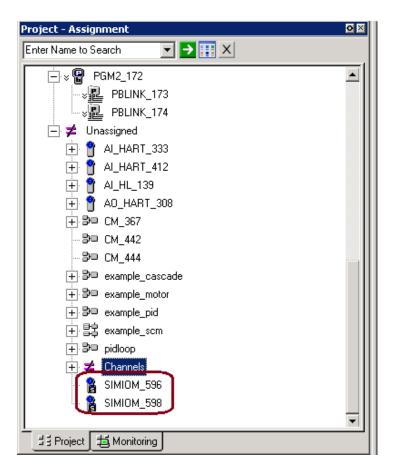


Figure 5: SIM IOM tree view without any channels

The following figure displays an example view of the SIM IOM (with configured channels) in the Project view.

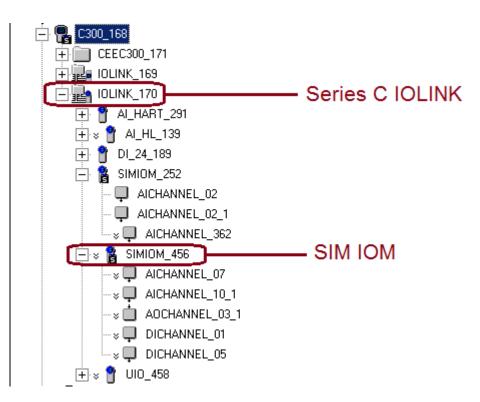


Figure 6: SIM IOM tree view with channels

5.7 Profibus Gateway Module

One C300 controller can connect to 4 PGMs through Process Data Access protocol.

5.7.1 PROFIBUS enhancements

PROFIBUS Gateway Module (PGM) is enhanced to support the following features.

- DPV1 read/write support Device Support Block (DSB) blocks are enhanced to support DPV1 data record read/write.
- PROFIBUS HART I/O Module Block (PBHIOMB) This block is used for supporting HART over PROFIBUS profile. This block represent a HART IOM in the Remote Input/Output (RIO) slave and enables you to configure the HART devices.

Attention

- If you configure the PBHIOMB for universal modules, then you must need more than one PBHIOMB blocks since the universal modules contain configurable channels, which can be configured as Analog Input or Analog Output. For example, if a universal module contains eight channels, then the first two channels can be configured as "Analog input channels" and the remaining six channels can be configured as "Analog output channels."
- PROFIBUS HART Channel Block (PBHCHANNEL) This channel block is used for supporting HART configuration and monitoring. Therefore, the CMD48 data can be monitored and used for generating alarms and events in Experion system.

The following block diagram depicts the data communication between the C300 Controller, PGM, slave devices, and the HART modules.

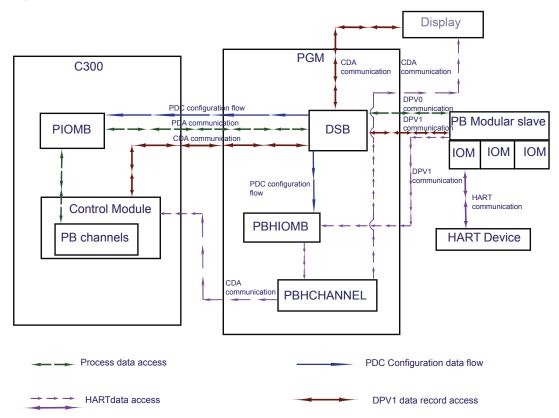


Figure 7: Data communication between C300 Controller, PGM, slave devices and the HART modules

5.7.2 DPV1 read/write configuration in DSBs

DSB blocks can be configured to support the DPV1 data record read/write between PROFIBUS master and slaves. For each slave device, the DPV1 configuration can be done in the respective DSB blocks. In addition, the following parameters can be configured in the DSB blocks to control the DPV1 requests from multiple slaves.

- Number of DPV1 data records (DPV1NUMPOLL)
- Scan priority (DPV1PRIORITY)
- Scan ratio of high and low priority requests (DPV1NUMHIGHPRIREQ)



Attention

The DPV1 write is always considered as high priority request compared to the DPV1 read.

The following DSB blocks supports a maximum number of 16 DPV1 data access requests from data records.

- GENDSB
- TURCKDSB
- CEAGDSB
- SIEMENSET200

However, the GENIODSB supports 64 data access requests from data records.



Attention

You must read the PROFIBUS slave vendor manual before configuring the DPV1 requests in the DSB block.

5.7.3 Introduction to PROFIBUS HART IOM block and IO channel block

PROFIBUS HART Input/Output Module (PBHIOM) function block

PBHIOMB function block represents a physical PROFIBUS HART I/O module in the PROFIBUS RIO device. PBHIOMB processes only the HART digital data. A PBHIOMB is associated with a PDC defined in the DSB block. A single PBHIOMB block supports maximum of 16 HART channels.



Attention

The PBHIOMB function block can only be associated with the following DSB blocks.

- GENDSB
- GENIODSB
- TURCKEXCOM
- CEAGDSB
- SIEMENSET200MSTD

PROFIBUS HART I/O channel

The PROFIBUS HART I/O channel (PBHCHANNEL) is used for monitoring the HART digital data. The PBHCHANNEL is identical to the Experion Series C IO HART channels with respect to HART parameters and system templates.



Attention

The PROFIBUS HART I/O channel blocks are not located in the PGM_IF library in Control Builder.

5.8 IEC 61850 support on C300 Controller

The IEC 61850 control integration solution integrates the IEC 61850 MMS protocol and data model with C300 Controller using an 850M interface module for the data to be available for controller application.

The 850M is a hardware/firmware module in IEC 61850 control integration which provides an interface between an associated C300 Controller via Fault Tolerant Ethernet (FTE) and an IEC 61850 network.

The integration of IEC 61850 into Experion system supports MMS communication protocol options described in the IEC 61850 standard. (GOOSE communication is not supported). MMS communication for IEC 61850 is integrated using 850M and Experion SCADA interface. The 850M has direct access to IED data such as current and voltage measurements, status, interlocking.

Intelligent Electronic Device (IED) representation such as physical devices, logical devices and logical nodes (as defined in the IEC 61850 specifications) are integrated to the Control Builder and SCADA interface. Therefore all Experion system features including graphics, faceplates, alarms and event lists including timestamped alarms and events (SOE), and historian capabilities are available for IED data.

The following figure explains IEC 61850 control integration in Experion.

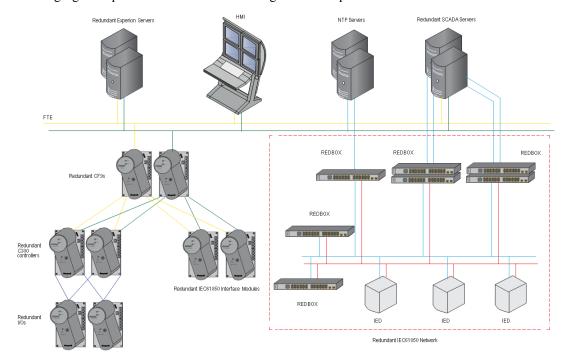


Figure 8: IEC 61850 control integration in Experion

For more information about IEC 61850 support on a C300 controller, refer to the Series C 850M User's Guide.

5.9 Security

5.9.1 Secure Communications enhancements

Starting from R431, Experion Flex Station and Experion Console Extension Station supports Secure Communications. For more information about Secure Communications, refer to the *Secure Communications User's Guide*.

5.10 Field Device Manager

The following features of FDM R450 are supported with Experion R431.

FDM R450 integration with Honeywell TPS network

FDM supports configuration and maintenance of smart transmitter devices such as DE (Digitally Enhanced) devices connected to the Honeywell TPS network through Experion-T nodes like Experion Server-TPS (ESVT) or Experion Station-TPS (ES-T).

Honeywell TPS network is configured as an Experion-integrated TPS network (indicates that TPS connected to Experion systems through Experion-T nodes like ESV-T and ES-T).



Note

DE devices do not support offline configuration feature in this release.

For more details, refer to the FDM User's Guide.

Support for import/export of MCToolKit DE device history



Note

You can export MCToolKit DE device history which were imported to FDM only from MCToolKit.

FDM supports importing MCToolKit configuration of DE device history in MCTK XML format and exporting the history records (which were imported to FDM only from MCToolKit) in .HTML, Microsoft Excel (.CSV), and MC Tool Kit (.xml) format.

For more details, refer to the FDM User's Guide.

Support for FDM PVST Planner

FDM supports scheduling and executing PVST for different ESD (Emergency Shutdown) valves using FDM PVST Planner. The FDM PVST Planner interface provides a "one-view interface" to the user for all ESD valve status and PVST schedule performance. It allows automatic uploading of PVST errors and clearly indicates potential valve problems that require immediate action (in case of failure).

You can perform the following using FDM PVST Planner.

- Create logical groups of devices and configure/assign a schedule to a group
- View the execution status of the PVST for the current set of valves using Execution view
- View/export the PVST status for the selected dates using Reports view
- Receive the alerts/notifications for PVST status and schedule

For more details, refer to the FDM PVST Planner User's Guide.

5.11 FMC722 on ACE solution

FMC subsea system contains several I/Os whose data can be accessed by external system that follows FMC722 protocol. To access FMC data in ACE, the FMC722 on ACE solution has been introduced. This solution enables ACE to communicate securely with an FMC subsea system using the FMC722 protocol over TCP/IP. This solution is licensed. For more information contact your Honeywell representative.

The following topology diagram illustrates the communication between ACE and a single Topside Processing Unit (TPU).

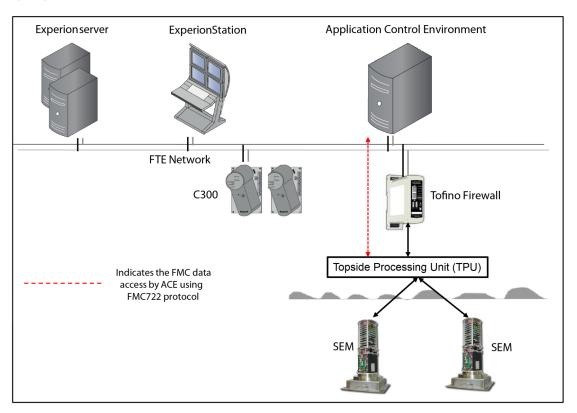


Figure 9: Topology diagram to display communication between single TPU and ACE

For more details about the solution, refer to the following documents.

- FMC722 on ACE Configuration Guide
- FMC722 on ACE Parameter Reference

Limitations

The maximum number of CAB instances for all FMC blocks is limited to 10000. However, if you load 2000 instances of non-FMC CAB blocks, the FMC CAB instance is limited to 8000. The CAB instances for non-FMC blocks is limited to 2000.

5.12 SCADA

Experion R431.1 introduces new functionality and increased flexibility for SCADA systems by providing:

- Improved SCADA controller and point management.
- Expanded support of EFM devices.

The following sections further explain each of these enhancements.

5.12.1 Improved SCADA controller and point management

The following enhancement has been made:

 For controllers configured on Enron Modbus interface, new device types have been added to suit standard Modbus devices (such as GE and Modicon PLCs). These device types define common register maps which define the Modbus registers that can then be addressed for scanned parameters on SCADA Points.

5.12.2 Electronic Flow Measurement

The following enhancements have been made:

- Support of Electronic Flow Measurement (EFM) devices has been expanded to include Spirit IT Flow-X.
 This includes support within the Quick Builder configuration tool and addition of Ultrasonic, Composition,
 Gas Quality and Configuration Record log support for these controllers both within the configuration tool and through Station.
- Support has been added for exporting EFM data to Tab delimited files. Certain CFX data is exported to TSV files.
- Support has been added for BYTE, CALC, and TEXT data types.
 - BYTE: Configurable length byte array data format. This can be used for single BYTE fields.
 - CALC: calculated log field expression to reference other log field property names, delimited by curly braces "{name}." The calculation is similar to that as in PV Algo 20: Advanced Arithmetic.
 - TEXT: Fixed-length ASCII character string.
- Support has been added for more data points to CFX 5 and CFX 7 enumeration mappings. Some CFX data points are enumerated types. If the enumerations used by the flow computer differ from those used by CFX format, you need to define enumeration mappings.
- Support has been added for collecting EFM data to the Configuration Record Log, Gas Quality Log, and Ultrasonic Log.
- A data storage age limit has been introduced that specifies the number of days that EFM data is stored on the
 server. By default, the Experion server caches collected EFM data for 31 days, after which time it is deleted.
 Depending on the event rate and number of records being collected across all meters in the system, you may
 need to reduce this value to keep your system within performance and capacity limits.

5.12.3 IEC 61850 system interface integration in Experion

Experion supports an enhanced interface to the IEC 61850 networks configuration.

The following features are now available.

- Bulk configuration using cloning option
- Offline configuration support using import/export feature
- Automated upgrade support
- Enhanced user experience for the following options
 - Multiple views for configuration

- Alarm and SOE configuration for the same status point

With the enhanced IEC 61850 SCADA interface, you can mitigate the following risks and costs.

- Extra license needed for OPC Client Interface to configure alarm and SOE for different points.
- Manually replicate multiple copies of the same type of device.

For information about IEC 61850 system interface integration in Experion, refer to the *IEC 61850 SCADA Configuration Reference*.

5.12.4 IEC 60870 system interface integration in Experion

Experion supports an interface for the Remote Terminal Unit (RTU)/devices using IEC 60870-5-101 and IEC 60870-5-104 protocols. Experion server routes the communication between a point and the RTU through the Point Server. The following features are available.

- Support for IEC 60870-5-101 and IEC 60870-5-104 protocol procedures.
- Support for Distributed System Architecture (DSA).
- IEC 60870 support on Flex station.

Using the Configuration Studio, you can configure IEC 60870 system interface in Experion. For more information, refer to the *IEC 60870 SCADA Configuration Reference* document.

5.13 MasterLogic Server interface enhancements

The following are the MasterLogic Server (MLServer) interface enhancements with Experion R431.

Prior to this Experion release, MasterLogic Server (MLServer) interface was available as standalone
installation. Starting with current Experion release onwards, MLServer interface is part of Experion media.
The MLServer version, which is packaged with the Experion media is not backward compatible with earlier
versions of Experion.



Note

You cannot install/modify/uninstall MLServer alone. Refer to the Experion Software Installation User's Guide for MLServer interface installation and removal.

- MLServer is available as part of the Experion license that you have purchased.
- In ML Server Configuration tool, while saving configuration, you are prompted to enter the "mngr" password.

5.14 FTE enhancements

5.14.1 Support for Cisco switch model 2960X

Honeywell announces support for the Cisco switch model 2960X (Honeywell part number: NE-SW24G1, Cisco Part Number: WS-2960X-24-TS-L).

The 2960X is added to the list of qualified switches to specially address 1 gb/sec connections to virtual ESXi servers, allowing the server to connect directly at 1 gb/sec, while the virtual machines on that connection are still configured at 100 mb/sec allowing for extended band width.

In addition, ports can be configured to support DVM (Digital Video Monitor) Console stations for the additional bandwidth needed. Both the Honeywell Switch Configuration Tool and template files are available to configure the Cisco 2960X switch.

The provided templates include standard Level 2 configurations with 1 gb/sec uplinks and 100 mb/sec level 2 node type connections. The virtual machine ports are configured to support ESXi virtual server connections. Uplink ports on 2960X are configured in the template files by default as 1 gb/sec. Template file names starting with "VM" support the virtual machine level 2 configurations.

6 Problems resolved

This chapter provides the details of resolved PARs.

Related topics

"Common components" on page 66

"Installation and migration" on page 69

"Servers and stations" on page 70

"Controllers and tools" on page 71

6.1 Common components

Detail Displays

PAR	Function	Description
1-1NRE98W	Detail Displays	Detail display for Totalizer deviating from standard FB naming convention.
1-3E7YPCL	Detail Displays	NaN is shown on SCM faceplate title/heade periodically instead of tagname when activity is configure.
1-3FERIMN	Detail Displays	Significant change PVHISIGCHG and PVLOSIGCHG values in SysdtlDACA point detail display swapped.
1-3FHKOVR	Detail Displays	In sysdtlehgregb Alarm Delay time is only shown when the alarm Delay option is set to OnDly.
1-3GB4T8Z	Detail Displays	The information of "sysdtldaca" system detail display is miss-assign.
1-ZCR7W9	Detail Displays	Need a dedicated set of displays for RegSummar funcation block.

Experion Backup Restore (EBR)

PAR	Function	Description
1-3LVZOJ2	Experion Backup Restore (EBR)	IF an EBR image is restored back to a server ERDB replication may not work.
1-YNGCJ3	EBR-Experion Backup Restore	u3/19 need some assistance configuring EBR for performance.

Experion TPS Interface

PAR	Function	Description
		If the CreateObject function is used to create an ActiveX connection to
1-3EM3PGP	Experion TPS Interface	TPS.

Experion Station-Integrated Keyboard

PAR	Function	Description
1-3FSBBM4	Experion Station- Integrated Keyboard	IKB Connected to the Wyse thin client (or other remote system) does not work correctly.

Experion Station-Gus Display

PAR	Function	Description
1-3FU7NWN	Experion Station-Gus Display	When remoteing to the EST with an account that has engineering rights all GUS display have viewonly.

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Honeywell Communications Interface

PAR	Function	Description
1-3JQEE40	Honeywell Communications Interface	RDM and OPC Test Client (e.g. OPC Validator Tool) cannot receive data from Experion OPC HDA Server.
1-1NST68L	Honeywell Communications Interface	Add guard code in HCI to protect DSS read call stack.

Network-FTE Bridge

PAR	Function	Description
1-2TMVGBP	Network-FTE Bridge	Multiple FTEB reporting cable silence.
1-NEVI4I	Network-FTE Bridge	FTEB reporting incorrect FTE status; other FTE nodes may fail to properly detect network fault.
1-3G6N9H9	Network-FTE Bridge	The Safety Manager is not considered a Honeywell MAC address by the Addroute service.

Network-Equipment and Support

PAR	Function	Description
1-107O0DB	Network-Equipment and Support	AddRoute adds a route that only includes the local machine and the controllers when the controller base address is already included in the address range but the subnet mask is more restrictive.

Redirection Manager

PAR	Function	Description
1-380H78N	Redirection Manager	RDM unexpected failure with HIMA.

SafeView

PAR	Function	Description
1-3I253GJ	SafeView	Programmatically resizing a faceplate in SafeView may result in visual artifacts if resized smaller.
1-3I8J94W	SafeView	Replacing a maximized faceplate display in SafeView may leave visual artifacts.
1-Y27U8X	SafeView	Closing one always-on-top window while on top of another always-on-top window may leave residue.
1-YLYIGD	SafeView	Closing one always-on-top window while on top of another always-on-top window may leave residue.

Signon Manager

PAR	Function	Description
		Windows Event Viewer aborts when attempting to view events rom
1-3F5CMQA	Redirection Manager	Signon Manager (TpsCopSv).

TPNServer

PAR	Function	Description
1-3GD9ZMC	TPNServer	Cannot switch Point Mode on Console Station - enumeration wrong in checkpoint.
1-3HAWGJT	TPNServer	xPM/CL Confirmable message fails to confirm, but is marked as confirmed on Exp Message Summary.
1-3IIP859	TPNServer	Long TPN strings do not migrate from the previous release.
1-3HGJF47	NTools	Inclusion of 3.5 firmware version support for Rail IOs

Turbine Control

PAR	Function	Description
		The current block does not calculate steam properties in a critical
1-3IJTQT7	Turbine Control	regions correctly.

6.2 Installation and migration

INS-Experion Installer

PAR	Function	Description
1-3JFSOT3	INS-Experion Installer	SystemManagement Services were not stopping properly post reboot during Install/Migration/Upgrades.
1-1KNL5OK	INS-Experion Installer	Network Selection Dlg should have a note that CNet selection is only valid with server has PCIC Card.

On-process migration (OPM)

PAR	Function	Description
		Iin non-EMDB UT,if we select EAS as EMDB server, other nodes in
1-UKUQJT	OPM-Upgrade Tool	cluster was not listing in GDC.

OPC Gateway

PAR	Function	Description
		OPC-GW initialisation problem when duplicated links in a new CM to
1-119DQSO	OPC Gateway	the same TPS-parameters are creat.

6.3 Servers and stations

ModBus TCP Blocks

PAR	Function	Description
1-MRI8E7	ModBus TCP Blocks	R133.1: PCDI master block vender info shows Safety Manager R131.7.0.188.
1-TH2H4T	ModBus TCP Blocks	C300 shows incorrect Version/Vendor info for Safety Manager.

6.4 Controllers and tools

ModBus TCP Blocks

PAR	Function	Description
1-3IZ6GOJ	ModBus TCP Blocks	If all devices configured on a Redundant PCDI Modbus Bridge fail, the C300 CPU free can go to 0%.

PGM Hilscher Sycon .NET

PAR	Function	Description
1-100S8SL	PGM Hilscher Sycon .NET	Events for PGM UDA RTN alarm are not generating with proper time stamp.

Profibus Interface Modules

PAR	Function	Description
1-284Q1QT	Profibus Interface Modules	Turck AIH Chann will become BAD momentarily during PGM Switchover in part scenario.
1-2LBLALP	Profibus Interface Modules	Output channel values are not propogating to DSB after PGM switchover in a particular scenario.

C300 Controller

PAR	Function	Description
1-39L3HRS	C300 Controller	C300 crash with 00D1 when changing MODE in control recipe.

CDA-Control Data Access

PAR	Function	Description
1-3DO00CT	CDA-Control Data Access	Delay in Server switchover , on CNET cables removal of primary server.
1-3ELCVIH	CDA-Control Data Access	Backup SR loses sync with primary when Server B is primary. SQL database has 43K points loaded.
1-3F9FGIP	CDA-Control Data Access	SR logs are getting flooded with notifications related to PMD points.
1-O2MT0J	CDA-Control Data Access	exp301.3 ace node RACYCSMREQAVAIL is consumed by a write error see 1-658385055.
1-2SR9J62	CDA-Control Data Access	Trouble w/server peer responder.
1-2TMQJYW	CDA-Control Data Access	CDA Server Crash on Invalid Input Data (Create Path)

CEE-Database

F	PAR	Function	Description
	1-5M3JM9	CEE-Database	Mismatches/Errors are encountered on assigning parameters PCMNAME and EENAME after renaming ACE/CEE.
	l-6J6IO3	CEE-Database	Renaming an ACE name and calling the Detail Display displays the previous name.

CF-Control Function

PAR	Function	Description
		Introduced PushSP error reporting in error log when no SP exists on
1-1H49G34	CF-Control Function	block.

Control Builder

Function	Description
Control Builder	After doing DSD restore, some of the key information is not restored.
Control Builder	C300 DCS snapshots do not seem to be complete - some motors trip after we load the steady-state snap.
Control Builder	Query whether C200 with Series H IO is supported in R410 and R430.
Control Builder	Various HART related errors are reporting in the error log.
Control Builder	Error message when calling Table View on certain SCM.
Control Builder	Incorrect visualization of recipes in tableview-mode.
Control Builder	Projected Parameters are not propagating from new parent after change parent.
Control Builder	Projected Parameters are not propagating from new parent after change parent.
Control Builder	Mismatches/Errors on assignment parameters PCMNAME and EENAME after renaming ACE/CEE.
Control Builder	Renaming an ACE name and calling the detail display displays the previous name.
Control Builder-Batch	Bug in CTemplate::AssignDoc() causes multiple reassignments of DOCs after migration to R410.
Control Builder-Bulk Build	bulk build doesn't work when function block are named with underscore as first character "_xxx".
Control Builder-Chart	During Sequence chart Execution,having black Font with Dark Blue Backgroud makes readability Issue.
Control Builder-Chart	Control Builder need long time to open a monitoring chart if CM is template based BW-22902.
Control Builder-Point Picker	Blocks and parameters of a UDT CM will not been listed within point selector.
Control Builder-Change Parent	After Template parent change, loss of references in connections contained in another CM.
Control Builder-System Repository	SR cache should allow concurrent access to multiple reader clients to improve performance.
Control Builder-Assign	Failed to Add new HART7 DD file in DD manager.
	Control Builder Control Builder-Batch Control Builder-Bulk Build Control Builder-Chart Control Builder-Change Parent Control Builder-System Repository

PAR	Function	Description
1-L0B9SH	Control Builder- Configuration Form	Issues with HMIweb in R311.3
1-MUFUEZ	Control Builder - System Repository	SR constant high CPU usage observed on primary server resulted CDA DATA disconnects & LOV
1-PKRF6R	Control Builder- Configuration Form	No Warning after Non-Active loadable parameter change when SCM is in Load while active state.
1-US9Q99	Control Builder-Bulk Build/Edit	In the Bulk Edit UI by default all the points should be populated.
1-XZ9M3J	Control Builder- Fieldbus	Parameter RESOURCEBLOCK.LIM_NOTIFY changes after Full Load of CM.
1-ZEM3JD	Control Builder-HART	Invalid Library Type, error logged for HART during migration.

Experion Batch Manager (EBM)

PAR	Function	Description
1-3PFPWGP	Experion Batch Manager (EBM)	Transitions are forced ToOn or ToOFF randomly after checkpoint restore.
1-2B0FV8X	EBM-Tools	UCM cannot be loaded due to error 2109
1-2DG5N6N	EBM-Controller	Recipe not releasing SCM.

ERDB Consistency Checker

PAR	Function	Description
1-3898E42	ERDB Consistency Checker	Add check for listing all CMs using PUSH block that is using a input source in another CM.

IOLIM

PAR	Function	Description
1-1NRV2KH	IOLIM	Upload gives error 2989 on CM upload with STIM modules.

IXP-Import Export

PAR	Function	Description
1-39UVHZV	IXP-Import Export	The Block dependency is not showing proper hierarchy for UDT blocks.

I/O-Pulse Input

PAR	Function	Description
1-NL0Q00	IXP-Import Export	Unexpected jump in PITOTALIZER PV observed.

INS-EXPPLUS INIT Media

PAR	Function	Description
	INS-EXPPLUS INIT	
1-3F6490J	Media	Need to remove the Mega RAID shrotcut from desktop

I/O-Series C

PAR	Function	Description
1-2ITCO90	I/O-Series C	C300, Series C DO channels are not following default settings for initialization.
1-3EBF4CF	I/O-Series C	AOM(CC-PAOH51)s status changed to No Response.
1-3FTRHEV	I/O-Series C	UIO module hard fails when AO channel connected to MTL isolator is open on hazardous side.
1-3NMKB1B	I/O-Series C	FDM use with UIO causes 'Spare' softfails to appear in Control Builder form.

Sequential Control Module (SCM)

PAR	Function	Description
1-1TOBWBL	SCM-Sequential Control Module	Restarting can not finish to a step that is acquiring.
1-3FGWM90	SCM-Sequential Control Module	N_IEC command remains active when SCM in HOLD/ABORT.
1-ZNYTEO	SCM-Sequential Control Module	Unexpected SCM step timeout behavior.

Security Model

PAR	Function	Description
		R430 LinkDomainGroups.exe does not allow editing the association
1-3HKW6KJ	Security Model	between local and domain groups.

Series A IO Modules

PAR	Function	Description
1-3K12XUN	Series A IO Modules	Flowmeter Totaraza Point TPS3F1201_TTL(TAG No) Reset Issue.

7 Special considerations

Related topics

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"Special Consideration for EHPM" on page 76
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[&]quot;Special Considerations for E-APP node using ETNI hardware" on page 77

[&]quot;Special Considerations for PAR 1-3MCIY4N" on page 85

[&]quot;Special Considerations for PAR 1-3R1FRO9" on page 86

[&]quot;Special Considerations for PAR 1-3O310AS" on page 87

[&]quot;Special Considerations for PAR 1-3O2PDW7" on page 88

[&]quot;Special Considerations for PAR 1-3NEJNEZ" on page 89

[&]quot;Special Considerations for PAR 1-3PQD4Q9" on page 90

[&]quot;Special Considerations for PAR 1-3KV6DG7" on page 91

[&]quot;Special Considerations for PAR 1-3LZ6IVR" on page 92

[&]quot;Special Considerations for PAR 1-3JC0P7D" on page 93

[&]quot;Special Considerations for PAR 1-3OCXMW0" on page 94

[&]quot;Special Considerations for PAR 1-3MIITLP" on page 95

[&]quot;Special Considerations for PAR 1-3OCWE8X" on page 96

[&]quot;Special Considerations for PAR 1-3QD3DNF" on page 97

[&]quot;Special Considerations for PAR 1-3K1X671" on page 98

[&]quot;Special Considerations for PAR 1-3QFNDMJ" on page 99

[&]quot;Special Considerations for PAR 1-3QJDSY3" on page 100

[&]quot;Special Considerations for PAR 1-3FDCPMY" on page 101

7.1 Special Consideration for EHPM

If you are migrating from Experion R430.1, before the migration you must select **Peer to Peer Only** option from the EHPM Data Access drop-down box. If you have history collection configured in Experion R430.1 for EHPM point parameters and are using the option **Peer to Peer and ExpServer** then history collection is made through Control Data Access (CDA) to the EHPM. After you change the option to **Peer to Peer Only**, history collection is made through TPS/LCN to the EHPM. Before changing the option to **Peer to Peer Only** ensure that the LCN is able to handle the extra load because of Experion history collection.

7.2 Special Considerations for E-APP node using ETNI hardware

For PAR 1-3MIQ42N, additional configuration of an E-APP (ETN) is required if any one of the following conditions are true.

- The controllers on the Experion PKS system are running in their own address space.
- No Experion PKS server assigns BOOTP addresses on the network (ETNI LED displays the default IP address 10.0.0.xxx).

To ensure proper operation of the ETN node, you must perform one of the following steps if any of the above situations exist true.

- Add an additional IP address to the Honeywell FTE Adapter.
- If the E-APP is running on an Experion system with the Server running BOOTP, add a network route to the E-APP's route table.

Refer the following sections for further instructions.

Steps for E-APP if no Experion PKS BOOTP Server is on the network

The ETNI IP address connection is designed to be modeled after the EUCN behavior requiring an Experion PKS server with a BOOTP server assigning IP addresses. Since the E-APP does not require an Experion PKS server to be operational, it may not be able to connect to the ETNI without an Experion PKS server generating a BOOTP address. In such a scenario, the ETNI uses the default IP address range of 10.0.0.

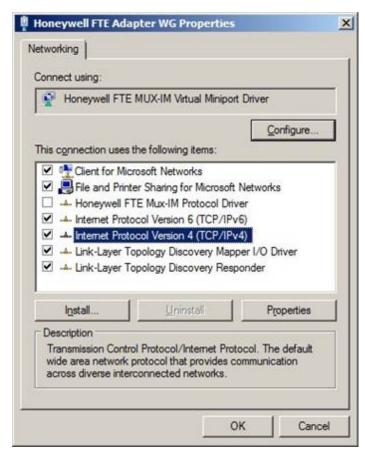
Device Index>subnet mask 255.255.0.0

**Unless the E-APP's IP address is in the range of 10.0.0-254.X

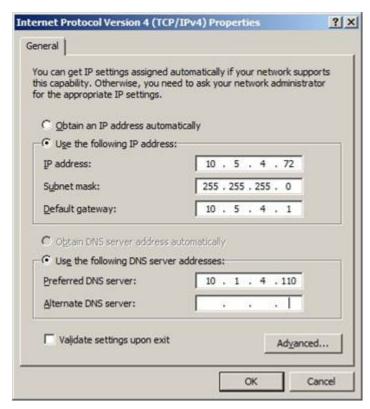
**The ETNI may not be able to connect to the E-APP's PC connection.

Perform the following steps to add an addition IP address to the Honeywell FTE Interface or the Local Area Connection if the E-APP is not running FTE.

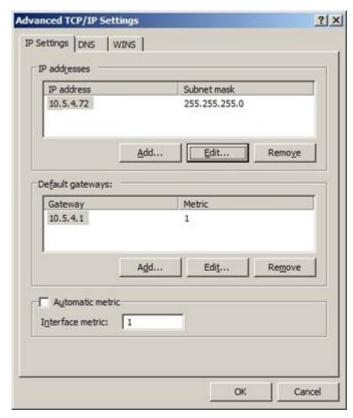
- 1. If there is no Experion PKS server with the BOOTP service running on the network, obtain the IP address and subnet mask of the E-APP node. This can be accomplished by typing *ipconfig /all* in the command prompt window.
- 2. From the ETNI LED Display get the IP Address, it must be in the range 10.0.0. < Device Index > if no BOOTP server exists. Record the ETNI IP address.
- 3. Compare the IP Address of the E-APP with a subnet mask of 255.255.0.0.
 - If IP Address of the E-APP is not in the range of 10.0.XX.XX.
 and
 - If the ETNI runs default parameters then an additional IP address needs to be added to the E-APP.
- 4. Perform the following steps to add the additional IP address to the Honeywell FTE Adapter IPV4 Advanced configuration page.
 - a. Logon to the E-APP with an account having administrator privileges.
 - b. Open the **Network Connections** window, click **Honeywell FTE Adapter** (it may be a more customized name) Right-click and click **Properties**.
 - c. Verify the **Honeywell FTE Adapter WG Properties** as displayed in the following diagram.



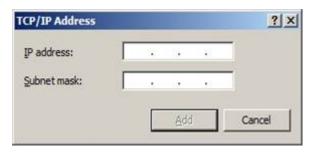
- d. Click Internet Protocol Version 4 (TCP/IPV4), and then click Properties.
- e. Verify **Internet Protocol Version 4 (TCP/IPV4) Properties** window as displayed in the following diagram.



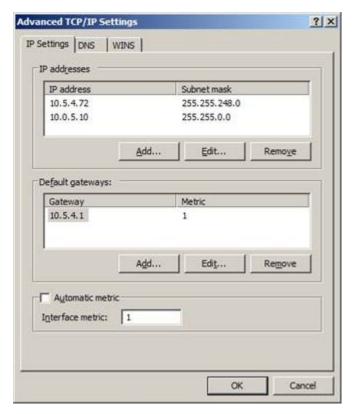
 Click Advanced... and verify Advanced TCP/IP Settings window as displayed in the following diagram.



g. Click **Add...** below the IP address box. Verify **TCP/IP Address** box as displayed in the following diagram.



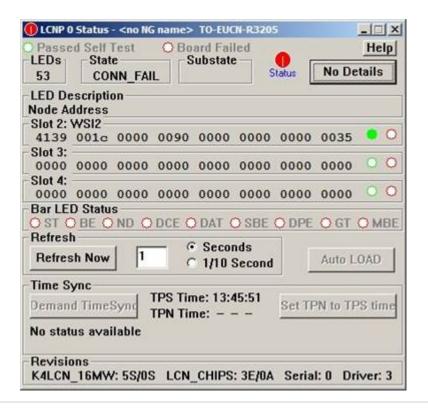
- h. Enter the IP Address 10.0.5.10 with subnet mask of 255.255.0.0. If this address is used by another system on the network then increase the number 5 for it to not interfere with any address on the network. The number 5 is selected since it is out of the range of all controllers that could be on the network.
- i. Click Add.
- Verify that the additional IP address is added to the list of IP Address on this interface as displayed in the following diagram.



- k. Click OK.
- 1. Click OK on the Internet Protocol Version 4 (TCP/IPV4) Properties.

The LCNP Status Display must now be displayed as connected, if the ETNI board is configured correctly with its IP address in the Configuration Utility board 0.

To verify the LCNP Status click **Start >All Programs> Honeywell Experion PKS> TPS Applications>LCNP Status** as displayed in the example below.



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Attention

Before migrating the E-APP to next release the extra address must be deleted from the adapter. Due to migration issues with the Honeywell FTE MUX driver, adding an additional IP address may not be handled properly during migration. Follow the above mentioned steps after the migration is completed. The ETNI board remains loaded in the SEVERE state until the migration and re-configuration is completed.

Steps for E-APP with an Experion PKS BOOTP Server assigning ETNI Addresses

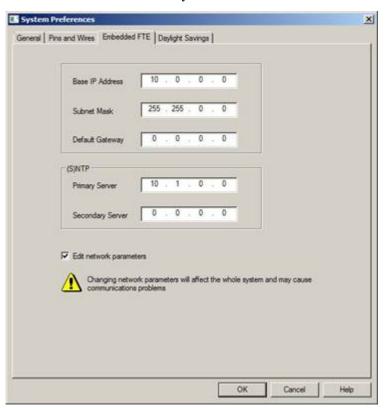
If the E-APP is part of an Experion PKS Cluster and FTE Community and the Experion PKS server provides the base parameters for the C300 controllers or EUCN nodes then the ETNI board receives the IP Address from the Experion PKS server. This happens because the E-APP does not have any Experion PKS Engineering repository database (ERDB) connection. A route must be manually added if the FTE Embedded base address is out of range of the E-APPs IP Address space.

Perform the following steps to add a route to the E-APP's route table on systems that have an Experion PKS Server running the BOOTP service.

- 1. Logon with an account having administrator privileges.
- 2. Ensure that the ETNI configuration has been completed.
- 3. Click Start > All Programs > Honeywell Experion PKS > TPS Applications > LCNP Status
- 4. Ensure that the LCNP Status is not connected, as in the example below. If it is connected then no changes are required.



5. Determine the ETNI base address being used by the Experion PKS system for the Controllers. This information is obtained by starting Experion PKS Control Builder and selecting the Embedded FTE Tab from the path Experion PKS Configuration Studio> Server> Control Strategy> Configure process control strategies> Control Builder Menu Tools> System Preferences.



The above example displays the Controller Base address as 10.0.0.0 with a subnet mask of 255.255.0.0 which indicates that all BOOTP addresses assigned are in the range of 10.0.(0-1).(1-255).

- 6. On the E-APP node run Command prompt with administrative privileges.
- 7. Type the Command *route print* and hit the enter key.

Persistent Routes:

8. Ensure that the route print must be similar to the example where the IP Address of the E-APP is 192.168.5.7 and the base address of the ETNIs is 10.0.0.0.

Ensure that the controller route is not in the range of 10.0.0.0, indicating that a route must be added to connect to the ETNI board. If the controller base address is 192.168.(1-255).0 then the address is in range and no action is required.

- 9. If the controllers base address is out of range run the following commands in command prompt.
 - a. Type route add <Base IP Address>mask<Subnet Mask><Ip Address of E-APP> —p and hit the enter key, where <Base IP Address>and <Subnet Mask> are the Base IP Address and Subnet Mask obtained from the following path Control Builder> Tools> System Preferences>Embedded FTE Tab.

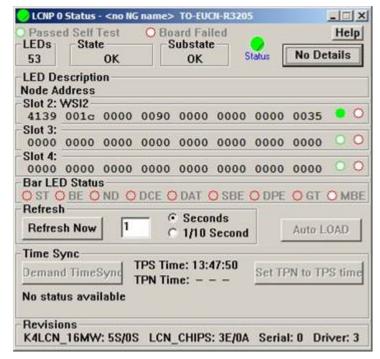
For example, (route add 10.0.0.0 mask 255.255.0.0 192.168.5.7 -p).

b. Type *route print*to ensure that the route is added as per the Honeywell Adapter in persistent routes. For example,

C:\Windows\system32>route print
=
Interface List 1380 c1 6e 25 6c c0Honeywell FTE MUX-IM Virtual Miniport Driver 1Software Loopback Interface 1
=
IPv4 Route Table
=
Active Routes:
Network Destination Netmask Gateway Interface Metric 0.0.0.0 0.0.0.0 192.168.0.1 92.168.5.7 2 192.168.0.0 255.255.0.0 On-link 192.168.5.7 257 192.168.5.7 255.255.255.255 On-link 192.168.5.7 257 192.168.5.7 255.255.255 On-link 192.168.5.7 257 10.0.0.0 255.255.255 On-link 192.168.5.7 2 10.0.255.255.255.255 255.255.255 On-link 192.168.5.7 257 127.0.0.1 255.255.255.255 On-link 127.0.0.1 306 127.255.255.255.255.255.255.255.255 On-link 127.0.0.1 306 224.0.0.0 240.0.0 On-link 192.168.5.7 257 255.255.255.255.255.255.255 On-link 127.0.0.1 306 255.255.255.255.255.255.255.255.255.255
=
Persistent Routes:
Network Address Netmask Gateway Address Metric 0.0.0.0 0.0.0.0 192.168.0.1 1 10.0.0.0 255.255.0.0 192.168.5.7 1
=
IPv6 Route Table
=
Active Routes:
If Metric Network Destination Gateway 1 306 ::1/128 On-link 1 306 ff00::/8 On-link

None

10. If the ETNI Configuration has been configured correctly, the ETNI must display the connection as connected on the LCNP Status Display.



11. If an upgrade or migration to the next release occurs ensure that the persistent route still exists after the migration, if not perform the above steps again.

This persistent route is for the IP-Address used by the Yellow adapter and the FTE MUX so it must persist after the upgrade.

7.3 Special Considerations for PAR 1-3MCIY4N

Abstract: The System Detail Displays for a dig.comp point of FSC/SM on LCN does not display correct addresses. When a SM address is specified using the *!LCnnnnn notation* and you open the tab **Dig Connect**, the digital input connections and the digital output connections are not displayed correctly.

Scope of impact: Whenever a connection address is specified using the !LCnnnnn notation on the LCN, the connection is not shown correctly in EPKS.

Workaround: It is recommended that you use the Native Window.

7.4 Special Considerations for PAR 1-3R1FRO9

Abstract: Premium Access client does not work on ignoring IE prompt to enable/disable HendrixBHO add-on.

Consequences: Premium Access client does not work on ignoring IE prompt to enable/disable HendrixBHO add-on.

Recovery Apply the workaround and restart internet explorer.

Workaround: Perform the following steps:

- Click Enable when prompted by IE to enable the add-on.
 or
- Go to IE-Tools->Manage Addons->Toolbars and Extensions->HendrixBHO ->Enable to enable the add-on.

7.5 Special Considerations for PAR 1-30310AS

Abstract: After the Clone operation in **Bulk Configuration Tools** the pin connections are missing in the cloned strategies. In addition, same behavior is observed with Bulk Build work flow.

Scope of impact: There are Pin connections/Param connections breakages in the strategies.

Consequences: Pin connections/Param Connections may be missing in the cloned /Bulk Built strategies.

Recovery: None

Workaround: Establish the pin connections manually in the cloned/Bulk built strategies.

7.6 Special Considerations for PAR 1-302PDW7

Abstract: When you drag and drop a channel from library to a control module in Control Builder, the contained channel gets same name as existing independent channels. It takes the default name (for example AICHANNELA_01). If the same name exists already for an independent channel in the Control Builder then it does not show any error/warning.

When the FBR operation is performed to replace a channel block to REF block, and you provide the same name (AICHANNELA_01) as a channel name then FBR fails with an error message. The Control Builder must handle the duplicate names and provide proper error message.

Scope of impact: Naming of IO channels in Control Builder tree and inside the container.

Consequences: Control Builder takes duplicate names for channels without the knowledge of user failure of function block replacement work flow.

Recovery: Ensure that all the IO channels have unique names instead of the default names.

Workaround: Rename the IO channels manually.

7.7 Special Considerations for PAR 1-3NEJNEZ

Abstract: Negative enumeration values larger than ENUM64 supported by IEC61850 are not read by Control Builder.

Scope of impact: TYPECONVERT, PUSH and other blocks only support enumerations from 0 - 63. **Consequences:** Enumerations not in the range of 0 - 63 can't be read properly using standard blocks.

Recovery: None.

Workaround: You must use SCM steps and transitions to read these values or cab blocks.

7.8 Special Considerations for PAR 1-3PQD4Q9

Abstract: Data flow stops after reloading channels or input/output modules in certain scenario.

Scope of impact: Load after swapping the channel.

Consequences:

Scenario 1

Error Indication:

An unexpected error encountered" error is thrown. Sometimes it does not throw any error. But in Control Builder error log the following error is logged ""XStrategy::LoadInsideConnForParam - Last minute catch of unexpected exception.

Description:

When CM Monitoring side chart is kept open and the swapped channels are loaded a pop-up messages appears to close the Chart to see the modified/updated values. If the chart is still kept open and a Swapped channel is reloaded again dataflow stops working for that channel.

Scenario 2

Error Indication:

ERDB consistency checker will display the output channel connection as missing under this ECC check "UIOModConfig - Invalid connections to IO Reference blocks"

Description:

If a output channel referred in a CM is force deleted from monitoring side without deleting the CM, it creates a dangling connection in the CM. If a Output channel is reloaded again dangling connection gets resolved but dataflow between PID and output channel will still not be happening.

Recovery:

Scenario 1, reload the channel again so that dataflow between the PID and output channel starts working. Scenario 2, reload the control module referring to output channel.

Workaround:

For scenario 1, close the control module charts referring to channels (both project and monitoring) before loading the swapped channels.

For scenario 2, when an output channel is deleted forcefully, delete the control module referring to that output channel from the monitoring side.

7.9 Special Considerations for PAR 1-3KV6DG7

Abstract: When a DSA point parameter (for example, DSA_AICHANNEL1.PV) is referred in a AIREF block, after changing the value of the DSA point parameter in Monitoring side, the PV pin value is changed to *****.

Scope of impact: PV pin value for AIREF block is displayed as *****.

Consequences: There is no impact to the data flow functionality as the value change is reflected in the PV pin of the NUMERIC block connected to the AIREF block's PV pin. This is an UI anomaly which does not affect the data flow between AIREF and NUMERIC block.

Recovery: None. **Workaround:** None.

7.10 Special Considerations for PAR 1-3LZ6IVR

Abstract: Documentation contains incorrect EFM template location details. The location of the supplied EFM templates is incorrect in the documentation. The stated location lists the server folder instead of the client folder. The correct location is
/ Honeywe11 | Experion PKS | Client | User | efm.

Scope of impact: Electronic Flow Measurement.

Consequences: The end user has no Electronic Flow Measurement templates to work from when configuring their EFM system.

Workaround: Files are available in the following location, *<data folder> \Honeywell\Experion PKS\client \user\efm.*

7.11 Special Considerations for PAR 1-3JC0P7D

Abstract:

The TPN Server HCI Component on an ETN-based Experion-TPS Node (ES-T/ESVT/ACE-T/E-APP) may not transition to "Idle" or "Running", but stays in "Warning" state after PC-side is restarted.

Scope of impact:

ESVT Server Failover from Primary to Secondary is impacted.

Consequences:

TPNServer does not come back to Running State. This blocks functionality of clients accessing data from TPNServer.

Recovery:

To recover, perform the following steps.

- 1. Stop TPNServer from System Management Display.
- 2. From the LCN Node Status Display, shutdown the LCN-side of the ETN. After the node's transitions to QUALIF state, shut down again to transition to the FAIL state.
- 3. When the node is in FAIL state, power off the LCN-side of the ETN (at the LCN chassis).
- 4. After power off, issue one more shutdown from the LCN Node Status Display and then the node will transition to the OFF state.
- 5. On the PC, from the Services app, restart the "TDC Emulators" service. Wait until it finishes restarting.
- 6. Power on the LCN-side of the ETN (at the LCN chassis). Wait until the LCN status shows PWR ON.
- 7. Invoke the node's LCNP Status Display and then click Auto LOAD button to reload the LCN personality.
- 8. Once the personality is loaded, restart the TPN Server HCI Component from the **Honeywell System Management Display**. TPN Server now shows Running (or Idle).

Workaround:

If you are planning to restart PC-side of an ETN node, manually stop the TPN Server HCI Component from the **Honeywell System Management Display**.

7.12 Special Considerations for PAR 1-30CXMW0

Abstract:

If the password for mngr contains a blank space, enabling the Master Logic channel fails in the first attempt.

This is observed during a clean R431 installation as well as during migration from R400 to R431 on R431 SERVERB in dual primary stage.

Scope of impact:

Same as abstract.

Recovery:

To recover, perform the following steps.

- 1. In Windows Command Console, type dcomcnfg on the Experion PKS Server machine.
- 2. Browse to the following path, for Master Logic console Root -> Component Services -> Computers -> My Computer -> DCOM Config -> Hci Server.
- 3. Right click and select the **Properties** from pop up menu
- 4. Go to the **Identity** tab and renter the password for the mngr user overwriting the existing entry.
- 5. After applying this setting enable the ML channel from station.

Workaround:

Same as recovery.

7.13 Special Considerations for PAR 1-3MIITLP

Abstract:

Alarm counts displayed in the location pane of the Experion system Status Display or the Process Alarm Summary may be out of synchronization with the actual alarms in those system entities or assets.

Scope of impact:

If a CDA point has existing alarms on it and that point is re-downloaded, alarm counts in the location pane of the system and process alarm summaries may be incorrect.

Recovery:

On the primary server, and any console stations that show the issue, open command prompt with administrative privileges and run the following command *chkem /almcounts*.

Workaround:

None.

7.14 Special Considerations for PAR 1-3OCWE8X

Abstract:

During the migration of Quick Builder from R400.3 or prior releases to R431, the migration wizard displays a warning about unresolved properties for DNP3 channel and controller.

Scope of impact:

Same as abstract.

Recovery:

Acknowledge the warning to continue the migration.

On successful completion, in Quick Builder, perform an upload of the DNP3 items from the Experion Server to recover the configuration data.

Workaround:

Same as Recovery.

7.15 Special Considerations for PAR 1-3QD3DNF

Abstract:

Asset unassigned Items are missing in the List view.

Scope of impact:

If the asset system has an asset with full path longer than 40 characters, the Unassigned item view does not get right children.

Recovery:

Find the item in **All Items** view.

Workaround:

Ensure that the full path of asset string is less than 40 characters.

7.16 Special Considerations for PAR 1-3K1X671

Abstract:

Quick Builder is not able to display non-English characters in property sheet.

Scope of impact:

Same as abstract.

Recovery:

Contact TAC for more details.

Workaround:

Same as recovery.

7.17 Special Considerations for PAR 1-3QFNDMJ

Abstract:

Station number on Flex Station configuration page reverts to 1 on switching between tabs.

Scope of impact:

Same as abstract.

Recovery:

You need to select or ensure that the correct station number in the drop down is selected.

Workaround:

Same as recovery.

7.18 Special Considerations for PAR 1-3QJDSY3

Abstract:

For Complex points which have more than one parameter, alarms return to Normal for all the parameters.

Recovery:

Same as workaround.

Workaround:

Configure the alarms for Complex points in Quick Builder.

7.19 Special Considerations for PAR 1-3FDCPMY

Abstract:

Import and Export of IEC-870 points may fail.

Consequences:

Unable to import or export points configurations for IEC-870.

Recovery:

Same as workaround.

Workaround:

Use the MS Excel copy paste feature to and from Quick Builder to achieve Import and Export functionality.

8 Honeywell software components and versions

This chapter lists the versions of Honeywell software components.

Related topics

- "Common component versions" on page 104
- "Controllers and tools version" on page 108
- "Server and client versions" on page 109
- "TPS software component versions" on page 110
- "Compatibility with TPN releases" on page 111

8.1 Common component versions

Component	Version	Version verification
		(Only one option is listed)
App_TPS_Base	043.011.04800	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
AppTPSCL	043.011.04800	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
AppTPSClient	043.011.04800	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
App_TPS_Solution	043.011.04800	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Experion CAB	043.011.04900	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Honeywell Computers and Network	043.011.04900	Perform the following steps to verify the version.
Equipment Provider		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Honeywell CANE Detail Displays	043.011.04900	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Experion_Station_Console_TPS	043.011.04800	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.

Component	Version	Version verification
		(Only one option is listed)
Honeywell Security Model - Domain	043.011.04800	Perform the following steps to verify the version.
Controller		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Honeywell FTE MUX Driver	043.011.04900	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Honeywell_FTE_Driver	043.011.03700	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Experion_GUS_Display_Builder	043.011.04800	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Experion_GUS_Display_Runtime	043.011.04800	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Experion_GUS_Multiple_Displays	043.011.04800	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Experion_GUS_Remote_Displays	043.011.04800	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Honeywell_HCI_Runtime	043.011.04800	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Honeywell_IKB_Service	043.011.04800	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.

Component	Version	Version verification	
		(Only one option is listed)	
lenp4drv	043.011.04801	Perform the following steps to verify the version.	
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.	
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.	
Honeywell_Redirection_Manager	043.011.04800	Perform the following steps to verify the version.	
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.	
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.	
Experion_Remote_Native_Window	043.011.04800	Perform the following steps to verify the version.	
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.	
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.	
Honeywell_Safeview	043.011.04800	Perform the following steps to verify the version.	
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.	
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.	
Experion_Server_TPS	043.011.04800	Perform the following steps to verify the version.	
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.	
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.	
Honeywell Signon Manager	043.011.04800	Perform the following steps to verify the version.	
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.	
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.	
Honeywell Signon Manager	043.011.04800	Perform the following steps to verify the version.	
ACR120USB plugin		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.	
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.	
Honeywell System Management	043.011.04800	Perform the following steps to verify the version.	
Runtime		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.	
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.	
TPN_Backup_Restore	043.011.04800	Perform the following steps to verify the version.	
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.	
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.	
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Component	Version	Version verification
		(Only one option is listed)
Experion_TPS_System_Displays	043.011.04800	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Honeywell TPS Domain Console	043.011.04800	Perform the following steps to verify the version.
Configuration		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Honeywell File Transfer - Server and	043.011.04800	Perform the following steps to verify the version.
Client		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Honeywell File Transfer - Client	043.011.04800	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Honeywell USB Storage Disable	043.011.04800	Perform the following steps to verify the version.
		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Honeywell Security Model -	043.011.04800	Perform the following steps to verify the version.
Workstation		1. Choose Start > All Programs > Honeywell Experion PKS > Maintenance Tool.
		2. In the Maintenance Tool page, click View Experion Feature Packages/Uninstall Experion Product.
Honeywell FTE Switch Configuration Tool	043.011.04800	Browse to Start > All Programs > Honeywell Experion PKS > Engineering Tools > Launch switchtool.exe.
		Help > About

8.2 Controllers and tools version

Component	Version	Version verification
		(Only one option is listed)
Control Builder	R431.1	Open Configuration Studio.
		1. Choose Configuration Studio > Control Strategy > Configure Process Control Strategies.
		2. Choose Help > About
DBADMIN	431.1.49.0	1. Open Windows Explorer and browse to C:\Program Files(X86)\Honeywell Experion PKS\Engineering Tools\system \bin\pserdbadmin.dll
		2. Click Properties > Details .tab
Import/ Export Tool	EXP431.1-49.0	1. Choose Start > Programs > Honeywell Experion PKS > Engineering Tools > Import-Export Tool.
		2. Choose Help>About
IOTOOL	431.1-1.0	1. Open Configuration Studio.
		2. Choose Control Strategy > Maintain IO Modules.
		3. Choose Help > About
Network Tools	EXP431.1-49.0	1. Open Configuration Studio.
		2. Choose Control Strategy > Maintain Control System Firmware.
		3. Click Help > About
Engineering Tools Database	V14.0 ERDB Release EXP431.1-49.0	1. Choose Start > Programs > Honeywell Experion PKS > Engineering Tools > Import-Export Tool.
		2. Choose Help > About ERDB version is displayed after Import-Export tool version.
Application Control Environment (ACE)	431.1.49.0	1. Open Windows Explorer and browse to <i>C:\Program Files</i> \Honeywell Experion PKS\Engineering Tools\system\bin \ace.exe.
		2. Right-click Properties > Details tab.
Simulation Control Environment (SIM- C200E)	431.1.49.0	1. Open Windows Explorer and browse to <i>C:\Program Files</i> \Honeywell Experion PKS\Engineering. Tools\system\bin \sce.exe.
		2. Right-click Properties > Details tab.
Simulation Control Environment (SIM- C300)	431.1.49.0	1. Open Windows Explorer and browse to C:\Program Files \Honeywell Experion PKS\Engineering Tools\system\bin \simc300.exe.
		2. Right-click Properties > Details tab.
IOLIM Simulation (SIM-IOLIM)	431.1.49.0	1. Open Windows Explorer and browse to <i>C:\Program Files</i> \Honeywell Experion PKS\Engineering. Tools\system\bin \simiolim.exe.
		2. Right-click Properties > Details tab.
Upgrade Tool	EXP431.1-49.0	Open Configuration Studio.
		1. Choose Configuration Studio > Experion PKS Cluster Upgrade> Prepare the Cluster for an Upgrade.
		This opens the Upgrade Tool.
		2. In Upgrade Tool, choose Help > About

8.3 Server and client versions

Component	Version	Version verification	
		(Only one option is listed)	
Experion Server	430.1-60.3	You can verify version in the following path after installation.	
		1. Choose Start> Programs> Honeywell Experion PKS> Server> Start-Stop Experion PKS Server.	
		2. In the Experion PKS Server dialog box, choose File > About	
Experion Console	430.1-60.3	You can verify version in the following path after installation.	
Station		1. Choose Start > Programs > Honeywell Experion PKS > Console Station > Start-Stop Experion PKS Console Station.	
		2. In the Experion PKS Server dialog box, choose File > About .	
HMIWeb Station	6.4.200.607	1. Choose Start > Programs > Honeywell Experion PKS > Server > Station.	
		2. Choose Help > About	
HMIWeb Display Builder	6.4.200.607	1. Choose Start > Programs > Honeywell Experion PKS > Server > HMIWeb Display Builder.	
		2. Choose Help > About	
Quick Builder	5.0.0.2604	1. Open Quick Builder from Configuration Studio	
		2. Choose Help > About	
Configuration Studio	4.1.0.459	1. Choose Start > Programs > Honeywell Experion PKS > Configuration Studio.	
		2. Choose Help > About	

8.4 TPS software component versions

Component	Version	Version verification
		(Only one option is listed)
GUS Display Builder	431.1.37.0.0	Choose Start > All Programs > Honeywell Experion PKS > TPS Applications > GUS Display Builder.
		2. Choose Help > About Honeywell GPB.
Native Window	431.1.37.0.0	Choose Start > All Programs > Honeywell Experion PKS > TPS Applications > Native Window.
		2. Click Help > About Native Window.
TPN Backup Restore	431.1.2.0.0	Choose Start > All Programs > Honeywell Experion PKS > TPS Applications > TPN Backup-Restore.
		2. Choose Help > About
Component Library Editor	431.1.37.0.0	Choose Start > All Programs > Honeywell Experion PKS > TPS Applications > GUS Display Builder Tools > Component Library Editor.
		2. Choose Help > About Library Editor.
HOPC Server	431.1.37.0	1. Open Windows Explorer and browse to C:\Program Files \Honeywell\TPS\GUS\ hopcsrvr.exe.
		2. Right-click Properties > Details tab and verify File Version.
NWDDB Server	431.1.37.0	1. Open Windows Explorer and browse to <i>C:\Program Files</i> \Honeywell\TPS\GUS\ nwddb_server.exe.
		2. Right-click Properties > Details tab and verify File Version.
LCNP Status Applet	431.1.37.0	1. Open Windows Explore and browse to <i>C:\Program Files</i> \Honeywell\TPS\Emulators\ emstatus.exe.
		2. Right-click Properties > Details tab and verify File Version.
File Transfer	431.1.2.0	1. Open Windows Explorer and browse to <i>C:\Program Files</i> \Honeywell\TPS\TPSxfer\FTService.exe.
		2. Right-click Properties > Details tab and verify File Version.
CL Server	431.1.37.0	1. Open Windows Explorer and browse to <i>C:\Program Files</i> \Honeywell\TPS\CLAPPServer\clsrvrdss.exe.
		2. Right-click Properties > Details tab and verify File Version.
TPN Server	431.1.37.0	1. Open Windows Explorer and browse to <i>C:\Program Files</i> \Honeywell\TPS\TPNServer\ tpndss.exe.
		2. Right-click Properties > Details tab and verify File Version.

8.5 Compatibility with TPN releases

The following table presents the compatibility between the Experion (ESVT, ES-T, ACE-T) and TPN releases.

Experion release	Minimum TPN system software	
R201, R21x , R301.x	TPN R641.2	
R31x.x , R400.x, R410.x,	TPN R535.1 or later R5xx releases in this series.	
R430.x, R431.x	TPN R652.1 or later R6xx releases in this series.	

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Note

- · For customers with no existing US or GUS nodes: GUS-TPN Software CD R652.1 (or later) is required.
- For customers with no existing Experion APP or AM nodes: TPN Application Module Software CD R652.1 (or later) is required.

To use some Experion features, newer versions of TPN are required for proper integration with Experion. They are enumerated as follows:

TPN software release version	Required for this functionality	Notes
TPN R685.3	EUCN Part 2b (i.e. automatic NIM point import to Experion database).	ULM R301.13 is required.
TPN R685.1	EUCN Part 2 (that is, peer-to-peer from C300 Controllers to EHPM Controllers).	ULM R301.12 is required.
TPN R685.3	Experion Hiway Bridge (EHB).	EHB is supported only for On-process migration starting R431.
TPN R685.1	The ability to load Sequence Programs from the Experion Detail Display.	Functionality gives a warning message if attempted to be used from an earlier TPN version.
TPN R683.2 (or later)	Fully functioning integration for HMI Web TPS Detail Displays.	Experion R410.x (or later) is also required.
TPN R684.2 (or later)	EUCN Part 1 (ENIM/EHPM) functionality.	Need ULM R301.11 (or later).
TPN R681.x (or later)	Proper integration of Selective Contact Cutout functionality.	In addition, Experion R311.x (or later) is required.
TPN R680.1 (or later)	Not displaying disabled alarms on Flex Stations.	In addition, Experion R310.x (or later) is required.
TPN R680.1 (or later)	To allow the "Option to display Uncertain Quality for TPS points" functionality.	Option found in TPN Server component configuration.

The Utilities & Load Module Media (ULM) contains (among other things) the EST and ESVT load modules, which are necessary for proper Experion integration. It is crucial to have the version of the ULM that matches with your version of Experion software to ensure proper integration. Following are specific features and their versions:

Utilities & Load Module Media (ULM) requirements

- The Utilities and Load Module Media (ULM) version for Experion R410.x is R301.9.
- The Utilities and Load Module Media (ULM) version for Experion R430.x/Experion R431.x is R301.12.

EST Load Module version	Required for this functionality	Notes	
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EST.LO load module version 68.1 (or later)	Required for "Message clear required" functionality.	Additionally, supported on TPN R53x.x with EST.LO load module version 53.2 (or later).
EST.LO load module version 68.5 (or later)	Required for the TPS System Status Indicator (S) and TPS Console status indicator (C) on the Experion Station status bar.	Currently not supported in TPN R53x.x.

9 Notices

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9.1 Documentation feedback

You can find the most up-to-date documents on the Honeywell Process Solutions support website at:

http://www.honeywellprocess.com/support

If you have comments about Honeywell Process Solutions documentation, send your feedback to:

hpsdocs@honeywell.com

Use this email address to provide feedback, or to report errors and omissions in the documentation. For immediate help with a technical problem, contact your local Honeywell Process Solutions Customer Contact Center (CCC) or Honeywell Technical Assistance Center (TAC) listed in the "Support and other contacts" section of this document.

9.2 How to report a security vulnerability

For the purpose of submission, a security vulnerability is defined as a software defect or weakness that can be exploited to reduce the operational or security capabilities of the software.

Honeywell investigates all reports of security vulnerabilities affecting Honeywell products and services.

To report a potential security vulnerability against any Honeywell product, please follow the instructions at:

https://honeywell.com/pages/vulnerabilityreporting.aspx

Submit the requested information to Honeywell using one of the following methods:

- Send an email to security@honeywell.com.
- Contact your local Honeywell Process Solutions Customer Contact Center (CCC) or Honeywell Technical Assistance Center (TAC) listed in the "Support and other contacts" section of this document.

9.3 Support

For support, contact your local Honeywell Process Solutions Customer Contact Center (CCC). To find your local CCC visit the website, https://www.honeywellprocess.com/en-US/contact-us/customer-support-contacts/Pages/default.aspx.

9.4 Training classes

Honeywell holds technical training classes on Experion PKS. These classes are taught by experts in the field of process control systems. For more information about these classes, contact your Honeywell representative, or see http://www.automationcollege.com.