

# Experion PKS Supplementary Installation Tasks Guide

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# About this guide

This guide describes how to complete additional tasks once you have completed an initial installation or upgrade of Experion.

## **Revision history**

Revision	Date	Description
A	February 2015	Initial release of document.

## Intended audience

This guide is for people who are installing an Experion system.

## Prerequisite skills

You should have completed planning your Experion system, and know the Experion components that you have licensed and need to install and configure. You should also know how to complete system administration tasks in the Windows operating system.

### How to use this guide

The Getting Started with Experion Software Guide provides a roadmap for your Experion installation. That guide, or other guides in the installation documentation set such as the Software Installation User's Guide, will direct you to complete any necessary tasks in this guide.

#### Related documents

For more information about installing Experion, see:

- Getting Started with Experion Software Guide
- Software Installation User's Guide
- the Experion migration documentation

ABOUT THIS GUIDE

# **Changing computer names**

You can change a computer name *after* the installation of the Experion software. However, you can only change the computer name *prior* to the configuration of the node, and only for the following nodes:

- Experion Server (ESV)
- Experion Server-TPS (ESVT)
- eServer
- Application Control Environment (ACE)
- Application Control Environment-TPS (ACE-T)
- Simulation Environments
- Experion Console Station (ES-C)
- Experion Station-TPS (ES-T)
- Console Extension Station (ES-CE)
- Flex Station (ES-F)
- · Collaboration Station
- Application Server (EAS)



#### CAUTION

If you rename the computer after you have started configuring Experion server, you will need to either reinstall Experion server or possibly even restore the computer from a backup.

## Related topics

- "About computer names" on page 10
- "Changing a computer name" on page 11
- "Resetting the log on accounts for DCOM Servers and services" on page 12
- "Updating the hosts file" on page 13
- "Completing a Console Station computer rename" on page 14

## **About computer names**

Every Experion node (for example, Experion server, Console Station, and Flex Station computers) must have a unique name and IP address. The unique name must comply with the following rules:

- The length of the node name must comply with the table below.
- The name must begin with an alphabetic character, such as a to z, or A to Z.
- The name must not contain spaces or other non-standard characters.
- The names of redundant server pairs consist of a common 'base name' (which must follow the other naming restrictions), plus an 'A' suffix for the primary server and a 'B' suffix for the backup server.

For example, if the base name of the redundant servers is HSSERV:

- The name of the primary server is HSSERVA.
- The name of the backup server name is HSSERVB.
- The node name must not end with 'A' or 'B'. (The use of A and B as the last letter in a name is reserved for naming redundant servers.)
- To avoid potential confusion, the node name should not end with a '0' or '1', as these numbers are used in *hosts* files to identify redundant links.

Table 1: Length of node name for FTE networks

Node type	FTE
Flex Station, Console Station, Console Extension Station, Collaboration Station	15 characters
	Example: HSCSTN01
Redundant Experion server	14 characters <sup>1</sup>
	Example: HSCSVR01A
Non-redundant Experion server	15 characters
	Example: HSCSVR01

Table 2: Length of node name for Dual Ethernet networks

Node type	Dual Ethernet
Flex Station, Console Station, Console Extension Station, Collaboration Station	14 characters <sup>2</sup>
	Example: HSCSTN010
Redundant Experion server	13 characters <sup>3</sup>
	Example: HSCSVR01A0
Non-redundant Experion server	14 characters <sup>4</sup>
	Example: HSCSVR010

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<sup>&</sup>lt;sup>1</sup> The last character is reserved for A/B redundant server suffix.

<sup>&</sup>lt;sup>2</sup> The last character is reserved for 0/1 redundant link suffix.

<sup>&</sup>lt;sup>3</sup> The last two characters ares reserved for A/B redundant server suffix and the 0/1 redundant link suffix.

<sup>&</sup>lt;sup>4</sup> The last character is reserved for 0/1 redundant link suffix.

## Changing a computer name

- 1 Log in to the Experion node as a user who is part of both the Administrators and the Product Administrators group.
- 2 Browse to <install folder>\Honeywell\Experion PKS\Utilities\NodenameUtil folder, where <install folder> is the location where Experion is installed, and right-click on the NodeRenameUlti.exe file and choose Run as administrator.

The Honeywell Experion Node Rename Tool window appears.



- 3 Click Next to continue.
- 4 In the **Computer Name** box, type the new computer name.
- 5 If the Server Name box is visible, type the name of the Experion server that this computer connects to.
- 6 Type the existing passwords of the User Accounts that appear in the wizard.
- 7 Click Next.
  - The Honeywell Experion Node Rename Tool will validate the passwords and then complete the rename. A confirmation dialog box appears.
- 8 Click **o** to restart the computer.

## Resetting the log on accounts for DCOM Servers and services

You need to reset any existing account names that include the old computer name for the following node types:

- Server TPN Connected (ESVT)
- Application Control Environment TPN Connected (ACE-T)
- Console Station TPN Connected (ES-T)

### To change the log on account and password

- 1 Choose Start > All Programs > Honeywell Experion PKS > System Management > Windows Services & DCOM Servers Log on Tool.
- 2 In the User Account Control dialog box, click Yes.
  - The Set Log on Account and Password on Servers window appears.
- 3 In the **Account Name** list, select an account associated with the old computer name (the account name is <01d computer name>\<account name>\.
  - The account name appears in the User Name box.
- 4 In the User Name box, edit the account name, replacing the old computer name with the new computer name (the updated account name should be <new computer name>\<account name>\
- 5 In the Password box, type the password for the account.
  This does not need to be a new password. You can type the current password for this account.
- 6 Click Apply New Account.
- 7 Repeat steps 3 to 5.
- 8 Once all accounts have been updated, click Cancel.

## **Updating the hosts file**

You only need to complete this task if you are renaming server, Console Station, ACE, and Simulation nodes.

## To update the hosts file

- 1 In a text editor application, such as Notepad, open the hosts file. The hosts file is located in <code>%windir%\system32\drivers\etc\</code>.
- 2 Locate each old computer name and change it to the new computer name.

  If the computer name is appended with the number 0 or 1, retain these numbers and replace the remainder of the computer name.
- 3 Save the changes to the hosts file.
- **4** Copy the updated hosts file to the <code>%windir%\system32\drivers\etc\</code> folder on each server in your Experion system.
- 5 If you have renamed one or more servers, restart each of the renamed servers so that they can synchronize.

## **Next steps**

A copy of the updated hosts file must reside on all computers on the Experion system.

## **Completing a Console Station computer rename**

To complete the rename of a Console Station computer name, you need to do the following:

- 1. Change the Console Station computer name in the .stn files for all Console Extension Stations. For more information, see the "Configuring the connection properties on a Console Extension Station" topic in the "Console Stations and consoles" section of the *Server and Client Configuration Guide*.
- 2. On the Experion server, use the Console Station Configuration display to change the Console Station computer name.

For more information, see the "Configuring Console Station details" topic in the "Console Stations and consoles" section of the *Server and Client Configuration Guide*.

# Moving a Console Station from one Experion cluster to another checklist

This checklist describes how to update the name of the Experion server that Console Stations connect to.

## **Tasks**

Task	Go to	Done?
Log on to the Console Station using a Windows account that is a member of the Product Administrator group.		
Change the Experion Console Station status to Database Only.		
Open an Experion command prompt window and type pntdel - silent, and then press ENTER.		
Change the Experion Console Station status to Database Unloaded.		
Run the name change application.	"Running the name change application" on page 16	
Delete the <i>EPKSOperationalDB</i> . <i>sdf</i> file from the <i><data folder=""></data></i> \ <i>Honeywell\Experion PKS\SRDB</i> folder, where <i><data folder=""></data></i> is the location where Experion data is stored. For default installations, <i><data folder=""></data></i> is <i>C:\ProgramData</i> .		
In a Station that is connected to the Experion server that the Console Station is registered with, call up the Console Station Configuration Summary display and remove the entry for that Console Station.	See the "Deleting a Console Station" topic in the "Configuring Console Stations and consoles" section of the Server and Client Configuration Guide.	
In a Station that is connected to the Experion server that the Console Station is to be registered with, call up the Console Station Configuration Summary display and add an entry for the Console Station.	See the "Configuring Console Station" topic in the "Configuring Console Stations and consoles" section of the Server and Client Configuration Guide.	
Restart the Console Station computer.		

## **Related topics**

"Running the name change application" on page 16

## Running the name change application

If you have changed the name of a server, you will need to run the name change application on all Console Stations, ACE, EHG, and SIM nodes within the Experion cluster to update the server name configuration on these nodes to use the new server name.

## To run the name change application

- 1 Log on to the computer using an account with Product Administrator privileges.
- 2 In Windows Explorer, go to <install folder>\Honeywell\Experion PKS\Utilities\namechg. Where <install folder> is the location where Experion is installed.
- 3 Right-click on the *Namechg. exe* file and choose **Run as administrator** in the popup menu.
- 4 If prompted, click Yes in the User Account Control message dialog box.
- 5 If you have a non-redundant Experion server, select Non-Redundant.
- **6** For redundant servers, type the base name of the Experion server. For non-redundant servers, type the full server name of the Experion server.
- 7 Click Perform Change.

## **Next steps**

Run the name change application on each Console Stations, ACE, EHG, and SIM node within the Experion cluster.

# **Installing HMIWeb Display Builder**

This section describes how to install the HMIWeb Display Builder software on a computer, without the need for installing all Station or server software.

## To install HMIWeb Display Builder

- 1 Insert the Experion R431 media into the appropriate drive.
- 2 In Windows Explorer, browse to Packages > ServerClient > station and double-click HMIWeb Station and Display Builder.msi.
- 3 On the HMIWeb Station and Display Builder welcome screen, click Next.
- 4 On the Customer Information screen, type the User Name and Organization.
- 5 On the **Destination Folder** screen, click **Next**.
- 6 On the **Setup Type** screen, select **Custom**, and then click **Next**.
- 7 On the Custom Setup screen, select HMIWeb Display Builder, and then click Next.
- 8 On the **Ready to Install the Program** screen, click **Install**. The HMIWeb Station and Display Builder are installed.
- 9 On the InstallShield Wizard Complete screen, click Finish.
- **10** If prompted, click **Yes** to restart the computer. The computer restarts.

# Setting up time synchronization

The following sections describe setting up time synchronization for

- Workgroups without an external time source
- Workgroups with an external time source
- · Domains

Before setting up time synchronization, you should read the section "Time synchronization" in the Server and Client Planning Guide.

## Related topics

- "About NTPConfig" on page 20
- "Setting up time synchronization in a workgroup without an external time source checklist" on page 21
- "Setting up time synchronization in a workgroup with an external time source checklist" on page 23
- "Setting up time synchronization in a Windows domain checklist" on page 25
- "NTP adjustment on a workgroup system that was recently added to a domain" on page 28

## **About NTPConfig**

NTPConfig is a custom Honeywell application for configuring time synchronization in Experion systems. It is used to configure NTP as a time solution for Experion on the Windows operating system.

The default installation location of NTPConfig is <install folder>\Honeywell\Experion PKS\Utilities
\https://presetup.where <install folder> is the location where Experion is installed.

## Prerequisites before running NTPConfig

Before running NTPConfig to create the time hierarchy for your system:

- 1 Configure the time zone settings for the clients and NTP servers.
- 2 If you are working in a domain topology, make sure that your nodes have been added to the domain before running NTPConfig.
- 3 Verify that there are no networking issues. For example, ensure that network browsing and other functions do not experience any delays.

## **General NTPConfig guidelines**

Following are a general set of guidelines that you should follow when using NTPConfig to set up the time synchronization for your system:

- Always start implementing a topology by first setting up the NTP servers.
- Note that NTPConfig hides functionality that is not common or functionality that can create problems in proper NTP solutions. It is therefore recommended that you do not attempt to override or apply your own NTP solution.
- Setting up time hierarchies without external sources or with unreliable external sources results in clients
  validating and invalidating the time source. In this situation, the local CMOS time is used. This can occur in
  both workgroup and domain topology.
- NTP servers provided by networking devices, for example, routers and switches, cannot be used to provide
  time to the Windows operating system. (These types of NTP servers only send out packet types marked as
  Symmetric Passive.) Integrated external NTP server devices must be able to provide time to the Windows
  operating system using NTP packet types marked as Server or Symmetric Active.

#### Attention

If you reinstall the operating system on any of your nodes, you must run NTPConfig again. If your time hierarchy was originally in a workgroup topology and you have changed to a domain topology, you must set up your time hierarchy using the procedure in the section Adjusting NTP on a workgroup system that was recently added to a domain.

# Setting up time synchronization in a workgroup without an external time source checklist

The following topics describe how to set up time synchronization in a workgroup without an external time source.

## Related topics

- "Setting up the authoritative root server" on page 21
- "Setting up the secondary NTP server" on page 21
- "Setting up NTP clients in a workgroup without an external time source" on page 22
- "Setting up control hardware to receive time from an NTP server in a workgroup without an external time source" on page 22

## Setting up the authoritative root server

This topic describes setting up your primary Experion server as the authoritative root server in your time hierarchy.

## To set up an authoritative root server

- 1 In Windows Explorer, go to *<install folder>\Honeywell\Experion PKS\Utilities\NTPSetup*. Where *<install folder>* is the location where Experion is installed.
- **2** Double-click the *NTPConfig.exe* file.
  - The NTP Configuration dialog appears.
- 3 Click Setup Authoritative Root Server.
  - Several screens appear while the configuration is applied. No input is required.
- 4 Click Exit.

## Setting up the secondary NTP server

This topic describes setting up your secondary Experion server as your secondary NTP server in your time hierarchy.

### **Prerequisites**

 You need to know the IP address or computer name of the authoritative root server. If you use a computer name, it must resolve to an IP address using Host, DNS, or other resolution service.

#### To set up your secondary NTP server

- 1 In Windows Explorer, go to <install folder>\Honeywell\Experion PKS\Utilities\NTPSetup. Where <install folder> is the location where Experion is installed.
- **2** Double-click the *NTPConfig.exe* file.
  - The **NTP Configuration** dialog appears.
- 3 Click Setup Secondary Server.
  - The NTP Server Information dialog box opens.
- 4 In the Up-Stream Time Source box, type the IP address or computer name of the authoritative root server.
- 5 Click OK.
- 6 Click Exit.

## Setting up NTP clients in a workgroup without an external time source

This topic describes how to set up NTP clients on such as Console Stations and Flex Stations.

## **Prerequisites**

• You need to know the IP address or computer name of the authoritative root server and the secondary server. If you use a computer name, it must resolve to an IP address using Host, DNS, or other resolution service.

#### To set up NTP clients

- 1 In Windows Explorer, go to *<install folder>\Honeywell\Experion PKS\Utilities\NTPSetup*. Where *<install folder>* is the location where Experion is installed.
- **2** Double-click the *NTPConfig. exe* file.
  - The NTP Configuration dialog appears.
- 3 Click Change/Configure Client.
  - The NTP Server Information dialog box opens.
- 4 In the **First NTP Server** box, type the IP address or computer name of the authoritative root server. If this client is using Windows 7, type the computer name of the authoritative root server.
- 5 In the **Second NTP server** box, type the IP address or computer name of the secondary server. If this client is using Windows 7, type the computer name of the secondary server.
- 6 Click OK.
- 7 Click Exit.

# Setting up control hardware to receive time from an NTP server in a workgroup without an external time source

This topic describes setting up C300 controllers to receive time from your NTP servers (Experion servers).

### **Prerequisites**

• You need to know the IP address or computer name of the authoritative root server and the secondary server. If you use a computer name, it must resolve to an IP address using Host, DNS, or other resolution service.

## To set up control hardware

- 1 In Control Builder, choose Tools > System Preferences.
  The System Preferences dialog box opens.
- 2 Click the Embedded FTE tab.
- 3 In the **Primary Server** box, type the IP address or computer name of the authoritative root server.
- 4 In the **Secondary Server** box, type the IP address or computer name of the secondary server.
- 5 Select the **Edit network** parameters check box.
- 6 Click OK.

# Setting up time synchronization in a workgroup with an external time source checklist

The following topics describe how to set up time synchronization in a workgroup with an external time source.

## Related topics

- "Setting up the first NTP server in a workgroup with an external time source" on page 23
- "Setting up the second NTP server in a workgroup with an external time source" on page 23
- "Setting up NTP clients in a workgroup with an external time source" on page 24
- "Setting up control hardware to receive time from an NTP server in a workgroup with an external time source" on page 24

## Setting up the first NTP server in a workgroup with an external time source

This topic describes setting up your primary Experion server as an NTP server that receives time from an external source.

## **Prerequisites**

• You need to know the IP address or computer name of the external time source. If you use a computer name, it must resolve to an IP address using Host, DNS, or other resolution service.

#### To set up the first NTP server

- 1 In Windows Explorer, go to <install folder>\Honeywell\Experion PKS\Utilities\NTPSetup. Where <install folder> is the location where Experion is installed.
- **2** Double-click the *NTPConfig. exe* file.
  - The NTP Configuration dialog appears.
- 3 Click Setup Secondary Server.
  - The **NTP Server Information** dialog box opens.
- 4 In the **Upstream Time Source** box type the IP address or computer name of the external time source.
- 5 Select the Check here to connect to the NTP server as a client check box.
- 6 Click OK.
- 7 Click Exit.

## Setting up the second NTP server in a workgroup with an external time source

This topic describes setting up your secondary Experion server as an NTP server that receives time from the primary Experion server.

### **Prerequisites**

You need to know the IP address or computer name of the first NTP server. If you use a computer name, it
must resolve to an IP address using Host, DNS, or other resolution service.

#### To set up the second NTP server

- 1 In Windows Explorer, go to *<install folder>\Honeywell\Experion PKS\Utilities\NTPSetup*. Where *<install folder>* is the location where Experion is installed.
- **2** Double-click the *NTPConfig.exe* file.
  - The NTP Configuration dialog appears.

3 Click Setup Secondary Server.

The NTP Server Information dialog box opens.

- 4 In the **Upstream Time Source** box type the IP address or computer name of the first NTP server.
- 5 Select the Check here to connect to the NTP server as a client check box.
- 6 Click OK.
- 7 Click Exit.

To set up the second NTP server.

## Setting up NTP clients in a workgroup with an external time source

This topic describes how to set up NTP clients on such as Console Stations and Flex Stations. These clients receive time from the Experion servers that have been set up as NTP servers.

## **Prerequisites**

• You need to know the IP address or computer name of the first NTP server and the second NTP server. If you use a computer name, it must resolve to an IP address using Host, DNS, or other resolution service.

## To set up NTP clients

- 1 In Windows Explorer, go to *<install folder>\Honeywell\Experion PKS\Utilities\NTPSetup*. Where *<install folder>* is the location where Experion is installed.
- 2 Double-click the *NTPConfig.exe* file.
  - The **NTP Configuration** dialog appears.
- 3 Click Change/Configure Client.
  - The **NTP Server Information** dialog box opens.
- 4 In the First NTP Server box, type the IP address or computer name of the first NTP server.
- 5 In the **Second NTP server** box, type the IP address or computer name of the secondary server.
- 6 Click OK.
- 7 Click Exit.

# Setting up control hardware to receive time from an NTP server in a workgroup with an external time source

This topic describes setting up a C300 controller to receive time from the Experion servers.

## **Prerequisites**

You need to know the IP address or computer name of the first NTP server and the second NTP server. If
you use a computer name, it must resolve to an IP address using Host, DNS, or other resolution service.

### To set up control hardware

- 1 In Control Builder, choose Tools > System Preferences.
  The System Preferences dialog box opens.
- 2 Click the Embedded FTE tab.
- 3 In the **Primary Server** box, type the IP address or computer name of the authoritative root server.
- 4 In the Secondary Server box, type the IP address or computer name of the secondary server.
- 5 Select the Edit network parameters check box.
- 6 Click OK.

## Setting up time synchronization in a Windows domain checklist

In the time hierarchy in a domain topology, the Windows domain controller serves time to the Experion servers, which you set up as NTP servers. The NTP servers serve time to the control hardware. Flex Stations and Console Stations are set up as NTP clients but they receive time from the domain controller rather than the Experion servers.

The following topics describe how to set up time synchronization in a Windows domain.

## **Prerequisites**

- You have added your Experion nodes to the domain.
- · Windows Domain Controller has been set up as an authoritative time server

## Related topics

"Setting up the first NTP server in a Windows domain" on page 25

"Setting up control hardware to receive time from an NTP server in a Windows domain" on page 26

"Setting up control hardware to receive time from a PTP server connected to a Level 2 FTE network" on page 26

## Setting up the first NTP server in a Windows domain

The first NTP server is your primary Experion server. It receives time from the domain controller.

#### To set up the first NTP server

- 1 In Windows Explorer, go to <install folder>\Honeywell\Experion PKS\Utilities\NTPSetup.
  Where <install folder> is the location where Experion is installed.
- 2 Double-click the *NTPConfig. exe* file.
  - The **NTP Configuration** dialog appears.
- 3 Click Setup Secondary Server.
  - The NTP Server Information dialog box opens.
- 4 Click Exit.

## Setting up the second NTP server in a Windows domain

The second NTP server is your secondary Experion server. It receives time from the domain controller.

#### To set up the second NTP server

- 1 In Windows Explorer, go to <install folder>\Honeywell\Experion PKS\Utilities\NTPSetup. Where <install folder> is the location where Experion is installed.
- **2** Double-click the *NTPConfig.exe* file.
  - The **NTP Configuration** dialog appears.
- 3 Click Setup Secondary Server.
  - The **NTP Server Information** dialog box opens.
- 4 Click Exit.

<sup>&</sup>quot;Setting up the second NTP server in a Windows domain" on page 25

## Setting up control hardware to receive time from an NTP server in a Windows domain

## **Prerequisites**

- You need to know the IP address of the authoritative NTP root server and the secondary server. This may be
  obtained by resolving the computer name to an IP address using Host, DNS, or other resolution service.
- The NTP time master must be connected directly to the Experion PKS Level 2 FTE network to synchronize Level 2 and Level 1 embedded nodes such as the C300, PGM, or FIM.
- It is not recommended to use a Windows NTP server as the authoritative NTP root server, it can be used as a backup.

#### To set up control hardware

- 1 In Control Builder, choose Tools > System Preferences.
  The System Preferences dialog box opens.
- 2 Click the **Embedded FTE** tab.
- 3 In the **Primary Server** box, type the IP address of the authoritative NTP root server.
- 4 In the **Secondary Server** box, type the IP address of the secondary NTP server.

  You can use the Experion PKS Primary Server as the secondary NTP server if a backup NTP authoritative time source is not available.
- 5 Select the Edit network parameters check box.
- 6 Click OK.

## **Next steps**

It is recommended to set this configuration before loading controllers. Restart the controllers to update the new time settings to controllers if the NTP server configuration has changed.

## Setting up control hardware to receive time from a PTP server connected to a Level 2 FTE network

It is recommended to enable PTP only on the controllers that have critical time synchronization requirements. For Safety Manager devices, use Safety Manager builder to set the time source. For Safety Manager Wireless Device Manager devices, use the wireless configuration tool to set the time source. For non-Experion devices, please refer to the corresponding device manual to configure NTP and PTP.

## **Prerequisites**

- You need to know the IP address of PTP-IEEE 1588 version 2 Grandmaster clock and the backup PTP-IEEE 1588 version 2 Grandmaster clock.
- The IEEE 1588 version 2 Grandmaster clock must be connected directly to the Experion PKS Level 2 network to synchronize with Level 1 embedded nodes such as the C300 and the IEC 61850 Interface Module.
- Control Builder is running.
- Tree windows are open in Control Builder.

#### To set up Precision Time Protocol on Series C hardware

- 1 In the Project view, right-click the control module. The shortcut menu appears.
- 2 Click Module Properties.

The **Module Properties** dialog box opens.

- 3 Click the **System Time** tab.
- 4 Select the Enable Precision Time Protocol check box.
- 5 Click OK.

# NTP adjustment on a workgroup system that was recently added to a domain

Adding a system to a domain changes the way time synchronization is used. Even if you have existing NTP settings, you need to run the NTPConfig application to reset the time synchronization to operate correctly in a domain environment.

## Adjusting NTP servers

This topic describes how to set up an NTP server that was previously in a workgroup that has now been added to a domain.

## To adjust an NTP server

- 1 In Windows Explorer, go to *<install folder>\Honeywell\Experion PKS\Utilities\NTPSetup*. Where *<install folder>* is the location where Experion is installed.
- **2** Double-click the *NTPConfig. exe* file.
  - The NTP Configuration dialog appears.
- 3 Select Disable Client.
- 4 Click Change/Configure Client.
  - After several dialog boxes appear, the NTP client configuration methods should be NT5DS.
- 5 Select Disable All NTP Configuration.
- 6 Click Setup Secondary Server.
- 7 Click Exit.

## **Adjusting NTP clients**

This topic describes how to set up an NTP client that was previously in a workgroup that has now been added to a domain.

#### To adjust an NTP client

- 1 In Windows Explorer, go to <install folder>\Honeywell\Experion PKS\Utilities\NTPSetup.
  Where <install folder> is the location where Experion is installed.
- **2** Double-click the *NTPConfig.exe* file.
  - The NTP Configuration dialog appears.
- 3 Select Disable Client.
- 4 Click Change/Configure Client.
  - After several dialog boxes appear, the NTP client configuration methods should be NT5DS.
- 5 Click Exit.

# Changing the security settings of an Experion server or Console Station

The Windows operating system provides security measures that include enhanced RPC, DCOM, and Windows Firewall settings.

While these security features are supported by Experion R431, some of the settings need to be modified if your system includes any one of the following:

- Pre-R431 Experion DSA servers
- Windows 2000 DSA nodes (for example, an EAS node)
- OPC connections (for example, HSC OPC Server, OPC Integrator, or other third-party OPC connections).

To ensure that your Experion system operates correctly if you have any of the above nodes in your system, the Experion R431 installation process modifies the default Windows operating system security settings. This modification at installation time sets the initial security of your Experion nodes to "unrestricted" mode.

You can check the current security settings of a given node, and if appropriate, change them from "unrestricted" to "restricted" mode to tighten the modified security settings.

# Installing the Web Server (IIS) role

If you want to use alarm paging for email, you need a separate Windows server computer with the Web Server (IIS) role installed (which includes the SMTP feature that is required). These instructions do not need to be followed for eServer nodes as IIS is automatically installed with eServer.

### **Prerequisites**

The Windows server operating system is installed on the computer.

## To install the Web Server (IIS) role on Windows Server 2008

- 1 Choose **Start**, right-click on **Computer** and choose **Manage**.
- 2 If prompted, click Continue in the User Account Control dialog box.
- 3 Right-click Roles.
- 4 Click Add Roles.

The Add Roles Wizard appears.

- 5 If the Before You Begin page of the Add Roles Wizard appears, click Next.
- 6 Select Web Server (IIS).
- 7 Click Next.

The **Web Server (IIS)** page appears.

8 Review the content in the Introduction to Web Server (IIS) and then click Next.

The Select Roles Services page appears.

- 9 Select Web Server.
- 10 Click Next.

The Confirm Installation Selections page appears.

11 Review the installation list and click **Install**.

The **Installation Progress** page appears, and when the installation is complete, the **Installation Results** page appears, indicating that the installation succeeded.

12 Click Close to complete the installation.

The Server Manager window appears.

13 Click on Roles in the navigation tree to display the list of installed roles.

Web Server (IIS) should now be listed in the Roles Summary section.

# Setting up a third-party OPC client or server

This section describes how to set up a third-party OPC client or third-party OPC server on a remote computer to communicate with an Experion server.



#### Attention

If you are installing the third-party OPC software on an Experion server, follow the instructions supplied by the manufacturer; there are no additional configuration steps required. Additional configuration is only required when you are installing third-party OPC software on a remote computer.

If you are installing third-party OPC software on a remote computer, follow the appropriate instructions for your installation.

To install a third-party Go to	
OPC client	"Installing a remote third-party OPC client checklist" on page 34
OPC server	"Installing a remote third-party OPC server checklist" on page 35

## Related topics

"Installing a remote third-party OPC client checklist" on page 34

<sup>&</sup>quot;Installing a remote third-party OPC server checklist" on page 35

<sup>&</sup>quot;Installing the OPC Server Connect package" on page 36

<sup>&</sup>quot;Creating the Windows mngr account" on page 37

<sup>&</sup>quot;Creating the third-party OPC Windows account" on page 38

<sup>&</sup>quot;Configuring DCOM on the Experion OPC server" on page 39

<sup>&</sup>quot;Configuring DCOM to receive OPC callbacks" on page 40

<sup>&</sup>quot;Configuring DCOM on a third-party OPC server" on page 41

<sup>&</sup>quot;Configuring OPC Server Service Settings" on page 42

<sup>&</sup>quot;Controlling read/write access" on page 43

<sup>&</sup>quot;Configuring the CDA-SP service to use the OPC server account and password" on page 44

<sup>&</sup>quot;Configuring an OPC server" on page 45

<sup>&</sup>quot;Enabling page locking" on page 46

## **Installing a remote third-party OPC client checklist**

This section describes the steps to install a third-party OPC client on a remote computer.

For more information about OPC, see the "Configuring OPC" section of the *Server and Client Configuration Guide*.

## **Prerequisites**

- The relevant installation media, license, and documentation for the third-party OPC software.
- Experion R431 media.
- You must be logged on to the computer using a Windows account with local administrator rights.

## **Tasks**

Task	Go to	Done?
Install the third-party OPC client software on the remote computer using the instructions supplied by the manufacturer.		
Install the Experion OPC Server Connect package on the remote computer.	"Installing the OPC Server Connect package" on page 36	
Create the Windows mngr account on the computer where you installed the third-party OPC client.	"Creating the Windows mngr account" on page 37	
If the Windows account that the third-party OPC client runs under is unknown to the Experion server, create that Windows account on the server.	"Creating the third-party OPC Windows account" on page 38	
The Windows account will be unknown to the Experion server in any of the following situations		
The Windows account is a workgroup account.		
If the computers are on the same domain but the Windows account that the third-party OPC client runs under is local to the remote computer, rather than a domain account.		
If the computers are on different domains.		
Configure the Experion OPC server's DCOM settings to grant access to the Windows account that the third-party OPC client runs under.	"Configuring DCOM on the Experion OPC server" on page 39	
Specify the third-party OPC client's read/write access.	"Controlling read/write access" on page 43	
For third-party OPC clients running Microsoft Windows version 6 or later, configure DCOM settings to receive OPC callbacks.	"Configuring DCOM to receive OPC callbacks" on page 40	
If the third-party OPC client connects with redundant Experion servers, install Redirection Manager.	"Installing Redirection Manager" on page 47	

## Installing a remote third-party OPC server checklist

This section describes the steps to install a third-party OPC server on a remote computer.

After installing the third-party OPC server, refer to the "Configuring OPC" section in the *Server and Client Configuration Guide* for further information.

Third-party OPC servers can either be run as:

- A service, or
- A foreground application (when it requires an application to be launched).



#### Attention

The instructions for configuring DCOM security settings and OPC Server service settings apply only to third-party OPC servers running as a service. For third-party servers not running as a Windows service, refer to the third-party server documentation.

If the third-party server application includes a means to control the runtime behavior of the server, including starting and stopping the server, then it is advisable to restrict the server's DCOM configuration so that only local launch is permitted. That is, always utilize the third-party vendor's utilities to control the server and disallow remote launch from external clients, which may cause the server to start in an improper state.

### **Prerequisites**

- The relevant installation media, license, and documentation for the third-party OPC software.
- You must be logged on to the computer using a Windows account with local administrator rights.

#### **Tasks**

Task	Go to	Done?
Install the third-party OPC server software on the remote computer using the instructions supplied by the manufacturer.		
Create a Windows mngr account on the computer where you installed the third-party OPC server.	"Creating the Windows mngr account" on page 37	
If the Windows account that the third-party OPC server runs under is unknown to the Experion server, create that Windows account on the server.	"Creating the third-party OPC Windows account" on page 38	
The Windows account will be unknown to the Experion server in any of the following situations		
The account is a workgroup account.		
If the computers are on the same domain, however, the Windows account that the third-party OPC server runs under is local to the remote computer, rather than a domain account.		
• If the computers are on different domains.		
Configure the third-party OPC server's DCOM settings to:	"Configuring DCOM on a third-party OPC	
Define security permissions (this only applies to an OPC Server running as a service).	server" on page 41	
Grant access to the Windows mngr account.		
Configure the OPC Server Service Settings.	"Configuring OPC Server Service Settings" on page 42	

## **Installing the OPC Server Connect package**

For an Experion server to communicate with a third-party OPC client, you must install the OPC Server Connect package on the computer where the third-party OPC client is installed.

## **Prerequisites**

• Software Installation User's Guide (SIUG).

## To install the OPC Server Connect package

• For instructions on how to install the OPC Server Connect package, see the "Installing optional features" topic of the "Optional features" section of the Software Installation User's Guide.

### **Creating the Windows mngr account**

This section describes how to create the Windows mngr account.

### To create the Windows mngr account

- 1 Choose Start, right-click Computer and choose Manage.
- 2 Expand the System Tools item and then expand the Local Users and Groups item.
- 3 Click Users.
- 4 Choose Action > New User to open the New User dialog box.
- 5 In the User Name box, type mngr.
- 6 In the Full Name box, type Experion Server Manager.
- 7 In the **Password** and **Confirm Password** boxes, type the password for this user. The Windows mngr account password must be the same on all computers.
- 8 Clear the User must change password at next logon check box and then select the Password never expires check box.
- 9 Click Create to add the account.
- 10 Close the Computer Management dialog box.

### **Creating the third-party OPC Windows account**

This section describes how to create the Windows account that the third-party OPC software runs under on another computer.

### **Prerequisites**

The name and password of the Windows account that the third-party OPC software runs under.

### To create the third-party OPC Windows account

- 1 Choose Start, right-click Computer and choose Manage.
- 2 Expand the System Tools item and then expand the Local Users and Groups item.
- Click Users.
- 4 Choose Action > New User to open the New User dialog box.
- 5 In the User Name box, type the Windows account that the third-party OPC software runs under.
- 6 In the Full Name box, type a meaningful name for this account.
- 7 In the Password and Confirm Password boxes, type the password for this account. The Windows account password must be the same on all computers.
- 8 Clear the **User must change password at next logon** check box and then select the **Password never expires** check box.
- 9 Click Create to add the account.
- 10 In the Local Users and Groups item, click Groups.
- 11 Double-click the Product Administrator group to the display the Product Administrator Properties dialog box.
- 12 Click Add to display the Select Users or Groups dialog box.
- 13 Click the name of the Windows account you have created and then click Add.
- 14 Click OK.
- 15 Click OK to close the Product Administrator Properties dialog box.
- 16 Close the Computer Management dialog box.

### Configuring DCOM on the Experion OPC server

This section describes how to configure the DCOM settings on the Experion OPC server to grant access to the Windows account that the third-party OPC client runs under.

### To configure DCOM on an Experion server

- 1 Choose **Start** > **All Programs** > **Accessories** > **Run** to display the **Run** dialog box.
- 2 Type dcomcnfg and click OK to display the Distributed COM Configuration Properties dialog box.
- 3 In the **Applications** list, click the OPC server you want to configure (**Experion OPC Server** through **Experion OPC Server 5**), and then click **Properties**.
- 4 Click the Security tab.
- 5 Click Customize in the Access Permissions group, and then click Edit.
- 6 Click Add to display the Select Users, Computers or Groups dialog box.
- 7 If the Experion server and the third-party OPC client computer are on different Windows domains, click **Location** and select the name of the Experion server from the correct domain.
- 8 In the **Enter the object names to select** box, type the name of the Windows account that the third-party OPC client is running under.
- 9 Click Check name.
- 10 Click OK.
- 11 In the Permissions for [account name] box, allow Local Access and Remote Access for the account that was added.
- 12 Click **OK** to close the **Access Permission** dialog box.
- 13 In the **Properties** window for the Experion OPC Server, click **Customize** in the Launch and Activation Permissions group, and then click **Edit**.
- 14 Repeat steps 6 to 11 to add the Windows account that the third-party OPC client is running under.
- 15 In the Permissions for [account name] box, allow Local Launch, Remote Launch, Local Activation and Remote Activation for the account that was added, and then click OK to close the Launch Permission dialog box.
- 16 Close the **Distributed COM Configuration Properties** dialog box.

### Configuring DCOM to receive OPC callbacks

For any node running Microsoft Windows version 6.0 or later and hosting an OPC client application, it is necessary to configure DCOM settings so that it can receive OPC callbacks.

### To configure DCOM callbacks

- 1 Choose **Start** > **Run** to open the **Run** dialog box.
- 2 Type dcomcnfg and click OK to open the Component Services dialog box.
- 3 Click Component Services, then Computers, and then My Computer.
- 4 Click the [4] (Configure My Computer) toolbar button to open the My Computer dialog box.
- 5 Click the **COM Security** tab.
- 6 In the Access Permissions section, click Edit Limits. The Access Permission dialog box appears.
- 7 Select ANONYMOUS LOGON, and then select the Allow check box for Remote Access.
- 8 Click OK.
- 9 Click Apply.
- 10 Close the My Computer dialog box.
- 11 Close the Component Services dialog box.



### Stop

You have completed this task. Return to the checklist that led to this task.

For more information about OPC callbacks, see the 'About the OPC Data Access standard' topic in the Server and Client Configuration Guide.

### Configuring DCOM on a third-party OPC server

This section describes how to configure the DCOM settings on a third-party OPC server to grant access to the Windows mngr account.

When the target server is running as a service, you need to set the DCOM launch permissions to exclude all users except the local SYSTEM account so that the service can only be started and stopped using the local service control. If the service is set to enable DCOM launch permissions for remote users, then a remote connection request will cause the service process to start if it is not presently running. This can result in initialization problems for the service and a problematic connection for the client.

### To configure DCOM on a third-party OPC server

- 1 Choose Start > All Programs > Accessories > Run to display the Run dialog box.
- 2 Type dcomcnfg and click OK to display the Distributed COM Configuration Properties dialog box.
- 3 In the Applications list, click the name of the third-party OPC server and then click **Properties**.
- 4 If you are setting up a third-party OPC Server to run as a service, click the **Security** tab.

  If you are setting up a third-party OPC Server to run as a foreground application, got to step 11.
- 5 In the Launch and Activate Permissions group. click Customize and then click Edit.
- In the Launch Permissions dialog box, set the permissions for users follows and then click OK.

Administrator: Allow Local Activation

Network: Allow Local Activation and Remote Activation

Mngr: Allow Local Activation and Remote Activation

Network Service: Allow Local Activation and Remote Activation

System: Allow Local Launch and Local Activation

- 7 In the Access Permissions group, click Customize and then click Edit.
- 8 In the Access Permissions dialog box, set the permissions for users as follows and click OK:

Administrator: Allow Local Access

Network: Allow Local Access and Remote Access

Mngr: Allow Local Access and Remote Access

Network Service: Allow Local Access and Remote Access

System: Allow Local Launch and Local Access

- 9 In the Configuration Permissions group, click Customize and then click Edit.
- 10 In the Change Configuration Permission dialog box, set the permissions for users as follows and then click OK.

Administrator: Allow Full Control and Read Creator/Owners: Deny Full Control and Read Power Users: Deny Full Control and Read System: Allow Full Control and Read

Users: Deny Full Control but allow Read

- 11 Click the **Identity** tab of the **Properties** sheet.
- 12 Click **This user** and then click **Browse**.
- 13 In the Select User dialog box, select the local mangr account and close the dialog box.
- 14 On the **Identity** tab, enter and confirm the password for the local mngr account and click **Apply** to apply the settings and close the **Properties** sheet.

### **Configuring OPC Server Service Settings**

### To configure OPC Server service settings

- 1 Choose **Start > All Programs > Accessories > Run** to display the **Run** dialog box.
- 2 Type services.msc and click **OK**.
- 3 In the list of services, click the name of the third-party OPC server and then click **Properties**.
- 4 Click the **Recovery** tab and choose the following settings:

First failure: Restart the Service Second failure: Restart the Service Subsequent failure: Restart the Service

Reset fail count after: 0 days Reset service after: 1 minutes

5 Click **Apply** to apply the settings, and then click **OK** to close the **Properties** sheet.

### Controlling read/write access

By default, any OPC client connected to the Experion OPC server has full read and write access to the Experion point database. It is possible to deny OPC clients read/write access to the Experion point database based on the Windows account that the third-party OPC client runs under.

### To deny read/write access for a Windows account

1 On the Experion server, use Windows Explorer to locate the following files in the <data folder>\Honeywell \ProductConfig\Security, where <data folder> is the location where Experion data is stored. For default installations, <data folder> is C:\ProgramData.

For this ProgID	choose these files
HWHsc.OPCServer	XPKSOPCRead
	XPKSOPCWrite
	XPKSOPCHDARead
HWHsc.OPCServer2	XPKSOPCRead2
	XPKSOPCWrite2
	XPKSOPCHDARead2
HWHsc.OPCServer3	XPKSOPCRead3
	XPKSOPCWrite3
	XPKSOPCHDARead3
HWHsc.OPCServer4	XPKSOPCRead4
	XPKSOPCWrite4
	XPKSOPCHDARead4
HWHsc.OPCServer5	XPKSOPCRead5
	XPKSOPCWrite5
	XPKSOPCHDARead5

### 2 For each file

- a Right-click it and choose **Properties** to display the **Properties** dialog box.
- b Click the Security tab.
- c Click **Add** to display the **Select Users of Groups** dialog box.
- d Click the Windows account name that you want to deny access and then click Add.
- e Click OK.
- f In the **Permissions** list, select all check boxes displayed in the **Deny** column.
- g Click OK.

It is not possible to deny read access to a Windows account while giving write access to the same Windows account. If a Windows account is denied read access, any third-party OPC clients that run under that Windows account are denied access to the Experion point database. It is possible, however, to only deny write access to a Windows account.

#### Attention

For upgraded Experion servers, there may be existing files in the \htext{Hwiac\security} folder controlling read/write access. On these servers, the file names are specified by the OPCRead and OPCWrite registry values located in the \htext{HKEY\_LOCAL\_MACHINES\Software\Honeywe11\MyTPSDomain\hterate Hcicomponents\Experion PKS OPC Server hostname\MethodSecurity key, where hostname is the name of the Experion server.

# Configuring the CDA-SP service to use the OPC server account and password

This section describes how to configure the CDA-SP service on ACE nodes.

### To configure the CDA-SP service on the ACE server

- 1 In the Windows Control Panel large or small icon view, click Administrative Tools.
- Double-click Services.The Services window is displayed.
- 3 Right-click the Experion PKS CDA-SP service item and choose Properties.
- 4 Click the Log On tab.
- 5 Click This account and type mngr as the account..\ may be prefixed to mngr.
- 6 In the Password and Confirm password boxes, type the mngr password, and then click OK.
- 7 Click OK.
- 8 Close the Services window.

### Configuring an OPC server

If an OPC server is serving data to the ACE node, complete the following steps on the OPC server.



#### Attention

Don't perform this task on an ACE node.

### To configure an OPC server

- 1 Choose Start > Run.
- 2 Type dcomcnfg in the Open box and then click OK.
- 3 Navigate to Console Root > Component Services > Computers > My Computer > DCOM Config. In the Applications list, click the OPC server that matches the ACE client use and click Properties.

  For most Experion PKS systems, the OPC server is HCI\_TPNServer exe Server.
- 4 Click the **Identity** tab.
- 5 Click This user.
- 6 In the User box, type **<computer Name>\mngr**, where **<**Computer Name> is the name of this computer. If required, click **Browse** to locate the name of this computer.
- 7 In the **Password** and **Confirm Password** boxes, type the Windows mngr account password.
- 8 Click the Security tab.
- 9 Click Use custom access, then click Use custom launch permission, and then click User custom configuration permissions.
- 10 Click each Edit button and complete the following instructions:
  - a Click Add.
  - **b** In the **List Names From** list, click the computer name.
  - c Click Show Users.
  - d Click mngr (Experion Server Manager).
  - e In the Type of Access list, click Allow Access.
  - f Click Add.
  - g Click OK to close the Add Users and Groups dialog box.
- 11 Click **OK** to close the **Registry Value Permissions** dialog box.

### **Enabling page locking**

### To enable page locking on ACE

- 1 Choose Start > All Programs > Administrative Tools > Local Security Policy.
- 2 Expand the Local Policies item and click User Rights Assignment.
- 3 Double-click Lock pages in memory to display the Local Security Policy Setting dialog box.
- 4 Click Add.
- 5 Click mngr and then click Add.
- 6 Click OK.
- 7 Click **OK** to close the **Local Security Policy Setting** dialog box. The changes will take effect when the computer is restarted.
- 8 Close the **Local Security Settings** dialog box.

# **Installing Redirection Manager**

You need to install Redirection Manager to enable OPC clients to communicate with redundant OPC servers.



#### Attention

You only need to install Redirection Manager if you did not install it when you installed the Experion server software, or if it was not preserved during migration.

This section describes the high-level tasks you must complete to install and configure Redirection Manager. Most of the installation tasks are described in the following guides:

- Redirection Manager User's Guide
- Server and Client Configuration Guide

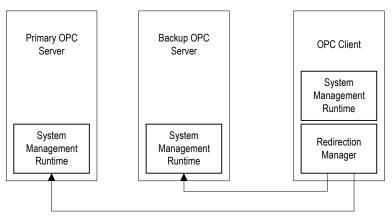
#### Related topics

- "About Redirection Manager" on page 48
- "Redirection Manager installation for third-party OPC clients checklist" on page 49
- "Redirection Manager installation for ACE nodes checklist" on page 50
- "Redirection Manager installation for Experion OPC client checklist" on page 51
- "Installing Redirection Manager on the Experion OPC client computer" on page 52

### **About Redirection Manager**

Redirection Manager (RDM) provides transparent connection between OPC clients and redundant OPC servers. Topologies where RDM is used are:

- Third-party OPC client communicating with redundant Experion OPC servers
- ACE nodes communicating with redundant Experion servers
- Experion OPC clients communicating with redundant third-party OPC servers



The System Management software communicates with the RDM to enable the RDM to identify which of the redundant servers is running as the primary server. An OPC connection or ACE node connection is made via the RDM to the OPC server that is running as primary. Data and alarms/events are transferred to and from the OPC server and the OPC client through the RDM.

# Redirection Manager installation for third-party OPC clients checklist

Task	Go to	Done?
Install Redirection Manager on the third-party OPC client computer.	"Installing Redirection Manager on the Experion OPC client computer" on page 52	
Add the Redirection Manager node to the Network tree.	The "Adding computers to the Network tree" topic in the "Network tree configuration tasks" section of the Server and Client Configuration Guide.	
Configure Redirection Manager.  During this configuration you are required to specify the ProgID of the Experion OPC server which is either HWHSC.OPCServer or the range HWHSC.OPCServer2 through HWHSC.OPCServer5.	The "Configuring Redirection Manager" topic in the Redirection Manager User's Guide.	

# Redirection Manager installation for ACE nodes checklist

Task	Go to	Done?
Install Redirection Manager on the ACE node	"Installing Redirection Manager on the Experion OPC client computer" on page 52	
Add the Redirection Manager node to the Network tree	Server and Client Configuration Guide	
See the topic titled "Adding computers to the Network tree" in the <i>Server and Client Configuration Guide</i> for more information.		
Configure Redirection Manager.	Redirection Manager User's Guide	
See the topic titled "Configuring Redirection Manager" in the <i>Redirection Manager User's Guide</i> for more information.		

# Redirection Manager installation for Experion OPC client checklist

### •

### Attention

You only need to install Redirection Manager if you did not install it when you installed the Experion server software, or if it was not preserved during migration.

### **Tasks**

Task	Go to	Done?
Install Redirection Manager on the Experion OPC client computer if it is not already installed.	"Installing Redirection Manager on the Experion OPC client computer" on page 52	
Add the Redirection Manager node to the Network tree.	The "Adding computers to the Network tree" topic in the "Network tree configuration tasks" section of the Server and Client Configuration Guide.	
Configure Redirection Manager.	The "Configuring Redirection Manager" topic in the Redirection Manager User's Guide.	

# **Installing Redirection Manager on the Experion OPC client computer**

For instructions on how to install Redirection Manager, see the "Optional Features" section of the *Software Installation User's Guide*.

# **RSLinx configuration tasks**

Rockwell RSLinx software is required for systems where ControlNet via either PCIC or Ethernet card is used for C200 controllers or Allen-Bradley PLCs on the Experion Process Network (EPN).

When setting up your system, you use RSLinx to configure a driver for each connection type. The server uses the RSLinx driver name to identify the driver. Always use the default driver name when adding a new driver. In a redundant server system both servers must be configured identically.

The following topics describe the procedures for configuring the RSLinx drivers for:

- ControlNet via PCIC
- ControlNet via Ethernet

These configuration procedures assume that you are using C200 controllers and that:

- RSLinx Classic OEM has been successfully installed and activated.
- The electronic data sheets (EDS) for RSLinx have been registered.

If you are using SCADA controllers (that is, Allen-Bradley PLCs) via Ethernet, this may not be the case. Before configuring the Ethernet drivers with RSLinx, you may therefore need to:

Activate RSLinx

If you are using FactoryTalk you can use the FactoryTalk activation tool to activate RSLinx. For more information, see "Activating RSLinx using the FactoryTalk Activation Tool" on page 59.

Alternatively, if you are not using FactoryTalk, you may need to activate your RSLinx software by installing the activation file *evrsi.sys* on your system. For more information, see "Moving the RSLinx activation file" on page 60.

· Register the EDS

For more information, see "Registering Electronic Data Sheets for RSLinx" on page 58.

### Moving RSLinx activations

When you upgrade or change computers you need to rehost the RSLinx activations. Depending on your RSLinx license, you can do this either with FactoryTalk (see "Activating RSLinx using the FactoryTalk Activation Tool" on page 59) or by moving the activation file (as described in "Registering Electronic Data Sheets for RSLinx" on page 58).

### Related topics

- "Configuring RSLinx for ControlNet (via PCIC)" on page 54
- "Configuring RSLinx for ControlNet (via Ethernet)" on page 56
- "Registering Electronic Data Sheets for RSLinx" on page 58
- "Activating RSLinx using the FactoryTalk Activation Tool" on page 59
- "Moving the RSLinx activation file" on page 60

### **Configuring RSLinx for ControlNet (via PCIC)**

Complete this task on nodes where ControlNet (via PCIC) is used for the Experion Process Network (EPN).



#### Attention

If your system already has devices connected via RSLinx, these devices will be disconnected when you add a new device. The RSLinx service needs to be stopped when you add a new device and this could lead to a loss of view. You should therefore not perform this procedure on a live system in a running plant.

### **Prerequisites**

- RSLinx has been installed as described in the Supplementary Installation Tasks Guide.
- RSLinx is activated and in OEM (not Lite) mode.

If not, you may need to follow the instructions in "Activating RSLinx using the FactoryTalk Activation Tool" on page 59 or in "Moving the RSLinx activation file" on page 60.

### To configure RSLinx for ControlNet (via PCIC)

- 1 On the Experion server, choose Start > All Programs > Rockwell Software > RSLinx > RSLinx Classic Launch Control Panel
- 2 Right-click and choose Run as Administrator.

The RSLinx Classic Launch Control Panel is displayed.

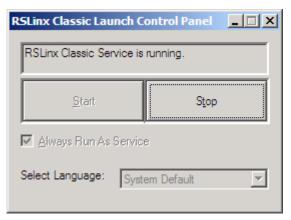


Figure 1: RSLinx Classic Launch Control Panel

- 3 If Always run as service is disabled, you need to enable it as follows:
  - a Choose Start > Administrative Tools > Services.
  - **b** Locate the RSLinx Classic service, and double-click on it to display the RSLinx Classic Properties window.
  - c Click Stop.
  - d In the **Startup type** box, select **Disabled**.
  - e Click **OK** to close the Properties window.

The **Always Run As Service** check box in the RSLinx Classic Launch Control Panel should now be enabled.

- 4 Deselect the Always run as service check box and click Start.
- 5 Close the RSLinx Classic Launch Control Panel.
- 6 Start RSLinx. You can either click on the RSLinx icon in the Windows system tray or choose **Start** > **All Programs** > **Rockwell Software** > **RSLinx**.

The RSLinx Classic Window is displayed.

#### Attention

If the window title is **RSLinx Classic Lite** instead of **RSLinx Classic OEM**, the activation has not succeeded and you need to repeat the activation procedure.

- 7 Choose Communications > Configure Drivers.
- 8 In the Available Driver Types list, click 1784-PCIC(S) for ControlNet devices, and click Add New.
- **9** Verify that the name is AB\_PCIC-1 and then click **OK**.
- 10 Type the Network Address (dec), based on the following table:

Server Type	Network Address
Redundant server A	24
Redundant server B	23
Non-redundant server	24

Enter the appropriate MAC address for ACE and Simulation Server.

- 11 Click OK.
- 12 Check the status of the driver. It must be **Running**.
- 13 Click Close.
- 14 Close the RSLinx window.
- 15 Restart the computer.
- **16** Verify that the PLC is detected.
- 17 In Windows, choose Start > All Programs > Rockwell Software > RSLinx > RSLinx Classic Launch Control Panel
- 18 Right-click and choose Run as Administrator. The RSLinx Classic Launch Control Panel is displayed.
- 19 Click Stop.
- 20 Enable Always run as a service.
- 21 Click Start.
- 22 In Windows, choose Start > Administrative Tools > Services.
- 23 Locate the RSLinx service in the list of services and ensure that it is running.
- **24** If you had to disable the RSLinx Classic service as described in step 3, set it back to normal and start the service.

### **Configuring RSLinx for ControlNet (via Ethernet)**

Complete this task on nodes where ControlNet (via Ethernet) is used for the Experion Process Network (EPN).

#### **Prerequisites**

- RSLinx has been installed as described in the Supplementary Installation Tasks Guide.
- The electronic data sheets (EDS) for RSLinx have been registered.

  If not you may need to follow the instructions in "Pagistaving Electronic Data Sheets for RSLink have been registered.
  - If not, you may need to follow the instructions in "Registering Electronic Data Sheets for RSLinx" on page 58.
- RSLinx is activated and in OEM (not Lite) mode.
  - If not, you may need to follow the instructions in "Activating RSLinx using the FactoryTalk Activation Tool" on page 59 or in "Moving the RSLinx activation file" on page 60 (depending on your RSLinx licence).
- You have set up drivers and IP addresses as described in the topic titled "Setting up Drivers and IP Addresses" in the *Ethernet Implementation Guide*.
  - Note that the bootpdata.txt file must be located in the <install folder>\Honeywell\Experion PKS \Engineering Tools\System\Bin folder, where <install folder> is the location where Experion is installed.



If your system already has devices connected via RSLinx, these devices will be disconnected when you add a new device. The RSLinx service needs to be stopped when you add a new device and this could lead to a loss of view. You should therefore not perform this procedure on a live system in a running plant.

### To configure RSLinx for ControlNet (using Ethernet)

- 1 On the Experion server, choose Start > All Programs > Rockwell Software > RSLinx > RSLinx Classic Launch Control Panel
- 2 Right-click and choose Run as Administrator. The RSLinx Classic Launch Control Panel is displayed.

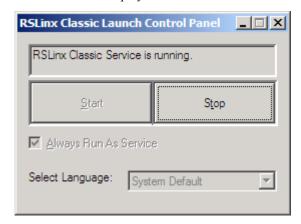


Figure 2: RSLinx Classic Launch Control Panel

- 3 If Always run as service is disabled, you need to enable it as follows:
  - a Choose Start > Administrative Tools > Services.
  - **b** Locate the RSLinx Classic service, and double-click on it to display the RSLinx Classic Properties window.
  - c Click Stop.
  - d In the Startup type box, select Disabled.

e Click **OK** to close the Properties window.

The **Always Run As Service** check box in the RSLinx Classic Launch Control Panel should now be enabled.

- 4 Deselect the Always run as service check box and click Start.
- 5 Close the RSLinx Classic Launch Control Panel.
- 6 Start RSLinx. You can either click on the RSLinx icon in the Windows system tray or choose **Start** > **All Programs** > **Rockwell Software** > **RSLinx**.

The RSLinx Classic Window is displayed.



#### Attention

If the window title is **RSLinx Classic Lite** instead of **RSLinx Classic OEM**, the activation has not succeeded and you need to repeat the activation procedure.

- 7 Choose Communications > Configure Drivers.
- 8 In the Available Driver Types list, click Ethernet Devices, and click Add New.
- 9 Specify the IP address and click OK.
  Note that you need to configure the RSLinx driver for each controller.
- 10 Restart the computer.
- 11 Verify that the controller is detected.
- 12 In Windows, choose Start > All Programs > Rockwell Software > RSLinx > RSLinx Classic Launch Control Panel
- 13 Right-click and choose Run as Administrator.
  The RSLinx Classic Launch Control Panel is displayed.
- 14 Click Stop.
- 15 Enable Always run as a service.
- 16 Click Start.
- 17 In Windows, choose Start > Administrative Tools > Services.
- 18 Locate the RSLinx service in the list of services and ensure that it is running.
- 19 If you had to disable the RSLinx Classic service as described in step 3, set it back to normal and start the service.

### **Registering Electronic Data Sheets for RSLinx**

Complete this task for ControlNet using PCIC or Ethernet.

### Registering Electronic Data Sheets for RSLinx

- 1 Choose Start > All Programs > Rockwell Software > RSLinx Tools > EDS Hardware Installation Tool.
- 2 Click Add.
- 3 Click Register a directory of EDS files.
- 4 Click **Browse** and browse to *c:\program Files (x86)\Rockwell software\Rscommon\Honeywell EDS*, and then click **OK**.
- 5 Click Next.
- 6 Review the Installation Test Results and click Next.
- 7 Click **Next** to accept the default icons.
- 8 Click **Next** to register the devices.
- 9 Click Finish to complete the wizard.
- 10 Click Exit.

### **Activating RSLinx using the FactoryTalk Activation Tool**

There are two different ways in which you can activate RSLinx using the FactoryTalk Activation Tool. You use:

- Node-locked activation to lock the software activation to a single, specific computer.
- Concurrent activation to lock the software activation to a computer that functions as an activation server for client computers.

### Prerequisites for activating RSLinx using the FactoryTalk Activation Tool

- FactoryTalk Activation Server software (if you need a mixture of both concurrent and node-locked activations).
- FactoryTalk Activation Client software (if you only need node-locked activations).
- The host ID of the network card or the hard drive to which you want the activation to be locked to.
- The RSLinx serial number and product key (see the RSLinx activation certificate).
- USB drive, floppy disk, or other removable medium to transfer the activation file.
- RSLinx and the FactoryTalk Activation Tool are installed on the computer.



#### Attention

The activation instructions in this guide assume that the computer on which you need to activate RSLinx is not connected to the Internet. They describe how you can download the activation file to the computer with Internet access, and then copy the activation file to the computer without Internet access.

### Moving the RSLinx activation file

This topic describes how to activate the OEM version of RSLinx by moving the activation file *evrsi.sys* from the RSLinx Master 3.5-inch disk to the computer's hard drive. It also describes how to move the file from the computer's hard drive back to the RSLinx Master 3.5-inch disk when you need to change computers or reformat the hard drive.

If the activation file is already present on the computer's hard drive when you install RSLinx, the application will operate as the OEM version and you do not need to follow the instructions in this topic to move the activation file to the computer hard drive.



#### Attention

- Do not manually copy or move the evrsi.sys file. Moving or copying the evrsi.sys file will disable the OEM version of RSLinx. Always use the evmove.exe command to move the evrsi.sys file.
- If you ever have to reformat your computer's hard drive, you must move the activation file to the RSLinx Master 3.5-inch disk before you reformat the computer's hard drive.
- Note that if the *evrsi.sys* file is corrupted, or if you manually move it, and RSLinx runs as the Lite, rather than the OEM version, you can visit the Rockwell Automation Web site (http://support.rockwellautomation.com/resetcodes/) to recover the RSLinx activation.
- If you ever need to remove the activation file from a computer, shut down all Experion PKS server and RSLinx services before you move the file.

### **Prerequisites**

RSLinx Master 3.5-inch disk.

#### To move the RSLinx activation file

- 1 Choose Start > All Programs > Rockwell Software > RSLinx > RSLinx to open the RSLinx application.
- 2 Check the title in the **RSLinx** dialog box.
- 3 If the title displays "RSLinx Professional or OEM":
  - a Choose File > Exit.
  - **b** Return to the checklist that led to this task.
- 4 If the title displays "RSLinx Lite", choose File > Exit.
  - a Click **RSLinx** icon in the system tray.
  - b On RSLinx Application, choose File > Exit and shutdown.
  - c Click **Yes** on the message "Shutdown RSLinx anyway".
- 5 Stop the Experion PKS server (Start > All Programs > Honeywell Experion PKS > Server > Start Stop Experion PKS Server).
- 6 Insert the RSLinx Master 3.5-inch disk into drive A.
- 7 In Windows Explorer, browse to drive A, and then double-click evmove.exe.



### Attention

With Windows Vista you must run evmove. exe in Administrator mode. To open a Windows command prompt in Administrator mode, choose Start > All Programs > Accessories, and then right-click Command Prompt and choose Run as administrator.

#### 8 Select the **From Drive** and the **To Drive**.

If you are preparing for an upgrade, click c: in the From Drive and click A: in the To Drive.

If you are activating a new installation of RSLinx, click A: in the **From Drive** and click C: in the **To Drive**.

- 9 Click **OK** to initiate the move.
- 10 Click **Move** to move the activation file.

- 11 When a successful message dialog box appears, click **OK**.
- 12 Remove the Master 3.5-inch disk from drive A and store it in a safe place.

# **Installing a Remote Engineering and Station Server**

This section describes the installation of Remote Engineering and Station Server for Mobile Access for Station and Mobile Access for eServer Premium.

### Related topics

- "Mobile Access for Station checklist" on page 64
- "Mobile Access for eServer Premium checklist" on page 65
- "Installing Microsoft Remote Desktop Services" on page 66
- "Activating the Remote Desktop Licensing server" on page 67
- "Installing the Client Access Licenses" on page 69
- "Set Remote Desktop Services to install mode" on page 71
- "Set Remote Desktop Services to application mode" on page 72
- "Configuring a Remote Engineering and Station Server to access an existing Remote Desktop Licensing server" on page 73
- "Limiting the number of connections to the Remote Engineering and Station Server" on page 74
- "Creating Remote Engineering and Station Server users" on page 75
- "Configuring Mobile Access for Station users" on page 76
- "Configuring Mobile Access for eServer Premium users" on page 77

### **Mobile Access for Station checklist**

This is the checklist for a clean installation of a Remote Engineering and Station Server for use with Mobile Access for Station.



Tip

Make a copy of this checklist so that it is easier to keep track of where you are in the installation process.

#### **Prerequisites**

- Rotary stations must be licensed and created on the Experion server. For more information on creating rotary stations, see the *Quick Builder User's Guide*.
- Ensure that your Experion server has enough licensed Stations to allow for concurrent Station and Remote Engineering and Station Server connections.
- You have the required Client Access Licenses (CALs) for Remote Desktop Services, which is an authorization key. You received this authorization key when you purchased the CALs.
- Remote Engineering and Station Server requires a Microsoft Remote Desktop Licensing Server. If your
  organization already has a Microsoft Remote Desktop Licensing Server, you can use this server to assign
  Client Access Licenses (CALs) to remote devices. In this situation, do not install the Remote Desktop
  Licensing option.
- Remote Engineering and Station Server can serve up to five connections at the same time.
- Chart visualization is *not* supported.
- Rotary stations are the only connection type supported.

#### **Tasks**

Task	Go to	Done?
Install Remote Desktop Services on the Remote Engineering and Station Server. If required, install the Remote Desktop Licensing Server.		
If you installed the Remote Desktop Licensing Server, activate it.		
Install the Client Access Licenses (CALs).		
Set Remote Desktop Services to Install mode.		
Install Experion Flex Station.	Software Installation User's Guide	
Configure the Flex Station. For more information, see Experion R431 > Configuration > Server and Client Configuration Guide > Configuring Console Stations and Consoles.	Server and Client Configuration Guide	
Set Remote Desktop Services to Application mode.		
If you are using an existing Remote Desktop Licensing Server, configure the Remote Engineering and Station Server to access it.		
Limit the number of connections to the Remote Engineering and Station Server.		
Create the Remote Engineering and Station Server users.		
If providing Mobile Access for Station, configure the Mobile Access for Station users.		

### Mobile Access for eServer Premium checklist

This is the checklist for a clean installation of a Remote Engineering and Station Server for use with Mobile Access for eServer Premium.



#### Attention

Make a copy of this checklist so that it is easier to keep track of where you are in the installation process.

#### **Prerequisites**

- You must have an eServer installed and configured.
- You have the required Client Access Licenses (CALs) for Remote Desktop Services, which is an
  authorization key. You received this authorization key when you purchased CALs from Honeywell, or
  another vendor.
- Remote Engineering and Station Server requires a Microsoft Remote Desktop Licensing Server. If your
  organization already has a Microsoft Remote Desktop Licensing Server, you can use this server to assign
  Client Access Licenses (CALs) to remote devices. In this situation, do not install the Remote Desktop
  Licensing option.
- Remote Engineering and Station Server can serve up to five connections at the same time.
- Chart visualization is not supported.

#### **Tasks**

Task	Go to	Done?
Install Remote Desktop Services on the Remote Engineering and Station Server. If required, install the Remote Desktop Licensing Server.	"Installing Microsoft Remote Desktop Services" on page 66	
If you installed the Remote Desktop Licensing Server, activate it.	"Activating the Remote Desktop Licensing server" on page 67	
Install the Client Access Licenses (CALs).	"Installing the Client Access Licenses" on page 69	
If you are using an existing Remote Desktop Licensing Server, configure the Remote Engineering and Station Server to access it.	"Configuring a Remote Engineering and Station Server to access an existing Remote Desktop Licensing server" on page 73	
Limit the number of connections to the Remote Engineering and Station Server.	"Limiting the number of connections to the Remote Engineering and Station Server" on page 74	
Create the Remote Engineering and Station Server users.	"Creating Remote Engineering and Station Server users" on page 75	
Configure the Mobile Access for eServer Premium users.	"Configuring Mobile Access for Station users" on page 76	

### **Installing Microsoft Remote Desktop Services**

#### **Prerequisites**

- Windows Server 2008 R2 is installed on the server.
- Experion Station is installed on the server.
- Remote Engineering and Station Server requires a Microsoft Remote Desktop Licensing server. If your
  organization already has a Microsoft Remote Desktop Licensing server, you can use this server to assign
  Client Access Licenses (CALs) to remote devices. In this situation, do not install the Remote Desktop
  Licensing option.

### To install Microsoft Remote Desktop Services on Windows Server 2008 R2

- 1 Choose Start, right-click on Computer and choose Manage.
- 2 If prompted, click Continue in the User Account Control dialog box.
- 3 Click Roles.
- 4 Click Add Roles.

The Add Roles Wizard appears.

- 5 If the Before You Begin page of the Add Roles Wizard appears, click Next.
- 6 Select Remote Desktop Services.
- 7 Click Next.

The Remote Desktop Services page appears.

Review the introduction to Remote Desktop Services and then click **Next**.

The **Roles Services** page appears.

- 9 Select Remote Desktop Session Host.
- 10 If you require a Remote Desktop Licensing server, select Remote Desktop Licensing.
- 11 Click Next.

The **Application Compatibility** page appears.

12 Review the caution about application compatibility and then click Next.

The **Authentication Method** page appears.

13 Click the required network level authentication and then click Next.

The Licensing Mode page appears.

14 Click the require licensing mode and then click Next.

The User Groups page appears.

15 Add users or user groups that can connect to this Remote Desktop Session Host and then click Next.

The Client Experience page appears.

- 16 Select the required client experience functionality and then click Next.
- 17 If you selected Remote Desktop Licensing, in the **RD Licensing Configuration** page, specify the discovery scope for the license server, the location of the Remote Desktop Licensing database, and then click **Next**.
- 18 In the Confirmation page, review any warning and informational messages and then click Install.

The Remote Desktop Services role is installed.

The **Results** page appears.

19 Review any warning and informational messages and then click Close to complete the installation.

The **Add Roles Wizard** message dialog box appears.

20 Click Yes to restart the computer.

### **Activating the Remote Desktop Licensing server**

If you installed the Remote Desktop Licensing server, you need to activate it.

### **Prerequisites**

- · Installed a Remote Desktop Licensing server.
- To activate the Remote Desktop Licensing server using the Internet, you must already be connected to the Internet before starting.
- If you do not have an Internet connection, you must activate the Remote Desktop Licensing server by telephone.
- You do *not* need to purchase an activation key for the Remote Desktop Licensing server.

### To activate the Remote Desktop Licensing server

- 1 Choose Start, right-click on Computer and choose Manage.
- 2 If prompted, click Continue in the User Account Control dialog box.
- 3 Expand Roles.
- 4 Click Remote Desktop Services.
- 5 In the right-side pane, locate the **Advanced Tools** group. To see the advanced options, click the arrow next to the **Advanced Tools** title.
- 6 Click Remote Desktop Licensing Manager.
  - The **RD** Licensing Manager window appears.
- 7 Expand All Servers.
- 8 Right-click on the server and choose Activate Server.
  - The Activate Server Wizard appears.
- 9 Click Next.
- 10 In the Connection method list, choose one of the following:

Connection method	Description
<b>Automatic Connection</b>	1. Select Automatic Connection, and then click Next.
	Wait for the service to locate and contact the Microsoft Clearinghouse.
	If the service cannot contact the Microsoft Clearinghouse, you will need to use either the <b>Web Browser</b> or <b>Telephone</b> connection method.
	2. Enter your details and then click <b>Next</b> .
	3. Enter your company's details and then click <b>Next</b> .
	<ol> <li>Clear the Start RD Session Host Client Licensing Wizard now check box and then click Finish to complete activation of the Remote Desktop Licensing server.</li> </ol>
Web Browser	1. Select Web Browser, and then click Next.
	The License Server Activation page appears.
	<ol><li>On this computer, or another computer that has access to the Internet, go to the Remote Desktop Licensing web site and enter the Product ID.</li></ol>
	On the Remote Desktop Licensing web site, you will receive a license server ID.
	<ol><li>In the License Server Activation page, type the license server ID, and then click Next.</li></ol>
	<ol> <li>Clear the Start RD Session Host Client Licensing Wizard now check box and then click Finish to complete activation of the Remote Desktop Licensing server.</li> </ol>

<b>Connection method</b>	Description
Telephone	1. Select <b>Telephone</b> , and then click <b>Next</b> .
	The Country or Region Selection page appears.
	2. Click on your country or region, and then click <b>Next</b> .
	The License Server Activation page appears.
	3. Call the telephone number that appears and provide the Product ID.
	<ol> <li>In the License Server Activation page, type the license server ID provided by Microsoft, and then click Next.</li> </ol>
	<ol><li>Clear the Start RD Session Host Client Licensing Wizard now check box and then click Finish to complete activation of the Remote Desktop Licensing server.</li></ol>

### **Installing the Client Access Licenses**

This section describes how to install the Client Access Licenses (CALs) on the Remote Desktop Licensing server.

### **Prerequisites**

- Installed and activated a Remote Desktop Licensing Server.
- You have the required Client Access Licenses (CALs) for Remote Desktop Services, which is an authorization key. You received this authorization key when you purchased CALs.
- To install the Client Access Licenses using the Internet, you must already be connected to the Internet before starting.

### To install Microsoft Select Agreement Client Access Licenses using the Internet

- 1 Choose Start, right-click on Computer and choose Manage.
- 2 If prompted, click Continue in the User Account Control dialog box.
- 3 Click Remote Desktop Services.
- 4 In the right-side pane, locate **Advanced Tools**. To see the advanced options, click the arrow next to **Advanced Tools**.
- 5 Click Remote Desktop Licensing Manager.
  - The **RD** Licensing Manager appears.
- 6 Expand the All Servers item.
- 7 Right-click on the server name, and choose **Install Licenses**.
- 8 When prompted, type the 25 character authorization key and then click **Add**.
- 9 Click Next.

The Remote Desktop Licensing server contacts the Licensing server. If successful, the CALs are installed. If you are not successful, please use the telephone procedure to get help from a Microsoft representative.

### To install Microsoft Open License Agreement Client Access Licenses using the Internet

- 1 Choose Start, right-click on Computer and choose Manage.
- 2 If prompted, click Continue in the User Account Control dialog box.
- 3 Expand Roles.
- 4 Click Remote Desktop Services.
- 5 In the right-side pane, locate **Advanced Tools**. To see the advanced options, click the arrow next to **Advanced Tools**.
- 6 Click Remote Desktop Licensing Manager.
  - The **RD** Licensing Manager appears.
- 7 Expand the All Servers item.
- 8 Right-click on the server name, and choose **Install Licenses**.
- **9** When prompted, type the authorization no and license agreement number.
- 10 Click the Windows 2008 Remote Desktop Services Client Access License option button.
- 11 Type the required number of licenses.
- 12 Click Next.

The Remote Desktop Licensing server contacts the Licensing server. If successful, the CALs are installed. If you are not successful, please use the telephone procedure to get help from a Microsoft representative.

### To install other Licensing Client Access Licenses using the Internet

- 1 Choose Start, right-click on Computer and choose Manage.
- 2 If prompted, click Continue in the User Account Control dialog box.
- 3 Expand Roles.
- 4 Click Remote Desktop Services.
- 5 In the right-side pane, locate **Advanced Tools**. To see the advanced options, click the arrow next to **Advanced Tools**.
- 6 Click Remote Desktop Licensing Manager.
  - The RD Licensing Manager appears.
- 7 Expand the All Servers item.
- 8 Right-click on the server name, and choose **Install Licenses**.
- **9** When prompted, type the license number, the number of CALs, the 25 character authorization key, and then click **Add**.
- 10 Click Next.

The Remote Desktop Licensing server contacts the Licensing server. If successful, the CALs are installed. If you are not successful, please use the telephone procedure to get help from a Microsoft representative.

### To install the Client Access Licenses by telephone

- 1 Choose Start, right-click on Computer and choose Manage.
- 2 If prompted, click Continue in the User Account Control dialog box.
- 3 Expand Roles.
- 4 Click Remote Desktop Services.
- 5 In the right-side pane, locate **Advanced Tools**. To see the advanced options, click the arrow next to **Advanced Tools**.
- 6 Click Remote Desktop Licensing Manager.
  - The RD Licensing Manager appears.
- 7 Expand the All Servers item.
- 8 Right-click on the server name, and choose **Properties**.
- 9 Click the Connection Method tab.
- 10 In the Connection method list, select Telephone and then click OK.
- 11 Right-click on the server name, and choose Install Licenses.
- 12 When prompted for the connection method, click Next.
- 13 Click your country in the country list and then click **Next**. The telephone number to call appears on the screen.
- 14 Call the telephone number displayed.
  - A Microsoft representative will provide you with an additional authorization key.
- **15** Type the authorization key and then click **Next**.

# **Set Remote Desktop Services to install mode**

This section describes how to set Remote Desktop Services to install mode before installing applications.

 At a command prompt, type change user /INSTALL

## **Set Remote Desktop Services to application mode**

This section describes how to return Remote Desktop Services to application mode.

 At a command prompt, type change user /EXECUTE

# Configuring a Remote Engineering and Station Server to access an existing Remote Desktop Licensing server

This section describes how to configure a Remote Engineering and Station Server to access an existing Remote Desktop Licensing server where the Client Access Licenses (CALs) are installed. To access an existing Remote Desktop Licensing Server, you need to edit the registry.



#### CAUTION

Incorrectly editing the registry may severely damage your system. Before making changes to the registry, you must back up any valued data on your computer.

#### **Prerequisites**

• The name or IP address of an activated Remote Desktop Licensing server.

#### To access an existing Remote Desktop Licensing server

- 1 On the Remote Engineering and Station Server, choose Start and in the Start programs and files box type regedit.
- 2 If prompted, click Continue in the User Account Control dialog box.
- 3 Browse to the following key
  HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Services\TermService\Parameters
- 4 Choose Edit > New > String Value.
- 5 Type DefaultLicenseServer.
- 6 Double-click on the **DefaultLicenseServer** value you created.
- 7 Type the name or IP address of the Remote Desktop Licensing server in the **Value data** text box.
- 8 Click OK.

# Limiting the number of connections to the Remote Engineering and Station Server

This section describes how to limit the number of users that can access the Remote Engineering and Station Server.

#### To limit the number of connections to the Remote Engineering and Station Server

1 Do one of the following:

Option	De	Description		
Windows Server 2008	•	In the Windows Control Panel classic view, double-click Administrative Tools.		
Windows 7	•	In the Windows Control Panel large or small icon view, click Administrative Tools.		

- 2 Double-click Remote Desktop Session Host Configuration.
- 3 Right-click on the RDP-TCP connection item and choose Properties.
- 4 Click the Network Adapter tab.
- 5 Click **Maximum connections** and set the number of connections to 5.
- 6 Click OK
- 7 Exit the Remote Desktop Session Host Configuration application.

# **Creating Remote Engineering and Station Server users**

You must create a windows account on the Remote Engineering and Station Server for each operator/user that connects to the Remote Engineering and Station Server.

#### To create a Remote Engineering and Station Server user

- 1 Log on to the Remote Engineering and Station Server as a user with local administrator rights.
- 2 Expand Local Users and Groups.
- 3 Right-click on the Users item and then choose New User.
- 4 Type the user name, full name, description, and password of the user.
- 5 Clear the User must change password at next logon check box.
- 6 Select the **Password never expires** check box.
- 7 Click Create.
- 8 Right-click on the user name and choose **Properties**.
- 9 Click the Member Of tab, and then click Add.
- 10 Type Remote Desktop Users and then click OK.
- 11 Click OK.
- 12 Repeat the above steps for each user.

### **Configuring Mobile Access for Station users**

This section describes how to configure Mobile Access for Station users to start the Station application when they log on to the Remote Engineering and Station Server.

#### **Prerequisites**

• A .stn file has been configured for each Experion server to access. For more information on creating a .stn file, see "Configuring a Station connection on the Remote Engineering and Station Server" in the "Remote Engineering and Station Server" section of the *Server and Client Configuration Guide*.

#### To configure the Mobile Access for Station users

- 1 Log on to the Remote Engineering and Station Server as a user with local administrator rights.
- 2 Do one of the following:

Option	Description		
Windows Server 2008	•	In the Windows Control Panel classic view, double-click Administrative Tools.	
Windows 7	•	In the Windows Control Panel large or small icon view, click Administrative Tools.	

3 Double-click Computer Management.

The Computer Management window is displayed.

- 4 Expand the Local Users and Groups item and then expand the Users item.
- 5 Right-click on a Mobile Station user and choose **Properties**.
- 6 Click the Sessions tab.
- 7 Do one of the following:

Option	Description		
Windows Server 2008	•	Click 1 minute in the End Disconnected sessions list.	
Windows 7	•	Click 1 minute in the End a disconnected session list.	

- 8 Click OK.
- **9** Repeat the above steps for each Mobile Station Server user.

# Configuring Mobile Access for eServer Premium users

This section describes how to configure Mobile Access for eServer Premium users to start the Internet Explorer application when they log in to the Remote Engineering and Station Server.

#### To configure mobile access for eServer Premium users

- 1 Log on to the Remote Engineering and Station Server as a user with local administrator rights.
- 2 Do one of the following:

Option	De	Description		
Windows Server 2008	•	In the Windows Control Panel classic view, double-click Administrative Tools.		
Windows 7	•	In the Windows Control Panel large or small icon view, click Administrative Tools.		

3 Double-click Computer Management.

The **Computer Management** window is displayed.

- 4 Expand the Local Users and Groups item and then expand the Users item.
- 5 Right-click on an eServer Premium user and choose **Properties**.
- 6 Click the Environment tab.
- 7 Click Start the following program at logon.
- 8 Type the full path to the *iexplore.exe* file and the URL address to the eServer home page, enclosed in quotation marks.

For example

"C:\Program Files\Internet Explorer\iexplore.exe http:\\ServerName\eserver" where ServerName is the name of the eServer computer.

- 9 Click Apply.
- 10 Click the Sessions tab.
- 11 Do one of the following:

Option	Description		
Windows Server 2008	•	Click 1 minute in the End Disconnected sessions list.	
Windows 7	•	Click 1 minute in the End a disconnected session list.	

- 12 Click OK.
- 13 Repeat the above steps for each eServer Premium user.

# Setting up Microsoft Excel reports checklist

The following topics describes how to set up Microsoft Excel reports using either Microsoft Excel Data Exchange (MEDE) or the Experion ODBC driver.

#### To configure Microsoft Excel Data Exchange for Microsoft Excel reports

- 1. Configure Microsoft Excel Data Exchange on the primary server:
  - a. "Disabling the Deny log on locally policy for the Local Servers account" on page 82
  - b. "Setting up Microsoft Excel for Excel Reports" on page 83
  - c. "Re-enabling the Deny log on locally policy for the Local Servers account" on page 88
- 2. Configure Microsoft Excel and Microsoft Excel Data Exchange on Windows accounts that are used to configure Microsoft Excel reports:
  - Log on to the Windows operating system using a Windows account that has local administrator privileges.
  - b. "Setting up Microsoft Excel for Excel Reports" on page 83

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#### Attention

The steps above only need to be performed for Windows accounts that are used to configure Excel spreadsheets with MEDE functions that are used as an input to a Microsoft Excel report. You do not need to complete these steps on every server or Station.

- 3. Configure Microsoft Excel Data Exchange on the backup server:
  - a. "Disabling the Deny log on locally policy for the Local Servers account" on page 82
  - b. "Setting up Microsoft Excel for Excel Reports" on page 83
  - c. "Re-enabling the Deny log on locally policy for the Local Servers account" on page 88

#### Results

For troubleshooting Microsoft Excel and Microsoft Excel Data Exchange, see "Troubleshooting Microsoft Excel reports" on page 89.

#### Related topics

- "Installing Microsoft Excel" on page 80
- "Installing Microsoft Excel or Microsoft Office service packs" on page 81
- "Disabling the Deny log on locally policy for the Local Servers account" on page 82
- "Setting up Microsoft Excel for Excel Reports" on page 83
- "Setting up Microsoft Excel for Batch Reports" on page 85
- "Installing the Experion ODBC client" on page 86
- "Setting up network printers for Microsoft Excel reports" on page 87
- "Re-enabling the Deny log on locally policy for the Local Servers account" on page 88
- "Troubleshooting Microsoft Excel reports" on page 89

### **Installing Microsoft Excel**

If you install Microsoft Excel on a remote computer (that is, a computer other than the server), it uses the full name of the primary server when requesting information from the server.



#### Attention

Microsoft Office 2010 is available as 32-bit and 64-bit versions. Honeywell supports only the 32-bit version of Office 2010 for both 32-bit and 64-bit operating systems.

#### **Prerequisites**

- · Microsoft Office or Microsoft Excel installation media.
- You must be logged on to the computer using a local Windows account with administrator permissions.

#### To install or upgrade Microsoft Excel

- 1 Insert the Microsoft Office or Microsoft Excel installation media into the computer.
- 2 In Windows Explorer, browse to the drive and double-click on the setup. exe file.
- 3 Follow the on-screen instructions to complete the installation.



#### Attention

- If you plan to use Microsoft Excel to fetch data from Experion with the ODBC Driver, you must perform a
  custom install and choose to install Microsoft Query, located in the Office Tools folder.
- When installing Microsoft Office on Experion nodes, note the following:
  - Select the Custom Installation option.
  - Select **Office shared feature**. This is necessary to ensure that VBA is installed.
  - Do not install Microsoft Outlook on Experion server nodes.
- 4 Restart the computer.

# **Installing Microsoft Excel or Microsoft Office service packs**

#### **Prerequisites**

• You have the latest supported Microsoft Office service pack for your version of Microsoft Excel or Microsoft Office. For more information about the supported Microsoft Excel or Microsoft Office service packs, see the *Support Media Software Change Notice (SCN)*.



#### Tip

You can download Microsoft Office service packs from the following location: http://office.microsoft.com/Downloads/default.aspx, or you can order Microsoft Office service pack media from Microsoft.

You may also need the original Microsoft Office or Microsoft Excel installation media, depending on which
version is installed and how you installed it.

#### To install the Microsoft Office service pack

- 1 Close any applications that are running.
- 2 In Windows Explorer, browse to the folder containing the Microsoft Office service pack, and double-click on the *setup.exe* file.
- 3 Follow the on-screen instructions to complete the installation.
- 4 Restart the computer.

#### Related topics

"Disabling the Deny log on locally policy for the Local Servers account" on page 82

"Setting up Microsoft Excel for Batch Reports" on page 85

# Disabling the Deny log on locally policy for the Local Servers account

There may be times when you need to perform Windows configuration tasks that use the Windows *mwgr* account. By default, Experion prevents this account from logging on locally to the computer by enforcing the Windows **Deny log on locally** security policy. Therefore, you need to disable the security policy temporarily so that you can perform your configuration tasks. Immediately after completing your tasks, you must re-enable the **Deny log on locally** security policy.



#### **CAUTION**

This procedure changes the Windows security policy and allows the Windows *mngr* account to log on locally to this computer, which is a potential security risk.

You should only use this procedure when you need to perform Windows configuration tasks. Once complete, you must change the security policy back to its previous state. If you fail to do this, anyone who has knowledge of the Windows *mngr* or LocalComServer account passwords could have privileged access to this computer.

#### To disable the deny log on locally policy for the Local Servers account

- 1 Log on to the Windows operating system using a local Windows account with administrator permissions.
- 2 Choose **Start** and type **secpol.msc** in the search box, and then press Enter. The **Local Security Policy** window appears.
- 3 Expand the Local Policies item and then click on the User Rights Assignment item.
- 4 Double-click on the **Deny log on locally** policy. The **Deny log on locally Properties** window appears.
- 5 Click the Local Servers item, and then click Remove.
- 6 Click OK.
- 7 Close the Local Security Policy window.

#### **Next steps**

- Complete your Windows configuration tasks.
- After you have completed the required Windows configuration tasks, re-enable the Deny log on locally security policy for the Local Servers account. For more information, see "Re-enabling the Deny log on locally policy for the Local Servers account" on page 88.

#### Related topics

"Installing Microsoft Excel or Microsoft Office service packs" on page 81

"Setting up Microsoft Excel for Batch Reports" on page 85

### **Setting up Microsoft Excel for Excel Reports**

If you are setting up Microsoft Excel for usage with Excel Reports, you need to ensure Microsoft Excel is setup correctly under the *mngr* account.

#### **Prerequisites**

- Microsoft Excel is installed, but not yet started.
- You have followed the procedures to temporarily disable the **Deny log on locally** policy for the *Local Servers* account. For more information, see "Disabling the Deny log on locally policy for the Local Servers account" on page 82.



#### **CAUTION**

When following this procedure, you must complete all the steps, including the final steps to restore Local Servers to the Deny log on locally policy. If you fail to do this, anyone who has knowledge of the Windows *mngr* or *LocalComServer* account passwords could have privileged access to this computer.

#### To set up Microsoft Excel for Excel Reports

- 1 Log on to the Windows operating system using a local Windows account with administrator permissions.
- 2 In Windows Explorer, go to <install folder>\Honeywell\Experion PKS\Client\Xldataex. Where <install folder> is the location where Experion is installed.
- 3 Right-click on the *excelreports.reg* file, and choose **Merge**. If prompted, type the password for a Windows administrator user.
- 4 Click **Yes** in the warning message box.
  - The Registry Editor message "The keys and values in C:\Program Files(x86)\Honeywell\Experion PKS \client\xldataex\excelreports.reg have been successfully added to the registry" appears.
- 5 Click **OK** in the Registry Editor message box.
- 6 Log off the Windows operating system.
- 7 Log on to the Windows operating system using the Windows MNGR account.
- 8 Do the following:
  - a Choose **Start** and type **cmd.exe** in the search box, and then press Enter.
    - A Windows command prompt appears.
  - **b** Change directories to the following folder:
    - <install folder>\Honeywell\Experion PKS\client\Xldataex

Where *<install folder>* is the location where Experion is installed.

For example, type:

#### cd C:\Program Files(x86)\Honeywell\Experion PKS\client\xldataex

- c Type activatemede.vbs
  - Microsoft Excel Data Exchange add-in activation script starts
- **9** Type the *MNGR* password, if prompted.

Ignore any failure to write to log errors or Permission denied errors.

10 Click OK.

#### To set up Microsoft Excel 2010 Trust Center settings

- 1 Start Microsoft Excel. if not already started.
- 2 If prompted, complete the details in any Microsoft Excel dialog boxes, such as typing the user name and initials, and selecting the help and Windows update options.

3 Click the File tab.

The Microsoft Office Backstage view appears.

4 On the left-side of the Backstage view, click **Options**.

The Excel Options window appears.

- 5 On the left-side of the **Excel Options** window, click **Trust Center**.
- 6 Click Trust Center Settings.

The **Trust Center** window appears.

- 7 On the left-side of the **Trust Center** window, click **Add-ins**.
- 8 Clear all of the add-in check boxes.
- 9 On the left-side of the **Trust Center** window, click **Trusted Locations**.
- 10 Click Add new location and then browse to the following folder and then click OK:

<install folder>\Honeywell\Experion PKS\client\Xldataex

Where *<install folder>* is the location where Experion is installed.

After you click **OK**, confirm that location appears in the Trusted Locations.

- 11 On the left-side of the **Trust Center** window, click **Protected View**.
- 12 Clear the Enable Data Execution Prevention Mode check box.
- 13 On the left-side of the Trust Center window, click External Content.
- 14 Under the Security settings for Data Connections group, select the Enable all Data Connections (not recommended) check box.
- 15 Under the Security settings for workbook links group, select the Disable automatic update of workbook links check box.
- 16 On the left-side of the Trust Center window, click File Block Settings.
- 17 On both the Open and Save tabs, clear the check boxes for all add-in related files.
- 18 Click **OK** to close the **Trust Center** window.
- 19 On the left side of the Excel Options window, click Add-Ins.
- 20 Under the Active Application Add-ins group, check that Microsoft Excel Data Exchange (MEDE) is listed.
- 21 If Microsoft Excel Data Exchange (MEDE) is listed, click **OK** to close the **Excel Options** window.
- 22 If Microsoft Excel Data Exchange (MEDE) is *not* listed, do the following:
  - a In the Manage list, click Excel Add-ins.
  - b Click Go.

The **Add-Ins** dialog box appears.

- c Select the Microsoft Excel Data Exchange check box.
- d Click OK
- 23 On the left side of the Excel Options window, click Save.
  - a Clear the Save AutoRecover information every check box.
  - **b** Select **Disable AutoRecover** for this workbook only.



Tip

Step 23 needs to be completed for every Input Excel workbook used to generate reports.

- 24 Restart Microsoft Excel for the changes to be saved and take effect.
- 25 Close all instances of Microsoft Excel.

#### **Next steps**

• Re-enable the **Deny log on locally** security policy for the *Local Servers* account. For more information, see "Re-enabling the Deny log on locally policy for the Local Servers account" on page 88.

## **Setting up Microsoft Excel for Batch Reports**



#### Attention

Follow this procedure if you are setting up Microsoft Excel to only run Batch Reports.

If you want to run Batch Reports as well as Excel Reports, do not follow this procedure. Instead, see "Setting up Microsoft Excel for Excel Reports" on page 83.

#### **Prerequisites**

- Microsoft Excel is installed, but not yet started.
- You have followed the procedures to temporarily disable the **Deny log on locally** policy for the *Local Servers* account. For more information, see "Disabling the Deny log on locally policy for the Local Servers account" on page 82.



#### **CAUTION**

When following this procedure, you must complete all the steps, including the final steps to restore Local Servers to the Deny log on locally policy. If you fail to do this, anyone who has knowledge of the Windows *mngr* or *LocalComServer* account passwords could have privileged access to this computer.

#### To set up Microsoft Excel for Batch Reports

1 Start Microsoft Excel.

If prompted, complete the details in any Microsoft Excel dialog boxes, such as typing the user name and initials, and selecting the Help and Windows update.

2 Do one of the following:

Option	Description		
Microsoft Excel 2010	1. Restart Microsoft Excel for the changes to take effect.		
	2. Close Microsoft Excel.		

#### **Next steps**

• Re-enable the **Deny log on locally** security policy for the *Local Servers* account. For more information, see "Re-enabling the Deny log on locally policy for the Local Servers account" on page 88.

#### Related topics

"Disabling the Deny log on locally policy for the Local Servers account" on page 82

"Installing Microsoft Excel or Microsoft Office service packs" on page 81

### **Installing the Experion ODBC client**

For Microsoft Excel, Microsoft Access applications, and other applications to access Experion server data using the Experion ODBC driver, you need to install the ODBC client on the same computer as the application.

If the application is installed on the Experion server, you do not need to install the ODBC client as it is already installed as part of the Experion installation. However, if the application is on another computer, you must install the ODBC client on that computer.

#### **Prerequisites**

• Software Installation User's Guide (SIUG).

#### To install the ODBC client

• For instructions on how to install the ODBC client, see the "Installing optional features" topic of the "Optional features" section of the *Software Installation User's Guide*.

#### **Next steps**

After installing the ODBC client, configure the Experion ODBC driver. For more information, see the *Server* and Client Configuration Guide.

## Setting up network printers for Microsoft Excel reports

If you want to print Microsoft Excel reports to a network printer, you must be logged on using the local *mngr* Windows account when configuring that printer. Printers configured using other accounts cannot be used because the connection to the network print queue will not always be visible to other accounts on the same computer.

#### **Prerequisites**

- · Microsoft Excel is installed.
- You have followed the procedures to temporarily disable the **Deny log on locally** policy for the *Local Servers* account. For more information, see "Disabling the Deny log on locally policy for the Local Servers account" on page 82.



#### **CAUTION**

When following this procedure, you must complete all the steps, including the final steps to restore Local Servers to the Deny log on locally policy. If you fail to do this, anyone who has knowledge of the Windows *mngr* or *LocalComServer* account passwords could have privileged access to this computer.

#### To set up network printers for Microsoft Excel reports

- 1 Log on to the computer using the local *mngr* Windows account.
- 2 Configure the printer.
  For more information about configuring printers, see the "Configuring printers checklist" topic in the "Printers" section of the Server and Client Configuration Guide.
- 3 Log off the Windows operating system and log on using a Windows account with administrator permissions.

#### **Next steps**

Re-enable the **Deny log on locally** security policy for the *Local Servers* account. For more information, see "Re-enabling the Deny log on locally policy for the Local Servers account" on page 88.

## Re-enabling the Deny log on locally policy for the Local Servers account

This procedure reinstates the Windows security policy that prevents the Windows *mngr* account from logging on locally to this computer.

#### To re-enable the deny log on locally policy for the Local Servers account

- 1 If you are logged on to the Windows operating system using the local mngr Windows account, log off.
- 2 Log on to the Windows operating system using a local Windows account with administrator permissions.
- 3 Choose **Start** and type **secpol.msc** in the search box, and then press Enter. The **Local Security Policy** window appears.
- 4 Expand the Local Policies item and then click on the User Rights Assignment item.
- Double-click on the **Deny log on locally** policy.The **Deny log on locally Properties** window appears.
- 6 Click Add User or Group.
  - The Select Users, Computers, Service Accounts, or Groups window appears.
- 7 Click Locations.
  - The **Locations** window appears.
- 8 In the Location list, select the computer name, and then click **OK**.
- 9 Click Object Types.
  - The **Object Types** window appears.
- 10 Select the Groups check box and click OK.
- 11 In the Enter the object names to select box, type Local Servers.
- 12 Click Check Names and ensure that the name can be resolved.
- 13 Click OK.
- 14 Click OK to close the Deny log on locally Properties window.
- 15 Close the Local Security Policy window.
- 16 Log off the Windows operating system and log on as an Experion user.

## **Troubleshooting Microsoft Excel reports**

Use the following to isolate and correct Microsoft Excel reports.

#### Cause

The Microsoft Excel Report time out period (as defined on the **Content** tab of the Report display in Station) is less than the time it takes for the Microsoft Excel workbook used as the input to the Excel report to open and populate with data.

#### Solution

- 1. Configure the Microsoft Excel workbook containing the Microsoft Excel Data Exchange (MEDE) functions and observe that MEDE automatically populates the data into the workbook cells.
- 2. Once the configuration of the Microsoft Excel workbook is complete and data is visible, close the Microsoft Excel workbook.
- 3. Open the Microsoft Excel workbook and observe the time it takes for the system to open it and populate data within the cells. Remember that the time it takes for the system to open the Microsoft Excel workbook when requested through Station will be more than the time it takes for you to open it manually. In this case increase the time out period in **Content** tab before requesting the report in Station.

#### Cause

Microsoft Excel reports cannot manage any dialog boxes or pop-ups that appear during Microsoft Excel operations, such as open, update, save, and close.

#### Solution

Manually open the Microsoft Excel workbook and check that no dialog boxes or pop-ups appear before requesting the report in Station.

#### Cause

Permissions

#### **Solution**

Microsoft Excel Reports requires the local *mngr* Windows account to have permissions to open and save the Microsoft Excel workbook.

#### Cause

There may be existing Microsoft Excel processes created by the local *mngr* Windows account that are already running and blocking the Microsoft Excel process instance that you are trying to create when running a Microsoft Excel report.

#### Solution

Check that there are no exce1.exe processes running (under any Windows account) before requesting the report.

#### Cause

By default, Internet Explorer (and therefore Station) will not open a Microsoft Excel spreadsheet within the application. This can be changed by configuring the document type or through the Registry.

#### Solution

If a report is opening outside Station , check that the registry values defined in the <install folder>\Honeywell \Experion PKS\client\Xldataex\excelreports.reg file are applied.

# Setting up a file server checklist

A file server allows other computers to share its files over a network. Experion uses the file-sharing capabilities of the Microsoft Windows Network.

Experion uses a file server to store displays.

#### **Tasks**

Task	Go to	Done?
Set up the folder as a shared folder.	"Setting up a shared folder" on page 92	
On each computer that needs access to the shared folder, assign a drive letter.	"Assigning a drive letter on a client computer to a shared folder" on page 93	

#### **Related topics**

<sup>&</sup>quot;Setting up a shared folder" on page 92

<sup>&</sup>quot;Assigning a drive letter on a client computer to a shared folder" on page 93

# Setting up a shared folder

#### To set up a shared folder

- 1 Log on to the computer using a Windows account with local administrator rights.
- 2 In Windows Explorer, right-click the folder you want to share and choose **Share**.
- 3 Select the user(s) who will be able to access this folder and click Add.
- 4 Click **Share**. A progress bar displays.
- 5 When the share is successful, click **Done**.
- 6 Click **OK** to share the folder, and then close the dialog box.

# Assigning a drive letter on a client computer to a shared folder

In order for a client computer to access to files in a shared folder, you must assign a drive letter to the shared folder.

#### To assign a drive letter on a client computer

- 1 In Windows Explorer, select **Computer** and click **Map Network Drive**. The Map Network Drive dialog box appears.
- 2 In the **Drive** list, select an unassigned letter.
- 3 Click **Browse** and browse to the shared folder and click **OK**.
- 4 Click Finish.

# **Activating an Enterprise Model database**

Follow these instructions to install an EMDB on Experion servers where you did not install an EMDB during the Experion server installation.

#### To activate an Enterprise Model database

- 1 Log on to the Experion server using a Windows account with administrator privileges. The Windows account must be a member of the local Administrators group.
- 2 Close any running applications.
- **3** Go to *<install folder>\Honeywell\Experion PKS\Experion PKS\Utilities\EPKS\_Modify*. Where *<install folder>* is the location where Experion is installed.
- **4** Double-click *EPKS\_Modify.exe*. The EPKS\_Modify tool dialog appears.
- 5 Click **Yes** to proceed with the installation.
- 6 When prompted, type the mngr password of the Experion server and then click Next.
- 7 Click Continue to install the EMDB.
  The application will install and activate the EMDB.
- 8 Click **Finish** to complete the installation.
- **9** When prompted, click **Yes** to restart the computer.

# **About activating an Enterprise Model database**

During the installation of Experion server, you are prompted to install an Enterprise Model database (EMDB). If you did not install an EMDB during the Experion server installation, you can install and activate the EMDB. If you chose to install an EMDB on any Experion server that should not be an enterprise model server and, therefore, not host an EMDB, you can deactivate the EMDB on those nodes.

For more information about planning considerations for EMDB, see the topic titled "Servers and the Enterprise Model Database" in the *Server and Client Planning Guide*.

# **Deactivating an Enterprise Model database**

Follow these instructions to deactivate an Enterprise Model database (EMDB) on Experion servers where you installed an EMDB that is not required.



#### Attention

- The following instructions for deactivating an EMDB do not apply to deactivating an alarm suppression database. An alarm suppression database consists of the configuration data for the Experion license option, Dynamic Alarm Suppression (DAS). DAS enables you to configure alarm suppression groups that can temporarily remove alarms from the default view of the Alarm Summary.
  - Although the alarm suppression database resides on the same server as the Enterprise Model database (EMDB), it is quite separate to the EMDB. When deactivating a server that contains the alarm suppression database, it is strongly recommended that you export your alarm suppression data (using the **Export** option in Configuration Studio's Alarm Suppression configuration task) saving it in .csv or .xm7 format so that you can subsequently import that data into another system.
- After deactivating an EMDB on a server, the Assets and Alarm Groups on the server cannot be modified until the
  server is added to another enterprise model. When you add the server to another enterprise model, you will be
  prompted to migrate the server's Asset and Alarm Group models to that enterprise model. When you are prompted
  to migrate, you should click Continue.

#### To deactivate an Enterprise Model database

- 1 Log on to the Experion server using a Windows account with administrator privileges. The Windows account must be a member of the local Administrators group.
- 2 Close any running applications.
- Go to <install folder>\Honeywell\Experion PKS\Utilities\EPKS\_Modify. Where <install folder> is the location where Experion is installed.
- 4 Double-click on EPKS\_Modify.exe.
  - The **EMDB De-Activation** window appears.
- 5 Click **Yes** to proceed with the deactivation of the EMDB.
  - A message box appears.
- 6 Click **OK** to confirm that you want to deactivate the EMDB.
- 7 Click Continue to deactivate the EMDB. The application will deactivate the EMDB.
- 8 Click **Finish** to complete the deactivation.
- **9** When prompted, click **Yes** to restart the computer.

# Changing license and server configuration details

The following topics describe supplementary tasks that are either part of an installation or upgrade, or can be completed, if required, after an installation.

#### **Related topics**

- "Changing the Experion license" on page 100
- "Changing from a non-CAB Developer license to a license that includes CAB Developer" on page 101
- "Changing the displays search path, history archive, and history restore search folders" on page 102
- "Changing the report paper type or report font" on page 103
- "Configuring the database setup" on page 104

### **Changing the Experion license**

This section describes how to change the Experion license.

#### **Prerequisites**

- The new Experion license.
- You have backed up the database, especially if the database size is being changed.
- Some major license changes require you to run the setup program from Experion Application DVD. The setup program will notify you if this is the case.
- If you have a redundant server system, you have to perform this procedure on each server.

#### To change the Experion license

- 1 Log on to the server using a Windows account that is a member of the Product Administrator group.
- 2 Stop the Experion server in **Database Only** mode.
- 3 Choose Start > All Programs > Honeywell Experion PKS > Server, then right-click Experion PKS Server Configuration Panel and choose Run as administrator.

The Experion PKS Server Configuration Panel dialog box appears.

- 4 Click View License.
  - The license details dialog box appears.
- 5 Click Change License.
- **6** Type the new system and authorization numbers.
- 7 Click OK.
- 8 Click Close.
- 9 Click **OK** to close the **Experion PKS Server Configuration Panel** dialog box.



Tip

Any Console Stations connected to this server should be restarted after the license has been modified so that the Console Stations also receive a copy of the new license.

#### Related topics

"Starting and stopping Experion servers" on page 108

# Changing from a non-CAB Developer license to a license that includes CAB Developer

This section describes the steps to upgrade from an Experion license without CAB Developer software to a license that includes CAB Developer software.

You can install CAB Developer software on the following nodes:

- · Console Station.
- Flex Station (including LCN connected Stations).

You can install CAB Remote Debugging on ACE.

You cannot install CAB Developer software on an Experion server.

#### **Prerequisites**

- Software Installation User's Guide.
- Experion Installation DVD.
- Microsoft Visual Studio 2010 Professional for CAB Developers DVD.
- New Experion Authorization Number and System Number that enables the CAB Developer software.

#### To upgrade to a CAB Developer license on Console Stations and Flex Stations

• Follow the instructions in the *Software Installation User's Guide* for installing optional features. For more information, see the "Installing optional features" topic in the "Optional features" section of the *Software Installation User's Guide*.

Within the procedure for installing optional features, you will be prompted to select the features to install. Select the **CAB Developer** feature.

#### To upgrade to a CAB Remote Debugging license on an ACE node

• Follow the instructions in the *Software Installation User's Guide* for installing optional features. For more information, see the "Installing optional features" topic in the "Optional features" section of the *Software Installation User's Guide*.

Within the procedure for installing optional features, you will be prompted to select the features to install. Select the **CAB Remote Debug** feature.

# Changing the displays search path, history archive, and history restore search folders

#### **Prerequisites**

• Changing the folders requires you to stop and restart the Experion server.

#### To change the folder

- 1 Log on to the server using a Windows account with local administrator rights.
- 2 Choose Start > All Programs > Honeywell Experion PKS > Server, then right-click Experion PKS Server Configuration Panel and choose Run as administrator.
  - The Experion PKS Server Configuration Panel dialog box appears.
- 3 In the appropriate box, type the path to the folder, or click **Browse** and then browse to the location of the folder, select it, and then click **OK**.
- 4 Click OK to close the Experion PKS Server Configuration Panel dialog box.
- 5 Stop the Experion server and unload the database.
- **6** Return the Experion server to system running status.

# Changing the report paper type or report font

#### **Prerequisites**

Changing the report paper type or report font requires you to stop and restart the Experion server.

#### To change the report paper type or report font

- 1 Log on to the server using a Windows account with local administrator rights.
- 2 Choose Start > All Programs > Honeywell Experion PKS > Server, then right-click Experion PKS Server Configuration Panel and choose Run as administrator.
  - The Experion PKS Server Configuration Panel dialog box appears.
- 3 In the **Report paper type** list, select the new report paper size.
- 4 In the **Report font** list, click the new report font.
- 5 Click **OK** to close the **Experion PKS Server Configuration Panel** dialog box.
- 6 Stop the Experion server and unload the database.
- 7 Return the Experion server to system running status.

#### Related topics

"Starting and stopping Experion servers" on page 108

### Configuring the database setup

After installing Experion, you can adjust the database sizing for history samples and other non-licensed items to meet your system's requirements.

#### **Related topics**

- "Adjusting History retention" on page 104
- "Adjusting sizing of non-licensed items" on page 104

#### **Adjusting History retention**

You can adjust history retention periods, including the duration and number of samples, with the *sysb1d* utility. For details about this utility, see the *Server and Client Configuration Guide*.

For more information about history collection refer to the "History collection" section of the *Server and Client Planning Guide* and the "History collection and archiving" section of the *Server and Client Configuration Guide*.

#### Adjusting sizing of non-licensed items

You can use the **sysbld** utility to adjust the default sizing of non-licensed items so that it better meets the needs of your system. The following table lists the items you can adjust and includes default and maximum values. For details about the *sysbld* utility, see the *Server and Client Configuration Guide*.



#### Attentior

Because some non-licensed items affect disk space and memory requirements, you need to take care when setting their sizes.

Item	Default number	Maximum number	Additional disk space required/item (kilobytes)
Algorithm blocks	6,000	6,000	0
Areas	1,000	1,000	0
Concurrent alarms	1,000	1,000	0
Concurrent delays	1,000	1,000	0
Concurrent messages	1,000	1,000	0
Controller channels	90	99	0
Controllers	100	5,000	0
Dynamic objects on named displays	300	300	0
Event Summary	32,000	32,767 <sup>5</sup>	0.25
Groups	16,000	16,000	0
Number of application tasks	80	80	0
Number of user files	3	150	User-defined
Operators	400	1,000	0
Point control schedules	1,000	1,000	0
Point lists	2,000	2,000	0

<sup>&</sup>lt;sup>5</sup> The maximum configurable size of the online Event Summary.

Item	Default number	Maximum number	Additional disk space required/item (kilobytes)
Printer connections	50	50	0
Recipes	500	32,767	1
Reports	1,000	1,000	0
Sequence of event (SOE) entries	1,000	32,767	0.25
Stored delays	2,000	32,767	0.1
Trends	3,000	3,000	0

# **Common Experion tasks**

#### **Related topics**

- "Starting and stopping Experion servers" on page 108
- "Starting and stopping Experion Console Station" on page 109
- "Stopping Experion services" on page 110

### Starting and stopping Experion servers

You can stop and start Experion servers using the Experion PKS Server dialog box.



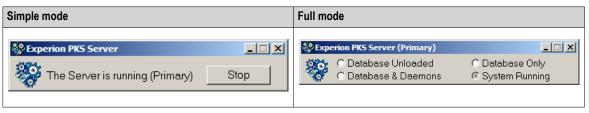
#### CAUTION

To avoid synchronization issues while Experion servers and Console Stations are offline, and while services are stopped, avoid making engineering changes to the system, such as adding controllers or changing tag names.

In addition, it is best practice to bring Experion servers and Console Stations back online in the reverse order in which they were taken offline. This also helps to reduce database-related synchronization issues.

#### To stop the Experion server

1 Choose Start > All Programs > Honeywell Experion PKS > Server > Start-Stop Experion PKS Server. The Experion PKS Server dialog box appears.



- 2 If the Experion PKS Server dialog box appears in simple mode, click the icon to the left of the title bar, and choose Advanced > Full mode.
- 3 There are three stop modes available in Full mode; **Database Unloaded**, **Database & Daemons**, and **Database Only** 
  - Click the stop mode specified in the task or step that led you to this task.
- 4 If prompted, click **Yes** to confirm the action.

  Wait for the server to change its state. It may take several minutes for the Experion server to stop.

#### To start the Experion server

- 1 Choose Start > All Programs > Honeywell Experion PKS > Server > Start-Stop Experion PKS Server.

  The Experion PKS Server dialog box appears.
- 2 If the Experion PKS Server dialog box appears in simple mode, click the icon to the left of the title bar, and choose Advanced > Full mode.
- 3 To start the Experion server, click **System Running**.
- 4 If prompted, click **Yes** to confirm the action.

  Wait for the Experion server to change its state. It may take several minutes for the Experion server to start.

#### Related topics

"Changing the Experion license" on page 100

"Changing the report paper type or report font" on page 103

## Starting and stopping Experion Console Station

This section describes how to stop and start an Experion Console Station.



#### CAUTION

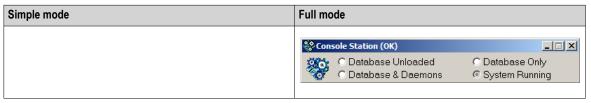
To avoid synchronization issues while servers and Console Stations are offline, or while services are stopped, avoid making Engineering changes to the system, such as adding controllers or changing tag names.

In addition, it is best practice to bring servers and Console Stations back online in the reverse order in which they were taken offline. This also helps to reduce database-related synchronization issues.

#### To stop an Experion Console Station

1 Choose Start > All Programs > Honeywell Experion PKS > Console Station > Start-Stop Experion PKS Console Station.

The **Experion PKS Console Station** dialog box appears.



- 2 If the Experion PKS Console Station dialog box appears in simple mode, click the icon to the left of the title bar, and choose Advanced > Full mode.
- 3 There are three stop modes available in Full mode; **Database Unloaded**, **Database & Daemons**, and **Database Only**.
  - Click the stop mode specified in the task or step that led you to this task.
- 4 If prompted, click **Yes** to confirm the action.

  Wait for the Console Station to change its state, which may take several minutes.

#### To start an Experion Console Station

1 Choose Start > All Programs > Honeywell Experion PKS > Console Station > Start-Stop Experion PKS Console Station.

The Experion PKS Console Station dialog box appears.

- 2 If the Experion PKS Console Station dialog box appears in simple mode, click the icon to the left of the title bar, and choose Advanced > Full mode.
- 3 To start the Experion PKS Console Station, click **System Running**.
- 4 If prompted, click **Yes** to confirm the action.

Wait for the Console Station to change its state, which may take several minutes.

## **Stopping Experion services**

This section describes how to stop Experion services on a computer.



#### CAUTION

To avoid synchronization issues while servers and Console Stations are offline, or while services are stopped, avoid making Engineering changes to the system, such as adding controllers or changing tag names.

In addition, it is best practice to bring servers and Console Stations back online in the reverse order in which they were taken offline. This also helps to reduce database-related synchronization issues.

#### Related topics

- "Using the Experion PKS Services Control Panel" on page 110
- "Displaying the Computer Management services console" on page 111
- "Stopping Experion server and Console Station services" on page 111
- "Stopping System Management services" on page 111
- "Stopping Signon Manager" on page 111
- "Stopping Engineering Tools services" on page 111
- "Stopping RSLinx" on page 112
- "Stopping the XLNet daemon" on page 112
- "Start and stop services using a command line (ssservices.exe)" on page 112

### **Using the Experion PKS Services Control Panel**

This control panel provides the following options:

- Start/stop SQL services.
- Start/stop Engineering Tool services.
- Start/stop Server/Station services.
- Start/stop common components infrastructure/TPS services.
- Start/stop all Experion services.

#### **Prerequisites**

- The Experion PKS Services Control Panel can be accessed by the following methods
  - Choose Start > All Programs > Honeywell Experion PKS > Experion PKS Start-Stop Services Control Panel.
  - If you have installed Experion, in the <install folder>\Honeywell\Experion PKS\Utilities
    \ssservices folder, double-click the ssservices.exe file, where <install folder> is the location where
    Experion is installed.
  - In the Experion Application DVD, go to the Packages\Utilities\SSServices folder and double-click the ssservices.exe file.

#### To use the Experion PKS Services Control Panel

- Open the Experion PKS Services Control Panel.
  See the *Prerequisites* section above for more information on how to start this utility.
- 2 Click the required start or stop command option.
- 3 Click OK.

A message displays the success of stopping the services.

### **Displaying the Computer Management services console**

#### To display the Computer Management Services Console

- 1 Click Start, right-click the Computer and choose Manage.
- 2 Expand the Services and Applications item.
- 3 Click the Services item.

The services are displayed on the right pane of the console. Most Experion-related process names are prefixed with "Experion".

### Stopping Experion server and Console Station services



#### Attention

This section only applies to Experion servers and Console Stations.

#### To stop the Experion server and Console Station services

- 1 Display the Experion PKS Services Control Panel.
- 2 Click the Stop Server/Station Services option button and then click OK.
  The Experion PKS Services Control Panel stops all the Experion server and Console Station services.
  When all services have been stopped, the Start and Stop Services dialog box appears.
- 3 In the Start and Stop Services dialog box, click OK.

### **Stopping System Management services**

The following procedure describes how to stop System Management services and also how to start them.

#### To stop the System Management services

- 1 Display the Experion PKS Services Control Panel.
- 2 Click the Stop Common Component Infrastructure/TPS Services option button and then click OK. The Experion PKS Services Control Panel stops all System Management services.
  - When all services have been stopped, the Start and Stop Services dialog box appears.
- 3 In the Start and Stop Services dialog box, click OK.

### **Stopping Signon Manager**

#### To stop Signon Manager

- 1 Display the Services Console.
- 2 Right-click the Signon Manager service and then choose Stop.
  If the Stop command is not available, the service has already stopped.

### **Stopping Engineering Tools services**

#### To stop Engineering Tools services

1 Display the Experion PKS Services Control Panel.

2 Click the Stop Engineering Tools Services option button and then click OK.

The Experion PKS Services Control Panel stops all the Engineering Tools services.

When all services have been stopped, the Start and Stop Services dialog box appears.

3 In the Start and Stop Services dialog box, click OK.

### **Stopping RSLinx**

#### **Prerequisites**

• The system tray is the area on the Windows operating system task bar displaying the time. To left side of the time, there are one or more icons displayed.

#### To stop RSLinx

- 1 Click the RSLinx icon in the system tray to display the RSLinx application.
- 2 Choose File > Exit and Shutdown.
  The Shutdown RSLinx anyway? message dialog box appears.
- 3 Click Yes.

### Stopping the XLNet daemon

#### To stop the XLNet Daemon

- 1 Display the Services Console.
- 2 Right-click the **XLNET Daemon** service and then choose **Stop**. If the **Stop** command is not available, the service has already stopped.

### Start and stop services using a command line (ssservices.exe)

#### Description

Using the **ssservices.exe** command, you can start and stop Experion services from a command line, or use the command in .bat files.

#### **Syntax**

Arguments	Description
-start_sql	Start SQL services.
-start	Start Engineering Tools services.
-start_hsc	Start Experion server services.
-start_cc	Start all common component infrastructure services.
-start_all	Start all services (SQL services, Engineering Tools services, Experion server services, and all common component infrastructure services).
-stop_sql	Stop SQL services.
-stop	Stop Engineering Tools services.
-stop_hsc	Stop Experion server services.
-stop_cc	Stop all common component infrastructure services.

Arguments	Description
-stop_all	Stop all services (SQL services, Engineering Tools services, Experion server services, and all common component infrastructure services).
path_to_ssstatus.txt	The path to the folder where the ssstatus. txt. This file contains the output of the command. If this path is not specified, the output is displayed in the command window.  If the path contains spaces, the path should be contained within quotes.

#### Example

Where *<install folder>* is the location where Experion is installed.

This example will start Experion server services. The *ssstatus.txt* file located in the *<install folder>* \text{Honeywe11\Experion PKS\Install} folder will contain the output of the command.

 $<sup>&</sup>quot;<install\ folder> \verb|\Honeywell| Experion\ PKS \verb|\Utilities| SSServices| -start_hsc| "<install\ folder> \verb|\Honeywell| Experion\ PKS \verb|\Install|"$ 

# Preparing a client computer for an Icon Series Console

This section describes how to prepare a client computer for installation in a Honeywell Icon Series Console. The client computer is physically installed within the Icon Series Console and connected to the Experion servers by the network.



#### Tip

Make a copy of this checklist so that it is easier to keep track of where you are in the installation process.

#### **Prerequisites**

Honeywell Icon Series Console.

The Honeywell Icon Series Console must be assembled, including installing the video displays, by following the instructions in the "Console Assembly" section of the *Honeywell Icon Series Console Planning, Installation, and Service Guide.* 

- A Honeywell-supported workstation for Icon Series Consoles. For information about supported platforms, see the section on "System Platform Installation" in the *Honeywell Icon Series Console Planning, Installation, and Service Guide.*
- Honeywell operator entry panel (OEP).
- · Honeywell OEP/IKB adapter kit.
- · Experion installation media.

#### **Tasks**

Task	Go to	Done?
If not already installed, install the video display adaptor.	Video card installation instructions	
Install the computer within the Icon Series Console, including connecting the video card to the video displays.	"System Platform Installation" section of the Honeywell Icon Series Console Planning, Installation, and Service Guide	
Connect the OEP to the computer using the Honeywell OEP/IKB adapter.	"Installing the OEP/IKB Adapter Kit on a Local Computer" topic in the "OEP/IKB Adapter" section of the OEP/IKB and Touch Screen Device Adapters Installation Instructions	
Install Experion Console Station, Console Extension Station, or Flex Station.	Software Installation User's Guide	
When you install the Experion Station software, select to install SafeView during the installation.		
Configure Station for an Icon Series Console.	"Configuring Icon Series Console" section of the Server and Client Configuration Guide	

#### Related topics

"Installing the flat panel display touch screen driver" on page 117

"Configuring the computer for multiple video displays" on page 118

## Installing the flat panel display touch screen driver

#### **Prerequisites**

- You have installed a flat panel display touch screen.
  - For instructions on installing a flat panel display, see the instructions for the appropriate flat panel display in the *Honeywell Icon Series Console Planning, Installation, and Service Guide*.
- The CD containing the flat panel touch screen driver software.

#### To install the flat panel display touch screen driver

- 1 Connect the flat panel display USB cable to the USB hub within the Icon Series Console.
- 2 Insert the CD containing the touch screen driver software into the CD-ROM drive.
- 3 In Windows Explorer, browse to the *Elosetup.exe* file and double-click on it. The **Elo Touchscreen Setup** screen appears.
- 4 Follow the on-screen instructions.
- 5 After installing the drivers, in the Windows Control Panel large or small icon view, click Elo Touchscreen (32-bit).
  - The **Elo Touchscreen Properties** dialog box appears.
- 6 Click the **Mode** tab.
- 7 Select Mouse emulation and Show tool tray utility.
- 8 Click the Sound tab.
- 9 Select Beep on touch.
- Move the Tone and Duration sliders to suitable settings.
  You can test the sound by touching Touch here to test beep sound.
- 11 Click OK.
- **12** Restart the computer.

## Configuring the computer for multiple video displays

This section describes how to configure dual or quad displays.

#### To configure multiple video displays

- 1 In the Windows Control Panel large or small icon view, click Display.
- 2 Click Change display settings.
- 3 Select 1280×1024 from the Resolution list.
- 4 Click the **Advanced settings** link.
  The **Monitor Properties** dialog box appears.
- 5 Click the **Monitor** tab.
- 6 In the Screen refresh rate list, select 60 Hertz.
- 7 In the Colors list, click High Color (16 bit).
- 8 Click OK.
- 9 Click **Identify** to display the monitor numbers on each display.
- 10 Drag the corresponding monitor icon numbers to align them into the dual or quad configuration layout, as physically installed on the Icon Series Console.
- 11 Click OK.

# **Configuring a Systech terminal server**

This section describes how to configure a Systech NDS—5016RM or NDS—6204 terminal server so that the server can communicate with devices, such as controllers, connected to its serial ports.

#### **Prerequisites**

- You have installed the Systech terminal server as described in the NDS/5000 and NDS/6000 Hardware Manual.
- You have installed the NativeCOM software.

#### **Tasks**

Task	Go to	Done?
Specify the Systech's IP address.	"Specify the IP Address" on page 120	
Log on to the Systech via Internet Explorer.	"Logging into the Terminal Server using Internet Explorer" on page 121	
Change the TCP/IP settings.	"Changing the TCP/IP Address" on page 122	
If the Systech is connected to the Experion server via a router, configure the route from the Systech to the Experion server.	"Configuring the Router/ Gateway Address" on page 123	
Configure the TCP keep alive timer.	"Configuring the TCP keep alive timer" on page 124	
Configure the Systech's serial ports.	"Configuring Serial Ports" on page 125	
Connect controllers as required.	"Connecting Controllers" on page 129	

#### Related topics

<sup>&</sup>quot;Specify the IP Address" on page 120

<sup>&</sup>quot;Logging into the Terminal Server using Internet Explorer" on page 121

<sup>&</sup>quot;Changing the TCP/IP Address" on page 122

<sup>&</sup>quot;Configuring the Router/Gateway Address" on page 123

<sup>&</sup>quot;Configuring the TCP keep alive timer" on page 124

<sup>&</sup>quot;Configuring Serial Ports" on page 125

<sup>&</sup>quot;Adding the IP address to the server's hosts file" on page 126

<sup>&</sup>quot;Upgrading the Systech Terminal Server to Current Release" on page 127

<sup>&</sup>quot;Configuring the Terminal Server for use with Fast Failover" on page 128

<sup>&</sup>quot;Connecting Controllers" on page 129

## **Specify the IP Address**

You specify the Systech's IP address using the NativeCOM software. The NativeCOM software and manual are available on the media you received with your Systech terminal server, or from the Systech web site (http://www.systech.com)

#### **Prerequisites**

NativeCOM software is installed.

#### To specify the IP address

- 1 Log on to the server using a Windows account with local administrator privileges.
- 2 Click Start > All Programs > NativeCOM > NativeCOM Configuration Utility.
- 3 In the Port Server group, click Add.
  - The **Add Multiple NativeCOM Ports** dialog box appears, containing a list of the Systech terminal servers available on your local network. Some terminal servers running older software will not appear in this list.
- 4 If the Systech terminal server appears in the **Step 1 Select a port server** list, click on the IP address/ Hostname value and type the new IP address. Continue to step 9.
- 5 If the Systech terminal server does not appear in the Step 1 Select a port server list, click Add Unlisted Port Server.
- 6 In the **Existing IP Address/Hostname** box, type the currently assigned IP address of the Systech terminal server.
- 7 Click Assign IP Address.
- 8 Type the Ethernet Address and the New IP Address of your Systech Terminal Server and click Assign IP Address
  - After assigning an IP address the Add Port Server dialog box will appear.
- 9 In the Step 1 Select a port server area, click the terminal server.
- 10 In the Step 2 Configure the port template area, type a name for the serial ports and click Driver Settings.
- 11 In the **Driver Settings** dialog box, make sure only **Write Errors on Failed Network Connection** is selected and clear the **Retain Network Connection After Close** check box, and then click **OK**.
- 12 In the Step 3 Select COM ports area, leave the defaults.

  Although this dialog will assign virtual COM ports COM3 and COM4, this feature of the terminal server must not be used. The Experion terminal server driver must be used instead.
- 13 Click OK and then click Close.

## **Logging into the Terminal Server using Internet Explorer**

Once your terminal server's IP address is configured it is recommended to continue the configuration of the terminal server using Microsoft Internet Explorer.

#### To log on using Internet Explorer

- 1 Start Microsoft Internet Explorer.
- 2 In the address bar type: //a.b.c.d

Where a.b.c.d is the IP address of your Systech terminal Server. For example: //220.0.0.1.

The main configuration menu appears.

## **Changing the TCP/IP Address**

If you ever reconfigure your network, you have to define the Systech's new TCP/IP address.

#### To change the TCP/IP address

- 1 Click the IP Address link.
- 2 Type the IP address and IP Netmask addresses.
- 3 Click Apply Changes.
- 4 Click Save Changes.

You need to restart the terminal server for the new settings to take effect. Do this by cycling the power.

## **Configuring the Router/Gateway Address**

If your Systech terminal server is connected to the Experion server via a router, you need to configure the route from the terminal server to the Experion server.



#### Attention

For the terminal server to be able to be reached by all computers on a different subnet, use that subnets router or gateway address, as the destination address in the terminal server.

#### To configure the gateway

- 1 Click the Routing/Gateways link.
- **2** Type the Destination address.

This is the address of your Experion Server.

**3** Type the Gateway address.

This is the address of the router that the terminal server communicates with.

4 From the Flags options, select **net**.

"net" indicates that the destination IP address is a computer on the specified network.

- 5 In Metric, specify the number of jumps to reach the destination address.
- From the Gateway type options, select address.Address indicates that the Gateway is an address.
- 7 Click Add Entry.
- 8 Click Save Changes.
- 9 You need to reboot the terminal server for the new settings to take effect. Do this by cycling the power.

#### Example

Your server is connected and has IP address 192.168.0.3 and the Systech Terminal Server is connected and has IP address 220.0.0.1.

The settings would be

Parameter	Value
Destination	192.168.0.3
Gateway	220.0.0.240
Flags	net
Metric	1
Gateway Type	address

## Configuring the TCP keep alive timer

It is highly recommended that you configure the TCP keep alive timer. This will ensure that a TCP connection will quickly be released if one side of the connection is terminated abnormally. The TCP keep alive timer is essential in redundant systems where it is vital that the backup server can connect to the terminal server if the server acting as primary fails.

#### To configure the TCP keep alive timer

- 1 Click the TCP Keep Alive link.
- 2 Set the **tcp\_keepidle** to 10. This sets the keep alive timer to 10 seconds.
- 3 Set the tcp\_keepcnt to 8.

  This sets the number of TCP keep alive packets.
- 4 Click Apply Changes.
- 5 Click Save Changes.

# **Configuring Serial Ports**

### To configure the serial ports

- 1 Click the **Port Parameters** link.
- 2 Click either Port 1 or Port 2.
- 3 Use the following table to set the ports characteristics.

Command	Option	Typical Setting
Baud	300 to 115,200	9600
Inactivity Timeout	0 (default)	60
Character size	5	8
	6	
	7	
	8	
Stop Bits	1	1
	2	
Parity	None	None
	Even	
	Odd	
	Mark	
	Space	
Interface Type	RS-232	RS-232
	RS-422	
	RS-485	
Flow Control	Input Software Flow Control	No to all
	Output Software Flow Control	
	RTS/CTS Hardware Flow Control	
	DTR/DSR Hardware Flow Control	
Need DCD to open port	Ignore	Ignore
	Required	
Reverse-Telnet (RTN)	Enabled	Enabled
	Disabled	

- 4 After you have made the changes, click **Apply Changes**.
- 5 Click Save Changes.

## Adding the IP address to the server's hosts file

You must add the IP address and name of the Systech to the server's hosts file.

#### To add the IP address to the hosts file

- 1 Log on to the server using a Windows account with local administrator.
- 2 Choose Start > All Programs > Accessories > Command Prompt to open a Command Prompt window.
- **3** At the command prompt, change to the folder for the hosts file. For example:

#### cd %windir%\system32\drivers\etc

4 Open the hosts file by typing:

#### notepad hosts

5 Move to the last line and type:

```
a.b.c.d terminal_server_name
```

where a.b.c.d is the IP address and termina7\_server\_name is the TCP Host Name. You must specify this name in Quick Builder when configuring a controller that is connected to this Systech terminal server.

For example:

220.0.0.1 systech

After editing the server's hosts file, it is recommended that you confirm that the computer can resolve the name that you have added.

#### To confirm the information added to the hosts file

- 1 Choose Start > All Programs > Accessories > Command Prompt to open a Windows Command Prompt window.
- 2 At the command prompt, type

```
ping terminal_server_name
```

where terminal\_server\_name is the TCP Host Name which you added to the hosts file.

For example:

ping systech

# **Upgrading the Systech Terminal Server to Current Release**

The Systech terminal server software consists of the following components

- Firmware—boot-time code
- Operational Software—run-time code
- Factory Configuration—the configuration to return to if you corrupt your current configuration

#### To upgrade the Systech

- 1 Download the latest files from the Systech web site, . Save these files in a location accessible during the upgrade.
- 2 Choose Start > All Programs > NativeCOM > Port Server Utilities.
- 3 If the Systech terminal server is not listed, do the following:
  - a Click Add Unlisted Port Server.
  - b In the Existing IP Address/Hostname box, type the IP address of the terminal server and click Add this Port Server.
- 4 Click the **Update/Reboot Unit** tab.
- 5 In **BDNL Files to Update**, type the path of the file that will update the terminal server.
- 6 Select Reboot unit (required for new BDNL to take effect).
- 7 Click the terminal server from the list.
- 8 Click Update/Reboot Unit.

## Configuring the Terminal Server for use with Fast Failover

In a redundant server system, the backup server must be able to communicate with the field devices as soon as it becomes the primary server.

Terminal servers implement the concept of a *TCP keep alive timer*. The TCP keep alive timer ensures that the terminal server automatically disconnects and frees a connection to one of its ports if communication with the server is lost (if the server fails or the network connection is broken). This enables the backup server to take over communication with the field devices.

Once the keep alive time has expired, a keep alive packet is sent from the Systech terminal server to the server. The interval between these keep alive packets is the greater of 2 seconds and the keep alive time/96. If the server does not respond to a configured number of keep alive packets the terminal server assumes that the connection has been broken and it allows the backup server to establish a connection.

This means that the Systech terminal server will free up a connection to one of its ports if communication with a server has been lost for the keep alive time + number of keep alive packets \* 2 seconds. That is, for a 10-second keep alive time, the connection to one of its ports is freed up after 26 seconds of lost communication with the server (assuming the number of keep alive packets is 8).

The following table shows the recommended settings for the keep alive time and the number of keep alive packets for various redundant server configurations.

		Servers configured for:		
	Normal failover communicating with terminal servers on a high-speed LAN	Fast failover communicating with terminal servers on a high-speed LAN	Normal or fast failover communicating with terminal servers on low-speed WAN	
Recommended keep alive time (seconds)	10	5	20	
Recommended number of keep alive packets	8	3	8	

## **Connecting Controllers**

This section provides general instructions on connecting controllers to a Systech. Note that you must also read the appropriate *Controller References* to see if there are any specific restrictions applicable to the controllers you want to connect.

#### Cabling

For cable wiring information that is specific to the controller that you are connecting to this terminal server, see the controller's interface reference guide.

#### Configuring the Port in Quick Builder

You use Quick Builder to configure each controller that is connected to the Systech.

The following properties (see Port tab) are specific to a Systech.

Property	Description	
Port Type	Click Terminal Server.	
Terminal Server TCP Host Name	The name you defined in the server's hosts file for the Systech to which controller is connected.	
	If you have not added the terminal server's details to the hosts file, you can type its IP address.	
Terminal Server TCP Port No	The number of the TCP port to which the controller is connected, which is equal to 8000 plus the serial port number. For example, if the controller is connected to serial port 2, you would type <b>8002</b> .	
Idle Timeout	Leave at 180 sec.	

# Installing specialized hardware on a computer

The topics in this section describe how you install or configure the following hardware for an Experion system:

- Printers
- · Serial adapters
- Integrated keyboards (IKB)
  - Using an OEP/IKB adapter
  - Using a USB port

For information on connecting, installing, and configuring a Parallel Operation Keyboard (POK), see the *Parallel Operation Keyboard User's Guide*.

#### Related topics

"Installing a printer" on page 132

"Serial adapter installation checklist" on page 136

"Connecting an integrated keyboard (IKB) to an OEP/IKB adapter" on page 138

"Connecting an integrated keyboard (IKB) to a USB port" on page 139

## **Installing** a printer

This topic describes how to install a printer.

#### **Prerequisites**

- · A supported printer.
- You must be logged on to the computer using a Windows account with local administrator rights.
- If you are installing an alarm printer, such as an Epson LQ 1070+ ESC P2, the paper size is usually set to US Std Fanfold.

#### **Tasks**

Task	Go to	Done?	
Connect the printer to the computer as specified by the manufacturer.			
Install the print driver. Choose one of the following methods:			
Local printer	"Installing a printer driver for a local printer" on page 132		
Local shared printer	"Installing a printer driver for a local shared printer" on page 133		
Shared network printer with a suitable share name     That is, the share name does not contain more than 30 characters and does not contain any spaces.	"Installing a printer driver for a shared network printer (with a suitable share name)" on page 133		
Shared network printer whose existing share name is unsuitable	"Installing a printer driver for a shared network printer (whose existing share name is unsuitable)" on page 134		
Specify the location of the print job spool.	"Setting up the print job spool folder" on page 135		
If this is an alarm/report printer and it is connected to a computer other than the server, create a guest account.	"Creating a guest account" on page 135		
Configure the printer, as described in the Server and Client Configuration Guide.			

#### Related topics

### Installing a printer driver for a local printer

This procedure is only applicable if the printer is connected to the computer, and is only used by this computer.

#### To install the printer driver

- 1 Log on to the computer using a Windows account with local administrator rights.
- 2 Choose Start > Devices and Printers > Add a Printer.

<sup>&</sup>quot;Installing a printer driver for a local printer" on page 132

<sup>&</sup>quot;Installing a printer driver for a local shared printer" on page 133

<sup>&</sup>quot;Installing a printer driver for a shared network printer (with a suitable share name)" on page 133

<sup>&</sup>quot;Installing a printer driver for a shared network printer (whose existing share name is unsuitable)" on page 134

<sup>&</sup>quot;Setting up the print job spool folder" on page 135

<sup>&</sup>quot;Creating a guest account" on page 135

- 3 Click Add a Local Printer.
- 4 Click the port to which the printer is connected. Click **Next** to continue.
- 5 Select the printer manufacturer from Manufacturer.
- 6 Select the printer model from **Printers**, and then click **Next**.
- 7 Name the printer. The name cannot contain spaces, and must not contain more than 30 characters.
- 8 Click **Next** to continue.
- 9 Specify whether or not the printer can be shared by other network users then click **Next**.
- 10 If you want to, specify Location and Comments.
- 11 Click Next.
- 12 Click Yes to print a test page.
- 13 Check the information is correct and click **Finish** to finish installing the printer.

### Installing a printer driver for a local shared printer

This procedure is only applicable if the printer is connected to the computer, and it is shared by other computers.

#### To install the printer driver

- 1 Log on to the computer using a Windows account with local administrator rights.
- 2 Choose Start > Devices and Printers > Add a Printer.
- 3 Click Add a Local Printer.
- 4 Click the port to which the printer is connected. Click **Next** to continue.
- 5 Click the printer manufacturer from **Manufacturer**.
- 6 Click the printer model from **Printers**, and then click **Next**.
- 7 Name the printer. The name cannot contain spaces, and must not contain more than 30 characters.
- 8 Click **Next** to continue.
- 9 Click Share as, type the same name as above, then click Next.
- 10 If you want to, specify Location and Comments.
- 11 Click Next.
- 12 Click Yes to print a test page.
- 13 Check the information is correct and click **Finish** to finish installing the printer.

### Installing a printer driver for a shared network printer (with a suitable share name)

This procedure is only applicable if the printer is connected directly to the network, and the current share name does not contain spaces or more than 30 characters.

#### To install the printer driver

- 1 Log on to the computer using a Windows account with local administrator rights.
- 2 Choose Start > Devices and Printers > Add a Printer.
- 3 Click Add a network, wireless or Bluetooth printer. A list of available printers displays. If the printer you wish to connect to does not display, click The printer that I want isn't listed to browse a list of shared printers on the network.
- 4 Click the printer you want to add and click **Next**.
- 5 Specify whether or not you want the network printer to be the default and click **Next**. Experion does not require the printer to be the default. However, if it is your only printer, and you wish to print screen dumps, you must make it the default printer.

6 Check the information is correct and click **Finish** to complete the installation.

#### To set the paper size

- 1 Choose Start > Devices and Printers.
- 2 Click the printer.
- 3 Right-click the printer and choose **Printing Preferences** from the menu which displays.
- 4 Click the correct paper size and click **OK**.
- 5 Select the orientation: **Portrait** or **Landscape**.
- 6 Click **Apply** and then click **OK** to close the **Printing Preferences** dialog box.

### Installing a printer driver for a shared network printer (whose existing share name is unsuitable)

This procedure is only applicable if the printer's current share name contains spaces or more than 30 characters.

#### To install the printer driver

- 1 Log on to the computer using a Windows account with local administrator rights.
- 2 Choose Start > Devices and Printers > Add a Printer.
- 3 Do one of the following:

Option	Description
Windows 7, Windows Server 2008,	1. Click Add a printer.
Windows Server 2008 R2	2. Click Add a local or network printer as an administrator.
	3. Click Add Local Printer.

- 4 Click Create a new port and click Next.
- 5 Type the full network UNC path for the printer in the **Port Name** dialog box and click **OK**.
- 6 Click the printer manufacturer from Manufacturer.
- 7 Click the printer model from **Printers**, and then click **Next**.
- 8 Name the printer. The name cannot contain spaces, and must not contain more than 30 characters.
- 9 Click Next.
- 10 Click **Do not share this printer** and click **Next**.
- 11 If you want to, specify Location and Comments.
- 12 Click Next.
- 13 Click Yes to print a test page.
- 14 Check the information is correct and click **Finish** to finish installing the printer.

#### To set the paper size

- 1 Choose Start > Devices and Printers.
- 2 Select the printer.
- 3 Right—click the printer and select **Printing Preferences**.
- 4 Click Advanced.
- 5 Click the correct paper size and click **OK**.
- 6 Select the orientation: **Portrait** or **Landscape**.
- 7 Click **Apply** and then click **OK** to close the **Printing Preferences** dialog box.

### Setting up the print job spool folder

When you install a printer, Windows creates a folder to temporarily store print jobs before sending them to the printer. By default, the folder is <code>%windir%\system32\spoo7\Printers</code>.

#### To change the spool folder

- 1 Choose **Start** > **Devices and Printers** > **Printers** to display the Printers window.
- 2 Select a printer and click **Print server properties** and click the Advanced tab.
- 3 Type a path for the print spool folder that is not in the primary partition.
- 4 Click **Apply** and then click **OK** to save your changes.

### Creating a guest account

When printing alarms, events, or reports on a printer that is connected to a computer other than the server, network security becomes a factor. This is because Experion runs under the *mngr* account. When Experion attempts to print via another computer, it logs into that computer using the *mngr* account and associated password. The print job will fail if the logon fails.

To ensure that security does not become an issue when printing, you must create a 'guest' account on the other computer named *mngr*. If this account is only used for printing, you can set it up for only printing privileges.

## Serial adapter installation checklist

This section describes the prerequisites while installing a serial adapter.

#### **Prerequisites**

- Serial adapter is qualified for use with Experion R431.
- When installing a Windows operating system recommended serial adapter, the device will be detected and automatically configured during the Windows operating system installation.

#### Related topics

"Installing a Stallion EasyConnection" on page 136

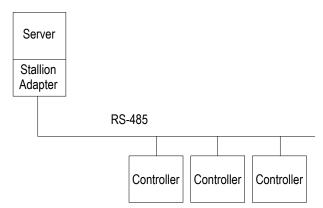
### Installing a Stallion EasyConnection



#### Electrostatic discharge

Ensure that you are properly earthed when installing any hardware in a computer. Honeywell recommends that you use an antistatic wrist strap. Alternatively, frequently touch metal parts on the computer to prevent the buildup of static electricity.

The Stallion EasyConnection serial adapter can connect RS-232, RS-422, and RS-485 devices. The following figure shows a typical configuration.



#### **Prerequisites**

- Stallion EasyConnection adapter.
- Disk or CD supplied with the adapter.
- For details about connecting controllers to the adapter, see the Server and Client Configuration Guide.

#### To install a Stallion EasyConnection and configure its driver

- 1 Install the adapter in accordance with the manufacturer's instructions, using the default DIP switch settings.
- 2 Do one of the following:

Option		Description	
Windows Server 2008	•	In the Windows Control Panel classic view, double-click Add Hardware.	
		The Add Hardware Wizard is displayed.	
		• •	

Option Windows 7	Description		
	1. In the Windows Control Panel large or small icon view, click Devices and Printers.		
	2. Click Add a Device.		
	The Add a device wizard is displayed.		

**3** Follow the prompts on the wizard to install the driver.

## Connecting an integrated keyboard (IKB) to an OEP/IKB adapter

This section shows how to connect the Honeywell OEP/IKB adapter to a computer and a non-USB integrated keyboard (IKB).

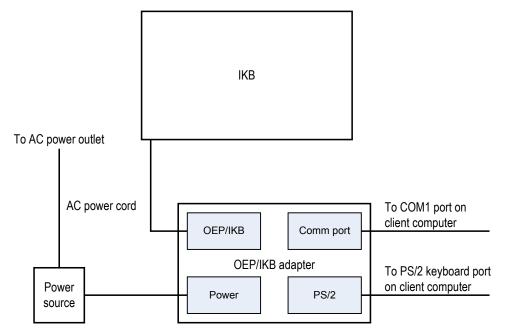


#### **CAUTION**

Do not connect the AC power cord to the AC power outlet unless the OEP/IKB adapter is connected to the IKB and the COM1 and PS/2 ports of the computer.

#### To connect an IKB to an OEP/IKB adapter

- 1 Shutdown and turn off the computer.
- 2 Turn off the IKB.
- 3 Connect the OEP/IKB, COMM, and PS/2 ports on the OEP/IKB adapter as shown in the following diagram.



- 4 Connect the power source to the OEP/IKB adapter.
- 5 Connect the AC power cord to the power source and the AC power outlet.
- 6 Turn on the computer and the IKB.

## Connecting an integrated keyboard (IKB) to a USB port

This section describes how to connect a USB integrated keyboard (IKB) to a USB port or USB hub connected to the computer.

#### **Prerequisites**

- The IKB service is installed.
- You know the location of the USB drivers on your computer. If you accepted the default path when you
  installed the IKB service, the location of the USB drivers is

C:\Program Files (x86)\Honeywell\IKB\_USB\_Drivers

#### To connect the Integrated Keyboard and install USB drivers

- 1 Insert the integrated keyboard (IKB) USB cable into a USB port on the computer or the USB hub that is connected to the computer.
- 2 Insert the IKB power plug into a power outlet.
- 3 Ensure the power to the IKB is switched on.
- 4 The Found New Hardware wizard starts. Click **Next** to continue.
- 5 Click **Specify a location** and then click **Next**.
- 6 Type the location of the USB drivers and then click OK.
- 7 The Found New Hardware wizard restarts.
- 8 Click Next to continue.
- 9 Click **Specify a location** and then click **Next**. The location you typed in the step above appears.
- 10 Click **OK** to continue.
- 11 Click Next
- 12 Click Finish.
- **13** Restart the computer.

### To configure the USB Serial port

- 1 Click Start, right-click Computer and choose Manage.
- 2 Click the **Device Manager** item to display a list of devices.
- 3 Expand the Ports (COM & LPT) item.

In the list of ports is the USB Serial item with the port name displayed next to the item name. The port name must be COM3.

- 4 If the port name is *not* COM3
  - a Right-click on the USB Serial item and choose Properties.
  - b Click the Port Settings tab.
  - c Click Advanced.
  - d In the COM Port Number list, choose COM3.
  - e Click **OK** to close the **Advanced Settings** dialog box.
  - f Click **OK** to close the **USB Serial Properties** dialog box.
- 5 Close the Computer Management dialog box.

## **Notices**

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## 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.

# 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.

# **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.

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