

Experion
Operator's Guide

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- 1 In your web browser, type the address <http://www.honeywell.com/ps>.

- 2 Click **Login to My Account** and then log on.
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Training classes

Honeywell holds technical training classes on Experion. 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>.

Related documentation

For a complete list of publications and documents for Experion, see the *Experion Overview*.

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Glossary

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About this guide

1

This guide describes how to use Station to monitor and control your Experion system.

How to use this guide

To learn about:	Go to:
The basics, such as the layout of the screen and how to use your keyboard	page 17
Responding to alarms	page 65
Responding to events	page 81
Responding to messages	page 95
Responding to alerts	page 105
Monitoring system status	page 133
Generating and printing reports	page 151
Using the Message Pad	page 149
Loading recipes	page 129

Related documentation

If your system has process points, then you should also read the:

- *C300 Controller User's Guide*
- *Sequential Control User's Guide*
- *Control Building User's Guide*

If your system has the Legacy IO Link module then you should also read the *LCS 621 IO Integration Guide LCS02100A*.

Understanding the basics

2

Every Experion system is configured to meet a particular set of requirements. This means that some of the information in this guide may not be applicable to you, or may operate in a slightly different way. Consequently, you should ask your supervisor or an experienced colleague before you perform any procedure described in this guide.

Introducing Experion and Station

Experion is a sophisticated management and control application that:

- Displays system data in a manner that you can easily understand
- Allows you to control your system by sending appropriate commands
- Automatically performs scheduled tasks
- Notifies you of system activities, including alarms and system events
- Produces comprehensive reports

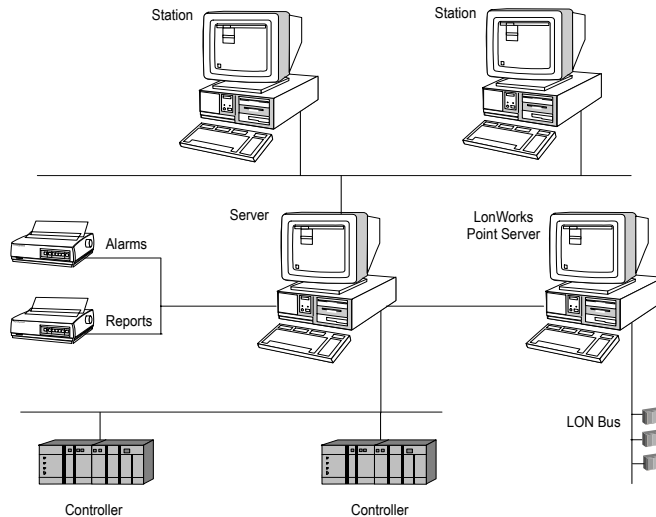
The following figure shows a typical Experion system. Experion runs on the *server*—the main computer—which collects and processes data, administers system activities and performs automated tasks.

The *system interfaces*, *point servers* and *controllers* are the “hands and eyes” of your system, controlling and collecting data from your plant equipment.

A system interface or point server collects information from the field and sends this information to the Experion system upon request. In general, this information is not stored in Experion unless you are collecting history.

Controllers also collect information from the field but continually send this information to the Experion system where it is stored.

In most cases, the controllers are located near the devices they control, and are connected to the server via a LAN (Local Area Network) or other communication link.



Introducing Station

A Station is, in effect, a set of “control panels” through which you and your colleagues monitor and control your system. (Station is a separate Experion program that runs on standard computers, as well as on the server.)

Station presents information as a series of *displays*—each display is a “control panel” that shows a particular set or type of information, and has an appropriate set of controls, such as “buttons” and “scroll bars”.

There are two basic types of display:

- *System*. These are supplied with Experion and show information in a standardized manner. For the most part, system displays consist of lists and “electronic forms” containing system configuration details.
- *Custom*. These have been created specifically for your system, and make it much easier to interpret and control system activity, often making use of sophisticated graphics, including animations.

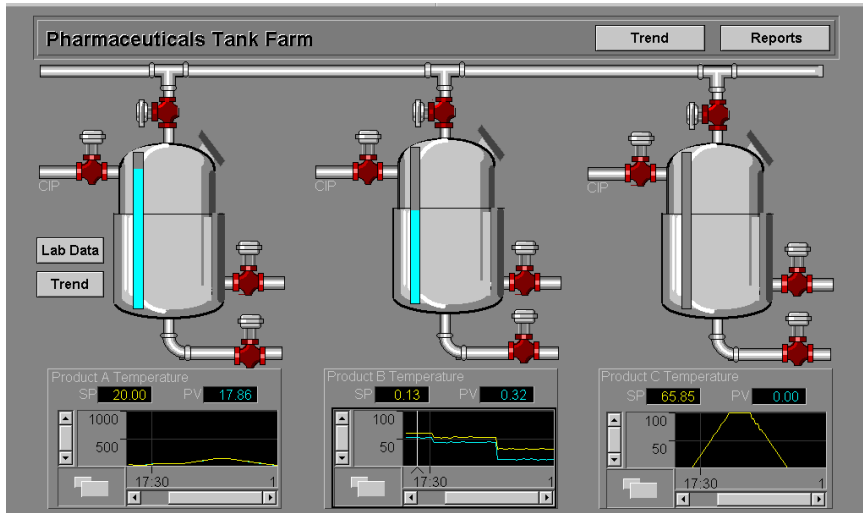
In addition to displays, Station can display Web pages and files, such as Microsoft Word documents, which typically contain operating procedures.

Figure 1 A typical system display

Date & Time	Area	Source	Condition	Priority	Description	Value
4/12/2002 10:08:40	System	azgallons	PVLO	L 00		10
4/12/2002 10:04:02	System	azgallons	RS HI	U 00		131
4/12/2002 10:04:00	System	azgallons	PV HI	U 00		102
4/12/2002 10:03:40	System	sinewave	PV LO	L 00		10
4/12/2002 10:03:40	System	azgallons	PV LO	L 00		10
4/12/2002 10:00:00	System	Testing license		H 00	License for internal testing	
4/12/2002 9:59:02	System	azgallons	RS HI	U 00		131
4/12/2002 9:59:00	System	azgallons	PV HI	U 00		102
4/12/2002 9:58:40	System	sinewave	PV LO	L 00		10
4/12/2002 9:58:40	System	azgallons	PV LO	L 00		10
4/12/2002 9:54:02	System	azgallons	RS HI	U 00		131
4/12/2002 9:54:00	System	azgallons	PV HI	U 00		102
4/12/2002 9:53:40	System	sinewave	PV LO	L 00		10
4/12/2002 9:53:40	System	azgallons	PV LO	L 00		10
4/12/2002 9:49:02	System	azgallons	RS HI	U 00		131
4/12/2002 9:49:00	System	azgallons	PV HI	U 00		102
4/12/2002 9:48:40	System	sinewave	PV LO	L 00		10
4/12/2002 9:48:40	System	azgallons	PV LO	L 00		10
4/12/2002 9:44:02	System	azgallons	RS HI	U 00		131
4/12/2002 9:44:00	System	azgallons	PV HI	U 00		102
4/12/2002 9:43:40	System	sinewave	PV LO	L 00		10
4/12/2002 9:43:40	System	azgallons	PV LO	L 00		10

Unacknowledged alarms: 53 of 1001 Acknowledged alarms: 0 of 0

Figure 2 A typical custom display



What type of Station do you use?

There are several different types of Station, these are:

Station type	Description
Flex Station	Station connected to an Experion server.
Console Station	Station connected to an Experion server as well as connected directly to devices such as Process Controllers. If the Experion server is not operational, Console Station can still view and control the part of your plant to which you are directly connected.
Console Extension Station	Station connected to a Console Station.

In addition to a single instance of Station appearing in a single monitor, there are two potential configurations of Station for multiple monitors:

- Multi-window Station. Allows you to view multiple displays at one time and manage where and how displays are placed on a desktop that spans two or four monitors.
- Multiple static Station. Allows you to have up to four instances of Station running simultaneously on one computer. With this configuration, you can position an instance of Station in each monitor.

The multi-window Station configuration can be used with both a Flex Station and a Console Station. The multiple static Station can only be used with a Flex Station.

Both of these configurations can be used in the Icon Series Console environment.

About Console Station and Console Extension Station

A Console Station and Console Extension Station operate in the same manner as a Flex Station. However, unlike a Flex Station, most critical operational functions can still be performed on a Console Station and Console Extension Station if the server is unavailable, for example, when a redundant Experion server fails over to the backup server.

If a Console Station becomes unavailable, operational functions are not available on any connected Console Extension Stations.

What happens when the Experion server is unavailable

If the Experion server becomes unavailable, an alarm is raised on the Console Station to indicate that the Console Station is operating in a server unavailable mode.

The following table shows the availability of common functions depending on the availability of the Experion server.

Function	Server available	Server unavailable
Log on to Console Station	Yes	Yes
Log on to Console Extension Station	Yes	Yes
Change your password using Station	Yes	Yes, if you are using a Windows based user account that is configured in Experion. No, if you are using a traditional operator account.
View and control points	Yes	Yes, if you have points from direct data sources, for example, points on a Process Controller.
View custom displays	Yes	Yes, however only data from direct data sources is available.
View and acknowledge alarms on the Alarm Summary	Yes	Yes, for alarms from direct data sources.
Add comments to an alarm	Yes	No

Function	Server available	Server unavailable
Print the Alarm Summary as a report	Yes	No
View the status of items in the System Components tree in the System Status display	Yes	Yes, for equipment that is directly connected to the Console Station, such as Process Controllers and Console Extension Stations. The status of other items is shown as unknown.
View and acknowledge system alarms on the System Status display	Yes	Yes, for equipment that is directly connected to the Console Station, such as Process Controllers and Console Extension Stations. Other alarms are shown as questionable.
View faceplates in the Status pane on the System Status display	Yes	Yes, for equipment that is directly connected to the Console Station, such as Process Controllers and Console Extension Stations.
View and respond to events	Yes	No
Add comments to an event	Yes	No
Create operator recorded events	Yes	No
Print the Event Summary as a report	Yes	No
Event archiving	Yes	No
View and respond to messages	Yes	Yes, for messages from direct data sources.
View and respond to alerts	Yes	No
Load recipes	Yes	No
Reports	Yes	No
View trends	Yes	Yes, real-time trending of points from direct data sources.
View Groups	Yes	Yes, groups with points from direct data sources.

Starting Station

To start Station and log on:

- 1 From your computer's **Start** menu, select either (whichever appears on your Start menu):
 - Start > Programs > Honeywell Experion PKS > Server > Station**
 - Start > Programs > Honeywell Experion PKS > Client Software > Station**
 - Start > Programs > Honeywell Experion PKS > Console Station > Station**Station establishes contact with the server and displays the startup display specified in the default setup file.
- 2 Your system may be set up so that you can select a particular setup file, which controls the way Station operates. If this is the case, see "Changing Station's setup file" on page 28.
- 3 Log on to Station in accordance with the security option used on your system. See "What type of security do you use?" on page 24.

Logging on to Station

What type of security do you use?

Station supports two types of security.

You use:	Go to:
<i>Operator-based</i> security if you have been assigned a user name and a password or your Station user name and password are the same as your Windows user name and password.	page 25
<i>Station-based</i> security if you have not been assigned a user name. When you start Station, you are automatically assigned OPER security level. You can subsequently change to a higher level providing you know the password for that level on that Station.	page 27

Logging on with operator-based security

With operator-based security, there can be several ways to log on, depending on how your site is configured.

If you have	Then log on to Station
Separate Windows and Station user names and passwords	Using Station Operator logon with your Station user name and password.
The same user name and password for Windows and Station	Is automatic if your site is set up to use single signon. Otherwise log on to Station using Station Operator Logon. Ask your supervisor or experienced colleague if your site is set up to use single signon.
Signon Manager	Using Signon Manager. Your security details are automatically passed to Station when Station starts.



Attention

Your password, but not your user name, is case-sensitive.

To log on when a prompt appears:

- 1 In the **Station Operator Logon** dialog box type your user name and your password.
 - 2 Click **OK**.
- Asterisks (“*”) appear as you type each character of your password.

To sign on using Signon Manager:

- 1 Click the Current User window. (If the SignOn User window is hidden, press CTRL+ALT+S or click the Current User taskbar icon.)
The **SignOn** dialog box opens.
- 2 Type your user name.
- 3 Type your password.
- 4 Select the appropriate domain if you user account is a domain account.
- 5 Click **Sign On**.
The SignOn User window displays the current signed on user.

To sign off:

- In the Current User window, click **Signoff**.

Changing your password

Note:

- Your password must be between 5 and 40 letters/numbers, without spaces.
- Your password is case-sensitive.

To change your password:

- 1 Type **chgpsw** in the Command Zone and press **ENTER**.
The **Change Password** dialog box opens.
- 2 Type your old password and press the TAB key.
- 3 Type your new password and press the TAB key.
- 4 Re-type your new password and click **OK**. (The new password is only accepted if the new password entries are identical.)

Logging off

You log off by typing **bye** in the Command Zone and pressing **ENTER**.



Attention

Station might be customized to log off automatically if you have not used the keyboard for a specified time.

Logging on with Station-based security

You are automatically assigned **OPER** security level when you start Station. You can change to a higher level providing you know that level's password for that Station.

To change to a higher level:

- 1 Type **psw** in the Command Zone and press **ENTER**.
The **Station Logon** dialog box opens.
- 2 Type the password and click **OK**.

Logging Off

You only need to log off if you have changed to a security level other than **OPER**.

You log off by typing **bye** in the Command Zone and pressing **ENTER**. This returns Station to **OPER** security level.



Attention

Station may be customized to automatically log you off if you do not use the keyboard for a specified time.

Understanding security levels

Your security level determines which tasks you are permitted to perform. Note, however, that even if you are allowed to perform a particular task you may be prevented from performing it in certain circumstances.

If you attempt to perform a task that requires a higher security level, the following message appears in the Message Zone:

Higher Security Level Required

Your security level appears at the right of the Status Line. The levels are, from lowest to highest: **view only**, **Ack only**, **OPER**, **SUPV**, **ENGR** and **MNGR**.

Changing Station's setup file

Station automatically uses `default.stn` unless you select another setup file. Use this procedure if you want to use a setup file other than `default.stn`.

To select another Station setup file:

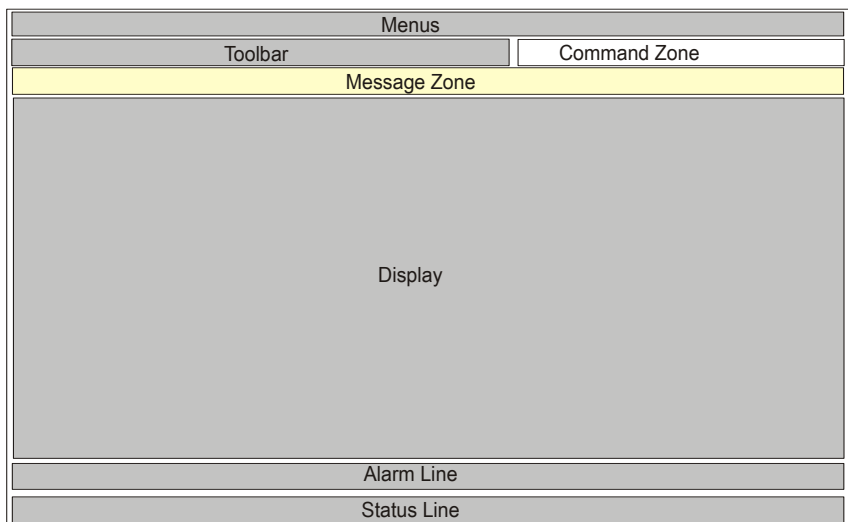
- 1 Select **Station > Connect**.
The **Connect** dialog box opens.
- 2 Select the appropriate configuration file from the **Recent Connections** tab or the **Other Connections** tab.
The Recent Connections tab contains a list of setup files (.stn) most recently used. The Other Connections tab lists all your setup files. If your setup file is not listed, click the **Browse** button to navigate the required setup file.
- 3 Click **Connect**.

About Station's layout

This section describes the single window Station layout. If you are using Multi-window Station see “About multi-window Station layout” on page 30 for a description of the layout.

The current display occupies most of the Station window. The other parts, above and below the display, provide you with the tools and controls you use to monitor and control your system.

Figure 3 Station's layout



Part	Description
Menubar	You select commands from Station's menus in the same way as in other applications. For example, to call up the Event Summary, select View > Events > Event Summary .
Toolbar	Clicking a button on the toolbar provides speedy access to a frequently required command. For a description of each button, see “Using the toolbar” on page 33.
Command Zone	You type commands in the Command Zone. See “Entering commands in the Command Zone” on page 35.

Part	Description
Message Zone	Station displays explanatory messages in the Message Zone. For example, if you try to call up a non-existent display, something like “The display file <i>xxxx</i> was not found” appears in the Message Zone.
Display	Each display is a separate “control panel” that you use to monitor and control a particular part of your system. For more information about displays, see: <ul style="list-style-type: none"> • “Using displays” on page 47 • “Understanding display objects” on page 54
Alarm Line	Generally, this line displays the most recently unacknowledged alarm message. (The Alarm Line may be hidden on your system, or it may be configured to operate in a special manner.)
Status Line	Provides an overview of your system’s status. For example, a flashing red box indicates that there is at least one unacknowledged alarm. See “The Status Line” on page 31.

About multi-window Station layout

If you are using multi-window Station, the layout depends on how it has been configured for your site. For example, if you have a quad-monitor computer in an Icon Series Console, the layout might be configured such that:

- Monitor 1 contains a Command window, containing the command zone, message, toolbar and menu bar, a Status window containing the Status Line
- Monitor 2 contains the Alarm Summary
- Monitor 3 contains trend displays that you call up
- Monitor 4 contains custom displays

Regardless of how your multi-window Station layout has been configured, the operational aspects are similar to a single-window Station. For example, the Status Line shows the same information, the Command Zone, menu bar, and toolbar operate in the same manner. Where displays appear in the multi-window Station depends on how your site has been configured.

The Status Line

The Status Line provides an overview of your system's status. The following table describes each box in the Status Line, starting from the left.

Figure 4 Status line for a Flex Station










Figure 5 Status line for a Console Station or Console Extension Station

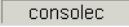
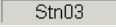
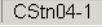
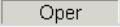


Figure 6 Status line for a Console Station or Console Extension Station in a console




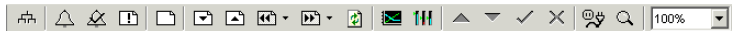
Box	Description
Date and time	The current date and time, as set on the server.
	<p>Indicates whether there are any alarms, as well as their status:</p> <ul style="list-style-type: none"> <i>Blank</i>. There are no alarms. <i>Flashing red</i>. There is at least one unacknowledged alarm. <i>Red (not flashing)</i>. There is at least one alarm, but they have all been acknowledged. <p>Click the box to call up the Alarm Summary, which lists each alarm.</p>
	If the Station status line is not visible, this icon in the Windows status bar will indicate an alarm.





Box	Description
	<p>Indicates whether there are any system alarms, as well as their status, for example, failed communication links between the server and other devices (such as channels, controllers, and so on):</p> <ul style="list-style-type: none"> • <i>Blank</i>. There are no system alarms. • <i>Flashing cyan</i>. There is at least one unacknowledged system alarm. • <i>Cyan (not flashing)</i>. There is at least one system alarm, but they have all been acknowledged. <p>Click the box to call up the System Status display, which lists each system alarm.</p>
	<p>Indicates whether there are any messages, as well as their status:</p> <ul style="list-style-type: none"> • <i>Blank</i>. No messages. • <i>Flashing green</i>. There is at least one unacknowledged message. • <i>Green (not flashing)</i>. There is at least one message, but they have all been acknowledged. <p>Click the box to call up the Message Summary, which lists each message.</p>
	<p>Indicates whether there are any alerts, as well as their status:</p> <ul style="list-style-type: none"> • <i>Blank</i>. No alerts. • <i>Flashing white</i>. There is at least one unacknowledged alert. • <i>White (not flashing)</i>. There is at least one alert, but they have all been acknowledged. <p>Click the box to call up the Alert Summary, which lists each alert.</p>
	<p>If the Station status line is not visible, this icon in the Windows status bar will indicate there are no alarms in the system, but there is an alert.</p>
<p>Server ID</p> 	<p>The computer name of the server to which the Flex Station or Console Station is connected. (In some systems, you can connect to more than one server.)</p> <p>On a Console Station or Console Extension Station:</p> <ul style="list-style-type: none"> • A red LED appears if the server is unavailable. • A yellow LED appears when the Console Station is synchronizing with the server.














Box	Description
<p>Console ID</p> 	<p>The name of the console to which the Station belongs. This is visible only on Console Stations and Console Extensions Stations that belong to a console.</p> <p>A yellow LED appears if one or more Console Stations or Console Extension Stations in the console is unavailable.</p> <p>Click the box to call up the Console Status display.</p>
<p>Station number</p>  	<p>The number of the Station you are logged on to. (Most systems have more than one Station.) This is visible on Flex Stations, Console Stations and Console Extension Stations. For a Flex Station the number is in the format Stnnn, for example Stn03. For a Console Station or Console Extension Station, the number is in the format CStnnn-n, for example CStn04-1 for a Console Station and Cstn04-2 for a Console Extension Station.</p>
<p>Security level</p> 	<p>Your security level. See “Understanding security levels” on page 27.</p>


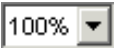
Using the toolbar

The buttons in the toolbar provide speedy access to frequently required displays and commands. For example, to call up the System Menu you simply click the toolbar  button.



Button	Description
	System Menu. Calls up the System Menu, a specialized display that provides quick access to the other major displays. See “Calling up a display from the System Menu” on page 49.
	Alarm Summary. Calls up the Alarm Summary, which provides a one-line description of every alarm. See “Responding to alarms” on page 65.
	Acknowledge/Silence Alarm. Acknowledges the most recent, or selected, alarm.
	Associated Display. Calls up the display associated with the object that is in alarm, or the selected object.

Button	Description
	<p>Callup Display. Calls up the specified display. To call up a display:</p> <ol style="list-style-type: none"> 1. Click the button. 2. Type the display's name/number and press ENTER.
 	<p>When configuring a system, engineers normally link related displays in a “chain” so that you can quickly call up the next/previous display.</p> <p>Page Down. Calls up the next display in the current chain.</p> <p>Page Up. Calls up the previous display in the current chain.</p>
 	<p>Navigate Back.</p> <p>Navigate Forward</p> <p>Enable you to move backwards and forwards between displays you have previously called. Click the arrow to the right of the Navigate Back and Navigate Forward buttons to view a list of displays you have previously called.</p>
	<p>Reload Page.</p> <p>Reloads the current display</p>
	<p>Trend. Calls up the specified trend display. To call up a trend:</p> <ol style="list-style-type: none"> 1. Click the button. 2. Type the trend number and press ENTER.
	<p>Group. Calls up the specified Group Detail display. To call up a group:</p> <ol style="list-style-type: none"> 1. Click the button. 2. Type the group number and press ENTER.
 	<p>Raise. Raises a parameter value.</p> <p>Lower. Lowers a parameter value.</p> <p>See “Example scenario—changing the value of a point from a display” on page 59.</p>
 	<p>Enter. Accepts the newly entered value.</p> <p>Cancel. Cancels the newly entered value, and returns it to its original value.</p>
	<p>Enable/Disable. Enables/disables for the associated point. Points are typically disabled when performing maintenance tasks to prevent misleading alarms being generated.</p> <p>See “Disabling a point” on page 60.</p>

Button	Description
	<p>Detail/Search. Performs either of two tasks, depending on the context:</p> <ul style="list-style-type: none"> • If an alarm or object is selected on the current display, clicking the button calls up the associated Point Detail display. See “Using Point Detail displays” on page 113. • If nothing is selected on the current display, clicking the button calls up the Search display, which you then use to search for system items such as points, operators and so on. See “Searching for system items” on page 42.
	<p>Zoom. Changes the magnification of displays.</p>
<p>Command</p>	<p>Commands are typed in the text box. The Command Zone also retains a history of previously selected displays. You can return to a display by choosing from the list. See “Entering commands in the Command Zone” on page 35.</p>

Entering commands in the Command Zone

When you become familiar with Station, you may find it quicker to enter some commands in the Command Zone rather than choosing them from menus, or navigating through several displays.



Tip

There are several methods you can use to give focus to the Command Zone:

- Press ESC
- Press TAB until the focus moves to the Command Zone (This method does not work in the multi-window environment.)
- If no data-entry box has focus, press an alphanumeric key
- Press any of the function keys that require data entry
- Click in the Command Zone.

For example, to call up a display called “boilers”:

- 1 Give focus to the Command Zone.
- 2 Type **boilers** and press **ENTER**.

**Attention**

In the case of a numbered display, you need to type **pag** before the page number, for example: **pag301**.

For a complete list of Command Zone commands, see “Command reference” on page 162.


The Command Zone retains a history of the last 20 different commands that you have opened since you logged on. You can re-enter a display quickly by choosing its command from the alphabetically arranged list. Note that if you make a typing error when entering a command, you can fix the error by selecting it from the list, making the correction, then press **ENTER**.

Resizing the Station window

**Attention**

- You only need to read this topic if you can resize or move the Station window. (Station may be configured so that it always occupies the full screen or so that its windows cannot be moved or resized.)
 - If you reduce the size of you Station window or zoom in, certain items on a trend display, such as the axes and toolbars, may be hidden so that the plot area is always visible. These items are visible again when you resize the Station window or zoom out.
-


To resize the Station window if it is *maximized* (occupies the full screen):

- 1 Click  (**Restore**) in the top-right of the window.
- 2 Move the pointer to the window border or corner.
- 3 When the pointer changes to a two-headed arrow, drag it to resize the window. As you drag, the border moves with the pointer, making the window larger or smaller.

To move the Station window:

- 1 Move the pointer over the title bar at the top of the window.
- 2 Drag the pointer. As you drag, the window moves with the pointer.

To minimize the Station window, so that it disappears:

- 1 Click  (**Minimize**) in the top-right of the window.
The only indication that Station is still available is the **Station** button on the taskbar at the bottom of the screen).

To restore the Station window to its previous size:

- 1 Click the **Station** button on the task bar.

Zooming in and out

You can zoom in and out of the display to make the display area of the Station window larger or smaller.

To resize a display:

- 1 Use the Zoom control on the toolbar to change the magnification of the display.
- 2 If the Station Window does not show the full display, select **View > Show Full Page**.

About alarms and other messages

Experion has a control system that generates an appropriate messages, depending on how you are expected to respond at prescribed times or whenever there is a significant change in your system. The way in which you respond to a message depends on its type.

For this message type:	Go to:
<i>Alarm.</i> An alarm is generated whenever an abnormal condition occurs.	page 65
<i>Event.</i> An event is any significant change in the system, including any commands you issue.	page 81
<i>Messages.</i> A message can be generated for many reasons. For example, when a point goes into alarm, you may receive an explanatory message in addition to the alarm message. In other cases you may be required to perform a function before a message can be acknowledged.	page 95
<i>Information Only</i> messages need only be acknowledged. They are then removed from the list of messages.	page 95
<i>Confirmation</i> messages will flash until you confirm that they have been read.	page 95
<i>Single Signature</i> messages require that you acknowledge the message with your logon password. You need the appropriate control or security level to respond to this type of message.	page 61
<i>Double Signature</i> messages. Some highly critical actions may require a dual signature acknowledgment. Two different individuals, each with the appropriate control or security level, must acknowledge the message.	page 61
<i>Alert.</i> An alert is generated to indicate an abnormal condition but the priority is not high enough for an alarm to be generated.	page 105



Attention

Explanatory messages also appear in the Message Zone when, for example, you are issuing a command. These messages are informative only, and are not caused by changes to your system.

Using your mouse (or its equivalent)

In most systems, Station computers are fitted with a mouse that allows you to select objects on the screen.



Attention

If you have a specialized device such as a trackball or a touch screen, you need to read the appropriate set of instructions: “Using a trackball” on page 39 or “Using a touch screen” on page 40.

You use your mouse to perform the following actions:

- *Selecting.* Move the pointer over an object and momentarily press the mouse’s left button—this action is called *clicking*.
- *Displaying object details.* Move the pointer over a display object and rapidly press the mouse’s left button two times—this action is called *double-clicking*.
- *Tabbing.* When you momentarily click the right mouse button—an action called *right-clicking*—you select the next object defined in the *tab sequence*. (A tab sequence is a list of objects that you can select. In general, objects that you need to edit or control are added to the tab sequence so that you can easily select them.)

If you hold down SHIFT when tabbing, you select the previous object in the Tab sequence.

Using a trackball

You use a trackball in a similar manner to a mouse—for example, rolling the ball forwards is equivalent to moving the mouse forwards. The functions of the two buttons are identical to those on a mouse.

Using a touch screen

The following table describes how to use a touch screen that is configured to operate in “click on release” mode.

To:	Do this:
Move the pointer	Slide your finger across the screen. The pointer follows the tip of your finger.
Select an object	Place your finger over the target or object.
Display an object’s details, for example, open a point detail display	Quickly tap the object twice.

If you want to use a shortcut menu you need to enable the touch screen so that you can perform the touch screen equivalent of a right-click.

To enable a right-click:

- 1 Click the **Elo Touch System** icon in the Windows system tray.
- 2 Select **Right mouse button tool**.

A mouse graphic appears with the right button “clicked”. The next time you touch the screen, a right-click is performed. The touch screen then returns to left click mode.

Using your keyboard

You can perform all Station operations using your keyboard.


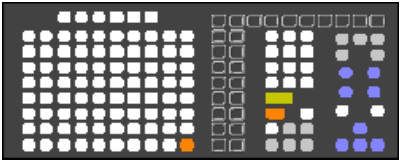
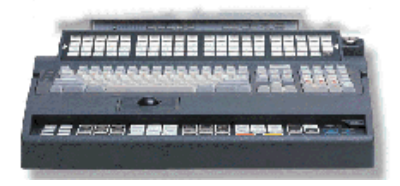
Using shortcut keys

You can quickly access many commands by pressing the appropriate shortcut key. For example, if you have a standard computer keyboard (with 12 function keys), you can display the Alarm Summary by pressing F3.


To learn about keyboard shortcuts see “Keyboard shortcuts” on page 164.

Use the following table to learn about the keyboard shortcuts for your type of keyboard.

Table 1 Keyboard types

If you have this keyboard:	Go to:
	page 165
	page 167
	page 170


Searching for system items

You search for system items—such as points, operators and Stations—using the  (**Detail/Search**) toolbar button.

Using the search display

When you use the Search display, your search is restricted to the selected item type.


To use the Search display:

- 1 Click the  toolbar button to call up the Search display.
- 2 Select the type of item you are searching for in **Search in**.
- 3 Type the item name (or the first part of it) in **For** and then click the **Go** button.
If your search finds only one item, its details are displayed.
If your search finds more than one item, they are listed in Search Results display. Click an item to see its details.

Searching from the Command Zone

You can search from the Command Zone regardless of what is currently displayed; however, the search is not limited to a specific item type.

To search from the Command Zone:

- 1 Click the Command Zone.
- 2 Type the item name (or the first part of it) and then click the  toolbar button.
If your search finds only one item, its details are displayed.
If your search finds more than one item, they are listed in Search Results display. Click an item to see its details.

Getting help

You can display an online version of this guide by choosing **Help > Operator's Guide**.

If you have not used online documentation before, click the **Help Me!** button at the top of the guide's window.

Using Station in an Icon Series Console

3

If your site uses the Icon Series Console there are two possible modes that Station can use. These modes are single window and multi-window.

If your site uses single window mode with Flex Stations, then you can be logged on to multiple Stations at the same time, displayed on separate monitors. If your site has a dual Icon Console, there are two monitors, therefore you can be logged on to two Stations at one time. If your site has a quad Icon Console, there are four monitors, therefore you can be logged on to four Stations at one time.

If your site uses multi-window mode, then you can be logged on to one Flex Station, Console Station, or Console Extension Station with multiple Station displays visible simultaneously. These displays can be placed in any of the monitors in the Icon Series Console.

In addition to, or in place of the standard keyboard and mouse, your Icon Console may have:

- An OEP (Operator Entry Panel) keyboard
- A trackball
- A thumbwheel
- A keypad

The one set of these devices are used to carry out controls in all instances of Station.

Moving around the Icon Console

You use the one set of devices (keyboard, mouse and so on) to control the multiple Stations or multi-window Station in your Icon Console.

You give a Station or Station window “focus” by moving the position of the pointer from one Station to another using your mouse or trackball and clicking in the Station window. As you physically move the mouse or trackball, the pointer moves. When you reach the edges of the monitor, the pointer appears in the adjoining monitor.

When the required Station Window has focus, you use your devices in the normal manner to issue controls.

Using your keypad

The keypad functions as a keyboard with the addition of the operator entry keys.

Using your thumbwheel input module

The thumbwheel input module contains two thumbwheels. You use the thumbwheels to raise or lower the value of a selected object.

If your thumbwheel is	Use the
Installed on the left-hand side of the console	Left (outer) thumbwheel to raise or lower the value of the selected object by 10% (default setting).
	Right (inner) thumbwheel to raise or lower the value of the selected object.
Installed on the right-hand side of the console	Right (outer) thumbwheel to raise or lower the value of the selected object by 10% (default setting).
	Left (inner) thumbwheel to raise or lower the value of the selected object.

Using displays

4

Station's displays are, in effect, a set of control panels through which you monitor and control your system.

Understanding system displays

Station includes many system displays, which are categorized as follows:

Display type	Description
Detail	Provides detailed information about a particular point. This information includes current values, scanning, history and so on.
Trend	Graphically displays changes in values, over time, of one or more variables. Trends can be displayed in several ways, including lines and barcharts.
Group	Displays various types of information about related points on a single display.
Summary	Displays information, such as alarms and events, in list form. You can display more details about an item in the list by clicking it.
Status	Displays detailed status information about system equipment, such as controllers and printers.
Configuration	These displays are only used to set up your system. As an operator, you may need to look at them, but you will probably not be able to change them.

Calling up a display

You can call up a display using any of the following techniques.

If you need to call up Web pages or files such as Microsoft Word documents, see “Calling up a web page or file” on page 52.

Calling up a display from a menu



Tip

Custom displays are usually listed under a special menu. Ask your supervisor or an experienced colleague for the menu’s name, and the purpose of each of the listed displays.


This example shows how to call up the Event summary:

- 1 Click the **View** menu. A list of important system displays appears. (The list also includes commands).
- 2 Move the pointer down to **Events**. A list of event displays appears.
- 3 Select **Event Summary** to see the Event summary display.


Calling up a display from the System Menu

The System Menu is a specialized display that provides quick access to the other major displays.

To call up a display from the System Menu:

- 1 Click  (**System Menu**) on the toolbar to call up the System Menu.
- 2 Click the button next to the display you want to see.

Calling up a display from the toolbar

The toolbar contains several buttons, such as  (**System Menu**), that quickly call up specialized menus or displays.

For details of other buttons that call up displays, see “Using the toolbar” on page 33.

Calling up a display from the Command Zone

You can call up a display from the Command Zone providing you know its *name* or *number*. (Experion uses two naming conventions for displays. Some, including many system displays, are *numbered*; whereas others, including most custom displays, are *named*.)

The title and the name/number of the current display are shown at the top of the Station window. For example: “Channel Status Summary (65)” is a numbered display, whereas “Search (sysSearch)” is a named display.

To call up a display whose name is “primary”:

- 1 Click the Command Zone.
- 2 Type **primary** and press **ENTER**.

To call up a display whose number is “57”:

- 1 Click the Command Zone.
- 2 Type **pag57** and press **ENTER**.

Calling up a display with a shortcut key

You can quickly call up important displays, such as the Alarm Summary by pressing the appropriate shortcut key. For example, if you have a standard computer keyboard, pressing F3 calls up the Alarm Summary.

For a list of shortcut keys, see “Keyboard shortcuts” on page 164.

Calling up a display for another Station in a console

If you use Console Stations or Console Extension Stations in a console, you can call up displays for another Station within the same console. This type of display callup enables you to call up the current display or the next display.



Tip

If your system has been configured to use this function then your Console Station or Console Extension Station will have a specifically configured keyboard shortcut or button to be able to call up displays for another Station.

Using displays in multi-window mode

If your Station uses multi-window mode, you are able to view multiple Station displays at the one time. Depending on how your site has been configured, certain parts of your screen area might be reserved for a particular type of display. For example, if you have an quad monitor Icon Series Console, the top-right monitor might be reserved for trend displays. In this case, whenever you call up a trend display, it always appears in the top-right monitor.

In some cases, your Station might be configured with “round robin” behavior. For example, if your Station can have four displays visible at the same time, when you call up a fifth display, the oldest of the four displays is closed and the fifth display replaces the oldest display.

Regardless of how your site has been configured, you use the same methods of calling up displays as is used for single mode Station.

Calling up a web page or file

In addition to calling up displays, you may need to call up Web pages and other files, such as Microsoft Word documents. Such pages and files typically contain operating procedures.



Attention

SafeBrowse is the Station feature that allows you to call up Web pages and files. It may have been configured so that you can only call up authorized Web pages and files.

To call up a HTML file called, “c:\procedures\proc7.htm”:

- 1 Click the Command Zone.
- 2 Type **file://c:\procedures\proc7.htm** and press **ENTER**.

The following table shows how to call up various types of file/page.

To call up a:	Type:
File	file://c:\procedures\proc7.htm where c:\procedures\proc7.htm is the full name of a file.
Web page	http://www.honeywell.com where www.honeywell.com is the address of a Web site.
FTP Site	ftp://ftp.xyz.com where ftp.xyz.com is the address of a FTP site.

Printing Station information

At times you may want to print a “snapshot” of a display, or whatever else is shown in Station. In the case of a display, the snapshot shows the display’s values and statuses at the moment you issue the print command.

To print Station details:

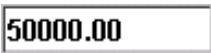

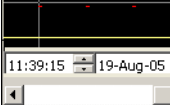
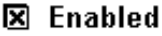
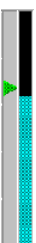

- 1 Select **Action** > **Print**. A message appears, indicating that the details are being printed.

Notes:

- The Status and Alarm Lines are printed, but not the Message Zone.
- If you print a Web page, only the visible portion of the page is printed.

Understanding display objects

As you move around the displays, you will notice that they contain discrete items such as buttons, check boxes and indicators—these are called *display objects*. The following table describes the main types of display object.

Display object	Description
	<p>Alphanumeric. There are two types of alphanumeric:</p> <ul style="list-style-type: none"> • <i>Read-only</i>, which displays a numeric value (such as boiler temperature) or text (a message or status). • <i>Data-entry</i>, which you can edit. For example, if the alphanumeric represents a point's SP (setpoint)—such as boiler temperature—changing its value will raise/lower the boiler's temperature.
	<p>Button. When you click a button, Experion performs a specified task such as turning off a motor or calling up another display.</p>
	<p>Chart. Charts display real-time or historical information in a graphical manner. Charts can simultaneously display several types of information, such as the temperature and pressure of a boiler. Charts can also display information in the most appropriate form, such as lines or bars.</p> <p>If a chart is larger than its “window”, you can use the scrollbars to move around the chart. For example, if the chart is very long, moving the horizontal scroll box to the left or right moves the chart to the left or right.</p>
	<p>Check box. When you click a check box, you select or clear an option. An “x” in the check box indicates that the option is selected.</p>
	<p>Indicator. An indicator gives a visual indication of a value, relative to its minimum and maximum values.</p>
	<p>List. Contains a list of options. You display the list by clicking the ▾ button, and then select the appropriate option by clicking it.</p>

Using points

5

This chapter describes points and various methods you can use to control points.

About points

A *point* is a collection of information about a particular part of your system. For example, a point representing a motor would include:

- An **ID**, also known as a **tag name**, which uniquely identifies the motor.
- A **description**.
- A **full item name**. The full item name indicates a point's location within the asset model, for example, `/assets/Plant/Filtration/Tank/FlowMeter` indicates that the point named `Flowmeter` is assigned to the asset named `Tank` which is itself assigned to the assets name `Filtration` and `Plant` which are interconnected in a hierarchy.
- The **current state** (off or on).
- The **desired state**. This is applicable if you are allowed to control the point. For example, if current state of the motor is “On” you can change the real state of the motor to “Off” using the display.

About point parameters

Each item of information about a point is called a *parameter*. The main parameters store:

- The current value or state of the point (sometimes referred to as Process Variable or PV).
- The desired value or state of the point (sometimes referred to as Set Point or SP).
- The output value of the point (sometimes referred to as OP).
- The control state of the point, that is, whether the point is being automatically controlled or manually controlled (sometimes referred to as Mode or MD).

Not all points will have all of these parameters.

About assets

Assets can represent entities such as fixed plant equipment, materials, and buildings. The Asset Model provides a hierarchical structure that resembles your organization.

The points in your system belong to assets. For example, you might have an asset that represents a furnace in your plant. All the points associated with the physical furnace (analog points measuring the temperature, status points controlling valves

or pumps associated with the furnace) might belong to the asset that represents the furnace.

The part of the system for which you are responsible can be controlled by assigned assets to you or the Station you are using. In addition, where assets have been assigned to you, the tasks that you can perform can also be restricted. For example, you may have View access to an asset in your system. In this case, you can only view items associated with the asset, you cannot make any changes, such as acknowledging alarms or changing a point parameter.

About alarm groups

The points in your system can be grouped together in an alarm group. The points do not necessarily have to relate to one another as they do with assets. For example, you may have an alarm group which groups together all points that control the pumps in your plant.

Alarm groups provide an alternative view of the points and their alarms in the Alarm Summary.

Alarm groups have a Detail display which provides alarm accounts for the points within the alarm group.

Controlling points

You control your system by controlling points. For example, to turn off a motor, you would set the appropriate parameter of the associated point to “Off”.



Attention

The amount of control you have depends on several factors, including your security level, and the way in which a point has been configured. There are also several ways of controlling a point. Consequently, you should ask your supervisor or an experienced colleague before you attempt to control any point.

In some cases you may be required to provide either a single or a double electronic signature before making changes to control points. See “About Electronic Signatures” on page 61 and “Controlling points requiring Electronic Signatures” on page 62.

You can control a point from:

- A point detail display
- A faceplate, if one has been configured for the point
- A custom display

To control a point from	Do this
A point detail display	double-click an associated display object—this calls up the Point Detail display for that point. You can then change parameter values.
A faceplate	Click an associated display object, such as an alphanumeric. The faceplate pops up. You can then change parameter values.
A custom display	Select an editable associated display object, such as an alphanumeric.

Example scenario—changing the value of a point from the detail display

You want to switch off a fan for maintenance purposes. The point that controls the fan you want to switch off is called `fan_unit2` and it has the following parameters:

- PV, which shows the current value of the point.
- OP, which is the parameter you use to control the point.
- MD, which shows the control mode of the point.

Solution

- 1 Double-click an associated display object to call up the Point Detail display for fan_uni t2.
- 2 If control mode (MD) of the point is set to AUTO, change it to MAN.
- 3 Change **OP** to Off.

If the fan has failed, you can disable the related point by clearing the **Scanning and Control Enabled** check box to prevent misleading error messages being generated.



Example scenario—changing the value of a point from a display

You want to change the temperature of a boiler. The point that controls the boiler temperature is called boiler1_temp. The point has the following parameters:

- PV, which shows the current temperature
- SP, which you use to change the desired temperature

You are currently viewing a display which graphically shows the boiler as well as labeled alphanumeric display objects for the parameters.

Solution

- 1 Select the alphanumeric that shows the SP. (The object is editable if the value appears in “reverse video” when you select it.)
Information about the point, including its ID, appears in the Message Zone.
- 2 Change the value by either:
 - Typing the new value and pressing **ENTER**.
 - Clicking toolbar buttons. Clicking  (**Raise**) or  (**Lower**). Each time you click the button the value increases/decreases by a small amount.

Example scenario—changing the value of a point from a faceplate

You want to turn on the lights in the south west corner of level one in your building. The point that controls these lights is called Level1SWLights. The point has the following parameters:

- Value, which shows the current status of the point, that is whether the lights are on or off.
- Mode, which shows the control mode of the point.

A faceplate has been created for this point.

Solution

- 1 Click an associated display object to call up the faceplate for Level1SWLights.
- 2 Change Mode to Manual.
- 3 Change Value to On.

Disabling a point

You typically need to disable a point if the associated device is being serviced or repaired—this prevents misleading alarms being generated. (When you disable a point, Experion stops gathering information about that point.)

**Attention**

Not all point types can be disabled in this manner.

To disable a point:

- 1 Select an *editable* display object associated with the point—for example, an alphanumeric that shows the PV. (The object is editable if the value appears in “reverse video” when you select it.)
Information about the point, including its ID, appears in the Message Zone.
- 2 Click (**Enable/Disable**).

The point’s parameters turn gray to indicate that the point is disabled.

To enable a disabled point:

- 1 Select an *editable* display object associated with the point—for example, an alphanumeric that shows the PV. (The object is editable if the value appears in “reverse video” when you select it.)
Information about the point, including its ID, appears in the Message Zone.
- 2 Click (**Enable/Disable**).

About Electronic Signatures

As a security measure, certain types of messages and control point changes may require either a single or double signature confirmation.

When an electronic signature is required, an Electronic Signature dialog box is displayed. You may, in some cases, need to select a reason for the response or action from a predefined list. Optionally, you may also add a comment in the dialog box. Note however, that once you click the **Sign** button, the reason and comment cannot be modified or deleted.

For some highly critical actions, two electronic signatures may be needed. In the case of a double signature requirement, the Electronic Signature dialog box displays two tabs — one for the Primary signature, and the other for the Secondary signature. The minimum control (or security level) and the asset assignment required by either signer is displayed on their respective tabs.

Figure 7 Electronic Signatures - dual signature requirement

The screenshot shows a dialog box titled "Electronic Signature" with a close button (X) in the top right corner. The main title bar reads "Add 20L of Chemical X". Below the title bar, there are two tabs: "Primary signature" (selected) and "Secondary signature". The dialog contains the following fields and controls:

- Minimum control level:** 127
- Requires access to area:** PlantSys52
- User name:** sgray
- Full name:** Susan Gray
- Password:** [masked with asterisks]
- Domain:** PLANTDOMAIN1 (dropdown menu)
- Meaning:** Responsibility (dropdown menu)
- Comment:** Chemical X looked more diluted than normal. (text area with up/down arrows)
- Legal text:** Pursuant to Section 11.100 of Title 21 of the Code of Federal Regulations, this is to certify that [name of organization] intends that all electronic signatures executed by our employees, agents, or representatives, located anywhere in the world, are the legally binding equivalent of traditional handwritten signatures. (text area with up/down arrows)
- Buttons:** Sign, OK, and Cancel.
- Footer:** Primary signature required (under the Primary tab) and Secondary signature required (under the Secondary tab).

The secondary signature must be different from the primary signature and must be made by an individual with the appropriate security level.

See “Controlling points requiring Electronic Signatures” on page 62 and “Responding to messages” on page 95 for additional information.

Controlling points requiring Electronic Signatures

Certain point control operations may require either single or double signatures before they can be made.

If a single signature is needed, you must have the appropriate control level to perform the task. A control level can be any number from 0 to 255. Only an operator who has a control level that is equal to or higher than the point's control level can control that point. When you attempt to make a change to a point, the minimum control or security level required is shown in the Electronic Signature dialog box. If a secondary signer is also required, the dialog box will contain two tabs, one for each of the signers. The required security level of the second signer is shown in the Secondary signature tab.

To sign with a single electronic signature:

- 1 When the Electronic Signature dialog box is displayed, select a predefined reason from the **Reasons** list (if applicable).
- 2 Type your user name if required.
- 3 Type your password.
- 4 Select your domain, if required.
- 5 Type any additional information under **Comments**.
- 6 Click **OK**.

A confirmation is sent to the controller and the change takes place. An event is generated recording your name and other information about the action, such as date and time.

To sign with a double electronic signature:

- 1 When the Electronic Signature dialog box is displayed, select a predefined reason from the **Reasons** list (if applicable) in the **Primary signature** tab.
- 2 Type your user name, if required.
- 3 Type your password.
- 4 Select your domain, if required.
- 5 Type any additional information under **Comments**.
- 6 Click **Sign**.

Your signature is locked in and cannot be changed.

- 7 Click the **Secondary signature** tab.

The secondary signer must have a different user name from the primary signer and must have the a security level equal to or higher than level displayed in the Secondary signature tab.

8 The secondary signer types their user name, domain and password.

9 Any additional information, if required, is added in **Comments**.

10 Click **OK**.

A confirmation is sent to the controller the change is made. Events are generated recording the names of the signers together with other details.

Responding to alarms

6

An *alarm* is generated whenever an abnormal condition occurs. Alarms are typically associated with points—for example, the value of an analog point representing a temperature sensor, may be above or below the acceptable range. These types of alarms are known as “process” alarms because they are associated with the process you are monitoring and are display only on the Alarm Summary.

Alarms may also be generated when any important event occurs, such as a communications failure. These types of alarms are known as “system” alarms because they are associated with components that form your system. These alarms are displayed on the System Status display.



Tip

The Alarm box in the Status Line flashes red if there are any unacknowledged alarms.

The System box in the Status Line flashes cyan if there are any unacknowledged system alarms.

The Alarm Summary

Alarms are listed on the Alarm Summary, which provides a one-line description of an alarm.

If a repeat alarm occurs, the repeat is not added as another entry in the summary. Instead, the alarm details of the original alarm are updated to show the details of the latest occurrence of the alarm. The number of occurrences of the alarm and the time of the original alarm are shown in the Details pane of the alarm. An alarm is considered to be a repeat alarm if the source, condition, parameter, are the same.

To call up the Alarm Summary:


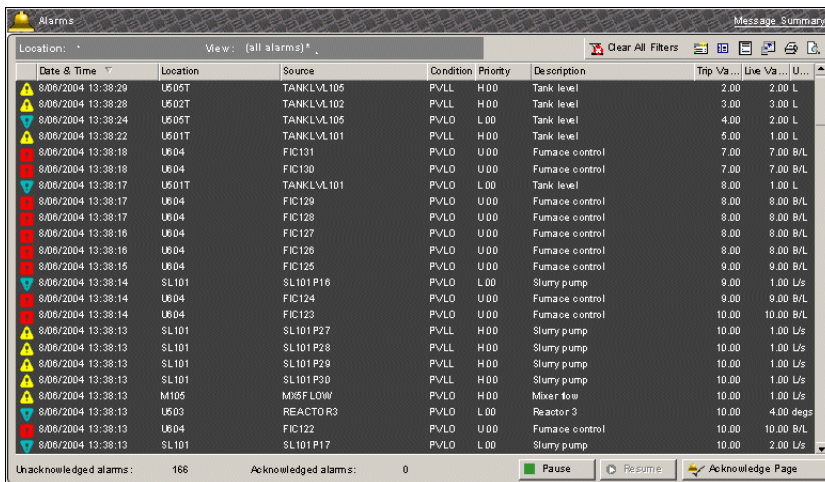
- 1 Click the  (Alarm Summary) toolbar button. (Alternatively, choose **View > Alarms** from the menu).

Figure 8 Alarm Summary



Date & Time	Location	Source	Condition	Priority	Description	Trip Va ...	Live Va ...	U...
8/06/2004 13:38:29	U505T	TANKLVL105	PVLL	H00	Tank level	2.00	2.00 L	
8/06/2004 13:38:28	U502T	TANKLVL102	PVLL	H00	Tank level	3.00	3.00 L	
8/06/2004 13:38:24	U505T	TANKLVL105	PVLO	L00	Tank level	4.00	2.00 L	
8/06/2004 13:38:22	U501T	TANKLVL101	PVLL	H00	Tank level	5.00	1.00 L	
8/06/2004 13:38:18	U604	FIC131	PVLO	U00	Fumaeo control	7.00	7.00 B/L	
8/06/2004 13:38:18	U604	FIC130	PVLO	U00	Fumaeo control	7.00	7.00 B/L	
8/06/2004 13:38:17	U501T	TANKLVL101	PVLO	L00	Tank level	8.00	1.00 L	
8/06/2004 13:38:17	U604	FIC129	PVLO	U00	Fumaeo control	8.00	8.00 B/L	
8/06/2004 13:38:17	U604	FIC128	PVLO	U00	Fumaeo control	8.00	8.00 B/L	
8/06/2004 13:38:16	U604	FIC127	PVLO	U00	Fumaeo control	8.00	8.00 B/L	
8/06/2004 13:38:16	U604	FIC126	PVLO	U00	Fumaeo control	8.00	8.00 B/L	
8/06/2004 13:38:15	U604	FIC125	PVLO	U00	Fumaeo control	9.00	9.00 B/L	
8/06/2004 13:38:14	SL101	SL101 P16	PVLO	L00	Slurry pump	9.00	1.00 L/s	
8/06/2004 13:38:14	U604	FIC124	PVLO	U00	Fumaeo control	9.00	9.00 B/L	
8/06/2004 13:38:14	U604	FIC123	PVLO	U00	Fumaeo control	10.00	10.00 B/L	
8/06/2004 13:38:13	SL101	SL101 P27	PVLL	H00	Slurry pump	10.00	1.00 L/s	
8/06/2004 13:38:13	SL101	SL101 P28	PVLL	H00	Slurry pump	10.00	1.00 L/s	
8/06/2004 13:38:13	SL101	SL101 P29	PVLL	H00	Slurry pump	10.00	1.00 L/s	
8/06/2004 13:38:13	SL101	SL101 P30	PVLL	H00	Slurry pump	10.00	1.00 L/s	
8/06/2004 13:38:13	M105	M105 FLOW	PVLO	H00	Mixer flow	10.00	1.00 L/s	
8/06/2004 13:38:13	U503	REACTOR3	PVLO	L00	Reactor 3	10.00	4.00 degs	
8/06/2004 13:38:13	U604	FIC122	PVLO	U00	Fumaeo control	10.00	10.00 B/L	
8/06/2004 13:38:13	SL101	SL101 P17	PVLO	L00	Slurry pump	10.00	2.00 L/s	

Unacknowledged alarms: 166 Acknowledged alarms: 0
















The following table describes the default alarm line items, starting from the left.

When a function is disabled, the original icon shape is retained, but the symbol changes to a minus sign and its color changes to gray.



Attention

The alarm colors described below are the default alarm colors. Your system may use custom alarm colors.

Alarm line item	Description	Disabled
	Red and flashing: the alarm is urgent priority, unacknowledged and the cause of the alarm still exists.	
	Red and not flashing: the alarm is urgent priority, acknowledged and the cause of the alarm still exists.	
	Yellow and flashing: the alarm is high priority, unacknowledged and the cause of the alarm still exists.	
	Yellow and not flashing: the alarm is high priority, acknowledged and the cause of the alarm still exists.	
	Cyan and flashing: the alarm is low priority, unacknowledged and the cause of the alarm still exists.	
	Cyan and not flashing: the alarm is low priority, acknowledged and the cause of the alarm still exists.	
  	Questionable alarm. The state of an existing alarm is unknown because communications with the source of the alarm have been lost.	
Time	The time and date at which the alarm was received.	
Location	The tag name of the asset to which the point or device belongs.	
Source	The point or device that caused the alarm. If the point ID is too long to be fully displayed in the alarm summary, it is truncated. To see the full name place the mouse pointer over the partial point ID to display the full point ID.	
Condition	The alarm condition.	

Alarm line item	Description	Disabled
Priority	<p>The priority of the alarm. The prefix letter indicates the general priority:</p> <ul style="list-style-type: none"> • Urgent • High • Low <p>If a number follows the letter, it represents the relative priority within the general priority. For example, Urgent alarms can vary from U15 (most urgent) to U00 (least urgent).</p>	
Description	<p>A description of the alarm.</p> <p>If the description is too long to be fully displayed in the alarm summary, it is truncated. To see the full description place the mouse pointer over the partial description to display the full description.</p>	
Trip Value	The value that triggered the alarm.	
Live Value	The current value. This value is continually updated.	
Units	The unit that the value represents, for example m1/s.	

The System Status display

The System Status display is similar to the Alarm Summary, however the System Status display shows system alarms for system and network components only.

Examples of system alarms are:

- Communications failures
- Station failures
- Operator logon failures
- Printer failures

(System alarms can also be shown in the Alarm Summary, however the Alarm Summary can be configured so that system alarms are filtered out of the Alarm Summary.)

The alarm line items on the System Status display are the same as the alarm line items on the Alarm Summary. For a description of the alarm line items see “The Alarm Summary” on page 66.

Alarm acknowledgement on the System Status display is the same as alarm acknowledgement on the Alarm Summary. See “Acknowledging alarms” on page 78.

Filtering and sorting the System Status display is the same as filtering and sorting the Alarm Summary. See “Changing what is shown in the Alarm Summary and the System Status display” on page 72.

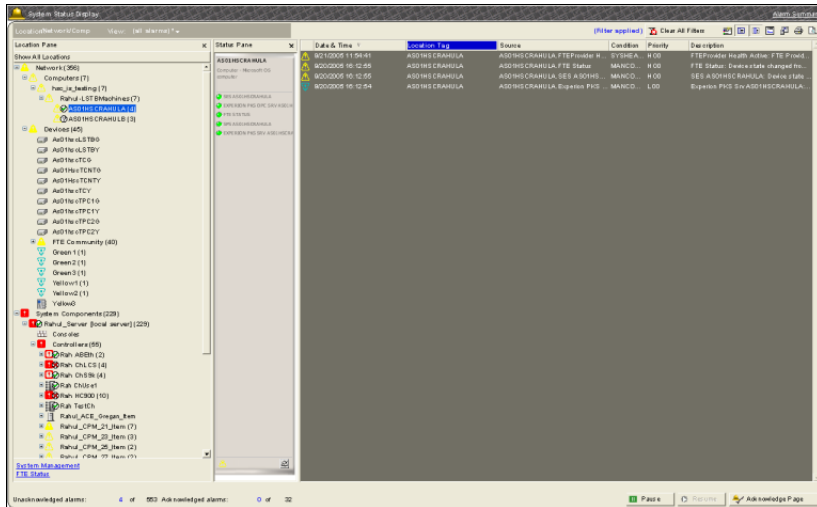
If your system incorporates System Management software, FTE, or TPS, you can navigate to related displays from the System Status display. The Location pane on the System Status display includes the following links:

- System Management—if you click the link, the System Management display opens.
- FTE Status—if you click the link, an FTE Status display opens in Station.
- TPS System Status—if you click the link, Native Window opens.

To call up the System Status display:

- 1 Choose **View > System Alarms**.

Figure 9 System Status display



The System Status display Location pane

The Location pane on the System Status displays has two hierarchical trees; one shows the network components that have been added to the tree, the other shows all of the Experion related components such as servers, Stations, channels and controllers.

You can expand and collapse the trees as required to navigate to the component to check its status or to view alarms associated with the component.

When one of the components in the tree goes in to alarm, an icon appears next to the component name that is in alarm. This alarm is also shown at the root object in the tree.

Components such as servers and Stations, in both the System Components tree and the Network tree, show a status icon which indicates their current state.



Tip

If you move your mouse over the status icon, a tooltip describing the current state appears.

The System Status display Status pane

The Status pane shows more information about the status of the item you have selected in the Location pane. For example:

- Performance information such as CPU usage and disk space
- Firmware versions
- Redundancy status such as link status and last synchronization time
- Channel statistics

The Status pane is empty if you do not have an item selected in the Location pane.

To show the Status pane:

- Click the Show Status Pane icon .

Changing what is shown in the Alarm Summary and the System Status display



Attention

Depending on your security privileges, you may not be able to filter and sort the Alarm Summary or the System Status display. The options that are not available to you are disabled and appear “grayed out”.

By default, the Alarm Summary and the System Status display show all alarms, with the newest alarm at the top. You can change this by applying filters and sorting the summary.

Filtering allows you to show alarms that match the filter criteria and hide alarms that do not match the filter criteria. For example, you can filter to show alarms:

- Of a particular priority only
- For a particular asset only on the Alarm Summary
- For a particular piece of equipment on the System Status display

You can also filter by most columns in the summary.

Sorting allows you to set the order in which alarms appear. The sort order can be ascending or descending. For example, you can sort alarms by date and time, in ascending order. This means that alarms are listed in order of ascending date and time, that is, the oldest alarm is listed at the top of the summary.

You can apply more than one filter at a time and you can also filter and sort at the same time. When the Alarm Summary is filtered or sorted, the column by which you are filtering or sorting is highlighted.

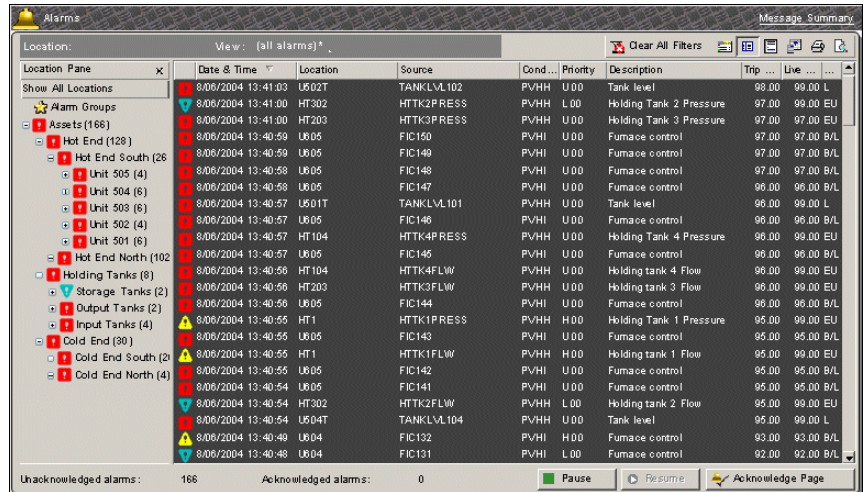
Using the Location pane

The Location pane on the Alarm Summary provides a tree view of assets to which you or the Station you are using have been assigned while the Location pane on the System Status display provides tree views of your network components and system components. You can use the Location pane to filter the Alarm Summary and the System Status display to show alarms for a:




- Particular asset
- An alarm group
- A particular piece of equipment

Using the Location pane, you can easily see the priority of the highest priority alarm for each item and the number of alarms for each item in the trees.



Figure 10 Alarm Summary location pane



To show the Location pane use either method:

- Click the Show Location Pane icon  .
- Click the Location list **Location:**  and click the Push Pin to dock the Location pane  .

To hide the Location pane use either method:

- Click the Hide Location Pane icon  .
- Click the Close icon in the Location Pane  .

To filter using the location pane:

- 1 Show the location pane if it is hidden.
- 2 Expand the asset tree to locate the item by which you want to filter.
- 3 Click the required item.

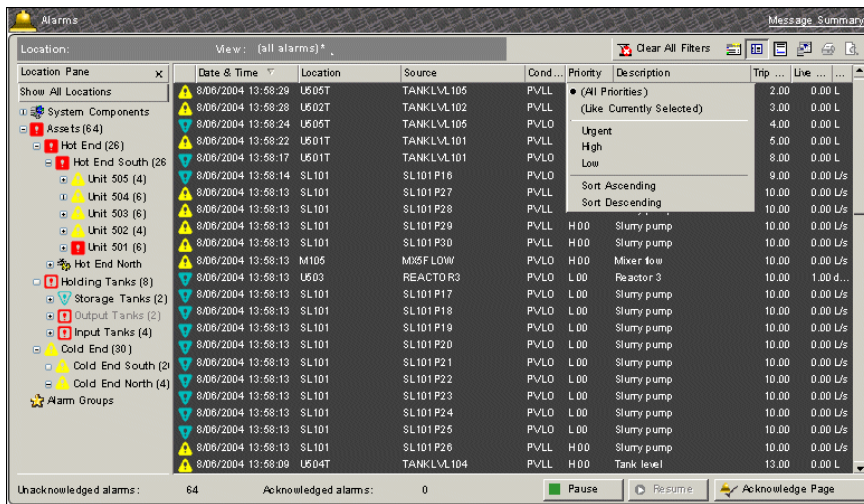
The alarms are filtered to show any alarms for this item.

Using column filtering

To filter the Alarm Summary:

- 1 Call up the Alarm Summary display.
- 2 Click the column heading you want to filter by.
- 3 Select the filter you want to apply.

Figure 11 Filtering the Alarm Summary



Example scenario—filtering

You want to filter the Alarm Summary so that you see unacknowledged alarms of high priority only.

Solution

- 1 Call up the Alarm Summary display.
- 2 Click the Priority column and select **High**.
- 3 Click the Alarm State column and select **Unacknowledged**.

The Alarm Summary changes to list unacknowledged alarms of high priority only.

To sort the Alarm Summary

- 1 Call up the Alarm Summary display.

- 2 Click the column heading you want to sort by.
- 3 Select the sort order.

Example scenario—sorting

You want to sort the Alarm Summary so that alarms are sorted in ascending order by value.

Solution

- 1 Call up the Alarm Summary display.
- 2 Click the Value column.
- 3 Select Sort Ascending.

The Alarm Summary changes to list alarms in ascending order according to the value.

To remove filtering:

- Click **Clear all Filters**.

To revert to the default setting (removing all filtering and sort in descending time order), load the **All Alarms** view (see “Using views” on page 75 for details).

Using views

You can change how information is displayed in the Alarm Summary by applying a different “view”. A view contains the information about filtering and sorting, which alarm line items are shown, the order they are shown in and the space provided for each item. Figure 8 on page 66 shows the default Alarm Summary.

There are several predefined views. These are:

- Unacknowledged alarms; shows only unacknowledged alarms
- Urgent and high alarms; shows alarms of urgent and high priority only
- Urgent alarms; shows alarms of urgent priority only

There may be other views that have been configured for your system. Ask your supervisor or an experienced colleague about other views and the information they display in the Alarm Summary.

To apply a view:

- 1 Click the view list.
- 2 Select the view from the list.

Figure 12 Alarm Summary view list


Date & Time	Location	Cond.	Priority	Description	Trip	Live
8/06/2004	L601T	PVLO	L00	Tank level	4.00	4.00 L
8/06/2004 13:58:14	SL101	PVLL	H00	Tank level	5.00	3.00 L
8/06/2004 13:58:14	SL101 P16	PVLO	L00	Tank level	8.00	3.00 L
8/06/2004 13:58:13	SL101 P17	PVLO	L00	Slurry pump	9.00	3.00 L/s
8/06/2004 13:58:13	SL101 P27	PVLL	H00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	SL101	PVLL	H00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	SL101 P28	PVLL	H00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	SL101 P29	PVLL	H00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	SL101 P30	PVLL	H00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	M105	PVLO	H00	Mixer low	10.00	3.00 L/s
8/06/2004 13:58:13	U603	PVLO	L00	Reactor 3	10.00	4.00 d...
8/06/2004 13:58:13	SL101	PVLO	L00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	SL101 P17	PVLO	L00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	SL101 P18	PVLO	L00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	SL101 P19	PVLO	L00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	SL101 P20	PVLO	L00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	SL101 P21	PVLO	L00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	SL101 P22	PVLO	L00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	SL101 P23	PVLO	L00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	SL101 P24	PVLO	L00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	SL101 P25	PVLO	L00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:13	SL101 P26	PVLL	H00	Slurry pump	10.00	3.00 L/s
8/06/2004 13:58:09	U604T	PVLL	H00	Tank level	13.00	4.00 L
8/06/2004 13:58:00	U602T	PVLO	L00	Tank level	18.00	5.00 L
8/06/2004 13:58:00	U601	PVLO	U00	Reactor 1	20.00	6.00 d...

Using the details pane

The Details pane shows the details of the currently selected alarm. If no alarm is selected, the details pane is empty.

If the selected alarm is for a point, the details pane also provides links to the point detail display and associated display.

To show or hide the Details pane:

- Click the Details pane icon  .

Navigating the Alarm Summary

There are several ways to scroll the list of alarms on the Alarm Summary. You can:

- Use your mouse and click on the scroll bar
- Use your mouse wheel (if your mouse has one)
- Use the Up and Down arrow keys on your keyboard
- Press the PAGE UP and PAGE DOWN keys to scroll a page at a time
- Press the HOME key to go to the first alarm in the summary
- Press the END key to go to the last alarm in the summary

If you want to use your keyboard keys or mouse wheel to scroll the Alarm Summary, you need click your mouse in the summary grid to give it focus.

Pausing the Alarm Summary

You can pause the Alarm Summary to make it easier to read if alarms are occurring in rapid succession. When the Alarm Summary is paused no new alarms are added to the summary, however you can still acknowledge alarms and filter and sort the summary. Alarms that are acknowledged or returned to normal while the summary is paused are shown with a strikethrough.



To pause the Alarm Summary:

- On the Alarm Summary display click **Pause**.

Acknowledging alarms

In most systems, Station produces an “alarm tone” when a new alarm occurs. (Your system may be configured not to do this.)

There are several ways of silencing or acknowledging alarms:

To:	Do this:
Silence the tone	Either: <ul style="list-style-type: none"> • Click the  (Alarm Acknowledge) toolbar button. • Press the appropriate key—see “Keyboard shortcuts” on page 164.
Acknowledge a particular alarm on the Alarm Summary	Either: <ul style="list-style-type: none"> • Select the alarm and click the  (Alarm Acknowledge) toolbar button. • Right-click the alarm then select Acknowledge.
Acknowledge all alarms currently visible on the Alarm Summary	Click the Acknowledge Page button on the display. Note that if there are any more unacknowledged alarms in the list not currently visible, you first have to display them by scrolling the Alarm Summary before clicking the Acknowledge Page button again.

Adding comments to an alarm

If required, you can add comments to alarms in the Alarm Summary. For example, you might need to keep a record of your actions in response to an alarm.

Considerations

- If you are operating a Console Station, you can only add comments to an alarm when the Experion server is available.


To add a comment to an alarm:

- 1 Select the alarm to which you want to add a comment.
- 2 If the Details Pane is not visible, click the Show Details Pane button.
- 3 Click the **Comments** tab.
Any existing comments that are added to the alarm are displayed.
- 4 Type in your comment and click **Save Comments**.

Viewing an alarm video clip

If your Experion has the Honeywell Digital Video Manager installed as part of the system, you will be able to view any video clip that may be linked with an alarm or event.

A video icon in the first column of the Alarm Summary indicates that a video clip is linked to the alarm.

To:	Do this:
View the video clip	Either: <ul style="list-style-type: none"><li data-bbox="595 552 1132 604">• Double-click the  video clip icon associated with the alarm listed in the summary.<li data-bbox="595 618 1132 699">• Select the alarm in the Alarm Summary that contains the video clip, then click the Associated Video link on the Details pane.<li data-bbox="595 713 1132 765">• Right click the alarm and select Associated Video from the menu.

The video clip associated with the alarm will be displayed in a popup window.

Responding to events

7

An *event* is any significant change in the system, and includes alarms and operator actions.

To call up the events display:

- 1 Choose **View > Events > Event Summary** to see the list of events from the local server only. (Alternatively, click **Events** on the System Menu.)

Events are listed in chronological order, starting with the most recent event. The display is automatically updated, which means that each new event appears at the top of the list.

Figure 13 Events Summary

Date & Time	Location Tag	Source	Condition	Action	Priority	Description	Value	U...
28.06.2004 8:37:16	U604	FIC127	PVHI	OK	L00	Fumao e control	63 B/L	
28.06.2004 8:37:16	U604	FIC126	PVHI	OK	L00	Fumao e control	64 B/L	
28.06.2004 8:37:15	U604	FIC125	PVHI	OK	L00	Fumao e control	65 B/L	
28.06.2004 8:37:14	U604	FIC124	PVHI	OK	L00	Fumao e control	65 B/L	
28.06.2004 8:37:14	U604	FIC123	PVHI	OK	L00	Fumao e control	66 B/L	
28.06.2004 8:37:13	U604	FIC122	PVHI	OK	L00	Fumao e control	66 B/L	
28.06.2004 8:37:13	U603T	TANKLVL103	PVHH	OK	U00	Tank level	66 L	
28.06.2004 8:37:13	U604	FIC121	PVHI	OK	L00	Fumao e control	67 B/L	
28.06.2004 8:37:12	U604	FIC120	PVHI	OK	L00	Fumao e control	67 B/L	
28.06.2004 8:37:12	U604	FIC119	PVHI	OK	L00	Fumao e control	68 B/L	
28.06.2004 8:37:11	M101	MX1FLOW	PVHI	OK	H00	Mixer flow	68 L/s	
28.06.2004 8:37:11	U604	FIC118	PVHI	OK	L00	Fumao e control	69 B/L	
28.06.2004 8:37:10	U601	REACTOR1	PVHI	OK	H00	Reactor 1	70 degs	
28.06.2004 8:37:03	U602T	TANKLVL102	PVHI	OK	H00	Tank level	76 L	
28.06.2004 8:37:00	HT203	HTTK3PRES S	PVHH	OK	U00	Holding Tank 3 Pressure	79 EU	
28.06.2004 8:37:00	HT302	HTTK2PRES S	PVHH	OK	L00	Holding Tank 2 Pressure	79 EU	
28.06.2004 8:36:57	HT104	HTTK4PRES S	PVHH	OK	U00	Holding Tank 4 Pressure	81 EU	
28.06.2004 8:36:56	HT104	HTTK4FLW	PVHH	OK	U00	Holding tank 4 Flow	82 EU	
28.06.2004 8:36:56	HT203	HTTK3FLW	PVHH	OK	U00	Holding tank 3 Flow	82 EU	
28.06.2004 8:36:54	HT302	HTTK2FLW	PVHH	OK	L00	Holding tank 2 Flow	83 EU	
28.06.2004 8:36:47	U601T	TANKLVL101	PVHI	OK	H00	Tank level	88 L	
28.06.2004 8:36:47	M101	MX1FLOW	PVHH	OK	U00	Mixer flow	88 L/s	
28.06.2004 8:36:47	U604	REACTOR4	PVHI	OK	U00	Reactor 4	88 degs	

- 2 If you want stop new events from being added to the display—this makes it easier to read if events are occurring in rapid succession—change the Date & Time filters from **All Recent Events - Live** to **Today (snapshot)**. For details on using filters, see “Changing what is shown in the Event Summary” on page 84.

If the point ID or Description has been truncated, move your mouse pointer over the point ID or description to display the full point ID or description.

Journalled events

Distributing all journalled events would need significant bandwidth, so most events are only recorded on the server where the point is defined. The exceptions are Acknowledgement events and Point Value Change events, which are recorded on both the server where they occurred and on the data owner.

This means that the event archive on each server includes all events for its local points, and Acknowledgement events and Point Value Change events that occurred on the local server and affect remote points.

To view events for a remote server

- Configure and Alarm and Event DSA report that includes events from the remote server. (For more information about configuring this report, see “Alarm and Event DSA reports” in the *Server and Client Configuration Guide*.)
- Use Station to log on to the remote server and view the Event Summary display.
- If sufficient bandwidth is available an ODBC-based report, using the Experion ODBC Driver, can be constructed to generate a consolidated event report from multiple servers. The ODBC Driver is included with the Experion Open Data Access option.

Changing what is shown in the Event Summary



Attention

Depending on your security privileges, you may not be able to filter and sort the Event Summary. The options that are not available to you are disabled and appear “grayed out”.

By default, the Event Summary shows a “live” summary of events. That is, current events in the system database, with the newest events at the top.

Using views

You can change how information displayed in the Event Summary by applying a different “view”. A view contains the information about filtering and sorting, which event line items are shown, the order they are shown in and the space provided for each item.

There are three predefined views. These are:

- **(all recent events with live updates)**—(default view) shows events as they are occurring.
For performance reasons there is limited filtering capabilities in the default view, and you cannot sort the default view.
- **(all today’s events snapshot)**—shows all events that occurred today up until the view was applied.
- **(all recent access events with live updates)**—shows all access-related events as they are occurring.

There may be other views that have been configured for your system. Ask your supervisor or an experienced colleague about other views and what information they display in the Events Summary.

Filtering

Considerations

- When viewing the live events from the temporary event file (all recent events with live updates) you can only filter on the Location, Priority and Category columns. All other filter menus are disabled. If you want to filter on the other columns you need to change the Date & Time filter to something other than (all recent events - live).

Filtering the Event Summary allows you to show events that match the filter criteria and hide events that do not match the filter criteria. For example, you can filter the Event Summary to show events that occurred on a particular day, or you can filter the Event Summary to show events related to a particular asset only.

You can apply more than one filter at a time and you can also filter and sort at the same time. When the Event Summary is filtered or sorted, the column by which you are filtering or sorting is highlighted.

You can change the Event Summary to show all events for the current day and for each of the last seven days using the Date & Time filter. You can also do a custom time based filter.

Sorting

Sorting allows you to set the order in which events appear in the summary. The sort order can be ascending or descending. For example, you can sort events by date and time, in ascending order. This means that events are listed in order of ascending date and time, that is, the oldest event is listed at the top of the summary.

To filter the Event Summary:

- 1 Call up the Event Summary display.
- 2 Click the column heading you want to filter by.
- 3 Select the filter you want to apply.

Example scenario

You want to filter the Event Summary so that you see events that occurred yesterday.

Solution

- 1 Call up the Event Summary display.
- 2 Click the Date column and select **Yesterday**. The summary changes to show all events that occurred yesterday.

The Event Summary changes to show events that occurred yesterday only.

Considerations

- You cannot sort the “live” Event Summary display.

To sort the Event Summary

- 1 Call up the Event Summary display.
- 2 Click the column heading you want to sort by.
Note that you can only sort by **Date & Time** and **Source**.
- 3 Select the sort order.

Example scenario

You want to sort the Events Summary so that events are listed in ascending order according to point ID (0-9, A-Z).

Solution

- 1 Call up the Event Summary display.
- 2 Click the Source column.
- 3 Select **Sort Ascending**.

The Event Summary changes to list events in ascending order according to the point ID.

To remove filtering and sorting:

- Click **Clear All Filters**.

Adding comments to an event

If required, you can add comments to events in the Event Summary. For example, you might need to keep a record of your actions in response to an event.


To add a comment to an event:

- 1 Select the event to which you want to add a comment.
- 2 If the Details Pane is not visible, click the **Show Details Pane** button.
- 3 Click the **Comments** tab.
Any existing comments that are added to the event are displayed.
- 4 Type in your comment and click **Save Comments**.

Viewing an event video clip

If your Experion has the Honeywell Digital Video Manager installed as part of the system, you will be able to view any video clip that may be linked with an alarm or event.

A video icon in the first column of the Event Summary indicates that a video clip is linked to the event.


To:	Do this:
View the video clip	Either: <ul style="list-style-type: none"> • Double-click the  video clip icon associated with the event in the summary list. • Select the event in the Event Summary that contains the video clip, then click the Associated Video link on the Event Summary display. • Right-click the event and select Associated Video from the menu.

The video clip associated with the event will be displayed in a popup window.

Adding an operator recorded event

If you notice an event (such as a safety issue) that is not recorded by the system, but that you want included in the Event Summary, Experion allows you to manually record that event into the system. Information, such as your user identification, date and time, and event category are automatically stored with the newly created event.

For ease in filtering, your comments are generated as a special type of operator-added event that can be selected as a sort criteria when events are displayed.

To:	Do this:
Manually add an event to the Event Summary	Either: <ul style="list-style-type: none"> • Click the Generate Event button  on the toolbar, then type the comment into the message zone. • Click the Generate Event button on the Event Summary display, then type your comment into the message zone.

Using Event Archiving

Event Archiving periodically captures events from the event journal and places them into an event database, where they can be used for reporting and diagnostic purposes.

Depending on how your system is set up, events are automatically archived at specified intervals, or an alarm is generated to alert you of the need to archive.

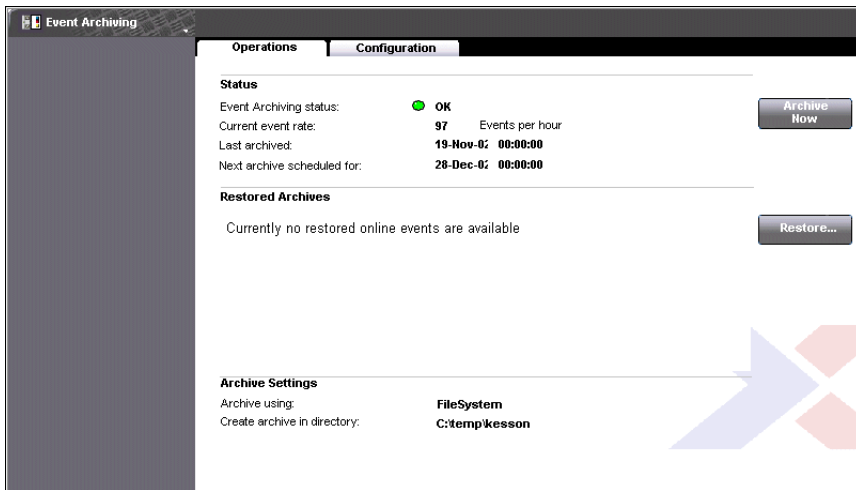
Experion provides a playback facility, so that you can run reports on events that have been restored from archives.

As a security measure, you can use the Experion tampering alert feature to raise an alarm if any event record is changed or altered in any way after it is captured.

To call up the Event Archiving Operations display:

- 1 Select **View > Events > Event Archiving**.

Figure 14 Event Archiving Status Display



- 2 You can now:
- a. Archive the events by clicking the **Archive Now** button—see “Archiving events” on page 92.
 - b. Check for tampering of event records—see “Checking event records for tampering” on page 94.
 - c. Restore archived events by clicking the **Restore** button—see “Restoring archived events” on page 93.
 - d. Remove restored archives by clicking the **Remove** button. The **Remove** button appears when you have restored archives.
 - e. View the status of events collection and archiving.

Event collection and archive status

The Event Archiving Operations display shows the current event collection and archiving status, as described in the following table.

Status	Description
Event Archiving status	Shows the current status of events collection and archiving. For a description of each status see the table below.
Current event rate	Hourly average calculated on the previous 24 hours. Is updated every hour.
Last archived	The last date and time that an archive ran.
Next archive scheduled for	The date and time of the next schedule archive. Calculated using the last archive date and time and the configured schedule.

The following table describes each possible archive status.

Archive status	Description
OK	Event Archiving is working normally.
Overload	Events are occurring so frequently that Event Archiving is not able to capture them in a timely way. If you see this status, refer the problem to your supervisor.
Failed	Events collection has failed.
Full Disk	There is not enough disk space to continue events collection. Events collection is stopped until there is sufficient disk space available.

Archive status	Description
Copy Mode	This is only applicable to a redundant system after recovery from failure. Event Archiving is disabled while the primary extended events database is being copied off-line to the backup server.

Archiving events

Use the following procedure if:

- Your system is not configured to automatically archive events
- You want to archive events before the next scheduled archive

Considerations

- You cannot archive events to tape from Station on a client computer.

To archive events to tape:

- 1 Click the **Archive Now** button.
- 2 Type **Y** (for “yes”) at the confirmation prompt.
- 3 Write the suggested label on the tape.
- 4 Insert the tape into the tape drive and press **ENTER**.
This starts Windows Backup, which then saves the events to tape. (Windows Backup is a specialized backup utility.)

Considerations

- You can archive events to FileSystem, which may be a folder on the server disk itself or on an available network file server.
- When archiving events to a FileSystem use a UNC path rather than mapping a drive to your local computer. For example, use \\myserver\archive instead of f:\.

To archive events to FileSystem:

- 1 Click the **Archive Now** button.
- 2 Type **Y** (for “yes”) at the confirmation prompt.

Restoring archived events

Occasionally, you may need to restore archived events so that you can access them.

The procedure you use to restore archived events depends on how the events were archived. If events were archived:

- To tape, use the procedure “To restore archived events from tape:” on page 93.
- To the file system, use the procedure, “To restore archived events from FileSystem:” on page 94.

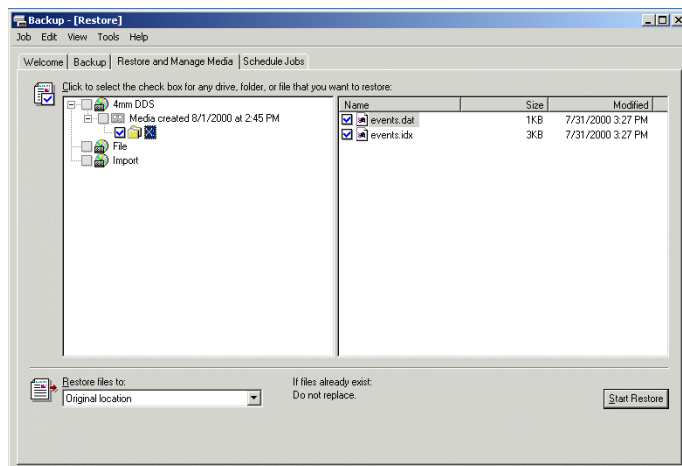
Considerations

- You cannot restore archives from tape using a Station on a client computer. If you are restoring archives from tape you must use Station on the server computer.

To restore archived events from tape:

- 1 Click the **Restore** button.
- 2 Type **Y** (for “yes”) at the confirmation prompt. This starts Windows Backup.
- 3 In Backup window, click the **Restore and Manage Media** tab.
- 4 Expand the tree view of the tape drive device you are restoring from.
- 5 Select the check box that corresponds to the set you want to restore.

Figure 15 Restoring events from tape



- 6 Click the **Start Restore** button.

- 7 Confirm your selection.
- 8 When the restore is complete, click the **Close** button and exit from Backup.

Considerations

- You can restore archived events from FileSystem from a Station running on either the server computer or a client computer.
- When restoring archives from FileSystem, use a UNC path rather than mapping a drive to your local computer. For example, use \\myserver\archive instead of f:\.

To restore archived events from FileSystem:

- 1 Click the **Restore** button.
- 2 Type **Y** (for “yes”) at the confirmation prompt.
The **Restore** dialog box opens.
- 3 Select the required .dat file.
- 4 Click **Open**.

Checking event records for tampering

Information about events is stored in your database in an encrypted format. As a security measure, Experion can detect if any changes have been attempted or made to this data that is not a part of the system’s normal operation. Experion can be set up to automatically check all events in the database before they are archived. Alternatively, if you have the appropriate security level, you can also use the **Check for Tampering** button on the Event Archiving Operations display to check the entire event database for tampering on an on-demand basis. In either case, if tampering is detected, an alarm is raised.



If you use the **Check for Tampering** button to verify that the system’s electronic records are secure, you are prompted with a message alerting you that this could be a time-consuming process, depending on the size of your databases.

Responding to messages

8

Messages are generated for many reasons. For example, when a point goes into alarm, you may receive an explanatory message in addition to the alarm. Other types of messages may also give you a set of procedures you are to perform, or list some actions you must take before the message can be acknowledged.

There are four types of messages:

- **Informational**—appear in the summary with an “i” icon.
When you acknowledge an informational message, it is removed from the summary.
- **Confirmable**—appear in the summary with a “c” icon.
When you acknowledge a flashing confirmable message it changes to a static state. When confirmed, the message is removed from the summary.
- **Single signature**—appear in the summary with a  icon.
To acknowledge this type of message, you must provide your user name, domain and password in the Electronic Signature dialog box that appears when you select the message. You can also add comments regarding the cause of the alarm. See “About Electronic Signatures” on page 61.
- **Double signature**—appear in the summary with a  icon.
To acknowledge this type of message, you and another authorized individual must provide your user names, domains and passwords in the Electronic Signature dialog box that appears when you select the message. Either or both signers can add comments regarding the cause of the alarm. See “About Electronic Signatures” on page 61.



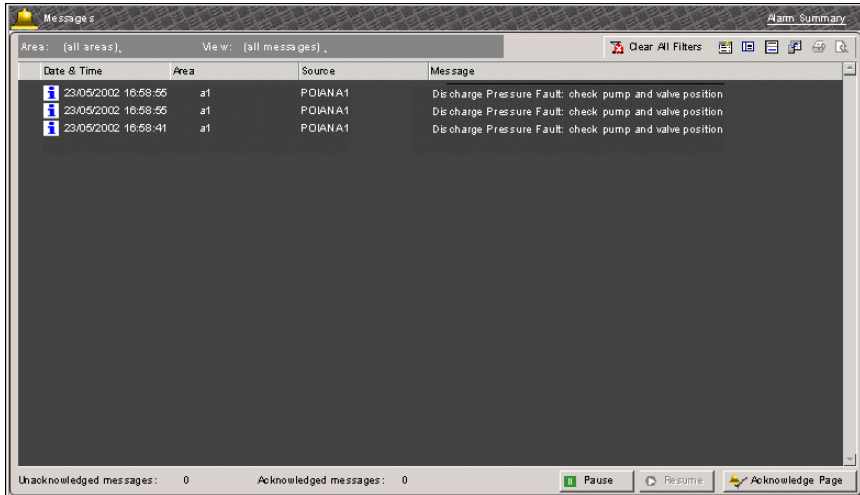
Attention

The Message box in the Status Line flashes green if there are any unacknowledged messages.

To call up the Message Summary, and acknowledge new messages:

- 1 Choose **View > Message Summary**.

Figure 16 Message Summary



Changing what is shown in the Message Summary



Attention

Depending on your security privileges, you may not be able to filter and sort the Message Summary. The options that are not available to you are disabled and appear “grayed out”.

By default, the Message Summary shows all messages, with the newest message at the top. You can change the Message Summary by applying views, filters and sorting the summary.

Using views

A view contains the information about filtering and sorting, which message line items are shown, the order they are shown in and the space provided for each item.

The following views are predefined:

- (all messages)—shows all messages
- (confirmable messages)—shows confirmable messages only
- (informational messages)—shows informational messages only

Your system may be set up with site-specific views. Ask your supervisor or an experienced colleague about other views and what information they display in the Message Summary.

To apply a view:

- 1 Click the view list
- 2 Select the view from the list

Filtering and sorting the Message Summary

Filtering the Message Summary allows you to show messages that match the filter criteria and hide messages that do not match the filter criteria. For example, you can filter the Message Summary to show messages of the type informational only.

Sorting allows you to set the order in which messages appear in the summary. The sort order can be ascending or descending. For example, you can sort messages by date and time, in ascending order. This means that messages are listed in order of ascending date and time, that is, the oldest message is listed at the top of the summary.

You can apply more than one filter at a time and you can also filter and sort at the same time. When the Message Summary is filtered, the column by which you are filtering is highlighted. When the Message Summary is sorted, the column by which you are sorting has an up arrow to indicate Sort Ascending and a down arrow to indicate Sort Descending.

An easy way to filter the summary is to perform a “like currently selected” filter. For example, if you want to see all messages for a particular point. You can select the message for the particular point, click the Source column and select (like currently selected). The Message Summary is filtered to show all messages in the summary that match the source of the currently selected message.

To filter the Message Summary:

- 1 Call up the Message Summary display.
- 2 Click the column heading you want to filter by.
- 3 Select the filter you want to apply.

Example scenario

You want to filter the Message Summary so that you see informational messages.

Solution

- 1 Call up the Message Summary display.
- 2 Click the Message State column and select **Informational**.

The Message Summary changes to list messages that are of the type informational.

To sort the Message Summary

- 1 Call up the Message Summary display.
- 2 Click the column heading you want to sort by.
- 3 Select the sort order.

Example scenario

You want to sort the Message Summary so that messages are sorted in ascending order by asset.

Solution

- 1 Call up the Message Summary display.
- 2 Click the Location column.
- 3 Select Sort Ascending.

The Message Summary changes to list messages in ascending order according to the asset.

To remove filtering and sorting:

- Click **Show All Messages**.

Using the Location pane

The Location pane provides a list of assets to which you have access. You can use the Location pane to filter the Message Summary to show messages for a particular asset only.

To display the Location pane use either method:

- Click the Show Location Pane icon.
- Click the Location list and click the Push Pin to dock the Location pane.

To hide the Location pane use either method:

- Click the Hide Location Pane icon.
- Click the Close icon in the Location Pane.

Using the details pane

The details pane shows the details of the currently selected message. If no message is selected, the details pane is empty.

To show or hide the details pane:

- Click the Details pane icon.

Navigating the Message Summary

There are several ways to scroll the list of messages on the Message Summary.

You can:

- Use your mouse and click on the scroll bar
- Use the mouse wheel (if your mouse has one)
- Use the UP ARROW and DOWN ARROW keys on your keyboard
- Press the PAGE UP and PAGE DOWN keys to scroll a page at a time
- Press the HOME key to go to the first message in the summary
- Press the END key to go to the last message in the summary

If you want to use your keyboard keys or the mouse wheel to scroll the Message Summary, you need click your mouse in the summary grid to give it focus.

Pausing the Message Summary


You can pause the Message Summary to make it easier to read if messages are occurring in rapid succession. When the Message Summary is paused no new messages are added to the summary, however you can still acknowledge messages and filter and sort the summary. Messages that are acknowledged while the summary is paused are shown with a strikethrough.

To pause the Message Summary:



- On the Message Summary display click **Pause**.

Acknowledging messages

There are several ways of acknowledging messages:


To:	Do this:
Acknowledge or confirm a single message	Either: <ul style="list-style-type: none"> • Select the message and click the  (Alarm Acknowledge) toolbar button. • Right-click the message then select Acknowledge. • Select the message and press the appropriate key—see “Keyboard shortcuts” on page 164
Acknowledge all currently visible messages	Click the Acknowledge Page button on the display. Note: You cannot use this button to acknowledge messages that require electronic signatures. See “Acknowledging messages with Electronic Signatures” on page 102.

Acknowledging messages with Electronic Signatures

Certain types of messages require either a single or double confirming signatures before they can be acknowledged. A single signature icon  or a double signature icon  in the Message Summary indicates how many signatures are required.


You must have the appropriate security level to acknowledge single signature type messages. The minimum security level required is shown in the Electronic Signature dialog box that opens when you select the message from the Message Summary. If the message icon in the summary indicates that a secondary signer is also required, the opened dialog box will contain two tabs, one for each of the signers.

To sign with a single electronic signature:

- 1 Select the message and click the  (**Alarm Acknowledge**) toolbar button.
- 2 Confirm the acknowledgement.
The **Electronic Signature** dialog box opens.
- 3 Select a predefined reason from the **Reasons** list (if applicable).
- 4 Type your user name if required.
- 5 Type your password if required.
- 6 Type your domain if required.
- 7 Type any additional information under **Comments**.
- 8 Click **OK**.

The message confirmation is sent to the controller and the message is removed from the message summary. An event is generated recording your name as the signer.

To sign with a double electronic signature:

- 1 Select the message and click the  (**Alarm Acknowledge**) toolbar button.
- 2 Confirm the acknowledgement.
The **Electronic Signature** dialog box opens.
- 3 Click the **Primary signature** tab and type your user name if required.
- 4 Select a predefined reason from the **Reasons** list (if applicable).
- 5 Type your password if required.
- 6 Type your domain if required.
- 7 Type any additional information under **Comments**.

8 Click **Sign**.

Your signature is locked in and cannot be changed.

9 Click the **Secondary signature** tab.

The secondary signer must have a different user name from the primary signer and must have the minimum security level displayed in the Secondary signature tab.

10 The secondary signer types their user name, domain and password.

11 Any additional information, if required, is added in **Comments**.

12 Click **OK**.

The message confirmation is sent to the controller and the message is removed from the Message Summary. Events are generated recording the names of the signers.

Adding comments to a message

If required, you can add comments to messages in the Message Summary. For example, you might need to add details about your response to a message.

To add a comment to a message:

- 1 Select the message to which you want to add a comment.
- 2 If the Details Pane is not visible, click the **Show Details Pane** button.
- 3 Click the **Comments** tab.
Any existing comments that have been added to a message are displayed.
- 4 Type in your comment and click **Save Comments**.

Responding to alerts

9

An *alert* is similar to an alarm. An alert notifies you of action you need to take to:

- Complete manual tasks within an overall procedure, for example, shutdown procedures. (These types of alerts are linked to Interactive Instructions.)
- Avoid problems if a condition is not fixed.

The priority of the condition is not high enough to be an alarm.

For example, the gas pressure in Pipe A has been rising steadily over the last couple of days, most probably due a build-up of waste particles on the inner lining. This is leading to a degradation in process performance. An alert is raised to indicate that pipe cleaning must take place in the next week.



Tip

The Alert box in the Status Line flashes white if there are any unacknowledged alerts.

The Alert Summary

Alerts are listed in the Alert Summary, which provides description of each alert.

To call up the Alert Summary:

- 1 Choose **View > Alerts**. (Alternatively, click the Alert box in the Status Line.)

Figure 17 The Alert Summary

The screenshot shows a software interface titled "Alerts". At the top, there are filters for "Area: (all areas)" and "View: (all alerts)". Below this is a table with the following data:

Date & Time	Area	Source	Condition	Description
1/05/2003 13:00:00	System	FC5011	Oscillation	P2FC5011 PV is OSCILLATING
1/05/2003 10:28:55	System	05002	Frozen, Range	Multiple conditions are Active
1/05/2003 10:27:02	System	MB1	Mass Balance	Mass exceeds allowable limit

Below the table is the "Alert Details" section, which is currently showing the "General" tab. The details for the selected alert are:

Acknowledged:	True	Quality:	192	Associated Display
Area Name:	System	Reset:	True	
Category Name:	Process Alarm	Responded:	False	
Changed Time:	5/9/2003 4:59:33 PM	Returned to normal:	False	
Condition:	Frozen, Range	Source:	05002	
Count:	3			
Description:	Multiple conditions are Active			
Disabled:	False			
Oldest Time:	5/1/2003 10:27:02 AM			
Parameter Number:	1			

At the bottom of the window, there are summary statistics: "Unacknowledged alerts: 2" and "Acknowledged alerts: 1". There are also buttons for "Pause", "Resume", and "Acknowledge Page".

Changing what is shown in the Alert Summary

By default, the Alert Summary shows all alerts, with the newest alert at the top. You can change the Alert Summary by applying filters and sorting the summary.

Filtering the Alert Summary allows you to show alerts that match the filter criteria and hide alerts that do not match the filter criteria. For example, you can filter the Alert Summary to show alerts for a particular asset only. You can filter the Alert Summary by most columns in the summary.

Sorting allows you to set the order in which alerts appear in the summary. The sort order can be ascending or descending. For example, you can sort alerts by date and time, in ascending order. This means that alerts are listed in order of ascending date and time, that is, the oldest alert is listed at the top of the summary.

You can apply more than one filter at a time and you can also filter and sort at the same time. When the Alert Summary is filtered or sorted, the column by which you are filtering or sorting is highlighted.

To filter the Alert Summary:

- 1 Call up the Alert Summary display.
- 2 Click the column heading you want to filter by.
- 3 Select the filter you want to apply.

Using views

You can change how information is displayed in the Alert Summary by applying a different “view”. A view contains the information about filtering and sorting, which line items are shown, the order they are shown in and the space provided for each item.

There are several predefined views. These are:

- (all alerts)—shows all alerts
- (my private alerts)—shows alerts for which the current operator is the author
- (my private and public alerts)—shows alerts for which the current operator is the author, as well as any alerts marked as public


There may be other views that have been configured for your system. Ask your supervisor or an experienced colleague about other views and the information they display in the Alert Summary.

To apply a view:

- 1 Click the view list.
- 2 Select the view from the list.

Acknowledging an alert

There are several ways of acknowledging alerts:

To:	Do this:
Acknowledge or confirm a single alert	Either: <ul style="list-style-type: none"> • Select the alert and click the  (Alarm Acknowledge) toolbar button. • Right-click the alert then select Acknowledge. • Select the alert and press the appropriate key—see “Keyboard shortcuts” on page 164
Acknowledge all currently visible alerts	Click the Acknowledge Page button on the display.

Responding to an alert with Interactive Instructions

If the alert is associated with Interactive Instructions, you must complete some manual tasks in order for an overall procedure to complete. These tasks are detailed in the Interactive Instructions.

To respond to an alert with Interactive Instructions:

- 1 Call up the Alert Summary.
- 2 Double-click the alert with Interactive Instructions.
The Sequential Control Module detail display opens at the Table view tab with the current step highlighted.
- 3 Follow the instructions associated with the current step.
- 4 After you have completed the instructions confirm that you have completed the step.
- 5 Repeat for each step of the sequential control module.

Displaying detailed process information

10

To learn about:	Go to:
Point Detail displays, which show detailed information about every point	page 113
Group displays, which show important information about groups of related points	page 120
Trend displays, which display system information in a graphical manner.	page 121

About Detail displays

Detail displays show information about a particular part of your process or specific points. There are several types of Detail displays:

- Point Detail displays
- SCM Detail displays
- Group displays
- Trend displays

Using Point Detail displays

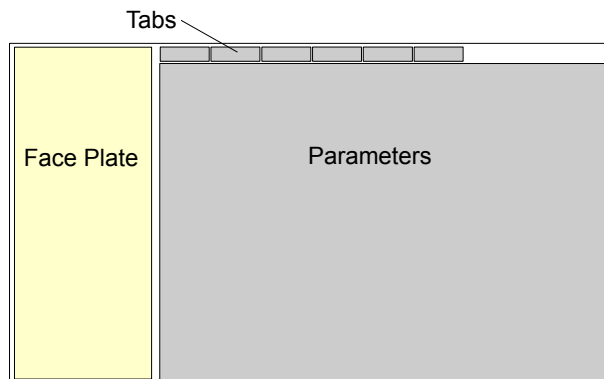
A Point Detail display shows the current value of each parameter for a particular point.

You can also use a Point Detail display to disable the point or change parameter values, providing you have the required security level. See “Controlling points” on page 58.

Point Detail Displays have a standardized layout, as shown in the following figure.

The Face Plate is designed to look like a traditional panel instrument, and shows the main parameters for the point.


The other parameters are shown to the right of the Face Plate, and are grouped according to tab. For example, to see the alarm-related parameters, click the Alarms tab.



Calling up a Point Detail display

There are several ways of calling up a Point Detail display.

To call it up for a point associated with a display object:


- 1 Click the display object to select it.
- 2 Click the  (**Detail**) toolbar button to call up the associated Point Detail display.

Alternatively, you can simply double-click the display object.

To call it up for the point in the Alarm Line:


- 1 Click the  (**Detail**) toolbar button.

To call it up for a point whose ID (or the first part of it) you know:

- 1 Type all or part of the point ID in the Command Zone, and then click the  (**Detail**) toolbar button.
- 2 If you typed only part of the ID, a list of matching points (and other items) appears. Double-click the required point name.

If your system uses DSA or point servers, information on some points you may need to access is stored on remote computers. As a result, the first time you call up the point's details you may need to type the full point ID. After this, using part of the point ID produces a matching point.

To call it up for a point whose full item name (or the first part of it) you know:

- 1 Type all or part of the full item name in the Command Zone, and then click the  (**Detail**) toolbar button.
- 2 If you typed only part of the full item name, a list of matching points (and other items) appears. Double-click the required point name.

Displaying point history

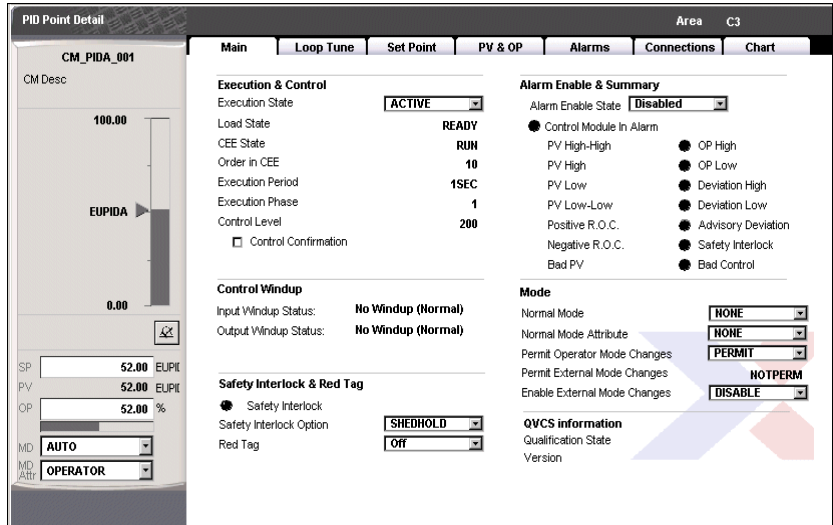
To see changes to a point's PV (process value) over time:

- 1 Display the point's Detail display—see “Calling up a Point Detail display” on page 113.
- 2 Click the **History** tab.
This tab contains a set of History buttons.
- 3 Select the appropriate graphing options. For example, to see changes at minute intervals, select **1 minute** from the **Interval** list.

Process point

A process point represents a control strategy in an Experion Process Controller. Process points are user-definable—ask your supervisor or an experienced colleague for an explanation of the display's contents.

Figure 18 A typical Detail Display for a process point



Item	Description
Face Plate (left-hand side)	Designed to look like a physical panel, this shows the current values of the main parameters. The “gauge” in the upper portion shows the PV (process value) and SP (setpoint).
Tabs	Related parameters are grouped under each tab. To see a particular set of parameters, click the appropriate Tab. If you want to display changes in PV over time, see “Displaying point history” on page 114.

Using sequential control module detail displays

Sequential control can be designed to execute basic sequential process activities such as start up and shut down as well as complex batch operations. Sequential control interacts with one or more control modules. Control Modules can be configured to control a PID loop, discrete valves, accumulated flows, and so on.

Sequential control module (SCM) detail displays are similar to other detail displays. They contain a faceplate on the left-hand side and a series of tabs provide more detail of the SCM. From the SCM detail display, you can view the SCM as a chart or as a table.

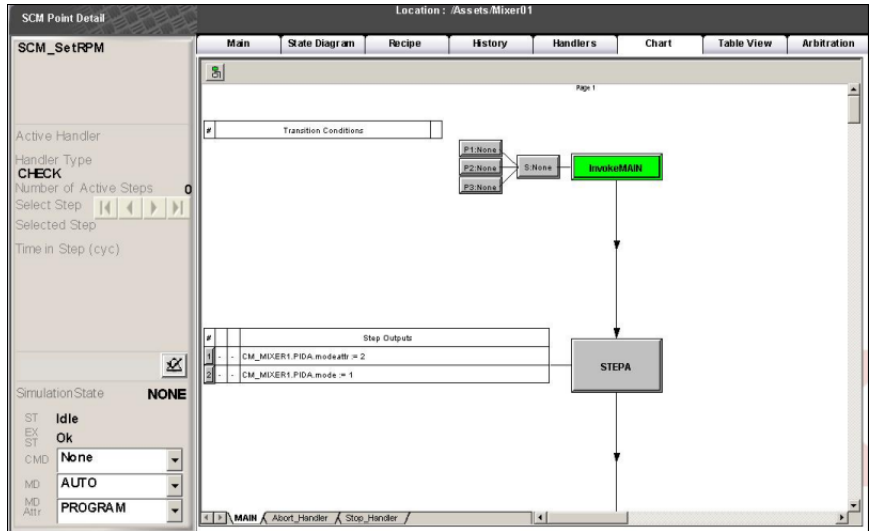
The screenshot shows the 'SCM Point Detail' window for 'SCM_SetRPM' at location '/Assets/Mixer01'. The 'Main' tab is active, displaying the following information:

- Execution & Control:** Execution Status: OK; Load State: READY; CEE State: RUN; Order in CEE: 10; Execution Period: 1sec; Execution Phase: 9; Control Level: 200.00.
- Control Locks:** Abort Lock: ENGINEER; Control Lock: OPERATOR; Single-Step Lock: ENGINEER; Single-Step Target: (empty); Control Confirmation: (unchecked).
- Configuration Status:** SCM Configuration Status: OK; SCM Configuration Code: None.
- Alarm Information:** Alarm Enable State: Enabled; Journal Only Option: (unchecked); Type: SCM; Priority: (empty); Severity: (empty). Alarm list: Step Timeout (LOW, 0), Hold State (LOW, 0), Stop State (LOW, 0), Abort State (LOW, 0), Fail State (LOW, 0).
- Alias Information:** Number of Aliases: 0; Number of Instances: 0; Current Instance Selection: 1.
- Display Information:** Point Detail Display: sysDISCMA; Group Detail Display: sysDISCMA_fp; Associated Display: (empty); OVCS Information: Qualification State: (empty); Version: (empty); Assigned Controller: C300_49.CEEC300_49.

The left-hand side faceplate includes: Active Handler (CHECK), Handler Type (CHECK), Number of Active Steps (0), Select Step (navigation buttons), Selected Step, Time in Step (cyc), Simulation State (NONE), and status indicators (ST: Idle, EX ST: Ok, CMD: None, MD: AUTO, MD Attr: PROGRAM).

Chart view

An SCM contains transition block and step block pairs. In general, when a certain transition condition is met, the step procedure is executed. The chart view gives you a graphical view of the transitions and steps in the SCM and the progress as it occurs.



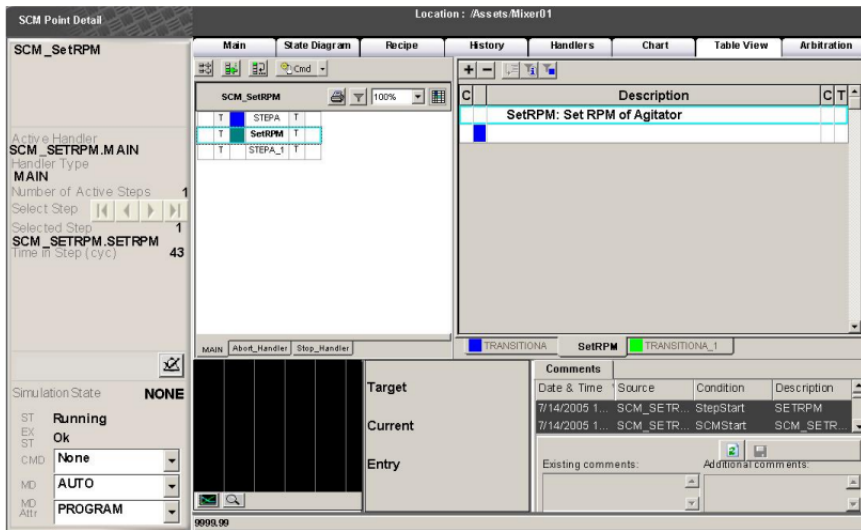
As an SCM runs, the transitions and steps change color. The following table lists the colors and their meaning.

Item	Color	State
Transition block	Gray	The transition block is waiting to run.
	Green	The transition block is running
	Blue	The Transition is complete
Transition conditions	Green	The condition is true.
	Background	The condition has not been met.
	Red	The condition is failed or in error.
Step block	Yellow	Warning
	Gray	The step block is waiting for the conditions in the preceding transition block to become true for it to run.
	Green	The step block is running.
Step Output	Blue	The step block has completed.
	Green	The step output is OK.
	Yellow	Warning
	Red	The step has failed or there is an error and the step cannot be complete.

Table view

The Table view of an SCM contains a series of panes that provide more information about the SCM. The panes are:

Pane	Description
Summary pane	Provides an overview of the SCM in a list or flow view.
Details pane	Provides more detail of the step that is highlighted in the Summary pane. Any interactive instructions are also provided in this pane.
Minitrend pane	Up to eight values can be trended on a Minitrend. If history collection is configured for the current value and history collection type is specified in step configuration, the Minitrend can retrieve old values. For all other current values, Minitrend starts to collect the values when the Minitrend is opened for a step in Table View.
Key parameters pane	Displays the Target value and Entry values. Operator can enter an Entry value.
Additional details pane	Provides details for the Step Output or Transition Condition that is selected in the Details pane.




Using faceplates

Some points can be controlled from a faceplate. A faceplate is a specialized type of popup window that shows critical information about the point to which the object is linked. In most cases, a faceplate is similar to the left-hand portion of the matching point detail display.

Each Station can have a total of four faceplates, or popup windows, or a combination of both, visible at the same time. For example, if there are already three faceplates and one popup windows visible, when you call up another faceplate the oldest faceplate (or popup) is replaced.

When you first call up faceplates, they are positioned in the bottom right-hand corner of your monitor. You can move the faceplates by clicking and dragging the faceplate to another position. Next time you call up the faceplate, the last position is remembered.

If you want faceplates to remain visible while you navigate to other displays, click the pushpin . Faceplates that you have “pushpinned” are not replaced if you call up more faceplates. If you are using a multi-window Station show display windows are controlled by Safeview, these rules may be overridden by Safeview’s configuration; check with your supervisor or an experienced colleague.

You can tell if a display object on a custom display has a faceplate associated with it because the mouse pointer changes to a hand when you move the mouse over the object. If you click the display object the faceplate for that point opens. You can then change parameter values from the faceplate.

Using Group Detail displays

A Group Detail display shows the main parameters for a set of up to eight related points. The information is presented using faceplates. A faceplate is a specialized type of popup window that shows critical information about the point to which the object is linked. In most cases, a faceplate is similar to the left-hand portion of the matching point detail display.

Each group is identified by a number, and generally has a descriptive title.

To call up a group detail display by choosing it from list of groups:

- 1 Select **View > Group Summary** to see the list of groups.
- 2 Select a group.

To call up a group detail display whose number you know:


- 1 Click the  (**Group**) toolbar button.
- 2 Type the group number in the Command Zone and press **ENTER**.

Figure 19 Typical Group Detail display



- 3 If required, you can display the group's trend by choosing the option from the **View As** list.

You can call up another group by choosing it from the **Group** list.

Using trend displays

A trend display shows changes in point parameter values over time. Typical uses of trend displays are to show changes in room temperature or power consumption over the day.

Trends can display data in several ways, including:

- Line graphs (the default)
- Bar graphs
- Numerical list of historical data
- X-Y plot of the value of one point against another (that is, one point on the x-axis and the other on the y-axis)

Each trend is identified by a number, and generally has a descriptive title.

To call up a trend by choosing it from list of trends:

- 1 Select **View > Trend Summary** to see the list of trends.
- 2 Select a trend.

To call up a trend whose number you know:


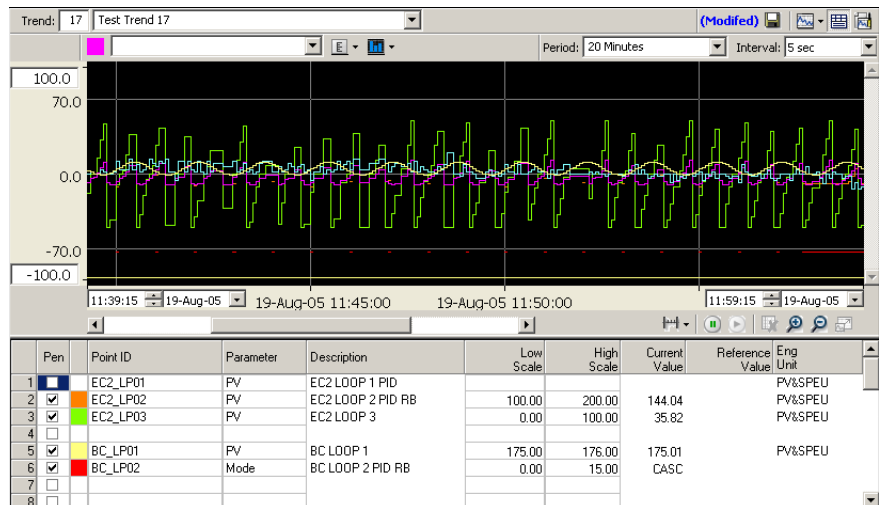
- 1 Click the  (**Trend**) toolbar button.
- 2 Type the trend's number in the Command Zone and press **ENTER**.




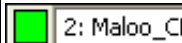


Figure 20 Typical trend
















You can call up another trend by choosing it from the **Trend** list.

Modifying a trend display

Having called up a trend, you use the various buttons on the trend display to modify it. The following table describes each button.

Button	Description
	<p>Individual scales in EU</p> <p>Scaling used in the trend is separate for each point and is in engineering units.</p> <p>Click the arrow to change the scale.</p> <p>For more information about scaling trends, see “Changing the scale on a trend” on page 124.</p>
	<p>Individual scales in %</p> <p>Scaling used in the trend is separate for each point and is shown as a percent.</p> <p>Click the arrow to change the scale.</p> <p>For more information about scaling trends, see “Changing the scale on a trend” on page 124.</p>
	<p>Single scale for all plots</p> <p>The range displayed on the Y-axis is the same for all plots.</p> <p>For more information about scaling trends, see “Changing the scale on a trend” on page 124.</p>
	<p>Plot selector</p> <p>Indicates the plot that is currently selected, or if no plot is currently selected, indicates the last plot you selected. If you are not using a single scale for all plots, the Y-axis displays the scale for the plot that is shown in the box.</p>
	<p>Display as bar graph</p> <p>The selected point is displayed as a bar graph. Data for the remaining points is obscured by the bar graph.</p> <p>Click the arrow to change from a bar graph to a line graph.</p>
	<p>Display as line graph</p> <p>The plots are displays as line graphs.</p> <p>Click the arrow to change from a line graph to a bar graph.</p>

Button	Description
	<p>View single trend only</p> <p>Indicates the current view is a single trend without the event pane or the tabular history pane.</p> <p>Click the arrow to change the view to Trend with Events or Trend with Tabular History</p>
	<p>View trend with tabular history</p> <p>Indicates the current view is the trend with the tabular history pane.</p> <p>Click the arrow to change the view to Single Trend Only or Trend with Events.</p>
	<p>View trend with events</p> <p>Indicates the current view is the trend with the event pane.</p> <p>Click the arrow to change the view to Single Trend Only or Trend with Tabular History.</p>
	<p>Show legend</p> <p>Shows or hides the legend for this trend.</p>
	<p>Configure trend</p> <p>Calls up the Trend Configuration display.</p>
	<p>Save trend</p> <p>Saves any changes you have made to the trend. After you save, the changes are made available to any other operators viewing the trend.</p>
	<p>Pause live updates</p> <p>Pauses the trend so that data is not updated. A trend is automatically paused when you zoom in and out.</p>
	<p>Resume live updates</p> <p>Restores the trend so that it is updated with live data.</p>
	<p>Remove reference line</p> <p>Removes the reference line.</p>
	<p>Reset zoom level</p> <p>Resets the zoom level.</p>
	<p>Zoom in</p> <p>Zooms in by 25% of the visible range. If a reference line is visible, the zooming is centered around the reference line.</p>
	<p>Zoom out</p> <p>Zooms out by 25% of the visible range. If a reference line is visible, the zooming is centered around the reference line.</p>

Button	Description
	<p>Show time selector</p> <p>Shows the time selector and provides options for the position of the time selector which is used to set a history offset.</p>

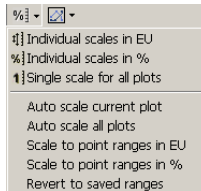
There are some trends that operate in a different manner to the default trend, these trends are the dual, triple, and X-Y trends. You can modify these types of trends by changing the:

- Period
- History offset
- Scale to use engineering units or percentage
- Points

Changing the scale on a trend

When viewing a standard trend, you can change the scale that is used for the trend. For example, you can switch from having a single scale for all plots to individual scales, in engineering units, for each plot. The following figure, Scale options for a standard trend, shows the scale options available in a list which you can access from the trend toolbar.

Figure 21 Scale options for a standard trend



The following table describes all the scale options available for a standard trend.

Scale option	Description
Individual scales in EU	<p>You specify the maximum and minimum value that will be shown on the trend for each plot individually. Values that fall outside this scale are not visible in the trend.</p> <p>The scale is represented in engineering units.</p>

Scale option	Description
Individual scales in %	<p>You specify the maximum and minimum value that will be shown on the trend for each plot individually. Values that fall outside this scale are not visible in the trend.</p> <p>The scale represents the point parameter range in percentage terms. A scale of 0% to 100% shows the full range of the point parameter and correlates to the minimum and maximum value for the point parameter. You may want to increase or decrease the scale, depending on the range of your point and the actual historical values of the point.</p>
Single scale for all plots	One scale is used for all points in the trend. You specify the maximum and minimum value that will be shown on the trend. Values that fall outside this scale are not visible in the trend.
Auto scale current plot	Adjusts the selected plot so that it is centered vertically in the chart and scaled such that the plot uses most of the vertical chart space.
Auto scale all plots	Adjusts all plots that are currently visible so that they are centered vertically in the chart and scaled such that each plot uses most of the vertical chart space.
Scale to point ranges in EU	The scale is set so that it correlates with the maximum and minimum point parameter range of all points in the trend and is shown in engineering units.
Scale to point ranges in %	The scale is set so that it correlates with the maximum and minimum point parameter range of all points in the trend and is shown in percentage terms. The minimum point parameter value is always 0% and the maximum point parameter value is always 100%.
Revert to saved ranges	The scale options is restored to what was last saved for the trend. Any changes to the scale that were not saved are removed.

To specify an individual scale:

- 1 Call up the trend.
- 2 Click arrow on the scale toolbar button at the top of the trend.
The button shown depends on the type of scale currently in use for the trend.
- 3 Select the required individual scale.
- 4 In the **Low Scale** box on the legend, type the low scale value for each plot.
- 5 In the **High Scale** box on the legend, type the high scale value for each plot.

To specify a single scale:

- 1 Call up the trend.
- 2 Click arrow on the scale toolbar button at the top of the trend and select **Single scale for all plots**.
The button shown depends on the type of scale currently in use for the trend.
- 3 On the y-axis, type the low and high scale value.

Viewing events on a trend

You can view events with your trend to help you analyze the relationship between alarms and events and changes in point values in your trend.

When viewing events, an Event Summary is added beneath the chart area of the trend and markers appear on the chart area of the trend to identify when events occurred.

The Event Summary on the trend display can be filtered in the same manner as the standard Event Summary. For more information on filtering the Event Summary, see “Changing what is shown in the Event Summary” on page 84.

To view events with your trend:

- 1 Call up your trend display.
- 2 Click the **View trend with events** button.
- 3 Filter the Event Summary as required.

**Tip**

If you find a correlation between an event and changes in values in the trend, you can add comments to the event.

It is important to note that the Event Summary only shows the events from the local server only. Distributing all events would need significant bandwidth as most events are recorded only on the server where the point is defined. The exceptions to this are the Acknowledgement events and Point Change events, which are recorded on both the server where they occurred and on the data owner. For more information viewing events on a remote server, see “Journaled events” on page 83.


Changing the period on a trend

To change the period, you specify the length of time, for example, 2 hours, and then specify which 2 hours you want to see.

You specify a period that either:


- Starts at a specific date and time by showing the time selector on the left.
- Ends at a specific date and time, by showing the time selector on the right.
- Starts and ends at a specific date and time by showing the time selector on the left and right.
- Is centered around a specific date and time by showing the time selector at the center.

To change the period on the trend you are viewing:

- 1 In the **Period** box, select the period you want to see on your trend.
- 2 Click the Time selector  and choose the required position of the selector.
- 3 In the **Date** box, type or select the required date.
- 4 In the **Time** box, type the required time and press ENTER.


Zooming in on a trend display

To zoom in on a trend:

- 1 Move the pointer to, for example, the top-left of the area of interest, and then drag the pointer diagonally down to the bottom-right.
As you drag, a rectangle shows the area you are selecting.
- 2 Release the mouse button when the rectangle encloses the area of interest—the trend now zooms in on this area.
- 3 To zoom back out to the trend's normal scale, click the  button at the bottom-right of the trend.



Tip

You can also use the Zoom in  button to zoom in on a trend. The zoom button centers the trend around the reference line. If there is no reference line the trend is zoomed around the center of the chart.

Highlighting a plot on a trend

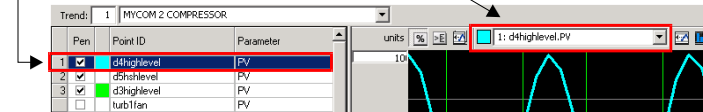
You may find it useful to highlight a particular plot on the trend. By highlighting a plot, the plot line is bolded, making it easier to see against other plots in the trend.

There are also some functions that work on a single plot, in which case you must highlight the particular plot to apply these functions, for example, showing a plot as a bar graph.

There are two ways to highlight a plot on a trend:

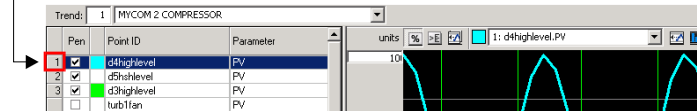
- Using the plot list above the chart area
- Using the legend

Use the list to highlight a plot
or
Use the legend to highlight a plot



If you want to remove the bold formatting from the plot, click the number of the plot in the legend.

Click here to remove the bold formatting from the plot



Loading recipes

11

You need to ask your supervisor or an experienced colleague whether you have the Recipe Manager option.

The Recipe Manager allows you to load predetermined values into appropriate point parameters. (A *recipe* consists of a set of predetermined values and their associated point parameters.)

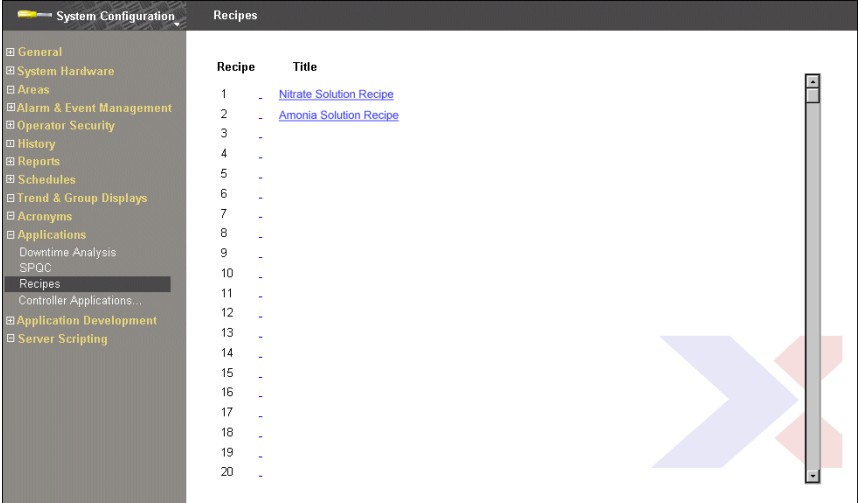
Prerequisites

- To load a recipe you need to know the unique two-digit number for each unit. Ask your supervisor or plant engineer for the required unit numbers.

To load a recipe:

- 1 Select **Action** > **Load Recipe** to see the list of recipes.

Figure 22 The Recipe Summary



Recipe	Title
1	Nitrate Solution Recipe
2	Amonia Solution Recipe
3	-
4	-
5	-
6	-
7	-
8	-
9	-
10	-
11	-
12	-
13	-
14	-
15	-
16	-
17	-
18	-
19	-
20	-

- 2 Click the recipe you want to load. The recipe's details appear.
- 3 If you want to change the recipe before loading it, see "Customizing a recipe" on page 131.
- 4 Type the unit (set of equipment) into which you want to load the recipe in the **Unit** box.
- 5 Click the **Load** button.
The **Recipe Last Loaded**, **With Scale** and **To Unit** boxes are updated when the recipe is loaded.

Customizing a recipe

In some cases you may need to customize a recipe before loading it. For example, if the recipe controls the production of fertilizer, you may need to scale down the recipe so that it makes the correct amount of fertilizer. Alternatively, you may need to override some of the recipe's master values for the particular task you are about to perform.

To scale a recipe:

- 1 Click the **Scale** box and type the scale percentage.
100% uses the master values, whereas 50% halves them. Note that scaling only affects the parameters for which **Scaled** is set to **Yes**.

To override one or more master values:

- 1 Select the appropriate **Working** box and type the appropriate value. (This value must be between the minimum and maximum values.)
Repeat this for any other working values you want to change.

Monitoring system status

12

The status displays provide detailed status information about your system's hardware components, such as printers, controllers and channels.

The System Status display shows alarms for all system components. You can navigate to a status display for a particular system component from the System Status display by double-clicking the alarm. For more information about the System Status display see the section, "The System Status display" on page 69.

**Tip**

If a channel fails, you can disable it by clearing the **Enable** check box. However, if you do this, you must select the **Enable** check box after rectifying the problem to ensure that the channel is re-enabled.

Monitoring system interfaces status

The System Interfaces Status Summary display shows the status of each system interface. The display shows the system interface type, alias, and status.

To call up the System Interfaces Status Summary display:

- 1 Click **System Status** on the System Menu and then click **System Interfaces** on the Navigation Pane.)

Figure 24 System Interfaces Status Summary

Channels	Type	System Interfaces Alias	Controllers Status
1	OPC	OPC	● OK <input type="button" value="Controllers..."/>
2	TPS	TPS	● Marginal <input type="button" value="Controllers..."/>
3	SYSMGT	SYSMGT	● OK <input type="button" value="Controllers..."/>
4	-	-	<input type="button" value="Controllers..."/>
5	-	-	<input type="button" value="Controllers..."/>
6	-	-	<input type="button" value="Controllers..."/>
7	-	-	<input type="button" value="Controllers..."/>
8	-	-	<input type="button" value="Controllers..."/>
9	-	-	<input type="button" value="Controllers..."/>
10	-	-	<input type="button" value="Controllers..."/> Configuration Summary

Monitoring controller status

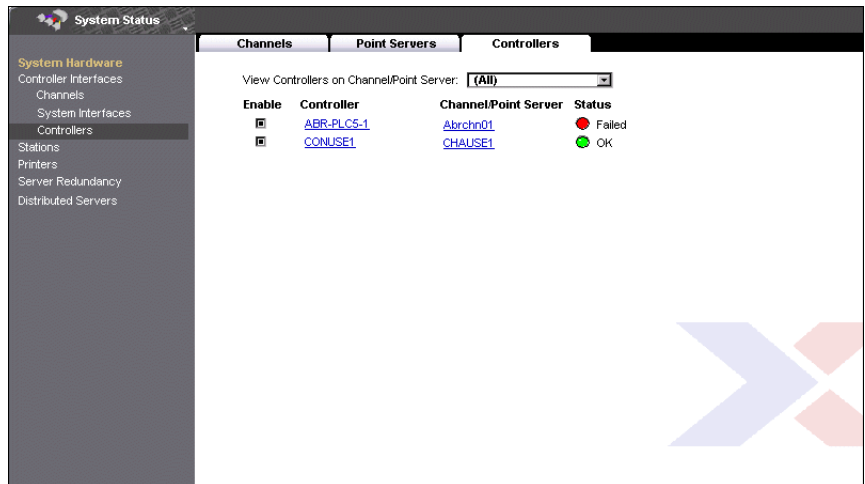
The Controllers Status display shows the status of each controller, as well as its type, and the channel it is on.

To call up the Controllers Status display:

- 1 Select **View > System Status > Controller**.

(Note that the display will be slightly different if your controllers use dual communication links—such controllers continue communicating with the server if one link malfunctions.)

Figure 25 Controller Status



- 2 If you want to see a list of controllers for a particular point server or channel, select the point server or channel from the list.
- 3 If you want to see more information about a controller, click it to call up the controller's Detail display. This shows **Error Statistics** and **Barometer** values that indicate the “health” of the controller. (For a healthy controller, the Barometer's **Current value** is less than the **Marginal limit**.)




Tip

If a controller fails, you can disable it by clearing the **Enable** check box. However, if you do this, you must select the **Enable** check box after rectifying the problem to ensure that the controller is re-enabled.

Monitoring Experion process controllers

You monitor Experion process controllers using specialized point detail displays. The Control Process or Module (CPM) and the Control Execution Environment (CEE) each have separate detail displays.

To call up these displays, type the object name in the Command Zone and click  (**Detail**), or press F12.

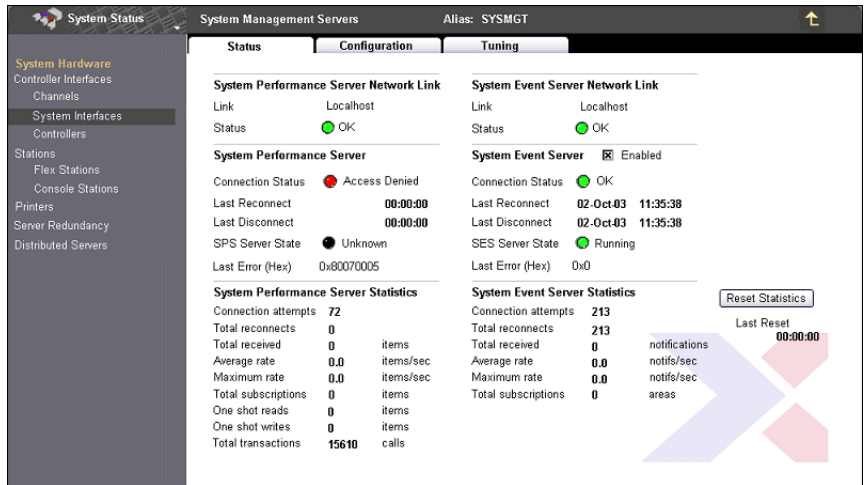
Monitoring System Management Servers

The System Management Servers status display shows the status of the System Performance Server and the System Event Server.

To call up the System Management Servers Status display:

- 1 Select **View > System Status > System Management Servers**.

Figure 26 System Management Servers Status



Monitoring Flex Station status

The Flex Stations Status display shows the status of each Flex Station, as well as its keyboard type, and current operator.

To call up the Stations Status display:

- 1 Select **View > System Status > Stations > Flex Stations**.

Figure 27 Flex Station Status

Flex Station	Type	Status	Operator
1 Server Station	12 fn key	OK	
2 Stat2	12 fn key	Failed	
3 ROT1	12 fn key	Failed	
4 -	●	
5 -	●	
6 -	●	
7 -	●	
8 -	●	
9 -	●	
10 -	●	
11 -	●	
12 -	●	
13 -	●	
14 -	●	
15 -	●	
16 -	●	
17 -	●	
18 -	●	
19 -	●	
20 -	●	

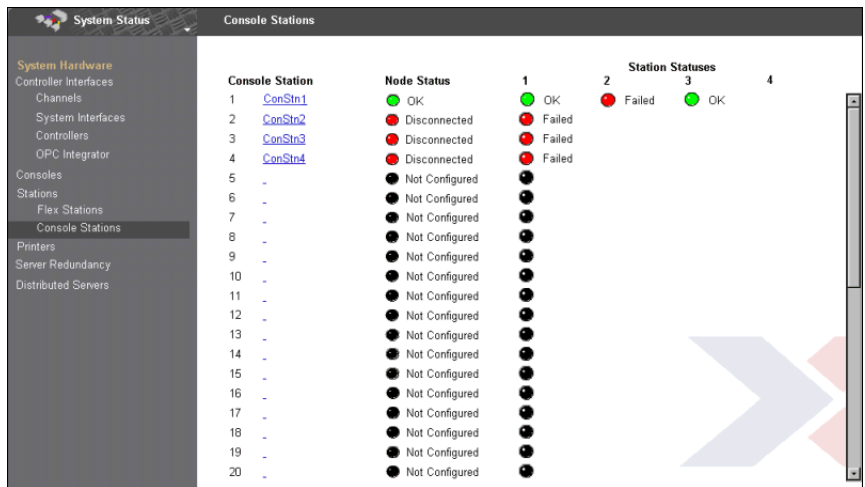
Monitoring Console Station and Console Extension Station status

The Console Station Status display shows the status of each Console Station and any connected Console Extension Stations.

To call up the Console Station Status display:

- 1 Select **View > System Status > Stations > Console Stations**.

Figure 28 Console Station Status Summary



- 2 Click the Console Station to view more detailed status information.

Figure 29 Console Station Status

System Status Console Station 1 ConStn1

System Hardware
Controller Interfaces
Channels
System Interfaces
Controllers
OPC Integrator
Consoles
Stations
Flex Stations
Console Stations
Printers
Server Redundancy
Distributed Servers

Node Definition
Network name: **ConStn1**
IP address: **192.168.221.129**

Node Status OK
Hide details ▲
Datacast: OK
File replication: OK
Point replication: OK
File redirection: OK
Point redirection: OK
Notification redirection: OK

Station Status

	CStrn01-1	CStrn01-2	CStrn01-3
Status:	OK	Failed	OK
Keyboard type:	12 fn key	12 fn key	12 fn key
Operator:			

[Configure Console Station](#)

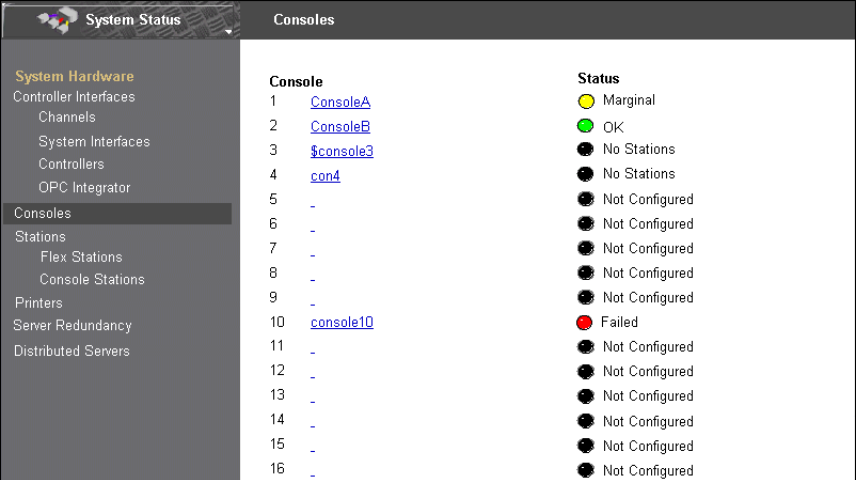
Monitoring console status

















The Console Status display shows the status of each Console and the status of the Console Stations and Console Extension Stations that form the console.

To call up the Console Status display:

- 1 Select **View > System Status > Console Stations**.

Figure 30 Console Status summary



System Status		Consoles	
Console		Status	
1	ConsoleA	 Marginal	
2	ConsoleB	 OK	
3	\$console3	 No Stations	
4	con4	 No Stations	
5	-	 Not Configured	
6	-	 Not Configured	
7	-	 Not Configured	
8	-	 Not Configured	
9	-	 Not Configured	
10	console10	 Failed	
11	-	 Not Configured	
12	-	 Not Configured	
13	-	 Not Configured	
14	-	 Not Configured	
15	-	 Not Configured	
16	-	 Not Configured	

- 2 Click the console to view more detailed information.

Figure 31 Console Status

The screenshot shows a web-based monitoring interface for 'System Status'. The main content area displays a table of console stations. The table has four columns: 'Console Station', 'Status', 'Type', and 'Operator'. The status is indicated by a colored circle: yellow for 'Synching', green for 'OK', and red for 'Disconnected' or 'Failed'. The 'Operator' column is currently empty. A 'Configure Console' link is visible at the bottom of the table. The interface also includes a left-hand navigation menu and a top status bar.

Console Station	Status	Type	Operator
console1	● Synching		
CStn01-1	● OK	12 fn key	
CStn01-2	● OK	12 fn key	
CStn01-3	● OK	12 fn key	
CStn01-4	● OK	12 fn key	
ConStn3	● Disconnected		
CStn03-1	● Failed	
CStn03-2	● Failed	
CStn03-3	● Failed	
CStn03-4	● Failed	
ConStn4	● OK		
CStn04-1	● OK	12 fn key	
CStn04-2	● OK	12 fn key	

[Configure Console](#)

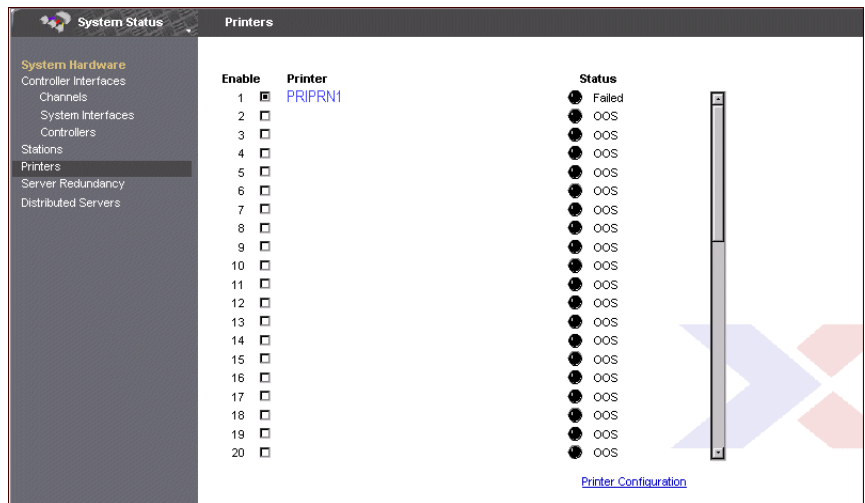
Monitoring printer status

The Printers Status display shows the status of each printer.

To call up the Printers Status display:

- 1 Select **View > System Status > Printers**.

Figure 32 Printer Status



Tip

If a printer fails, you can disable the printer by clearing the **Enable** check box. However, you must re-enable the printer after you have rectified the cause of failure.

Monitoring a redundant server system

A redundant server uses two servers that operate in parallel. During normal operation, the *primary server* performs all tasks, and the *backup server* “watches”. However, if the primary server fails, the backup server immediately takes over, without any interruption to your system.

The Server Redundancy Status display shows the status of the two servers, and whether they are synchronized.

To call up the Server Redundancy Status display:

- 1 Select **View > System Status > Server Redundancy**.

Figure 33 Redundant Server Status

The screenshot displays the 'Server Redundancy' status within a 'System Status' window. The left sidebar contains a navigation menu with options: System Hardware, Controller Interfaces, Channels, System Interfaces, Controllers, Stations, Printers, Server Redundancy (selected), and Distributed Servers. The main content area is divided into several sections:

- Primary Server -**: Status is 'Running' (indicated by a green dot).
- Backup Server**: Status is 'Not synchronized' (red dot) and 'Stopped' (red dot).
- Last synchronization**: 00:00:00
- Last loss of synchronization**: 00:00:00
- Link Status**:
 - Link 0 (LNK00): Not Built
 - Link 1 (LNK01): Not Built
- Queue**:
 - Availability: 0 %
 - Lowest availability since synchronization: 0 %
 - Time below availability threshold: 0 secs
 - Availability threshold: 0 %
- Advanced Settings and Diagnostics**:
 - Time since last checkpoint: 56 secs
 - Checkpoint period: 300 secs
 - Link transfer rate: 0 plit/sec
 - Tracing mask: 0000
 - Fallover to backup server on Hybrid Controller Comms Subsystem failure if servers are synchronized: Disabled

On the right side of the main content area, there are two buttons: 'Manual Fallover' and 'Synchronize'. A large blue and red 'X' watermark is visible on the right side of the screenshot. A link labeled 'Redundant Server Configuration' is located at the bottom right of the main content area.

Monitoring distributed systems

In a *Distributed System Architecture (DSA)* configuration each server is responsible for managing a specific part of your system.

The Distributed System Status display shows the status of each server, as well as its type.

To call up the Distributed System Status display:

- 1 Select **View > System Status > Distributed Systems**.

Figure 34 Distributed Servers Display

	Server Alias	Status	Type
1	GRYPH_SERVERS	<i>This Server</i>	
2	Drift_Server	OK	Redundant Server Single Network
3	AS01HSCEXDEVB	Marginal	Redundant Server Single Network
4	-		
5	-		
6	-		
7	-		
8	-		
9	-		
10	-		

- 2 Click on the name of the server whose status you want to check.

Figure 35 Distributed Servers Status Display

System Status Distributed Server 3 AS01HSCExDEV B

Status Configuration Tuning

Network Link Status

Link	Link Status	Server Status
as01hscExDev A	OK	System Running
as01hscExDev B	Failed	Unknown

Reset Statistics
Last Reset: 00:00:00

Redundancy
Current primary server: as01hscExDev A

Connection Status

Type	Status	Link Used	Port Used	Last Reconnect	Last Disconnect
Data	OK	as01hscExDev A	TCP 50001	02-Jun-05 16:25:56	02-Jun-05 16:12:12
Notifications	OK	as01hscExDev A	TCP 50003	02-Jun-05 16:21:43	02-Jun-05 16:11:33

Data Statistics

Connection Attempts	82
Total reconnects	2
Total received	0
Average rate	0.0 per second
Maximum rate	0.0 per second
Total subscriptions	0 parameters

Notification Statistics

Connection Attempts	69
Total reconnects	2
Total received	54
Average rate	0.0 per second
Maximum rate	7.2 per second
Total subscriptions	5 assets

Last Errors

Data	0x0
Notifications	0x0

Communicating with your colleagues

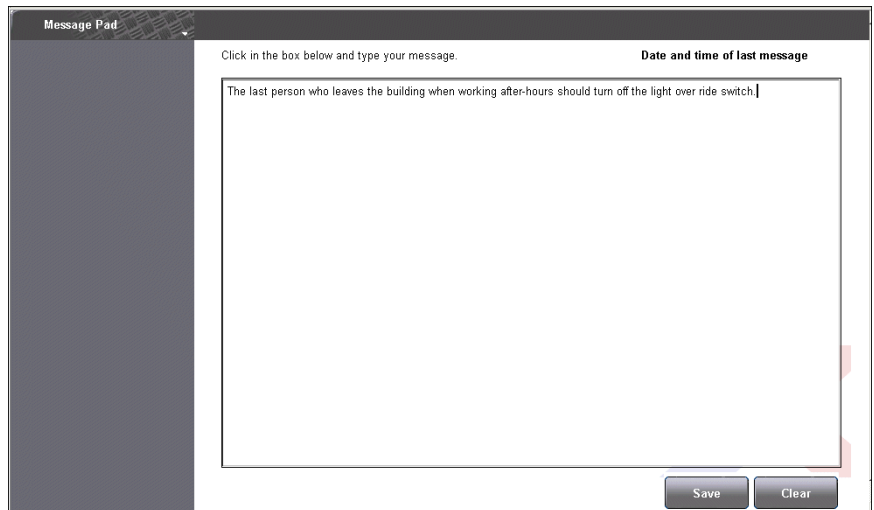
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Station provides Message Pad for communicating with your colleagues.

The Message Pad is like a bulletin board in that it can be read by anyone who has access to Station. As the name implies, the primary purpose of the notes are to tell colleagues on the next shift about any important events.

To read the Message Pad:

- 1 Select **View > Message Pad**. (Alternatively, click **Message Pad** on the System Menu.)



The screenshot shows a web interface titled "Message Pad". On the left is a dark sidebar. The main content area has a header with "Click in the box below and type your message." and "Date and time of last message". Below this is a large text input box containing the message: "The last person who leaves the building when working after-hours should turn off the light over ride switch." At the bottom right of the input box are two buttons: "Save" and "Clear".

To clear any existing notes and add your own notes:

- 1 Select **View > Message Pad**.
- 2 Click the **Clear** button.

- 3 Click in the note area. (Alternatively, press the TAB key until the note area is highlighted.)
- 4 Start typing your note.
- 5 When you have finished, click the **Save** button.

To add to the existing note:

- 1 Select **View > Message Pad**.
- 2 Click below the existing note.
You may need to press **ENTER** to start a new line.
- 3 Start typing your note.
- 4 When you have finished, click the **Save** button.

Producing reports

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Reports summarize historical information in many useful ways. For example, one report may consist of graphs of system-critical values over the past week, whereas another report may list equipment that is due for service.

All reports need to be *requested*, either manually or automatically. Requesting a report generates a new version, using the latest data. For example, if you have a report called “Weekly Status Report”, you would need to request it each week so that it contains the current week’s data. See “Requesting a report” on page 152.

Depending on how a report is configured, it is printed, or saved to computer file so that it can be viewed on screen or used by another program. If the report is designed to be viewed on screen, you need to call it up after generating it—see “Viewing a report” on page 153.

For alarm, events and message summaries, you can use the Print As Report feature to produce a printed report containing all, or a range of, the summary information within the display.

If you simply want a printout as a “snapshot” of what is shown in Station, see “Printing Station information” on page 53.

Requesting a report

Considerations

- When you request a report, Experion creates a new version using the latest data. For example, if you have a report called “Weekly Status Report”, you would need to request on a weekly basis to ensure that the data is always up-to-date.

To request a report:

- 1 Select **Action > Request Report** to see the list of reports. (Alternatively, click **Reports** on the System Menu.)
- 2 Click the report you want to request.
- 3 If you want to change the report’s existing settings, click the **Configure** tab to see the configuration details.
- 4 Change these as appropriate.
- 5 Click the **Request** button to request the report.
A “Request in progress” message appears in the Message Zone. The document is sent to the specified output device, either a printer or your screen.

Requesting a report from the Command Zone

If you know the number or name of a report, you can request it from the Command Zone. (Note that when you request a report this way, the report uses its default settings.)

For example, to request report “123”:

- 1 Click the Command Zone.
- 2 Type **rpt 123** and press **ENTER**.

Viewing a report

Any report can be viewed on your screen at any time—just like any other display.



Attention

Viewing a report simply redisplay the last version that was generated. If you want to update the report's contents, you must request it again—see "Requesting a report" on page 152.

For example, to call up report "123":

- 1 Click the Command Zone.
- 2 Type **pr 123** and press **ENTER**.

Standard report types

The following table lists standard report types; however, your system will only have report types that are applicable to your system's needs.



Attention


The Integrated Microsoft Excel and the ODBC Data Exchange report types are only available if your system has the associated option.


Report type	Description	
Alarm and Event	Lists the alarms or events that occurred within the specified time period.	
Alarm Duration	Lists how long the specified points were in an alarm condition.	
Batch	Batch reports are used to collect history for a set of points and events for an asset for the duration of a production run.	
Cross-Reference	Lists where the specified points are used within your system, for example, in custom numbered displays, reports, algorithms and so on.	
Free Format	Enables you to request customized reports that have been designed using the Free Format Report Writer option.	
Integrated Microsoft Excel	Enables you to request customized reports that have been designed using Microsoft Excel.	
ODBC Data Exchange	Enables you to request customized reports using the ODBC Data Exchange option.	
Point Attribute	Lists all points with specified attributes, such as “off scan” or “alarm inhibited”, or those points with the specified state.	
Sequence of Events	Lists changes in point parameter values of time. This report is only available for points associated with specific controllers.	

Printing reports from the summary displays

If you have the appropriate security level, you can create a report from information that is contained in the Alarm, Events or Message Summary displays. The data contained in the display is presented in the same order as it appears in the display.

You can limit the amount of data your report contains by setting your filter criteria. For example, you might include only the events that occurred after a certain time, or only those messages that have been received on a given day. See “Changing what is shown in the Alarm Summary and the System Status display” on page 72. Additional information can be found in “Changing what is shown in the Event Summary” on page 84, or “Changing what is shown in the Message Summary” on page 97.

You can view the report from a separate window on your screen by clicking **Print Preview** . You can print the report on the default Windows printer, or you can select a different printer if one is available.

When you click **Print as Report** , the report is sent to the default printer, or the printer you have selected from the Print Preview window.

A message indicates that a print preview or print request is in progress.

A message warns you if the generated report is more than 10 pages. You may want to reduce the size of the report by redefining your filter criteria.

If your on-screen alarm data includes graphic indications of an alarm states, these alarm states will be converted to text abbreviations in your report. A key to abbreviations is added to the bottom of each report page.

To print a report from a summary display:

- 1 Call up the summary display that you want to use for a report.
- 2 Create your filter selection to display only the data you want in your report.
- 3 Click **Print Preview** to view the report on-screen.
- 4 Click **Print As Report** to create a printed report.

When the **Print** dialog box is displayed, set your printing options such as page orientation, printer selection, and so on.



Tip

You can also export the report to a standard file format that can be read by other applications.

Reference information

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To learn about:	Go to:
Commands you can select from the menus	page 158
Commands you can issue from the Command Zone	page 162
Keyboard shortcuts	page 164
Changing someone's Station password	page 174

Menu summary

Notes

- Your system may contain one or more customized menus that are unique to your system. Ask your supervisor or an experienced colleague for a description of the commands in these menus.
- This topic does not describe configuration-related menus, such as the **Configure** menu, that are only used by engineering staff.

Station menu

Command	Description
Connect...	Opens a specific Station setup file. See “Changing Station’s setup file” on page 28.
Logon...	Allows you to type the password for a higher security level.
Connection Properties...	Allows you to view and change Station’s settings.
Exit	Exits (closes down) Station.

Edit menu

These are editing commands that are of use when using the Message Pad—see “Communicating with your colleagues” on page 149.

Command	Description
Cut	Removes the selected text and inserts it into the clipboard.
Copy	Inserts a copy of the selected text into the clipboard.
Paste	Inserts the clipboard’s contents into the Message Pad.

View menu

Command	Description
Detail	Calls up the detail display for the selected point.
Associated Page	Calls up the selected object's associated page.
Reload Page	Reloads the current page.
Alarms	Calls up the Alarm Summary. See "Responding to alarms" on page 65.
System Alarms	Calls up the list System Status display. See "The System Status display" on page 69.
Messages	Calls up the Message Summary. See "Responding to messages" on page 95.
Alerts	Calls up the Alert Summary. See "Responding to alerts" on page 105.
Display Summary	Calls up the list of numbered custom displays (named custom displays are not included).
Events	Calls up the Event Summary. See "Responding to events" on page 81.
Group Summary	Calls up the list of group displays. See "Using Group Detail displays" on page 120.
Message Pad	Calls up the Message Pad. See "Communicating with your colleagues" on page 149.
Report Summary	Calls up the list of reports available on your system. See "Producing reports" on page 151.
System Status	Calls up the selected system status display.
Trend Summary	Calls up the list of trend displays. See "Using trend displays" on page 121.
Show Full Page	Resizes the Station window so that the entire display is visible in the window without scroll bars.

Control menu

Command	Description
Raise Lower Select Setpoint Select Output	These commands are used together to raise or lower the SP (setpoint) or OP (output) of the point associated with the selected object. See "Controlling points" on page 58.

Command	Description
Control to Manual	Sets the selected object to manual control mode.
Control to Automatic	Sets the selected object to automatic control mode.
Control to Normal	Sets the selected object to normal control mode.
Enable/Disable	Toggles the state of the selected object.

Action menu

Command	Description
Acknowledge	Acknowledges an alarm.
Silence	Silences an alarm.
Request Report	Generates the requested report. See “Requesting a report” on page 152.
Load Recipe	Loads the specified recipe. See “Loading recipes” on page 129.
Print	Prints the current display based on the default print settings.
Page Setup...	Displays the Page Setup dialog box where you can specify such things as page size and orientation.
Print...	Displays the Print dialog box where you can specify such things as the printer you want to print to.
Print Preview...	Displays a preview what you want to print.

Help menu

These commands provide access to this guide and other Experion documentation.

Command	Description
Help for this display	Calls up context-sensitive help for the current display.
Operators Guide	Calls up this guide.
Station Help	Calls up the help for Station.
Knowledge Builder	Calls up Knowledge Builder, Experion’s online documentation “library”.
Knowledge Builder Search	Calls up the search function, which allows you to search the whole Knowledge Builder “library” for a particular word or phrase.

Command	Description
VB Scripting Help	Calls up the help for VBScript, which you use if you write server scripts.
About Station	Displays details about Station, such as its revision number.

Command reference

After you have become familiar with your system, you can quickly issue frequently required commands by typing them in the Command Zone.



Attention

Commands are case-insensitive. For example, you can type **bye**, **BYE** or **Bye** to log off.

Type the command	Then press	Description
displayname	ENTER	Calls up the display whose name is <i>displayname</i> .
pointID	F12	Calls up the point's details. If you only type the first part of the ID, a list of matching points appears. You then click the appropriate point to display its details.
bye	ENTER	If you use operator-based security, this command logs you off Station. If you use Station-based security, this command returns Station to the oper security level.
callup n	ENTER	Calls up display <i>n</i> , (which can be either a number or a name) while retaining the current file, record and field numbers.
chgpsw	ENTER	Changes your password. (Only applicable if you use operator-based security.)
display n	ENTER	Displays the description for error <i>n</i> .
fil n	ENTER	Changes the current file number to <i>n</i> .
fld n	ENTER	Changes the current field number to <i>n</i> .
grp n	ENTER	Calls up group display <i>n</i> .
his n	ENTER	Displays the historical values for group <i>n</i> .
pag n	ENTER	Calls up display <i>n</i> (which can be either a number or a name). For example, to call up display 310, you would type: pag 310 .
pf file	ENTER	Displays the contents of <i>file</i> .
pr n pr name	ENTER	Views the numbered (<i>n</i>) or named (<i>name</i>) report, without updating the report's contents. (Use the rpt command if you want to update the contents.)
print file	ENTER	Prints the contents of <i>file</i> .

Type the command	Then press	Description
psw	ENTER	Changes to another security level if you are using Station-based security.
rec n	ENTER	Changes the current record number to <i>n</i> . (Not applicable to operators.)
rpt n rpt name	ENTER	Generates a numbered (<i>n</i>) or named (<i>name</i>) report.
tnd n	ENTER	Calls up trend display <i>n</i> .

Keyboard shortcuts

The keyboard shortcuts depend on the type of keyboard you use:

- “Shortcut keys for a 12-function keyboard” on page 165
- “Shortcut keys for an IKB (Integrated keyboard)” on page 170
- “Shortcut keys for an OEP (Operator Entry Panel) keyboard” on page 167

If you don’t know what type of keyboard you have, see “Keyboard types” on page 41.

Shortcut keys for a 12-function keyboard

The shortcuts are described according to general function:

- “Calling up displays” on page 165
- “Calling up specialized displays” on page 165
- “Focusing on objects” on page 166
- “Entering data and issuing commands” on page 166

Calling up displays

To call up:	Press:
A display based on its name or number	F5
The next display in the current “chain” of related displays or the next set of records in a list of records which spans more than one page.	PAGE UP
The previous display in the current “chain” of related displays or the previous set of records in a list of records which spans more than one page.	PAGE DOWN
The previous display	F8
The display associated with the selected object	F2

Calling up specialized displays

To call up the:	Press:
Alarm Summary	F3
Search display for points and other system items	F12
System Menu	F1
Shortcut menu	SHIFT + F10

Focusing on objects

In computing, the phrase “giving an object focus” means marking an object so that it can be used or controlled in some way. For example, if you wanted to type a new value into a box, you could press the TAB key until the box has focus (indicated by highlighting) and then type the new value.

To move the focus to:	Press:
The next selectable object or editable box	TAB
The previous selectable object or editable box	SHIFT+TAB

Entering data and issuing commands

To:	Press:
Acknowledge/silence an alarm	F4
Copy the selected item to the clipboard	CTRL+C
Cut the selected item to the clipboard	CTRL+X
Lower the value of the selected object by 1% (default setting)	F10
Lower the value of the selected object by 10% (default setting)	ALT+F10
Paste the contents of the clipboard into the selected item	CTRL+V
Raise the value of the selected object by 1% (default setting)	F9
Raise the value of the selected object by 10% (default setting)	ALT+F9
Select the object that has focus	BACKSPACE
Select the OP of the selected object	ALT+F12 ⁱ
Select the SP of the selected object	ALT+F11 ⁱ
Set the MD of the selected point to automatic	ALT+F6 ⁱ
Set the MD of the selected point to manual	ALT+F5 ⁱ
Set the MD of the selected point to normal	ALT+F7 ⁱ

ⁱ Applicable only to points with these types of parameters.

Shortcut keys for an OEP (Operator Entry Panel) keyboard

The shortcuts are described according to general function:

- “Display navigation” on page 167
- “Focus changing” on page 167
- “Data entry and control” on page 168
- “System display” on page 168
- “Point detail, trend and group” on page 169

Display navigation

To:	Press:
Call up a display based on its name or number	SCHEM
Call up the next display upwards	PAGE BACK
Call up the next display downwards	PAGE FWD
Navigate forward and backward between displays that you have previously called up.	PRIOR DISP or DISP BACK
DISP FWD does not work if you are using multi-window Station.	DISP FWD
Call up the display associated with the selected object	ASSOC DISP
Copy the current display to the first associated Station	DISP SET
Print the current display	PRINT DISP
Call up display-specific help (If display-specific help is not configured, calls up Station Help.)	HELP

Focus changing

In computing, the phrase “giving an object focus” means marking an object so that it can be used or controlled in some way. For example, if you wanted to type a new value into the next box, you could press the TAB key—to give it focus—and then type the new value.

To:	Press:
Move the focus to any selectable object or editable box in the display	Tab Arrow keys

Data entry and control

To:	Press:
Acknowledge/silence an alarm	ACK
Silence all audible alarms	SIL
Confirm message	MSG CONFM
Enable/disable the state of the selected point (the point toggles state each time you press the key)	LOAD
Lower the value of the selected object by 1% (default setting) ⁱ	LOWER
Lower the value of the selected object by 10% (default setting) ⁱ	FAST LOWER
Raise the value of the selected object by 1% (default setting) ⁱ	RAISE
Raise the value of the selected object by 10% (default setting) ⁱ	FAST RAISE
Select the OP of the selected object	OUT
Select the SP of the selected object	SP
Set the mode of the selected point to automatic	AUTO
Set the mode of the selected point to manual	MAN
Set the mode of the selected point to normal	NORM
Change the update rate from Normal to Fast, or from Fast to Normal (The LED is illuminated when the update rate is set to Fast.)	FAST
Clear an incorrect operator entry	CLR ENTR

ⁱ If you press the raise or lower keys faster than the server can respond to, repeated key presses are ignored.

System display

To call up the:	Press:
Alarm Summary display	ALM SUMM
System Status display	SYST STATS
Message Summary display	MSG SUMM
Console Status detail display ⁱ	CONS STATS
System Menu display	SYST MENU

- i The CONS STATS key calls up the Console Status detail display if you are logged on to a Console Station or Console Extension Station that is a member of a console. If the Station you are logged on to is not a member of a console, then the display called up is the status display for that Station. If the Station you are logged on to is a Flex Station, the display called up is the Flex Station Status Summary display.

Point detail, trend and group

To view:	Press:
The point detail display for the selected object. If there is no associated point detail display, calls up the point search display.	DETAIL
The Group Trend display for the selected object. If there is no associated Group Trend display, invokes the Group Trend command and requires a Group Trend number to be entered.	UNIT TREND
The Group for the selected object. If there is no associated Group display, invokes the Group command and requires a Group number to be entered.	GROUP
The Trend for the selected object. If there is no associated Trend, invokes the Trend command and requires a Trend number to be entered.	TREND
Group history for the selected point with the default interval. If there is no associated Group History, invokes the Group History command and requires a Group History number to be entered.	HOUR AVG

Unsupported keys

The following keys are not mapped to any Experion function. If you attempt to use these keys, a message appears “Pushbutton not implemented”. Check with your supervisor or an experienced colleague if they have been customized for your site.

- BATCH
- CANCL PRINT
- GO TO
- RECRD

Shortcut keys for an IKB (Integrated keyboard)

The shortcuts are described according to general function:

- “Display navigation” on page 170
- “Focus changing” on page 170
- “Data entry and control” on page 171
- “System display” on page 171
- “Point detail, trend and group” on page 172

Display navigation

To:	Press:
Call up a display based on its name or number	SCHEM or F5
Call up the next display upwards	PAGE BACK or PgUp
Call up the next display downwards	PAGE FWD or PgDown
Navigate forward and backward between displays that you have previously called up. DISP FWD does not work if you use multi-window Station.	DISP BACK, or PRIOR DISP, or F8 DISP FWD
Call up the display associated with the selected object	ASSOC DISP or F2
Print the current display	PRINT DISP
Call up site-specific help (If site-specific help does not exist, calls up Station Help.)	HELP

Focus changing

In computing, the phrase “giving an object focus” means marking an object so that it can be used or controlled in some way. For example, if you wanted to type a new value into the next box, you could press the TAB key—to give it focus—and then type the new value.

To:	Press:
Move the focus to the next selectable object or editable box	TAB
Move the focus to the previous selectable object or editable box	SHIFT+TAB
Move the focus to any selectable object or editable box in the display	Arrow keys

Data entry and control

To:	Press:
Acknowledge/silence an alarm	ACK or F4
Silence all audible alarms	SIL
Confirm message	MSG CONFM
Copy the selected item to the clipboard	CTRL+C
Cut the selected item to the clipboard	CTRL+X
Enable/disable the state of the selected point (The point toggles state each time you press the key.)	LOAD or F11
Lower the value of the selected object by 1% (default setting) ⁱ	LOWER or F10
Lower the value of the selected object by 10% (default setting) ⁱ	FAST LOWER ARROW or ALT+F10
Paste the contents of the clipboard into the selected item	CTRL+V
Raise the value of the selected object by 1% (default setting) ⁱ	RAISE or F9
Raise the value of the selected object by 10% (default setting) ⁱ	FAST RAISE or ALT+F9
Select the object that has focus	SELECT or BACKSPACE
Select the OP of the selected object	OUT or ALT+F12
Select the SP of the selected object	SP or ALT+F11
Set the mode of the selected point to automatic	AUTO or ALT+F6
Set the mode of the selected point to manual	MAN or ALT+F5
Set the mode of the selected point to normal	NORM or ALT+F7
Change the update rate from Normal to Fast, or from Fast to Normal (The LED is illuminated when the update rate is set to Fast.)	FAST

ⁱ If you press the raise or lower keys faster than the server can respond to, repeated key presses are ignored.

System display

To call up the:	Press:
Alarm Summary display	ALM SUMM or F3 or UNIT ALM SUMM
System Status display	SYST STATS

To call up the:	Press:
Message Summary display	MSG SUMM
System Menu display	F1
Console Status Summary display ¹	CONS STATS
System Menu display	SYST MENU

- i The CONS STATS key calls up the Console Status Summary display if you are logged on to a Console Station or Console Extension Station that is a member of a console. If the Station you are logged on to is not a member of a console, then the display called up is the status display for that Station. If the Station you are logged on to is a Flex Station, the display called up is the Flex Station Status Summary display.

Point detail, trend and group

To view:	Press:
Point detail display for the selected object. If there is no associated point detail display, calls up the point search display.	DETAIL or F12
The Group Trend for the selected object. If there is no associated Group Trend display, invokes the Group Trend command and requires a Group Trend number to be entered.	UNIT TREND
The Group display for the selected object. If there is no associated Group display, invokes the Group command and requires a Group number to be entered.	GROUP or F6
The Group History with the default interval for the selected object. If there is no associated Group History, invokes the Group History command and requires a Group History number to be entered.	HOURLY AVG
The Trend for the selected object. If there is no associated Trend, invokes the Trend command and requires a Trend number to be entered.	TREND or F7

Unsupported keys

Some keys in earlier versions of this keyboard are marked with red labels. These labels are not applicable to any Experion function.

The following keys are not mapped to any Experion function. If you attempt to use these keys, a message appears “pushbutton not implemented”. Check with your supervisor or an experienced colleague if they have been customized for your site.

- GOTO

- PRINT TREND
- CANCL PRINT
- RECRD
- PROC NETWK STATS
- COMM NETWK STATS
- AM STATS
- ORG SUMM
- UNIT ASGN
- ALM ANNC
- MSG CLEAR

Changing someone's operator-based security password

You might need to change a user's password if the user has forgotten the old one. When changing the password, remember that it:

- Consists of a minimum of 5 and maximum of 40 letters/numbers, without spaces
- Is case-sensitive

Considerations

- You must have MNGR security level to be able to change someone's password.
- If you are using a Console Station, and your system uses separate user names and passwords for Windows and Station, you can only change passwords when the Experion server is available.

To change the password:

- 1 Select **Configure > Operator Security** to see the list of users.
- 2 Click the user whose password you want to change. The user's details appear. (You can also change these details if required.)
- 3 Click the **Change Password** button.
The **Change Password** dialog box opens.
- 4 Type the new password and press the TAB key.
- 5 Re-type the new password and click **OK**. (The new password is only accepted if the two entries are identical.)

Glossary

Alarm Line

Generally, this line displays the most recently unacknowledged alarm message. (The Alarm Line may be hidden on your system, or it may be configured to operate in a special manner.)

alarm group

A group of assets and points, that are otherwise unrelated to one another in the asset model, grouped together for the purpose of alarm monitoring and management.

application

A computer program. Station and Experion are both applications, as is Microsoft Word.

asset

A representation of entities such as plant equipment, facilities, and buildings. Operators or Stations can be assigned access to particular assets only.

click

The act of momentarily pressing the left mouse button. This is the standard way, in Windows, of selecting an object. For example, to select something, you move the pointer over the object and then click.

If you have a trackball or touch screen instead of a mouse, see “Using a trackball” on page 39 or “Using a touch screen” on page 40, respectively, for the equivalent action.

clipboard

A temporary storage space which you use to move text (or images) from one application to another, using the **Copy**, **Cut** and **Paste** commands. For example, you can use the clipboard to copy text from a word processor document and insert (paste) it into Station’s handover notes or an email message.

channel

A channel is a physical communications link between the server and one or more controllers.

Command Zone

The right-hand part of the toolbar, where you can type commands.

console

A console is a group of Console Stations and Console Extension Stations associated with an Experion server.

controller

A controller is any of a series of devices (Honeywell controllers, third-party programmable controllers, and so on) that can be interfaced to the server to control and collect data from field devices. See “Introducing Experion and Station” on page 18.

display object

A discrete item on a display, such as a button or indicator, that is associated with a point or a command. See “Understanding display objects” on page 54.

double-click

The act of momentarily pressing the left mouse button two times. This is the standard way, in Windows, of selecting an object and performing an action. For example, to display the details about a particular alphanumeric, you move the pointer over the alphanumeric and then double-click—this displays a window which shows the object’s details.

drag

The act of pressing and holding down the mouse button, diagonally moving the mouse, and then releasing the mouse button. This is a standard way, in Windows, of resizing a window, or selecting an area of the screen.

event

An event is any significant change in the system, including any commands you issue.

full item name

In your asset model, the full item name consists of the item name of the entity combined with the item name of its parent, and so forth, up to a top level node. A full item name uniquely identifies an entity within the system. For example, Assets/Plant/Filtration/Tank/FlowMeter.

focus

In computing, focus means to “mark” an object so that it can be used or controlled in some way. For example, if you want to type data into a box, you need to give it focus so that the text/number you type is inserted into that box.

item name

An item name is an intuitive name given to a point which can be used as an alternative to the tag name. The item name does not have to be unique.

Process Controller

In an Experion Process system, the term used to refer to both a C200 or C300 controller.

Points on a Process Controller are called “process points”.

process point

An Experion Process point. (A point on a Process Controller.)

MD (mode)

The point parameter that determines whether or not you can change the point's OP (output). For example, you can change the OP if the MD is set to manual, but not if it is set to automatic.

Message Zone

The line below the toolbar where explanatory messages and prompts appear.

Navigation Pane

The section to the left of system displays that is reserved for menus. Clicking an entry in the Navigation Pane calls up the associated display.

You can call up the top-level Navigation Menu by clicking the yellow triangle at the top of the panel.

OP (output)

The point parameter that represents the output value of a point. For an analog point this is typically a value between 0 and 100 representing a valve position between fully closed and fully open. For a status point this is typically a 0 or 1 representing OFF or ON.

parameter

An item of information about a point, such as its PV (process value) or SP (setpoint)

point

A point is a collection of information about a particular part of your system, such as a control loop or motor. See “About points” on page 56.

PV (process value)

The point parameter that represents the point's value, expressed in a meaningful form—for example, if a point represents temperature, the PV would be expressed in degrees; if a point represents a motor's status, the PV might be “On” or “Off”.

right-click

The act of momentarily pressing the right mouse button. What happens depends upon where you right-click. For example, in Station right-clicking selects the next object in a “tab sequence”. See “Using your mouse (or its equivalent)” on page 39.

scanning

The technique used to obtain data from any controller other than a Process controller.

SP (setpoint)


The point parameter that represents the desired value of a point. For example, if you wanted to change a boiler's temperature you would change the SP to the desired temperature.

Status Line

The Status Line provides an overview of your system's status. For example, a flashing red box indicates that there is at least one unacknowledged alarm. See “The Status Line” on page 31.

System Menu

The System Menu is a specialized display that provides quick access to the other major displays—it is equivalent to the Table of Contents of a book.

Click the  button on the toolbar to call up the System Menu.

tag name

A unique identifier given to an entity, for example a point or an asset.

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