Process Solutions

Honeywell

Experion PKS R431

HMIWeb Object Design Specification

EPDOC-X174-en-431A

January 2015

Symbol definitions

The following table lists the symbols used in this document to denote certain conditions.

Symbol	Definition
NOTICE	NOTICE is used to address practices not related to physical injury.

Table of contents

About this guide

Revision history

Revision	Date	Description
A	February 2014	Initial release of document for Experion PKS R431.

Special terms

Abbreviation or Acronym	Definition
ASM	Abnormal Situation Management
Cx00	C200 and/or C300
FB	Function Block
FF	Foundation Fieldbus
GUS	Global User Station
HDB	HMIWeb Display Builder
HG	Hiway Gateway
HMI	Human Machine Interface
HPM	High Performance Process Manager
PKS	Process Knowledge System
TAC	Honeywell Technical Assistance Center
TPS	Total Plant Solution

Related documents

Document name	Document number
Experion PKS R431 HMIWeb Solution Pack Operator and Alarm Philosophy	EPDOC-X173-en-431
Experion PKS R431 HMIWeb Solution Pack Software Change Notice	EPDOC-X172-en-431
ASM Effective Console Operator HMI Design Practices	ISBN: 978-1492875635
ASM Effective Alarm Management Practices	ISBN: 978-1442184251

Chapter 1 Introduction

The HMIWeb Display Builder is the application used to build HTML format-based graphical displays for Experion PKS. Honeywell has developed a standard HMI Toolkit in an effort to provide a highly flexible, high performance and high functionality HMI project solution. This solution is based on standard practices and best engineering methodologies develop to maintain the highest performance and migratability in the Honeywell Experion system. This standard HMI solution is named “Honeywell HMIWeb Solution Pack”. The main objective of this standard solution is to provide:

- Clear sales, quotation, project baseline
- Integrated solution offering with Honeywell Experion PKS software
- Quick project start
- Minimized project risk
- Standardization
- Consistent HMI concept
- Provides comprehensive alignment to standard ASM functionalities and ASM process solutions
- Effective plant operations
- Performing HMI Solution
- Low price for project implementation and low maintenance costs
- High quality solutions
- Flexibility in use (modification)
- Multiple platform functional standardization (TPS, C300, SCADA and so on)
- Professional documentation
- Library compatibility (easy to share)
- Effective support (TAC)

Honeywell “HMIWeb Solution Pack” is a foundational Human-Machine Interface solution that is focused upon the principles of safe and effective operations as described by the Abnormal Situation Management (ASM) Consortium. As such, the HMIWeb Solution Pack complements the standard functionality provided with Experion PKS and the HMIWeb Display Builder.

This document addresses the following items:

- Detailed description of the shape functionality
- Template Display(s)
- SafeView Workspace Configuration
- C200 / C300 shapes
- SCADA shapes
- Foundation Fieldbus shapes
- HPM shapes
- HG shapes
- Navigation
- Advanced shapes
- Other miscellaneous shapes

1.1 Starting points

The common functionality, as described in this document, is based on the following starting points:

- Include global customer requirements
- Use symbols according accepted standards (for example, US (ISA), European (DIN), industry or local company (LIB)).
- Experion PKS R430 and above.
- Include requirements of current TPS users.
- Application of the Abnormal Situation Management (ASM) Principles.
- Common library for Experion Process Points (CDA, SCADA, Foundation Fieldbus) as well as TPS (HPM and HG).
- Performance: Call-up times in line with Honeywell Specifications.
- Minimal use of 3-D symbols.
- No direct control via shapes, but via faceplates and/or other supporting displays.
- Consistency.
- Solution Pack provides flexibility by ease of customization of shapes using approved modification practices.

Chapter 2 Miscellaneous display settings

This chapter describes the starting points used during the development of the HMIWeb Solution Pack R431. All new shapes are implemented in line with these assumptions.

2.1 Display properties

Settings

Supported Resolutions	1280x1024, 1600x1200, 1680x1050, 1920x1200
Color palette	True colors (24 bits)
Font size	Small fonts

The supported monitor resolutions are: 1280x1024, 1600x1200, 1680x1050 and 1920x1200 pixels. Please note that when a higher resolution is applied (for example, 1600x1200 instead of 1280x1024) the actual size in mm or inches of all shapes will be reduced. The actual size is also dependent on the size of the monitor (for example, 24” / 20.1”).

Using the “Zoom to Fit” option of the Station application is often applied for PKS standard displays (such as for example, point detail) and may as well be used for custom displays making use of the HMIWeb SP components. However, zooming of HMIWeb SP shapes may in some cases result in distortion of graphical objects. This will result in less sharp displays, and is therefore not advised.

If unacceptable distortion of occurs in shapes in displays, it is advised to turn off the “Zooming Allowed” option. It will then be necessary to make display size adjustments as required by the project / client.

2.2 Display Builder Settings

Grid settings

Horizontal spacing	4
Vertical spacing	4

Default Line Settings

Color	black

Style

Weight	0.75 pt.

2.3 Colors

Color schemes can highly impact several tasks inherent to process control.

- They can adversely affect the ability of users to distinguish different types of objects.
- They can seriously impair the ability for operators to recognize important process information.
- They can seriously limit and hinder the capacity of the user to navigate to critical plant conditions represented in the displays.

For these reasons, it is recommended to standardize and limit the number of information bearing colors on process displays.

This is especially critical since colors are used to represent abnormal (alarm) conditions. The correct monitoring of alarm conditions is crucial to maintain the health of the process.

Explicit color conventions should define reserved use of colors. For example:

- Red, Yellow and Cyan should be reserved for alarms
- Orange for not normal
- Magenta for warning
- Gray for normal operation

However, for reading text, the best color combinations are:

- White text on a black background
- Black texts on a grey or white background

An effective color scheme can significantly improve the ease of use and comprehensibility of display information. Using colors indiscriminately or arbitrarily slows response times and contributes to errors in perception and comprehension.

For these reasons, the default HMIWeb Solution Pack color configuration follows the convention where abnormal (alarm) conditions use specific colors reserved only for this purpose:

- All colors indicating normal operating conditions will be presented in gray scale colors
- The display background will be gray
- Red is reserved for emergency priority alarms [1)]
- Yellow is reserved for high priority alarms [1)]
- Cyan is reserved for low priority alarms [1)]
- Orange is reserved for Red Tag and Interlock indication
- Magenta is reserved for error indication
- Brown is reserved for APC / Mode attribute indication
- Black is reserved for static text and dynamic data
- A blue frame is visible when an object is selected
- Very Light gray is reserved for the background of dynamic data
- A CSS defined color is visible in the frame background for Principal and Associated Focus indication

In the Honeywell HMIWeb Solution Pack, colors used for Alarm functionality are defined in the System Configuration. RED, YELLOW and CYAN are most commonly used for alarm functionality in the industrial process industry. These colors might vary depending on the different industries.

HMIWeb Display Builder supports the use of Cascading Style Sheets (CSS). The use of CSS allows the definitions of color settings, as well many other object property settings (Styles). CSS allows all styles to be centrally defined. The CSS file(s) will define ALL style

classes for different types of objects (controllers, valves, static, and so on). CSS files can be created and defined by object type. These style classes are then attached to different objects in displays and dynamic shapes. Examples of these objects are: process lines, vessels, and so on. When utilizing CSS files, the presentation of all objects in displays and shapes can easily and consistently be implemented, maintained and modified from a central location. These CSS files can them be “imported” into a master CSS file. In Solution Pack, this file is called sp.css.

All shapes in the HMIWeb Solution Pack make use of the Cascading Style Sheet feature. As a standard Honeywell engineering practice, all HMIWeb Solution Pack shapes have assigned all the property styles of all their component objects to a style defined in provided Cascaded Style Sheets.

Furthermore, all graphics develop by Honeywell engineering services will linked all their static components to styles defined in the provided CSS or created with the help of the customer or project.

HMIWeb Solution Pack provides CSS for two industry standards the US (LCN legacy system) and the ASM (Abnormal Situation Management) standard.

2.4 Font

Static texts, tagname, and engineering unit descriptors (EUDESC) in the shapes will have the following default font properties. However, they can be modified using CSS settings:

Font	Arial
Font style	Regular
Font size	10
Font color	Black
Alignment	Right
Fill color	none
Line color	none

All dynamic data will have the following font properties:

Font	Arial
Font style	Regular
Font size	12
Font color	Black
Alignment	Right
Fill color	Light gray
Line color	none

2.5 Input devices

2.5.1 Mouse control

In general, the operator input on an operator station will be primarily through the Left-Button-Click of the pointing device. The table below defines the common mouse behavior for all HMIWeb SP shapes.

Mouse event	Object reaction	Remarks
Left-Button-Click	Point related shapes: Activate point faceplate or popup window Navigation related objects: Invoke another display	Point related shapes show a “hand” symbol when a target is present to invoke a faceplate. When a point is selected, using the left-click event, a blue selection rectangle will be shown around the shape. And the background of the shape can change color to denote FOCUS.
Right-Button-Click	Activate shortcut menu	When the shortcut menu is invoked, the focus will be forwarded to an object inside the shapes, which has a point database connection. By doing so, the current selected point will be shown in stations message zone and the functions detail display, trend, and so on, will be related to the current selected point.
Left-Button-Double-Click	Point related shapes: Not applicable, since the single click invokes a faceplate (unless otherwise configured). Non-shape objects with point database connection (for example, a level bar, or a parameter in a faceplate): the detail display will be invoked	Activate point detail display
Mouse-over (> 0.5 sec.)	Present tooltip	

Table 1: Overview mouse control

2.5.2 Keyboard control

The keyboard is used for entry of alphanumerical data as well as for function keys.

Function keys can be used to invoke pre-defined displays, and may require additional operator input (for example, for a detail display when no point is selected).

When a point is selected, many of the pre-defined function keys will execute their action using the current selected point (for example, detail display, trend display, and so on).

Standard function keys are used for tasks such as System Menu, Associated Display, Alarm Summary, Acknowledge Alarm, Request Page, Request Group, Request Trend, Prior Display, Raise, Lower, Enable/Disable and Point Detail.

Optionally, dedicated functions can be assigned to the other available function keys.

Chapter 3 Common behavior

This section will outline common behavior applicable to most shapes.

3.1 Normal indication

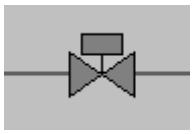
3.1.1 Status indication

Status information can be shown in either graphical format (for example, a pump consisting of a circle) or in a textual format (for example, START/STOP).

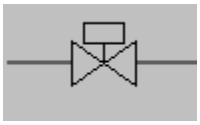
Graphical status information

All shapes which show status information in a graphical format use the following default conventions:

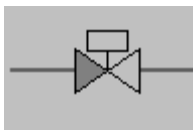
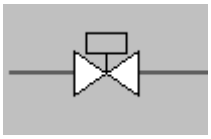
- When a device is in the “transporting” state (for example, an open valve or a running pump), the fill-color of that shape should have the same color as the process line connected to that shape. For example:



- When a device is in the “non-transporting” state (for example, a closed valve or a stopped pump), the fill-color of that shape will have the same color as the display background. For example:



- When the device is in the “moving” state (for example, a moving valve), the shape will either use 2 different fill-colors (default setting for HMIWeb SP) or a color which is clearly distinguishable from the 2 above mentioned other states. For example:

 or 

All color settings are customizable via the cascading style sheet. The use of 2 different colors (first example) is the default setting for the moving state.

Alphanumerical status information

Shapes which show status information in a textual format should use one of the following conventions:

- Show the actual status information as different text strings, for example, “OPEN” and “CLOSE”. For example:

If a custom approach is required, the cascading style sheet can be modified to change the fill color of the text object depending on the status. Make sure to use adequate color combinations that will make the text easily readable.
Alternative example:

- Show the actual status information depending on the active / inactive state with different colors and / or font settings (for example, bold). This applies to shapes that, for instance, show an active / inactive HH pressure alarm. For the default approach for the inactive state (no alarm), the operator may still want to know that the shape object is related to an HH alarm. This could be presented with a light grey text (“HH”) as show.

The active state can then be shown in a different format:

- Highlighting the HH text by making it black and bold (typically the case when the point does not have an alarm assigned to the HH value):

- Highlighting the HH text by making it black and bold, but in addition also show its related alarm symbol:

- Alternatively, highlighting the HH text by making it black and bold as well change the HH background fill-color:

3.1.2 Analog data

To conform to the ASM guidelines for alarm behavior, analog data is not presented in an unacknowledged alarm state via the value object (PV) as blinking text. This is unlike the standard Experion HDB behavior. Instead a blinking alarm icon is used to show that the point is in alarm unacknowledged. Alternatively, a secondary alarm functionality custom parameter of type object is available. This custom parameter can be defined as any of the shape objects by name (for example, the Alarm Rectangle or PV Value object and make the Line or Fill color carry the alarm condition).

The numeric representation for analog values (PV and SP) depends on configured PV format parameter of its related point tag. When the PVFORMAT parameter is not available (for example, for SCADA objects) the shapes provide an option to manually specify the PV format. In that latter case the following defaults are advised:

Engineering range PS SCADA	PV Format C200/C300/TPS	Display Decimal Format
0 – 0.9999	D3	+/- X.YYY
1 – 9.9999	D2	+/- X.YY
10 – 99.999	D1	+/- XX.Y
≥ 100	D0	+/- XXXXXX

Table 2: Decimal presentation numeric data

For presenting PV and/or SP values in shapes, a maximum of 7 positions are reserved:

- Negative / positive sign symbol
- Decimal separator
- For data presentation: minimum 5 numbers (for example, -0.9876) and maximum 7 numbers (for example, 9999876)
- No 1000 separator

For font details, see the “Font” section.

Notice! In all cases, enough space must be reserved for the presentation of the negative symbol.

3.1.3 Mode indication

The mode object (TxtMode) will indicate the actual operating mode of regulatory control algorithms.

For the various data owners (C200 / C300, SCADA, Fieldbus, and TPS) different mode enumerations exist.

Settings

Font	Arial
Font style	Regular
Font size	12
Font color	Black
Alignment	Right
Fill color	none
Line color	none

Notice! Most of the above settings are defined in the Cascading Style Sheet (CSS) and can easily be modified as required. Detailed information on style names and definition can be found in the standard documentation for each shape. The presentation of the mode is as follows:

Mode: Indication	(Long): Indication	(Short):	*1 Default CSS	Color: Applicable	for Experion	C200 / C300: Applicable
Manual	MAN	M	Black	√	√	√

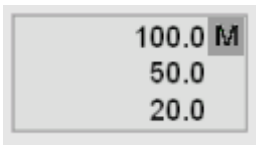
Mode: Indication	(Long): Indication	(Short):	*1 Default CSS	Color: Applicable	for Experion	C200 / C300: Applicable
Auto	AUTO	A	Black	√	√	√
Cascade	CAS	C	Black	√	√ *2	√
Backup cascade	BCAS	B	Black	√		√
Computer	CP	CP	Black		√ *3	

Table 3: Mode Indication

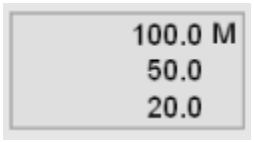
1. Default presentation is only first letter of enumerated mode (for example, M for MAN, and so on)
2. Cascade for Experion SCADA only applicable for Series9000, TDC and UDC controllers.
3. Computer for Experion SCADA only applicable for TDC.

3.1.4 Off-normal Mode indication

The off-normal mode indication is combined with the normal mode indication. When the current mode is not equal the normal mode, a CSS style is applied to the mode-object in the shape. The default style for off normal mode is to show the mode indicator with reversed (highlighted) background.



Mode<>Normal Mode



Mode=Normal Mode

Please note that the off-normal mode functionality is only supported by a subset of the SP shapes. These shapes will show the letters “nm” in the *first* functional section of their file names.

3.1.5 Off-normal mode attribute indication

The Mode-attribute is a parameter available in C200 / C300 and TPS controllers for Device- and Regulatory- control function blocks. The Mode-attribute defines whether the operator or a user program has the authority to change certain variables within a function block:

Function block	Mode attribute	Allowed modifications
DevCtl	Operator(1)	Operator may command the output state
DevCtl	Program(1)	Other FB may command the output state
RegCtl FBs	Operator(1)	Operator may command the Mode, OP, SP, Ratio and Bias
RegCtl FBs	Program(1)	Program may command the Mode, OP, SP, Ratio and Bias

Table 4: Mode-attribute Indication

Applicable for C200 / C300 function blocks

Regulatory control: AutoMan, Fanout, OvrdSel, PID, PIDFF, PosProp, PulseCount, PulseLength, RampSoak, RemCas, RatioBias, RegCalc, and Switch.

Device control: DevCtl

Applicable for HG devices

Regulatory control: AO, AC, REGCTL (see TPS/HG manuals for applicable algorithms)

Device control: DO, DC

Applicable for xPM devices

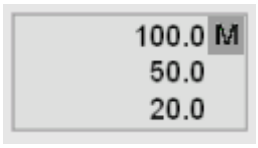
Regulatory control: AO, REGCTL (see TPS/HPM manuals for applicable algorithms)

Device control: DC, DEVCTL

The Mode-attribute is available in the Detail- and Faceplate- displays and alternatively presented in the extended “nma” filename shapes.

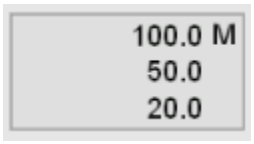
3.1.6 Normal Mode attribute indication

The normal mode attribute indication is combined with the normal mode indication. When the current mode attributes is not equal the normal mode attribute, a CSS style is applied to the mode-object in the shape. The default style is to show the mode indicator with orange colored font and box.



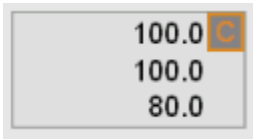
Mode Attr.= Normal Mode Attr.

& Mode<>Normal Mode



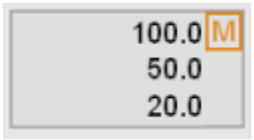
Mode Attr.= Normal Mode Attr.

& Mode=Normal Mode



Mode Attr.<>Normal Mode Attr.

& Mode<>Normal Mode



Mode Attr.<> Normal Mode Attr.

& Mode=Normal Mode

Please note that the normal mode attribute functionality is only supported by a subset of the SP shapes. These shapes will show the letters “nma” extended after the functional section of their file names.

MODE	NORMMODE	MODEATTR	NORMMODEATTR	Screenshot	Description
AUTO	NONE	N/A	N/A		MODE = AUTO
MAN	NONE	N/A	N/A		MODE = MAN
AUTO	AUTO	OPER/PROG	NONE		MODE = NORMAL
AUTO	AUTO	OPERATOR	OPERATOR		MODE = NORMAL MODEATTR = NORMAL
MAN	AUTO	OPERATOR	OPERATOR		MODE = OFF-NORMAL MODEATTR = NORMAL
AUTO	AUTO	PROGRAM	OPERATOR		MODE = NORMAL MODEATTR = OFF-NORMAL
CAS	AUTO	PROGRAM	OPERATOR		MODE = OFF-NORMAL MODEATTR = OFF-NORMAL
AUTO	AUTO	PROGRAM	PROGRAM		MODE = NORMAL MODEATTR = NORMAL,PROG
MAN	AUTO	PROGRAM	PROGRAM		MODE = OFF-NORMAL MODEATTR = NORMAL
MAN	AUTO	OPERATOR	PROGRAM		MODE = OFF-NORMAL MODEATTR = OFF-NORMAL,OPER

Table 5: Mode & Mode-attribute Indication

Letter – indicating MODE
Fill Color – indicating OFF-NORMAL MODE
Frame Border Color – indicating OFF-NORMAL MODEATTR
Letter Color – indicating MODEATTR (Orange=PROGRAM only if NORMMODEATTR <> “NONE”)

3.1.7 Winding ramping and initialization indication

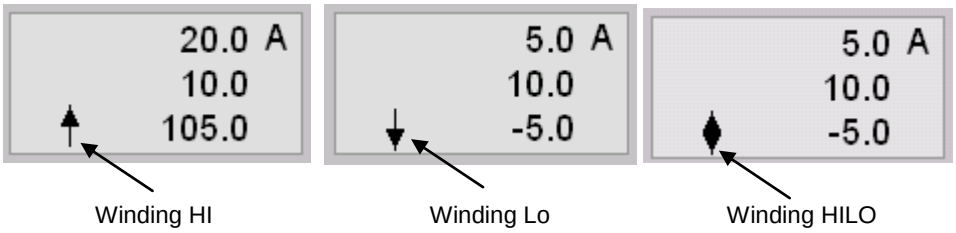
Winding ramping and initialization indication are parameters available in C200 / C300 and TPS controllers for regulatory- control function blocks.

Windup handling

When a windup condition is reached, the controller block stops calculating.

If the output anti reset windup status is:

- Normal: the output parameter is free to move in either direction
- HI: the output parameter is at his high limit and may only be lowered
- Lo: the output parameter is at his low limit and may only be raised
- HiLo: the output parameter may not move in any direction



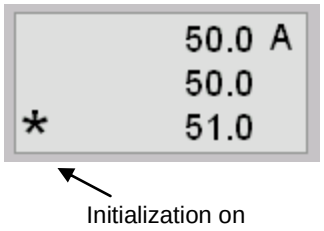
Setpoint ramping

The Setpoint ramping option lets you ramp from the current Setpoint value to the target Setpoint value

- If the Setpoint target value is > than the Setpoint the shape show the ramp-up status
- If the Setpoint target value is < than the Setpoint the shape show the ramp-down status

Initialization

If a control block is in cascade the initial control processing checks if the cascade has been broken. If it has this function initializes the block and builds an initialization request to his primary or primaries control blocks.



3.1.8 PV source indication

Process Variable Source - Identifies the source of the PV input:

- Sub: PV value is provided by a user program.
- Man: PV value is provided by the operator
- Auto: PV value is fetched from another function block

The PVSource attribute ‘Operator’ could be used to manually enter a PV value.

PV Source	Applicable for Experion C200 / C300	Applicable for Experion SCADA	Applicable for Experion Server TPS
Sub	√		√
Man	√		√
Auto	√		√
Track	√		√

Table 6: PV Source indication

The PV-Source information is available in the Detail- and Faceplate - displays and is **not** shown in the Solution Pack controller shapes.

3.2 Abnormal indication

An abnormal situation is a disturbance or series of disturbances in a process that cause plant operations to deviate from their normal operating state. Abnormal indications serve a key role in orienting users to the existence and location of critical plant conditions. The alarm (abnormal) configuration scheme determines whether the alarms orient and guide quick, effective responses to plant disturbances.

Color schemes affect the ability of users to distinguish different abnormal situations. It is important to standardize and limit the number of colors for non-abnormal situations. An effective and consistent color usage will improve the ease of use and comprehensibility of display information. Please refer to section 2.3 in this document for more information on color use considerations.

In addition to abnormal indication based on color, HMIWeb Solution Pack also provides indication by shape recognition which minimizes the impact to color challenged individuals as stated by ASM standards.

3.2.1 Alarm indication

The alarm indicator can be used by shapes, which show tag information, for example pumps, valves, deviation view shapes, tank temperatures, and so on. The appearance and behavior of the alarm-state and alarm-priority indicator is defined in the table below. The layout of the alarm icon is system defined.

Priority	Return to Normal	Acknowledge Status	Active Object (shape)	Behavior
Urgent	No	Unacknowledged		Blinking
		Acknowledged		Steady
	Yes	Unacknowledged		Blinking
High	No	Unacknowledged		Blinking
		Acknowledged		Steady

Priority	Return to Normal	Acknowledge Status	Active Object (shape)	Behavior
	Yes	Unacknowledged		Blinking
Low	No	Unacknowledged		Blinking
		Acknowledged		Steady
	Yes	Unacknowledged		Blinking
Disabled	N/A	N/A		Steady
Disabled Unacknowledged	N/A	Unacknowledged		Steady
Shelved	N/A	N / A		Steady
Suppressed	N/A	N / A		Steady

Table 7: Alarm color scheme

The colors of the shapes are based on the standard system alarm color settings as shown below:

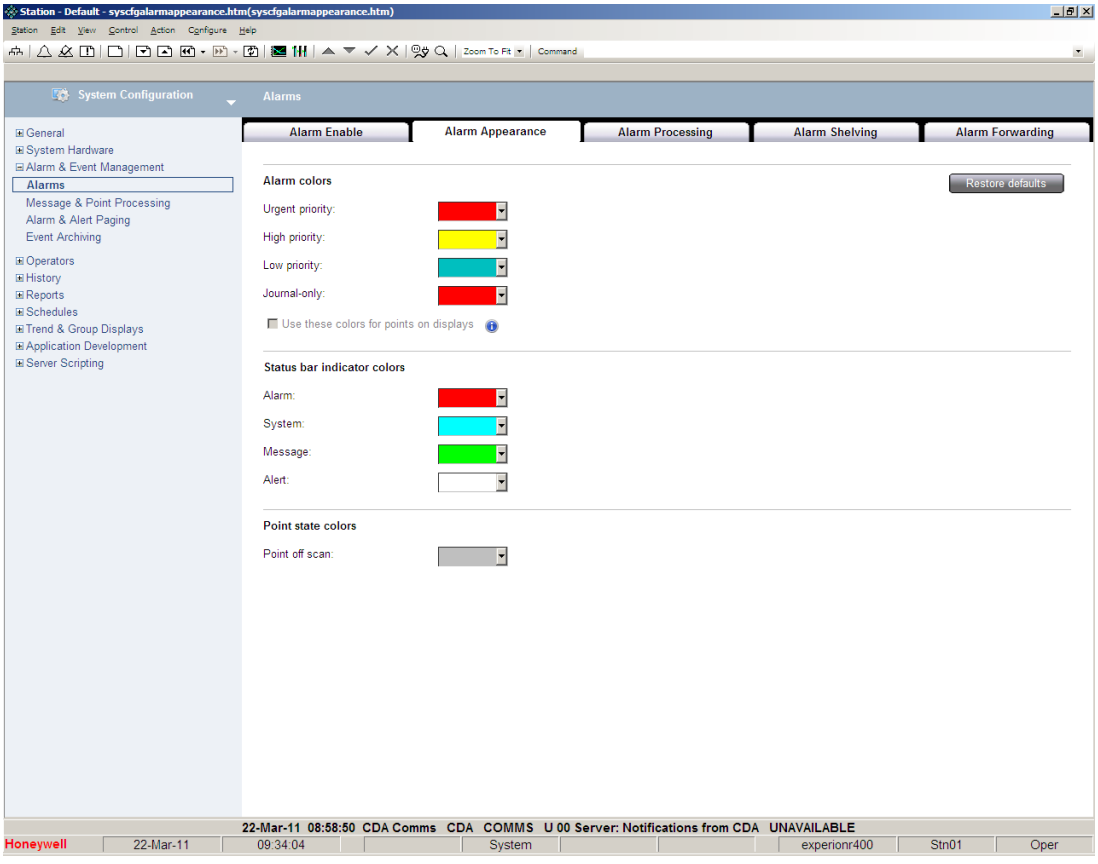


Figure 1: Standard System Alarm Display

3.2.2 Secondary alarm object

In order to comply with standard ASM Guidelines for HMI, the HMIWeb Solution Pack incorporates secondary alarm object functionality. All shapes that show alarm using the conventional alarm icon have been changed by adding new custom parameter of type “object” (cp_AlmObjName) and a new “alarm” object (RecAlm). This object is used by default to demonstrate alarm behavior as the alarm icon does.

The **RecAlm** object is a rectangle object that can be used as a secondary alarm object. The RecAlm object is located between the ScTxtSelectBox and the RecFrame objects.

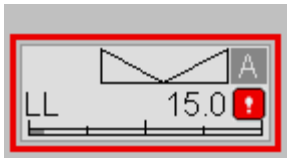


Figure 2: Shape with RecAlm Object

The default object can be changed to any other component object within the shape. For example, if the end user requires the PV object to carry the alarm condition the shape is entered with cp_AlmObjName set to ScConAlpPV. By setting this custom property to the new object name, the PV object will then be set dynamically to change when an alarm is encountered. Any of the objects in the group within the shape can be used as secondary alarm objects (that is, ScConAlpSP, txtMode, txtTagName).

3.2.3 Alarm type Indicator

Various point types have different types of alarms.

Settings

Font	Arial
Font style	Regular
Font size	12
Font color	Black
Alignment	Right
Fill color	None
Line color	None

Notice! Most of the above settings are defined in the Cascading Style Sheet (CSS) and can easily be modified as required. Detailed information on style names and definition can be found in the standard documentation for each shape.

The HMIWeb Solution Pack provides shapes for both analog and discrete control with and without alarm type indication. Shapes with alarm type presentation require more display space, and are therefore advised to be used accordingly. In other cases, the type of alarm for a certain point can easily be retrieved by invoking a faceplate, which will show this detailed alarm information.

A more extensive description of the alarm reason, which caused the alarm, is presented in the Alarm Summary.

Data source	Alarm description	Abbreviation for HMIWeb SP shapes
C200 / C300: Data-acquisition block	PV High High PV High PV Low PV Low Low Positive Rate of Change Negative Rate of Change Bad PV	HH H L LL PRC NRC BAD
C200 / C300: Regulatory control block	OP High OP Low Deviation High Deviation Low Advisory Deviation Safety Interlock Bad Control	OPH OPL DVH DVL DEV SI CTL
SCADA: Analog point	PV High High PV High PV Low PV Low Low Rate of Change Transmitter High Transmitter Low Deviation High Deviation Low Unreasonable Value Control Fail	HH H L LL ROC XH XL DH DL BAD CTL
C200 / C300: Device Control C200 / C300: Device Control	Command Disagree Command Fail Uncommanded Change Bad PV Safety Override State 0 Override Interlock State 1 Override Interlock State 2 Override Interlock Off Normal	CMD FL CH BAD SAF OV0 OV1 OV2 OFF
SCADA: Status point	State alarm (max. 8 states) Control Fail External Change: PV External Change: OP External Change: MD	Abbreviation of State description (max. 3 char.) FL EX1 EX2 EX3
TPS Points. For a detailed description of each parameter, see the *Parameter Reference Dictionary Manual* of TPS	NOALARM INVALID PPPRESET PRPRESET PRESET OFFNORM OPENTHER FLAG	 INV PPR PRR PRT OFN OPR FLG

Data source	Alarm description	Abbreviation for HMIWeb SP shapes
	CHNGOFST	CH
	UNREASBL	UNR
	CMDDIS	CMD
	COMPSHED	COS
	S1LOGIC	S1L
	S2LOGIC	S2L
	S3LOGIC	S3L
	S4LOGIC	S4L
	OFFSET1	OF1
	OFFSET2	OF2
	OFFSET3	OF3
	ADVDEV	ADV
	PVROCN	NRC
	PVROCP	PRC
	PVROC	PRC
	DEVLO	DVL
	DEVHI	DVH
	DEVLL	DLL
	DEVHH	DHH
	DEVLLL	LLD
	DEVHHH	HHD
	PVLO	L
	PVHI	H
	PVLL	LL
	PVHH	HH
	PVLLL	LLL
	PVHHH	HHH
	SVHI	SHI
	SVHH	SHH
	BADSV	BSV
	BADCTL	CTL
	BADPV	BAD
	UNCEVT	UNC
	CMDFAIL	FL
	OVRDI2	OV2
	OVRDI1	OV1
	OVRDI0	OV0
	OVRDSI0	SAF
	C1ALM	C1A
	C2ALM	C2A
	C3ALM	C3A
	C4ALM	C4A
	OVRDSI	SAF
	BADOC	BOC
	OPHI	OPH
	OPLO	OPL

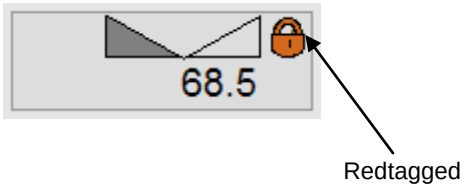
Table 8: Alarm abbreviations

3.2.4 Redtag indication

The Redtag functionality is used if a Function block (FB) is "Out-of-service". The Redtag functionality indicates that the FB or the associated control needs repair, or is in maintenance. Users cannot modify the output of the ‘Red tagged’ Function block.

The mode must be Manual before the Redtag function can be activated. Redtag is only applicable for a limited number of C200 / C300 Function blocks and HPM point types. For example, device control points (C200 / C300 & HPM), digital composites (HPM), and regulatory control algorithms with analog or digital output connections.

The Redtag object will appear on all controller shapes associated with control points that have a Redtag condition active. An orange lock appearing on top of the display element and positioned over the mode indication, will indicate that a Redtag condition exists. If a Redtag condition is activated the mode is always Manual. For this reason, the mode component object (txtMode) can be hidden behind the Redtag object in most shapes to preserve space. An example of the Redtag indication is shown in the following shape:



Notice! If a FB is Redtagged the user is informed through the Station ‘Message zone’ with ‘FB Is Red Tagged’ when a FB parameter is selected.

3.2.5 Inactive indication

In HMIWeb, the presentation of inactive points depends on the type of point as well the type of parameter. SCADA points use scanned data. In case the scanning stops (point is set inactive or off-scan) the last value is shown. In that case the text color will change from black (active) to gray (inactive), which is standard system behavior.

For C200 / C300 points, the value of the parameter depends on the type of parameter. Parameters that get their value via linked Function Blocks (for example, a PV of a PIDA read from a DACA or a PV from a DACA read from an AI block) become NaN when the CM is set inactive. Non-linked parameters keep their old value.

All shapes showing discrete points will show a cross on top of the shape. The color of this cross is determined by the cascading style sheet and is by default black. When the ‘Indicate off-scan state with color’ is enabled the following shape presentation will be showed in operating displays:

Point type	Source	Shape Behavior			
		Active	Example Active	Inactive	Example Inactive
Status point	SCADA	No Cross		Black Cross	

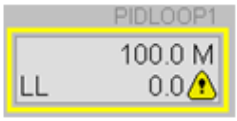
Point type	Source	Shape Behavior			
Status point	Process	No Cross		Black Cross	
Analog point	SCADA	Black text value		Grey text value	
Analog point	Process	Current value		NaN	

Table 9: Standard presentation Inactive tagname

Settings for presentation ‘NaN’

Font	Arial
Font style	Regular
Font size	12
Font color	Black
Alignment	Right
Fill color	Light gray
Line color	None

Line settings for X

Color	Black
Style	———
Weight	2 pt

Notice! Most of the above settings are defined in the Cascading Style Sheet (CSS) and can easily be modified as required. Detailed information on style names and definition can be found in the standard documentation for each shape.

3.2.6 Bad PV indication

Bad PV- alarms (‘Unreasonable Value’ alarming for Experion SCADA) are presented in Station by default as:

- Analog: ‘NaN’
- Digital: ‘Bad’

A Bad PV alarm has its own alarm priority. For discrete device shapes, the BAD PV will be presented in the shape using the abbreviation '**B'**. Shapes presenting analog PV's will show the NaN instead of the numeric PV.

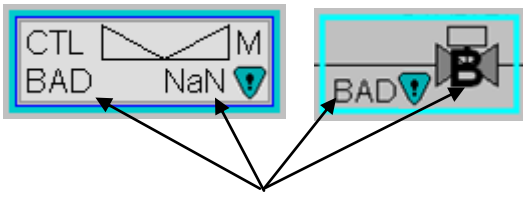
The Bad PV is indicated with a large non-blinking black **B**, appearing on top of the presented discrete shape. The **B** is positioned so that:

- The tagname is visible.
- The alarm priority symbol is visible.
- The Redtag indication is visible.

Settings

Font	Arial
Font style	Bold
Font size	20
Font color	Black
Alignment	Center
Fill color	none
Line color	none

Notice! Most of the above settings are defined in the Cascading Style Sheet (CSS) and can easily be modified as required. Detailed information on style names and definition can be found in the standard documentation for each shape. An example of the BadPV indication is shown in the following shapes:



BADPV indication

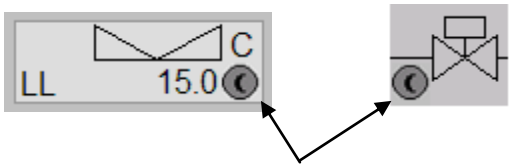
3.2.7 Alarm shelving indication

This function allows the operator to store away a nuisance alarm in the alarm system for a determined period of time. This action of storing the nuisance alarm from an active indication is what Honeywell refers to as putting the alarm on a shelf.

Shelving will only affect the individual selected alarm. All others alarms for the same point will remain active and in their proper states. Alarm shelving allows the operator to de-clutter the alarm list to help avoid missing critical abnormal situations defined by alarms.

All point types are supported (System, SCADA, Process, TPS and DSA points). The Alarm shelving functionality is integrated into standard Alarm Summary.

An example of the shelved indication is shown in the following shapes:



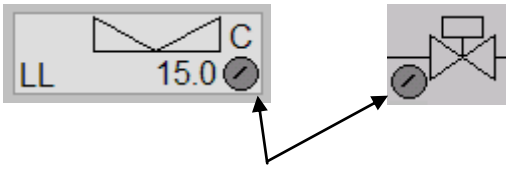
Shelved Alarm indication

3.2.8 Alarm suppression indication

Alarms can be dynamically suppressed.

Suppression is triggered by other points and will only affect the individual selected alarm. All other alarms for the same point will remain active and in their proper states. Alarm suppression allows the engineers to de-clutter the alarm list to help avoid missing critical abnormal situations defined by alarms.

All point types are supported (System, SCADA, Process, TPS and DSA points). The Alarm suppression functionality is integrated into standard Alarm Summary. An example of the suppressed alarm indication is shown in the following shapes:



Suppressed Alarm indication

3.2.9 Alarm disabled / inhibited indication

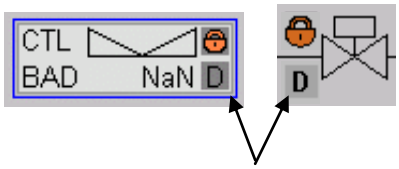
Alarms for all points can be set to ENABLED or DISABLED. Also, in TPS points the alarms of can also be set to INHIBITED. It is very important to indicate that when an alarming capability is disabled or inhibited. This indication is necessary in the process displays. Failure to do so can potentially lead to dangerous situations therefore this alarm condition should always be reported to operators. When the alarming is disabled or inhibited the indicators for alarm priority will disappear and will be replaced by a representative icon.

For most point-types, the position of the alarm priority can be shared with the alarm disable indication. This is because they are mutually exclusive. However, Fieldbus devices have the possibility to disable alarms per alarm type. For this reason, the alarm disable and alarm priority symbol are shown side-by-side for Fieldbus devices.

Alarms are disabled to suppress unnecessary alarm behavior. Disable alarms are showed as a black D for all point types. The letter will be on a gray background as shown below:

Notice! The color settings of the alarm symbol cannot be changed.

An example of the disable indication is shown in the following shapes:



Alarm disabled indication

3.2.10 Error indication

Errors in process points can occur due to several reasons. To quickly find the cause of an error, additional information is required. The default representation of various errors types in Station is shown below:

Error description	Presentation Analog PV	Presentation Digital PV
Communication	NaN	Bad
Configuration	------	Bad
Script	no standard defined	no standard defined

Table 10: Experion default error presentation

Errors in Solution Pack shapes are presented through error codes:

'Analog' shapes: Black text on a light gray background
'Digital' shapes: Magenta question mark "**?**" without a background color

The following error codes will be presented:

Error description	Presentation Analog PV	Presentation Digital PV
Communication	NaN	?
Configuration	------	?
Script	------	?

Table 11: HMIWeb SP error presentation

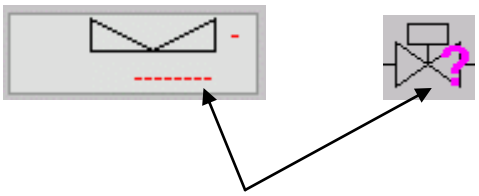
Settings error indication for 'analog' shapes

Font	Arial
Font style	Regular
Font size	12
Font color	Black
Alignment	Right
Fill color	none
Line color	none

Settings error indication for ‘digital’ shapes (?)

Font	Arial
Font style	Bold
Font size	20
Font color	Magenta
Alignment	Center
Fill color	none
Line color	none

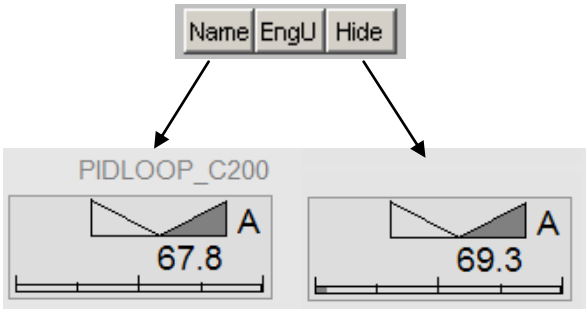
Notice! The above settings are defined in the Cascading Style Sheet (CSS) and can easily be modified as required. Detailed information on style names and definition can be found in the standard documentation for each shape. An example of the error indication is shown in the following shapes:



3.3 Additional information

3.3.1 Tagname and Tooltip

In operating schematics, tag names are considered detailed information. To reduce the amount of details tag names are not visible by default. The operator can decide to show (or hide) all tag names via a ‘Hide and Show’ object.



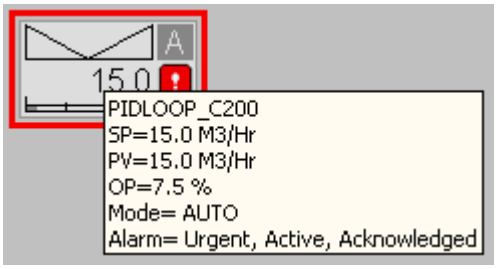
Settings

Font	Arial
Font style	Regular
Font size	10

Font color	Grey
Alignment	Right
Fill color	none
Line color	none

Notice! The above settings are defined in the Cascading Style Sheet (CSS) and can easily be modified as required. Detailed information on style names and definition can be found in the standard documentation for each shape.

Individual tag names are visible using the 'Tooltip' mechanism. The tooltip is activated by moving the cursor over a shape for at least 0.5 seconds. When this happens, the tooltip will show some point information (that is, SP, PV, OP, Mode and alarm status and so on). However, only values that are already available (accessed) in the shape can be made visible in the tooltip.



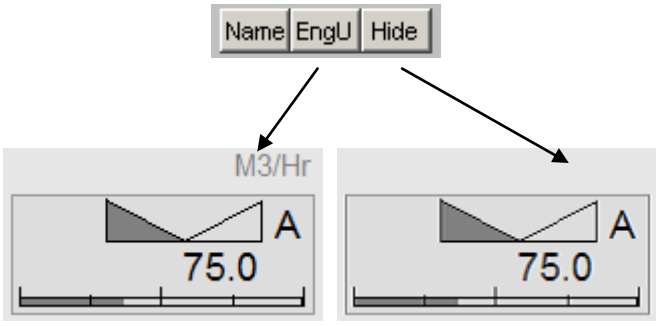
3.3.2 Point description

Point descriptors are not available in Solution Pack shapes. This information can be accessed in operating displays via:

- Detail display
- Faceplate
- Message zone (for example, when the shortcut menu is shown)

3.3.3 Engineering units

In operating schematics, engineering units are considered detailed information. To reduce the amount of details, engineering units are not visible by default. The operator can decide to show (or hide) all tag names via a 'Hide and Show' object.



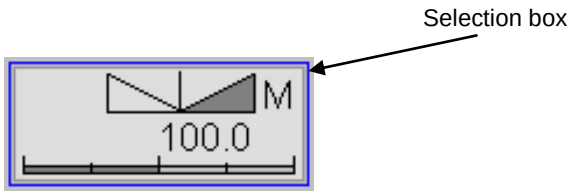
Settings

Font	Arial
Font style	Regular
Font size	10
Font color	Grey
Alignment	Right
Fill color	none
Line color	none

Notice! The above settings are defined in the Cascading Style Sheet (CSS) and can easily be modified as required. Detailed information on style names and definition can be found in the standard documentation for each shape.

3.3.4 Selection box

When the shape is selected with the pointing device (single-left-click event) a selection box will be made visible.



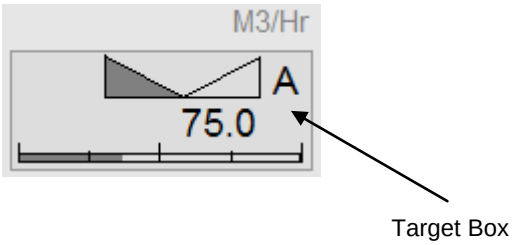
Settings

Fill Color	none
Line Color	Blue
Line Style	———
Line Weight	1 pt

Notice! The above settings are defined in the Cascading Style Sheet (CSS) and can easily be modified as required. Detailed information on style names and definition can be found in the standard documentation for each shape.

3.3.5 Target box

Regulatory control shapes present many separate parameters. In order to group all these parameters, a rectangle (Grouping box) is presented around all parameters, except the tagname/engineering units. The rectangle is a one pixel smaller than the selection box, indicating the target zone for the shape.



Settings

Fill Color	none
Line Color	Grey
Line Style	———
Line Weight	1 pt

The Target box is by default visible for the following shapes:

- Regulatory control
- Data acquisition
- Totalizer
- Some digital state

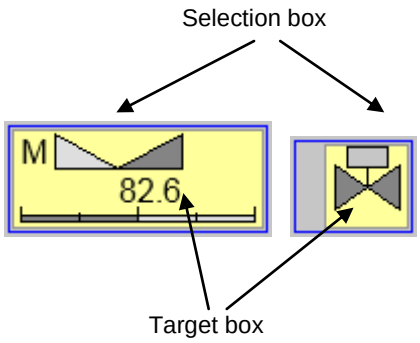
For all other shapes like valves, pumps motors fans, and so on, the target box is by default not visible.

Notice! The above settings are defined in the Cascading Style Sheet (CSS) and can easily be modified as required. Detailed information on style names and definition can be found in the standard documentation for each shape.

3.3.6 Principle and Associated Focus

Principle Focus

When the shape is selected with the pointing device (single-left-click event) and Principle and associated focus functionality is activated the Target Box fill color and the selection box will be made visible.



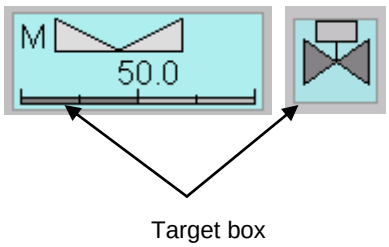
Settings Principle Focus

Fill Color	Light Yellow
Line Color	Blue
Line Style	———
Line Weight	1 pt

Notice! The above settings are defined in the Cascading Style Sheet (CSS) and can easily be modified as required. Detailed information on style names and definition can be found in the standard documentation for each shape.

Associated Focus

When the selected object will get the principal focus all related objects will be indicated with the associated focus background color, the Target Box fill color will be made visible.



Notice! Principle and associated focus functionality is part of the Advanced Solution Pack. All objects in the Standard HMIWeb Solution Pack support this functionality.

Settings Associated Focus

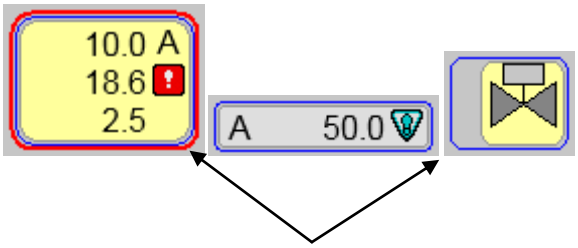
Fill Color	Light Blue
Line Color	Grey
Line Style	———
Line Weight	1 pt

Notice! The above settings are defined in the Cascading Style Sheet (CSS) and can easily be modified as required. Detailed information on style names and definition can be found in the standard documentation for each shape.

3.3.7 Rounded Edges for shape objects

An option is available to apply rounded edges to shapes via CSS. Applicable to the following common shape objects (separately or all of them):

- Selection Box
- Target Box
- Secondary Alarm Object (RecAlm rectangle)



3.4 Menu options

3.4.1 Shortcut menu

Shortcut menus or Context menus, as they are normally known, are available in all Solution Pack shapes. They are activated by a right button click action on the station pointing device. The menus will contain general and object dependable functional menu items. The shortcut menu will disappear when you:

- Select outside shortcut menu
- Cancel
- Press Escape (keyboard)
- After a timeout, defined in the registry

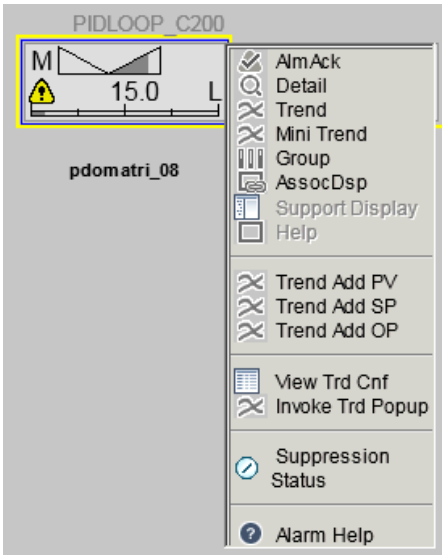


Figure 3: Example shortcut menu for regulatory control points

The default HMIWeb SP shortcut menu provides the following options:

- **AlmAck**: This option allows acknowledgment of all alarms in the related point. Please note that for shapes with multiple tags (like for example, the F&G shapes), only the most important alarm will be acknowledged. After that, the next important alarm can be acknowledged and so on until all alarms for that shape are acknowledged.
- **Detail**: This option will invoke the point detail display for the point link to the selected shape.
- **Trend**: This option works in conjunction with a custom property on the shape that defines trend information (see shapes custom properties). This custom property is cp_custtrnd. If this property is left as default (no entry) this action will invoke the first trend group where the current selected point appears. Now, if the point is not configured in a trend group, the system will ask the operator for a trend group number. If the custom property cp_custtrnd is defined for the shape, the specified custom trend group will be invoked.
- **Mini Trend**: This option will invoke a trend popup window showing up to 3 traces for the point in the related shape. These traces will be representative of PV, SP and OP. This option is only available for analog points only. The availability of all 3 traces will depend on the custom properties of the shape. If the shape has a custom property for the PV (cp_PV) the PV trace is shown. Similar for SP (cp_SP) and OP (cp_OP). If the respective custom properties do not exist, the trace will not be shown in the mini trend popup.
- **Group**: This option works in conjunction with a custom property on the shape that defines group information (see shapes custom properties). This custom property is cp_custgrp. If this property is left as default (no entry) this action will invoke the first group where the current selected point appears. Now, if the point is not configured in a group, the system will ask the operator for a group number. If the custom property cp_ custgrp is defined for the shape, the specified custom trend group will be invoked.
- **AssocDsp**: This option invokes the associated display for the current selected point. If no associated display has been configured, a warning will appear in the message zone “No associated display”.
- **Support Display**: This option allows an operator to open a supporting display related to the tagname presented by that shape. To make this option available, two actions must be taken during display building. First, the label that the shortcut menu uses for this selection and the corresponding link to the display need to be defined. If no filename is specified, the label will still be shown but the choice in the shortcut menu will be disabled (grayed out).
- **Help**: This option allows an operator to open a help document related to or about the tagname presented by that shape. To make this option available, two actions must be taken during display building. First the label to be shown in the shortcut menu, as well

the link to the file to be opened must be defined. The shortcut menu will use windows explorer's file type association to determine what application will be used to open the help file (for example, MS Word for *.doc documents, PDF reader for *.PDF files, and so on). If no filename is specified, the label will still be shown but the choice in the shortcut menu will be disabled (grayed out).

- **Trend Add PV (SP/OP)**: these options allow an operator to quickly add the PV, SP and OP of the tagname presented by the shape into a trend group. If no trend group is defined, the operator will be asked for a group number. If a trend group is full or protected, he will get a warning. An additional dedicated shape are provided as part of the HMIWeb Solution Pack to show the current selected trend group as well to provide information about the number of pens still available in this trend group. These shapes also provide a shortcut menu which allows you to invoke the specific trend group, view the trend group configuration an also invoke the specified trend group as popup window.

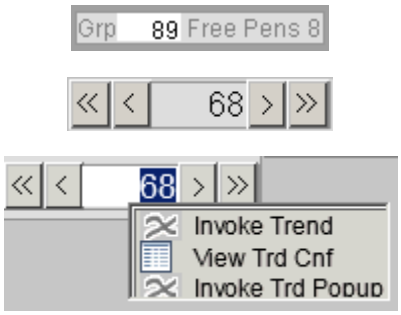


Figure 4: Trend Group shapes

The "Trend Add PV", "Trend Add SP" and "Trend Add OP" options are only enabled when the tagname related to the shape has custom properties for the PV (cp_PV), SP (cp_SP) and for the OP (cp_OP). If these custom properties do not exist, the options to add the PV SP and/or OP to a trend will be disabled and the choice will be grayed out in the shortcut menu.

- **View Trd Conf**: This option will show the trend configuration for the current selected trend group as indicated by the *trend selector shape*. A table with this info will be shown on top of the process display. By clicking **Hide** the HMIWeb Solution Pack trend configuration table will disappear.

PointName	Parameter	Hide
020LIC301	pida.PV	
020LIC301	pida.OP	
OVERRIDE_SC	PV	
HH_ALARM_SC	PV	
FAULT_SC	PV	

Figure 5: Trend Group Configuration Table

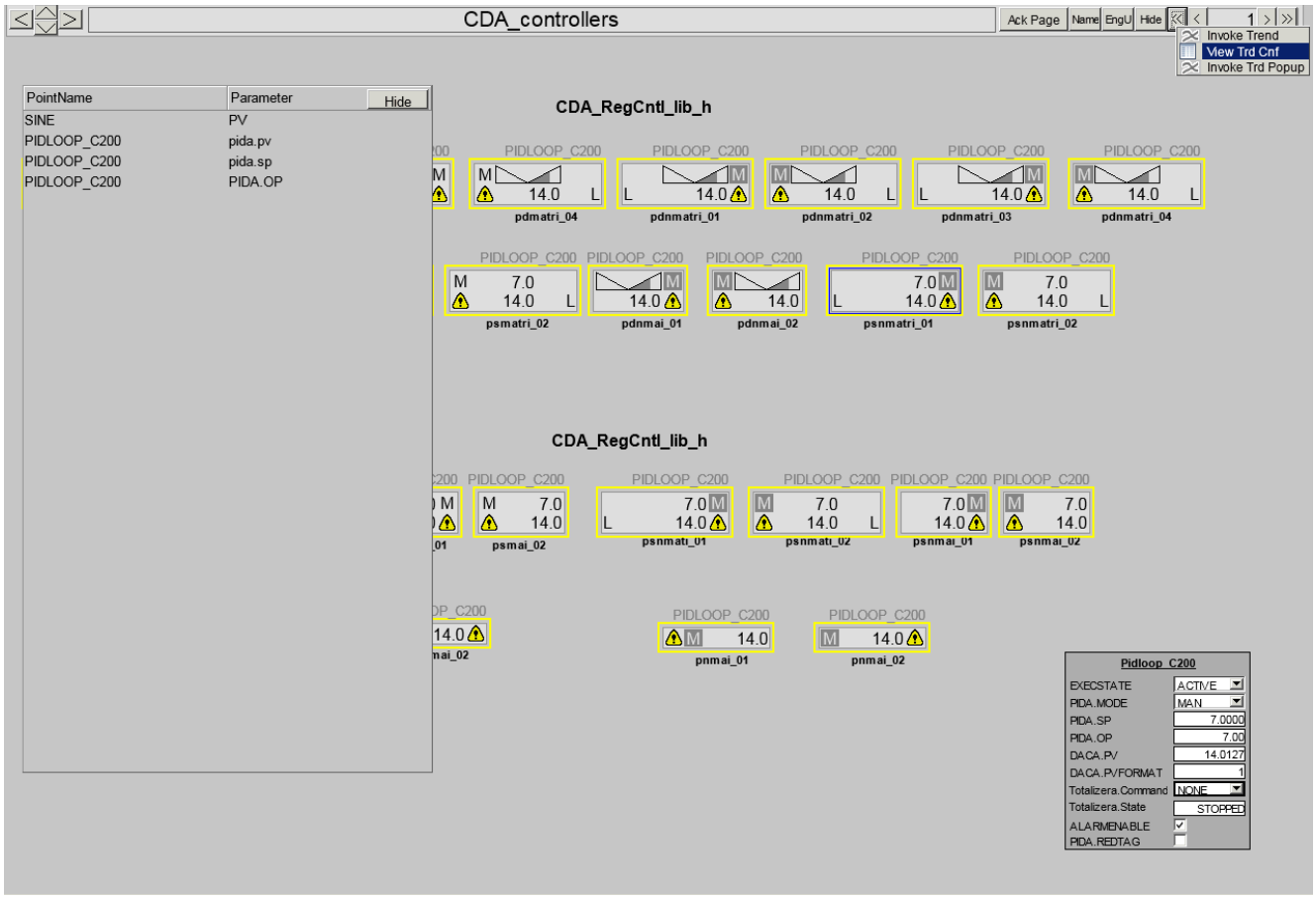


Figure 6: Trend Group Configuration Table in a display

- **Invoke Trd Popup**: this will invoke a trend popup window for the current selected trend group as indicated by the trend selector shape in Figure 4.
- **Suppression status**: This option navigates the operator to a dedicated Alarm suppression display where all dynamic suppressions are shown.

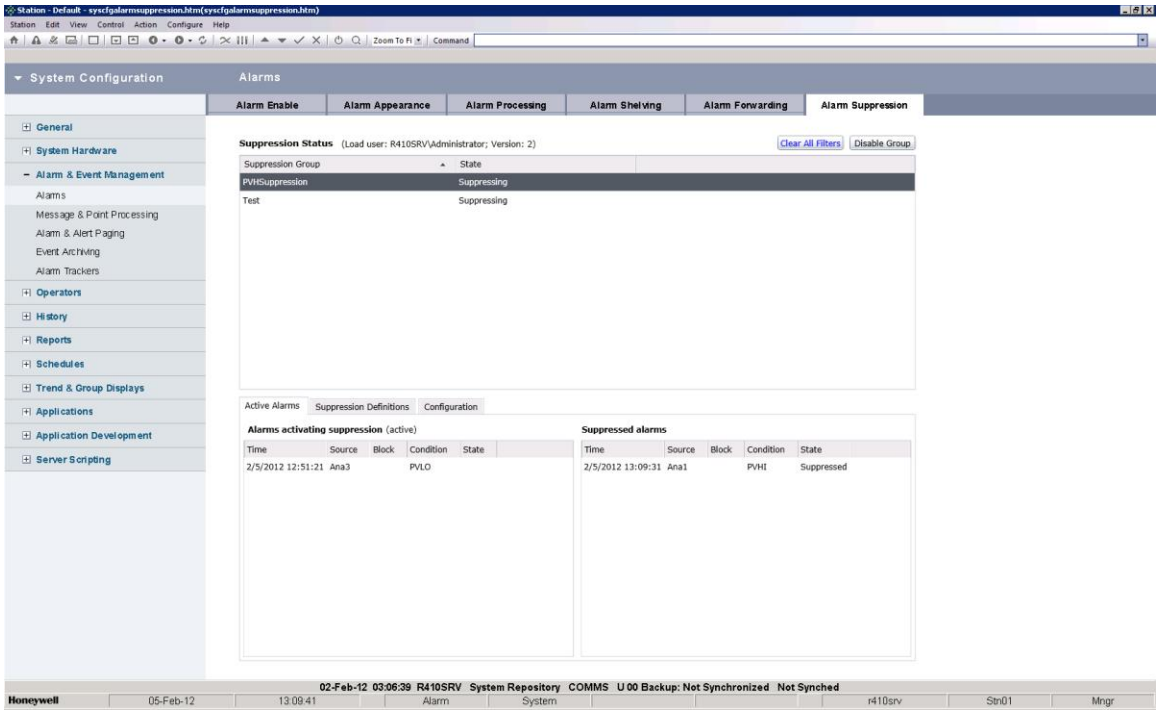


Figure 7: Dynamic Alarm suppression display

- **Alarm Help**: This option works in conjunction with Honeywell Alarm configuration manager. It will open a separate faceplate to show information from ACM.

3.5 Show hide functionality for objects and shapes

To reduce the amount of details in operating displays, users have the possibility to hide objects using the ‘Show and Hide’ mechanism. This is NOT the same as the Show / Hide Engineering Units and Tagname. The operator can, for example, decide to hide or show instrument lines and selectors or other additional information in the displays. With the show hide functionality multiple ‘Show and Hide’ objects can be defined in one display.

Figure 8: Show hide buttons for objects

3.6 Tabbed displays

Display tabs can be used for navigation between displays. They also provide a visual link to observe the behavior of the alarm-state and alarm-priority on the tab related display. A Navigation Zone using these “tabs” should be ideally located at the top of the Level 2, Level 3 and if applicable Level 4 displays.

The example in Figure 9 shows a line of display tabs representing the different process units that will be positioned on the top of each Level 2 display. Selecting any of the Level 2 display tabs in the top of the display will invoke the selected Level 2 display. When the display Yoking function is configured its corresponding Linked Level 3 and 4 displays will automatically appear in their assigned

SafeView window. Display Yoking functionality is part of the Advanced HMIWeb Solution Pack, see for more details Chapter 6 Advanced HMIWeb Solution Pack

The task of navigating to different related operating displays, which require timely operator action, is further assisted by indicating the highest and active alarm priority in the corresponding display for each tab. The tabs will indicate the highest alarm in any tag within that alarm group for that graphic (one per tab). The alarm status for a Level2 display tab is based on the roll-up of the alarm status of the points in all of its “children” Level 3 displays.

The following Tabbed Display objects are available:

- **With alarm functionality:** In this version, the alarm is presented as a colored tab. The colored tab represents the associated alarm color (Low High Urgent) as configured in the system wide settings.
- **With and without Display Yoking:** In the version with Display Yoking functionality, the different “yoked” are simultaneously displayed whenever a tab is selected. These yoked higher level displays provide higher level of process details. (Display Yoking is part of the Advanced HMIWeb Solution pack library)
- **Without alarm functionality and without Yoking:** In this version, the tab presents just a link to a related display defined in its custom properties.

Figure 9: Example of Tabbed Display

Chapter 4 Shape documentation and object names

The above sections explained the behavior that is common to most shapes. This section describes how standard HMIWeb SP shapes have been documented.

4.1 Shape documentation

Each shape is provided with a separate document. This document consists of three sections describing the different information that might be required by difference audience, details are shown below:

Section	Description	Aimed audience
Overview	General Object information, that is, Name, Product, revision number. Comprehensive shape drawing showing all component objects and their type (dynamic, static or Invisible DB connection).	Customers Engineering Implementation
Shape Examples	Presentation of shapes under various process conditions varying from the simplest to the most comprehensive presentation.	Customers Engineering Implementation
Implementation Details	This presents all engineering details. This information is required to understand how to use the shapes and how the shape was implemented.	Engineering Implementation

Table 12: Shape description

4.1.1 Shape overview

The Overview section contains the following information:

Objectname	The objectname gives a brief functional description of the shape.
Revision number	Rxxx, where xxx indicates the revision number
Revision date	Date of mentioned ‘Revision number’
Filename	The Filename explains the main functions via the name. The syntax used for HMIWeb shapes is described on the next page.
Product	Indicate the product: Process, SCADA, TPS-HPM, TPS-HG, FF
Description	Normal presentation Abnormal presentation Alarm presentation Menus

Symbol	Drawing of the shape including all component objects. The component object name contains a letter that specifies whether it is S(tatic) / D(ynamic) / C for invisible DataBase C(onnection).

Notice! When you create project custom shapes which are based on existing HMIWeb SP shapes; it is advised to modify the name of the base SP shape. The shape name is changed by adding a prefix at its beginning. This prefix is used to indicative who the customer is or what the project is.

For example: SHL_CDA_RegCntlValve_ISA_h_psomatri_02.sha

Where SHL is an abbreviation of the customer name (SHELL), the rest of the name is the name of the SP shape used as BASE for the new shape.

Finally is functions have been added the name should also reflect the inclusion of these new functions on a separate function block. For example, let's say that the project added the System Interlock Function (SI) to the above shape, the new name will be:

SHL_CDA_RegCntlValve_ISA_h_psomatri_SI_02.sha

Syntax for Objectname

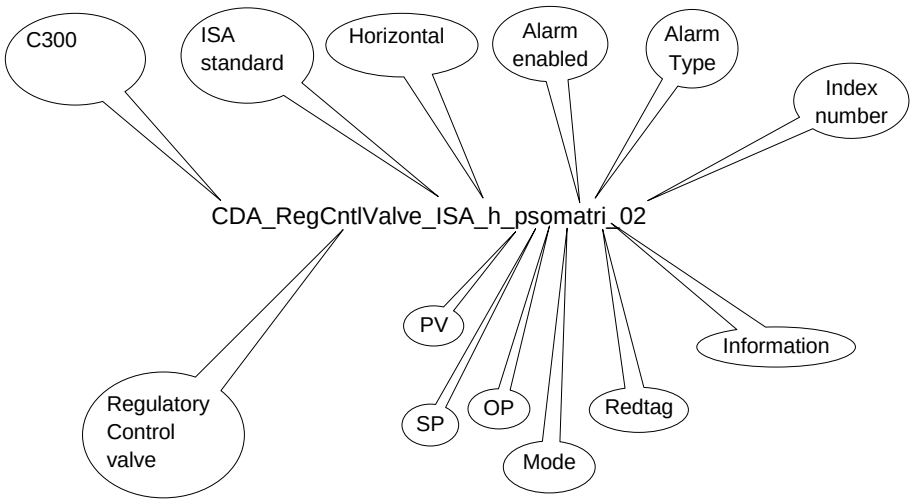
The object name should explain the main functions via the name. The syntax used for HMIWeb shapes is:

<Type>_<Function>_<Reference>_<Orientation>_<Indexnumber>_<Functionality>_<Revision>

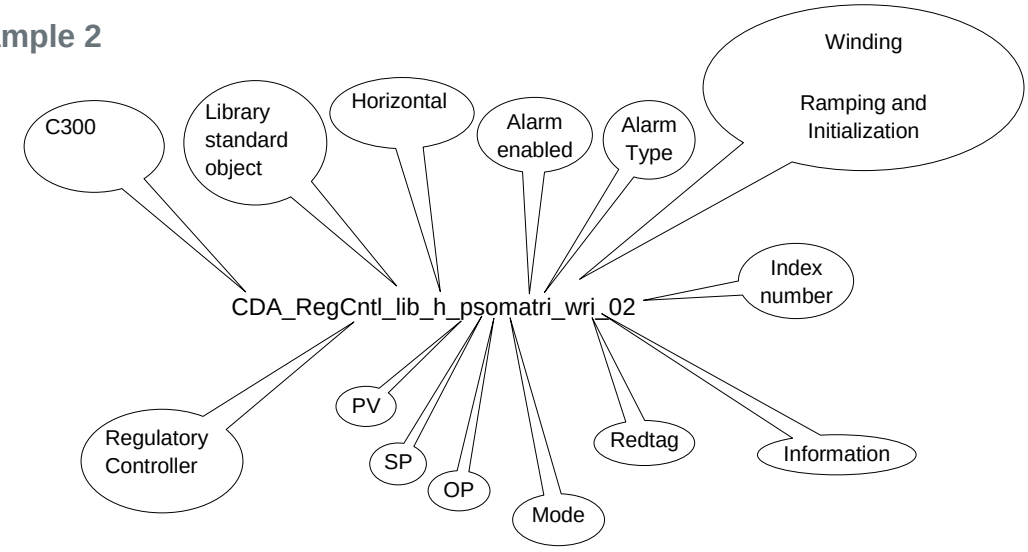
<Type>	**CDA**: C300 **Scd**: SCADA **FF**: Fieldbus **HPM**: Process Manager Family of controllers(TPS) **HG**: Hiway Gateway (TPS) **All**: Common
<Function>	Abbreviation of main function, for example: **RegCntl**: Regulatory control **Motor** **RegCntlValve**: Regulatory control valve **And so on**
<Reference>	Standards: **ISA** **DIN**, **lib**(rary) ***Abb****(reviation)* project reference

<Orientation>	**h**: horizontal **v**: vertical **r**: right **l**: left <Indexnumber>: Number to identify variant shapes
<Functionality>	**p**: PV **s**: SP **o**: OP **d**: Deviation |PV-SP| **m**: Mode **a**: Alarming enabled, including alarm priority, alarm acknowledge, point inactive, bad pv and error **t**: alarm type **r**: redtag **i**: information presentation; tagname or eng. Units
<Control Added Functionality>	**w**: winding functionality **r**: ramping functionality **i**: initialization functionality **nma**: normal mode attribute

Example 1



Example 2



4.1.2 Shape examples

This section contains color drawings of all possible situations:

Defaults:

- Normal and selected
- Normal with ‘Show Text’
- All possible alarm situations
- All possible abnormal situations
- The maximum number of visible objects

4.1.3 Implementation details

This section defines all properties and behavior of all individual objects. Using various tables, the objects are defined:

- Shape Custom Properties
- Overall Behavior
- Selection Indication
- BadPV Behavior
- Alarm Priority Behavior
- Alarm Disable Behavior
- Dynamic Value Behavior
- Inactive Point Behavior
- Communication error Behavior
- Dynamic Colors Behavior
- Alarm Type Behavior
- Tagname Behavior
- Static Objects
- Database Connection Objects Properties

Chapter 5 Special displays

The HMIWeb Solution Pack contains a set of library objects to create ESD, Cause & Effect and Fire & Gas displays. There are separate libraries for Safety Manager Advanced Integration, SCADA, HPM and HG. The library to support Safety Manager Advanced Integration contains shapes, faceplates, and detail displays.

5.1 HMIWeb Solution Pack ESD display

Each trip display is divided into 3 main areas:

- At the left: the input blocks (trip conditions)
- In the middle: the trip block status (normal or tripped)
- At the right: the output blocks (trip actions)

The input blocks are connected to the trip block in the middle. In some cases the input blocks are connected via MOS (Maintenance Override Switches) or other logic functions to the trip block.

At the right side of the display the output blocks are placed to show the action of the SGS system in case of a safety trip, per connected device. The output blocks are normally just static information.

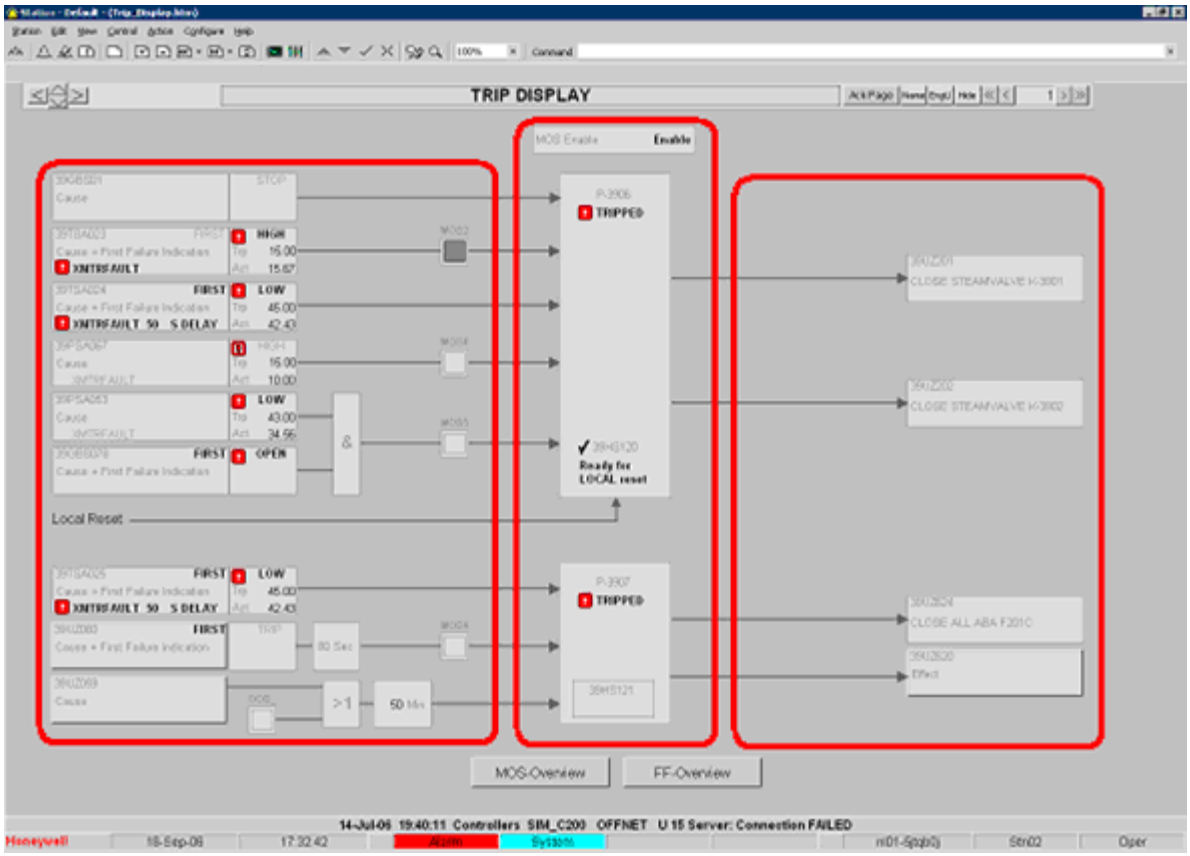


Figure 10: Trip Display Overview

5.1.1 Input blocks (Trip Conditions)

The trip display below show at the left side of the display shapes representing the cause of a safety trip with the following information:

- Tagname
- Description
- First Failure indication
- Trip Alarm
- Trip Value
- Analog value
- XMTR (transmitter) fault
- XMTR (transmitter) fault delay time

Several shapes are provided to allow users to create a solution consisting of a mix of the above features.

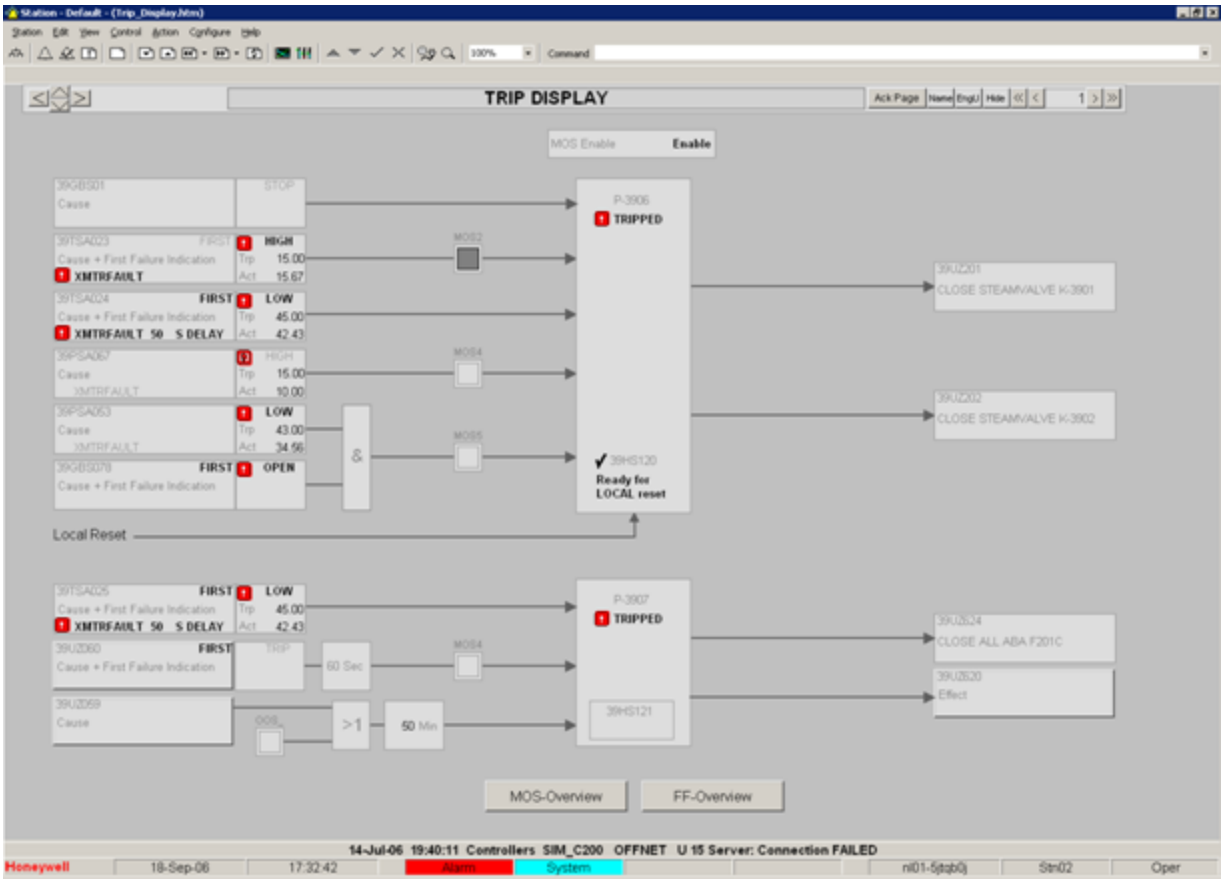


Figure 11: Trip display example

Figure 12 shows two shapes; at the left side a shape showing the First Failure and Transmitter Fault, while the shape at the right side shows the actual trip condition. The trip input functionality is split over two shapes, making it easy to make different combinations of input blocks. See Figure 10 and Figure 11 for some examples of different combinations of input blocks.

For the detailed behavior of each input block to the corresponding shape, see the shape documentation.

Input block

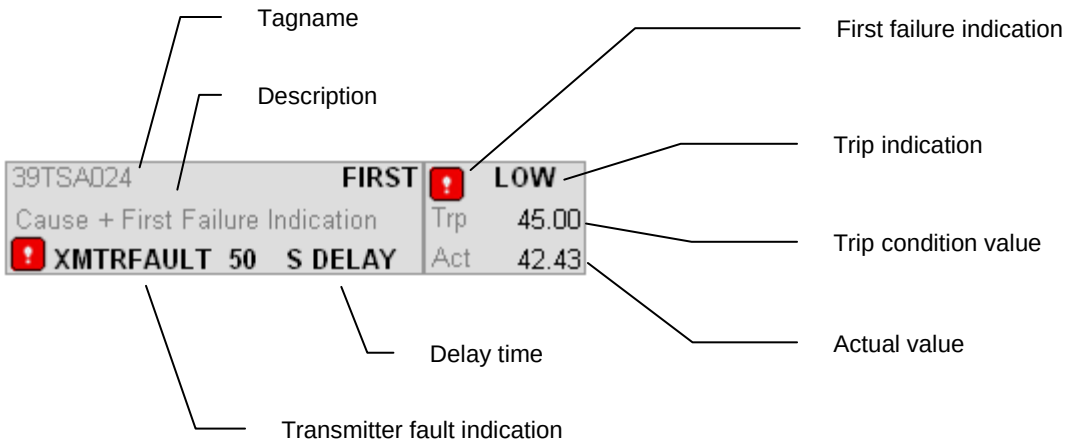


Figure 12: Example input block

Tagname

The tagname of the corresponding trip transmitter

Description

The description of the input signal

Transmitter Fault indication and delay time

The Transmitter Fault indication will show a possible transmitter fault. Some shapes also support the indication of a delay time. When a transmitter fault occurs, the text changes from light grey to black and bold. These color changes are defined in the cascading style sheet.

First Failure

The First Failure indication shows if the trip input connected to this block was the first within a “first failure” group. Under normal conditions, the text is light grey, if the first failure for this input block becomes active, it will change to black, bold. All these dynamic color changes are defined in the cascading style sheet.

Trip indication

The trip indication identifies the type of trip that is occurring. For example if the trip indication shows “LOW” it will become active (black & bold) when the current value goes below the trip value. These dynamic color changes are defined in the cascading style sheet.

The trip condition value may sometimes be a parameter available in the system. In other cases it’s a hardcoded value in the display. The value is hardcode, because it is not available from the safety system. In these cases, different shapes will have to be used.

The example on the previous page shows an analog input based trip. Of course, it's also possible to have a trip on a discrete condition (for example, open or close). In these cases the actual value and the trip value will not be shown.

Analog value (Actual value)

The analog value (indicated by Act) shows the current value of the input signal. Upon left click the related faceplate will be invoked. A right mouse click will activate a shortcut menu with the following menu items available:

- AlmAck
- Detail
- Trend
- Group
- Associated display

Trip condition value

Below the trip alarm text the trip value (indicated by Trp) is shown (for example, 45).

Other examples of input blocks are shown in the figure below.

Figure 13: Different combinations of trip input shapes (trip conditions)

5.1.2 MOS, OOS and logic

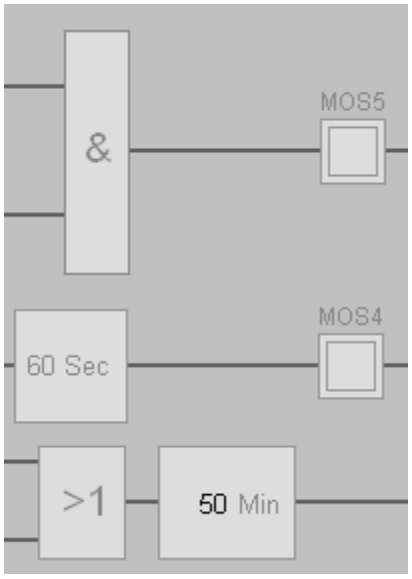


Figure 14: MOS/OOS and additional logic to input blocks

MOS/OOS indication

The MOS/OOS indication consists of a square with the text “MOS” or “OOS” above it. The square shows the status of the MOS/OOS.

Situation	Box fill color	Remarks	Example
Normal	Background color		
Override	Blinking orange	MOS in “override”	

Table 13: MOS indication

A left mouse click will invoke the faceplate, a right mouse click will invoke a shortcut menu with the following menu items available:

- AlmAck
- Detail
- Trend
- Group
- Associated display

Additional logic

In addition to the MOS and OOS, other logic can be added to a trip display. The user has a choice to use standard Solution Pack shapes available for this purpose. Another option is to use (static) standard HMIWeb display builder objects, such as rectangles and text objects.

5.1.3 Output blocks (trip actions)

The output blocks at the right of the screen show the trip action. The text can be specified per block. To prevent misunderstandings between current value and trip value, the text will only show the action taken when a safety trip occurs.

In case there is a link with another trip block on another display, the (button) shape may be used to navigate to that specific display. The second shape in the figure below illustrates the shape configured to navigate to another display.

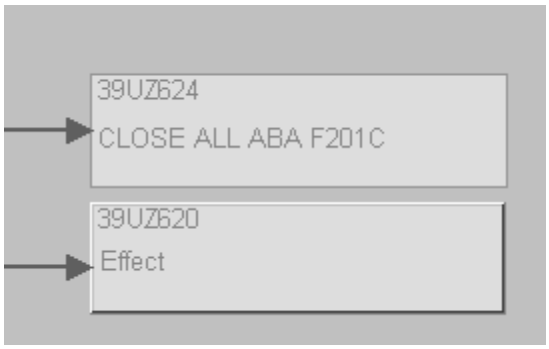


Figure 15: Output blocks (trip actions)

5.1.4 Trip block

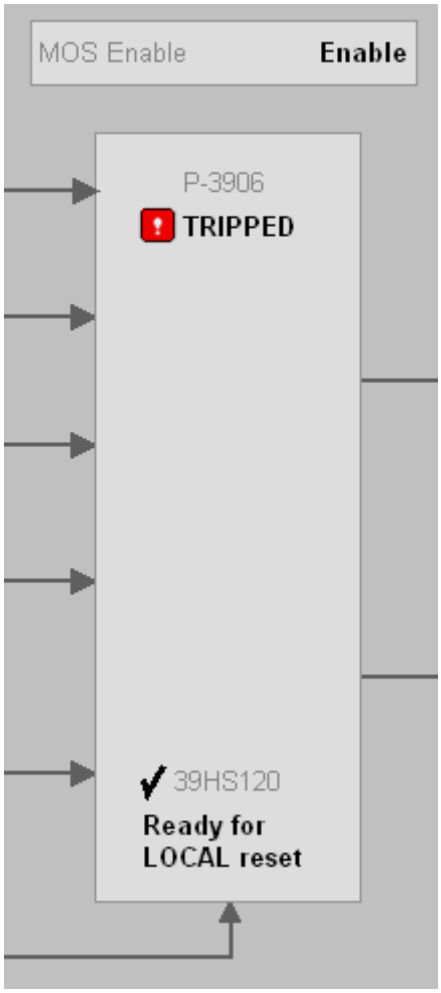


Figure 16: Example trip block

MOS enable

The MOS Enable signal is shown above the trip block. When the text “Enable” is shown in black bold format it means that the respective MOS group has been released for use. The MOS release is executed via hardwired MOS switches on the MOS panel.

Trip indication

The trip block in the middle shows an actual trip is active or not. This is indicated by the text at the top of this block together with the alarm icon:

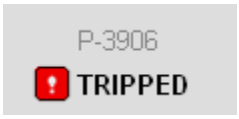


Figure 17: Trip block in tripped state

Trip reset

There are two possibilities to reset a trip block, either from the DCS itself or via a manual hardwired switch.

Reset button

In case the trip block has to be reset by an operator via the trip display, the text “RESET” will be shown at the bottom of the trip block. The text above “RESET” is configurable and usually shows the name of the tagname used to reset the trip block. The ✓sign indicates that the trip block is ready to be reset. By hitting the RESET text area, a faceplate will be invoked which will allow the operator to execute a reset.

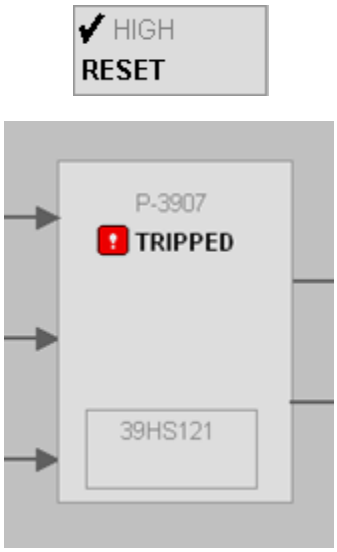


Figure 18: DCS Trip-Reset

Hardwired manual reset switch

In case the trip block has to be reset via a hardwired reset switch, another shape must be used. The text “Ready for LOCAL RESET” in black and bold format and the ✓-sign will be shown at the bottom of the trip block to indicate that the trip block is ready to be reset.

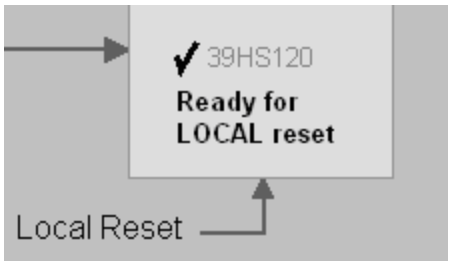


Figure 19: Hardwired Trip-Reset

When the trip block has been reset, the text color changes to grey.

5.1.5 Navigation to other displays

Navigation to other displays can be divided into:

- Navigation to preceding linked trip blocks (input linked)
- Navigation to consecutive linked trip blocks (output linked)
- MOS overview displays
- First failure overview displays
- Standard display navigation

Examples are shown below.

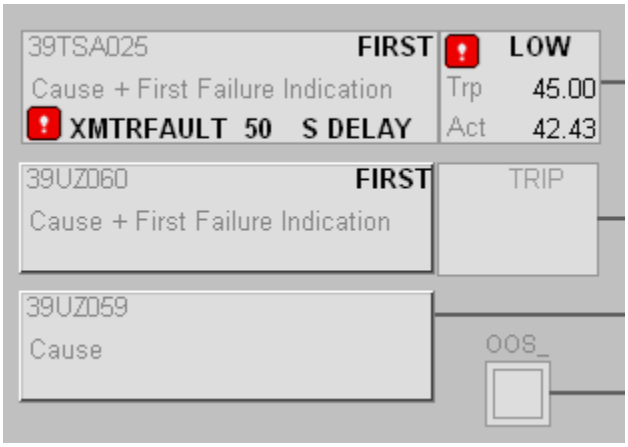


Figure 20: Navigation to preceding linked trip blocks

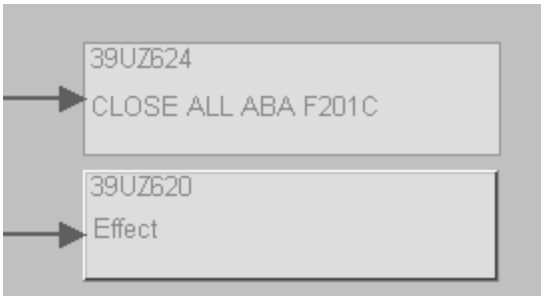


Figure 21: Navigation to consecutive linked trip blocks

When the input / output blocks are shapes like a button, they can be selected to invoke the display with the corresponding trip block. This can be used to show the actual cause or to link trip displays (linked trip blocks).

Figure 22: Navigation to associated MOS-Overview & First Failure Overview displays

Figure 23: Standard display navigation option

This option allows you to navigate to the previous or next trip display, parent display (trip or process) and child display.

5.1.6 First failure overview display

This display shows an overview of all first failures per first failure group. When a first failure signal is selected, the corresponding trip display will be invoked. A first failure can only be reset from this display. *By left clicking* the “RESET-FF” button, a faceplate will be invoked *to* allow the resetting of the first failure group.

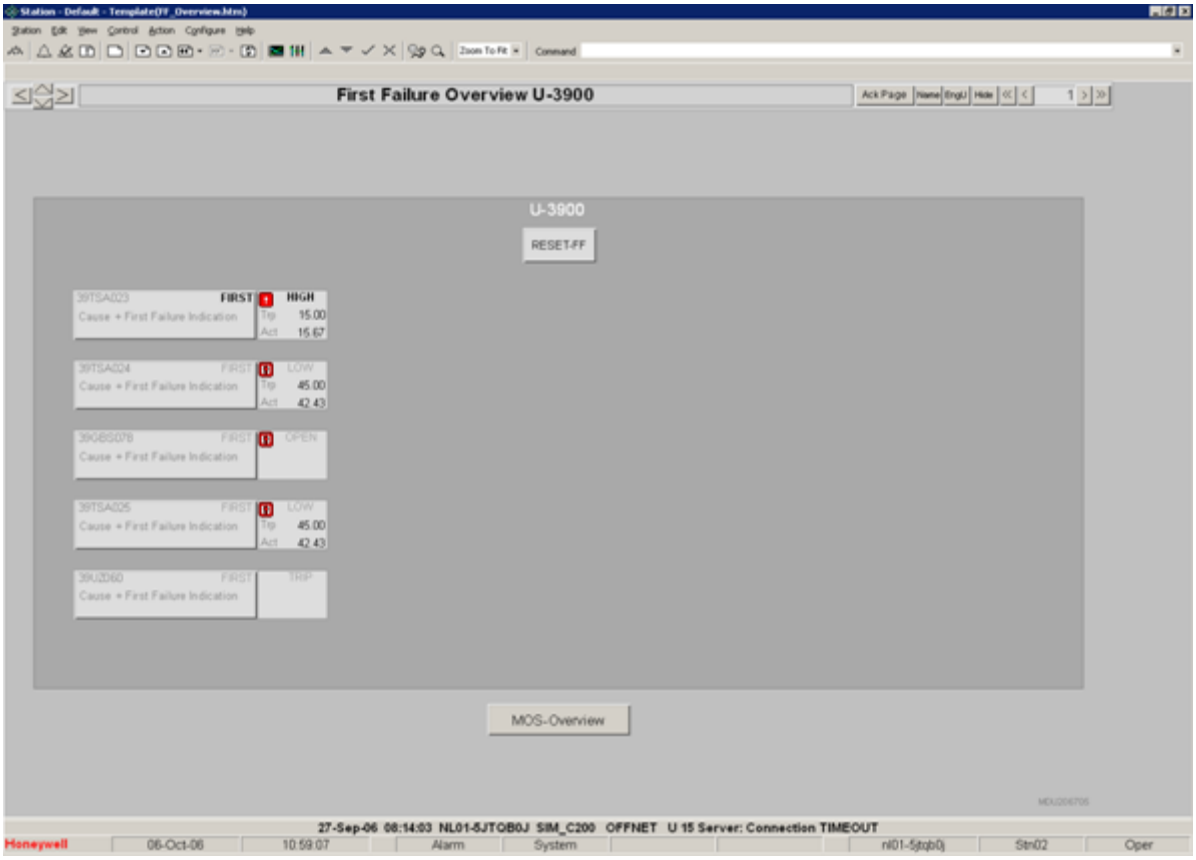


Figure 24: First Failure Overview display

5.1.7 MOS overview displays

This display shows an overview of all MOS switches. When a MOS group has been released, the text “”RELEASE” will show black and bold, otherwise it will show in a light grey color

When the MOS button is selected, the corresponding trip display will be invoked.

When the MOS indicator is selected, the corresponding MOS will be shown in a faceplate.

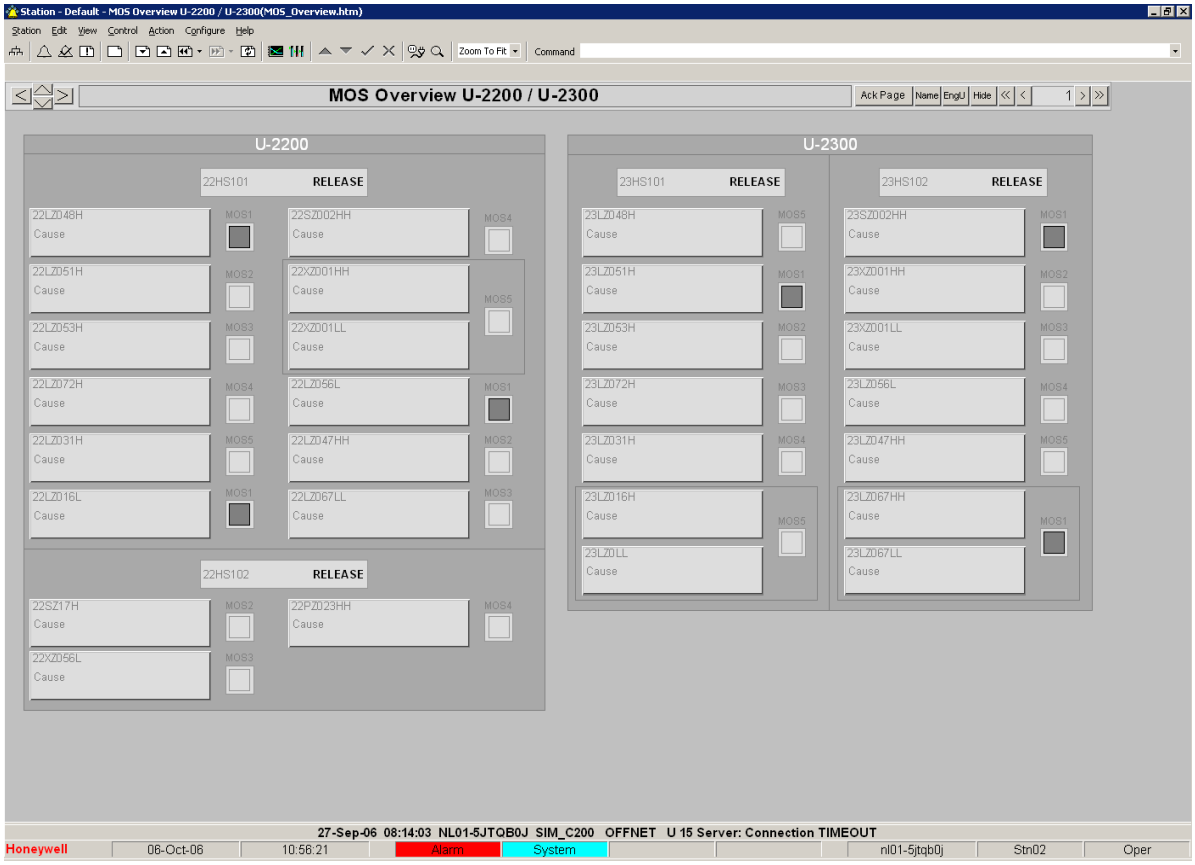


Figure 25: MOS overview display

5.2 Cause and Effect display

The Cause & Effect (C&E) display shows the inputs and outputs related to safety configuration in a matrix form. The size of the matrix is adjustable from very small (theoretically 1x1) to large (max 20x20). If larger matrices are required, then their functionality has to be spread over different C&E displays. The display is arranged in four areas as indicated below

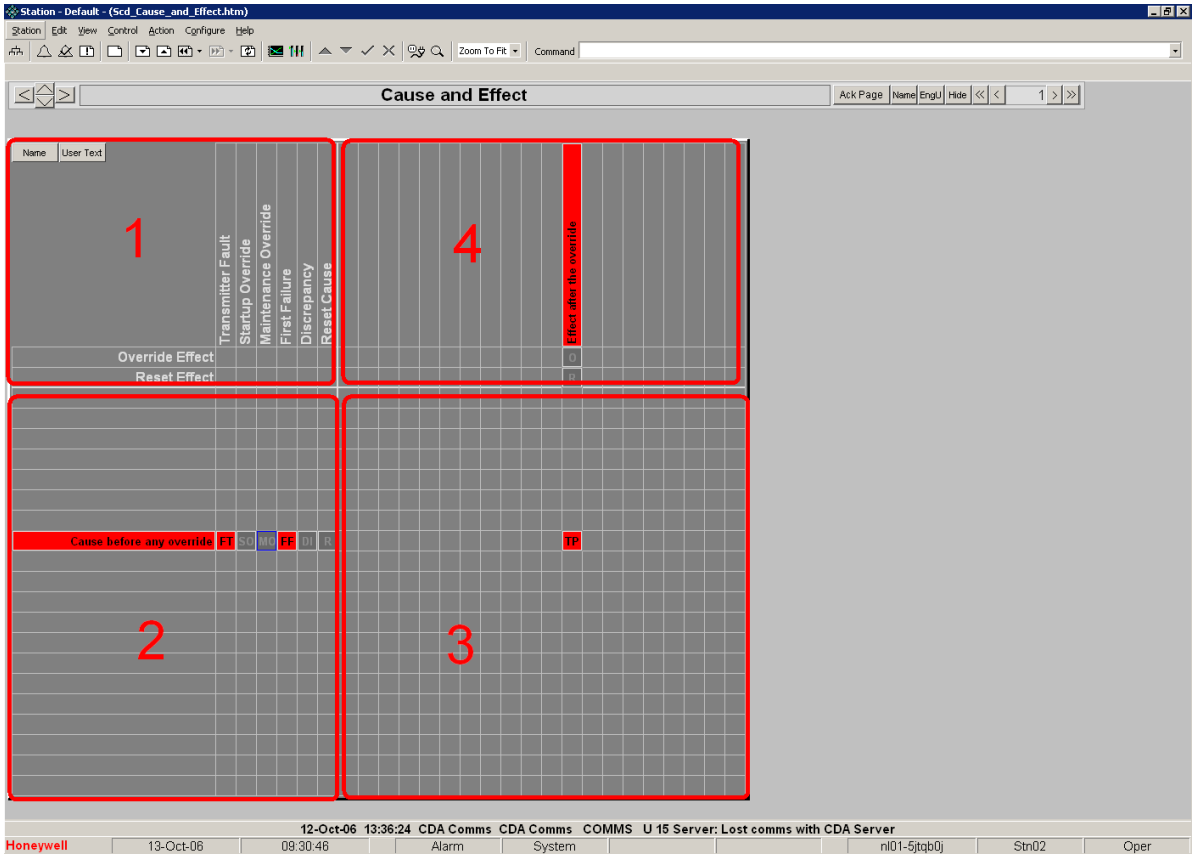


Figure 26: Cause & Effect display

Area 1

Area 1 is showing the titles for the various rows and columns used in the Cause & Effect matrix. These titles are configurable using some of custom properties of the shape. When a certain function is not required in the C&E matrix, the title for that function can be left blank. However, the column or row will stay reserved for that function (the matrix will not automatically shrink).

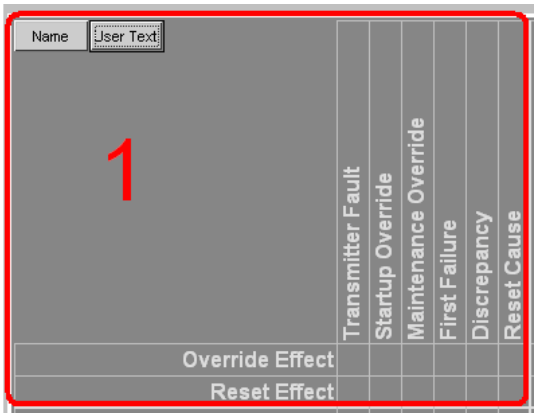


Figure 27: Cause & Effect: Area 1

Horizontal titles:

- Override Effect
- Reset Effect

Vertical titles:

- Transmitter fault
- Startup Override
- Maintenance Override
- First Failure
- Discrepancy
- Reset Cause

In the upper left corner of the title area there are two buttons (Name and UserText). They allow the user to change the text of the cause input block and effect output block. This text can change from tagname into a more meaningful descriptive text. This text is defined by custom properties (see next page).

Area 2

Area 2 is showing the “cause” section of the C&E matrix. The red rectangle with black text is showing the input from the SGS that is the actual cause. This can either be shown as tagname or as a descriptive text as shown below. The descriptive text is defined with the custom properties of the shape.

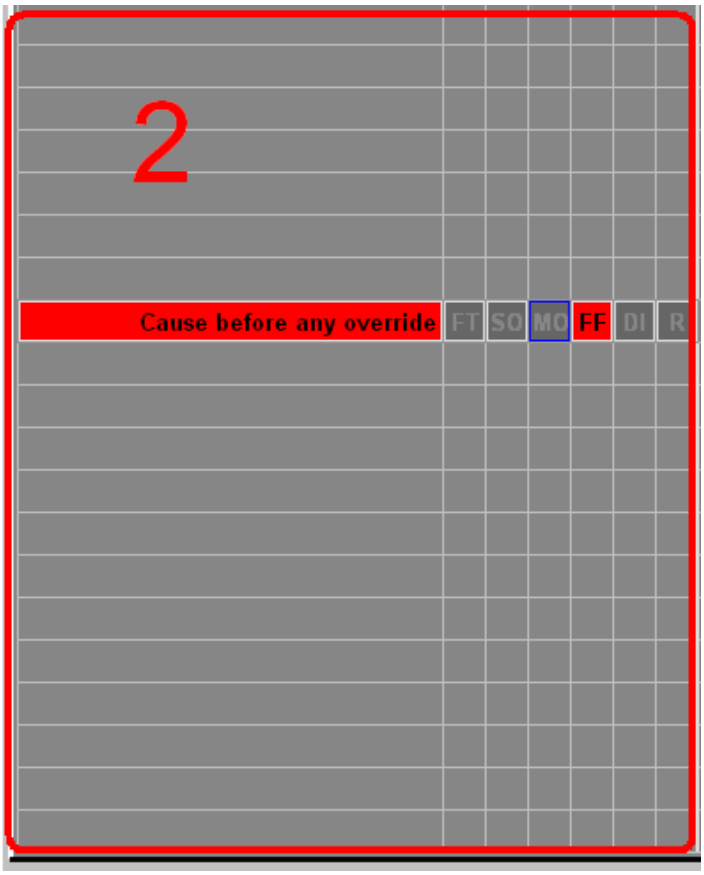


Figure 28: Cause & Effect: Area 2

This “cause input” shape is directly related to up to six other shapes. These shapes are related to this “cause” input and can be shown to indicate transmitter fault, startup override, maintenance override, first failure, discrepancy and reset cause. All of these, of course, related to that cause input. These shapes are equipped with alarm behavior. They will blink when they go into alarm.

Manual actions like activating the Maintenance Override or StartUp Override normally do not have configurable alarm behavior. This is the reason why the background color of manual actions will change into light grey when they are activated (see Maintenance Override “MO” in below picture). The style settings that define the way they look (color, font style, and so on) are configurable using the CSS.

The text inside the six small shapes is also configurable through the shape custom properties. Left mouse selection of any of these shapes will invoke a corresponding faceplate. However, if desired, the faceplate call can be disabled. This is done by means of one of the shape custom properties.

Figure 29: Cause & Effect: Cause input related shapes

Upon right click of any of the shapes a context menu will appear. This context menu is equipped with standard HMIWeb Solution Pack functionality such as alarm acknowledge, detail display, and so on It is advised to configure an associated display for the MOS and “first failure” that will link them to “first failure” and MOS overview displays as described in sections 5.1.6 and 5.1.7.

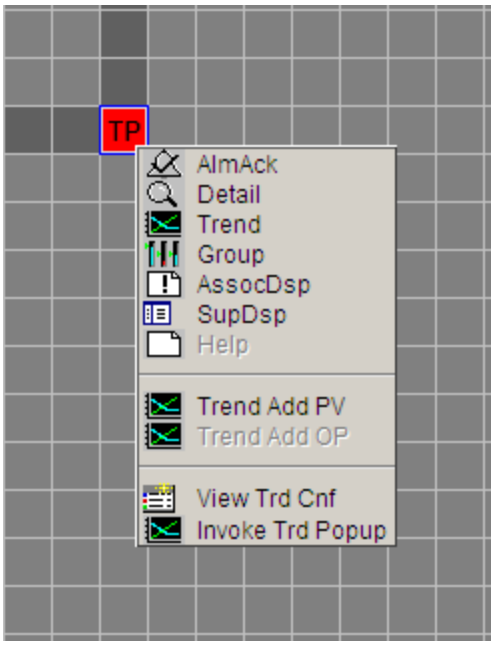


Figure 30: Shortcut menu

Area 3

Area 3 displays the actual trip status input after combining the “cause input” with the Start-Up Override and Maintenance Override. The logic for this functionality is located in the SGS system. Upon selection of this shape, the corresponding row and column will be highlighted as shown below. This shape has an alarm behavior, meaning it will blink and show the alarm priority color when it is active (assuming alarm behavior has been configured for this point). When inactive, the color will change to dark grey, which is configurable by means of CSS. The text inside the shapes is also configurable by means of shape custom properties.

Selection of this shape with a left mouse click will invoke the corresponding standard faceplate, although this could be disabled by means of shape custom properties, if desired.

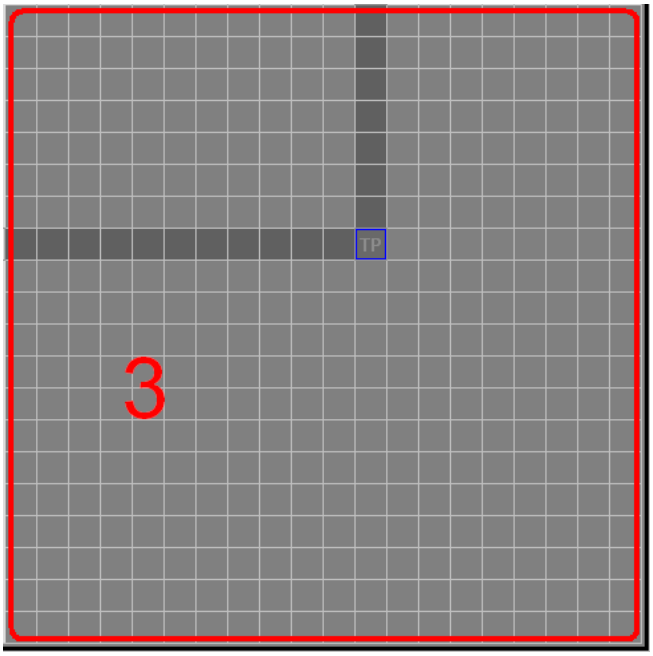


Figure 31: Cause & Effect: Area 3

Upon right click of this shape, a shortcut menu will appear with standard HMIWeb Solution Pack functionality such as alarm acknowledge, detail, and so on It is advised to configure an associated display for the connected point to link it to a corresponding process display

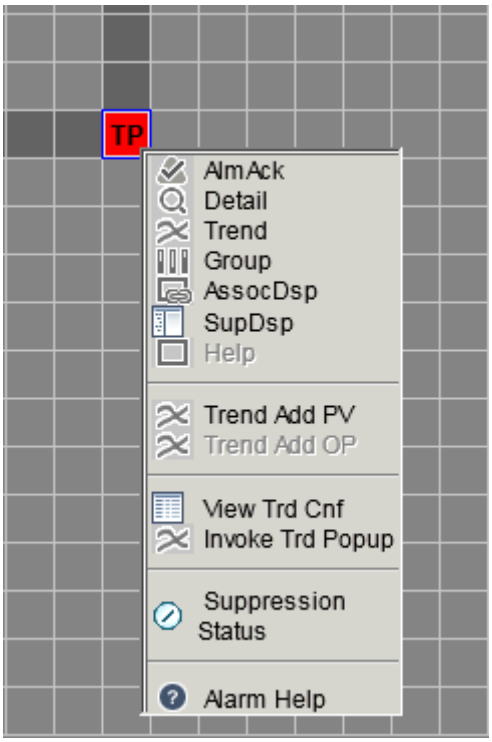


Figure 32: Shortcut Menu

Area 4

Area 4 shows the final result (“the effect”) using a vertical rectangle (see red rectangle below). For a specific output, we can show if the safety logic provides the possibility to manually override “the effect” or reset “the effect” using the two small shapes (O & R) shown below. This will be the visual result to show “the effect output”.

The behavior of the “effect output” is similar to the “cause” input shape. This shape can have alarm behavior when alarm is configured for its specific point. The behavior of the “effect override” and “reset effect” shapes is similar to the “maintenance override” shape. This is illustrated as an example described for Area 2.

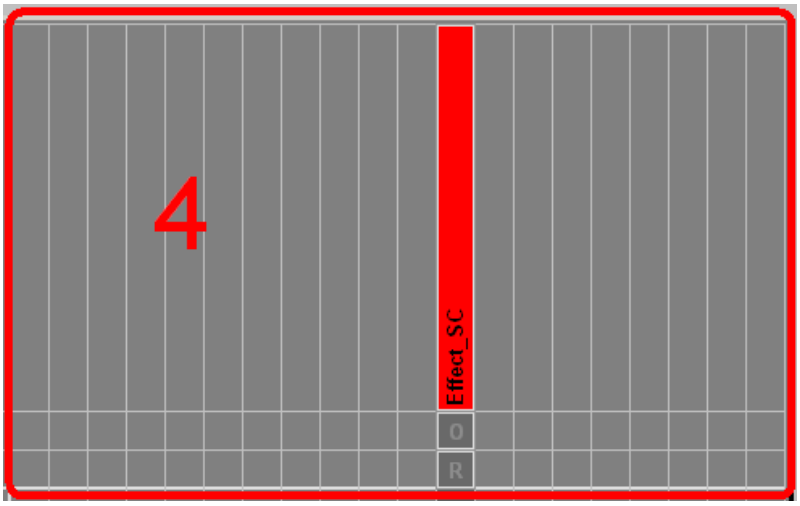


Figure 33: Cause & Effect: Area 4

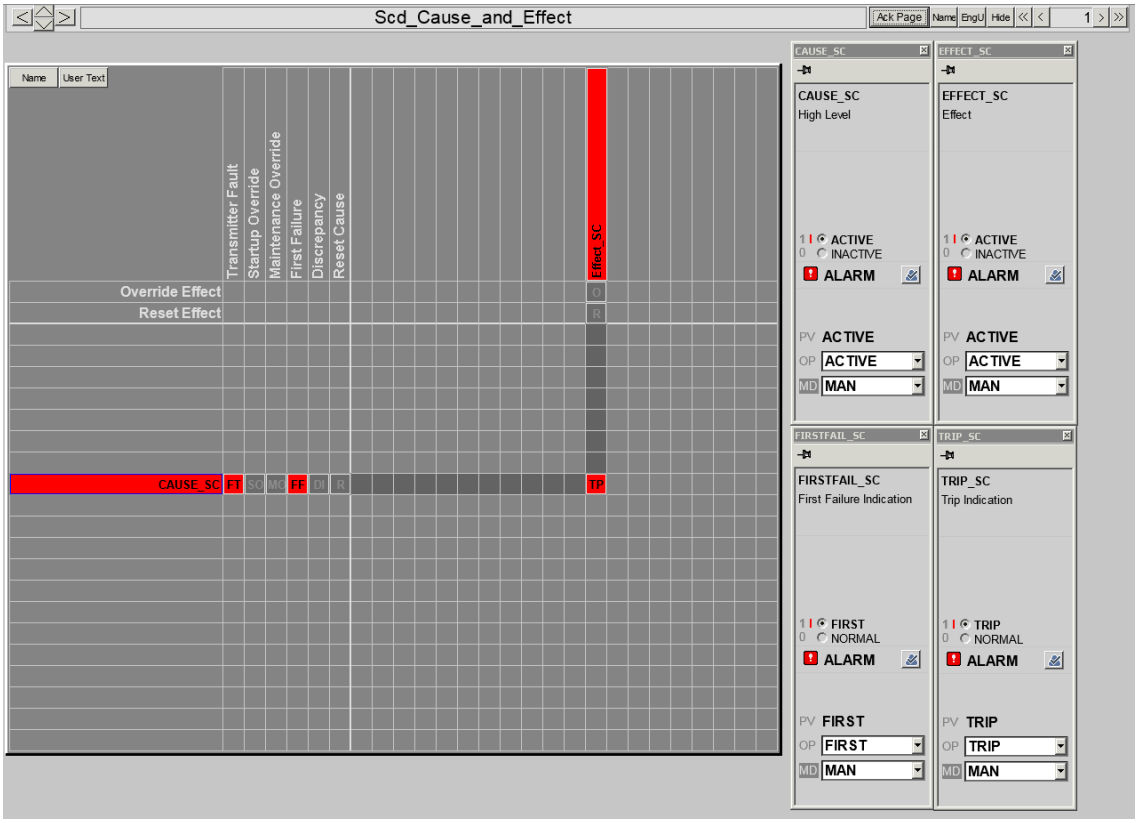
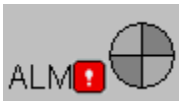


Figure 34: Cause & Effect: Small Matrix Example

5.3 Fire and Gas displays

Fire and Gas (F&G) displays illustrating the physical plant layout specific F&G objects are available presenting detectors and other F&G system components.

There are two types of symbols for the Fire & Gas objects; FGS style and SMS style



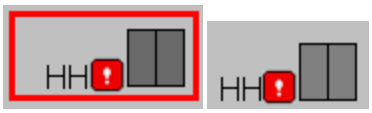
FGS style

SMS style

Normal state

Alarm state

Alarm State is represented using the Alarm Icon object, additional alarm frame object (optional) and dark grey color on the detector body.



Alarm disabled presentation

Inhibit Functionality

F&G Detector alarms may require to be inhibited. If inhibit functionality is implemented in the controller it would also be available in the HMI via additional point/parameter. Both SCADA and CDA F&G shapes support it.

The following examples illustrate the inhibit functionality – additional text object in the shape is used in conjunction with CSS to indicated inhibited status:

Inhibit requested (but not confirmed) – white “INH” text on dark grey background visible.

Detector Inhibited – black “INH” text visible.

Error indication

SP F&G shapes also support the standard Execution Status/Error indications

Inactive/OffScan indication – black “X” over the detector body.

Configuration/Communication error indication – magenta “?” on top of the detector body.

F&G layout examples

The following figure illustrates an example F&G layout containing some of the F&G shapes available in the library.

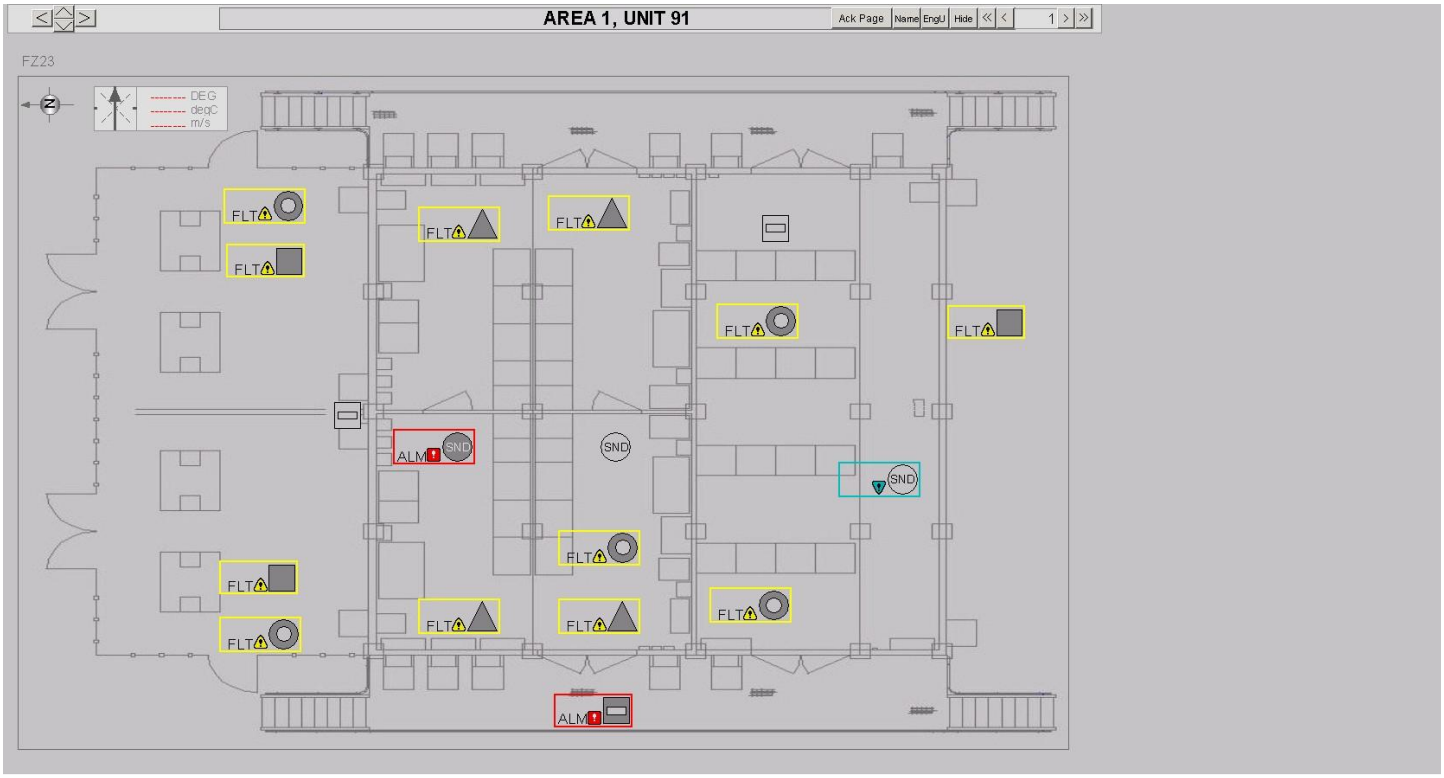


Figure 35 Example F&G layout for a single area

5.4 Sequence Shape Displays

The sequence shape is utilized on displays to graphically represent Experion RCM and SCM points. Because these points define a sequence of events, the sequence shape allows the user to “drill” down to the detail level of the sequence and effectively interact with the R/SCMs.

There are two cases that the sequence shape supports:

1. Complete representation of the sequence.
2. Complete representation of the sequence consolidated into stages

Case 1 – Complete Representation

In case 1, the sequence shape is utilized to show a direct representation of the R/SCM.

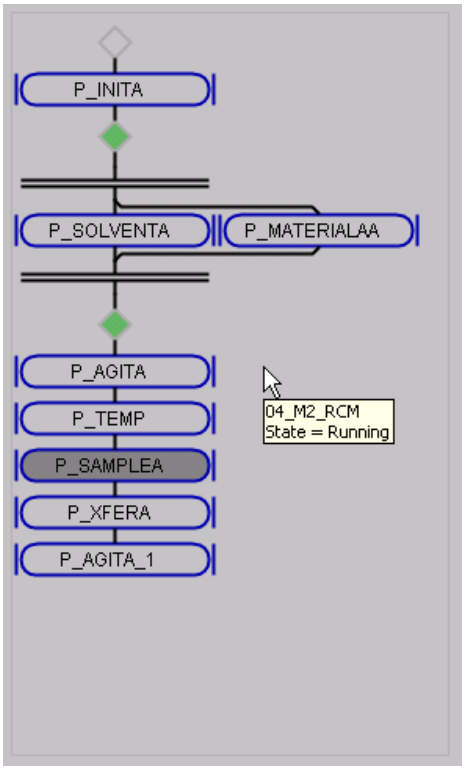


Figure 36: Example of Complete Representation of the Sequence

Case 2 – Complete Representation Consolidated into Stages

In case 2, the sequence shape is utilized to show a direct representation of the R/SCM with consolidated (collapsed) user defined blocks. These consolidated user defined blocks may be a series of steps and transitions that are illustrated as a single block known as stages. The figure below shows the same sequence as in Figure 36 with steps “P_SOLVENTA” and “P_MATERIALAA” illustrated as a single stage “Add Materials”.

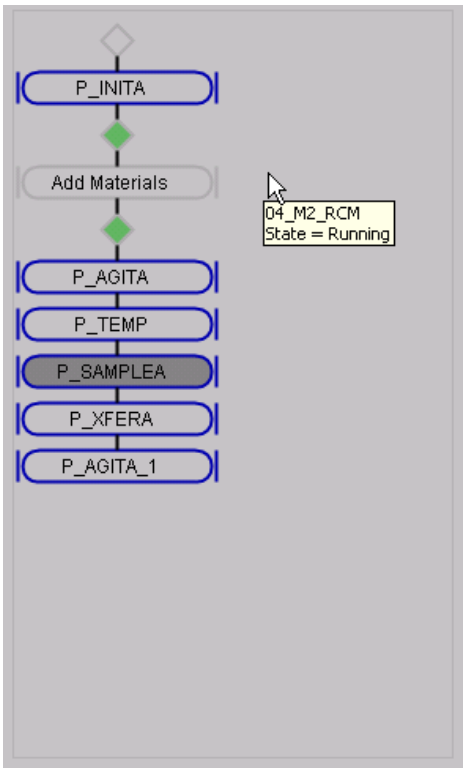


Figure 37: Same sequence as shown in Figure 36 with a consolidated stage

Hierarchy Navigation Buttons

There are two hierarchy navigation buttons. The first being a carrot where, upon click, will navigate the user up one level to the parent R/SCM. The second being a “T” where, upon click, will navigate the user to the top most R/SCM in the hierarchy. Refer to the figures below.

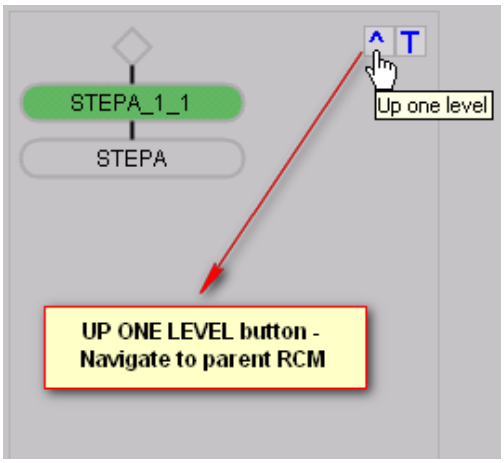


Figure 38: Navigate one level up

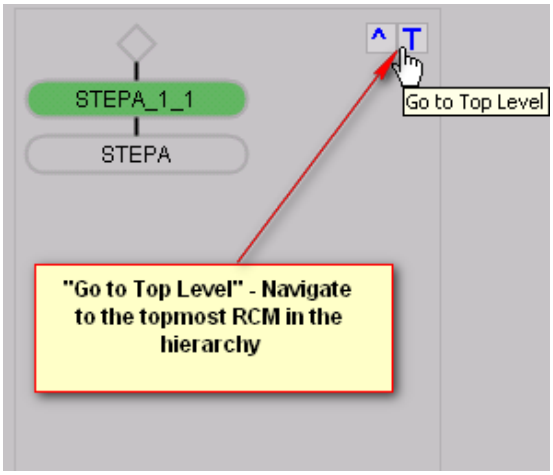


Figure 39: Navigate to the topmost R/SCM

Context Menu

A right-click on the sequence shape will display a number of actions directly related to the shape itself. Refer to the figure below for a more detailed look at the context menu.

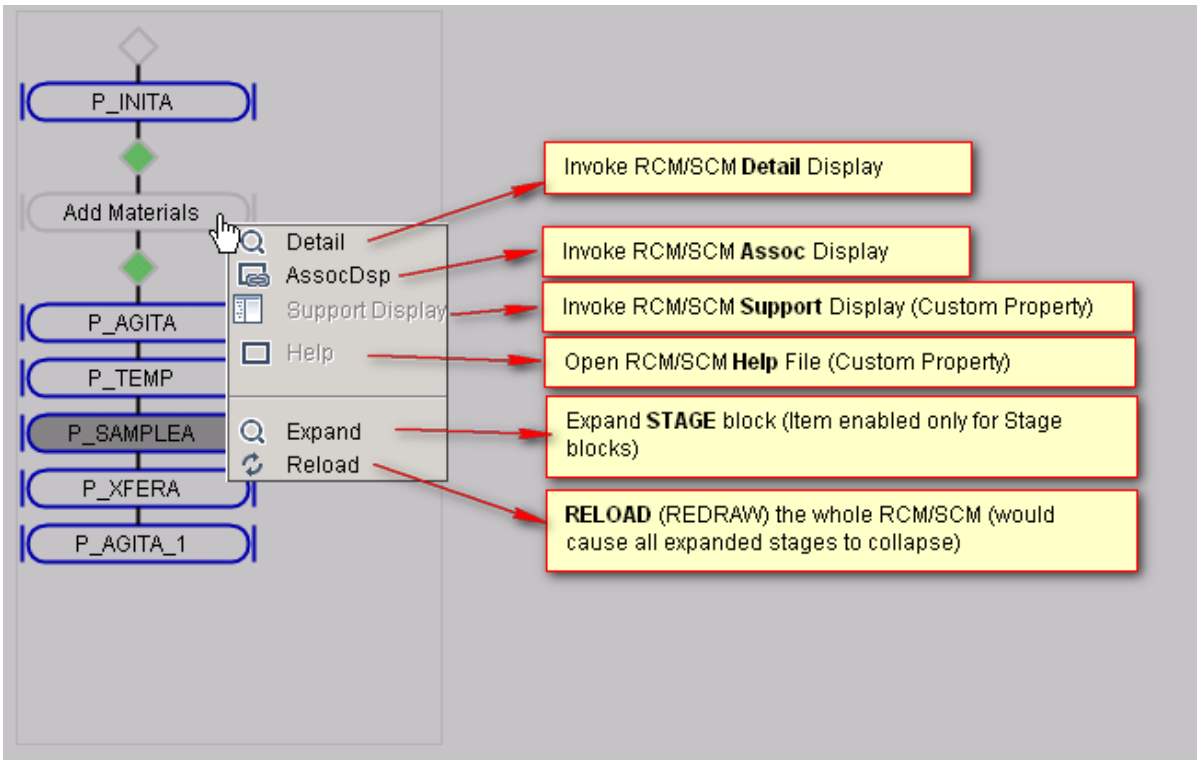


Figure 40: Sequence shape context menu

Chapter 6 Advanced HMIWeb Solution Pack

The ASM Consortium conducted a study in 2006, under the project name of Visual Thesaurus, to identify information visualization techniques that could be feasibly deployed using the existing operator display technology and at the same time improve operator's ability to detect important process changes in a span-of-control overview display. This study was the basis for the Advanced Solution pack library. The Advanced Solution Pack library contains new functionality and a set of qualitative display shapes designed for direct perception of qualitative changes in the state of the process, for example, normal to abnormal or abnormal to alarm.

6.1 Display yoking

The picture below shows the example of display yoking configuration for a two-by-two monitor configuration. This configuration enables operator to view related displays according to the selected display.

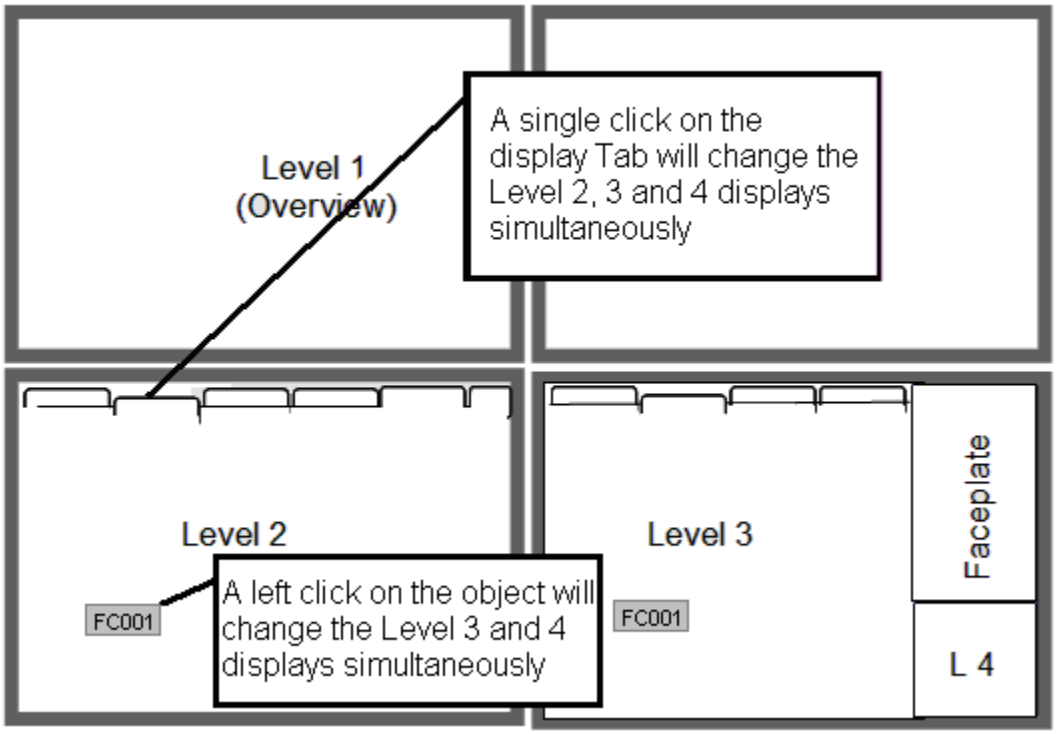


Figure 41: Example of display yoking

When using a multilevel display hierarchy, each display level must be assigned to a specific monitor/window. The objective is to simultaneously show different display levels with increasing levels of detail. This improves the situational awareness of the operator thus avoiding the "tunnel view" syndrome. Using Yoking allows the operator not to have to "drill into" the process detail from the overview displays thus losing view of the "big picture". Display yoking is a navigation technique that allows invoking subsequent, lower level displays automatically.

There are two ways to invoke linked displays (yoking)

- From the navigation tabs at the top in the displays
- From the objects in the displays

The example in Figure 41 shows both options to invoke linked displays.

Example 1: By selecting another level 2 display from the navigation tabs the Level 3 and 4 displays underneath that level 2 display (in the hierarchy) will be invoked.

Example 2: By selecting a dynamic object on a Level 2 display an immediate call brings to view its related Level 3, 4 and faceplate. These displays contain information associated with the same tag linked to the dynamic object.

The linked display information is defined in the “SP_Database”. Within this database, there are 3 tables.

- **“level2_links”** contains all Level 2 displays with their corresponding Level 3 display correspondence.
- **“level3_links”** contains all Level 3 displays with their corresponding Level 4 display correspondence.
- **“TagnameYoking”** this database contains tag names and their corresponding Level 3, Level 4 or other supporting displays

6.2 Principal and Associated Focus functionality

With Principal and Associated Focus functionality all related functions a control scheme will be automatically highlighted. The selected object will get the Principal Focus. All related objects will be highlighted with the Associated Focus background color. This is very useful with highly complicated control schemes.

This functionality is based on a common tag name or can be set externally on a per tag basis in an external database. The Principal and Associated Focus functionality is triggered by the user when selecting an object with a left mouse click.

When an operator selects an object on a display, the object’s tag name will be assigned to an entry in the database were the associated tags are defined. The display retrieves from the database the tag names of the tags which are associated with the principal (focus) tag.

The Principal and Associated Focus functionality allows the user to see the control connections when the information is needed. This helps eliminating cluttering in the display by showing all control relations only when needed. However, complex control schemes can be shown in a level 3 display by the use of instrument lines and control selectors. If required the instrument lines and control selectors can be hidden with the Shortcut menu.

See Figure 42 for an example of Principal and Associated Focus functionality.

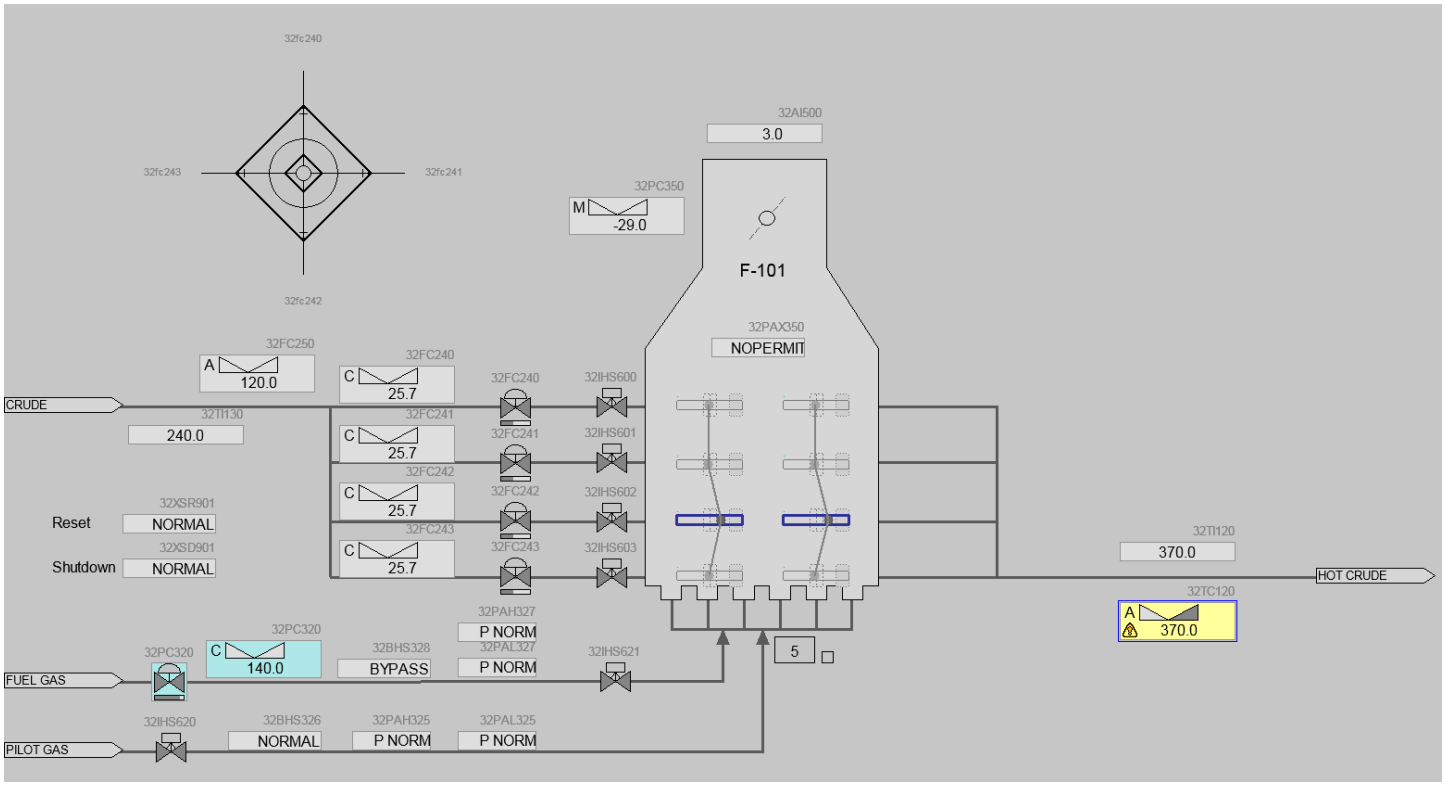


Figure 42: Example of Principal and Associated Focus Functionality

Cross-display focus

A new option is available to apply the Principle/Associated focus across multiple displays in a multi-window station. It could be enabled/disabled via CSS. When disabled each display would maintain its own Principle/Associated selection.

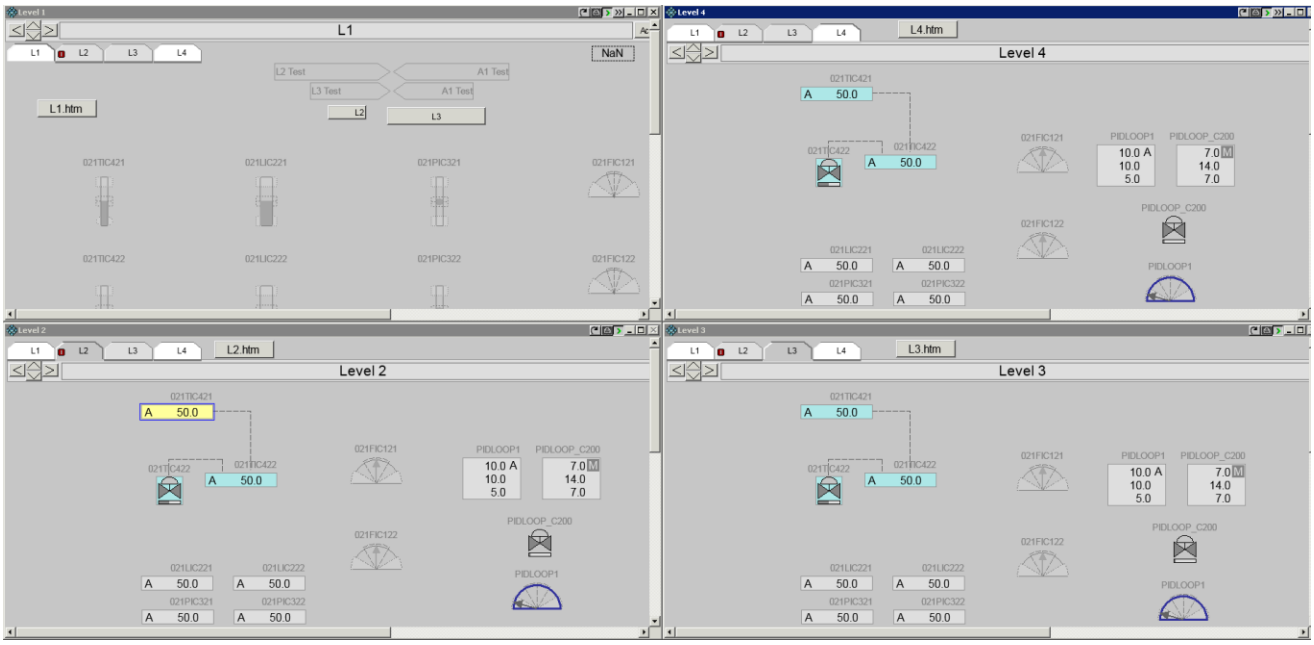


Figure 43 Example of cross-display Principle and Associated Focus

In the example above a shape on the lower left screen is selected by the operator and receives the Principle focus. All related objects on all displays receive the Associated focus selection.

6.3 Radar or polar chart

The radar or polar chart is a graphical method of displaying multivariable data. It does it in the form of a two-dimensional chart of up to eight quantitative variables. Each variable is represented on “radial” axes starting from the same source (center) point. A line is drawn connecting the data values for each axis. This gives the plot a star-like appearance. The radar or polar star is effective on overview displays because it integrates several variables. The variables (values) will create a geometric shape of multiple sides (polygon).

When the variables are normalized and plotted using radial axes it will visually generate a regular (uniform) 8 sided polygon under normal conditions. When the value of one or more of its 8 variables changes (out of alignment) the polygon begins to distort. Humans can notice this distortion very quickly (Pattern Recognition). This is an effective approach to recognize different shape forms and relate them to certain condition in the process. This is especially important since some of these conditions might progress to an abnormal situation. In conclusion, it makes this an object of process health and provides a very effective way of proactively monitor abnormalities in the process.

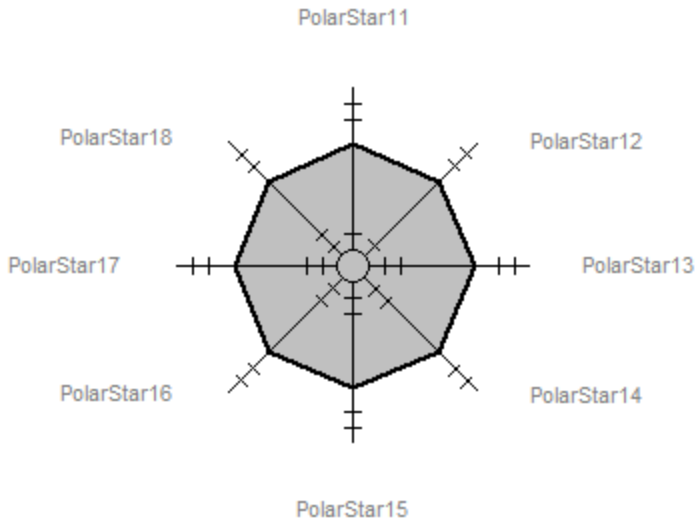


Figure 44: Example of Polar Star

The following radar objects are available

- Linear on non Linear (or normalized) radar objects. In the linear version the relative position is linear to the scale. In the normalized version, the relative position is normalized to the target value. So the radar object will show a normalized circle when all values are on their target value independent of their scale.
- With and without Alarm icon. In the version with alarm icon the alarm behavior will be presented by the alarm icon, this version is normally used for displays where operator action is required. In the version without alarm icon the alarm is presented as a colored dot. The colored dot represents the alarm color (Low High Urgent) based on the alarm color configuration in the system wide settings. When the alarm is returned to normal and the alarm is not acknowledged the colored dot will show no alarm color. This object is normally used on large video walls were no operator action is required.
- With and without OP indication.

Figure 45: Example of Polar Star with and without alarm icon

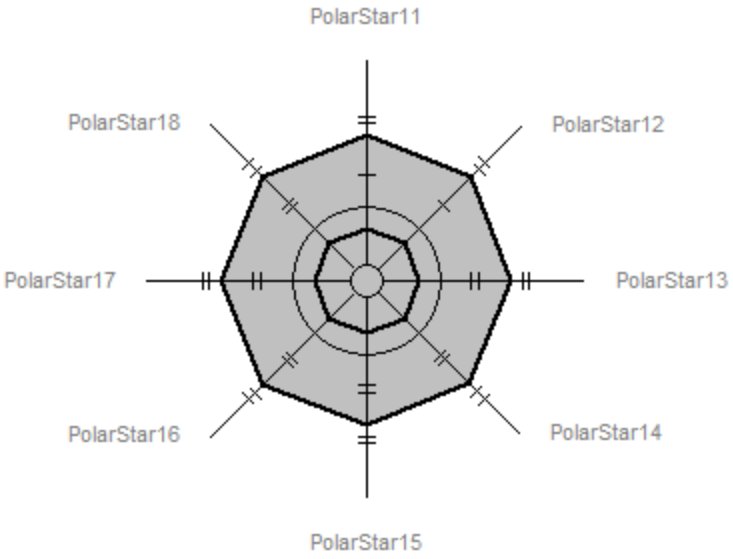


Figure 46: Example of Polar Star with OP indication

6.4 Deviation Profile

The profile object has a vertical line in the center that deviates from vertical if a problem is developing. This object is developed for overview displays to improve situational awareness. Developing problems can be very easily recognized since humans have a very strong sense of vertical or horizontal lines.

The following Deviation Profile objects are available

- Linear on non Linear (or normalized) Deviation Profile objects. In the linear version the relative position is linear to the scale. In the normalized version, the relative position is normalized to the target value. So the Deviation Profile object will show a line when all values are on their target value independent of their scale.
- With and without Alarm functionality. In the version with alarm functionality, the alarm is presented as a colored dot. The colored dot represents the alarm color (Low High Urgent) based on the alarm color configuration in the system wide settings. When the alarm is returned to normal and the alarm is not acknowledged the colored dot will show no alarm color. This object is normally used on large video walls were no operator action is required.

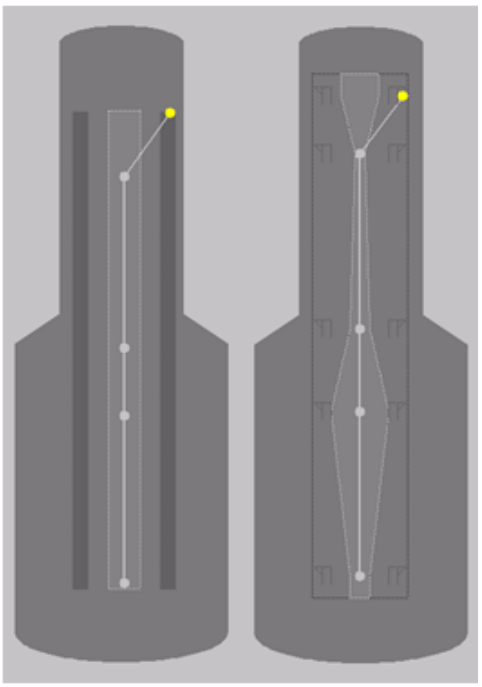


Figure 47: Example of Deviation Profile

6.5 Performance Curve / Surge Monitoring

Performance Curves shows the relation between capacity, head, efficiency, power, and so on. Each pump/compressor/ turbine has its own curve with different characteristics. The working point show the actual (X Y) relation to the specific operating map. The White square shows the actual value and the gray squares the history.

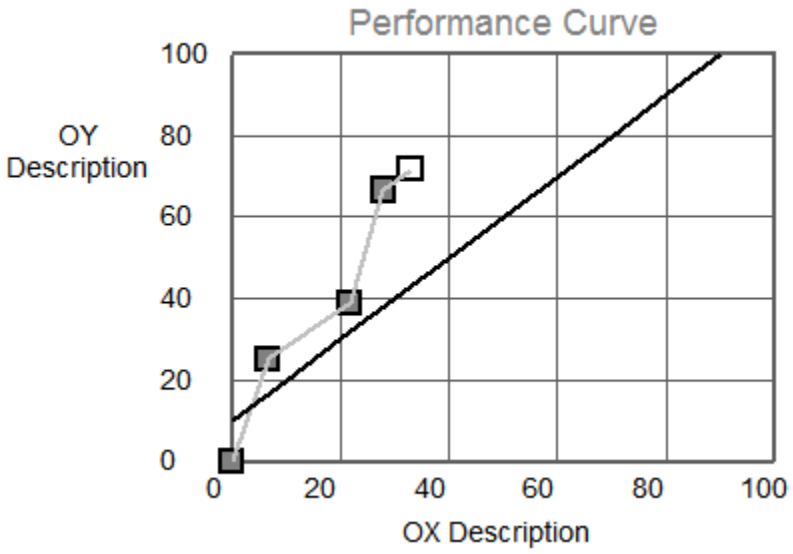


Figure 48: Example of Performance Curve

6.6 Level 1 shapes

This section provides an overview of the Level 1 shapes based on the ASM Level 1 Visual Thesaurus project. The findings of this project demonstrated that the use of the Visual Thesaurus Level 1 shapes (VT-L1) in a Level 1 overview display are more effective for supporting operator situation awareness (SA) performance than the use of quantitative indicators that show the actual process values. SA performance measured in terms of the percentage of significant process changes detected in operator's verbal reports while monitoring the Level 1 displays showed 17% increase in the percentage of changes detected for the VT-L1 shapes and 6% higher SA accuracy.

There are three types of shapes available:

- Analog Gauge
- Qualitative Object
- Controller Object

6.6.1 Analog Gauge

Four analog gauges represent specific parameter types:

- temperature
- pressure
- level

For analog gauge objects, the visual features can show the process value (PV) relative to a set point, normal range, and alarm limits. See Figure 49: An illustration of the four different types of analog gauges. Figure 49 for the different analog gauges.

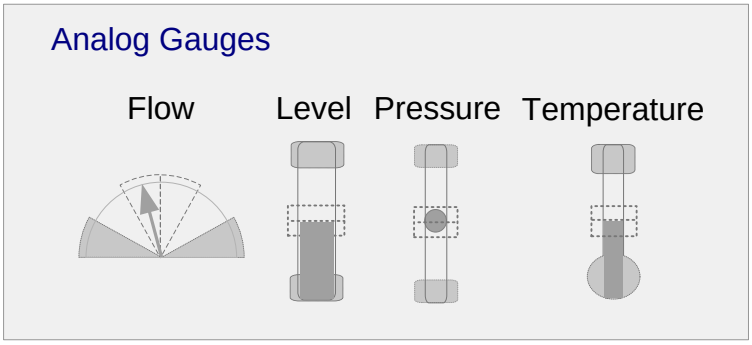


Figure 49: An illustration of the four different types of analog gauges.

When the PV exceeds its normal or alarm limit value the visual coding of the object changes. This draws the viewer's attention (that is, increases in salience). Figure 50 illustrates the potential different visual states of the analog gauge for flow.

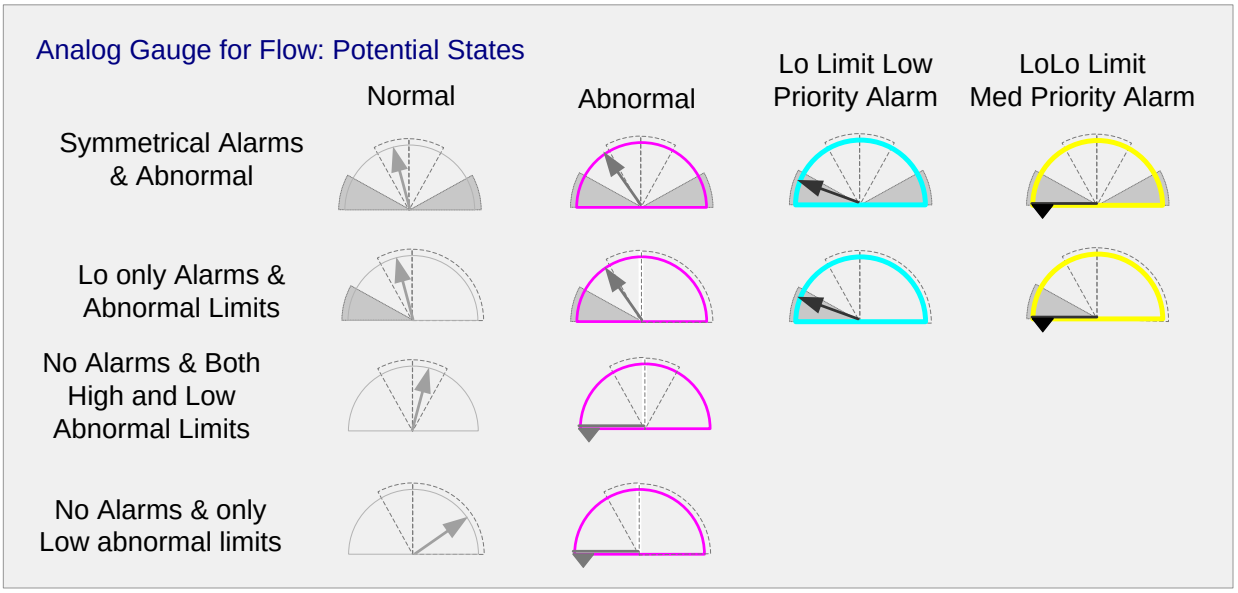


Figure 50: An illustration of the potential different states of the analog gauge for flow.

6.6.2 Qualitative Objects

There are three types of generic qualitative objects: quality indicator, change indicator and deviation indicator (see Figure 51). These objects are generic in the sense that they can be used in conjunction with any parameter type.

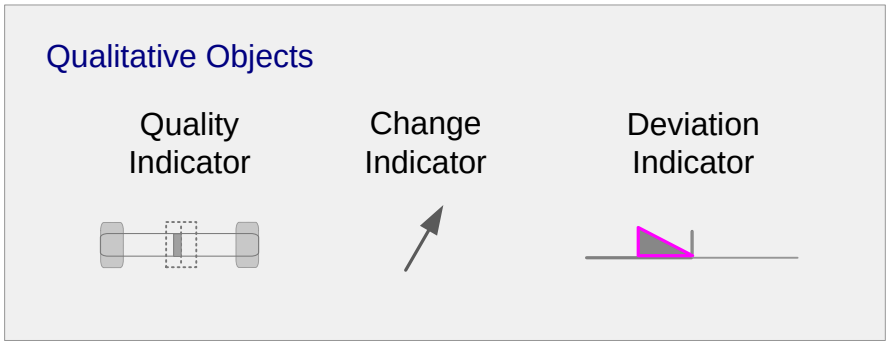


Figure 51: An illustration of three types of generic qualitative objects.

The Quality Indicator is very similar in function to the analog gauge objects. It is typically used with analyzers, inferential points, or calculated points such as reflux ratios.

The Change Indicator is a generic gauge designed to show whether a value is changing or remaining constant relative to a comparison value over a configurable period, such as the average PV over the last 5 minutes. Change is defined as either a moderate or a significant change; these qualitative states are also configurable for any parameter. Figure 52 illustrates the five different possible states of the Change Indicator. The Change Indicator is often used in conjunction with one of the other gauges or objects.

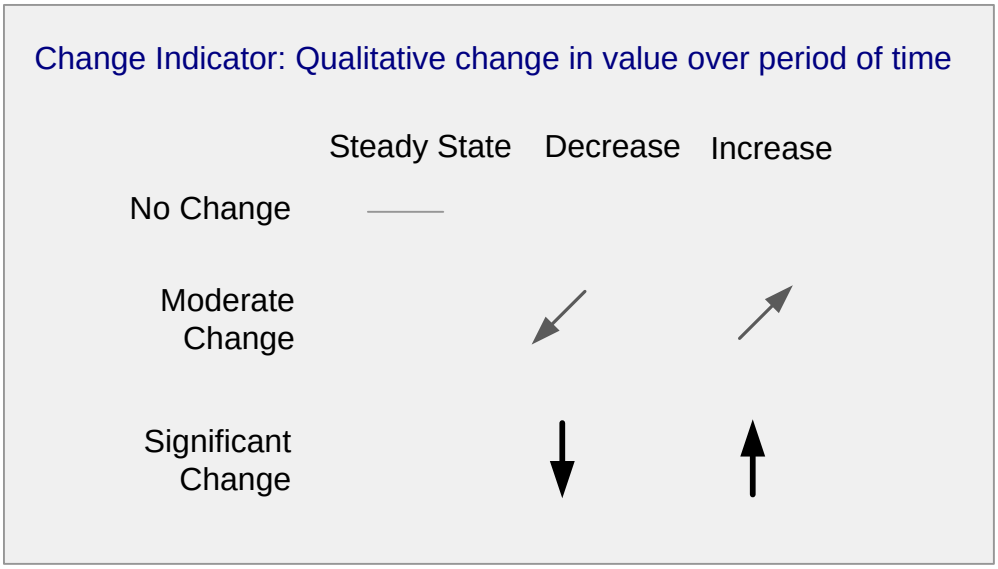


Figure 52: An illustration of the potential different states of the Qualitative Change Indicator.

The Deviation Indicator is also a generic gauge designed to show whether a value is deviating from a target value. Deviation is defined as the difference between the actual value and the expected value, where the value is a SP value, normal range, or PV variance. Figure 53 illustrates potential states of the Deviation Indicator. In addition to showing moderate or significant deviation, the object shows whether the parameter is in an alarm condition.

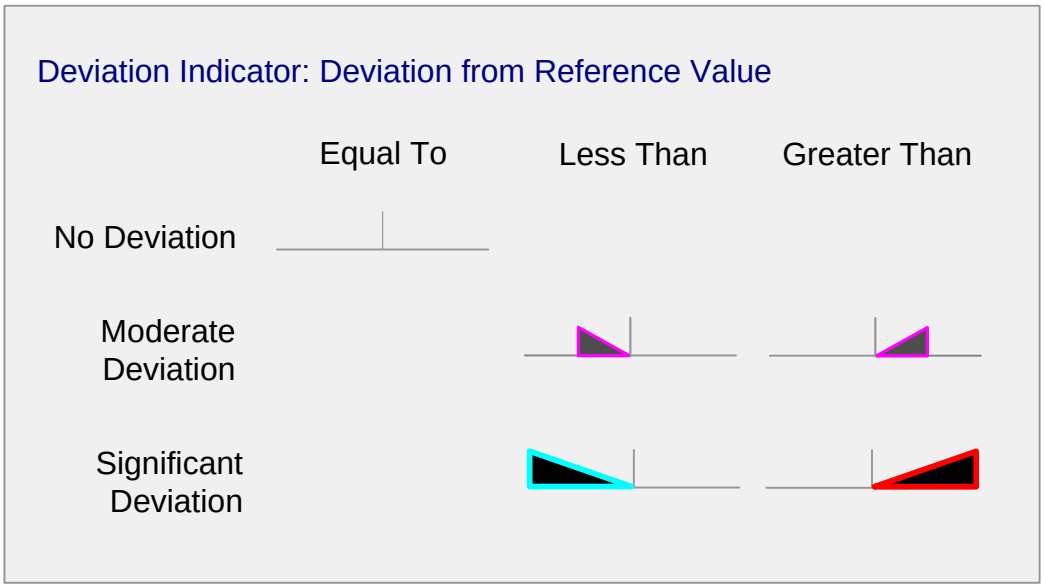


Figure 53: Illustration of the potential different states of the Qualitative Deviation Indicator

6.6.3 Controller object

The controller object is a shape that shows the status of the controller output signal to the valve. For the controller object, the visual features illustrate the controller output percentage (OP %) relative to normal range and alarm limits. Figure 54 illustrates the different states of the controller object. When an OP% exceeds its normal range and/or alarm limit, the visual coding of the object changes to draw the viewer's attention to the important condition (that is,, increasing in salience).

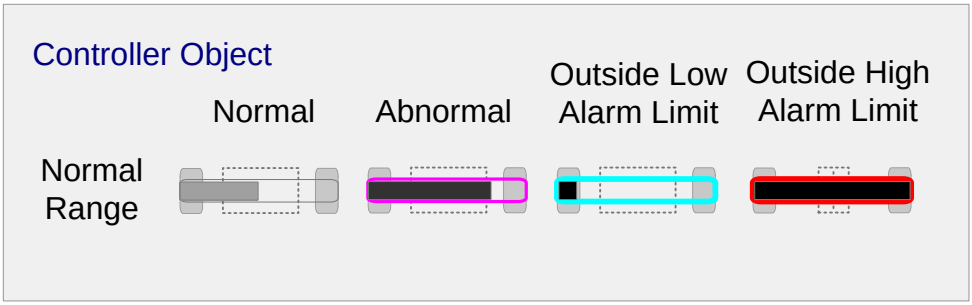


Figure 54: Illustration of some of the potential different states of the Controller Object.

6.7 History object

The History object is a shape that shows the actual value in at the right side of the shape and the history on the left site. For the History object, the visual features illustrate the actual value relative to its normal range and alarm limits. When the value exceeds its normal range and/or reaches the value of the alarm limit, the visual coding of the object changes. This will draw the viewer's attention to this important condition (that is,, increases in salience).

The following history shape objects are available

- Linear on non Linear (or normalized) history shape objects. In the linear version the relative position is linear to the scale. In the normalized version the relative position is normalized to the target value. So the history shape object will show a line when all values are on their target value independent of their scale.
- History data presented as a line or a bar graph.

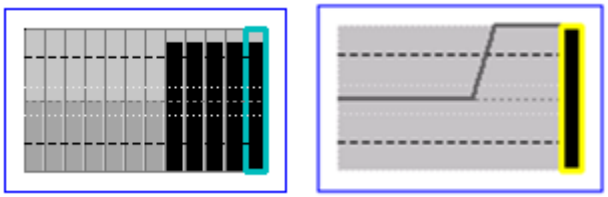


Figure 55: Example of History Shapes

Notice! When the history data is presented as a bar, changes in relation to the normal range can be seen in history (bars with higher saliency). When the history data is presented as a line graph the change of saliency is only observed in the current value. This is shown in the figure above.

Chapter 7 Template display

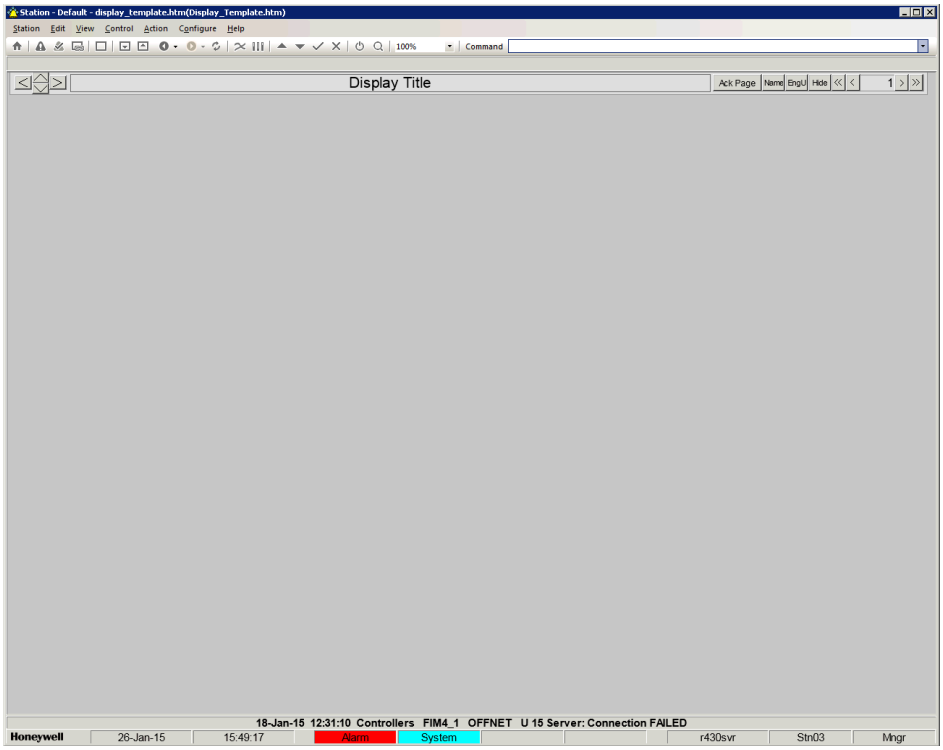


Figure 56: Template Display at runtime

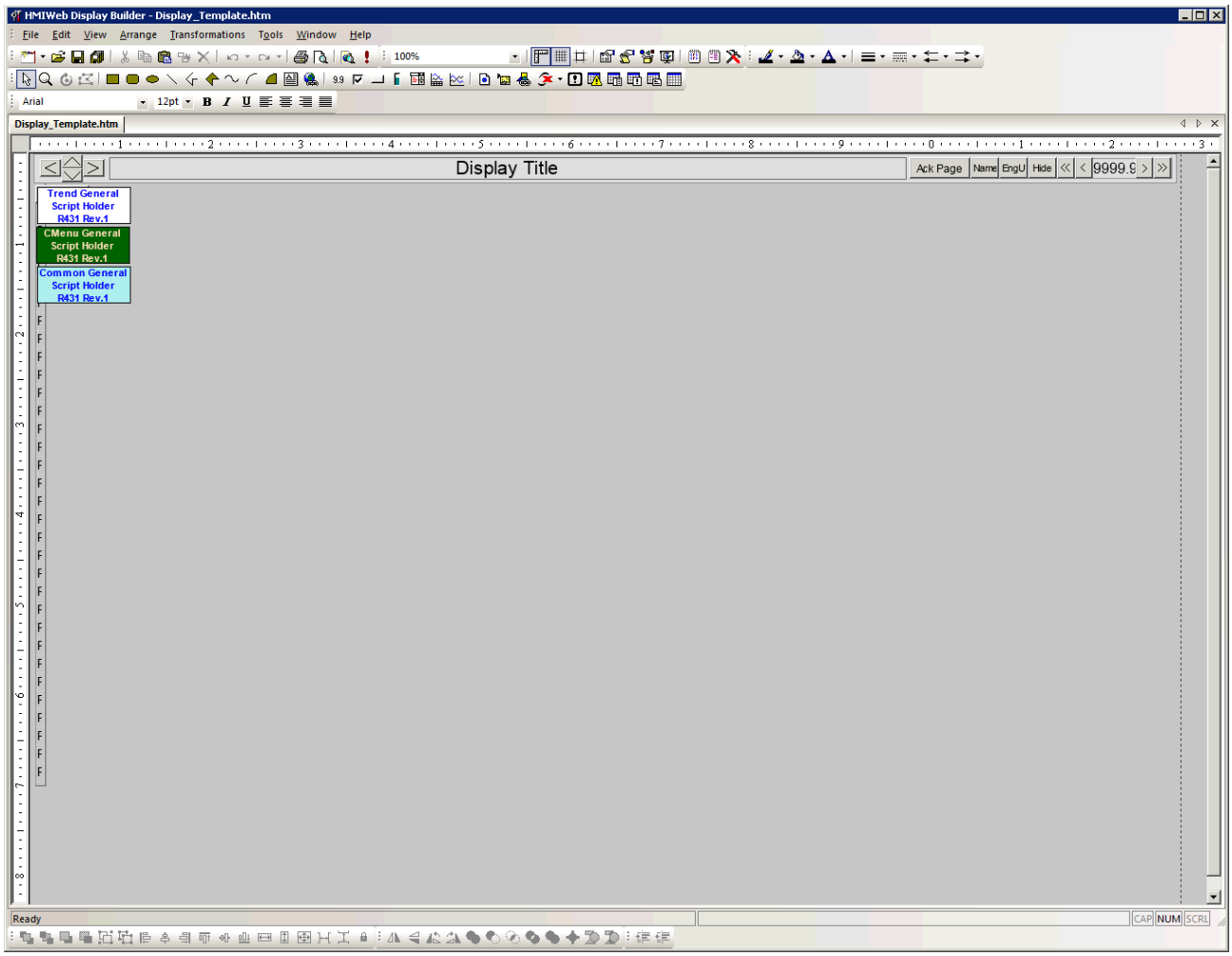


Figure 57: Template display at build-time

Shapes used in this display:

- All_ButtonShowHideEq_lib_01.sha
- All_AlmNavTitle_lib_01.sha
- All_ButtonAckPage_lib_01.sha
- All_ButtonNmEuHd_lib_01.sha
- All_DspTitle_lib_01.sha
- All_NavTitle_lib_01.sha
- All_TitleBackground_lib_01.sha
- All_TrdSel_lib_h_01.sha
- Cmenu_GSH.sha
- Common_GSH.sha
- Trend_Sup_GSH.sha

Chapter 8 SafeView Workspace configuration

This section describes the SafeView configurations applied on your projects.

If you're using multiple SafeView configurations for different stations, then create one chapter per configuration file.

8.1 Quad screen operator Station

The picture below shows the example SafeView configuration for a two-by-two monitor configuration.

Example

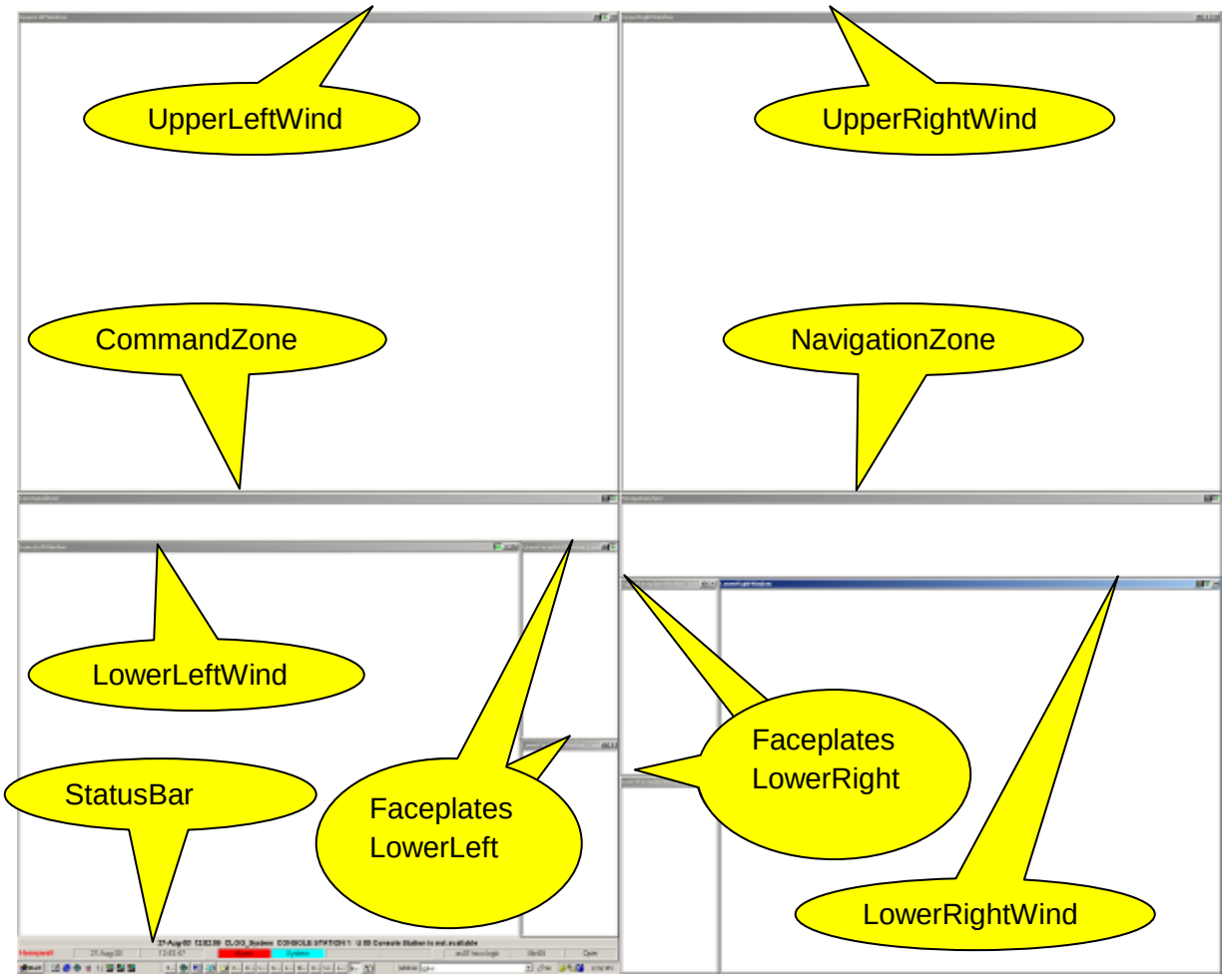


Figure 58: Example 2x2 SafeView Configuration

Lower left monitor

The lower left monitor contains 5 windows:

- Command Zone
- Status Bar
- Lower Left Window, used to show level 2 displays
- 2 Faceplates

Lower right monitor

The lower right monitor contains 4 windows:

- Navigation Zone
- Lower Right Window, used to show level 3 displays, alarm summary, ….
- 2 Faceplates

Upper left monitor

And so on

8.2 Dual screen operator Station

The picture below shows the example SafeView configuration for a vertical dual monitor configuration. This configuration is exactly the same as the 2x2 configuration with exception of the 2 right monitors, which are not part of this configuration.

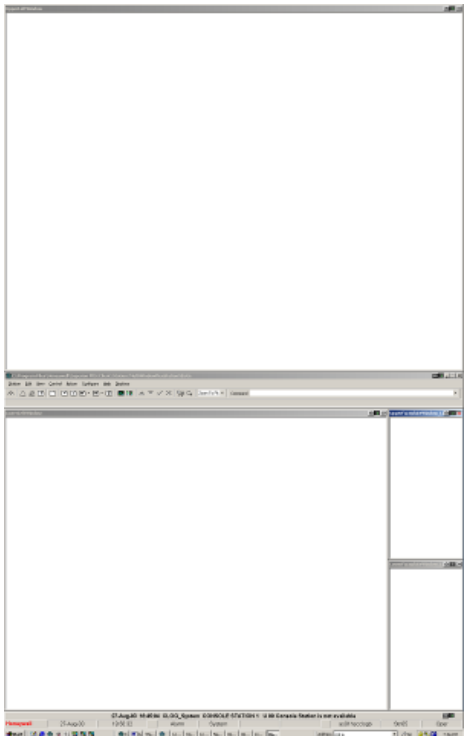


Figure 59: Example vertical dual screen SafeView configuration

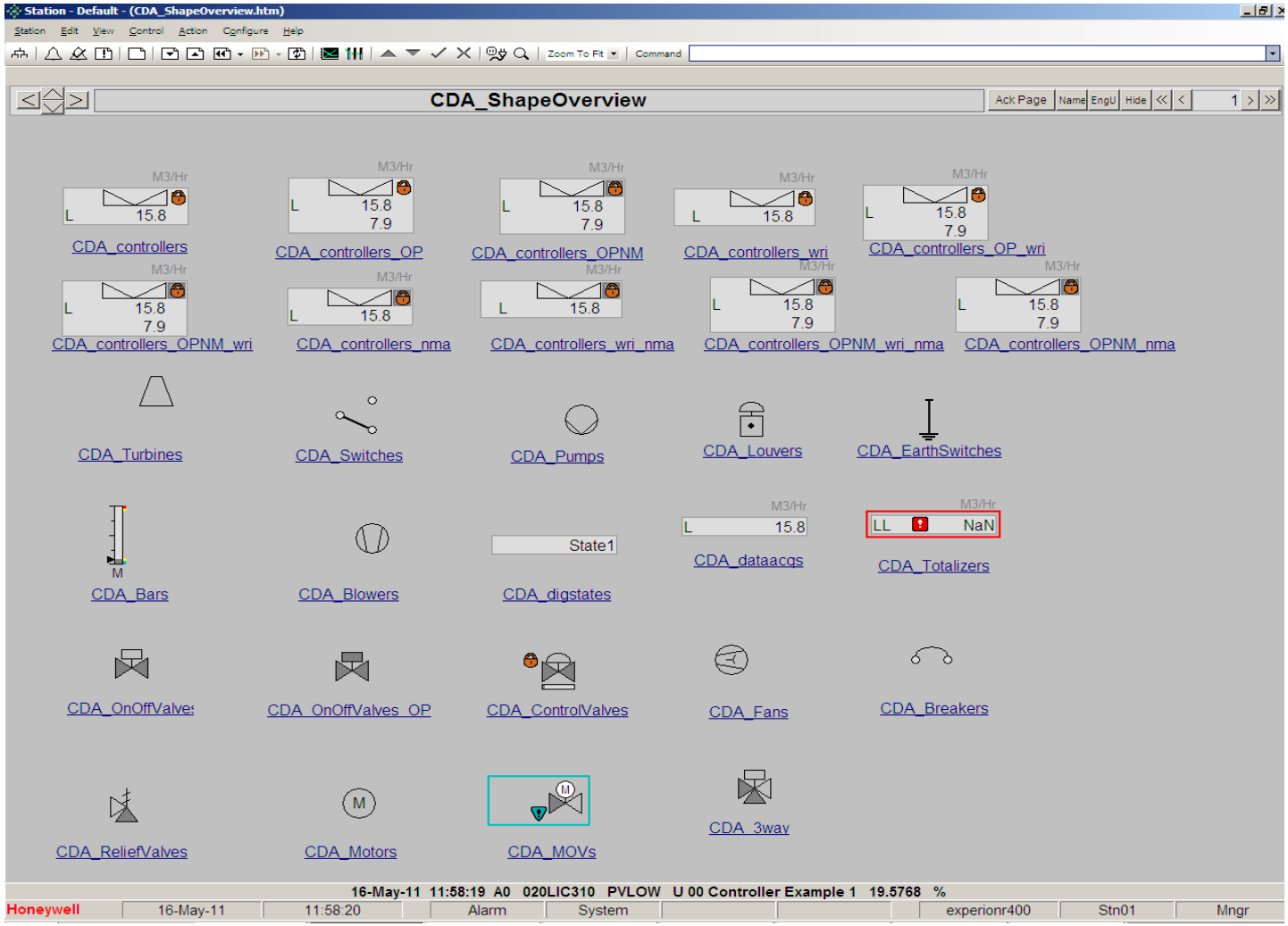
Chapter 9 Customization using Cascading Style Sheets

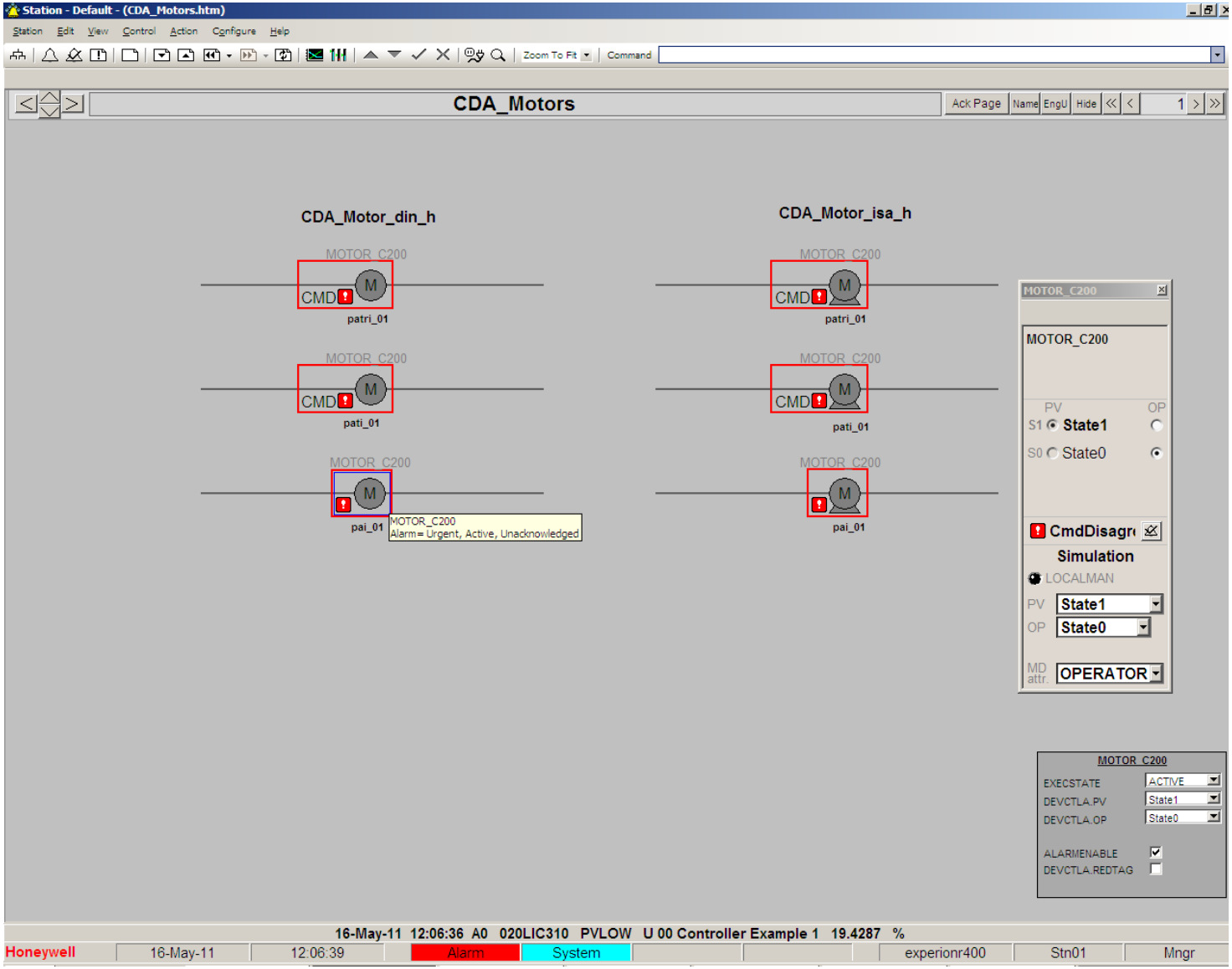
Cascading Style Sheets allow you to easily create visually consistent displays.

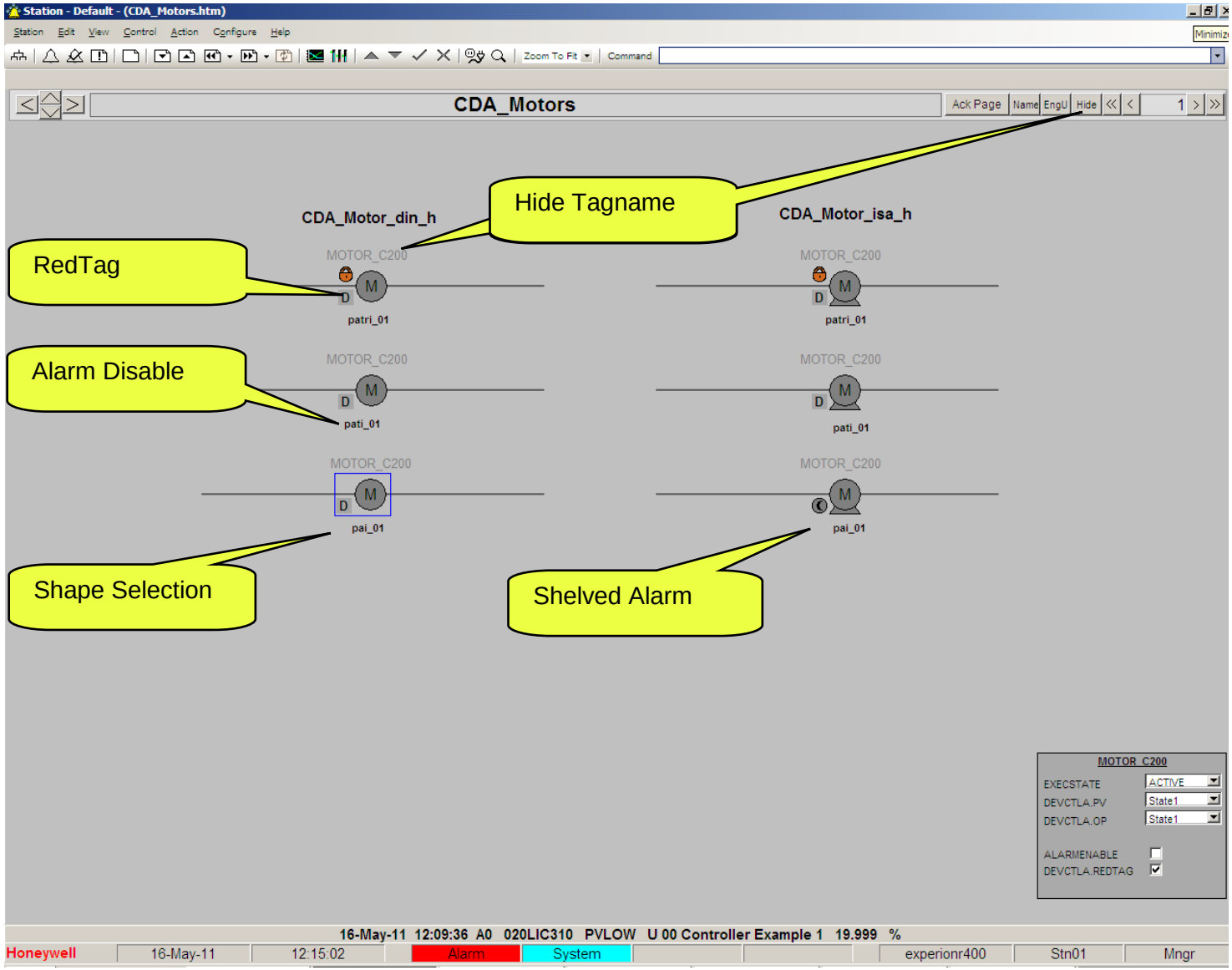
A style sheet contains a set of styles (definitions) that control the presentation-related properties of objects, such as color, line thickness and font. A style sheet can also include a style that controls the display's background properties such as its background color.

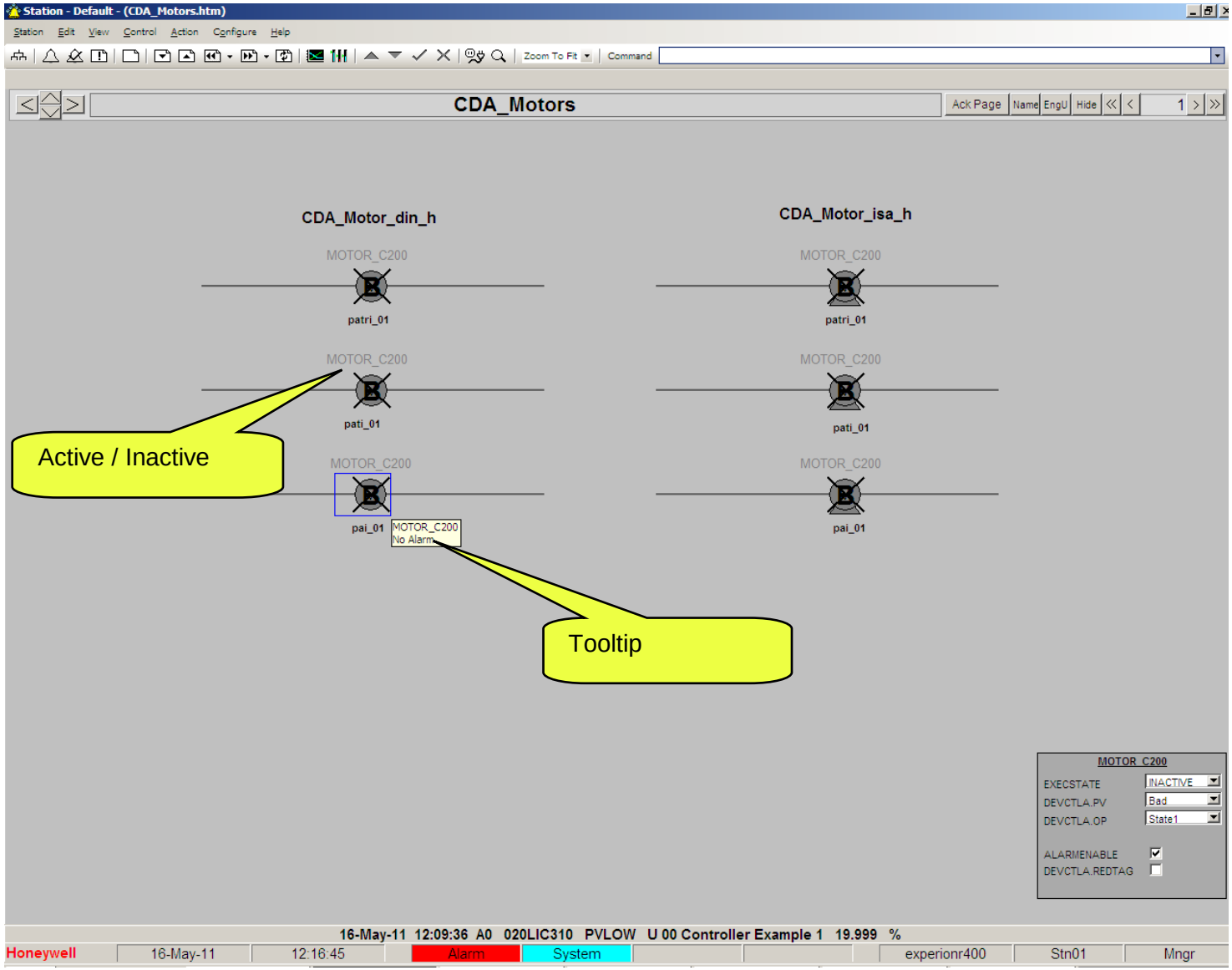
A major advantage of using a style sheet is that if you update it, the changes are automatically applied to the associated displays when they are next called up or refreshed.

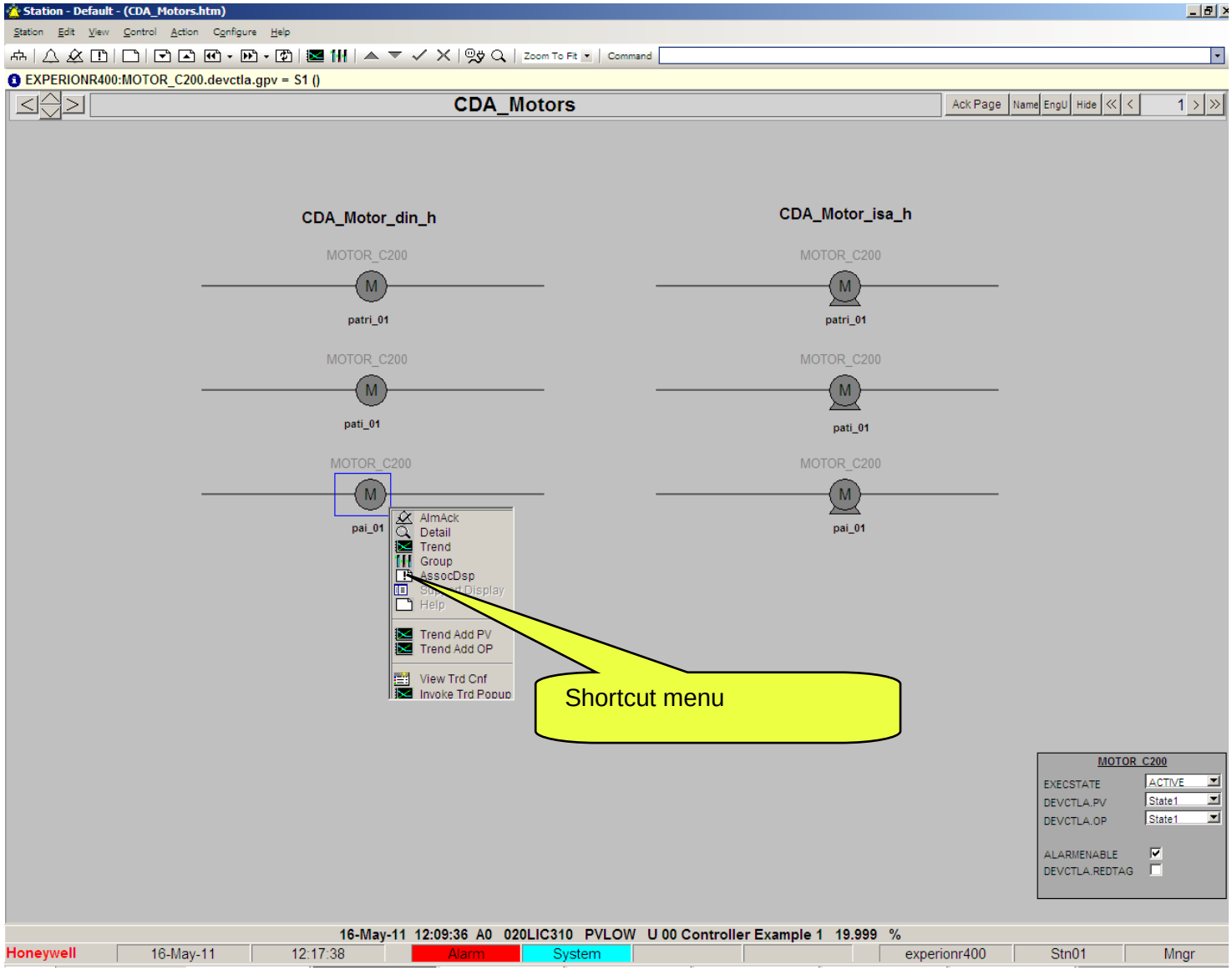
Appendix A HMIWeb Solution Pack R431, shape examples

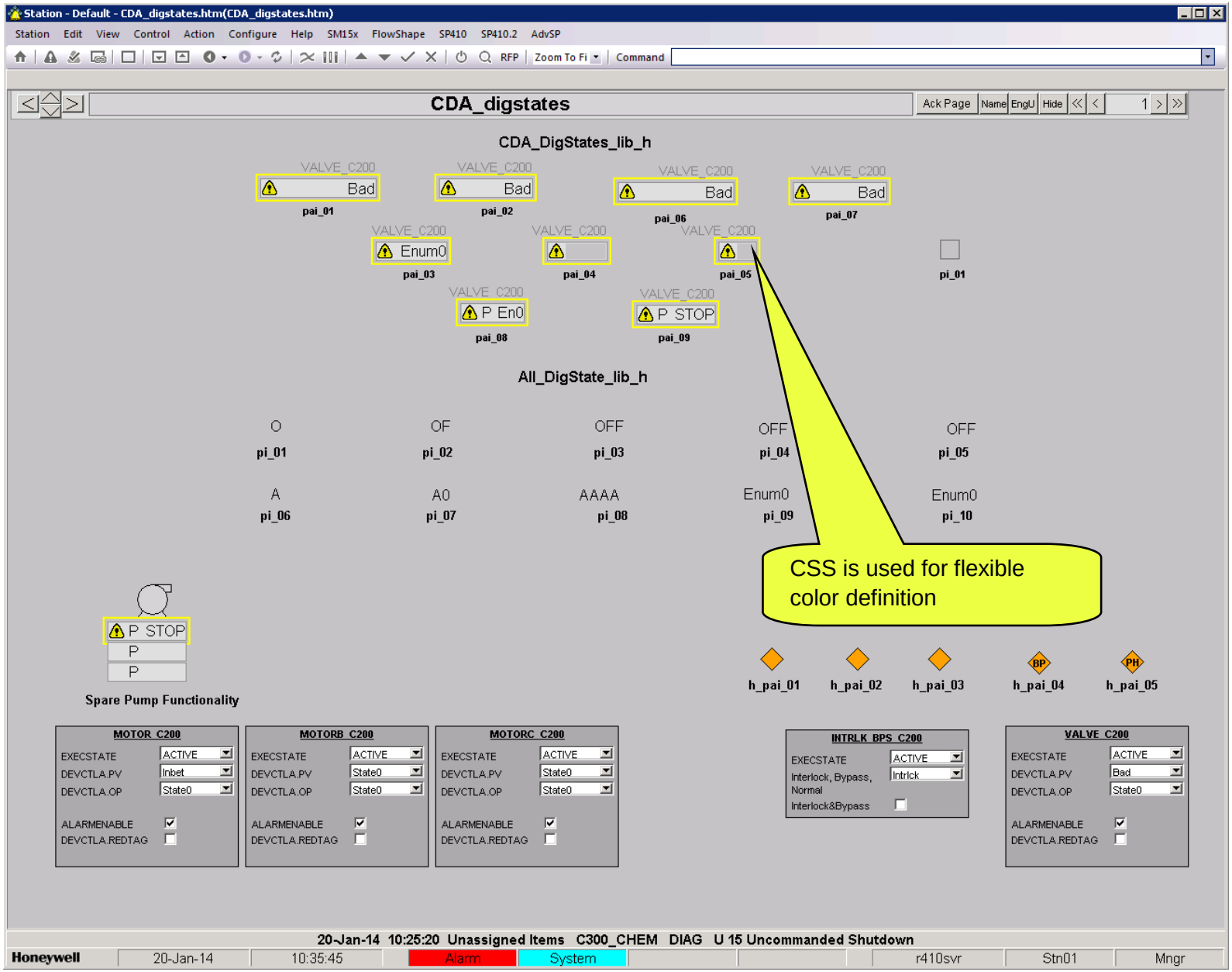


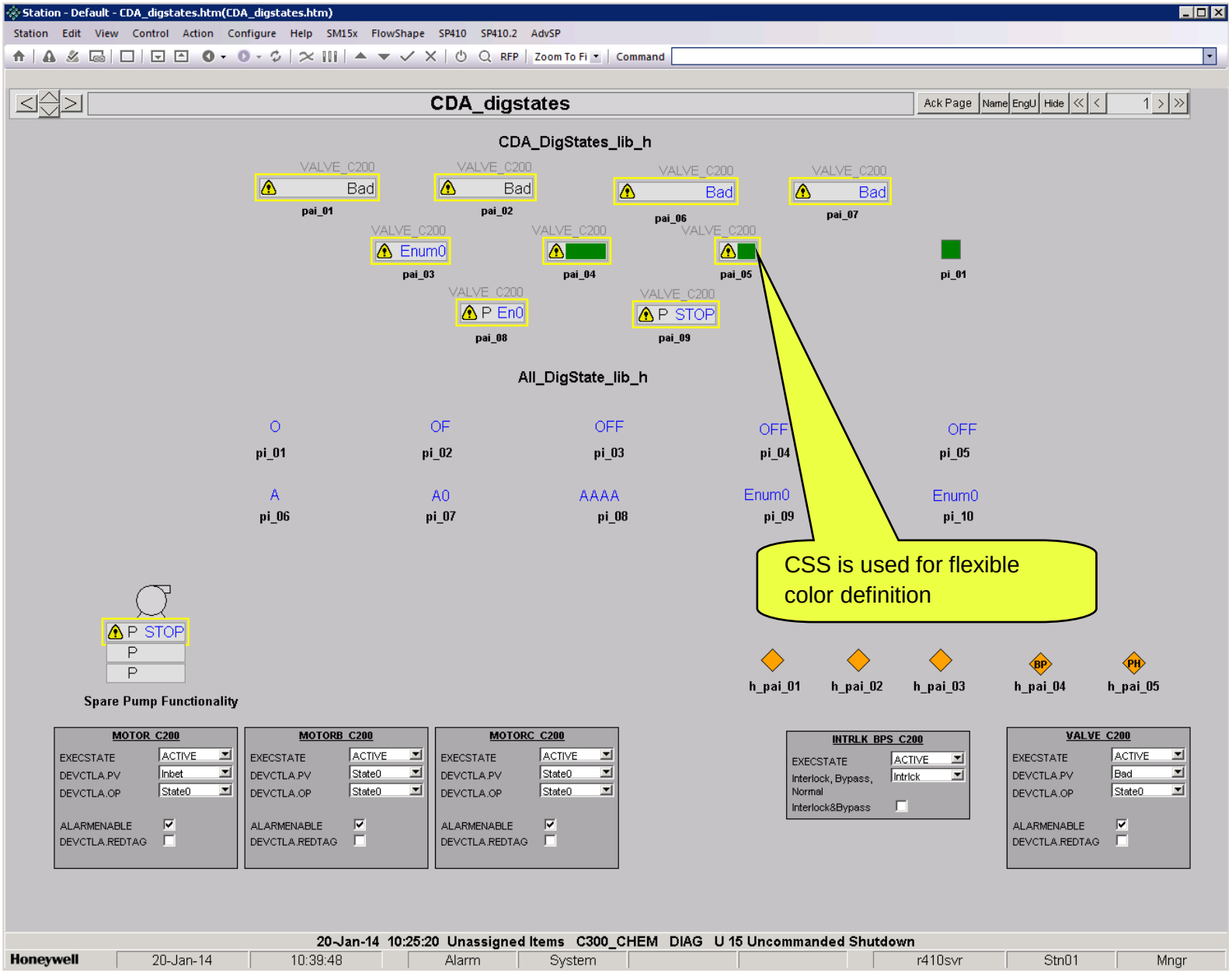

Station - Default - (CDA_Motors.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_Motors
Ack Page
Name
EngU
Hide
1
CDA_Motor_din_h
CDA_Motor_isa_h
MOTOR_C200
CMD
M
patri_01
pati_01
pai_01
MOTOR_C200
Alarm= Urgent, Active, Unacknowledged
MOTOR_C200
PV
OP
S1
State1
S0
State0
CmdDisagr
Simulation
LOCALMAN
PV
State1
OP
State0
MD attr.
OPERATOR
MOTOR_C200
EXECSTATE
ACTIVE
DEVCTLA.PV
State1
DEVCTLA.OP
State0
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 12:06:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.4287 %
Honeywell
16-May-11
12:06:39
Alarm
System
experionr400
Stn01
Mngr

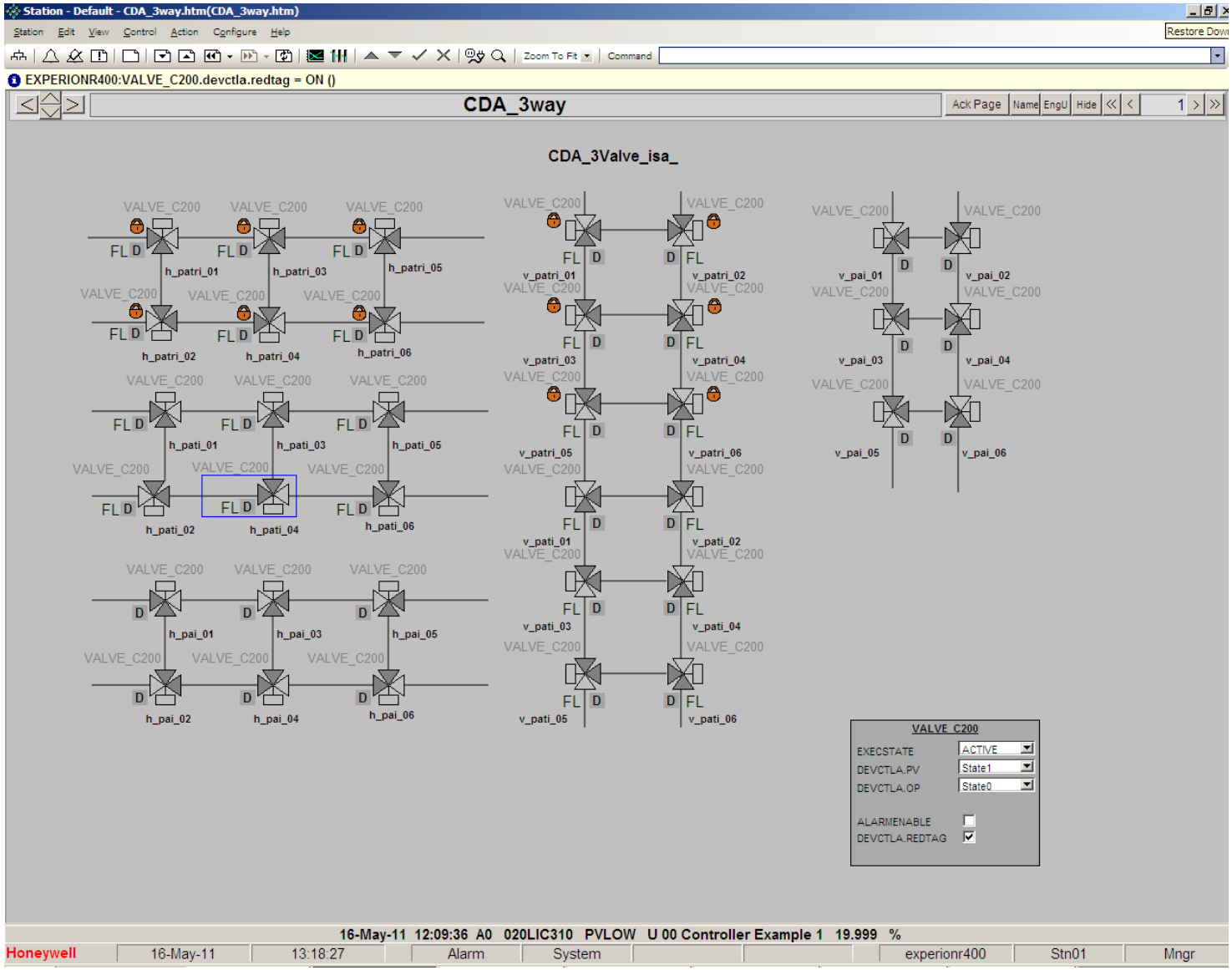

Station - Default - (CDA_Motors.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_Motors
Ack Page
Name
EngU
Hide
CDA_Motor_din_h
CDA_Motor_isa_h
Hide Tagname
RedTag
Alarm Disable
Shape Selection
Shelved Alarm
MOTOR_C200
patri_01
pati_01
pai_01
MOTOR_C200
EXECSTATE
ACTIVE
DEVCTLA.PV
State1
DEVCTLA.OP
State1
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
12:15:02
Alarm
System
experionr400
Stn01
Mngr

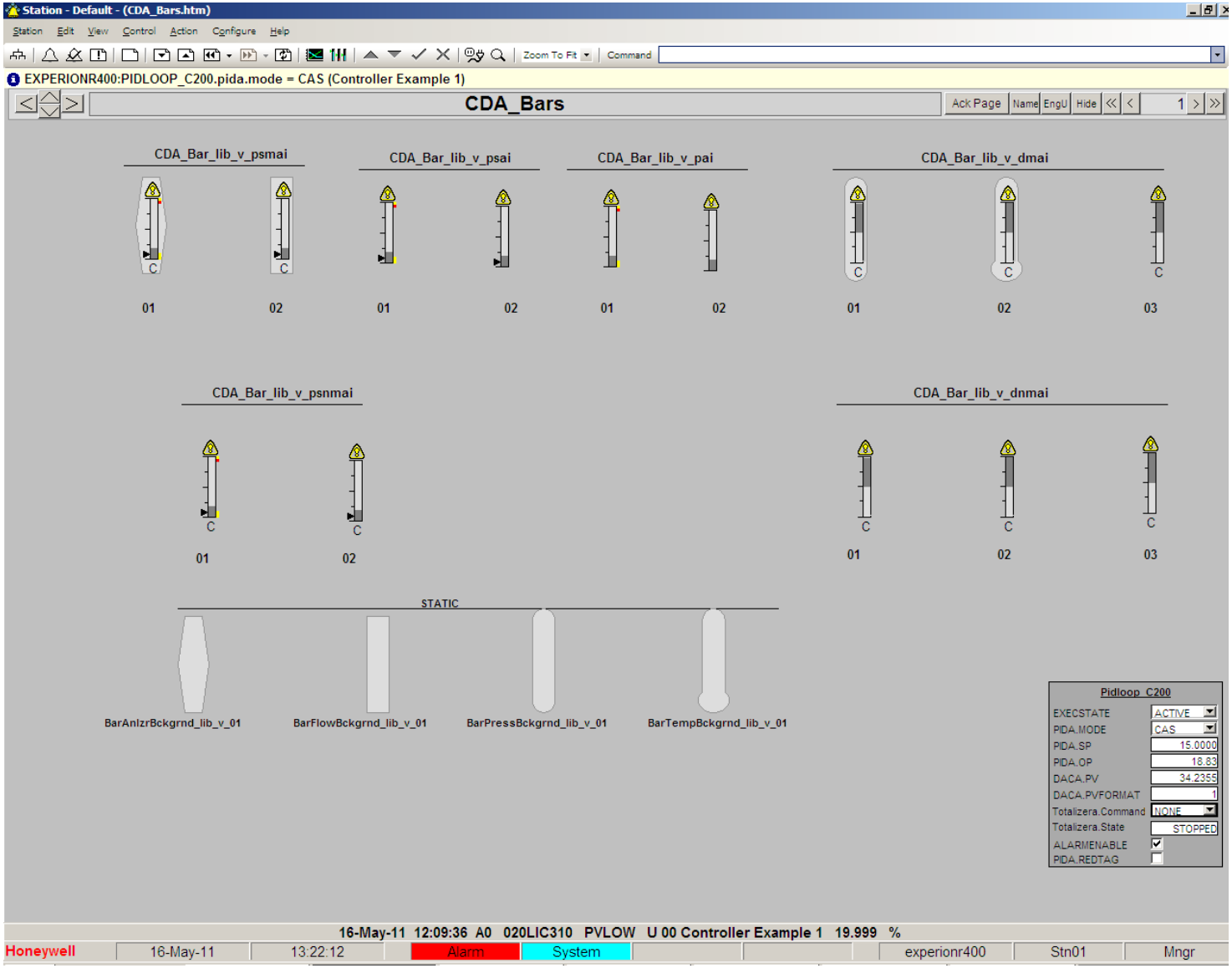

Station - Default - (CDA_Motors.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_Motors
Ack Page
Name
EngU
Hide
1
CDA_Motor_din_h
CDA_Motor_isa_h
MOTOR_C200
patri_01
pati_01
pai_01
Active / Inactive
MOTOR_C200
No Alarm
Tooltip
MOTOR_C200
EXECSTATE
INACTIVE
DEVCTLA.PV
Bad
DEVCTLA.OP
State1
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
12:16:45
Alarm
System
experionr400
Stn01
Mngr

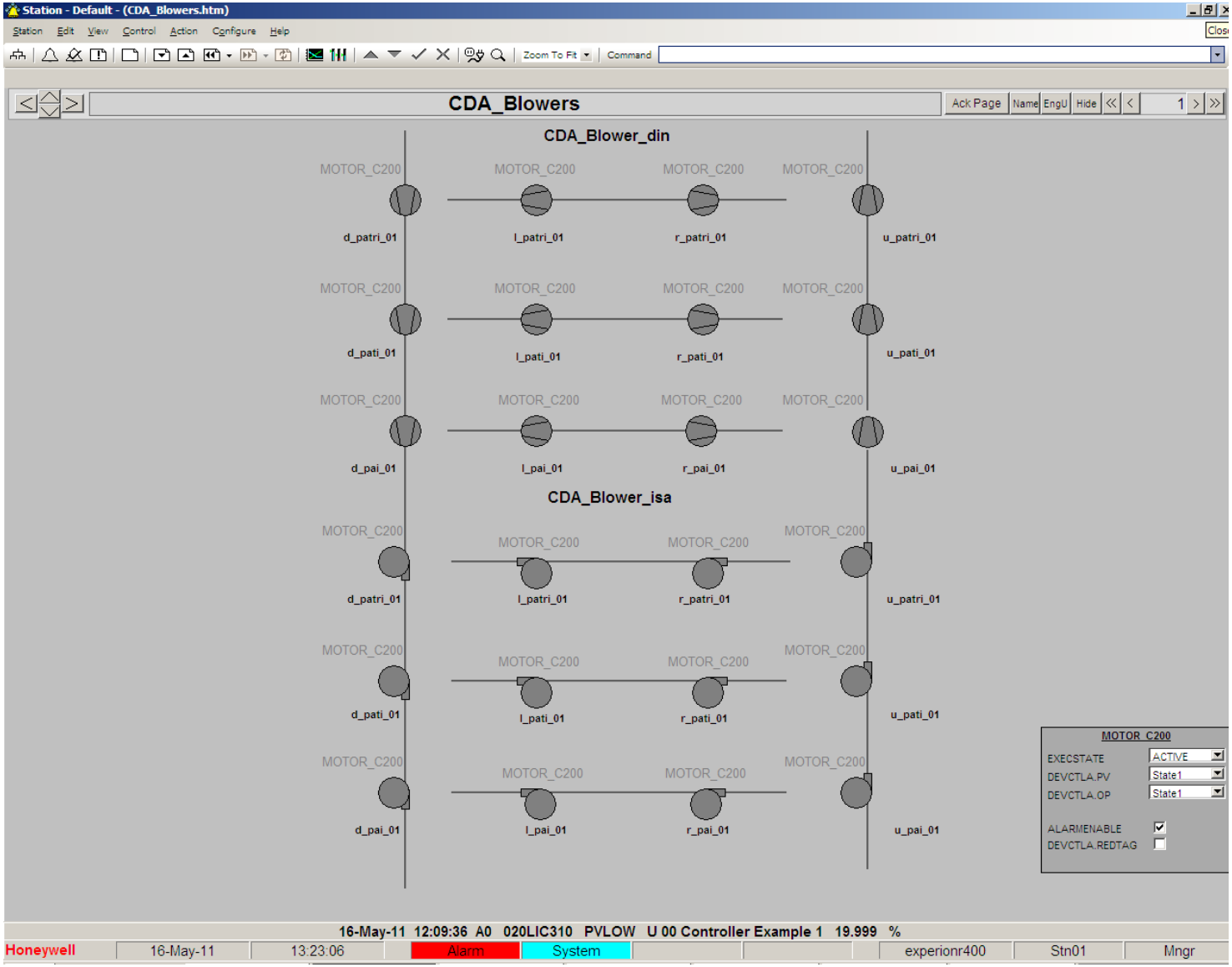

Station - Default - (CDA_Motors.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
EXPERIONR400:MOTOR_C200.devctla.gpv = S1 ()
CDA_Motors
Ack Page
Name
EngU
Hide
1
CDA_Motor_din_h
CDA_Motor_isa_h
MOTOR_C200
patri_01
pati_01
pai_01
AlmAck
Detail
Trend
Group
AssocDsp
Help
Trend Add PV
Trend Add OP
View Trd Cnf
Invoke Trd Popup
Shortcut menu
MOTOR_C200
EXECSTATE
ACTIVE
DEVCTLA.PV
State1
DEVCTLA.OP
State1
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
12:17:38
Alarm
System
experionr400
Stn01
Mngr

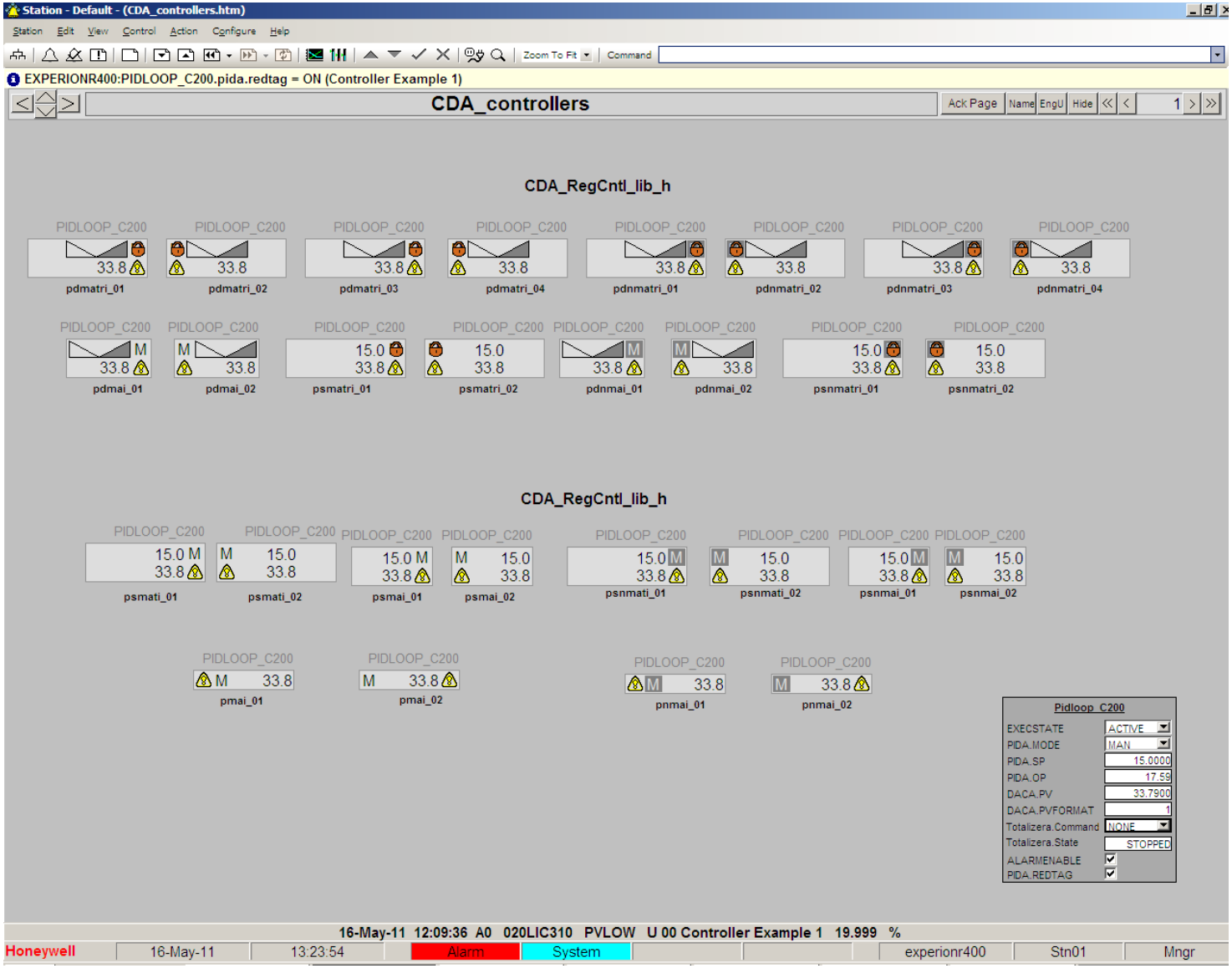

Station - Default - CDA_digstates.htm(CDA_digstates.htm)
Station Edit View Control Action Configure Help SM15x FlowShape SP410 SP410.2 AdvSP
RFP Zoom To Fi Command
CDA_digstates
Ack Page Name EngU Hide
CDA_DigStates_lib_h
VALVE_C200 Bad pai_01
VALVE_C200 Bad pai_02
VALVE_C200 Bad pai_06
VALVE_C200 Bad pai_07
VALVE_C200 Enum0 pai_03
VALVE_C200 pai_04
VALVE_C200 pai_05
pi_01
VALVE_C200 P En0 pai_08
VALVE_C200 P STOP pai_09
All_DigState_lib_h
O pi_01
OF pi_02
OFF pi_03
OFF pi_04
OFF pi_05
A pi_06
A0 pi_07
AAAA pi_08
Enum0 pi_09
Enum0 pi_10
CSS is used for flexible color definition
P STOP
P
P
Spare Pump Functionality
h_pai_01
h_pai_02
h_pai_03
BP
h_pai_04
PH
h_pai_05
MOTOR_C200
EXECSTATE ACTIVE
DEVCTLA.PV Inbet
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
MOTORB_C200
EXECSTATE ACTIVE
DEVCTLA.PV State0
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
MOTORC_C200
EXECSTATE ACTIVE
DEVCTLA.PV State0
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
INTRLK_BPS_C200
EXECSTATE ACTIVE
Interlock, Bypass, Normal Intrlck
Interlock&Bypass
VALVE_C200
EXECSTATE ACTIVE
DEVCTLA.PV Bad
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
20-Jan-14 10:25:20 Unassigned Items C300_CHEM DIAG U 15 Uncommanded Shutdown
Honeywell 20-Jan-14 10:35:45 Alarm System r410svr Stn01 Mngr

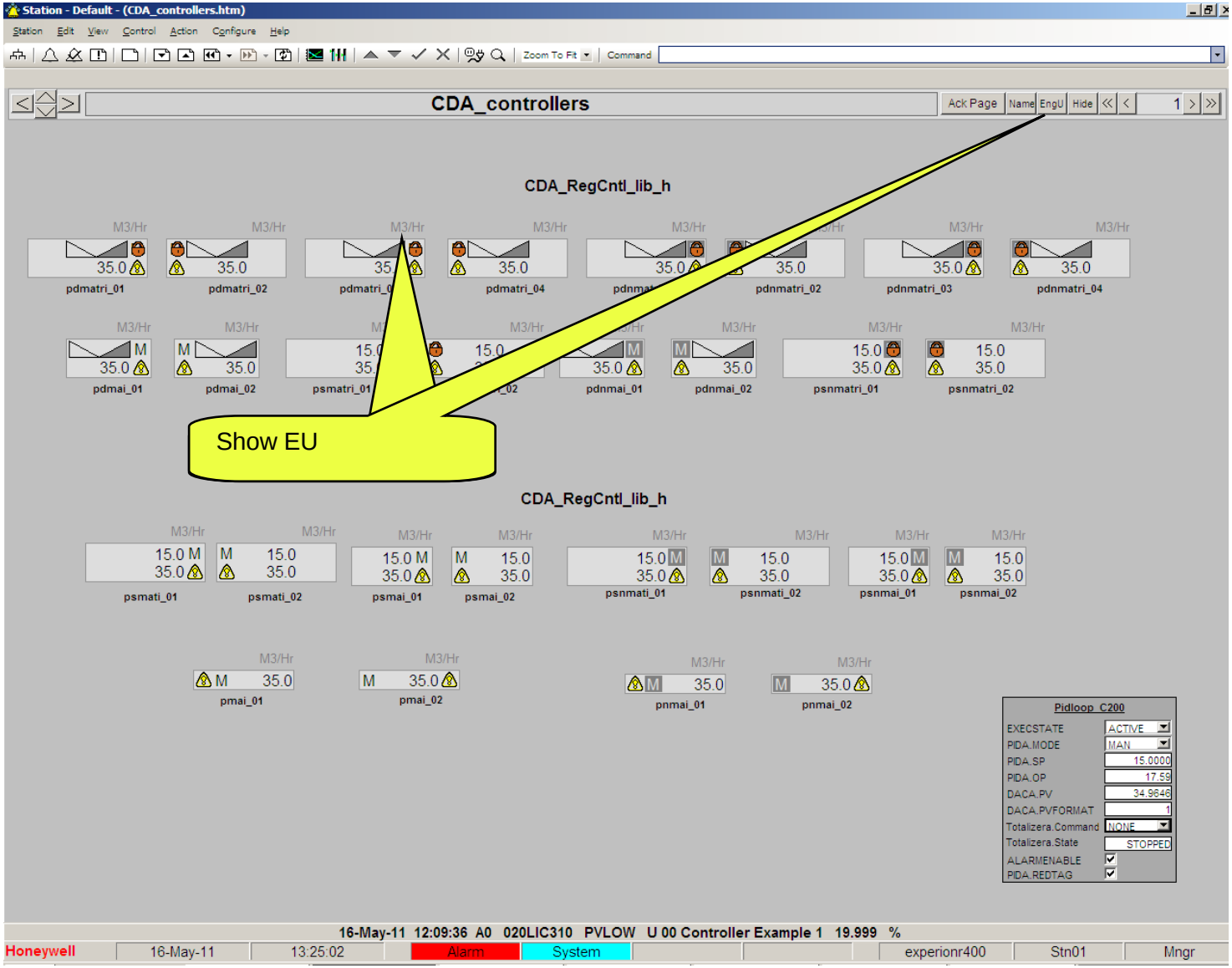

Station - Default - CDA_digstates.htm(CDA_digstates.htm)
Station Edit View Control Action Configure Help SM15x FlowShape SP410 SP410.2 AdvSP
RFP Zoom To Fi Command
CDA_digstates
Ack Page Name EngU Hide
CDA_DigStates_lib_h
VALVE_C200 Bad pai_01
VALVE_C200 Bad pai_02
VALVE_C200 Bad pai_06
VALVE_C200 Bad pai_07
VALVE_C200 Enum0 pai_03
VALVE_C200 pai_04
VALVE_C200 pai_05
pi_01
VALVE_C200 P En0 pai_08
VALVE_C200 P STOP pai_09
All_DigState_lib_h
O pi_01
OF pi_02
OFF pi_03
OFF pi_04
OFF pi_05
A pi_06
A0 pi_07
AAAA pi_08
Enum0 pi_09
Enum0 pi_10
CSS is used for flexible color definition
P STOP
P
P
Spare Pump Functionality
h_pai_01
h_pai_02
h_pai_03
BP h_pai_04
PH h_pai_05
MOTOR_C200
EXECSTATE ACTIVE
DEVCTLA.PV Inbet
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
MOTORB_C200
EXECSTATE ACTIVE
DEVCTLA.PV State0
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
MOTORC_C200
EXECSTATE ACTIVE
DEVCTLA.PV State0
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
INTRLK_BPS_C200
EXECSTATE ACTIVE
Interlock, Bypass, Normal Intrlck
Interlock&Bypass
VALVE_C200
EXECSTATE ACTIVE
DEVCTLA.PV Bad
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
20-Jan-14 10:25:20 Unassigned Items C300_CHEM DIAG U 15 Uncommanded Shutdown
Honeywell 20-Jan-14 10:39:48 Alarm System r410svr Stn01 Mngr

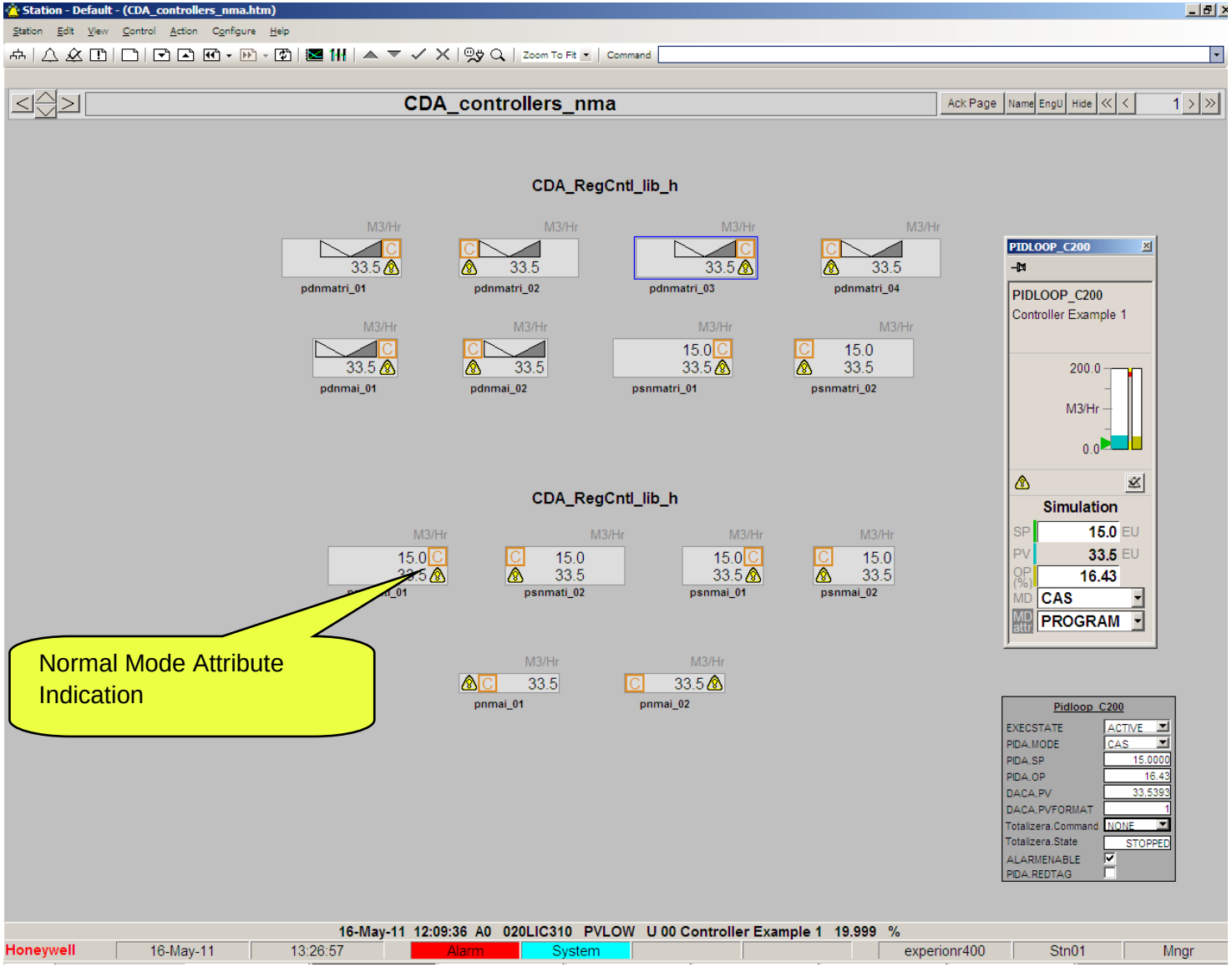

Station - Default - CDA_3way.htm(CDA_3way.htm)
Station Edit View Control Action Configure Help
Restore Down
Zoom To Fit
Command
EXPERIONR400:VALVE_C200.devctla.redtag = ON ()
CDA_3way
Ack Page
Name
EngU
Hide
1
CDA_3Valve_isa_
VALVE_C200
FL D
h_patri_01
h_patri_03
h_patri_05
h_patri_02
h_patri_04
h_patri_06
h_pati_01
h_pati_03
h_pati_05
h_pati_02
h_pati_04
h_pati_06
h_pai_01
h_pai_03
h_pai_05
h_pai_02
h_pai_04
h_pai_06
v_patri_01
v_patri_02
v_patri_03
v_patri_04
v_patri_05
v_patri_06
v_pati_01
v_pati_02
v_pati_03
v_pati_04
v_pati_05
v_pati_06
v_pai_01
v_pai_02
v_pai_03
v_pai_04
v_pai_05
v_pai_06
VALVE_C200
EXECSTATE ACTIVE
DEVCTLA.PV State1
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
13:18:27
Alarm
System
experionr400
Stn01
Mngr

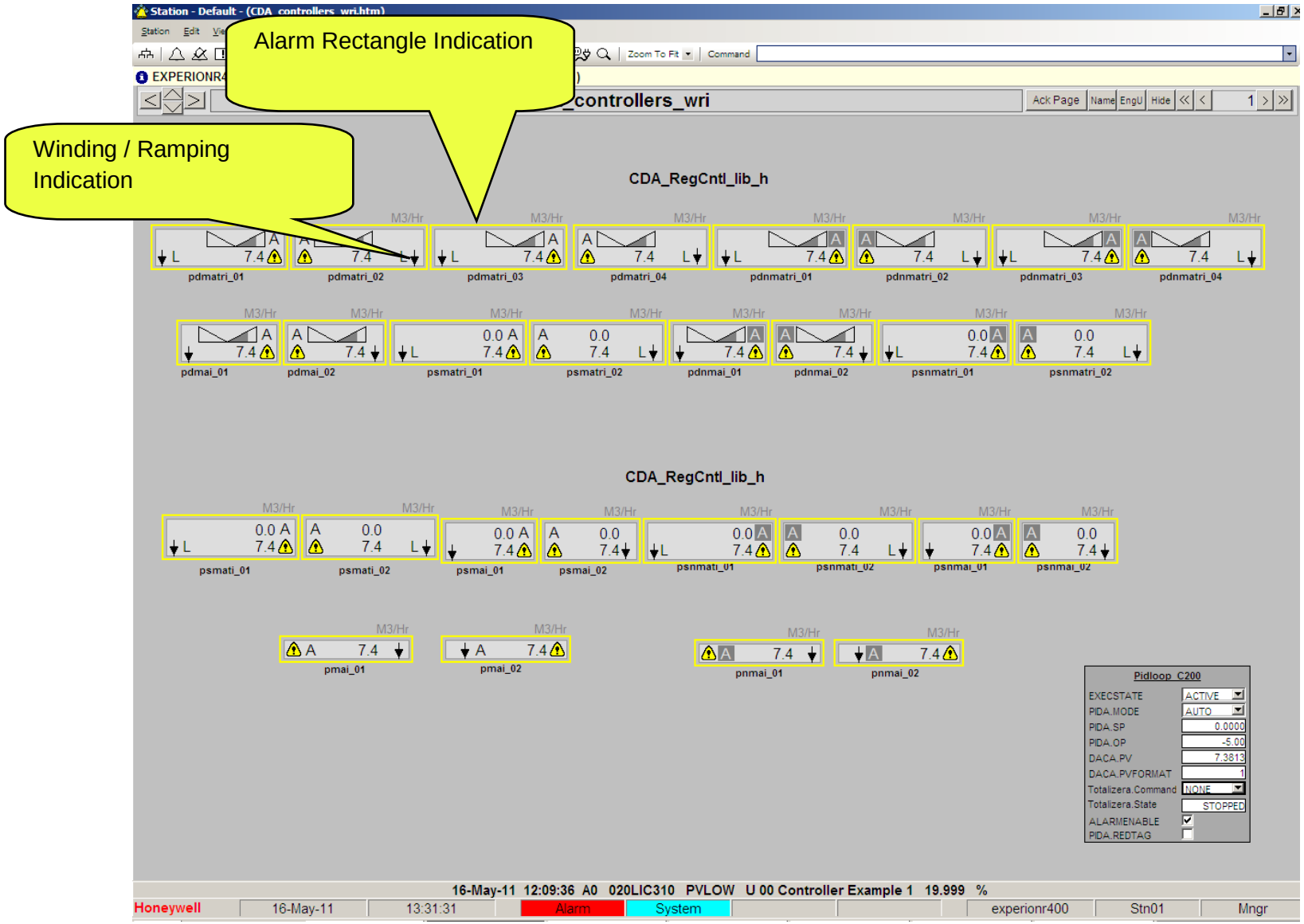

Station - Default - (CDA_Bars.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
EXPERIONR400:PIDLOOP_C200.pida.mode = CAS (Controller Example 1)
CDA_Bars
Ack Page
Name
EngU
Hide
1
CDA_Bar_lib_v_psmai
CDA_Bar_lib_v_psai
CDA_Bar_lib_v_pai
CDA_Bar_lib_v_dmai
01
02
01
02
01
02
01
02
03
CDA_Bar_lib_v_psnmai
CDA_Bar_lib_v_dnmai
01
02
01
02
03
STATIC
BarAnlzrBckgrnd_lib_v_01
BarFlowBckgrnd_lib_v_01
BarPressBckgrnd_lib_v_01
BarTempBckgrnd_lib_v_01
Pidloop_C200
EXECSTATE ACTIVE
PIDA.MODE CAS
PIDA.SP 15.0000
PIDA.OP 18.83
DACA.PV 34.2355
DACA.PVFORMAT 1
Totalizera.Command NONE
Totalizera.State STOPPED
ALARMENABLE
PIDA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
13:22:12
Alarm
System
experionr400
Stn01
Mngr

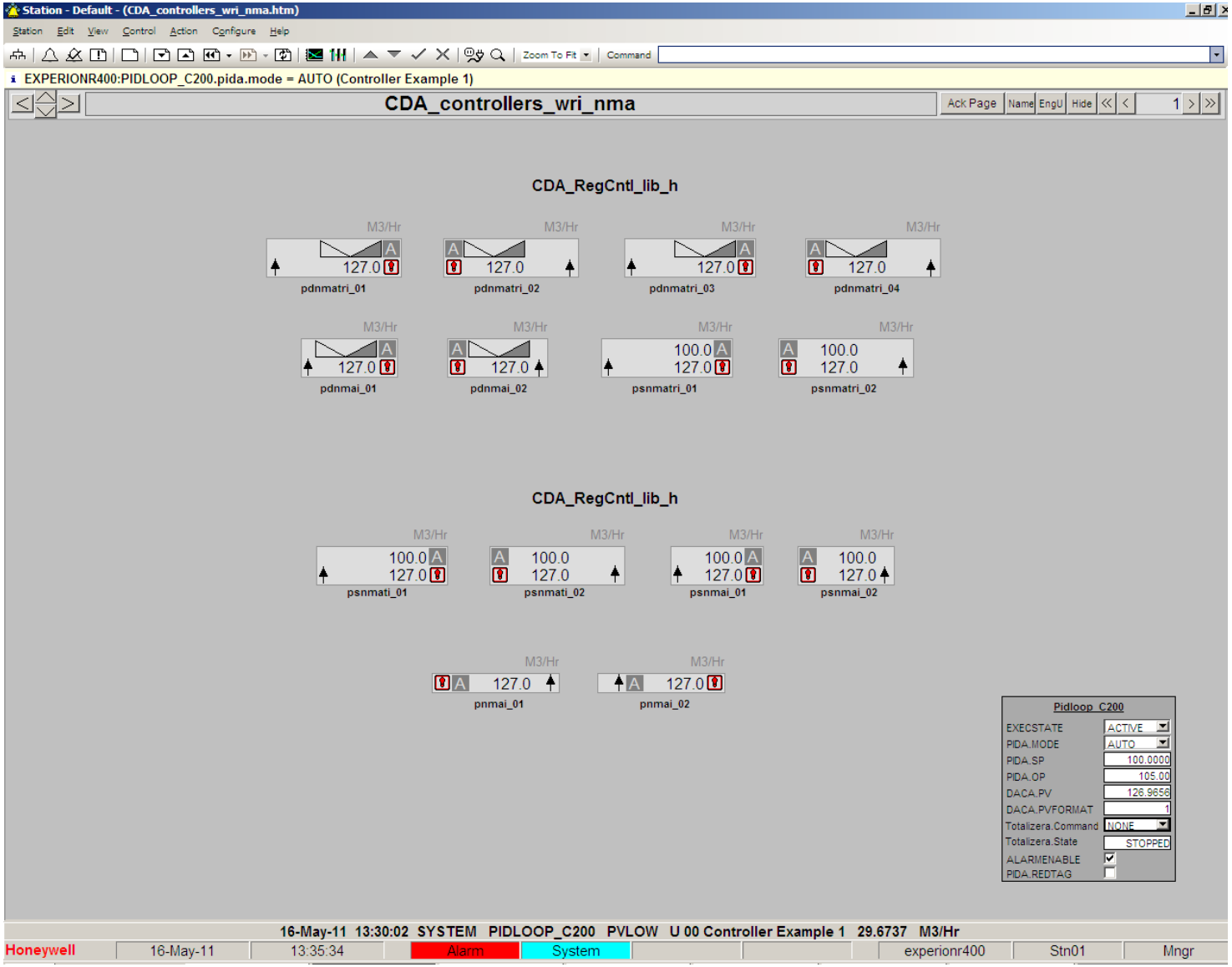

Station - Default - (CDA_Blowers.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_Blowers
Ack Page
Name
EngU
Hide
1
CDA_Blower_din
MOTOR_C200
d_patri_01
l_patri_01
r_patri_01
u_patri_01
d_pati_01
l_pati_01
r_pati_01
u_pati_01
d_pai_01
l_pai_01
r_pai_01
u_pai_01
CDA_Blower_isa
MOTOR_C200
EXECSTATE
ACTIVE
DEVCTLA.PV
State1
DEVCTLA.OP
State1
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
13:23:06
Alarm
System
experionr400
Stn01
Mngr

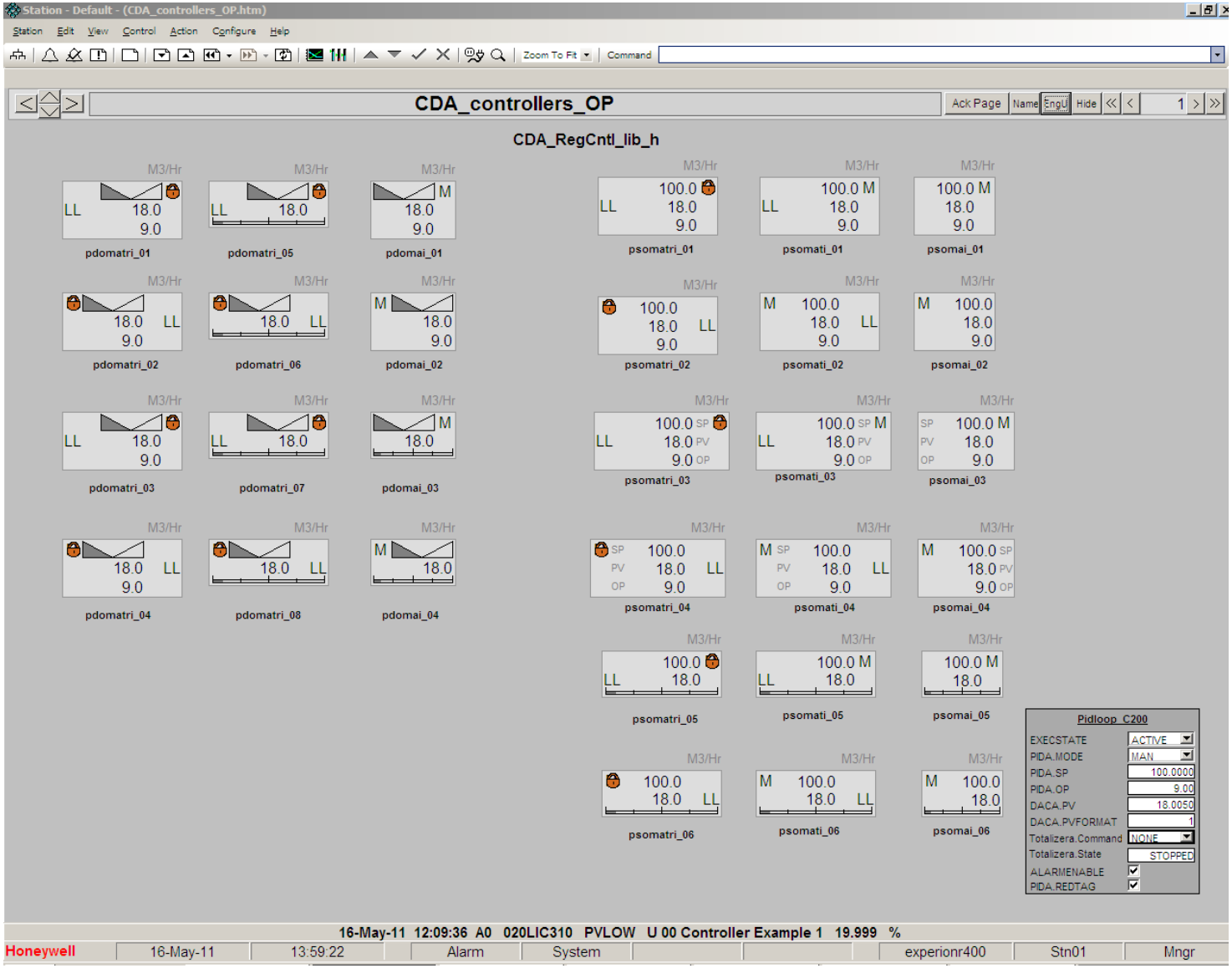

Station - Default - (CDA_controllers.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
EXPERIONR400:PIDLOOP_C200.pida.redtag = ON (Controller Example 1)
CDA_controllers
Ack Page
Name
EngU
Hide
CDA_RegCntl_lib_h
PIDLOOP_C200
pdmatri_01
pdmatri_02
pdmatri_03
pdmatri_04
pdnmatri_01
pdnmatri_02
pdnmatri_03
pdnmatri_04
pdmai_01
pdmai_02
psmatri_01
psmatri_02
pdnmai_01
pdnmai_02
psnmatri_01
psnmatri_02
CDA_RegCntl_lib_h
psmati_01
psmati_02
psmai_01
psmai_02
psnmati_01
psnmati_02
psnmai_01
psnmai_02
pmai_01
pmai_02
pnmai_01
pnmai_02
Pidloop_C200
EXECSTATE ACTIVE
PIDA.MODE MAN
PIDA.SP 15.0000
PIDA.OP 17.59
DACA.PV 33.7900
DACA.PVFORMAT 1
Totalizera.Command NONE
Totalizera.State STOPPED
ALARMENABLE
PIDA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
13:23:54
Alarm
System
experionr400
Stn01
Mngr

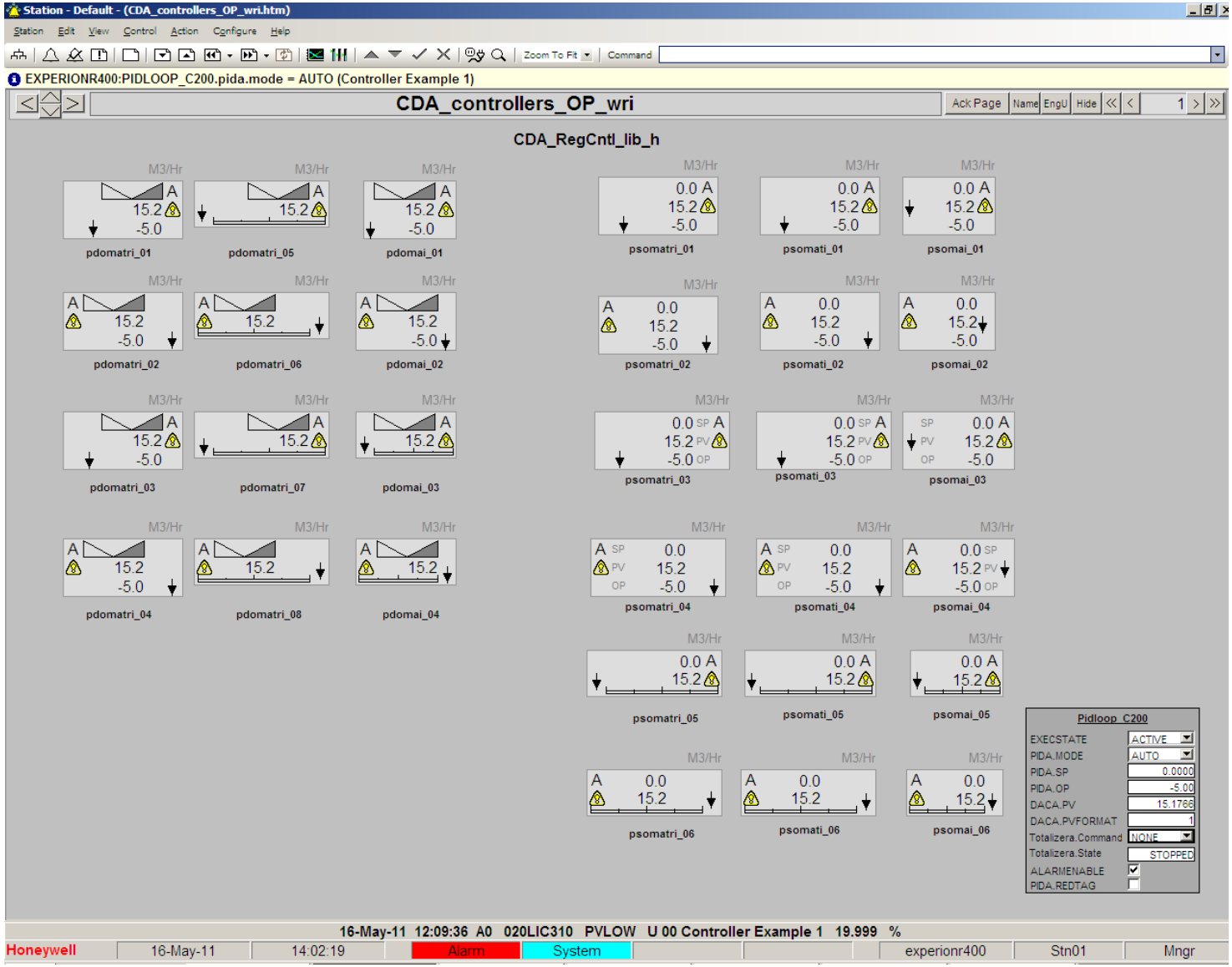

Station - Default - (CDA_controllers.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_controllers
Ack Page
Name
EngU
Hide
CDA_RegCntl_lib_h
pdmatri_01
pdmatri_02
pdnmatri_02
pdnmatri_03
pdnmatri_04
pdmai_01
pdmai_02
psmatri_01
pdnmai_01
pdnmai_02
psnmatri_01
psnmatri_02
Show EU
CDA_RegCntl_lib_h
psmati_01
psmati_02
psmai_01
psmai_02
psnmati_01
psnmati_02
psnmai_01
psnmai_02
pmai_01
pmai_02
pnmai_01
pnmai_02
Pidloop_C200
EXECSTATE ACTIVE
PIDA.MODE MAN
PIDA.SP 15.0000
PIDA.OP 17.59
DACA.PV 34.9646
DACA.PVFORMAT 1
Totalizera.Command NONE
Totalizera.State STOPPED
ALARMENABLE
PIDA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
13:25:02
Alarm
System
experionr400
Stn01
Mngr

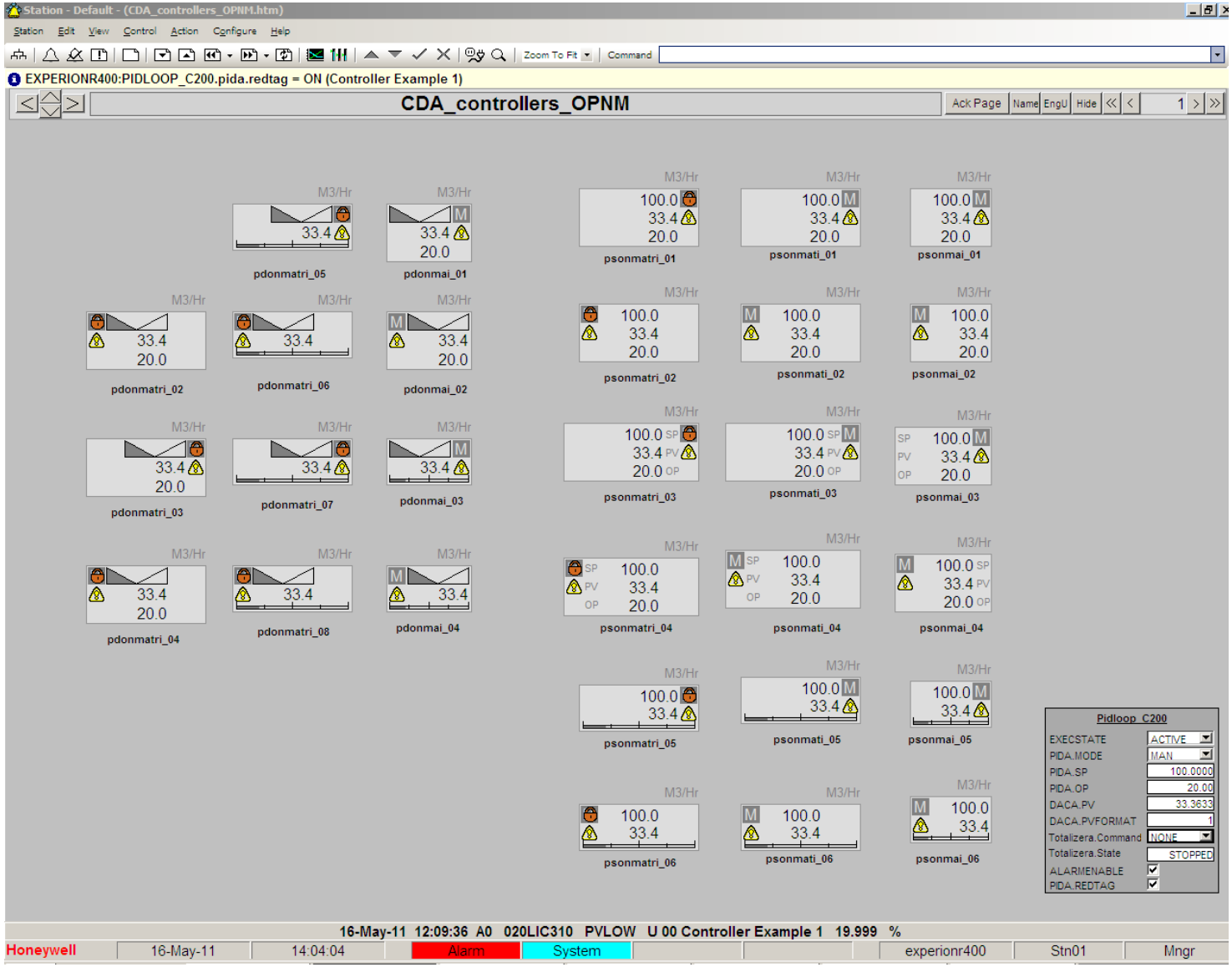

Station - Default - (CDA_controllers_nma.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_controllers_nma
Ack Page
Name
EngU
Hide
CDA_RegCntl_lib_h
M3/Hr
33.5
pdnmatri_01
pdnmatri_02
pdnmatri_03
pdnmatri_04
pdnmai_01
pdnmai_02
15.0
psnmatri_01
psnmatri_02
CDA_RegCntl_lib_h
psnmati_02
psnmai_01
psnmai_02
pnmai_01
pnmai_02
Normal Mode Attribute Indication
PIDLOOP_C200
PIDLOOP_C200
Controller Example 1
200.0
0.0
Simulation
SP
15.0
EU
PV
33.5
EU
OP (%)
16.43
MD
CAS
MD attr
PROGRAM
Pidloop_C200
EXECSTATE
ACTIVE
PIDA.MODE
CAS
PIDA.SP
15.0000
PIDA.OP
16.43
DACA.PV
33.5393
DACA.PVFORMAT
1
Totalizera.Command
NONE
Totalizera.State
STOPPED
ALARMENABLE
PIDA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
13:26:57
Alarm
System
experionr400
Stn01
Mngr

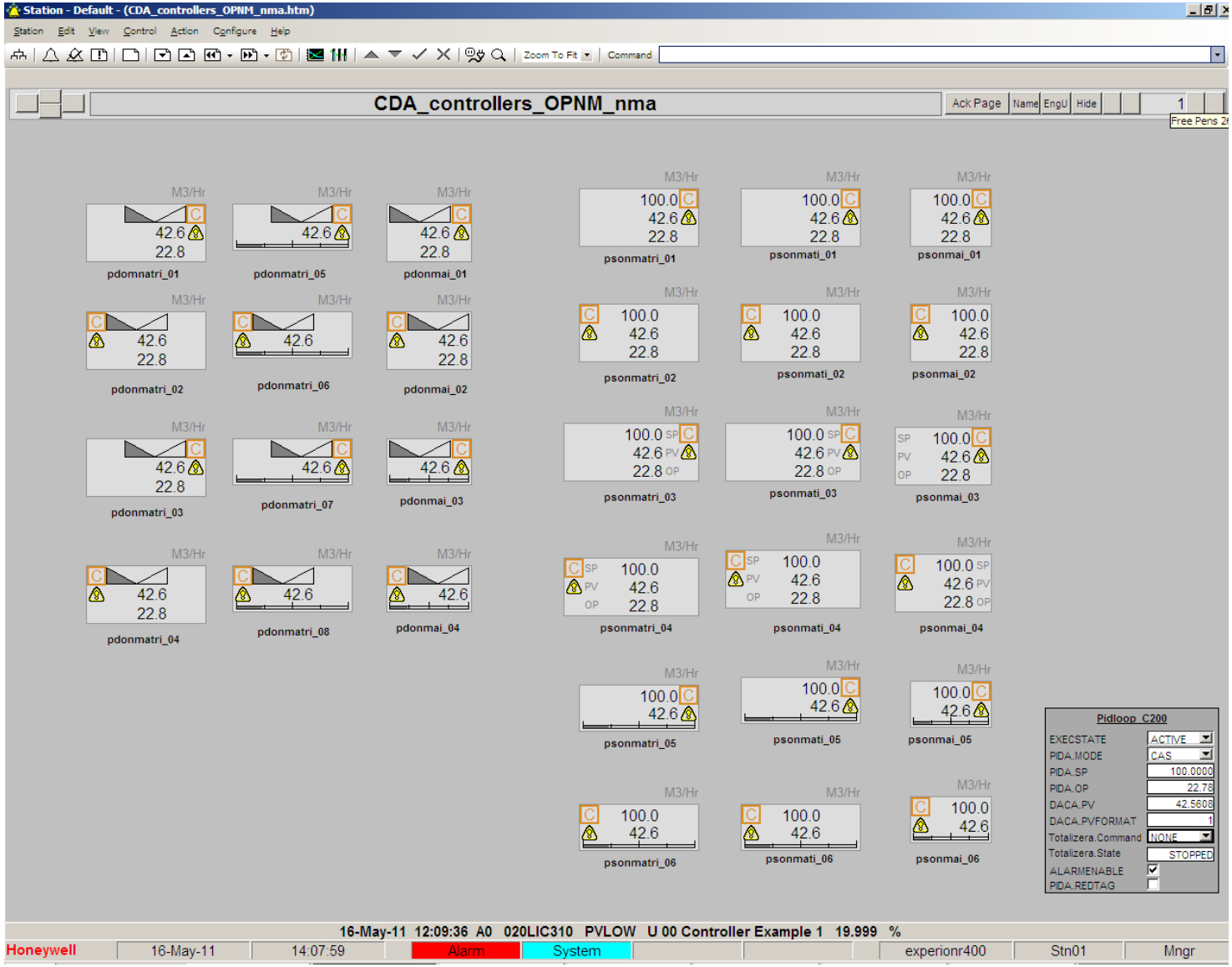

Alarm Rectangle Indication
Winding / Ramping Indication
Station - Default - (CDA_controllers_wri.htm)
CDA_RegCntl_lib_h
pdmatri_01
pdmatri_02
pdmatri_03
pdmatri_04
pdnmatri_01
pdnmatri_02
pdnmatri_03
pdnmatri_04
pdmai_01
pdmai_02
psmatri_01
psmatri_02
pdnmai_01
pdnmai_02
psnmatri_01
psnmatri_02
CDA_RegCntl_lib_h
psmati_01
psmati_02
psmai_01
psmai_02
psnmati_01
psnmati_02
psnmai_01
psnmai_02
pmai_01
pmai_02
pnmai_01
pnmai_02
Pidloop_C200
EXECSTATE ACTIVE
PIDA.MODE AUTO
PIDA.SP 0.0000
PIDA.OP -5.00
DACA.PV 7.3813
DACA.PVFORMAT 1
Totalizera.Command NONE
Totalizera.State STOPPED
ALARMENABLE
PIDA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
13:31:31
Alarm
System
experionr400
Stn01
Mngr

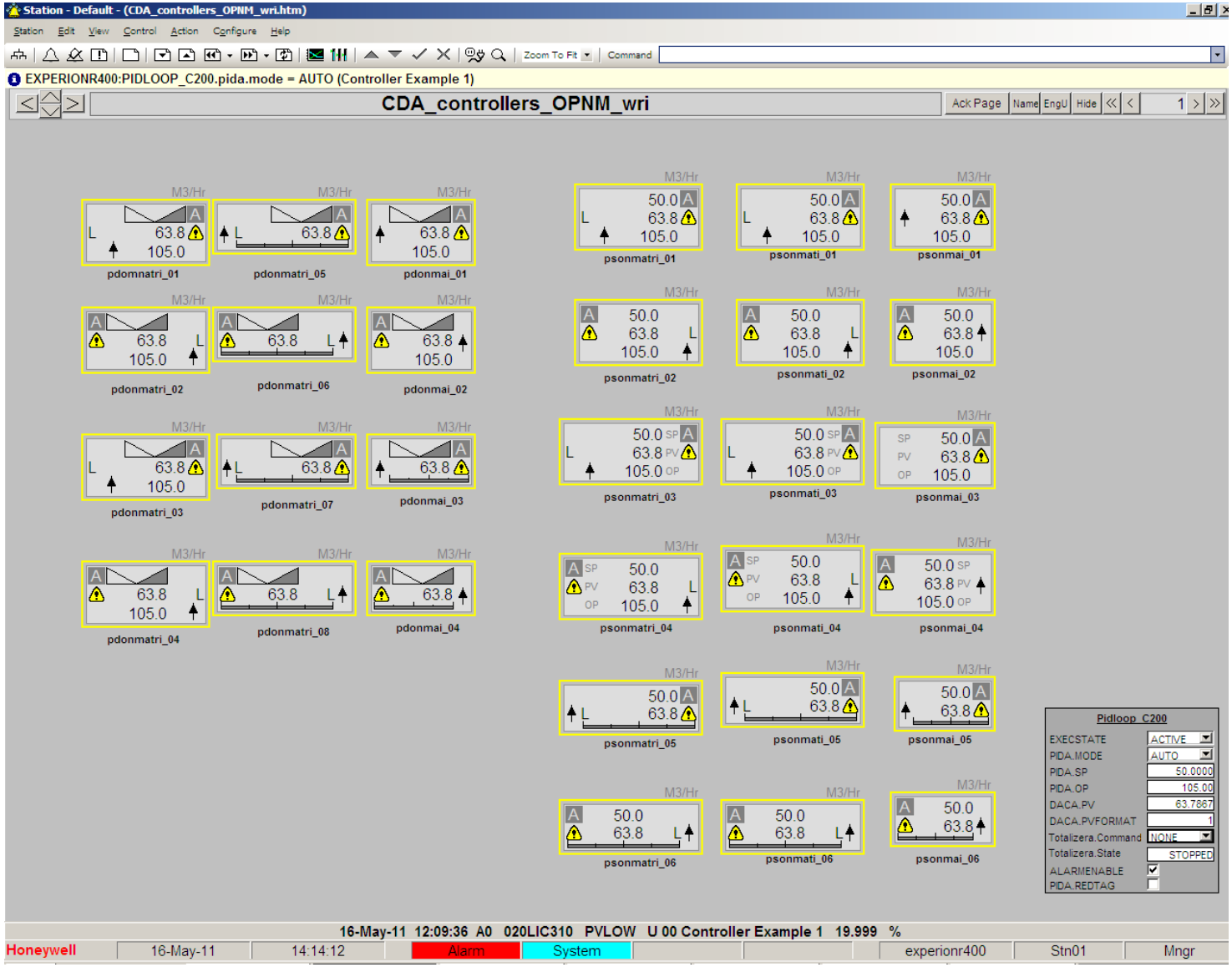

Station - Default - (CDA_controllers_wri_nma.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
EXPERIONR400:PIDLOOP_C200.pida.mode = AUTO (Controller Example 1)
CDA_controllers_wri_nma
Ack Page
Name
EngU
Hide
1
CDA_RegCntl_lib_h
M3/Hr
127.0
pdnmatri_01
pdnmatri_02
pdnmatri_03
pdnmatri_04
pdnmai_01
pdnmai_02
100.0
psnmatri_01
psnmatri_02
CDA_RegCntl_lib_h
psnmati_01
psnmati_02
psnmai_01
psnmai_02
pnmai_01
pnmai_02
Pidloop_C200
EXECSTATE
ACTIVE
PIDA.MODE
AUTO
PIDA.SP
100.0000
PIDA.OP
105.00
DACA.PV
126.9656
DACA.PVFORMAT
1
Totalizera.Command
NONE
Totalizera.State
STOPPED
ALARMENABLE
PIDA.REDTAG
16-May-11 13:30:02 SYSTEM PIDLOOP_C200 PVLOW U 00 Controller Example 1 29.6737 M3/Hr
Honeywell
16-May-11
13:35:34
Alarm
System
experionr400
Stn01
Mngr

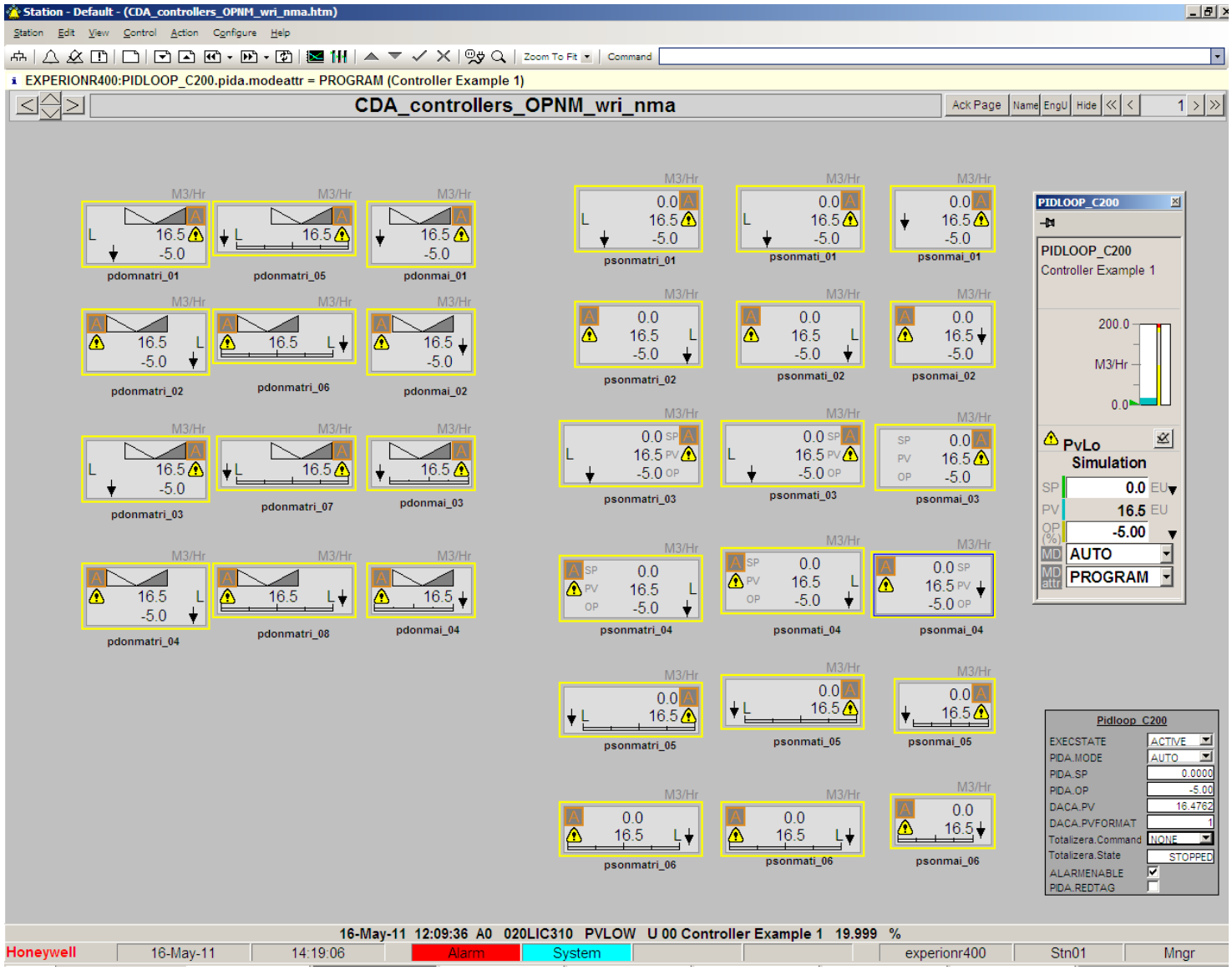

Station - Default - (CDA_controllers_OP.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_controllers_OP
Ack Page
Name
EngU
Hide
CDA_RegCntl_lib_h
pdomatri_01
pdomatri_05
pdomai_01
pdomatri_02
pdomatri_06
pdomai_02
pdomatri_03
pdomatri_07
pdomai_03
pdomatri_04
pdomatri_08
pdomai_04
psomatri_01
psomati_01
psomai_01
psomatri_02
psomati_02
psomai_02
psomatri_03
psomati_03
psomai_03
psomatri_04
psomati_04
psomai_04
psomatri_05
psomati_05
psomai_05
psomatri_06
psomati_06
psomai_06
Pidloop_C200
EXECSTATE ACTIVE
PIDA.MODE MAN
PIDA.SP 100.0000
PIDA.OP 9.00
DACA.PV 18.0050
DACA.PVFORMAT 1
Totalizera.Command NONE
Totalizera.State STOPPED
ALARMENABLE
PIDA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
13:59:22
Alarm
System
experionr400
Stn01
Mngr

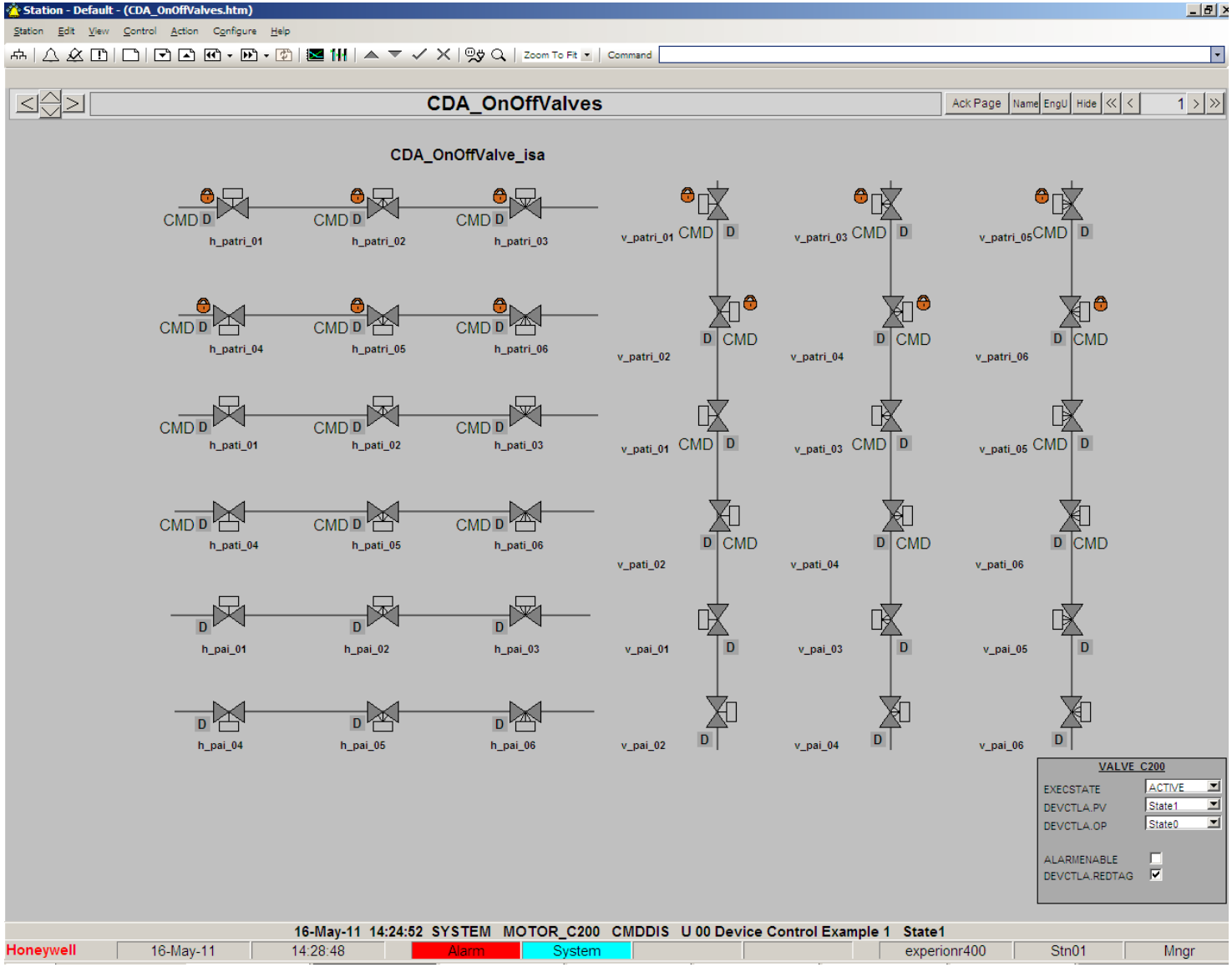

Station - Default - (CDA_controllers_OP_wri.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
EXPERIONR400:PIDLOOP_C200.pida.mode = AUTO (Controller Example 1)
CDA_controllers_OP_wri
Ack Page
Name
EngU
Hide
CDA_RegCntl_lib_h
pdomatri_01
pdomatri_05
pdomai_01
pdomatri_02
pdomatri_06
pdomai_02
pdomatri_03
pdomatri_07
pdomai_03
pdomatri_04
pdomatri_08
pdomai_04
psomatri_01
psomati_01
psomai_01
psomatri_02
psomati_02
psomai_02
psomatri_03
psomati_03
psomai_03
psomatri_04
psomati_04
psomai_04
psomatri_05
psomati_05
psomai_05
psomatri_06
psomati_06
psomai_06
Pidloop_C200
EXECSTATE ACTIVE
PIDA.MODE AUTO
PIDA.SP 0.0000
PIDA.OP -5.00
DACA.PV 15.1766
DACA.PVFORMAT 1
Totalizera.Command NONE
Totalizera.State STOPPED
ALARMENABLE
PIDA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
14:02:19
Alarm
System
experionr400
Stn01
Mngr

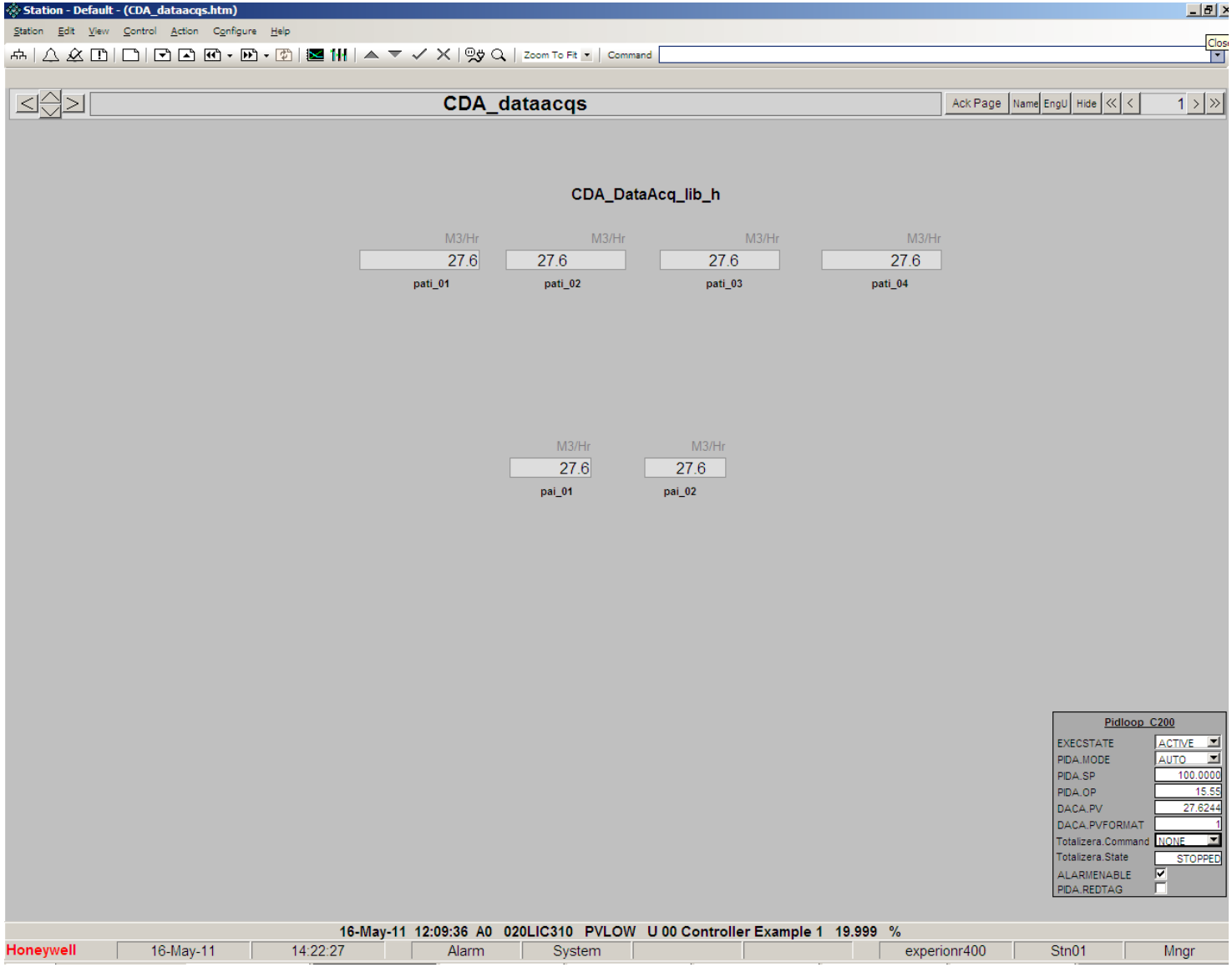

Station - Default - (CDA_controllers_OPNM.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
EXPERIONR400:PIDLOOP_C200.pida.redtag = ON (Controller Example 1)
CDA_controllers_OPNM
Ack Page
Name
EngU
Hide
1
M3/Hr
pdonmatri_05
pdonmai_01
pdonmatri_02
pdonmatri_06
pdonmai_02
pdonmatri_03
pdonmatri_07
pdonmai_03
pdonmatri_04
pdonmatri_08
pdonmai_04
psonmatri_01
psonmati_01
psonmai_01
psonmatri_02
psonmati_02
psonmai_02
psonmatri_03
psonmati_03
psonmai_03
psonmatri_04
psonmati_04
psonmai_04
psonmatri_05
psonmati_05
psonmai_05
psonmatri_06
psonmati_06
psonmai_06
Pidloop_C200
EXECSTATE ACTIVE
PIDA.MODE MAN
PIDA.SP 100.0000
PIDA.OP 20.00
DACA.PV 33.3633
DACA.PVFORMAT 1
Totalizera.Command NONE
Totalizera.State STOPPED
ALARMENABLE
PIDA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
14:04:04
Alarm
System
experionr400
Stn01
Mngr

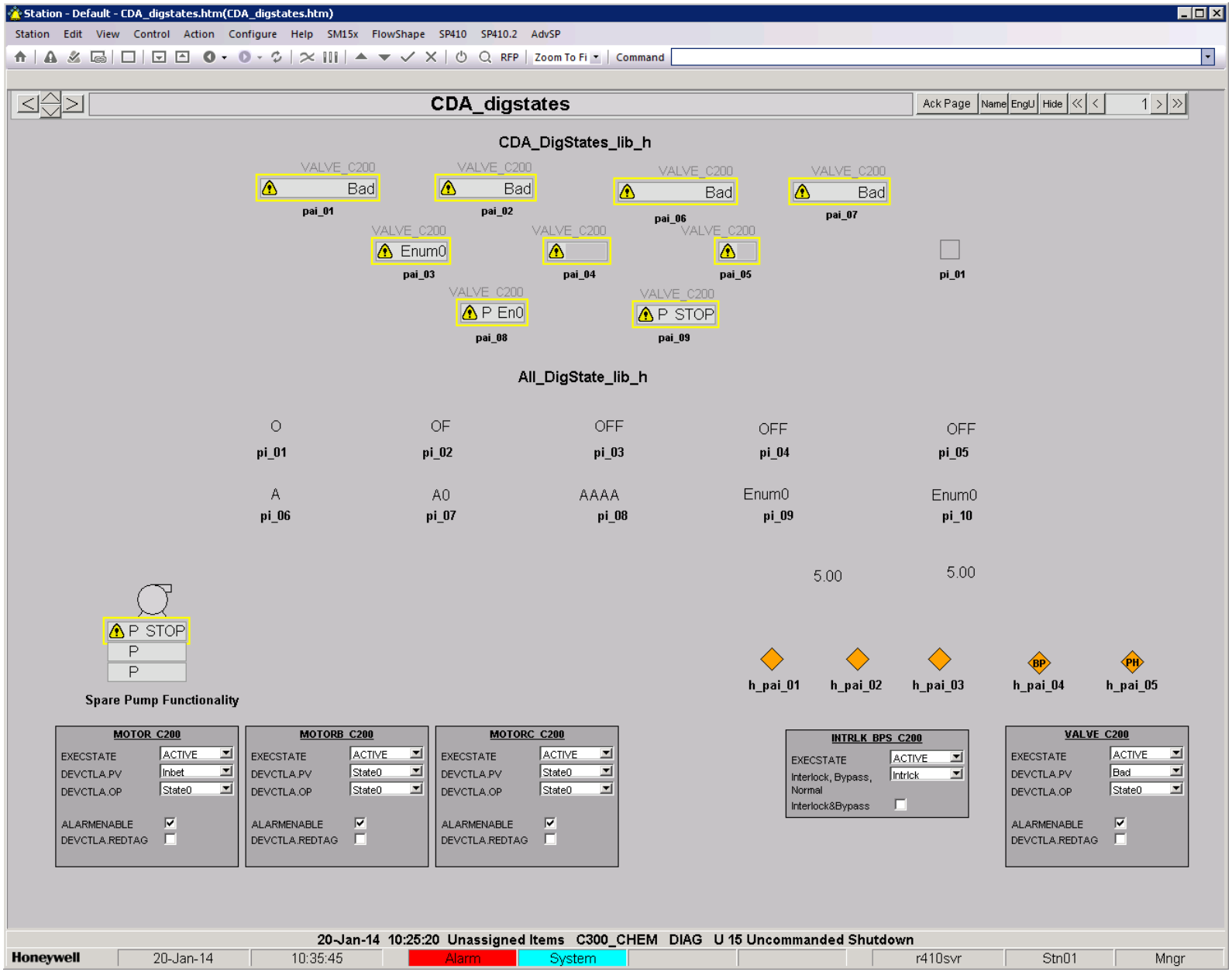

Station - Default - (CDA_controllers_OPNM_nma.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_controllers_OPNM_nma
Ack Page
Name
EngU
Hide
Free Pens
M3/Hr
pdomnatri_01
pdonmatri_05
pdonmai_01
pdonmatri_02
pdonmatri_06
pdonmai_02
pdonmatri_03
pdonmatri_07
pdonmai_03
pdonmatri_04
pdonmatri_08
pdonmai_04
psonmatri_01
psonmati_01
psonmai_01
psonmatri_02
psonmati_02
psonmai_02
psonmatri_03
psonmati_03
psonmai_03
psonmatri_04
psonmati_04
psonmai_04
psonmatri_05
psonmati_05
psonmai_05
psonmatri_06
psonmati_06
psonmai_06
Pidloop_C200
EXECSTATE ACTIVE
PIDA.MODE CAS
PIDA.SP 100.0000
PIDA.OP 22.78
DACA.PV 42.5608
DACA.PVFORMAT 1
Totalizera.Command NONE
Totalizera.State STOPPED
ALARMENABLE
PIDA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
14:07:59
Alarm
System
experionr400
Stn01
Mngr

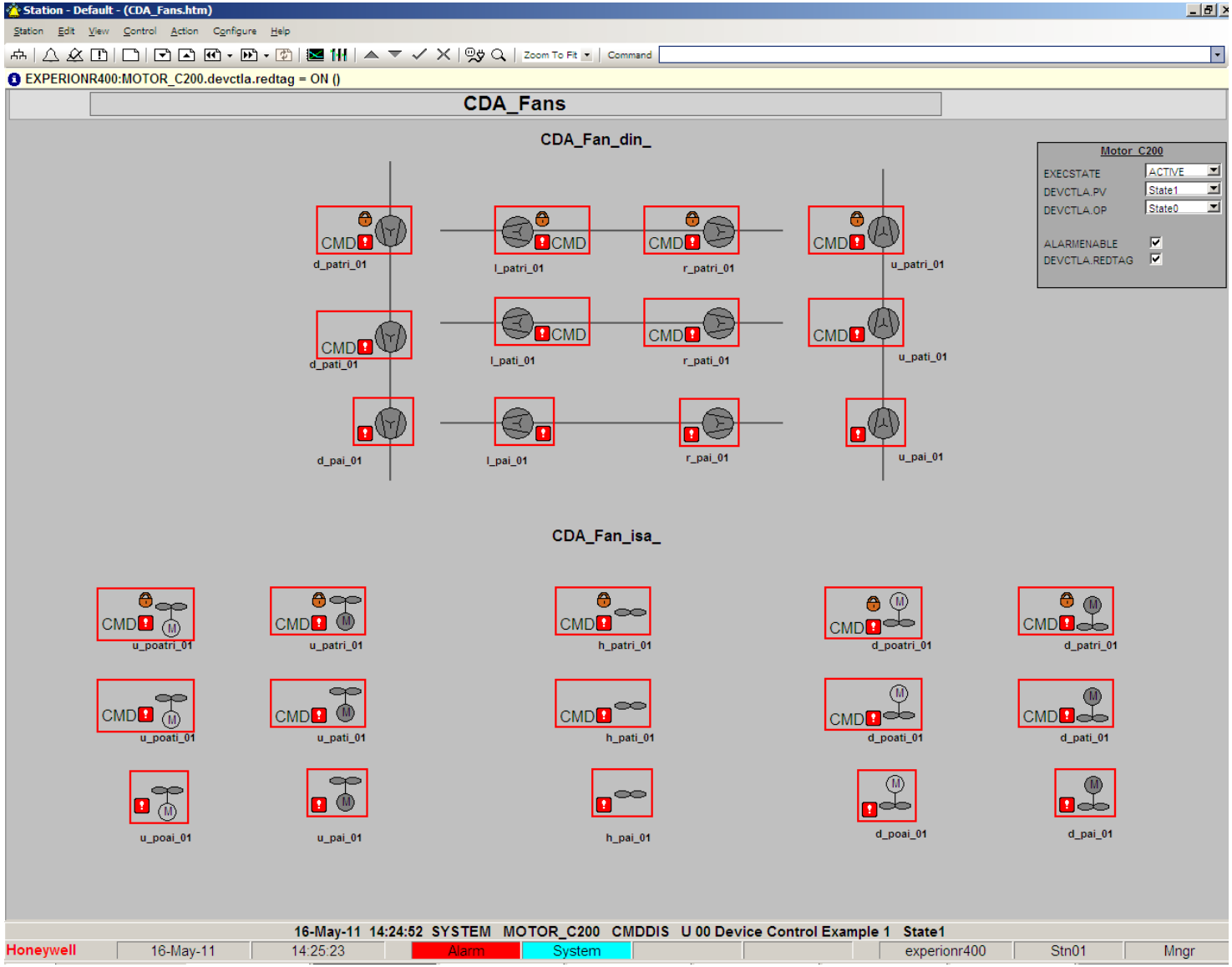

Station - Default - (CDA_controllers_OPNM_wri.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
EXPERIONR400:PIDLOOP_C200.pida.mode = AUTO (Controller Example 1)
CDA_controllers_OPNM_wri
Ack Page
Name
EngU
Hide
1
M3/Hr
63.8
105.0
pdomnatri_01
pdonmatri_05
pdonmai_01
pdonmatri_02
pdonmatri_06
pdonmai_02
pdonmatri_03
pdonmatri_07
pdonmai_03
pdonmatri_04
pdonmatri_08
pdonmai_04
50.0
psonmatri_01
psonmati_01
psonmai_01
psonmatri_02
psonmati_02
psonmai_02
SP
PV
OP
psonmatri_03
psonmati_03
psonmai_03
psonmatri_04
psonmati_04
psonmai_04
psonmatri_05
psonmati_05
psonmai_05
psonmatri_06
psonmati_06
psonmai_06
Pidloop_C200
EXECSTATE
ACTIVE
PIDA.MODE
AUTO
PIDA.SP
50.0000
PIDA.OP
105.00
DACA.PV
63.7867
DACA.PVFORMAT
1
Totalizera.Command
NONE
Totalizera.State
STOPPED
ALARMENABLE
PIDA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
14:14:12
Alarm
System
experionr400
Stn01
Mngr

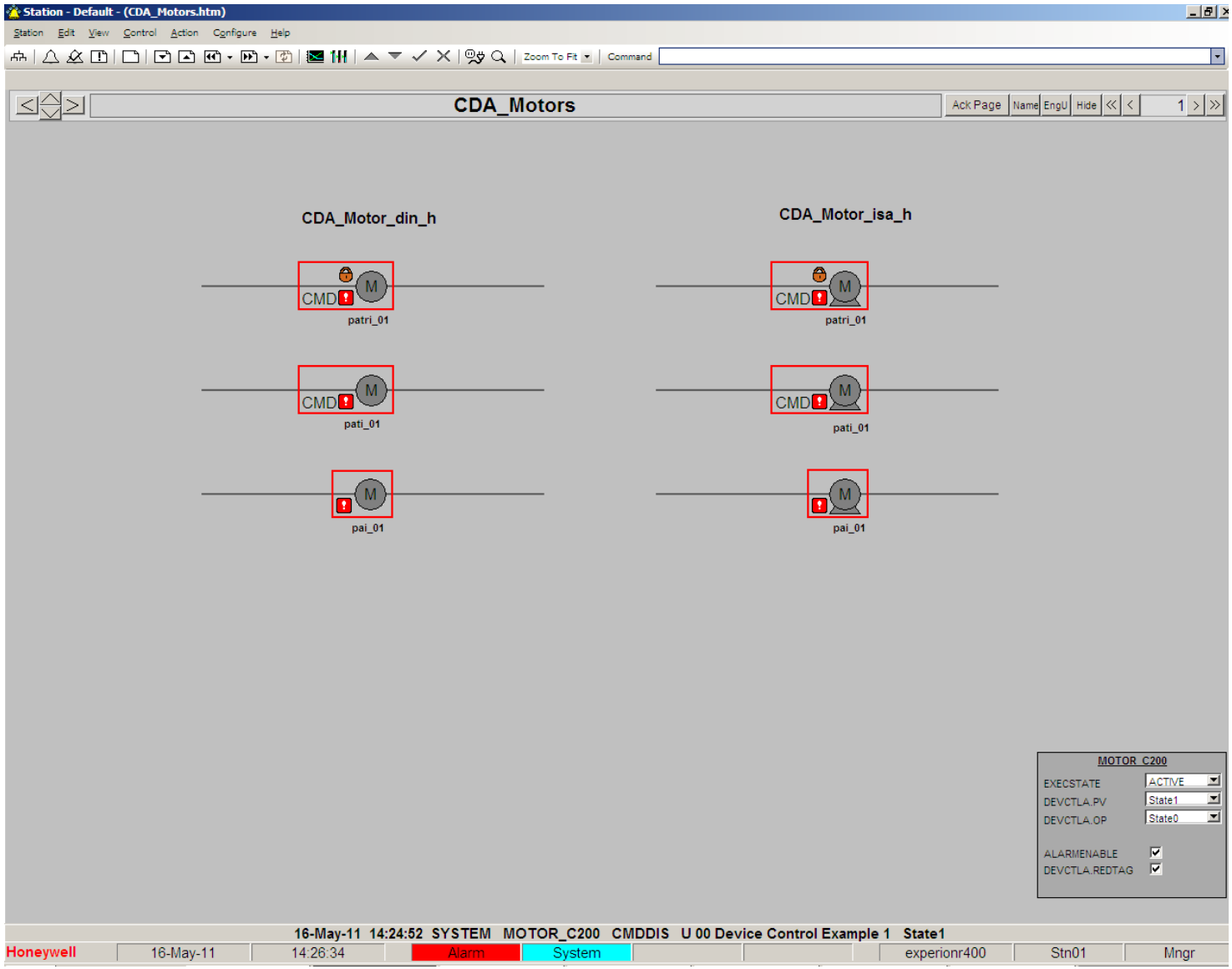

Station - Default - (CDA_controllers_OPNM_wri_nma.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
EXPERIONR400:PIDLOOP_C200.pida.modeattr = PROGRAM (Controller Example 1)
CDA_controllers_OPNM_wri_nma
Ack Page
Name
EngU
Hide
pdomnatri_01
pdonmatri_05
pdonmai_01
pdonmatri_02
pdonmatri_06
pdonmai_02
pdonmatri_03
pdonmatri_07
pdonmai_03
pdonmatri_04
pdonmatri_08
pdonmai_04
psonmatri_01
psonmati_01
psonmai_01
psonmatri_02
psonmati_02
psonmai_02
psonmatri_03
psonmati_03
psonmai_03
psonmatri_04
psonmati_04
psonmai_04
psonmatri_05
psonmati_05
psonmai_05
psonmatri_06
psonmati_06
psonmai_06
PIDLOOP_C200
PIDLOOP_C200
Controller Example 1
PvLo
Simulation
SP 0.0 EU
PV 16.5 EU
OP -5.00
MD AUTO
MD attr PROGRAM
Pidloop_C200
EXECSTATE ACTIVE
PIDA.MODE AUTO
PIDA.SP 0.0000
PIDA.OP -5.00
DACA.PV 16.4762
DACA.PVFORMAT 1
Totalizera.Command NONE
Totalizera.State STOPPED
ALARMENABLE
PIDA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
14:19:06
Alarm
System
experionr400
Stn01
Mngr

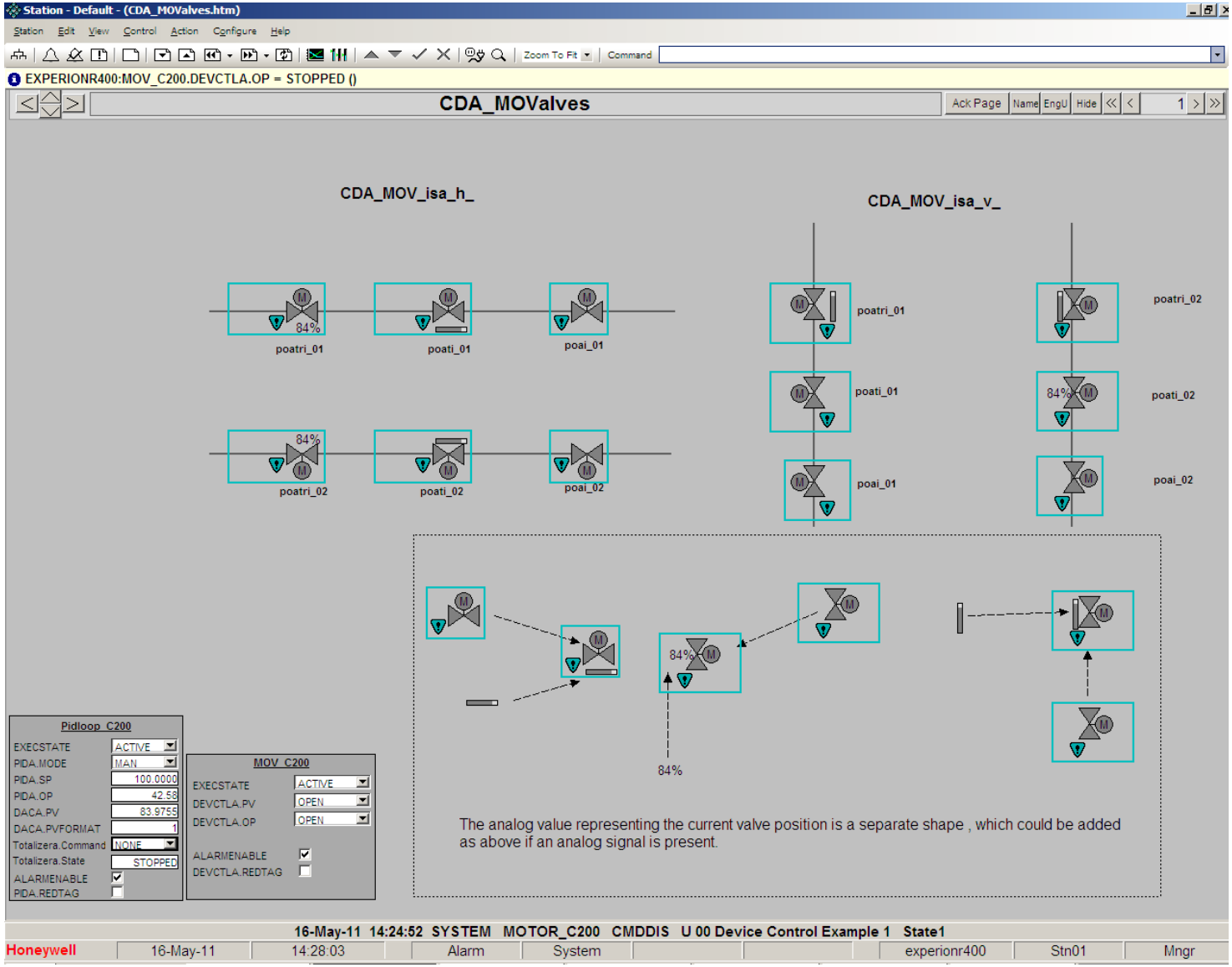

Station - Default - (CDA_OnOffValves.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_OnOffValves
Ack Page
Name
EngU
Hide
1
CDA_OnOffValve_isa
CMD D
h_patri_01
h_patri_02
h_patri_03
h_patri_04
h_patri_05
h_patri_06
h_pati_01
h_pati_02
h_pati_03
h_pati_04
h_pati_05
h_pati_06
h_pai_01
h_pai_02
h_pai_03
h_pai_04
h_pai_05
h_pai_06
v_patri_01
v_patri_02
v_patri_03
v_patri_04
v_patri_05
v_patri_06
v_pati_01
v_pati_02
v_pati_03
v_pati_04
v_pati_05
v_pati_06
v_pai_01
v_pai_02
v_pai_03
v_pai_04
v_pai_05
v_pai_06
VALVE_C200
EXECSTATE ACTIVE
DEVCTLA.PV State1
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 14:24:52 SYSTEM MOTOR_C200 CMDDIS U 00 Device Control Example 1 State1
Honeywell
16-May-11
14:28:48
Alarm
System
experionr400
Stn01
Mngr

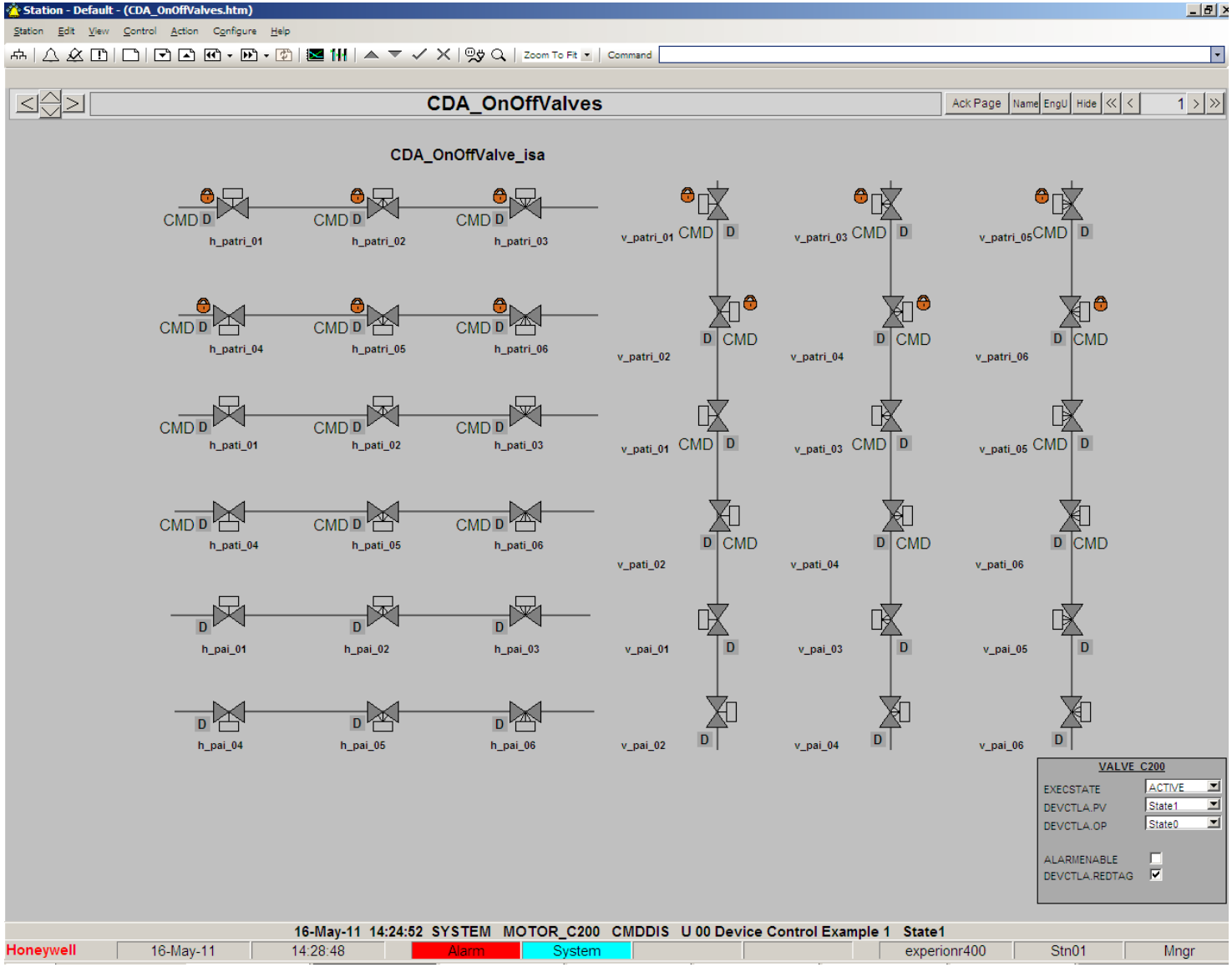

Station - Default - (CDA_dataacqs.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_dataacqs
Ack Page
Name
EngU
Hide
1
CDA_DataAcq_lib_h
M3/Hr
27.6
pati_01
M3/Hr
27.6
pati_02
M3/Hr
27.6
pati_03
M3/Hr
27.6
pati_04
M3/Hr
27.6
pai_01
M3/Hr
27.6
pai_02
Pidloop_C200
EXECSTATE ACTIVE
PIDA.MODE AUTO
PIDA.SP 100.0000
PIDA.OP 15.55
DACA.PV 27.6244
DACA.PVFORMAT 1
Totalizera.Command NONE
Totalizera.State STOPPED
ALARMENABLE
PIDA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
14:22:27
Alarm
System
experionr400
Stn01
Mngr

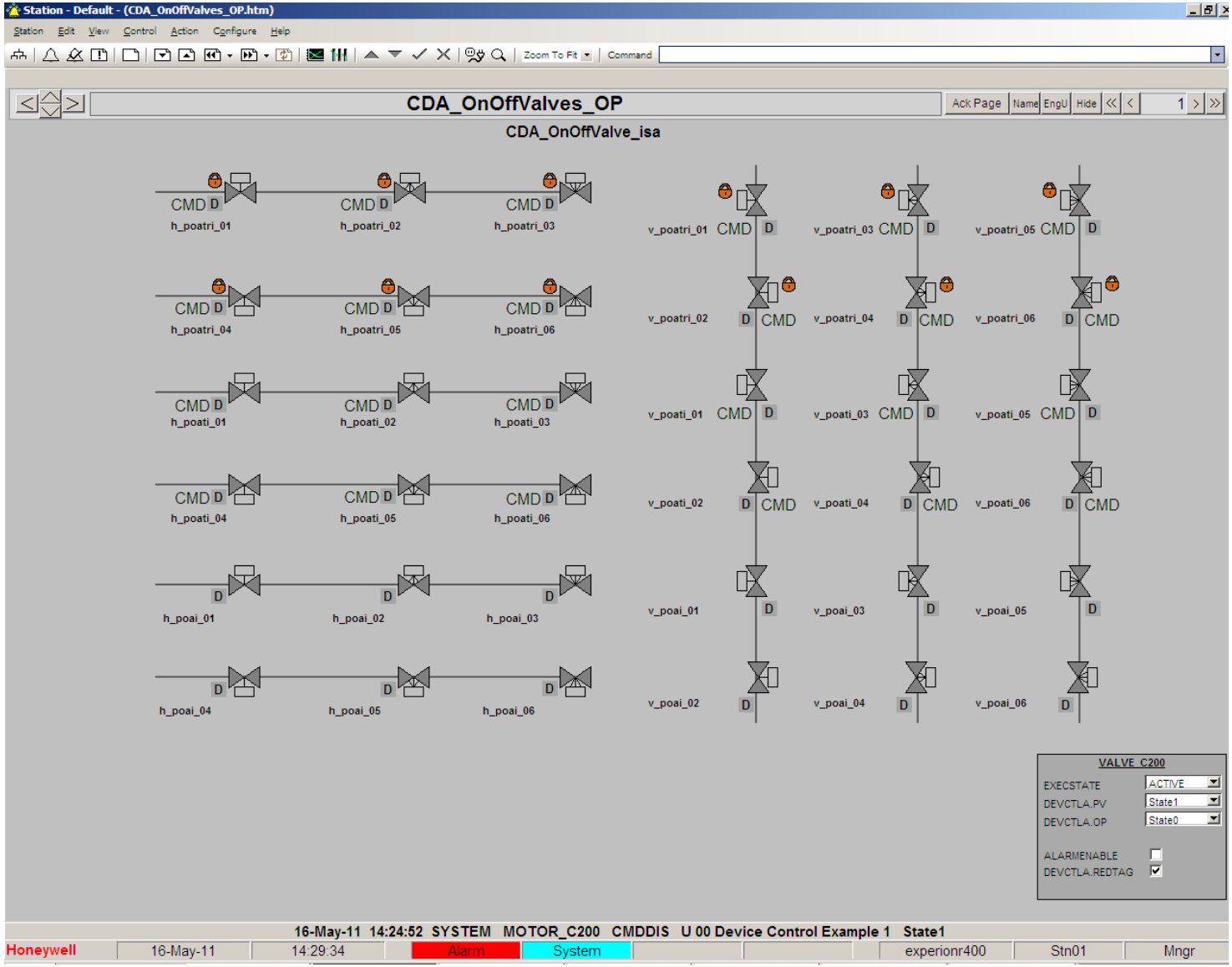

Station - Default - CDA_digstates.htm(CDA_digstates.htm)
Station Edit View Control Action Configure Help SM15x FlowShape SP410 SP410.2 AdvSP
RFP Zoom To Fi Command
CDA_digstates
Ack Page Name EngU Hide 1
CDA_DigStates_lib_h
VALVE_C200 Bad pai_01
VALVE_C200 Bad pai_02
VALVE_C200 Bad pai_06
VALVE_C200 Bad pai_07
VALVE_C200 Enum0 pai_03
VALVE_C200 pai_04
VALVE_C200 pai_05
pi_01
VALVE_C200 P En0 pai_08
VALVE_C200 P STOP pai_09
All_DigState_lib_h
O pi_01
OF pi_02
OFF pi_03
OFF pi_04
OFF pi_05
A pi_06
A0 pi_07
AAAA pi_08
Enum0 pi_09
Enum0 pi_10
5.00
5.00
P STOP
P
P
Spare Pump Functionality
h_pai_01
h_pai_02
h_pai_03
BP
h_pai_04
PH
h_pai_05
MOTOR_C200
EXECSTATE ACTIVE
DEVCTLA.PV Inbet
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
MOTORB_C200
EXECSTATE ACTIVE
DEVCTLA.PV State0
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
MOTORC_C200
EXECSTATE ACTIVE
DEVCTLA.PV State0
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
INTRLK_BPS_C200
EXECSTATE ACTIVE
Interlock, Bypass, Normal Intrlck
Interlock&Bypass
VALVE_C200
EXECSTATE ACTIVE
DEVCTLA.PV Bad
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
20-Jan-14 10:25:20 Unassigned Items C300_CHEM DIAG U 15 Uncommanded Shutdown
Honeywell 20-Jan-14 10:35:45 Alarm System r410svr Stn01 Mngr

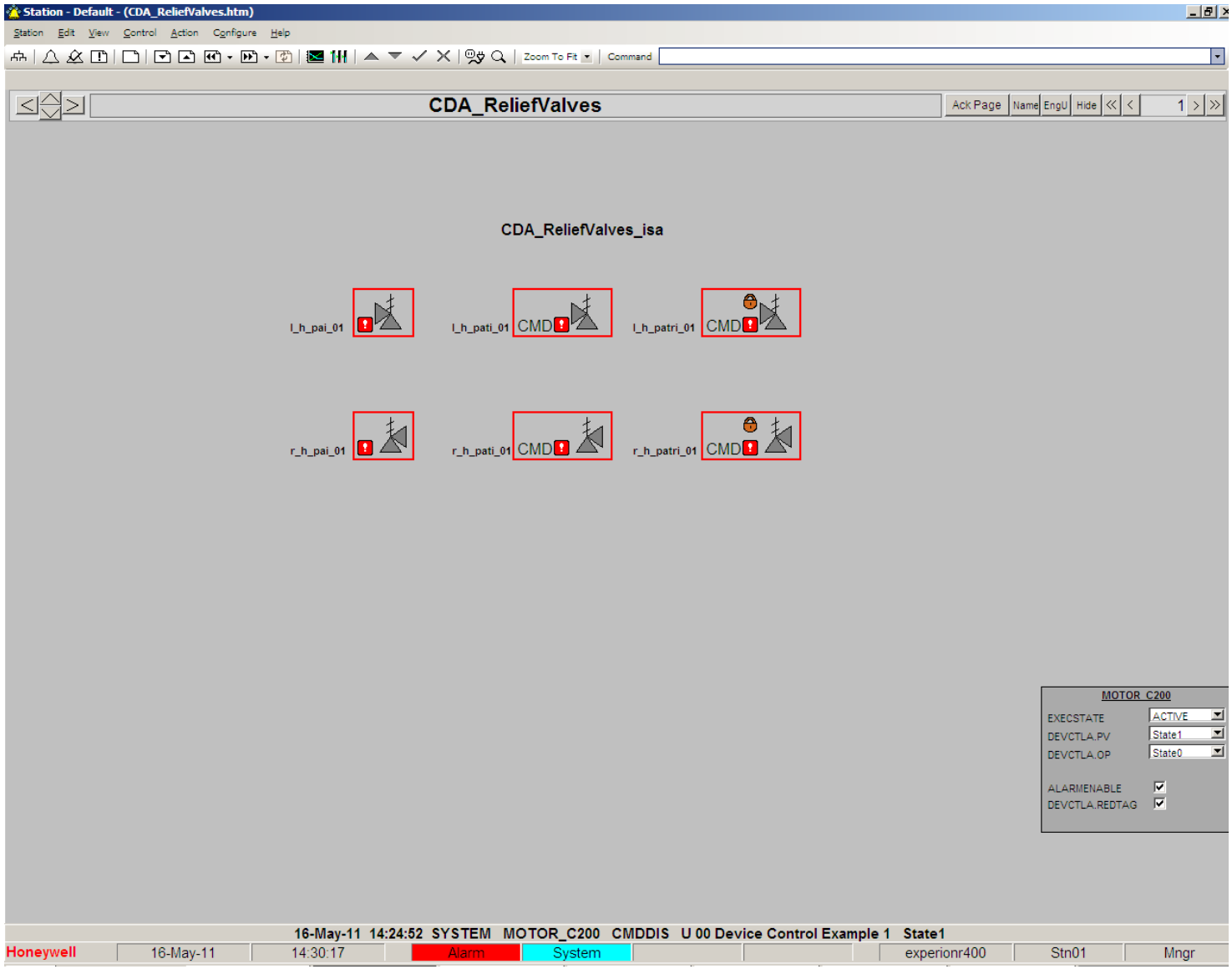

Station - Default - (CDA_Fans.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
EXPERIONR400:MOTOR_C200.devctla.redtag = ON ()
CDA_Fans
CDA_Fan_din_
Motor_C200
EXECSTATE
ACTIVE
DEVCTLA.PV
State1
DEVCTLA.OP
State0
ALARMENABLE
DEVCTLA.REDTAG
CMD
d_patri_01
l_patri_01
r_patri_01
u_patri_01
d_pati_01
l_pati_01
r_pati_01
u_pati_01
d_pai_01
l_pai_01
r_pai_01
u_pai_01
CDA_Fan_isa_
u_poatri_01
u_patri_01
h_patri_01
d_poatri_01
d_patri_01
u_poati_01
u_pati_01
h_pati_01
d_poati_01
d_pati_01
u_poai_01
u_pai_01
h_pai_01
d_poai_01
d_pai_01
16-May-11 14:24:52 SYSTEM MOTOR_C200 CMDDIS U 00 Device Control Example 1 State1
Honeywell
16-May-11
14:25:23
Alarm
System
experionr400
Stn01
Mngr

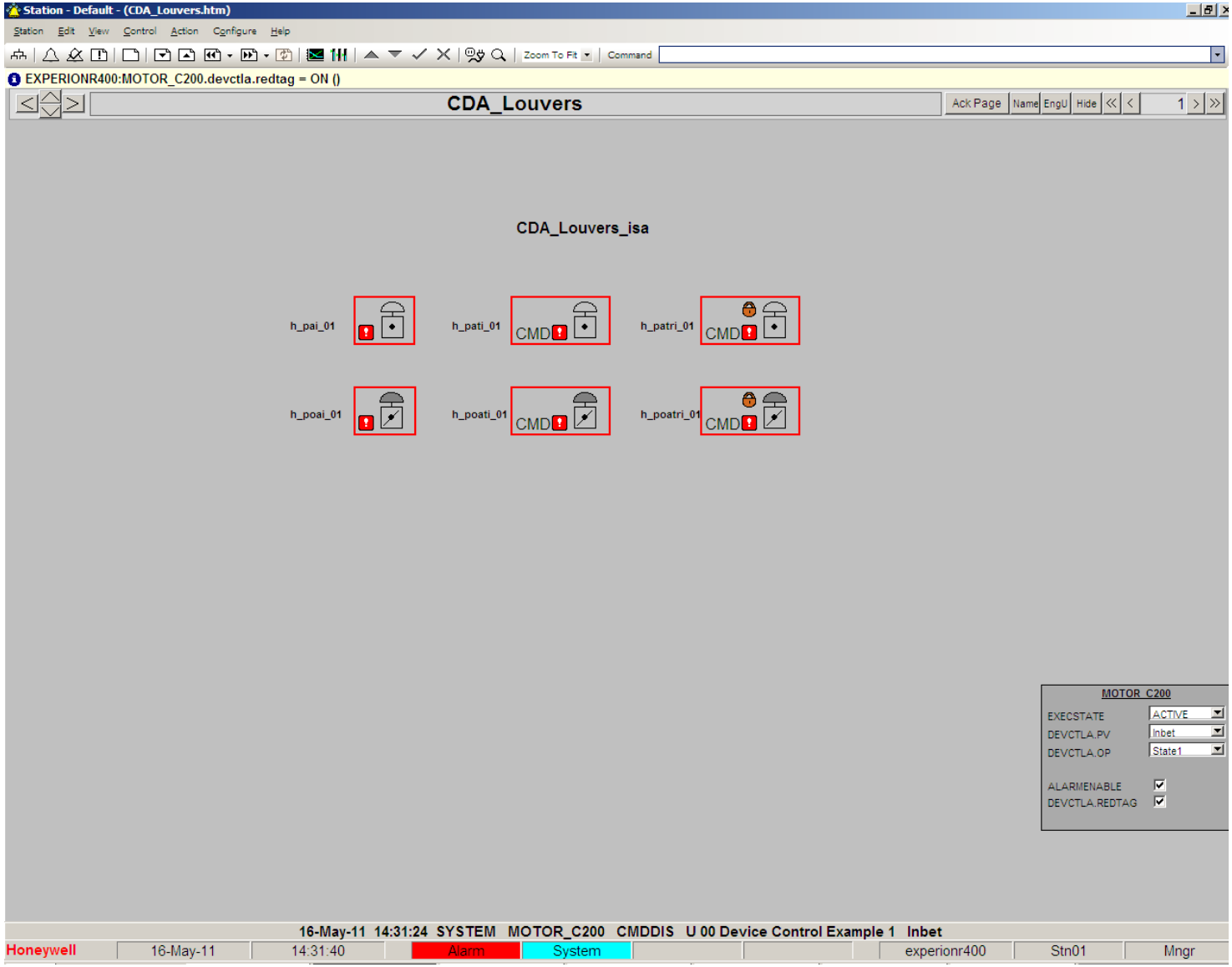

Station - Default - (CDA_Motors.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_Motors
Ack Page
Name
EngU
Hide
1
CDA_Motor_din_h
CDA_Motor_isa_h
CMD
M
patri_01
pati_01
pai_01
MOTOR_C200
EXECSTATE
ACTIVE
DEVCTLA.PV
State1
DEVCTLA.OP
State0
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 14:24:52 SYSTEM MOTOR_C200 CMDDIS U 00 Device Control Example 1 State1
Honeywell
16-May-11
14:26:34
Alarm
System
experionr400
Stn01
Mngr

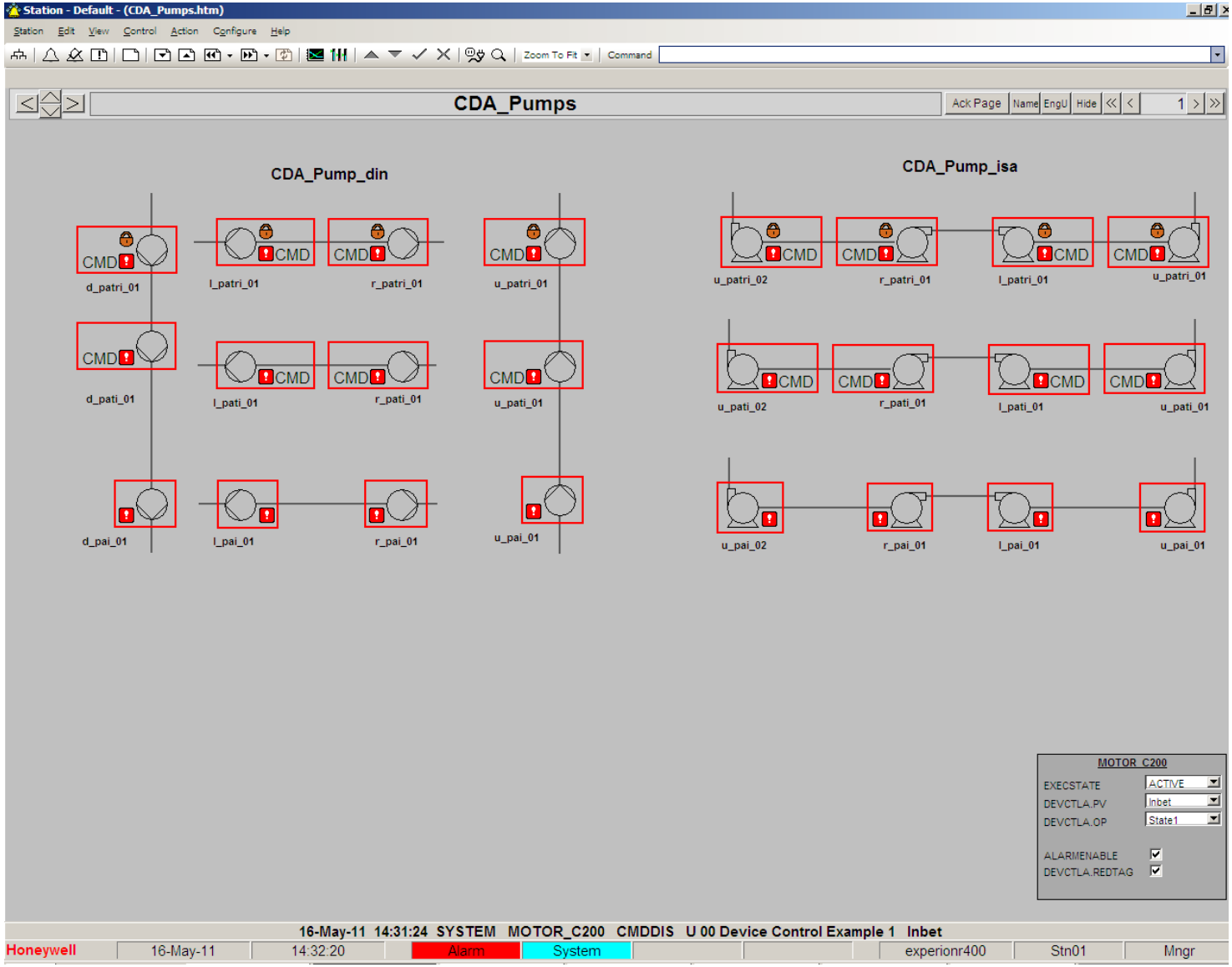

Station - Default - (CDA_MOValves.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
EXPERIONR400:MOV_C200.DEVCTLA.OP = STOPPED ()
CDA_MOValves
Ack Page
Name
EngU
Hide
1
CDA_MOV_isa_h_
CDA_MOV_isa_v_
84%
poatri_01
poati_01
poai_01
poatri_02
poati_02
poai_02
Pidloop_C200
EXECSTATE ACTIVE
PIDA.MODE MAN
PIDA.SP 100.0000
PIDA.OP 42.58
DACA.PV 83.9755
DACA.PVFORMAT 1
Totalizera.Command NONE
Totalizera.State STOPPED
ALARMENABLE
PIDA.REDTAG
MOV_C200
EXECSTATE ACTIVE
DEVCTLA.PV OPEN
DEVCTLA.OP OPEN
ALARMENABLE
DEVCTLA.REDTAG
The analog value representing the current valve position is a separate shape , which could be added as above if an analog signal is present.
16-May-11 14:24:52 SYSTEM MOTOR_C200 CMDDIS U 00 Device Control Example 1 State1
Honeywell
16-May-11
14:28:03
Alarm
System
experionr400
Stn01
Mngr

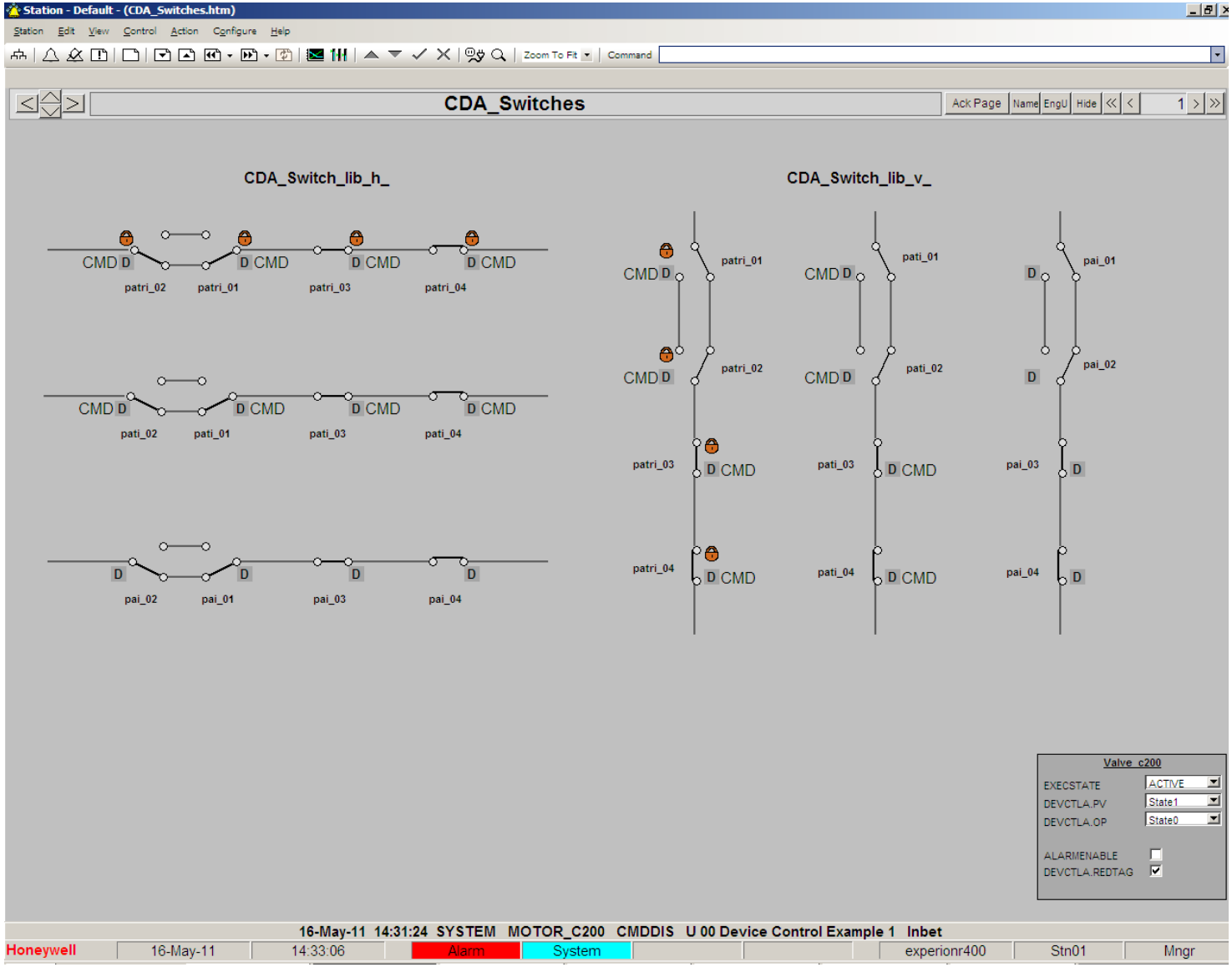

Station - Default - (CDA_OnOffValves.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_OnOffValves
Ack Page
Name
EngU
Hide
1
CDA_OnOffValve_isa
CMD D
h_patri_01
h_patri_02
h_patri_03
h_patri_04
h_patri_05
h_patri_06
h_pati_01
h_pati_02
h_pati_03
h_pati_04
h_pati_05
h_pati_06
h_pai_01
h_pai_02
h_pai_03
h_pai_04
h_pai_05
h_pai_06
v_patri_01
v_patri_02
v_patri_03
v_patri_04
v_patri_05
v_patri_06
v_pati_01
v_pati_02
v_pati_03
v_pati_04
v_pati_05
v_pati_06
v_pai_01
v_pai_02
v_pai_03
v_pai_04
v_pai_05
v_pai_06
VALVE_C200
EXECSTATE ACTIVE
DEVCTLA.PV State1
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 14:24:52 SYSTEM MOTOR_C200 CMDDIS U 00 Device Control Example 1 State1
Honeywell
16-May-11
14:28:48
Alarm
System
experionr400
Stn01
Mngr

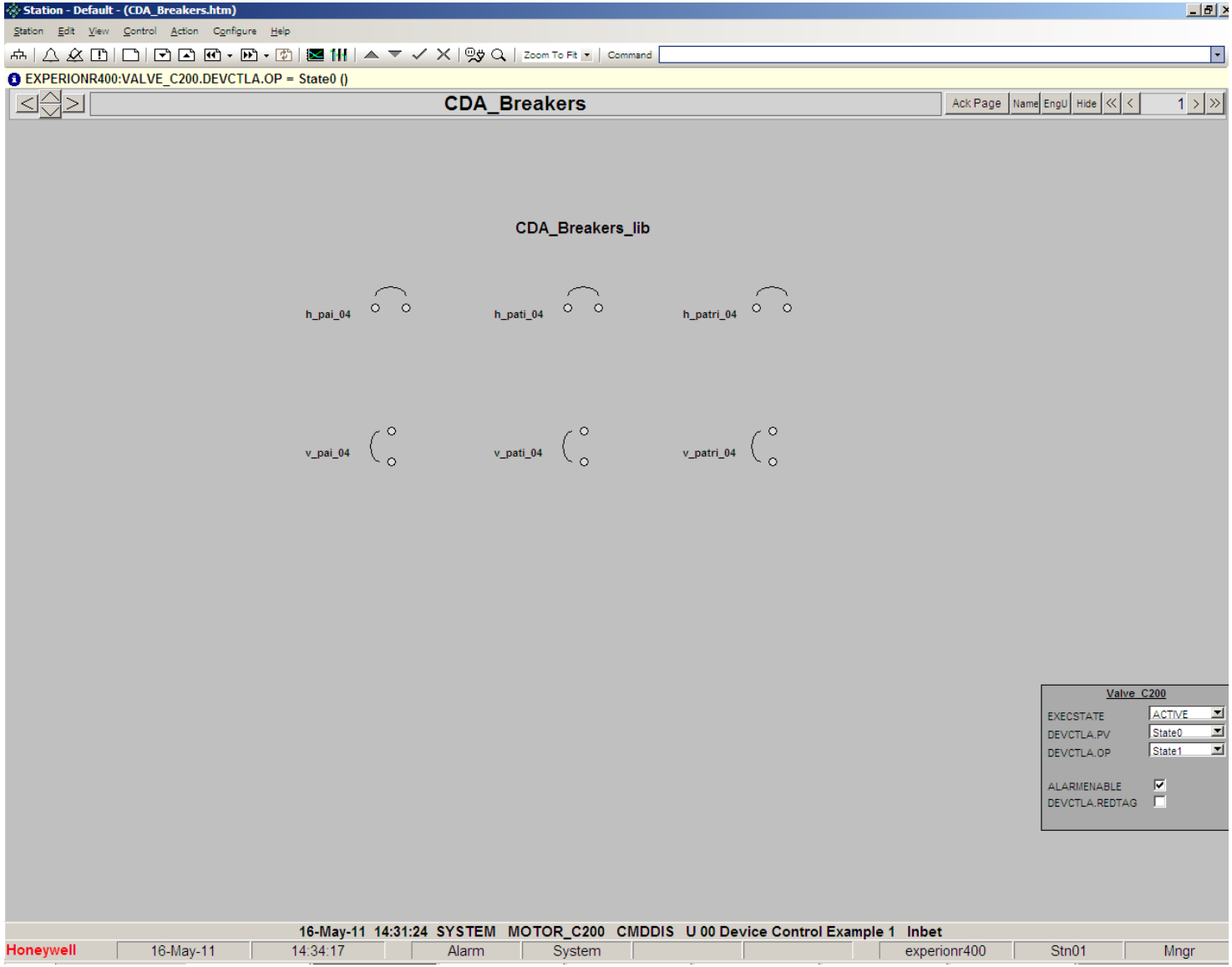

Station - Default - (CDA_OnOffValves_OP.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_OnOffValves_OP
Ack Page
Name
EngU
Hide
1
CDA_OnOffValve_isa
CMD D
h_poatri_01
h_poatri_02
h_poatri_03
h_poatri_04
h_poatri_05
h_poatri_06
h_poati_01
h_poati_02
h_poati_03
h_poati_04
h_poati_05
h_poati_06
h_poai_01
h_poai_02
h_poai_03
h_poai_04
h_poai_05
h_poai_06
v_poatri_01
v_poatri_03
v_poatri_05
v_poatri_02
v_poatri_04
v_poatri_06
v_poati_01
v_poati_03
v_poati_05
v_poati_02
v_poati_04
v_poati_06
v_poai_01
v_poai_03
v_poai_05
v_poai_02
v_poai_04
v_poai_06
VALVE_C200
EXECSTATE ACTIVE
DEVCTLA.PV State1
DEVCTLA.OP State0
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 14:24:52 SYSTEM MOTOR_C200 CMDDIS U 00 Device Control Example 1 State1
Honeywell
16-May-11
14:29:34
Alarm
System
experionr400
Stn01
Mngr

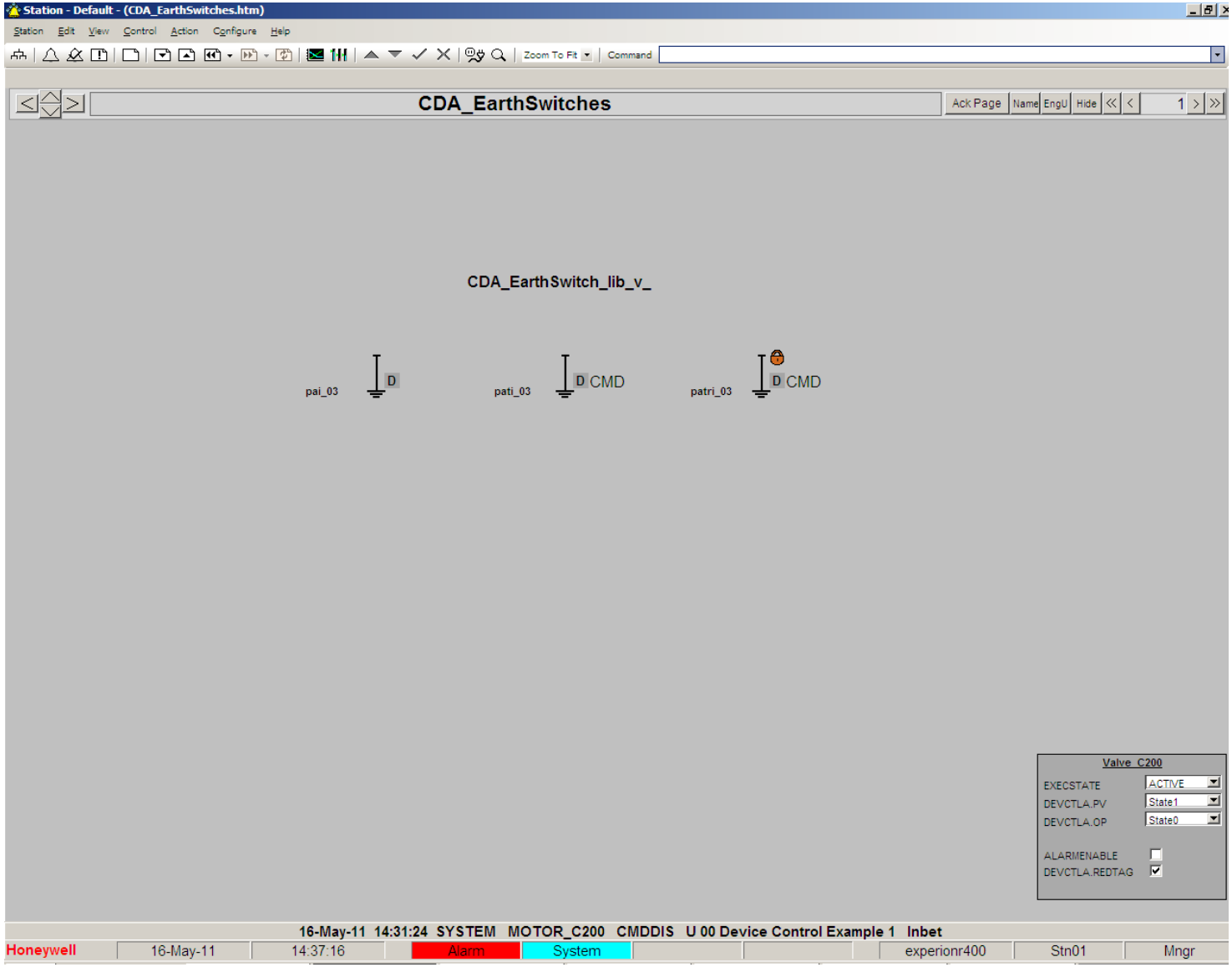

Station - Default - (CDA_ReliefValves.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_ReliefValves
Ack Page
Name
EngU
Hide
1
CDA_ReliefValves_isa
l_h_pai_01
l_h_pati_01
CMD
l_h_patri_01
CMD
r_h_pai_01
r_h_pati_01
CMD
r_h_patri_01
CMD
MOTOR_C200
EXECSTATE
ACTIVE
DEVCTLA.PV
State1
DEVCTLA.OP
State0
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 14:24:52 SYSTEM MOTOR_C200 CMDDIS U 00 Device Control Example 1 State1
Honeywell
16-May-11
14:30:17
Alarm
System
experionr400
Stn01
Mngr

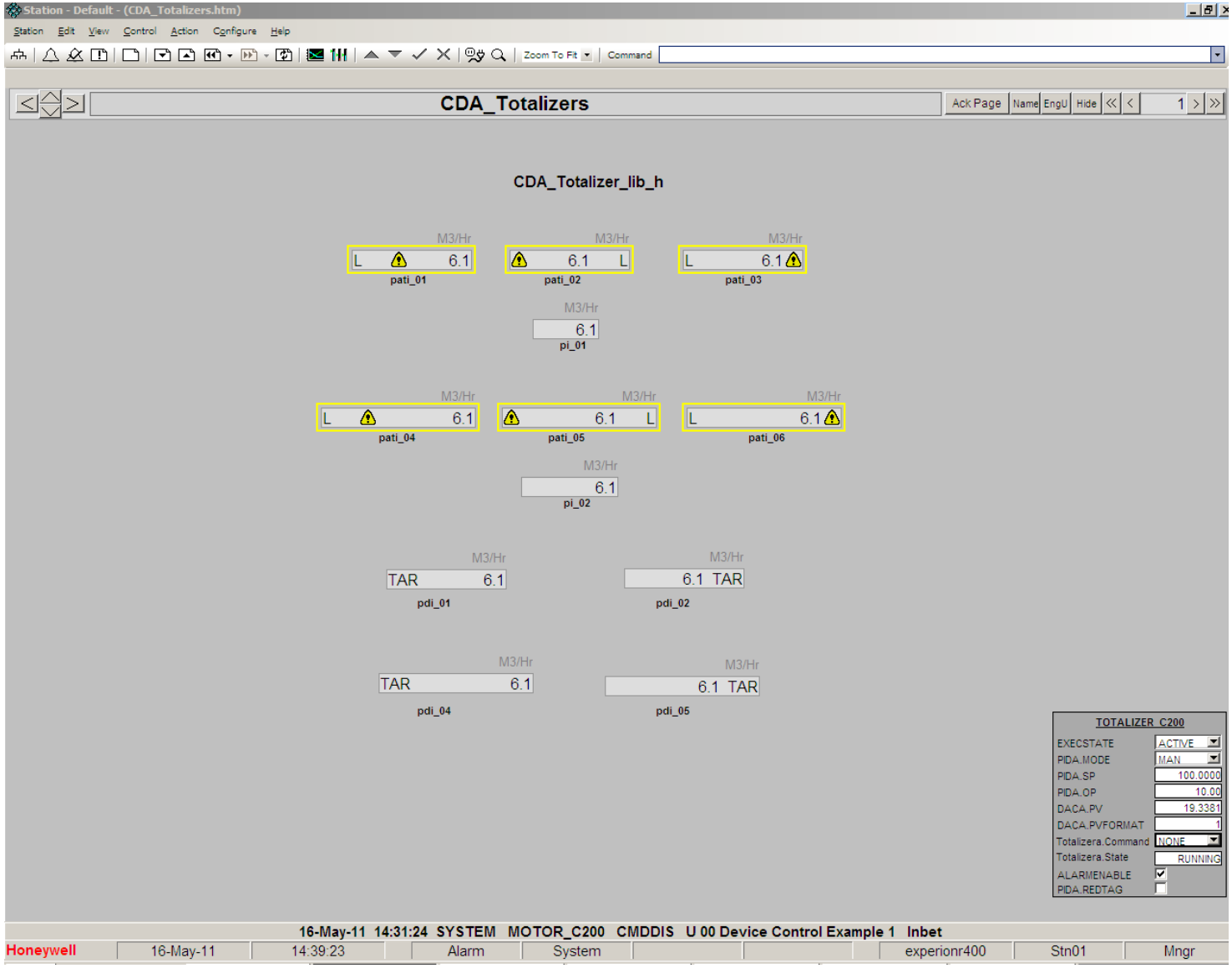

Station - Default - (CDA_Louvers.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
EXPERIONR400:MOTOR_C200.devctla.redtag = ON ()
CDA_Louvers
Ack Page
Name
EngU
Hide
1
CDA_Louvers_isa
h_pai_01
h_pati_01
CMD
h_patri_01
CMD
h_poai_01
h_poati_01
CMD
h_poatri_01
CMD
MOTOR_C200
EXECSTATE
ACTIVE
DEVCTLA.PV
Inbet
DEVCTLA.OP
State1
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 14:31:24 SYSTEM MOTOR_C200 CMDDIS U 00 Device Control Example 1 Inbet
Honeywell
16-May-11
14:31:40
Alarm
System
experionr400
Stn01
Mngr

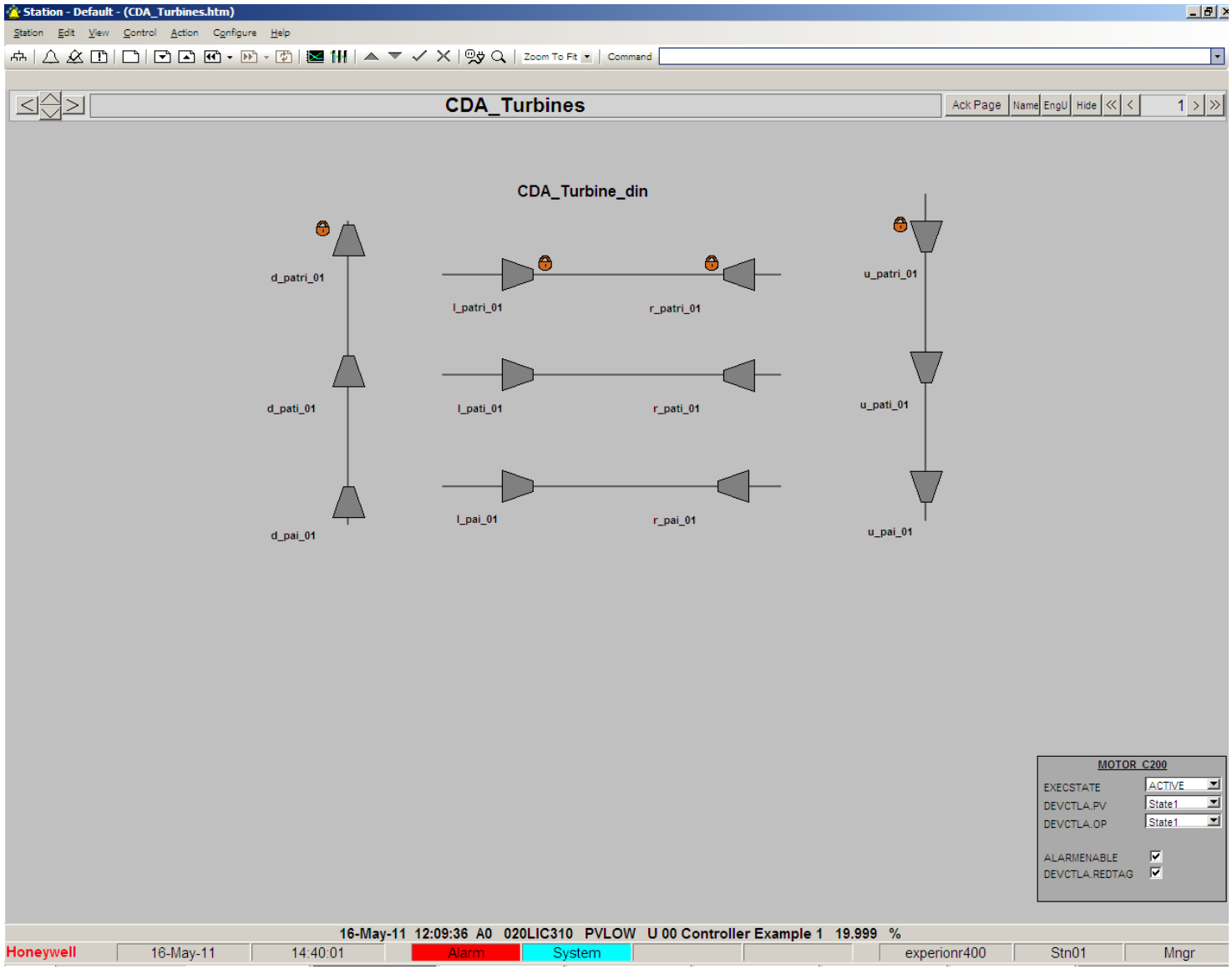

Station - Default - (CDA_Pumps.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_Pumps
Ack Page
Name
EngU
Hide
1
CDA_Pump_din
CDA_Pump_isa
CMD
d_patri_01
l_patri_01
r_patri_01
u_patri_01
d_pati_01
l_pati_01
r_pati_01
u_pati_01
d_pai_01
l_pai_01
r_pai_01
u_pai_01
u_patri_02
r_patri_01
l_patri_01
u_pati_02
r_pati_01
l_pati_01
u_pai_02
r_pai_01
l_pai_01
MOTOR_C200
EXECSTATE
ACTIVE
DEVCTLA.PV
Inbet
DEVCTLA.OP
State1
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 14:31:24 SYSTEM MOTOR_C200 CMDDIS U 00 Device Control Example 1 Inbet
Honeywell
16-May-11
14:32:20
Alarm
System
experionr400
Stn01
Mngr

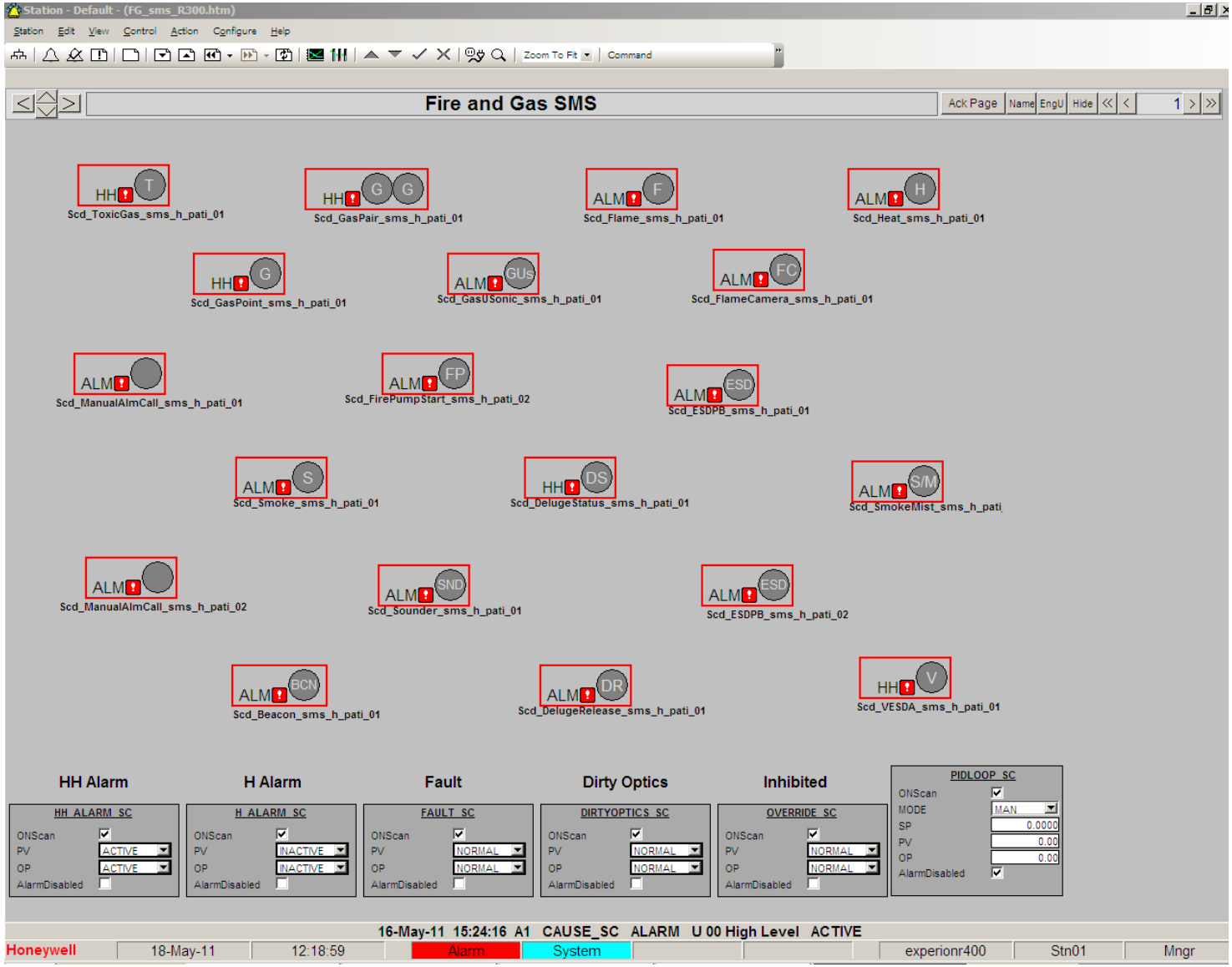

Station - Default - (CDA_Switches.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_Switches
Ack Page
Name
EngU
Hide
1
CDA_Switch_lib_h_
CMD D
D CMD
patri_02
patri_01
patri_03
patri_04
pati_02
pati_01
pati_03
pati_04
pai_02
pai_01
pai_03
pai_04
CDA_Switch_lib_v_
Valve_c200
EXECSTATE
ACTIVE
DEVCTLA.PV
State1
DEVCTLA.OP
State0
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 14:31:24 SYSTEM MOTOR_C200 CMDDIS U 00 Device Control Example 1 Inbet
Honeywell
16-May-11
14:33:06
Alarm
System
experionr400
Stn01
Mngr

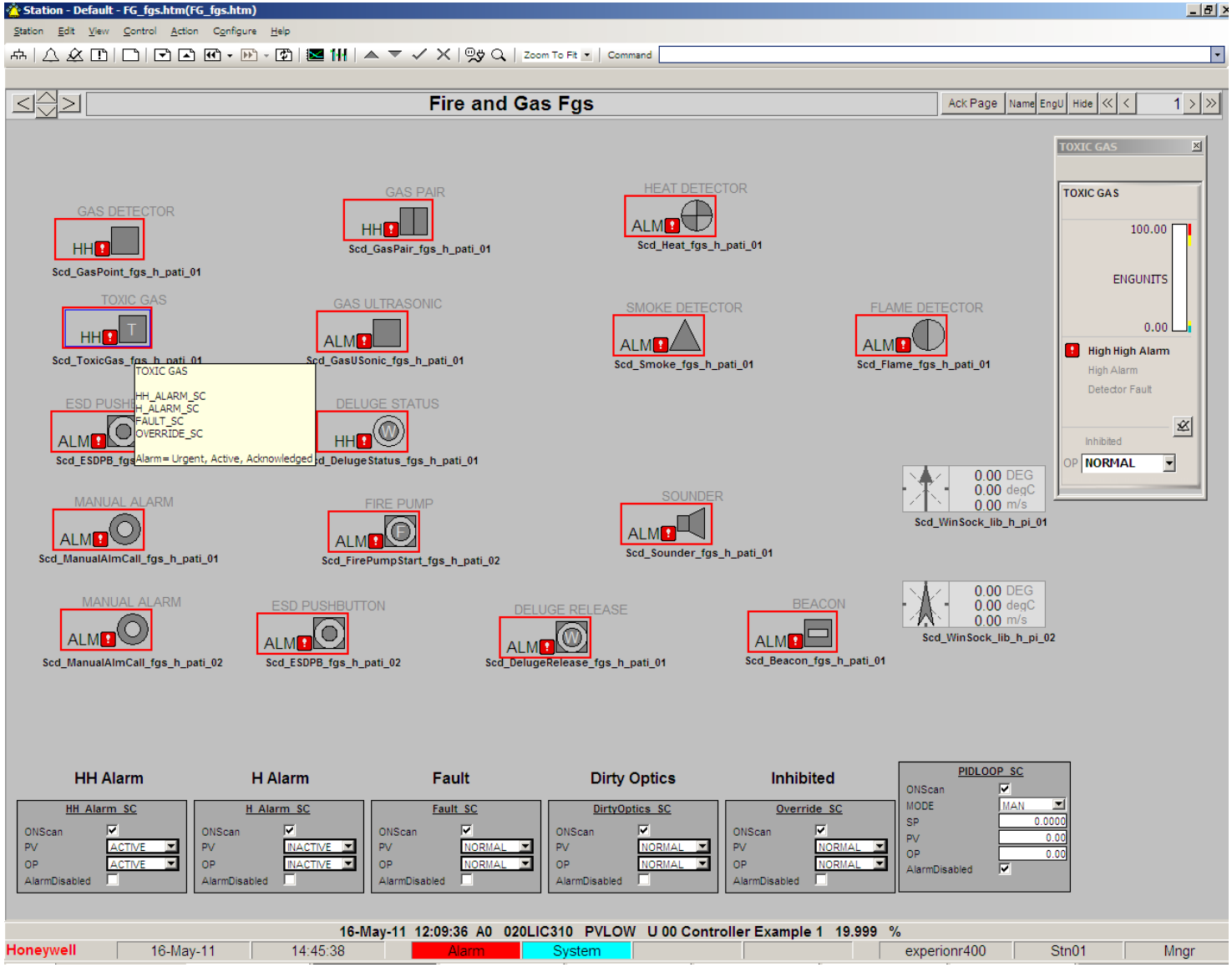

Station - Default - (CDA_Breakers.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
EXPERIONR400:VALVE_C200.DEVCTLA.OP = State0 ()
CDA_Breakers
Ack Page
Name
EngU
Hide
1
CDA_Breakers_lib
h_pai_04
h_pati_04
h_patri_04
v_pai_04
v_pati_04
v_patri_04
Valve_C200
EXECSTATE
ACTIVE
DEVCTLA.PV
State0
DEVCTLA.OP
State1
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 14:31:24 SYSTEM MOTOR_C200 CMDDIS U 00 Device Control Example 1 Inbet
Honeywell
16-May-11
14:34:17
Alarm
System
experionr400
Stn01
Mngr

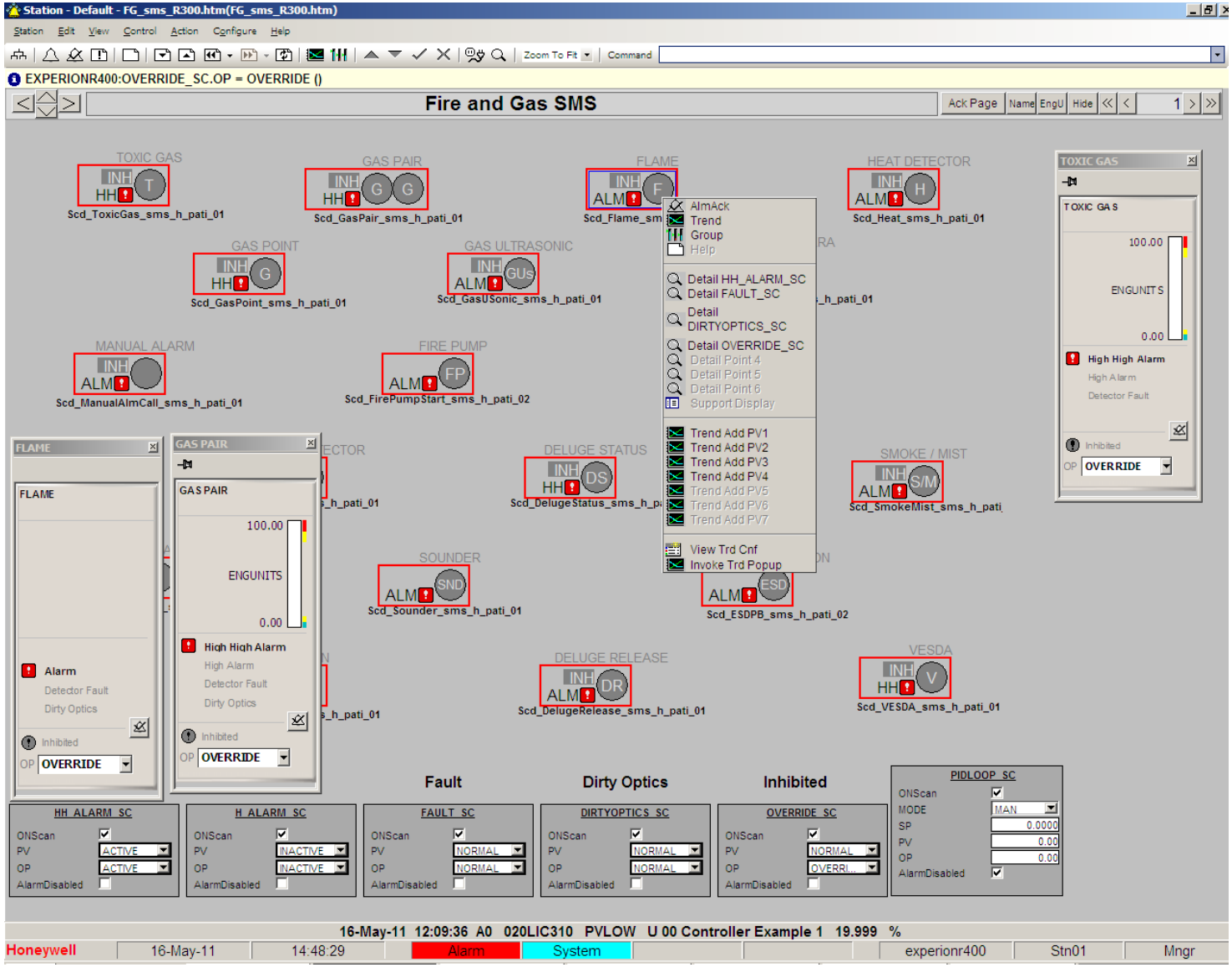

Station - Default - (CDA_EarthSwitches.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_EarthSwitches
Ack Page
Name
EngU
Hide
1
CDA_EarthSwitch_lib_v_
pai_03
D
pati_03
D CMD
patri_03
D CMD
Valve_C200
EXECSTATE
ACTIVE
DEVCTLA.PV
State1
DEVCTLA.OP
State0
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 14:31:24 SYSTEM MOTOR_C200 CMDDIS U 00 Device Control Example 1 Inbet
Honeywell
16-May-11
14:37:16
Alarm
System
experionr400
Stn01
Mngr

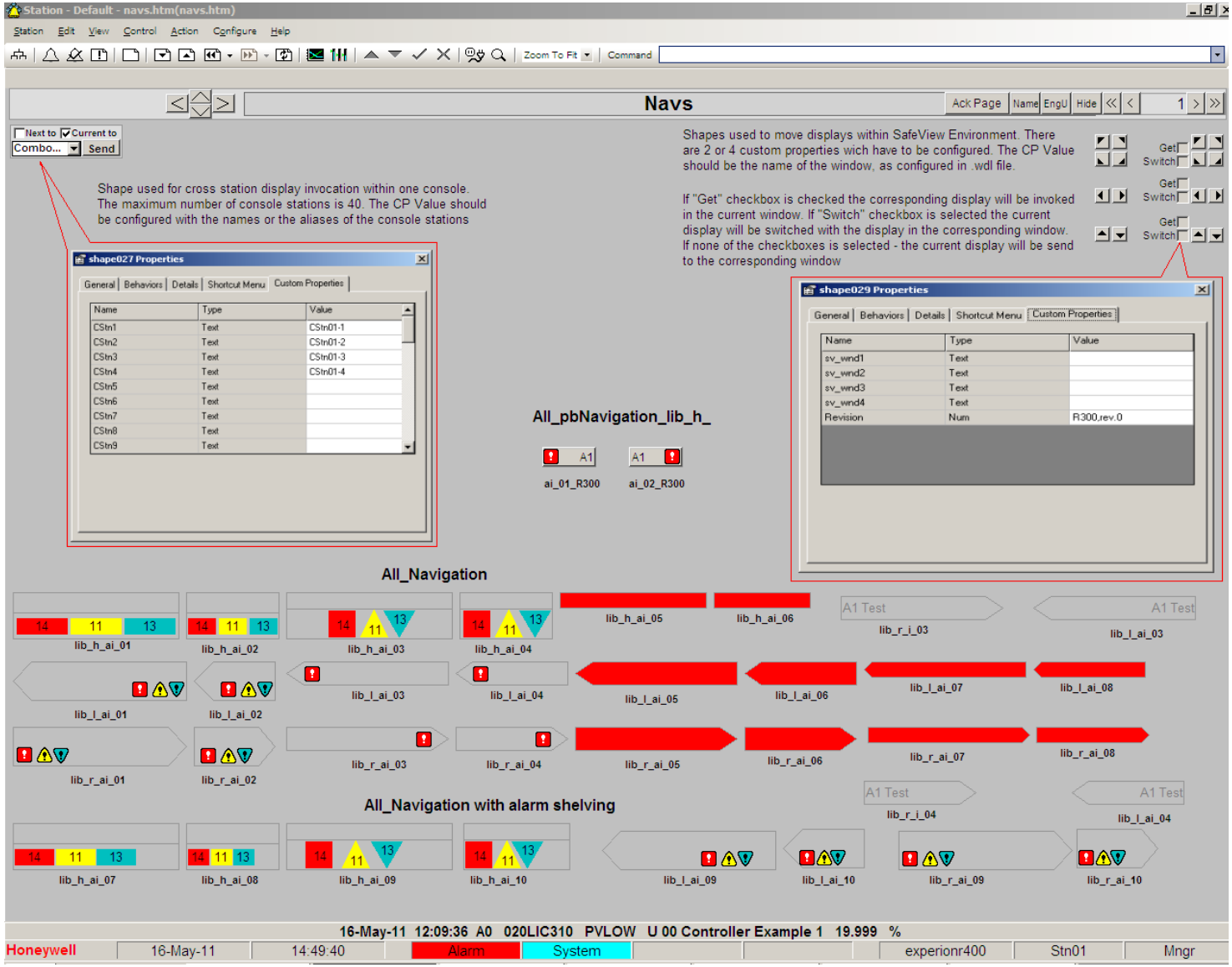

Station - Default - (CDA_Totalizers.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_Totalizers
Ack Page
Name
EngU
Hide
1
CDA_Totalizer_lib_h
M3/Hr
L 6.1
pati_01
M3/Hr
6.1 L
pati_02
M3/Hr
L 6.1
pati_03
M3/Hr
6.1
pi_01
M3/Hr
L 6.1
pati_04
M3/Hr
6.1 L
pati_05
M3/Hr
L 6.1
pati_06
M3/Hr
6.1
pi_02
M3/Hr
TAR 6.1
pdi_01
M3/Hr
6.1 TAR
pdi_02
M3/Hr
TAR 6.1
pdi_04
M3/Hr
6.1 TAR
pdi_05
TOTALIZER_C200
EXECSTATE ACTIVE
PIDA.MODE MAN
PIDA.SP 100.0000
PIDA.OP 10.00
DACA.PV 19.3381
DACA.PVFORMAT 1
Totalizera.Command NONE
Totalizera.State RUNNING
ALARMENABLE
PIDA.REDTAG
16-May-11 14:31:24 SYSTEM MOTOR_C200 CMDDIS U 00 Device Control Example 1 Inbet
Honeywell
16-May-11
14:39:23
Alarm
System
experionr400
Stn01
Mngr

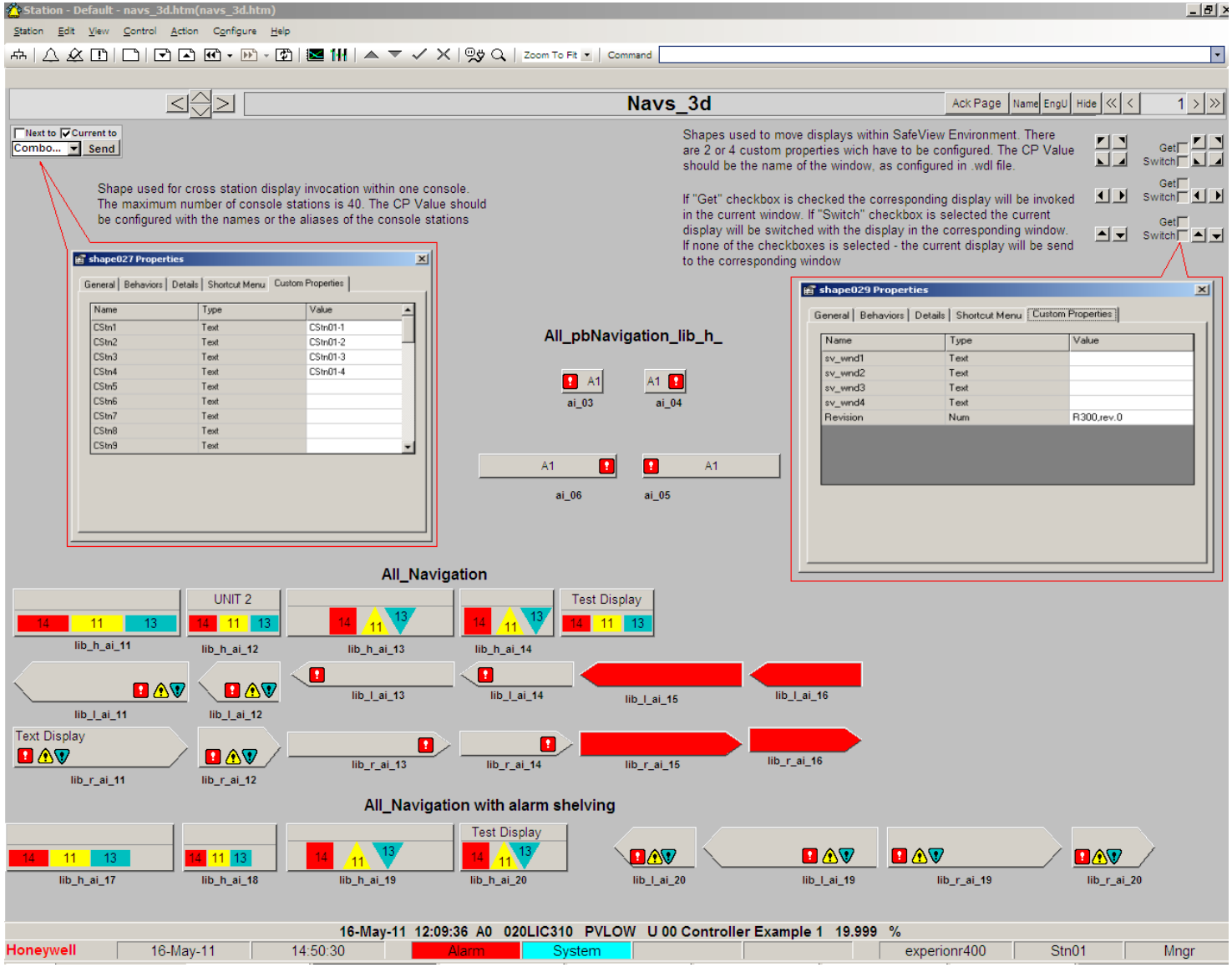

Station - Default - (CDA_Turbines.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
CDA_Turbines
Ack Page
Name
EngU
Hide
1
CDA_Turbine_din
d_patri_01
l_patri_01
r_patri_01
u_patri_01
d_pati_01
l_pati_01
r_pati_01
u_pati_01
d_pai_01
l_pai_01
r_pai_01
u_pai_01
MOTOR_C200
EXECSTATE
ACTIVE
DEVCTLA.PV
State1
DEVCTLA.OP
State1
ALARMENABLE
DEVCTLA.REDTAG
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
14:40:01
Alarm
System
experionr400
Stn01
Mngr

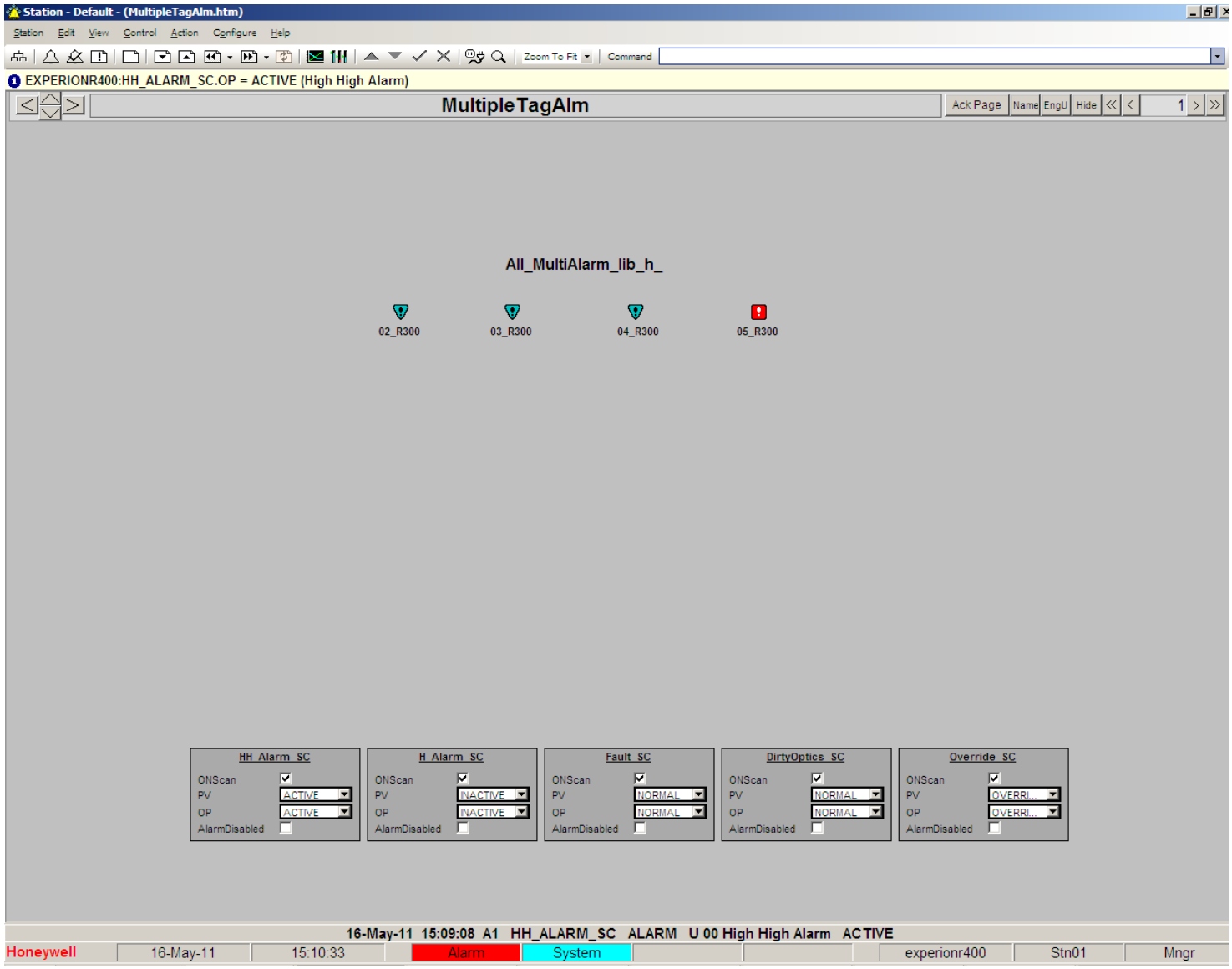

Station - Default - (FG_sms_R300.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
Fire and Gas SMS
Ack Page
Name
EngU
Hide
HH T Scd_ToxicGas_sms_h_pati_01
HH G G Scd_GasPair_sms_h_pati_01
ALM F Scd_Flame_sms_h_pati_01
ALM H Scd_Heat_sms_h_pati_01
HH G Scd_GasPoint_sms_h_pati_01
ALM GUs Scd_GasUSonic_sms_h_pati_01
ALM FC Scd_FlameCamera_sms_h_pati_01
ALM Scd_ManualAlmCall_sms_h_pati_01
ALM FP Scd_FirePumpStart_sms_h_pati_02
ALM ESD Scd_ESDPB_sms_h_pati_01
ALM S Scd_Smoke_sms_h_pati_01
HH DS Scd_DelugeStatus_sms_h_pati_01
ALM S/M Scd_SmokeMist_sms_h_pati
ALM Scd_ManualAlmCall_sms_h_pati_02
ALM SND Scd_Sounder_sms_h_pati_01
ALM ESD Scd_ESDPB_sms_h_pati_02
ALM BCN Scd_Beacon_sms_h_pati_01
ALM DR Scd_DelugeRelease_sms_h_pati_01
HH V Scd_VESDA_sms_h_pati_01
HH Alarm
H Alarm
Fault
Dirty Optics
Inhibited
HH_ALARM_SC
H_ALARM_SC
FAULT_SC
DIRTYOPTICS_SC
OVERRIDE_SC
ONScan
PV
OP
AlarmDisabled
ACTIVE
INACTIVE
NORMAL
PIDLOOP_SC
MODE
MAN
SP
0.0000
0.00
16-May-11 15:24:16 A1 CAUSE_SC ALARM U 00 High Level ACTIVE
Honeywell
18-May-11
12:18:59
Alarm
System
experionr400
Stn01
Mngr

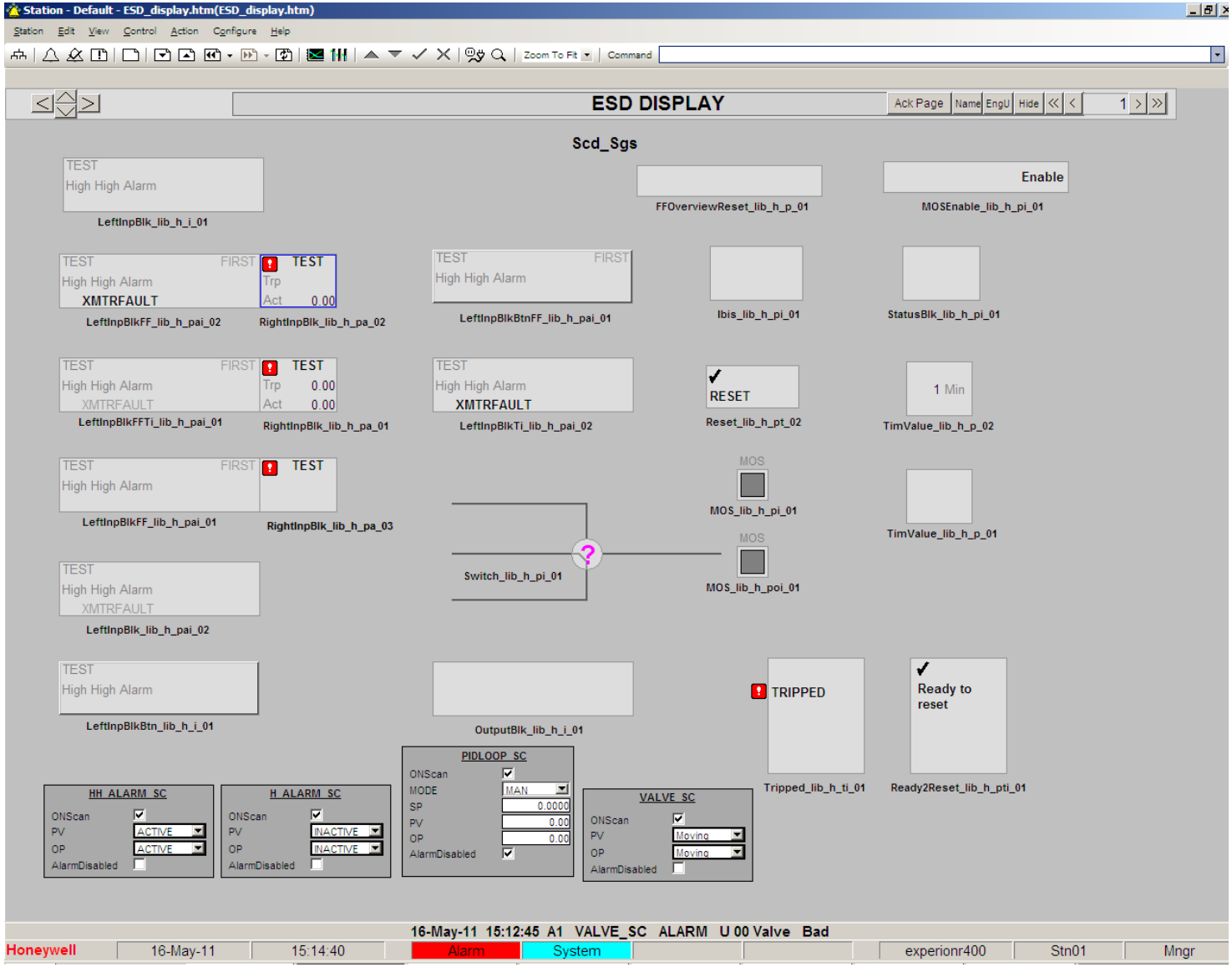

Station - Default - FG_fgs.htm(FG_fgs.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
Fire and Gas Fgs
Ack Page
Name
EngU
Hide
GAS DETECTOR
Scd_GasPoint_fgs_h_pati_01
GAS PAIR
Scd_GasPair_fgs_h_pati_01
HEAT DETECTOR
Scd_Heat_fgs_h_pati_01
TOXIC GAS
Scd_ToxicGas_fgs_h_pati_01
GAS ULTRASONIC
Scd_GasUSonic_fgs_h_pati_01
SMOKE DETECTOR
Scd_Smoke_fgs_h_pati_01
FLAME DETECTOR
Scd_Flame_fgs_h_pati_01
TOXIC GAS
HH_ALARM_SC
H_ALARM_SC
FAULT_SC
OVERRIDE_SC
Alarm= Urgent, Active, Acknowledged
ESD PUSH
Scd_ESDPB_fgs
DELUGE STATUS
d_DelugeStatus_fgs_h_pati_01
MANUAL ALARM
Scd_ManualAlmCall_fgs_h_pati_01
FIRE PUMP
Scd_FirePumpStart_fgs_h_pati_02
SOUNDER
Scd_Sounder_fgs_h_pati_01
Scd_WinSock_lib_h_pi_01
MANUAL ALARM
Scd_ManualAlmCall_fgs_h_pati_02
ESD PUSHBUTTON
Scd_ESDPB_fgs_h_pati_02
DELUGE RELEASE
Scd_DelugeRelease_fgs_h_pati_01
BEACON
Scd_Beacon_fgs_h_pati_01
Scd_WinSock_lib_h_pi_02
TOXIC GAS
100.00
ENGUNITS
0.00
High High Alarm
High Alarm
Detector Fault
Inhibited
OP NORMAL
HH Alarm
H Alarm
Fault
Dirty Optics
Inhibited
PIDLOOP_SC
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
14:45:38
Alarm
System
experionr400
Stn01
Mngr

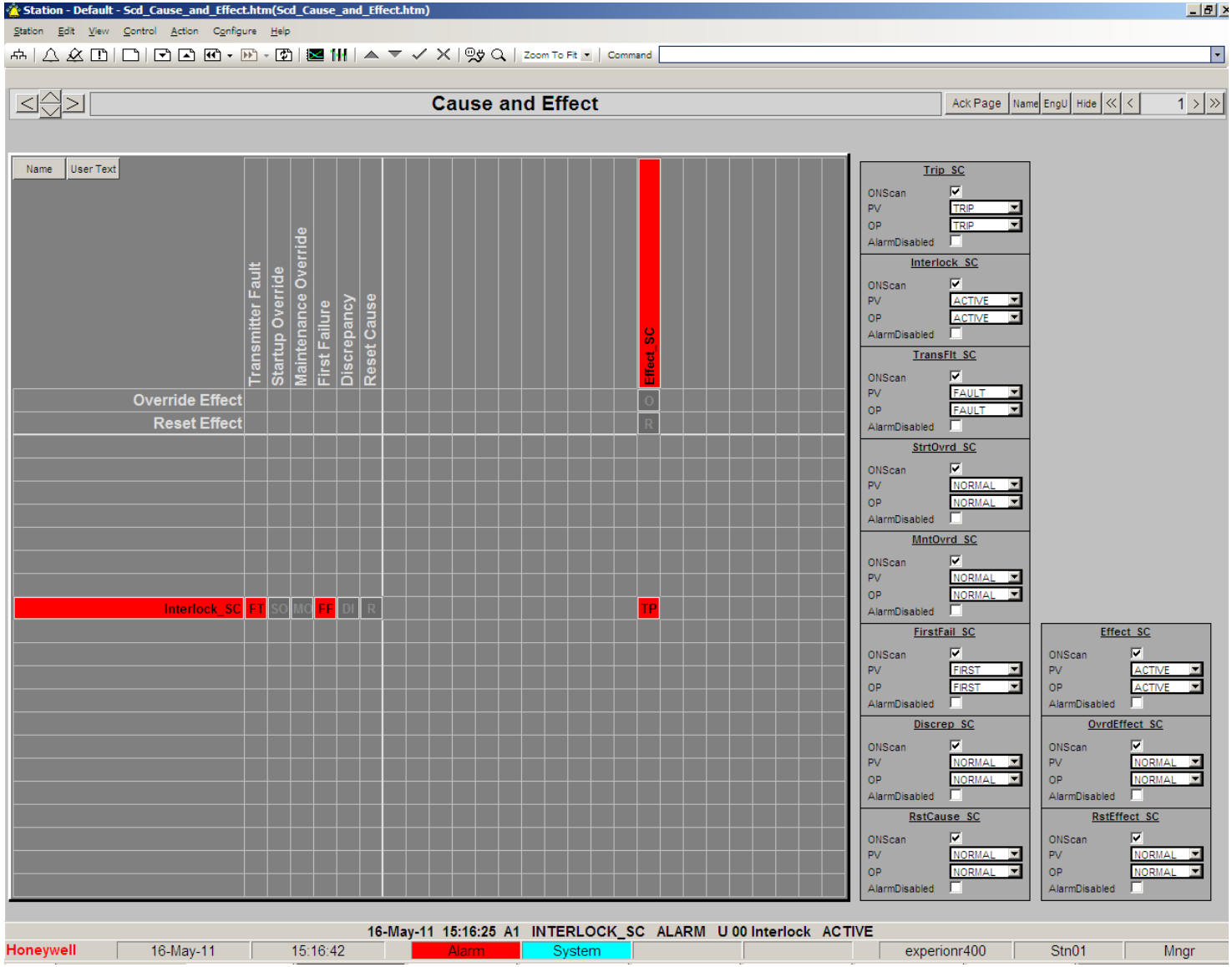

Station - Default - FG_sms_R300.htm(FG_sms_R300.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
EXPERIONR400:OVERRIDE_SC.OP = OVERRIDE ()
Fire and Gas SMS
Ack Page
Name
EngU
Hide
TOXIC GAS
Scd_ToxicGas_sms_h_pati_01
GAS PAIR
Scd_GasPair_sms_h_pati_01
FLAME
HEAT DETECTOR
Scd_Heat_sms_h_pati_01
GAS POINT
Scd_GasPoint_sms_h_pati_01
GAS ULTRASONIC
Scd_GasUSonic_sms_h_pati_01
MANUAL ALARM
Scd_ManualAlmCall_sms_h_pati_01
FIRE PUMP
Scd_FirePumpStart_sms_h_pati_02
AlmAck
Trend
Group
Help
Detail HH_ALARM_SC
Detail FAULT_SC
Detail DIRTYOPTICS_SC
Detail OVERRIDE_SC
Detail Point 4
Detail Point 5
Detail Point 6
Support Display
Trend Add PV1
Trend Add PV2
Trend Add PV3
Trend Add PV4
Trend Add PV5
Trend Add PV6
Trend Add PV7
View Trd Cnf
Invoke Trd Popup
TOXIC GAS
100.00
ENGUNITS
0.00
High High Alarm
High Alarm
Detector Fault
Inhibited
OP
OVERRIDE
FLAME
Alarm
Detector Fault
Dirty Optics
Inhibited
OP
OVERRIDE
GAS PAIR
100.00
ENGUNITS
0.00
High High Alarm
High Alarm
Detector Fault
Dirty Optics
Inhibited
OP
OVERRIDE
DELUGE STATUS
Scd_DelugeStatus_sms_h_pati_01
SMOKE / MIST
Scd_SmokeMist_sms_h_pati
SOUNDER
Scd_Sounder_sms_h_pati_01
Scd_ESDPB_sms_h_pati_02
DELUGE RELEASE
Scd_DelugeRelease_sms_h_pati_01
VESDA
Scd_VESDA_sms_h_pati_01
Fault
Dirty Optics
Inhibited
HH_ALARM_SC
H_ALARM_SC
FAULT_SC
DIRTYOPTICS_SC
OVERRIDE_SC
PIDLOOP_SC
ONScan
PV
OP
AlarmDisabled
MODE
SP
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
14:48:29
Alarm
System
experionr400
Stn01
Mngr

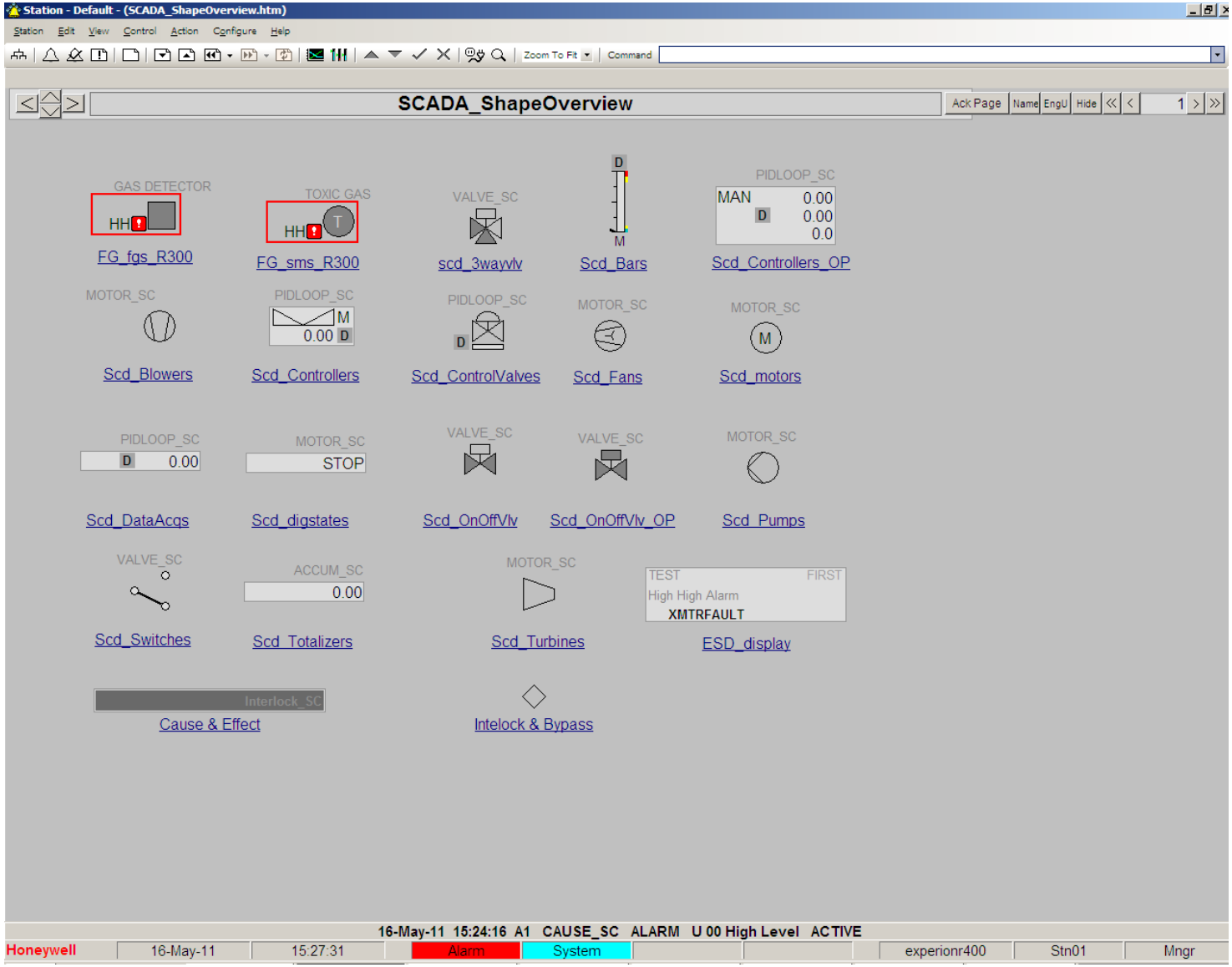

Station - Default - navs.htm(navs.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
Navs
Ack Page
Name
EngU
Hide
Next to
Current to
Combo...
Send
Shape used for cross station display invocation within one console. The maximum number of console stations is 40. The CP Value should be configured with the names or the aliases of the console stations
Shapes used to move displays within SafeView Environment. There are 2 or 4 custom properties wich have to be configured. The CP Value should be the name of the window, as configured in .wdl file.
If "Get" checkbox is checked the corresponding display will be invoked in the current window. If "Switch" checkbox is selected the current display will be switched with the display in the corresponding window. If none of the checkboxes is selected - the current display will be send to the corresponding window
Get
Switch
shape027 Properties
General
Behaviors
Details
Shortcut Menu
Custom Properties
Name
Type
Value
CStn1 Text CStn01-1
CStn2 Text CStn01-2
CStn3 Text CStn01-3
CStn4 Text CStn01-4
CStn5 Text
CStn6 Text
CStn7 Text
CStn8 Text
CStn9 Text
All_pbNavigation_lib_h_
A1
ai_01_R300
ai_02_R300
shape029 Properties
sv_wnd1 Text
sv_wnd2 Text
sv_wnd3 Text
sv_wnd4 Text
Revision Num R300,rev.0
All_Navigation
lib_h_ai_01
lib_h_ai_02
lib_h_ai_03
lib_h_ai_04
lib_h_ai_05
lib_h_ai_06
lib_r_i_03
lib_l_ai_03
lib_l_ai_01
lib_l_ai_02
lib_l_ai_04
lib_l_ai_05
lib_l_ai_06
lib_l_ai_07
lib_l_ai_08
lib_r_ai_01
lib_r_ai_02
lib_r_ai_03
lib_r_ai_04
lib_r_ai_05
lib_r_ai_06
lib_r_ai_07
lib_r_ai_08
All_Navigation with alarm shelving
lib_r_i_04
lib_l_ai_04
lib_h_ai_07
lib_h_ai_08
lib_h_ai_09
lib_h_ai_10
lib_l_ai_09
lib_l_ai_10
lib_r_ai_09
lib_r_ai_10
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
14:49:40
Alarm
System
experionr400
Stn01
Mngr


Station - Default - navs_3d.htm(navs_3d.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
Navs_3d
Ack Page
Name
EngU
Hide
Next to
Current to
Combo...
Send
Shape used for cross station display invocation within one console. The maximum number of console stations is 40. The CP Value should be configured with the names or the aliases of the console stations
Shapes used to move displays within SafeView Environment. There are 2 or 4 custom properties wich have to be configured. The CP Value should be the name of the window, as configured in .wdl file.
If "Get" checkbox is checked the corresponding display will be invoked in the current window. If "Switch" checkbox is selected the current display will be switched with the display in the corresponding window. If none of the checkboxes is selected - the current display will be send to the corresponding window
Get
Switch
shape027 Properties
General
Behaviors
Details
Shortcut Menu
Custom Properties
Name
Type
Value
CStn1 Text CStn01-1
CStn2 Text CStn01-2
CStn3 Text CStn01-3
CStn4 Text CStn01-4
CStn5 Text
CStn6 Text
CStn7 Text
CStn8 Text
CStn9 Text
shape029 Properties
sv_wnd1 Text
sv_wnd2 Text
sv_wnd3 Text
sv_wnd4 Text
Revision Num R300,rev.0
All_pbNavigation_lib_h_
A1
ai_03
ai_04
ai_06
ai_05
All_Navigation
UNIT 2
Test Display
lib_h_ai_11
lib_h_ai_12
lib_h_ai_13
lib_h_ai_14
lib_l_ai_11
lib_l_ai_12
lib_l_ai_13
lib_l_ai_14
lib_l_ai_15
lib_l_ai_16
Text Display
lib_r_ai_11
lib_r_ai_12
lib_r_ai_13
lib_r_ai_14
lib_r_ai_15
lib_r_ai_16
All_Navigation with alarm shelving
lib_h_ai_17
lib_h_ai_18
lib_h_ai_19
lib_h_ai_20
lib_l_ai_20
lib_l_ai_19
lib_r_ai_19
lib_r_ai_20
16-May-11 12:09:36 A0 020LIC310 PVLOW U 00 Controller Example 1 19.999 %
Honeywell
16-May-11
14:50:30
Alarm
System
experionr400
Stn01
Mngr


Station - Default - (MultipleTagAlm.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
EXPERIONR400:HH_ALARM_SC.OP = ACTIVE (High High Alarm)
MultipleTagAlm
Ack Page
Name
EngU
Hide
1
All_MultiAlarm_lib_h_
02_R300
03_R300
04_R300
05_R300
HH_Alarm_SC
ONScan
PV
ACTIVE
OP
ACTIVE
AlarmDisabled
H_Alarm_SC
ONScan
PV
INACTIVE
OP
INACTIVE
AlarmDisabled
Fault_SC
ONScan
PV
NORMAL
OP
NORMAL
AlarmDisabled
DirtyOptics_SC
ONScan
PV
NORMAL
OP
NORMAL
AlarmDisabled
Override_SC
ONScan
PV
OVERRI...
OP
OVERRI...
AlarmDisabled
16-May-11 15:09:08 A1 HH_ALARM_SC ALARM U 00 High High Alarm ACTIVE
Honeywell
16-May-11
15:10:33
Alarm
System
experionr400
Stn01
Mngr


Station - Default - ESD_display.htm(ESD_display.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
ESD DISPLAY
Ack Page
Name
EngU
Hide
1
Scd_Sgs
TEST
High High Alarm
LeftInpBlk_lib_h_i_01
FFOverviewReset_lib_h_p_01
Enable
MOSEnable_lib_h_pi_01
TEST
FIRST
High High Alarm
XMTRFAULT
LeftInpBlkFF_lib_h_pai_02
TEST
Trp
Act 0.00
RightInpBlk_lib_h_pa_02
LeftInpBlkBtnFF_lib_h_pai_01
Ibis_lib_h_pi_01
StatusBlk_lib_h_pi_01
Trp 0.00
Act 0.00
RightInpBlk_lib_h_pa_01
LeftInpBlkFFTi_lib_h_pai_01
LeftInpBlkTi_lib_h_pai_02
RESET
Reset_lib_h_pt_02
1 Min
TimValue_lib_h_p_02
LeftInpBlkFF_lib_h_pai_01
RightInpBlk_lib_h_pa_03
MOS
MOS_lib_h_pi_01
TimValue_lib_h_p_01
Switch_lib_h_pi_01
MOS_lib_h_poi_01
LeftInpBlk_lib_h_pai_02
LeftInpBlkBtn_lib_h_i_01
OutputBlk_lib_h_i_01
TRIPPED
Tripped_lib_h_ti_01
Ready to reset
Ready2Reset_lib_h_pti_01
HH_ALARM_SC
ONScan
PV ACTIVE
OP ACTIVE
AlarmDisabled
H_ALARM_SC
PV INACTIVE
OP INACTIVE
PIDLOOP_SC
MODE MAN
SP 0.0000
PV 0.00
OP 0.00
VALVE_SC
PV Moving
OP Moving
16-May-11 15:12:45 A1 VALVE_SC ALARM U 00 Valve Bad
Honeywell
16-May-11
15:14:40
Alarm
System
experionr400
Stn01
Mngr


Station - Default - Scd_Cause_and_Effect.htm(Scd_Cause_and_Effect.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
Cause and Effect
Ack Page
Name
EngU
Hide
1
Name
User Text
Transmitter Fault
Startup Override
Maintenance Override
First Failure
Discrepancy
Reset Cause
Effect_SC
Override Effect
Reset Effect
Interlock_SC
FT
SO
MO
FF
DI
R
TP
Trip_SC
ONScan
PV
OP
AlarmDisabled
TRIP
Interlock_SC
ACTIVE
TransFlt_SC
FAULT
StrtOvrd_SC
NORMAL
MntOvrd_SC
FirstFail_SC
FIRST
Discrep_SC
RstCause_SC
Effect_SC
OvrdEffect_SC
RstEffect_SC
16-May-11 15:16:25 A1 INTERLOCK_SC ALARM U 00 Interlock ACTIVE
Honeywell
16-May-11
15:16:42
Alarm
System
experionr400
Stn01
Mngr


Station - Default - (SCADA_ShapeOverview.htm)
Station Edit View Control Action Configure Help
Zoom To Fit
Command
SCADA_ShapeOverview
Ack Page
Name
EngU
Hide
1
GAS DETECTOR
HH
FG_fgs_R300
TOXIC GAS
HH
T
FG_sms_R300
VALVE_SC
scd_3wayvlv
D
M
Scd_Bars
PIDLOOP_SC
MAN 0.00
D 0.00
0.0
Scd_Controllers_OP
MOTOR_SC
Scd_Blowers
PIDLOOP_SC
M
0.00 D
Scd_Controllers
PIDLOOP_SC
D
Scd_ControlValves
MOTOR_SC
Scd_Fans
MOTOR_SC
M
Scd_motors
PIDLOOP_SC
D 0.00
Scd_DataAcqs
MOTOR_SC
STOP
Scd_digstates
VALVE_SC
Scd_OnOffVlv
VALVE_SC
Scd_OnOffVlv_OP
MOTOR_SC
Scd_Pumps
VALVE_SC
Scd_Switches
ACCUM_SC
0.00
Scd_Totalizers
MOTOR_SC
Scd_Turbines
TEST
FIRST
High High Alarm
XMTRFAULT
ESD_display
Interlock_SC
Cause & Effect
Intelock & Bypass
16-May-11 15:24:16 A1 CAUSE_SC ALARM U 00 High Level ACTIVE
Honeywell
16-May-11
15:27:31
Alarm
System
experionr400
Stn01
Mngr

Notices

Documentation feedback

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

http://www.honeywellprocess.com/support

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

hpsdocs@honeywell.com

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

How to report a security vulnerability

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

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

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

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

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

- Send an email to security@honeywell.com.

  or

- Contact your local Honeywell Process Solutions Customer Contact Center (CCC) or Honeywell Technical Assistance Center (TAC) listed in the “Support and other contacts” section of this document.

Support and other contacts

For support, contact your local Honeywell Process Solutions Customer Contact Center (CCC).

North America

Country	Phone	Facsimile	Email
Canada and United States	800-822-7673	973-455-5000	askssc@honeywell.com

Northern Europe

Country	Local Time Business Hours	Phone	Facsimile	Email
Denmark	07:00 – 18:00	80–252165	+45 6980 2349	hpscustomersupport@honeywell.com
Finland	08:00 – 19:00	0800–9–15938	+358 (0)9 2319 4396	hpscustomersupport@honeywell.com
Ireland	06:00 – 17:00	1800939488	+353 (0)1 686 4905	hpscustomersupport@honeywell.com
Netherlands	07:00 – 18:00	0800 020 3498	+31 (0)20 524 1609	hpscustomersupport@honeywell.com
Norway	07:00 – 18:00	800–11478	47–852–287–16	hpscustomersupport@honeywell.com
Sweden	07:00 – 18:00	0200883167	+46 (0)8 509 097 84	hpscustomersupport@honeywell.com
United Kingdom	06:00 – 17:00	08002797226	+44 (0)20 3031 1064	hpscustomersupport@honeywell.com

Southern Europe

Country	Local Time Business Hours	Phone	Facsimile	Email
Belgium	07:00 – 18:00	080048580	+32 (0)2 791 96 02	hpscustomersupport@honeywell.com
France	07:00 – 18:00	0805100041	+33 (0)1 72 74 33 44	hpscustomersupport@honeywell.com
Luxembourg	07:00 – 18:00	8002–8524	+352 24611292	hpscustomersupport@honeywell.com
Spain	07:00 – 18:00	800099804	+34 91 791 56 25	hpscustomersupport@honeywell.com
Portugal	06:00 – 17:00	800–8–55994	+34 91 791 56 25	hpscustomersupport@honeywell.com

Eastern Europe

Country	Local Time Business Hours	Phone	Facsimile	Email
Bulgaria	08:00 – 19:00	700 20771	+359 (0)2 489 7384	hpscustomersupport@honeywell.com
Croatia	07:00 – 18:00	0800 80 6392	+420 227 204 957	hpscustomersupport@honeywell.com
Czech Republic	07:00 – 18:00	800 142 784	+420 227 204 957	hpscustomersupport@honeywell.com
Hungary	07:00 – 18:00	06 800 20 699	+36 (06) 1 577 7371	hpscustomersupport@honeywell.com
Poland	07:00 – 18:00	00 800 121 50 46	+48 22 485 35 10	hpscustomersupport@honeywell.com
Romania	08:00 – 19:00	0 800 800 178	+40 (0)31 710 7590	hpscustomersupport@honeywell.com
Russia Federation	09:00 – 20:00	8.10.80 02-412 50 11	+7 495 796 98 94	hpscustomersupport@honeywell.com
Slovakia	07:00 – 18:00	0800 002 340	+421 (0)2 3301 0376	hpscustomersupport@honeywell.com

Central Europe

Country	Local Time Business Hours	Phone	Facsimile	Email
Austria	07:00 – 18:00	0800 006438	+43 (0)1 253 6722 4904	hpscustomersupport@honeywell.com
Germany	07:00 – 18:00	0800 7239098	+49 (0)30 6908 8463	hpscustomersupport@honeywell.com
Greece	08:00 – 19:00	00800 12 9493	+30 21 1 268 6973	hpscustomersupport@honeywell.com
Israel	08:00 – 19:00	1 809 407 309	+972 (0)2 591 6148	hpscustomersupport@honeywell.com
Italy	07:00 – 18:00	8000 35205	+39 06 96681356	hpscustomersupport@honeywell.com
Switzerland	07:00 – 18:00	00 080 035	+41 (0)31 560 41 60	hpscustomersupport@honeywell.com

Middle East and South Africa

Country	Local Time Business Hours	Phone	Email
Bahrain	08:00 – 19:00	8008 1343	hpscustomersupport@honeywell.com
Oman	08:00 – 19:00	8007 7595	hpscustomersupport@honeywell.com
Qatar	08:00 – 19:00	800 5460	hpscustomersupport@honeywell.com
Saudi Arabia	08:00 – 19:00	800 844 5309	hpscustomersupport@honeywell.com
South Africa	07:00 – 18:00	0800 983 634	hpscustomersupport@honeywell.com
Turkey	08:00 – 19:00	00800 448823587	hpscustomersupport@honeywell.com
United Arab Emirates	09:00 – 20:00	8000 444 0300	hpscustomersupport@honeywell.com

Other regions

In other regions, contact your local Honeywell Technical Assistance Center (TAC) for support.

Region	Phone	Facsimile	Email
Pacific	1300-364-822 (toll free within Australia) +61-8-9362-9559 (outside Australia)	+61-8-9362-9564	GTAC@honeywell.com
India	+91-20-6603-2718 / 19 1800-233-5051	+91-20-6603-9800	Global-TAC-India@honeywell.com
Korea	+82-80-782-2255 (toll free within Korea)	+82-2-792-9015	Global-TAC-Korea@honeywell.com

Region	Phone	Facsimile	Email
People’s Republic of China	+86-21-2219-6888 800-820-0237 400-820-0386		Global-TAC-China@honeywell.com
Singapore	+65-6823-2215	+65-6445-3033	GTAC-SEA@honeywell.com
Japan		+81-3-6730-7228	Global-TACJapanJA25@honeywell.com

World Wide Web

Honeywell Process Solutions website:

http://www.honeywellprocess.com/support

Elsewhere

Contact your nearest Honeywell office.

For more information

To learn more about Honeywell's products or solutions visit www.honeywellprocess.com or contact your Honeywell account manager.

Process Solutions
Honeywell

1250 West Sam Houston Parkway South
Houston, TX 77042

Honeywell House, Skimped Hill Lane
Bracknell, RG12 1EB

Shanghai City Centre, 100 Junyi Road
Shanghai, China 20051

www.honeywellprocess.com

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