



Foxboro™ DCS

System Advisor - Process Control Alarm Shelving Utility

PSS 41S-4SAImShl

Product Specification

June 2023

ASU_UNIT

Alarm Shelving Utility - ASU

ASU Configuration Shelving Tools Dynamic Shelving

Workstations & Reasons Units Exclusions User Management Alarm Translation Smart Rules INHIB ALL mode Use Legacy Alarm Params Close After Shelf Force Comment Requires Job ID Ignore Secure Connections One-Click Shelf

Unit Name: ASU_UNIT [New Unit] [Delete Unit]

CP2701 AW9001 ADMINISTRATOR 00:00:00 [Add] [Remove]

[Add ALL CPs] [Add ALL Workstations] Max # of Shelved Alarms: 1000

[Add CP] [Add Workstation] Max Time to Return: 24 Hours

[Remove CP] [Remove Workstation] Default Time to Return: 24 Hours

Allowed CPs Allowed Workstations Highest Allowed Priority: 1

CP2701 AW9001
CP2702 AW9002
CP2801 AW9003
CP2802
FDC001
FDC002
ZCP001
ZCP002

☐ Force Comment on Priority: 1 or Higher

☐ Force Comment on Time to Return > 24 Minutes

☒ Allow Unshelve other Users Shelves (Same Role)

☒ Allow Unshelve other Users Shelves (Different Role)

☒ Allow Extend other Users Shelves (Same Role)

☒ Allow Extend other Users Shelves (Different Role)

☒ Allow Dynamic Shelving

[Add/Apply] [Remove Role]

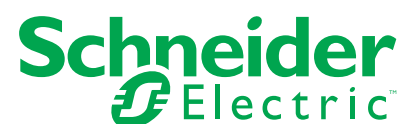
Privilege Roles

ADMINISTRATOR,1000,24,Hours,1,Hours,1,-1,99

USER,10,24,Hours,24,Hours,1,-1,99999999,1,1,1

Shift Times

00:00:00
08:00:00
16:00:00



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Overview

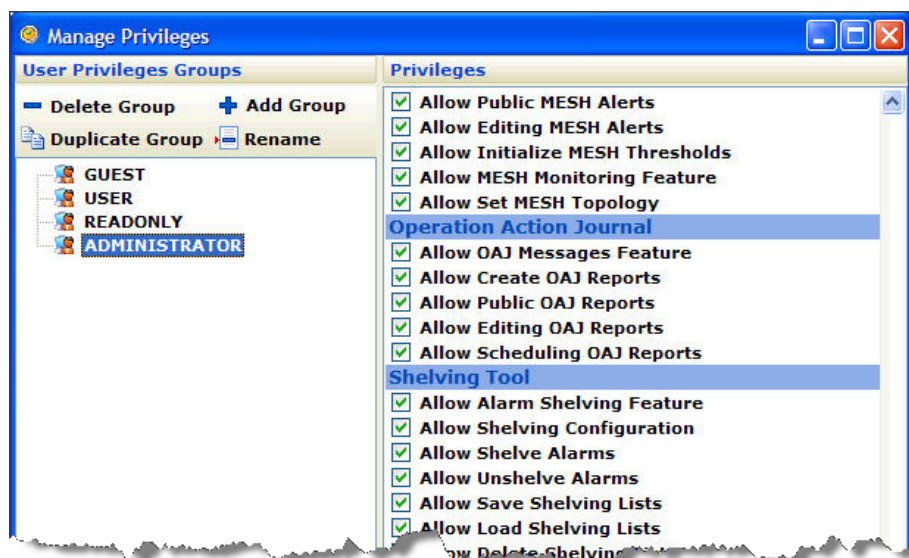
The EcoStruxure™ System Advisor - Process Control Alarm Shelving Utility (ASU) is a supplemental utility that provides comprehensive alarm shelving for the EcoStruxure Foxboro™ Distributed Control System (DCS).

Shelving alarms reduces the nuisance alarms that interfere with normal plant operations. ASU provides a high-degree of customization, allowing you to shelve alarms by parameter, time period, and event. ASU also provides a one-click shelving mode, so you can shelve all DCS block alarms with just one parameter (INHIB parameter). Everything is managed from the application workstation and includes dual or triple redundancy options.

To use ASU, you must also have EcoStruxure System Advisor - Process Control.

Features

- **Support and Integration**
 - Supports Microsoft® Windows® 10, Windows Server 2012 and 2016, and all Foxboro DCS and Foxboro I/A Series Enterprise and Local Edition releases.
 - Integrates with Foxview, Foxboro DCS, and Foxboro I/A Series Control HMI displays.
 - Synchronizes existing shelves and validates previously unshelved alarms.
 - Uses native Foxboro tools (getpars and omgetimp/omsetimp calls), no OPC needed.
 - Fully integrates with System Advisor - Process Control (uses the same user accounts and privileges, find blocks, and so on).
- **Manual Alarm Shelving**
 - Shelves the entire block or only the desired parameter.
 - Allows you to create favorites lists to shelve a group of alarms during startups, shutdowns, maintenance work, or plant upsets.
 - Provides customizable security configuration to limit privileges of users that shelve alarms.



- **Dynamic Alarm Shelving**
 - Shelves and unshelves alarms dynamically based on smart rules and time period.
 - Supports dual or triple redundant ASU servers to help maintain High Availability in ASU during dynamic shelving.
 - Uses smart rules to shelf and unshelf alarm sets based on tag value conditions (Analog or Discrete).
- **Ease-of-Use**
 - Prints and exports most grids.
 - Provides alarm translation to help operators understand the Foxboro DCS alarm terminology (such as HMA, LMA, LDA).
 - Generates reports for current shelves, history of shelves, and log messages.
 - Provides state-based unshelving (unshelving of alarms based on a rule).
 - Provides exclusion list for alarms that need not be shelved (or controlled by an external state-based shelving tool).

Benefits

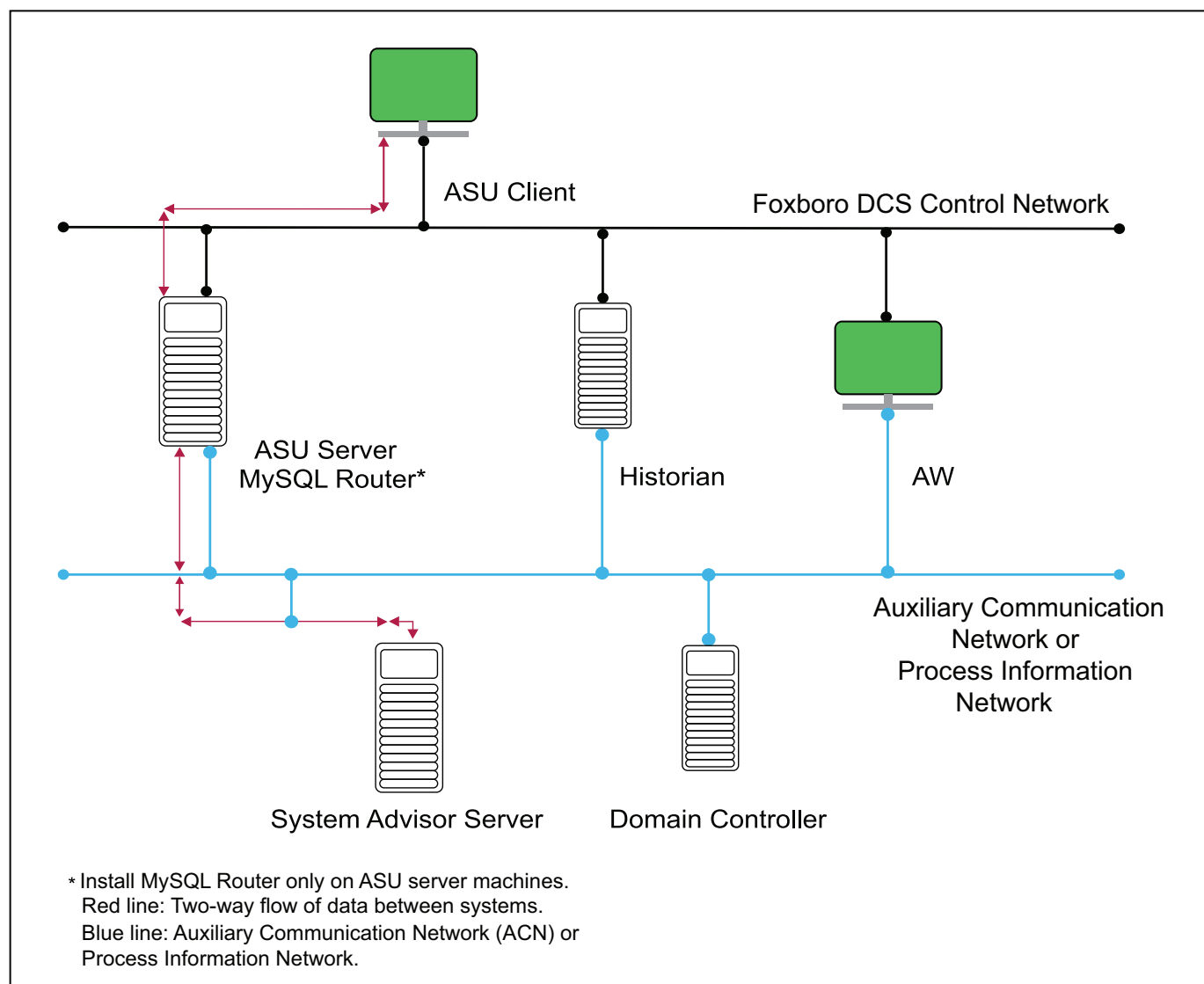
The Alarm Shelving Utility helps you:

- Centralize and secure alarm shelving management.
- Minimize operator distractions through reduction of nuisance alarms.
- Increase operator productivity.
- Improve safety.
- Reduce downtime or product slowdown.

Architecture

ASU requires a connection to the System Advisor server.

Figure 1 - Alarm Shelving Utility Architecture



System Requirements for ASU

The minimum system requirements for ASU are listed below.

Table 1 - ASU Main and Backup servers

Computer System	Model H90
Operating System	Windows Server 2016 (64 bit)
CPU	Intel or equivalent 2.1 GHz or higher. Multi-core enabled, having a minimum of 8 cores
Memory	16 GB RAM or higher
Hard Drive	100 GB available minimum
Ethernet Port	1 100 Mbps minimum
RAID	5 recommended

Table 2 - ASU Client

Computer System	Model H92 Workstation
Operating System	Windows 10 (64 bit)
CPU	Intel Xeon® processor
Memory	8 GB RAM or higher
Hard Drive	100 GB available minimum
Ethernet Port	1 100 Mbps minimum
RAID	1 (configured optionally)

For information on overall system requirements to configure System Advisor - Process Control, see *EcoStruxure System Advisor - Process Control Product Specification Sheet* (PSS 41S-4SYSAUD) or *EcoStruxure System Advisor - Process Control User's Guide* (B0750HA).

Configuration and Performance Guidelines

- To configure System Advisor - Process Control with more than 200 CPs (control processors), contact Global Customer Support (GCS) for guidance.
- To use systems with other hardware and software operating system configurations, contact Global Customer Support (GCS) for validation of the server.
- If using a Foxboro DCS spare machine as a System Advisor server, you might need to enable the multi-core capabilities in the BIOS or in the boot.ini on Windows to allow the multi core.


- You can share System Advisor with other applications that do not interact with MySQL. However, to maintain performance, other applications cannot use the system resources required for System Advisor. For example, if an application requires 2 CPUs and 8 GB of RAM, you'll need to plan for those in addition to the resources required for System Advisor.
- System Advisor does not require excessive maintenance, but if it is shared with another application that requires regular maintenance, then System Advisor's cost and availability is affected. Therefore, we recommend you use a dedicated server for System Advisor.

Dynamic Shelving Utility Limits

- On a System Advisor server with a single ASU server, you can configure up to 600 alarms for active groups.
- On a System Advisor server, all groups can have a total of 600 alarms configured and each active group can configure a maximum of 100 alarms.
- All active groups can configure a maximum of 90 unique smart rules in total.
- To configure more than 600 alarms, you require an additional ASU server configured for a different System Advisor network.

Related Documents

Document Number	Description
B0750HA	<i>EcoStruxure™ System Advisor - Process Control User's Guide</i>
B0750HC	<i>EcoStruxure™ Alarm Shelving Utility User's Guide</i>
B0750HG	<i>EcoStruxure™ System Advisor - Process Safety User's Guide</i>
B0750SK	<i>EcoStruxure™ System Advisor - Process Control and Alarm Shelving Utility Release Notes</i>
PSS 41S-4SYSAUD	<i>EcoStruxure™ System Advisor - Process Control Product Specification</i>
PSS 41S-4TRIAUD	<i>EcoStruxure™ System Advisor - Process Safety Product Specification</i>

 **WARNING:** This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.p65warnings.ca.gov/.

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