Foxboro Evo™ Process Automation System

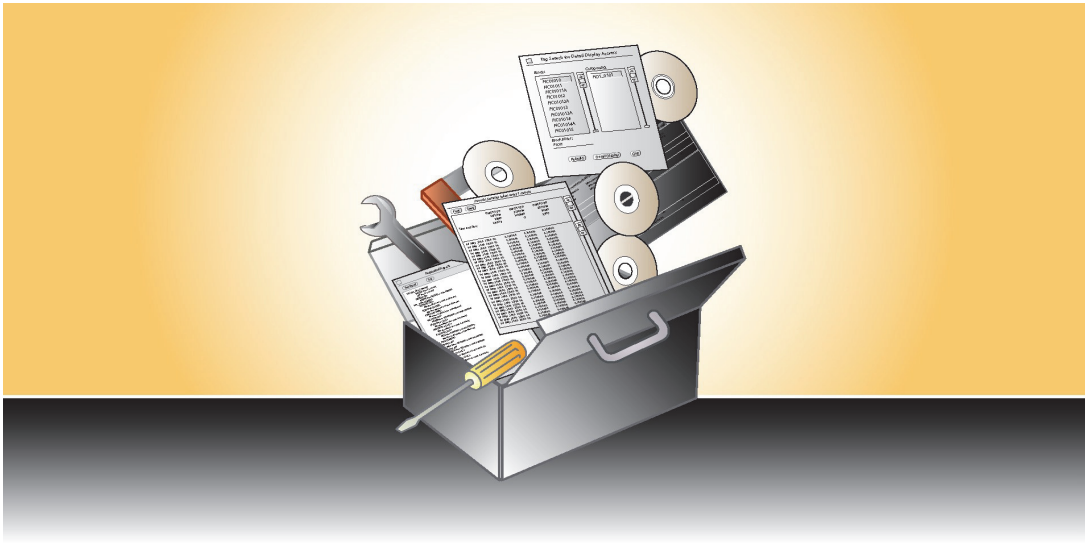
Product Specifications

Foxboro®

by Schneider Electric

PSS 31S-7SwTools

Foxboro Evo™ and I/A Series ® Tools Suite: cpShell, FBMTrack, Message Logger, OAJRelay/SMONRelay, SSCSupport, and TagSearch



Operating and maintaining an I/A Series or Foxboro Evo system is improved through the use of software and software tools. The Foxboro Evo and I/A Series Tools Suite assists Engineers, Operators, and Maintainers to develop support software and to ease access to real-time information.

The Foxboro Evo and I/A Series Tools Suite is a collection of tools that make Foxboro Evo Control Core Services and the I/A Series more useful and applications easier to develop.

OVERVIEW

The suite consists of the following products:

- cpShell - Supports the execution of programs and scripts from sequence blocks.
- FBMTrack - Allows rapid identification of all blocks associated with a particular FBM. In addition, this utility graphically illustrates the in-use I/O points per FBM and provides quick access to the FoxView™ Detail Display for the related control block.
- Message Logger - Allows real-time capture of messages sent by the APRINT message system which can be forwarded to serial port(s) or logged to ASCII files for later use with the Message Logger reporting feature.
- OAJRelay/SMONRelay - intercepts Operator Action Journal (OAJ) and/or System Monitor messages and relays them to user-defined destination names on the control network.
- SSCSupport - Supports those programs that cannot read and manipulate the status bits required to implement Supervisory Setpoint Control, provides a means of tying external computers to control blocks with a minimum effort.

- TagSearch - Provides quick access to the FoxView Detail Display for a specified control block. This utility supports filtering by block name.

cpShell

The cpShell product is used to run programs when certain conditions are detected or to log information about the process. The cpShell product supports the execution of programs and scripts from sequence blocks. Sequence blocks can send a message to the cpShell software in exactly the same manner as any other device. However, when cpShell receives the message, the cpShell process treats it as a command to execute. Each command is run separately.

Requirements

The cpShell product has no additional software requirements.

FBMTrack

When an FBM fails, the plant needs to identify the control loops associated with the failed device quickly and easily. The FBMTrack product presents either all of the I/O blocks or all of the FBMs in a system on a display (as shown in Figure 1) that quickly allows the identification of all blocks associated with a particular FBM.

In addition, this utility can indicate which of the I/O points in the FBM are in use and it can raise the FoxView Detail Display for the selected block.

The FBMTrack software also provides user-specified block filters so that only blocks of interest are shown.

Requirements

The FBMTrack product requires FoxView™ display managers.

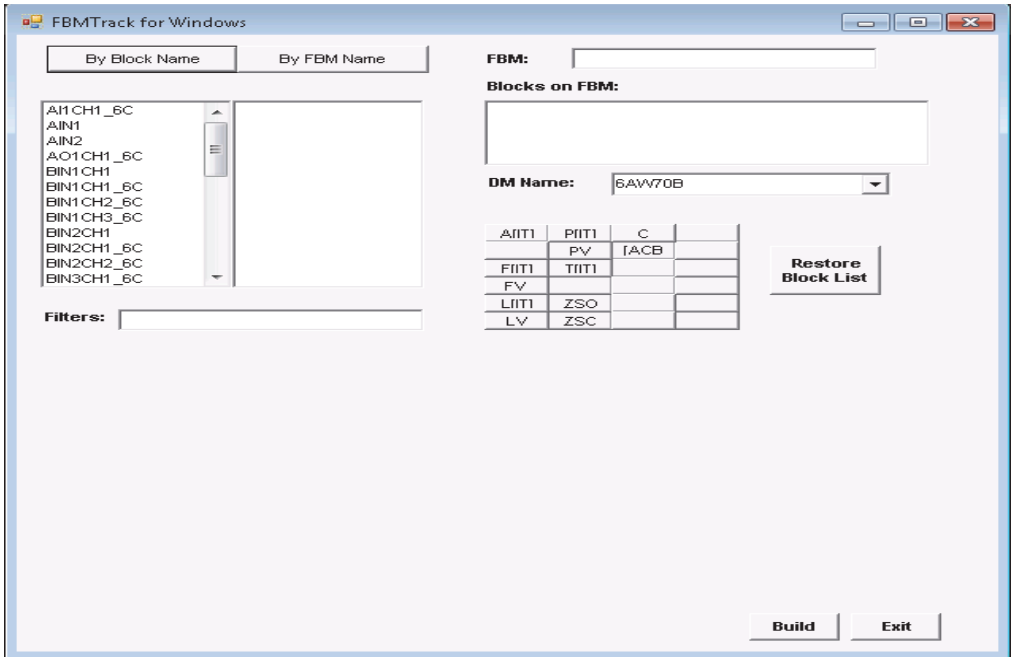


Figure 1. FBMTrack GUI

Message Logger

The Message Logger product allows real-time capture of Process Messages (Alarms and Sequence), System Monitor messages, and Operator Action Journal messages - sent by the APRINT message system, which can be sent to a serial device(s) or logged to ASCII files. In addition these messages are sent on to the target Historians.

The Message Logger product provides a reporting feature that can be used to create reports from the ASCII file generated, as shown in Figure 2.

Requirements

- The Message Logger product has no additional software requirements.
- A USB-to-Serial adapter will be needed if sending messages to a serial device is required.

NOTE

Message Logger does not handle messages processed by ArchestrA Application Objects, although it can be configured to handle those received from Message Manager.

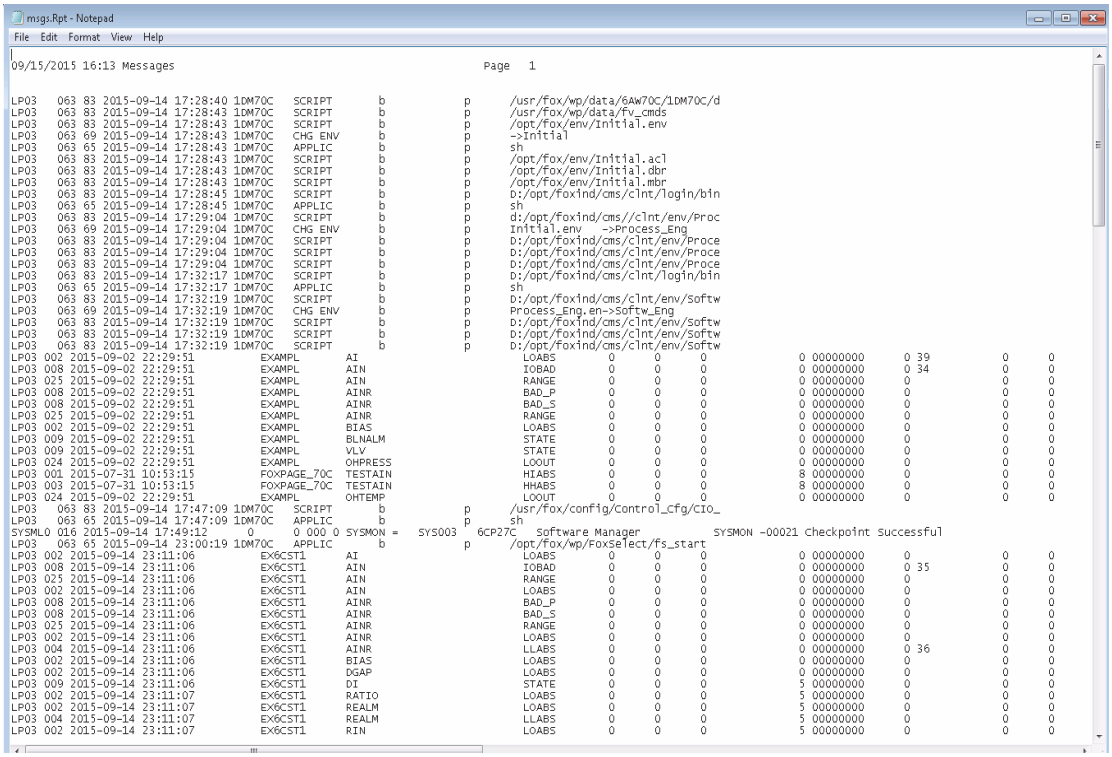


Figure 2. Message Logger Report

OAJRelay/SMONRelay

The OAJRelay/SMONRelay utility relays Operator Action Journal (OAJ) and/or System Monitor (SysMon) messages to user-defined destination names on the control network.

OAJRelay/SMONRelay may be configured to capture incoming messages for up to twenty process names and relay those messages on to defined OAJ and/or SysMon destinations on the control network.

The OAJRelay/SMONRelay application supports up to twenty OAJ destinations and up to twenty SysMon destinations.

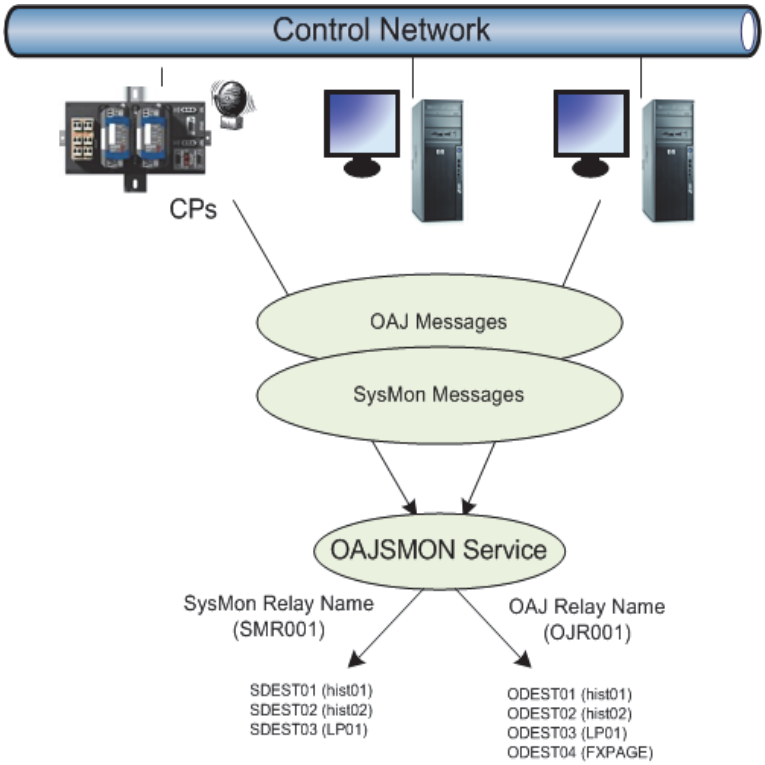


Figure 3. OAJRelay/SMON Relay Data Flow

SSCSupport

The SSCSupport product provides the following services using the SSCSupport Configurator (as shown in Figure 4):

- Supports the grouping of control blocks (AOUT family, PID family, or RATIO) into a “Controller” interface or application.
- Supports mapping externally generated setpoints and acknowledgement flags into the Supervisory Input (SUP_IN) of the selected blocks.
- Supports the automatic construction of a graphic that displays the Supervisory Control Status of each of the selected control blocks.

The program serves as a running example of the logic used by supervisory applications and as a means of tying external computers to control blocks with a minimum of effort.

Requirements

The SSCSupport product has the following software requirements.

- FoxView display managers.
- AIM*API installed, configured, and running.
- Microsoft SQL Server®. Microsoft SQL Server 2005 Express Edition and Microsoft SQL Server 2008 Express Edition are provided with the Foxboro Evo and I/A Series Tools Suite part number.

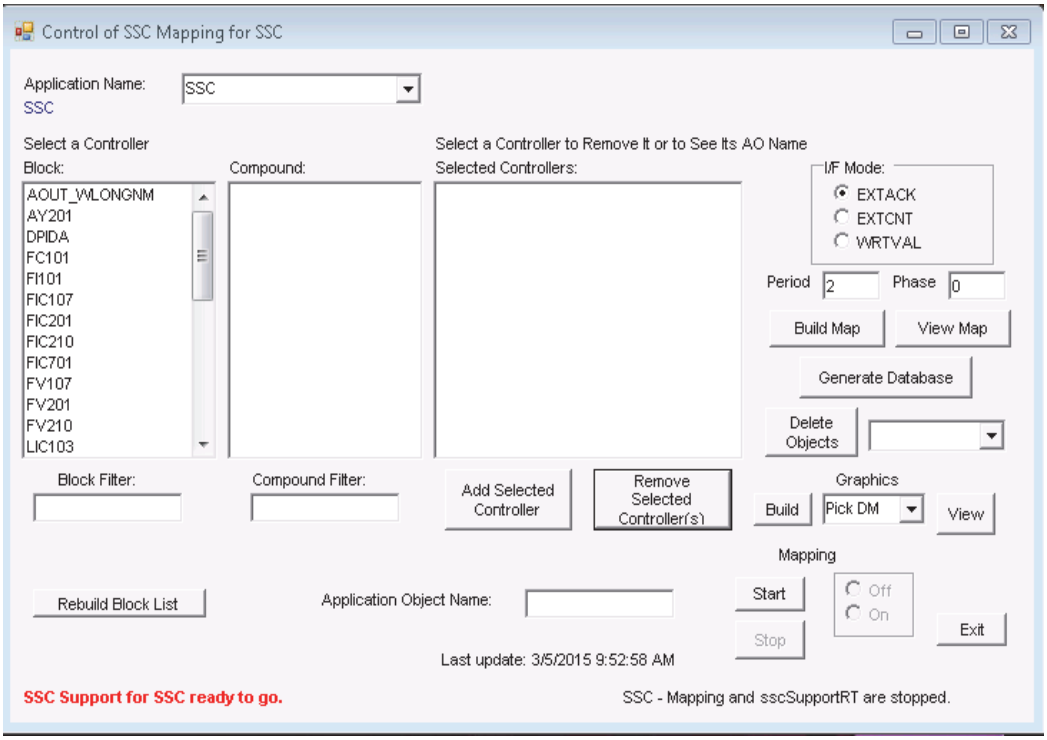


Figure 4. SSCSupport Configurator

TagSearch

Plants with an ISA naming convention want quick access to control blocks by the blocks' names. The TagSearch product provides this presentation, as shown in Figure 5, and is much faster than the alternatives.

By default, the TagSearch software raises the standard detail display on the specified display manager.

Requirements

The TagSearch product has the following software requirements:

- FoxView display managers.
- AIM*API installed, configured, and running.

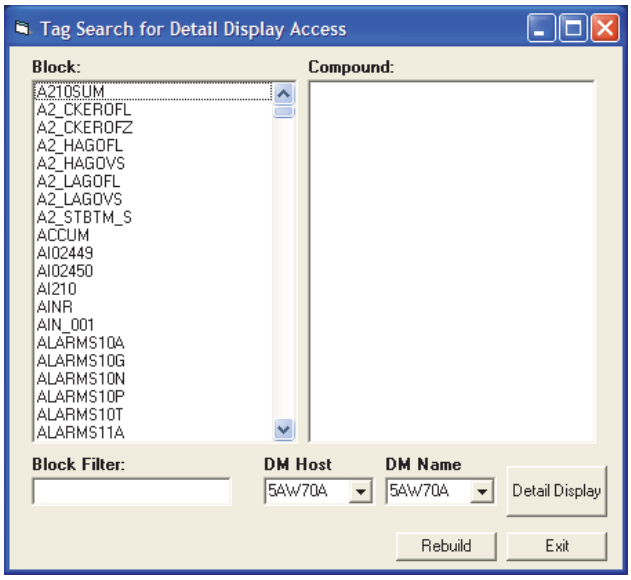


Figure 5. TagSearch GUI

REQUIREMENTS

Supported Software Versions

The Foxboro Evo and I/A Series Tools Suite currently supports the following software versions:

- v8.2 - v8.4.x Standard I/A Series software
- v8.5 - v8.8 Standard I/A Series software
- v8.5 - v8.8 Security Enhanced I/A Series software with default domain group policies.
- v9.0 - v9.2 Foxboro Control Core Services Standard
- v9.0 - v9.2 Foxboro Control Core Services Security enhanced with default domain group policies.

NOTE

When using security enhanced software, please be aware that changing the default domain group policies or improperly using McAfee® ePolicy Orchestrator (ePO) firewall can adversely affect the proper operation of the Foxboro Evo and I/A Series Tools Suite applications. Modifying Active Directory Group Policies is considered an advanced action and should only be undertaken by qualified personnel. Use of any firewall, including the authorized McAfee ePO firewall could also adversely affect the functionality of the Foxboro Evo and I/A Series Tools Suite applications if not configured properly. Care should be taken to closely follow instructions provided by the following documents: *Security Enhancements User's Guide for I/A Series Workstations (Windows 7 or Windows Server 2008 Operating Systems)* (B0700ET), and *McAfee ePolicy Orchestrator 4.0, Host Intrusion Prevention 7.0, and Device Control 2.2 (Installation and Configuration Guide for I/A Series Systems)* (B0700EB) or *Optional McAfee Security Products Installation and Configuration Guide* (B0700EX).

Software Requirements

The following Foxboro Evo and I/A Series Tools Suite applications require the following software be installed, configured, and running:

- cpShell
  - No additional software requirements
- FBMTrack
  - FoxView display managers
- Message Logger
  - No additional software requirements
  - A USB-to-Serial Adapter will be needed if sending messages to a serial device is required.
- OAJRelay/SMON Relay
  - No additional software requirements
- SSCSupport
  - FoxView display managers
  - AIM*API
  - Microsoft SQL Server. Microsoft SQL Server 2005 Express Edition and Microsoft SQL Server 2008 Express Edition are provided with the Foxboro Evo and I/A Series Tools Suite
- TagSearch
  - FoxView display managers
  - AIM*API

ORDERING INFORMATION

The Foxboro Evo and I/A Series Tools Suite is sold on a per process basis. The customer is free to use the tools as needed within the unit for which they were purchased. A unit is defined to be a set of System Hardware dedicated to the manufacture of a specific product or set of closely related products. Systems are generally sold to support a particular unit. In this case, only one license is required. However, if the system is running several units in the plant, multiple licenses are required.

Bulk purchases for entire plant sites are available for larger installation or customer configuration. Contact your account representative for details.

PART NUMBER

- Q0301JL - Foxboro Evo and I/A Series Tools Suite

Foxboro®

by Schneider Electric

Invensys Systems, Inc
10900 Equity Drive
Houston, TX 77041
United States of America
http://www.invensys.com

Global Customer Support
Inside U.S.: 1-866-746-6477
Outside U.S.: 1-508-549-2424
Website: https://support.ips.invensys.com

MB 031 1015