

General Specifications

Model RS4E5700 FAST/TOOLS Integration Package



GS 32P04D20-01EN

■ GENERAL

This software runs on the safety engineering computer (SENG) and enables the integration between ProSafe-RS and FAST/TOOLS. (*1) This package is used for configuring a system which monitors and controls oil wells and oil pipe lines dotted in wide area. If this software is used, ProSafe-RS can not be integrated with CENTUM VP.

For more detail about ProSafe-RS and FAST/TOOLS integrated system, refer to the GS "ProSafe-RS Safety Instrumented System Overview (for Vnet/IP-Upstream)" (GS 32P01B30-01EN).

*1: In an RS Project, this package cannot be used together with "CENTUM VP Integration Package" (RS4E5600).

■ FUNCTION OVERVIEW

With this software, users can configure a system that integrates ProSafe-RS and FAST/TOOLS, as illustrated below.

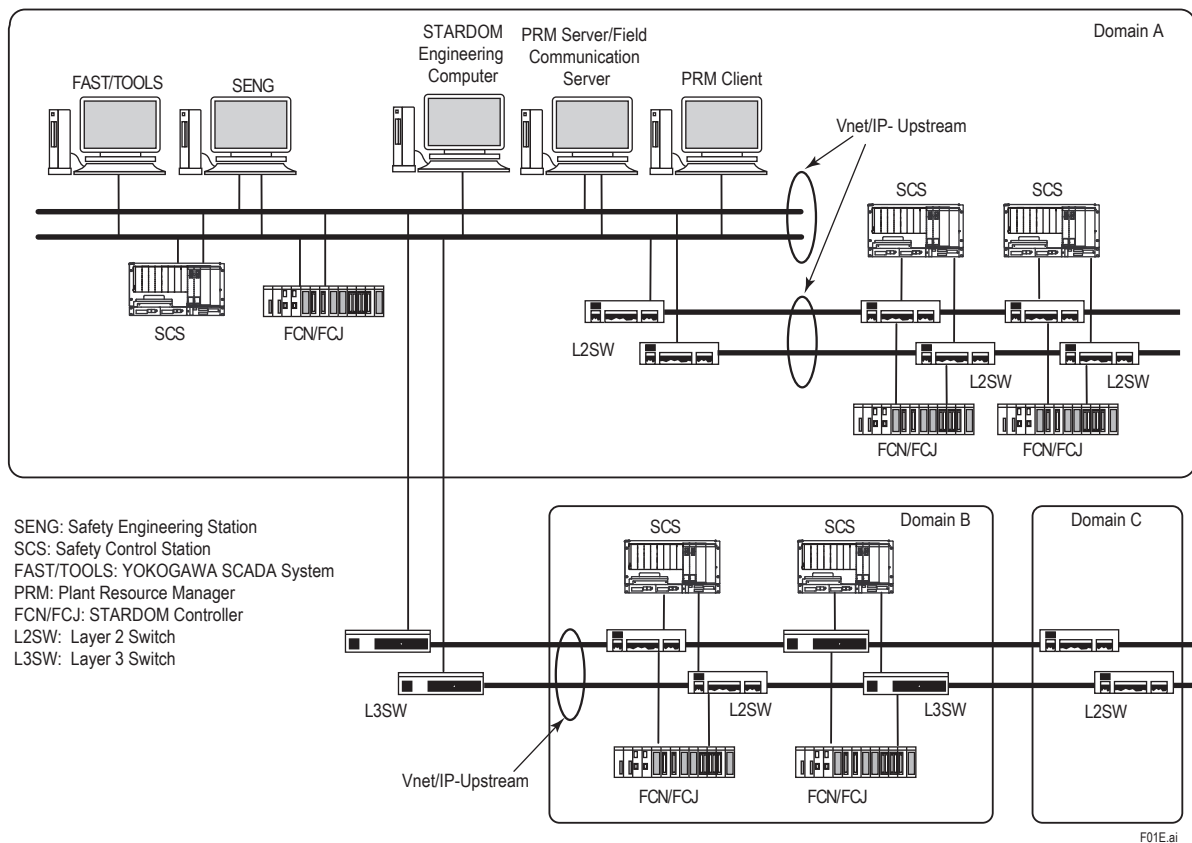


Figure Example of Configuration of ProSafe-RS and FAST/TOOLS Integration System

In ProSafe-RS and FAST/TOOLS integrated system, functions described below are available.

- SCS can be operated and monitored from FAST/TOOLS
 - Operation and monitoring of SCS using Tag Name
 - Detecting Process Alarms and System Alarms
 - SCS status display
 - Managing SCS annunciators (alarm and recovery)
- Dual redundant Ethernet TCP/IP communication can be configured using a pair of Vnet/IP-Upstream open networks.
- The distance between stations of the same Vnet/IP-Upstream domain can be extended by the network mode.

For the specification of FAST/TOOLS, refer to the GS of "FAST/TOOLS" (GS 50A01A10-01EN).

Vnet/IP-Upstream is the control network to integrate ProSafe-RS and FAST/TOOLS with this package. The network mode of Vnet/IP-Upstream has 3 modes, i.e. standard mode, wide-area mode, and narrowband mode. For more detail of the network mode, refer to “ProSafe-RS Safety Instrumented System Overview (for Vnet/IP-Upstream)” (GS 32P01B30-01EN).

In addition, please be sure to separate physically Vnet/IP-Upstream system from Vnet/IP system of integration between ProSafe-RS and CENTUM VP. The physical separation means the two networks should not be linked either directly or through a network switch or a router.

■ FUNCTION SPECIFICATION

● Package Function

FAST/TOOLS Integration Package includes functions described below.

Function	Description
Domain Properties setting	Setting Standard, Wide-area or Narrowband
Annunciator Message definition	The annunciator messages of each SCS to be shown on the FAST/TOOLS is defined on Tag Name builder.
Tag Name definition	The application logic variables and function blocks of each SCS to be accessed by FAST/TOOLS need to be defined with tag names and parameters on Tag Name builder.

The following table summarizes the maximum number of function blocks that can be operated/monitored for each SCS in a FAST/TOOLS integrated system configuration.

Name	Function Block/Element Name	Maximum Number		
		S2SC70□ / SSC60□	SSC50□	SSC57□
Safety Control Station				
ANLG_S/ANLGI	Analog Input Block	Total 2700	Total 1800	Total 1800
VEL	Velocity (rate-of-change) Alarm Block			
AGA_3/AGA_7/AGA_R	AGA Calculation	– (*1)	– (*1)	
ANN/ANN_FUP	Annunciator Message	2000	1000	1000

*1: These function blocks are for SSC57□.

● **Types of SCS Data and Function Blocks for which Tag Names can be assigned**

The following table summarizes the types of SCS variable data and function blocks for which tag names can be assigned.

Type	Description
BOOL	BOOL-type variable
DINT	Integer variable
REAL	Real-number variable
ANLG_S	Analog Input Function Block with Data Status
ANLGI	Analog Input
VEL	Velocity Limit Alarm
ANN	Annunciator
ANN_FUP	First-up Alarm Annunciator
IO_REAL	Real-number analog input variable
IO_BOOL	BOOL-type contact I/O variable
ECW_B	BOOL-Type Data External Communication
ECW_I	INTEGER-Type Data External Communication
ECW_R	REAL-Type Data External Communication
ECWR_B (*1)	External communication with BOOL-type data retaining function
ECWR_I (*1)	External communication with INTEGER-type data retaining function
ECWR_R (*1)	External communication with REAL-type data retaining function
SCI_B	BOOL-Type Subsystem Communication Input
SCI_I	INTEGER-Type Subsystem Communication Input
SCI_R	REAL-Type Subsystem Communication Input
SCO_B	BOOL-Type Subsystem Communication Output
SCO_I	INTEGER-Type Subsystem Communication Output
SCO_R	REAL-Type Subsystem Communication Output
AGA_3 (*1)	AGA3 calculation
AGA_7 (*1)	AGA7 calculation
AGA_R (*1)	Report data creation

*1: These function blocks are for SSC57□.

When ProSafe-RS is integrated with FAST/TOOLS, the following Function Blocks can not be used. If any of them are used, an error occurs during the build operation.

- Override (OVR_B, OVR_I, OVR_R, OVR_IB, OVR_IR, GOV_B, GOV_IB)
- Password (PASSWD)
- Manual Operation (MOB_21, MOB_11, MOB_RS, MOA)
- Fire and Gas Communication input (PSI_I, PSI_R), PROFINET communication input (PNI_I, PNI_R)

■ **SYSTEM REQUIREMENTS**

Refer to the GS “ProSafe-RS Safety Instrumented System Overview (for Vnet/IP-Upstream)” (32P01B30-01EN).

■ **MODEL AND SUFFIX CODE**

		Description
Model	RS4E5700	FAST/TOOLS Integration Package
Suffix Code	-V	Software license
	1	Always 1
	1	English version

■ **ORDERING INFORMATION**

Specify the model and suffix code(s).

■ **TRADEMARKS**

- ProSafe, CENTUM, PRM, STARDOM, FAST/TOOLS, Exaopc, FieldMate, and Vnet/IP are either registered trademarks or trademarks of Yokogawa Electric Corporation.
- Other company and product names appearing in this document are registered trademarks or trademarks of their respective holders.