

General Specifications

Model CHS5100 Safety System Generation and Maintenance Function Package



GS 32S04C10-21E

■ GENERAL

The System Generation and Maintenance package provides the general specifications for the configuration of a ProSafe-RS system.

■ FUNCTIONAL SPECIFICATIONS

The table below shows the functions of the System Generation and Maintenance software.

Table The functions of the System Generation and Maintenance software (1/2)

Category	Function	Description
Database	Project creation function	Creates an SCS (Safety Control Station) project (*1) that contains an SCS database.
	Database generation function	Constructs databases that run on the SCS.
	Version control function	Controls a history of changes by backing up databases on an SCS project basis.
Application	SCS definition	Defines SCS parameters.
	I/O definition	Defines parameters and the configuration of I/O modules.
	Variable definition	Defines variables, parameters and the like, which are used by the application logic.
	POU (*2) definition	Defines the application logic using the FBD, LD and ST language.
	Definition of actions on fault detection	Defines actions when a fault or failure is detected in the SCS, I/O modules, field wiring, etc.
	Sequence-of-events recorder (SOER) function definition	Defines parameters and conditions for collecting event information (such as trip signals).
	Override definition	Defines function blocks to override SCS data from the CENTUM VP/CS 3000 HIS.
	Inter-SCS safety communication definition	Defines inter-SCS safety communication.
	SCS Link Transmission Definition	Defines inter-SCS data transmission.
Modbus communication	Communication module definition	Defines parameters for Modbus slave operation. It defines parameters to operate SCS as the master device of Modbus. (*6)
Download	Off-line download function	Downloads all of the SCS project definitions to the SCS.
	Online change download function (*3)	Downloads online to the SCS only the differential data between the SCS project definition data last downloaded and the most updated data.
	Master database off-line download function	When a CPU modules is replaced, the master database that was last downloaded is downloaded to the SCS again. (*4)
	I/O module definition download function	When an I/O modules is replaced, the I/O module definition information that was last downloaded is downloaded to the SCS again. (*4)
Security	Database access control function	Limits changes in SCS projects by restricting unauthorized users' access.
	Misoperation prevention function	Prevents users from misoperating the SCS.
	SCS access control management function	Permits only authorized users to change the security level of the SCS.
Forcing	Forcing function	Externally locks or changes SCS data in use, from outside.
Test	Test function (*7)	Supports a test to check whether the application logic is designed correctly.

*1: An application for one SCS unit is called an SCS project. A group of SCS projects to implement one application is called an RS project.

*2: POU (Program Organization Unit): A generic term indicating programs, function blocks, and functions.

*3: Depending on the changes to be made, the online change download function cannot be executed.

*4: Used for hardware replacement

*5: The CHS2100 SOE viewer package is required to display event information on the HIS, operation monitoring station of the CENTUM VP/CS 3000, or general-purpose PCs.

*6: To use the Modbus master functions, CFS9153 Modbus Communication Package is required.

*7: See "Test Function" of the "Safety Control Package" (GS 32S03B10-21E).

Table The functions of the System Generation and Maintenance software (2/2)

Category	Function	Description
Engineering support	Safety-related check function	Inspects the application logic in terms of safety.
	Help function	Displays help documents.
Maintenance support	SCS status display function	Displays the status of I/O modules and SCS operation on the SCS Operation Status Display window and the SCS Status Management window.
	Diagnostic information display function	Displays diagnostic information messages, which are produced from the results of SCS's self-diagnosis, in chronological order in the Diagnostic Information window. These messages can be re-displayed for confirmation, or deleted. A help dialog can be displayed for each diagnostic information message.
	Online monitoring function	Allows monitoring of the application logic being executed on the SCS.
	SOE viewer function	Displays event information (such as trip signals). (*5)

*5: The CHS2100 SOE viewer package is required to display event information on the HIS, operation monitoring station of the CENTUM VP/CS 3000, or general-purpose PCs.

■ SYSTEM REQUIREMENTS

Refer to the GS "ProSafe-RS Safety Instrumented System Overview."

■ MODEL AND SUFFIX CODES

		Description
Model	CHS5100	Safety System Generation and Maintenance Package [Medium model: CHSKM02-V11]
Suffix Codes	-V	Software license
	1	Always 1
	1	English version

■ OTHER CAUTIONARY NOTES

For details on Windows general-purpose application software that can run on the SENG, contact your nearest Yokogawa Electric sales office.

■ ORDERING INFORMATION

Specify the model and suffix codes.

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