

SIMOTION

Frequently asked Questions

Comparison of SIMATIC S7 and
SIMOTION System Functions,
System Function Blocks

SIEMENS

SIMATIC-SIMOTION SFCs und SFBs

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Qualified personnel

In the sense of this documentation, qualified personnel are those who are knowledgeable and qualified to install, commission, operate and service the products which are to be used. He or she must have the appropriate qualifications to carry out the following activities.

Qualified personnel must be

- Trained and authorized to energize and de-energize, ground and tag circuits and equipment according to the applicable safety standards.
- Trained or instructed according to the latest safety standards in servicing and using the appropriate safety equipment.
- Trained in rendering first aid.

This documentation does not contain any explicit warning information. However, reference is made to warning information and instructions included in the Operating Instructions for the particular product.

Reference regarding export codes

AL: N

ECCN: N

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SIMATIC-SIMOTION SFCs und SFBs

1 Question

Which system functions and system function blocks of the SIMATIC S7 correspond to the system functions and system function blocks of the SIMOTION?

2 Solution

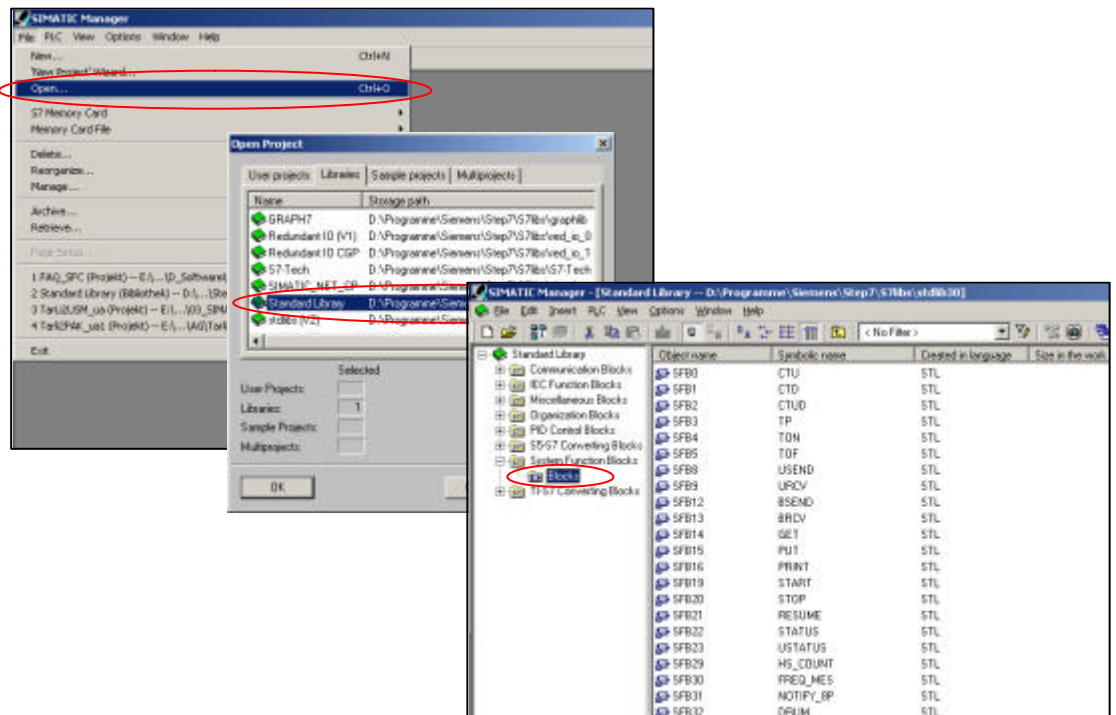
The system functions and system function blocks are indicated in several lists (see further below). The lists are classified according to SFC, SFB, ET200S functions, CP340/341 functions, the actor-sensor interface, RFID systems, FM350/352 functions, controller functions, functions of the POSMO A drives, Ethernet and PROFIBUS DP.

The system functions and system function blocks are included in the standard library of the corresponding engineering systems SIMATIC STEP 7 (SIMATIC Manager) or SIMOTION SCOUT.

2.1 Standard library of the SIMATIC Manager

Proceed as follows to open the library.

- Start the SIMATIC Manager via
 - > Windows Start -> SIMATIC -> SIMATIC Manager
- Open the standard library via
 - > File menu -> Open -> Libraries tab -> Standard Library



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2.2 SCOUT standard library

Proceed as follows to open the library:

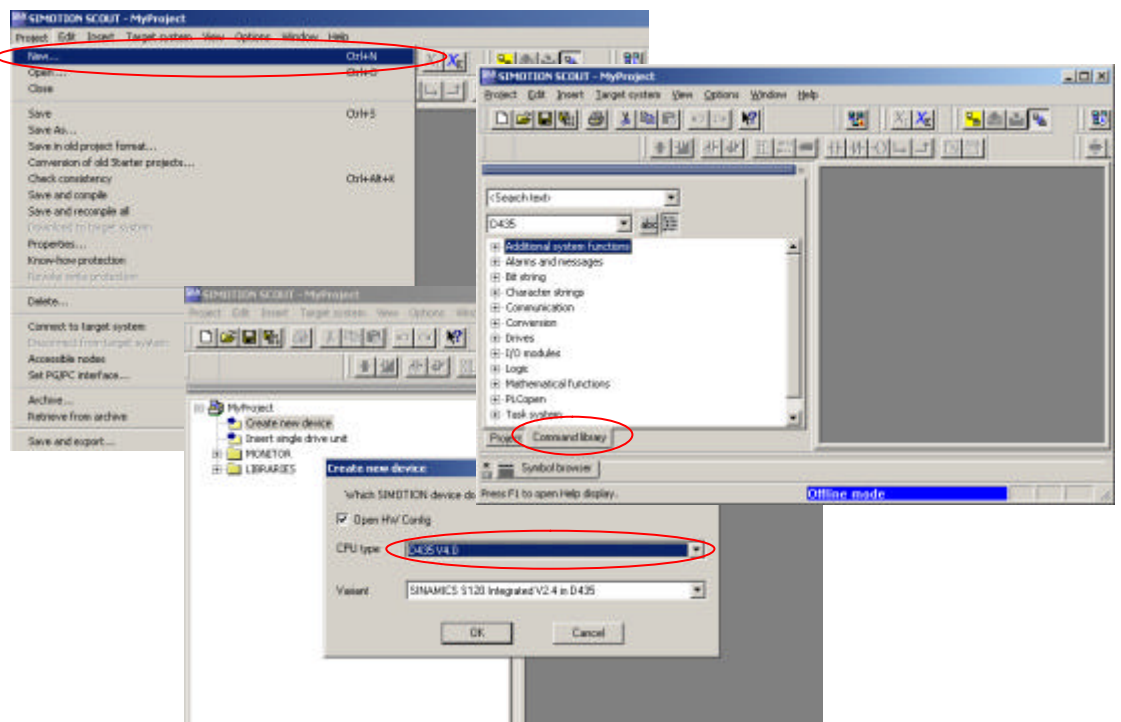
- Start SCOUT via
 - > Windows Start -> SIMATIC -> STEP 7 -> SIMOTION SCOUT
- To open the standard library, create a project. Next, open the Command Library tab from the project navigator.

To create a project:

- Project menu -> New -> Name: e. g. MyProject -> Create new device
 - > e. g. D435 V4.0

To open the library:

- Project navigator -> Command Library tab



A detailed description of the system functions can be called up via the Help menu of the SIMATIC Manager or SCOUT.

The context-sensitive online help can be called up via the question mark ("?") and the cursor (shortcut: SHIFT + F1). Next, the user must click on the system function in the command library.

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Note:

The command library depends on the version of the installed SIMATIC STEP 7, the SCOUT version and the selected device version (e. g. D435 V4.0). The following list corresponds to the STEP 7 V5.4 and SCOUT V4.1 versions.

The list in the command library can be sorted according to topics or in alphabetical order.

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2.3 List of blocks

The FC functions, FB function blocks, SFC system functions and SFB system function blocks are included in a separate Excel file "Comparison_SIMATIC-SIMOTION_SFCsSFBs.xls" and listed according to topics.

In this file, the SIMATIC blocks are compared to the SIMOTION functions and function blocks.

The individual columns provide the following information:

SIMATIC

- block number
- symbolic block name
- the block description

SIMOTION

- name of the function and name of the function block
- description of the function and of the function block

Example: SFC

SIMATIC		SIMOTION		
Number	Brief Designation, Symbol	Function	Function, Function Block	Description
SFC 0	SET_CLK	Setting the clock time	rtc (FB)	Setting and reading of the real-time clock. The positive edge on the SET sets the real-time clock to the value of PDT; PDT is accepted in CDT.

2.4 Functioning of the blocks

The functions of the individual blocks of the SIMOTION and SIMATIC systems can differ. Besides this, there are also differences with regard to the number of supported functions and the scope of the compared functions.

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Appendix

3 Excel file with list of SFCs / SFBs

List of FC functions, FB function blocks, SFC system functions and SFB system function blocks in the Excel file "Comparison_SIMATIC-SIMOTION_SFCsSFBs.xls".

4 Revision

Table 4-1: Revision/Authors

Version	Date/Revision
1.0	January 31, 2007

5 Contact partners

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