SIEMENS

SIMATIC S5

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S5EPROM for USB prommer

Reference Guide

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Siemens Aktiengesellschaft

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Technical data subject to change



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1 General

The program S5EPROM.EXE allows S5EPROM / EEPROM modules and S5 memory cards to be programmed using the SIMATIC USB-PROMMER.

With this program, you can transfer, compare and read blocks from an S5 program file (*ST.S5D file) onto SIMATIC S5 modules. Transferring data from a file onto a memory module is also described as "load" with STEP 5.

The contents of binary files can be transferred onto a module. It is not possible to read binary files.

2 Installation

On installing the STEP 5 package V7.2, the installation process is automatically run for the program S5EPROM.

Program file S5EPROM.EXE is then copied into the current STEP 5 systems directory, e.g. according to C:\STEP5\S5_SYS\S5EPROM.EXE.

A link to the program S5EPROM.EXE is created in your Windows start menu under **Start -> Simatic -> STEP 5**. From here, you can easily call up the program S5EPROM.

3 Run Environment / Requirements

The program can run under Windows 95/98/Me or Windows 2000.

For all functions of the program S5EPROM, a SIMATIC USB-PROMMER is necessary, connected via a USB interface. The SIMATIC USB-Prommer must be installed as a USB device and connected via the DC 12V power supply cable.

The SIMATIC USB and installation software is not included in the STEP 5 scope of supply.

The SIMATIC USB-Prommer can be ordered as a product under MLFB no. 6ES7 792-0AA00-0XA0.

For the print function, it is assumed that a local printer or a network printer is reliably set up on your computer's Windows operating system.

To create the STEP 5 program file with S5 blocks, an executable STEP 5 is required in versions V6.x or V7.x.

4 Restrictions

When a German version of Windows is installed, the program S5EPROM logs on in German. With all other Windows language versions, the S5EPROM logs on in English.

French, Spanish and Italian are not supported.

System functions that are called by S5EPROM such as 'Print' or 'File Selection' always appear in the current Windows language, however.

5 **Program Description**

The following functions are available:

- Loading S5 blocks into S5 EPROM/EEPROM modules or S5 memory cards (Load) .
- Loading the contents of binary files into EPROM/EEPROM modules (Load).
- Reading S5 blocks from EPROM/EEPROM modules or S5 memory cards and transferring into an existing preset program file (Read).
- Erasing EEPROM modules or S5 memory cards (Erase).
- Comparing EPROM/EEPROM module contents or S5 memory cards with S5 program file contents.
- Displaying information on EPROM/EEPROM or S5 memory cards (parameters, directory).

Note

Commentary blocks, documentation blocks and display driver blocks cannot be shot onto the module.

STEP 5 EPROM Programming ¥ 1.0	
STEP 5 program file / binary f	file
Modul O Load from program file O Load from binary file O Read O Erase O Directory O Compare O Parameters	Block A Programming number 500 Mode © BYTE © WORD © WORD/BLOCK
Start	Print Cancel

5.1 File Name

The path and file name for the data transfer must be entered in the input box "STEP 5 program file / binary file".

You have two ways of making the entries:

- Entering the path and file name directly, e.g. C:\STEP5\S5_DATEN\S5PROGST.S5D
- Selecting the file by clicking the appropriate button with three dots (...).

Warning

The *.ST.S5D file indicated in the input box must always be present, even with the read function.

If the data is to be transferred into a new *.ST.S5D file, this file must first be created using the STEP 5 program. A file without program blocks can be created in STEP 5 by entering e.g. a display driver block (block type BB) into a new *.ST.S5D file.

Open			? ×
Look jn: 🔂	STEP5	💌 🗢 🖻	r 🖽
S5_DATEN			
S5_HOME			
S5_SYS			
File <u>n</u> ame:	*st.s5d		<u>O</u> pen
Files of <u>type</u> :	S5 Programmdateien (*st.s5d)	•	Cancel

5.2 Block

Possible entries include:

Individual block names e.g. **PBn,FBn,...** (up to 6 individual blocks can be selected) All blocks of one type e.g.: **PB** (only one block type in each case can be selected). All program blocks of the preset S5 program file **B**

You have two ways of entering the block:

- Entering the above block symbol directly
- Selecting the block by clicking the appropriate button with three dots (...).

If you wish to line up several individual block names, you must add the block number to the inserted block type.

Block selection	×
select block type A - All blocks DB - Data block SB - Sequence block PB - Program block FX - Extended function block FB - Function block DX - Extended data block OB - Organization block	Cancel

Note

Display driver blocks and documentation blocks (block type BB, # and %) cannot be transferred onto one module.

5.3 Programming Number

Here you have to enter the programming number. This number allows the required S5-EPROM/EEPROM module or S5 memory card to be identified.

You have two ways of entering this number:

- Enter the number directly
- Click on the appropriate button with three dots (...) to select the number. The assignments are listed in a list provided with STEP 5. Use the selection box to display this list, which you can page through. Once you have positioned the cursor on a module in the list and confirmed this with the acceptance key, the corresponding program number is inserted into the programming number box.

selection list				ОК
MLFB no.	Prog. no.	capacity		<u> </u>
6ES5-376-1AA11	456	8 kW		
6ES5-376-1AA21	459	16 kW		Cancel
6ES5-376-1AA31	462	32 kW		Cancer
6ES5-378-0AA11	202	2 kB		
6ES5-378-0AA41	211	8 kB		
6ES5-910-0AA11	0	1 kB		
6ES5-910-0AA21	1	2 kB		
6ES5-910-0AA31	2	4 kB		
6ES5-910-0AA41	7	8 kB		
6ES5-911-0AA32		4 kB		
6ES5-911-0AA42	•	8 kB		
6ES5-911-04A52	-	16 kB		
6ES5-987-0AA11	14	32 kB		
Memory-Card	500	%	-	

Explanatory note on list with programming numbers:

- MLFB number is a module's order number
- *Programming number* allows the programming device to identify the EPROM/EEPROM module or S5 memory card. This number is permanently assigned to the order number.
- Capacity is the storage capacity of the EPROM/EEPROM module.

Note

Programming number 500 is reserved for SIMATIC memory cards. The loading and testing sequence is identical to the sequences described in this chapter.

Once you have entered the programming number and confirmed with the START button, an information module is displayed.

Caution

If you enter an incorrect programming number, this may destroy EPROM/EEPROM modules.

If, for example, you inadvertently only enter 57 instead of 457 as programming number for the module 6ES5 372-1AA61, the module is destroyed.

5.4 Effect of Module Function Group

All the following functions in each case start with an output of the module information.

They are terminated with the message:

EPROM Check FREE From nnnnnn

The FREE is thereby the physical end address of the last block in the EPROM/EEPROM module or S5 memory card.

5.4.1 Loading from program file

Transferring blocks into an EPROM/EEPROM module or S5 memory card. Entries are required for 'STEP 5 program file name', 'block' and 'programming number'.

Note

It is not possible to divide up the program blocks of a *ST.S5D file into several modules. If module storage capacity is not sufficient for the selected program blocks, programming is aborted when the first module is full.

5.4.2 Loading from binary file

Transferring binary data into an EPROM/EEPROM module. Entries are required for 'binary file name' and 'programming number'.

5.4.3 Read

Transfer from an EPROM/EEPROM module or an S5 memory card to the selected program file. Entries are required for 'STEP 5 program file name', 'block' and 'programming number'.

5.4.4 Erasing

The erasing process (EEPROMs and S5 memory cards only) is concluded with the message:

Module... End address nnnnnnn

EPROMs cannot be erased with this program but only with a UV erasing unit.

5.4.5 Directory

Output of directory information via the module set in the EPROM interface. Entries are required for 'STEP 5 program file name' and 'programming number'. Where a block field is blank, all blocks are displayed.

If a block or block head is found, the block list is output on the screen.

Depending on the setting, the output is terminated with the following message:

For one block or a group of blocks:

Block name Length: nnnn Module address: nnnnnnnn

BIB-Nr.: nnnnnnn

5.4.6 Comparison

Comparison of the S5 blocks stored in the EPROM/EEPROM or S5 memory card with those in the selected program file. Entries are required for 'STEP 5 program file name' and 'programming number'. Where a block field is blank, all blocks are compared.

The result of the comparison is output in the list box. Messages are output during the comparison.

The following messages are displayed if there is any discrepancy in the comparison:

Address The relative block address in the module

Ref. Setpoint (value) = memory contents filed under the relative block address in the program file.

Act. current value = memory contents filed under the relative block address in the EPROM/EEPROM module.

5.4.7 Parameters

Output of EPROM/EEPROM parameters or S5 memory card on the screen and comparison with parameter values of the module set in the EPROM interface. When values are equal, the result is displayed. 'Programming number' must be entered in order to execute the function.

5.5 Print List Box

To print, press the button with the same name in the S5EPROM window. The system window '**Print**' appears for the standard printer.

۴	Print				?	×	
General Layout Paper/Quality							
[-Select Printer-						
	3	1	S	2	🎸 🗎		
	Add Printer	HP DeskJet 895Cxi	hp deskjet 990c an LPT1	hp deskjet 990c an USB	HP LaserJet 4		
	•						
	Status: Re	ady			Print to <u>f</u> ile		
	Location: Comment:				Fin <u>d</u> Printer		
ſ	– Page Range –						
	⊙ Aji			Number of g	copies: 1 ≑		
	C Selection	C Current P	age				
	C Pages:	1-65535		🔽 C <u>o</u> llate			
	Enter either a single page number or a single page range. For example, 5-12						
_							
					Print Cancel		

Here you can go on to specify the print request by selecting the pages to be printed or the number of copies. Start printing with the 'OK' button.

5.6 Close

Close the S5EPROM program by pressing the 'Cancel' button in the STEP 5 EPROM programming window.

6 Deinstallation

The program S5EPROM is removed from your computer by deinstalling the STEP 5 package.