

What's New in STEP 7, Version 5.5?

The following subject areas have been updated:

Operating systems

- As of STEP 7 V5.5, the operating systems MS Windows 7 Professional, Ultimate and Enterprise (standard installation) are supported.
- As of SP1, you can use the released operating systems in the 32-bit as well as the 64-bit version. You can find more detailed information on this in the file supplied "Readme.rtf".

Configuring and Diagnosing Hardware

- As of STEP 7 V5.5, you can create I-devices from numerous IO controllers.
- As of STEP 7 V5.5, you can use the PROFINET shared device function.
- As of STEP 7 V5.5, you can assign the IP addresses and device names dynamically.
- As of STEP 7 V5.5, you can configure media redundancy for multiple domains.
- As of STEP 7 V5.5, you can configure the isochronous mode for IO devices.
- As of STEP 7 V5.5, you can install hardware updates directly from the "Windows Start menu".
- As of STEP 7 V5.5, you can manage user rights for the Web server.
- As of STEP 7 V5.5, you can access Web pages of the CPU via a secure HTTPS connection.
- As of STEP 7 V5.5, you can configure keepalive times for TCP connections.
- As of STEP 7 V5.5, you can download I&M data for more than one module at the same time (using multiselection).
- As of STEP 7 V5.5 SP2 you can configure PROFINET devices with several PROFINET interfaces.
- As of STEP 7 V5.5 SP2 you can create high-performance PROFINET ring configurations on the basis of MRPD ("Media Redundancy with Path Duplication").
- As of STEP 7 V5.5 SP2 you can operate S7 CPs which support PROFINET as shared or I-devices.
- As of STEP 7 V5.5 SP2 you can also start "Device Tools" such as "S7-PCT" from the online view of HW Config.
- As of STEP 7 V5.5 SP2 you can configure PROFINET IO systems in system redundancy with the fault-tolerant CPU V6.0.
- As of STEP 7 V5.5 SP2 you can configure PROFIenergy conveniently in HW Config.
- As of STEP 7 V5.5 SP3 you can insert HART field devices in PROFINET IO devices with STEP 7, for example, into an ET200M module.
- As of STEP 7 V5.5 SP3, the list of accessible nodes is prepared rather quickly, because detailed information is not loaded initially.
- As of STEP 7 V5.5 SP3, the user documentation for FOUNDATION Fieldbus is integrated.
- As of STEP 7 V5.5 SP3, the Make process is faster (accessible under PLC > Compile and download objects)
- As of STEP 7 V5.5 SP3 you can configure multiple rings (according to the Media Redundancy Protocol - MRP).
- As of STEP 7 V5.5 SP3 you can configure FOUNDATION Fieldbus components with WinAC RTX.

Modifying the System during Operation (CiR)

- The restrictions in STEP 7 versions up to and including V5.4 regarding hardware configuration in RUN (CiR) for PROFIBUS when upgrading the STEP version no longer apply in V5.5.
- The DP/FF Link is introduced with STEP 7 V5.5 SP3.

Standard Libraries

- As of STEP 7 V5.5, the system functions have been expanded by the addition of SFB104 "IP_CONF" for program-controlled configuration of the integrated PROFINET interface of your CPU.
- As of STEP 7 V5.5, the system functions have been expanded by the addition of SFC99 "WWW" for enabling or synchronizing user Web pages.
- As of STEP 7 V5.5, the system functions have been expanded by the addition of SFB73 "RCVREC" for receiving data records and SFB74 "PRVREC" for making data records available on an I-device. These SFBs are only valid for S7-300 CPUs.
- As of STEP 7 V5.5, the system status list with SSL-ID W#16#xy9C has been expanded. This provides information on the configured tool changer and its tools.
- As of STEP 7 V5.5, the following FBs of S7 communication are included: FB28 "USEND_E", FB29 "URCV_E", FB34 "GET_E", FB35 "PUT_E". These are only for S7-300 CPUs and only on connections via the integrated PN interface.
- As of STEP 7 V5.5, the following two FBs for open communication via Industrial Ethernet have new names: FB210 (previous name: "S5FW_TCP") is now called "FW_TCP", FB220 (previous name: "S5FW_IOT") is now called "FW_IOT".
- As of STEP 7 V5.5 SP1, the system functions are enhanced with the PROFIenergy blocks FB53, FB815 to FB817 and FC0 to FC8.
- As of STEP 7 V5.5 SP3, the system functions are enhanced with the PROFIenergy blocks FB 820 and UDT 820

Report System Error

- As of STEP 7 V5.5, you can choose whether or not the status of slaves is evaluated when the CPU starts up.
- As of STEP 7 V5.5, the additional texts of messages are displayed or implemented in the "Message Preview", "Print" and "Print Preview" dialogs.
- As of STEP 7 V5.5, you can also download blocks generated by 'Report System Error' in HW Config
- As of STEP 7 V5.5 SP1, the generating time and the number of message instances have been significantly reduced through the optimized creation of messages.
- As of STEP 7 V5.5 SP1, you can export the settings selected in a project and apply them in another project.

System diagnostics

- As of STEP 7 V5.5, there are two "Diagnostics in Hexadecimal Format" dialogs: one for PROFIBUS slaves and one for PROFINET devices.
- As of STEP 7 V5.5 SP1, the failure of a PROFINET IO system or a PROFINET IO station or some of the submodules of a PROFINET I-device is recognized. Each of these events causes the OB 86 to start.

- As of STEP 7 V5.5 SP2 the information functions of the module state for S7-400-CPUs are extended with the "Connection statistics" tab page (see Information functions of the module status). In it statistics about the distribution of the communication load on your CPU are displayed.
- As of STEP 7 V5.5 SP2 the information functions of the module state for S7-400-H-CPU are extended with the "SYNC module diagnostics" tab page (see Information functions of the module status).

Setting the PG/PC Interface

- As of STEP 7 V5.5, you can use the USB prommer without needing to install additional software. The required functionality is integrated in STEP 7.

Topology Editor

- As of STEP 7 V5.5 SP1, the LLDP search method is no longer used. The diagnostics-header-scan method is introduced.
- As of STEP 7 V5.5 SP3 you can create and edit text fields in the graphic view.

Program Editor

- As of STEP 7 V5.5 SP3 you can adapt the display of the networks and network comments to your requirements (see Working with Networks and Comments). As of STEP 7 V5.5 SP3 you can display the networks of the block in the current S7 program with their titles in the "Networks" tab. Double-click the network to open it in the main window (see Working with Networks and Comments).

SIMATIC Manager

- As of STEP 7 V5.5 SP3, a new import interface is implemented for the Mechatronics Concept Designer and for PLCOpen-compliant XML files for the "S7-GRAPH" optional package.