SIEMENS

SIMATIC

SIMATIC Automation Tool product information

Product Information

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Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

⚠ DANGER

indicates that death or severe personal injury **will** result if proper precautions are not taken.

⚠ WARNING

indicates that death or severe personal injury **may** result if proper precautions are not taken.

⚠ CAUTION

indicates that minor personal injury can result if proper precautions are not taken.

NOTICE

indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

⚠ WARNING

Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

Trademarks

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Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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SIMATIC Automation Tool features

1

You use the SIMATIC Automation Tool for maintenance and commissioning of network devices.

Using the SIMATIC Automation Tool, you can perform many useful operations:

- Scan the network to provide a device table of the accessible devices on the network
- Identify devices
- Insert devices
- Show device diagnostics
- Read Service Data from devices
- Set the CPU operating mode
- Set the CPU time
- Set the IP address
- Set the PROFINET name
- Reset communication parameters
- Reset devices to factory defaults
- Reset device memory
- Format memory card in a CPU
- Update device firmware
- Update the device program
- Read or delete Data Logs from a CPU's memory card
- Back up and restore a CPU or HMI
- Schedule device operations
- Archive SIMATIC Automation Tool projects and files
- Browse the memory card of a CPU to perform the following:
  - Add, replace, or delete recipes
  - Add, replace, or delete user files
- Format a CPU's memory card
- Assign PROFIsafe addresses
- Configure data protection for CPUs that support it
- Comparison of hardware configuration to actual hardware
- Display of the F-Signature for F-CPUs

See the User Guide for details about product operation.

What's new?

2

The following features are new in this release:

- Support for additional new devices as indicated in the device catalog
- Comparison of hardware configuration to actual hardware
- Device table display of the F-Signature for F-CPUs
- Improvements to the Insert Device dialog
- Status bar with device and operation information
- A quick ping operation to determine whether devices are connected

Security information 3

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial security measures that may be implemented, please visit (https://www.siemens.com/industrialsecurity).

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customers' exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed visit (https://www.siemens.com/cert).

Additional information

4

4.1 Representation of local modules in the Device table

In the Device table, the SIMATIC Automation Tool only displays actual modules that are physically connected to the CPU in the "Local Modules" folder. Modules that are configured, but physically not present, do not appear in the "Local Modules" folder. The Device table does not include empty slots. The "Slot" number column shows where the module is physically located.

The name for the local module is the configured name if the actual module matches the configured module; otherwise, the name is the same as in the "Device Type" column. The "Device Type" column comes from the actual module. All device data for each column comes from the actual module and not the configured module except for the "Configured Version" field. The "Configured Version" field is empty if the configured device does not match the actual device.

If the configured device does not match the actual device, the SIMATIC Automation Tool disables firmware update and PROFIsafe address assignment until you correct the configuration. To correct the configuration, follow these steps:

1. In the TIA Portal, correct the device configuration for the CPU and local modules in the STEP 7 project.
2. Download the hardware configuration to the CPU.
3. Scan the network in the SIMATIC Automation Tool or refresh the CPU.

The Read Service Data operation is the only operation that the SIMATIC Automation Tool enables if the actual module does not match the configured module.

NOTE

Directly connected Interface Modules (IMs)

The SIMATIC Automation Tool handles a directly connected IM as described above and not as a distributed I/O module (Page 7).

4.2 Representation of distributed I/O in the Device table

In the Device table, the SIMATIC Automation Tool only displays configured distributed I/O modules in a folder under a CPU. The Device table shows modules in the "Distributed I/O" folder as follows:

- You configured the modules as distributed I/O in the device configuration in the STEP 7 project.
- You downloaded the hardware configuration of the project to the CPU.

The modules might or might not be physically present. You might have swapped out modules for different modules. The configured modules might not match the actual modules. The Device table does not include empty slots. The "Slot" number column shows where the module is physically located.

The name for the distributed I/O module is the configured name. All device data for each column comes from the configured module and not the actual module, except for the following:

- Serial Number
- Hardware Version
- Firmware Version

These columns come from the actual device. These columns are empty or "0" if the configured device does not match the actual device.

The SIMATIC Automation Tool compares the article number of the configured module to the article number of the actual module. If the article numbers match, the SIMATIC Automation Tool displays actual online values for Serial Number, Hardware Version, and Firmware Version.

If the configured device does not match the actual device, the SIMATIC Automation Tool disables firmware update and PROFIsafe address assignment until you correct the configuration. To correct the configuration, follow these steps:

1. In the TIA Portal, correct the device configuration for the CPU and local modules in the STEP 7 project.
2. Download the hardware configuration to the CPU.
3. Scan the network in the SIMATIC Automation Tool or refresh the CPU.

The Read Service Data operation is the only operation that the SIMATIC Automation Tool enables if the actual module does not match the configured module.

4.3 Working with older SIMATIC Automation Tool projects

The SIMATIC Automation Tool can open projects from V3.1 and later. After opening a project from an earlier version, scan the network and reinsert any devices that are behind routers.

S7-1200 V4.5 and higher CPUs and S7-1500 V2.9 and higher CPUs have security features that were not present in earlier firmware versions.

4.4 IP address change operation fails on ET 200 devices

Cause

A PROFINET name change operation was performed before an IP address change operation.

Remedy

Follow these steps:

1. Reset the device to factory defaults.
2. Set the IP address.
3. Set the PROFINET name.

4.5 Software controller program updates

The SIMATIC Automation Tool does not prohibit program updates to software controllers when the program update contains a CPU version change. Siemens recommends, however, that you use the program update feature only for code updates and not for CPU version updates.

4.6 Selecting file for firmware update memory card

To create a firmware update memory card, you must select a file from the firmware update folder. You cannot browse to and select a file from another location.