

TIA Portal Test Suite

TIA Portal Test Suite Advanced V17

Readme

Notes on Installation and Usage

Please read the notes carefully since important information for installation and use TIA Portal Test Suite is included for you.

Note when printing the file that the left and right margins are set to a width of 25 millimeters for A4 portrait format.

Security information

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 only form one element of such a concept.

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Scope of delivery/Function overview

The software TIA Portal Test Suite Advanced V17 is an optional package for TIA Portal V17 and it includes the following components:

- Styleguide
- Application test

TIA Portal Test Suite Advanced is provided with the following user interface languages

- English
- German
- Chinese

Installation notes

Software requirements

TIA Portal Test Suite V17 Advanced is a TIA Portal optional package, which requires the following products to be installed:

- STEP 7 Professional V17

To use the Application test concept, you also need the following package to be installed

- SIMATIC S7-PLCSIM Advanced V3.0 Update1/V4.0

Hardware requirements and other system requirements

- All the hardware and system requirements of STEP 7 Professional V17 and if applicable, S7-PLCSIM Advanced V3.0 / V4.0 apply.
- You can find the system requirements of STEP 7 Professional in the following documentation:
 - [SIMATIC STEP 7 Professional V17](#)
 - [SIMATIC S7-PLCSIM Advanced](#)

Prior knowledge required

- Programming with STEP 7 blocks.
- Using SIMATIC S7-PLCSIM Advanced would help in diagnosing during system failure.

(Please refer to SIMATIC S7-PLCSIM Advanced user manual)

What's new in TIA Portal Test Suite V17?

Compatibility

- You must add <Rules>/</Rules> tag into XML file to import the files which are created using TIA Portal Test Suite V16

For more information , please refer Information system in the below mentioned page

TIA Portal Test Suite=>Style guide=>Additional features

Following are the new features and improvements supported in TIA Portal Test Suite V17

New Features

- Openness support for the following functions
 - XML/ASCII file export and import for rule sets and test cases
 - Export and import from libraries (copy templates)
 - Running of style guide checker and application test
 - Test results are provided as .NET objects in the Openness application and can thus be exported with a user-defined export format.
- Export/import of rule sets/test cases
 - Export/import of rules sets and test cases using the shortcut menu in the PNV editor.
- Shortcut menu in the application test editor
 - Shortcut menu for Cut, Copy and Paste
 - Shortcut menu for Delete operation
 - Shortcut menu for collapse/expand of test cases in the test case editor.

Enhancements

- **Style guide:**
 - Author, version number and comment can be added to a rule set
 - New rule for checking, whether a comment exists for variables and block parameters

- **Application test:**

- Application test supports now ET 200pro, S7-1500 R/H and SIMATIC Drive Controller
- New "Assert.InRange (variable, lowerBound, UpperBound)" instruction for integer and real variables
- Commenting out of single/multiple lines in the test case editor using the toolbar.

Notes on handling

Contents

Information that could not be included in the online help and important information about product characteristics.

About Application test usage:

Application test uses SIMATIC S7-PLCSIM Advanced and its APIs in order to run the test cases.

- Minimum and Maximum cycle time values are always taken from TIA Portal project.
- Using huge data blocks:
SIMATIC S7-PLCSIM Advanced APIs can update only 500000 tags (entries in DBs) for each download and it is a must for the Application test to retrieve the updated values of DBs used for each PLC cycle to generate the test results. So, user must ensure the DB entry size before running tests. Otherwise the test case execution will be aborted.
- Working with I/O values:
Please refer the function manual of SIMATIC S7-PLCSIM Advanced in section 8.13
- Performing tests for unpublished variables of Software units are not supported. Execution will be terminated with an error.
- In this version, usage of arrays in test case editor are only supported with single dimensions.
- Additionally, all the restrictions of used version of SIMATIC S7-PLCSIM Advanced are also applicable to run the tests.
- For more information, please refer the online help document under chapter
TIA Portal Test Suite → Application test → Test Case Execution Failure

About Styleguide usage:

- “Go to” a block property violation from a log file within “Common data\Logs” is not supported
- Shortcut <Ctrl+G> for navigation from Test Results tab / log file will not respond for the very first time.
- It is not possible to copy rule sets / rules from one TIA Portal instance to another TIA instance / Reference projects.

Customer support

4.1 North America and South America

Internet: <https://www.siemens.com/automation/support-request>

4.2 Europe and Africa

E-Mail: adsupport@siemens.com

4.3 Asia and the Pacific region

E-Mail: adsupport.asia@siemens.com