Totally Integrated Automation Portal
Managing all software tasks in one engineering environment.

www.siemens.com/tia-portal
How is that possible?
Engineering redefined
Totally Integrated Automation Portal

One shared software framework for all your automation software.

Daily questions

How can we solve increasingly complex problems and make optimal use of the increasing hardware functionality? And how can we accelerate the project time? Is it possible to reduce the number of software errors? Are better programming languages available to program more efficiently?

Solution

Intuitive, efficient and proven: successful engineering has never been so easy. Siemens, the world market leader in automation products has developed a new generation of engineering software for industrial automation. This development redefines the whole engineering process offering the following benefits: excellent efficiency and user friendliness, which leads directly to higher profits.

Unique characteristics

Intuitive
■ Uniform user interface provides comfort in engineering.
■ Portal view ensures a fast startup.
■ All editors share a similar setup and are accessible from a single screen.

Efficient
■ IntelliSense ensures a quick selection of data and instructions.
■ Flexible screen layout allows large and conveniently organized work area.
■ Drag & drop for copying data quickly in and between editors.

Proven
■ Based on many years of experience in the market.
■ Available for all current and future hardware.
■ Developed in collaboration with customers.

Result: minimum 10% savings in project costs

The TIA Portal software ensures a shorter project lead time and savings in the following project phases:

■ Software Engineering
■ System Test
■ Operation

Improvement compared to existing software

Diverse project costs:
- Software & maintenance
- Training & retaining knowledge
- Project preparation
- Hardware Engineering
- Drawing
- Construction & assembly

Total 10% savings
SIMATIC STEP 7 V11
Engineering for all SIMATIC controllers

For years, SIMATIC STEP 7 has been the standard and the authoritative engineering system for programming controllers. From now on, all SIMATIC S7 controllers and PC based controllers can be configured, programmed, tested and diagnosed with just one single package.

One engineering package for all SIMATIC controllers
For SIMATIC S7-1200, S7-300, S7-400, ET200 CPU's and WinAC.

Considerable savings in the time it takes to develop a project
Powerful and intelligent editors speed up the programming of the controllers.

Higher level programming language S7-SCL
In addition to the editors LAD/FBD/STL, a new graphic programming language S7-Graph and high-level programming language S7-SCL is available.

Increased project quality
By saving tested modular software components or shared projects in the library, they can be reused later on.

Less time required for training
Because of the intuitive nature of the software, new engineers will acquire the knowledge in less time. Experienced engineers already have a good base and will quickly take advantage of new opportunities.

Full integration of machine safety
An engineering system for conventional and machine safety switches.

SIMATIC STEP 7 V11 software licenses

SIMATIC STEP 7 Professional V11 is suitable for all current S7 controllers and HMI Basic Panels. SIMATIC STEP 7 Basic V11 is only intended for the SIMATIC S7-1200 controllers and HMI Basic panels.
Centralized data management > validation of all engineering data

Save projects > saving incomplete software is also possible

Project tree > conveniently organized project structure with all objects

Common Wizards > adding CPUs, HMI panels and technology objects quickly and in structured fashion

Structured program setup > conveniently organized program structure

Tag definitions > submit once and immediately available in all editors

Consistent symbols > program with symbolic names within the whole project as object

PLC Data Types > conveniently arranged display of User Defined Types

Drag and Drop functionality > dragging data from one editor to another one

Detail window > displays all details from selected map of the Project tree

Window switcher > to switch between opened editors

Cross-reference list > project-wide overview using tags and objects

PLC and HMI simulation > standard integrated

Online/Offline comparison > quickly visualize differences

Totally Integrated Automation Portal

One software-framework for all controllers, HMIs and drives

The TIA Portal is advanced software technology packaged in an intuitive user interface. Whether it involves programming a controller, developing an HMI screen or configuring network connections, the TIA Portal helps new and experienced users to work intuitively as effectively as possible.
IntelliSense > automatically adds data
Functions and information > always in the same location
Intuitive tab pages > follows the selected editor such as a hardware catalogue
Devices & Networks > graphic network overview of all hardware components based on PROFIBUS, PROFINET and ASi
Global library > saving and reusing engineered parts of projects
Information window > displays detailed information of the selected hardware
Properties window > displays all relevant parameters of the selected object in the editor

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Uniform engineering
The same tools and editors for all HMI devices. From the smallest HMI panel to the SCADA operating system. HMI objects are interchangeable.

Test and simulation of an HMI project
An HMI project can be fully simulated and tested in the software without a need for hardware or runtime licenses.

Perfect teamwork with Controller
A shared database ensures data consistency in the whole project. PLC tags may be linked directly to an HMI device through drag & drop.

Scalable
System expansion or functional enhancement can be executed quickly because of the modularity and scalability of the software.

WinCC V11 software licenses

Engineering licenses for the configuration
Depending on the HMI target system, a license may be necessary. WinCC V11 Professional is the most extensive license. It allows you to configure the HMI target systems.

Runtime licenses
Per HMI target system, a runtime license is necessary. Those are pre-installed on HMI Panels. Separate runtime licenses are necessary for PC and SCADA.
TIA Portal Resources

TIA Portal Website: Engineering Redefined
www.usa.siemens.com/tia-portal

Here you will find additional information on the following:
• Webinars
• Podcasts
• Training
• Industry Mall
• Customer References
• White Papers
• Software Downloads

TIA Portal Hands On Workshop:
Beginning March 2012: Siemens will host half-day workshops highlighting the efficiencies and user friendliness that the TIA Portal offers. Experience working with the software in conjunction with Siemens PLCs, HMI panels, and Profinet remote I/O.

Overview:
• Configure and network a PLC, HMI and Profinet remote I/O as one system
• Develop reusable code for the PLC
• Design HMI screens with animations, graphic lists and templates
• Troubleshoot I/O faults using the system diagnostics of the PLC and HMI
• Enable “safety” on the PLC to observe its seamless integration

Contact your local Siemens sales representative for details.

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