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SIMATIC ET 200SP Open Controller 2

Sales Slides

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PC-based automation – Special-purpose machine building – Requirements for flexible high-performance controllers

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Avoid downtimes
High availability
during operation

Scalable
Easy implementation of various performance and functional requirements

Standardization
Re-use of program code and use of communication standards

Open for ideas
Easy integration of
PC applications and existing know-how

High productivity
High performance in terms of communication, system response and data processing

Security
Protection of proprietary know-how and protection against unauthorized access

Special-purpose machine building requires open, flexible and high-performance controllers

Standard production by machines requires open, compact high-performance controllers

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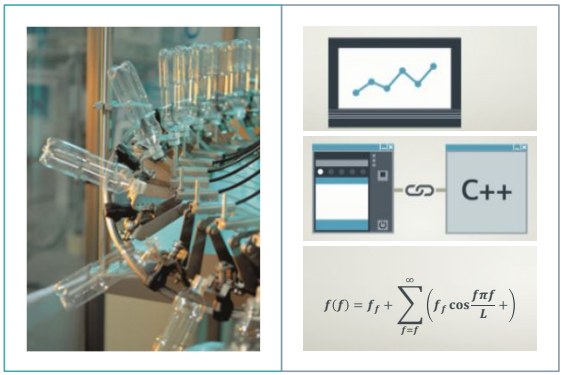
Compact and high-performance

Compact
Space savings in the control cabinet

Scalable
Easy realization of different versions of a machine

Expandability
Modularly and centrally expandable controller functionality

Protection
Protection of proprietary know-how and protection from unauthorized access



Capabilities of a PC-based controller

Multiple tasks on a single device
- Controller, HMI and Windows applications on a single CPU
- Integration of third-party software

Complex control tasks
Integration of complex algorithms and high capacity of program and data memory

Integration of PC applications
Integration of high-level language code/ controllers from the model-based development

SIMATIC ET 200SP Open Controller 2 –
The compact controller of the S7-1500 series

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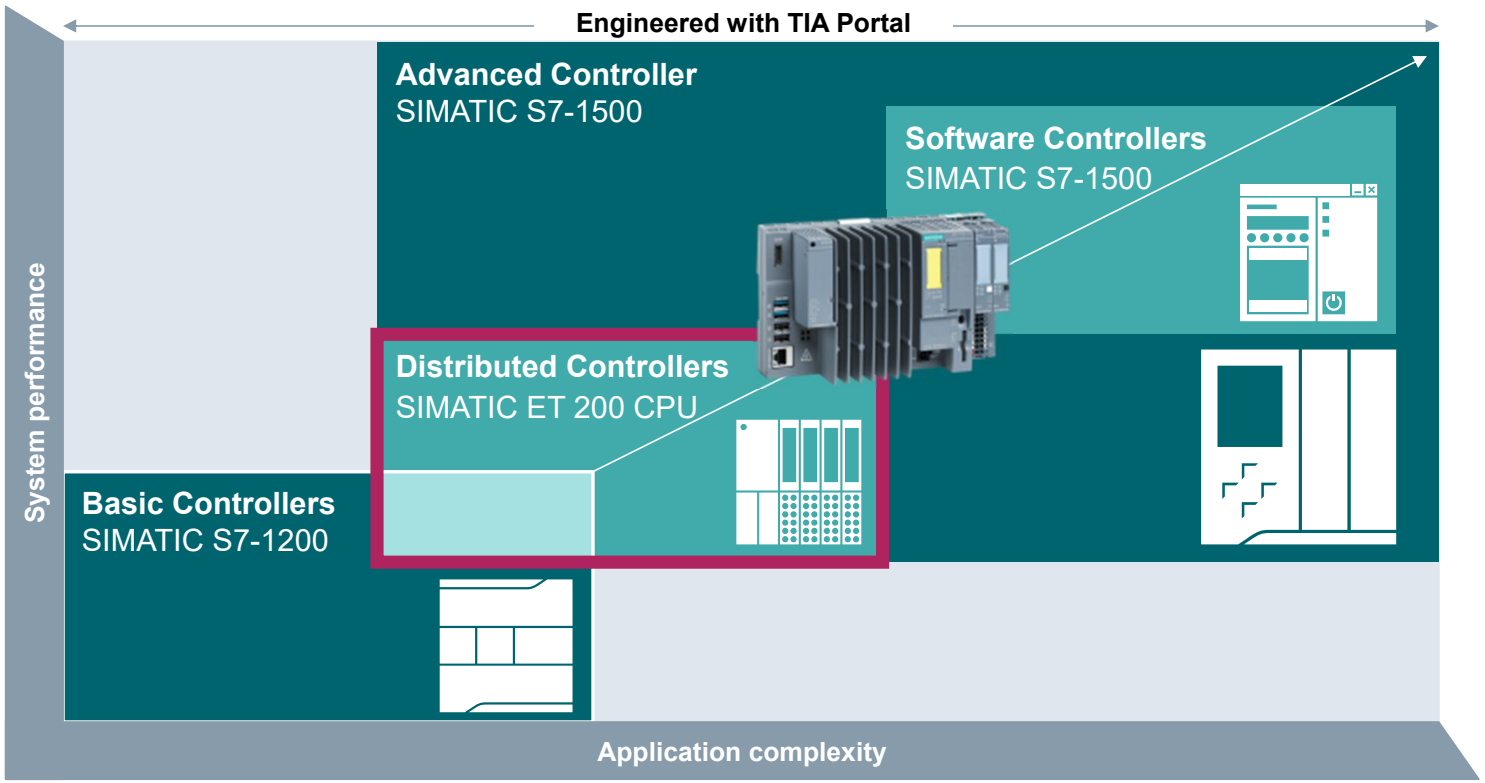

- Efficient engineering
- Innovative design
- Reliable diagnostics
- Safety Integrated
- Security Integrated
- Technology Integrated

SIMATIC S7-1500 Software Controller – PC-based controller within the S7-1500 portfolio

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Efficient engineering
Integrated engineering of control and visualization in the TIA Portal

Independent of Windows
Unique architecture of the S7-1500 Software Controller – operates completely independent of Windows

Easy integration of PC applications
No PC knowledge by the PLC programmer required

Improved security
Protection of intellectual property and protection against manipulation

Compact design
More than 30% space savings over comparable systems

PC and fieldbus interfaces onboard
Easy connection to automation and IT networks

Safety Integrated
One controller and one engineering for standard and fail-safe tasks

SIMATIC S7-1500 Software Controller – Easy and flexible use of PC-based controller

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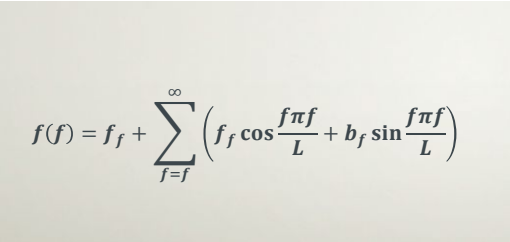
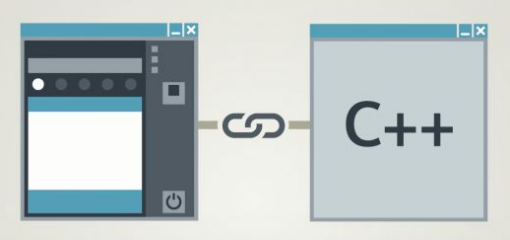


Complex control tasks

- Realization of short cycle times
- Integration of complex algorithms
- High program and data memory capacity



Integration of PC applications

- Integration of (existing) high-level language code
- Direct integration of controllers from model-based development

Multiple tasks on a single device

- Controller, HMI and Windows applications on one CPU
- Functions can be centrally expanded with ET 200SP modules
- Integration of third-party software (e.g. image processing)

SIMATIC ET 200SP Open Controller 2 – Time-to-Production – Time savings during configuration

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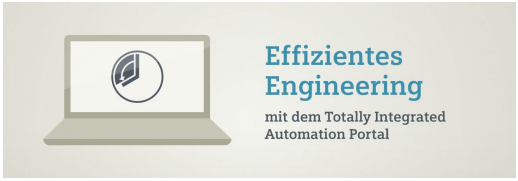

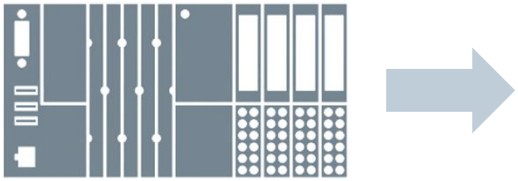

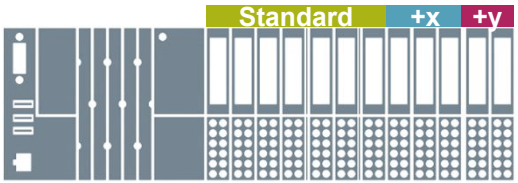

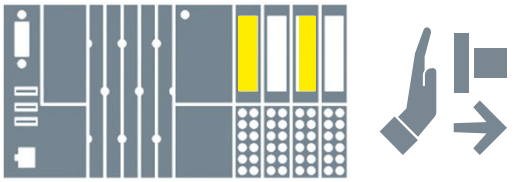

Efficient engineering with the TIA Portal

- No Windows settings required for the software controller
- Integrated system diagnostics including IPC hardware diagnostics
- Simple integration of high-level languages in STEP 7

Consistency within the ET 200SP family

- Scalability of performance with ET 200SP CPUs
- Expandable with technology and communication modules
- Space saving through granular I/O modules and single-tier configuration with up to 64 modules

Option handling for different configurations

- Only one project for various machine versions
- Simple upgrading without engineering
- Increased added value added through upgrade possibilities

Fully integrated safety functions

- Standard and fail-safe program on one device
- No additional safety controller needed
- Ready-to-use libraries for fail-safe functions

SIMATIC ET 200SP Open Controller 2 – More than 30% space savings over comparable systems

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Feature/function	Benefits
New Compact design of central processing unit with integrated power supply unit (CPU 1515SP PC)	Lower space requirements and reduced component diversity
New High channel density of I/O modules with intelligent cable routing	Space savings while meeting requirements for bending radii
New Single-tier configuration with up to 64 modules	No need for a second mounting rail or an additional interface module

30%
more compact design

SIMATIC ET 200SP Open Controller 2 – Integrated system functions save time during engineering

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Feature/function	Benefits
Integrated know-how and access protection Manipulation protection	Protection against • Unauthorized reading out • Unauthorized duplication • Network attacks Protected transmission of passwords
Integrated technology functions and expanded motion control based on T-CPU	Time savings in the engineering phase
Integrated system diagnostics without having to create a line of code	No additional programming effort Quick localization of faults
Integrated web server	Remote access to the controller, even if the operating system fails

SIMATIC ET 200SP Open Controller 2 – Rugged hardware with powerful software

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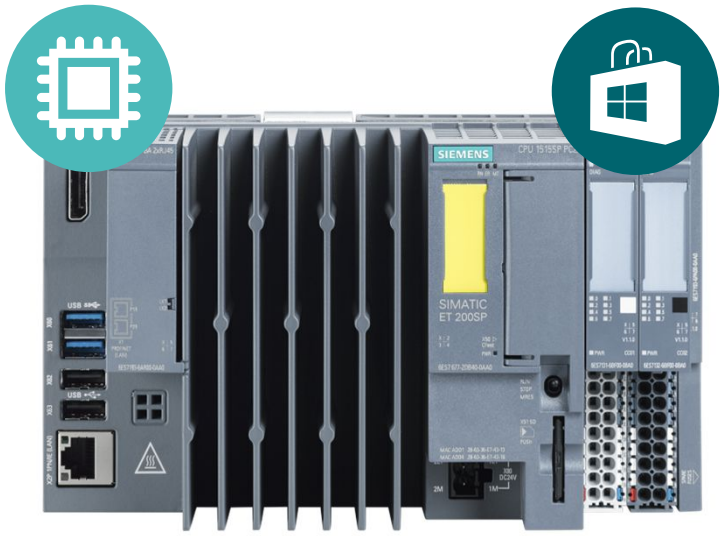
Hardware

- Fanless design
- High temperature range (-20°C to 60°C)
- 8 GB RAM
- All PC interfaces onboard (DPP, USB, Gbit Ethernet)
- Exchangeable bus adapter for PROFINET IRT
- Integrated Run-Stop switch for the controller



Software

- S7-1500 Software Controller already installed
- Optionally with installed WinCC RT Advanced visualization software
- Visualization also possible with multitouch functionality
- Windows 10 Enterprise 2016 LTSB 64 bit
- Restore via USB stick

SIMATIC PC-based automation –
The PC-based controller for your application

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Do you need a PC-based controller but prefer that your system availability not be dependent on Windows?

Is it important to you to use all functions of an S7-1500 even with a PC-based controller?

Would you like to integrate Windows applications or complex real-time algorithms with little effort?

SIMATIC S7-1500 Open Controller 2

Thank you!

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