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TIA Portal V21 combines engineering efficiency with higher plant availability

- **Shorter product lifecycles and increasing variant diversity require flexible, easy-to-use engineering tools**
- **Integrated framework unites all automation tasks and provides open interfaces for IT/OT integration**
- **Redundant WinCC Unified servers increase plant availability; the central archive creates plant-wide data transparency**

At the Smart Production Solutions (SPS) trade show, the technology company Siemens is presenting version 21 of its engineering framework Totally Integrated Automation Portal (TIA Portal). The release is aimed at both machine builders developing innovative machines based on an efficient engineering workflow and discrete manufacturing companies aiming to ensure more powerful and reliable production.

The continuous further development of TIA Portal addresses the challenges of industry: ever shorter product lifecycles, increasing variant diversity and a growing shortage of skilled workers requiring flexible, easy-to-use engineering tools that simultaneously guarantee the highest software quality.

As an integrated framework, TIA Portal combines all automation tasks in a single environment, offers open interfaces for IT/OT integration (Information Technology/Operational Technology) and supports testing and simulation functions including digital twin applications. TIA Portal stands out thanks to a consistent user interface, comprehensive visualization options with SIMATIC WinCC Unified and freely selectable deployment models – on-premises, by subscription, or in the cloud.

Horst Kayser, CEO, Factory Automation at Siemens Digital Industries, said:

“With TIA Portal V21 we are accelerating the transition to software-defined automation. Git-based CI workflows shorten development cycles, while high-availability SCADA architectures ensure that our customers can keep their plants running more efficiently and adapt them flexibly to new market requirements.”



TIA Portal V21: shorter commissioning, higher plant availability

Greater efficiency in engineering through improved and integrated workflows

TIA Portal V21 focuses on higher engineering efficiency and end-to-end standardization. A new export format enables seamless integration of established version control systems such as Git for the first time. This applies to LAD, FBD, SCL, data blocks, PLC data types and mixed-language blocks and many others. This enables STEP 7 users to benefit from optimized continuous-integration workflows, simplified versioning and maximum compatibility. All of this forms the basis for shorter project runtimes and reliable traceability of all changes.

Higher availability thanks to SCADA architecture

Supervisory Control and Data Acquisition (SCADA) applications based on WinCC Unified can now be operated in redundant server architectures that ensure continuous operation and significantly higher availability. In addition, the WinCC Unified Data Hub, acting as a central archive, provides access to and long-term storage of production data, messages and audit trails from multiple WinCC Unified PC runtimes, helping to create continuous, plant-wide data transparency over long periods of time.

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