Flexible process design at machine and line level

- New plant intelligence options for the control and monitoring of recipe-controlled processes
- Easy orchestration of production sequences with “WinCC Unified Line Coordination” (LCS)
- Quick changes to processes in recipe and sequence-based production with “WinCC Unified Sequence” (SES)

Siemens is expanding its offer for the Simatic WinCC Unified visualization system to include two new plant intelligence options: Line Coordination (LCS) and Sequence (SES) enable the fast orchestration and adaptation of production sequences for the control and monitoring of recipe-controlled processes, such as those used in the food and beverages industry. With these new software options, users can flexibly design production sequences, monitor different plant sections and therefore utilize the capacity of individual production machines better and more evenly, increasing both effectiveness and economic efficiency. For both SES and LCS, Siemens supplies automation modules and the corresponding controls for the visualization, which can be engineered in the Totally Integrated Automation (TIA) Portal engineering framework. Production sequences can be parameterized with the corresponding modules, which eliminates programming effort and reduces engineering effort. The two new plant intelligence options can be combined to meet the relevant requirements.

With WinCC Unified Line Coordination, recipe and batch-controlled production processes can be automated in the TIA Portal. Production sequences for networked machines in the production line can be coordinated, synchronized and monitored using a Simatic S7-1500 controller and WinCC Unified. The new software option is
tailored to the technological requirements of different processes through the relevant standard functions. For example, for plants in the TIA Portal based on ISA-88 - the standard for batch processing control - users can structure in line with a technological hierarchy and standardize production processes using a recipe system. To support this, the software package includes the necessary engineering and runtime components for recipe management as well as control elements for the visualization. Monitoring options offer improved transparency and monitoring of planned or current production processes. In the current version, LCS supports production sequences which are programmed in a Simatic S7-1500 controller or in WinCC Unified Sequence (SES).

With the Sequence (SES) plant intelligence option, users can flexibly design and automate individual production steps at machine and plant section level. This means that production sequences and parameters can be adjusted at any time - even during operation - without making changes to the PLC program: the operator can manually access the automatic sequence online and jump to another step or adjust setpoints as required. This may be necessary, for example, due to variations in feedstock or in general if a different sequence for individual production steps is required for flexible paths through production. The new software option meets real-time requirements because the sequencers are executed on the Simatic S7-1500 controller and therefore support reliable plant operation and a high level of system availability. The new software option is also based on standardized production sequences as per ISA-88 and can be scaled for small or large plants thanks to the range of module sizes. The pre-built visualization control and the function modules supplied in the TIA Portal ensure a high degree of engineering efficiency by reducing commissioning and test times for the user.

Note: The Siemens Digital Enterprise Virtual Summit will be held on July 16, 2020 and will include breakout sessions on Simatic WinCC Unified. To get access as a media representative, please register here:

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Line Coordination (LCS) and Sequence (SES) enable the fast orchestration and adaptation of production sequences for the control and monitoring of recipe-controlled processes

This press information and a press picture can be found at:
https://sie.ag/2ZrX5WO

Further information on Simatic WinCC Unified can be found at:
https://sie.ag/2ZpYwFf
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