



Process Analytics

ASM - Analyzer System Manager

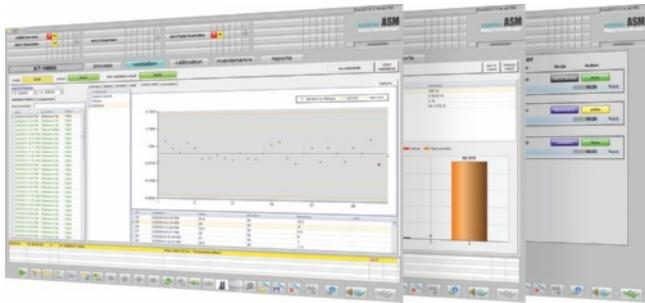
Maximum transparency at the analyzer level - core functions and customer advantages of ASM

ASM integrates analyzers from Siemens and 3rd party products in Siemens own homogeneous environment. ASM integrates current analyzer measurement data based on standard industrial communication protocols, as well as historical analyzer measurement data.

ASM connects the measurement values from analyzers with the process values of dosing units. This results in higher quality process values of the analyzers.

Advantages of using the ASM system

- Comprehensive visualization of all analyzers
- Validation and calibration of all analyzers
- Integration of a wide spectrum of analyzers with various communications protocols on a common user interface
- Calibration and validation corresponding consistent with ASTM D 3764
- Documentation of performance for the individual analyzers for management purposes
- Verification and documentation of the reliability of the analytic systems
- Reduction in maintenance costs through device-specific planning, implementation and verification of maintenance work



Function and design

ASM was developed to monitor different types of analyzers. The equipment varies from simple analyzers similar to transmitters up to complex analytic systems such as gas chromatographs, which can measure multiple components in various sample streams.

Core functions

- Validation of analyzers and transmitters, manually, semi-automatically, or automatically
- Statistical evaluation of validation results
- Continuous monitoring of analytical equipment
- Provides key performance indicators (KPI) such as availability, error rate and maintenance intervals
- Maintenance tool for planning and execution of optimized maintenance of the analyzers
- Integration of dosing units or other process values for better process quality in the validation process
- Gas bottle management of the complete plant

Schematic design of an ASM system

- SIMATIC network components for integration of ASM to TCP/IP-capable analyzers
- SIMATIC controllers with distributed I/Os for integration of Modbus-capable analyzers and analyzers with 4 ... 20 mA output
- Reliable SIMATIC Industrial PC hardware, which contains the ASM software
- Depending on the size of the plant, a distributed system with multiple clients
- ASM projects are adopted to customer specific requirements
- ASM evaluates process values from other process control systems

Field of application

ASM is suitable for all industries where process analysis devices are used. There is especially strong demand in the oil and gas, petrochemical, and chemical industries. ASM applications have also been realized in air separation plants. The system can be implemented successfully in new, as well as existing plants. ASM is scalable to the plant size, therefore it offers a high degree of investment protection.

Using ASM amortizes quickly for all plants in which analyzers need to be monitored and maintained. Siemens offers this combined solution of industrial network components, software, its own analyzers and programmable controllers from a single source.

