

Analytical Products and Solutions

Analyzer System Manager (ASM)

Optimize analyzer performance and reduce maintenance efforts with the Siemens Analyzer System Manager

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The challenge

In the daily business of a plant manager or an analytical responsible, the challenge is always to figure out how to provide both an efficient and effective operation by performance increase. At the same time the goal is to reduce maintenance costs. The highest possible availability of a large number of different analytical measuring systems with great complexity must be ensured. An ever decreasing level of know-how poses another challenge. In order to mitigate the situation Siemens offers a tailor-made solution: The Analyzer System Manager (ASM) to optimize the analytical share of the overall system.

Core functions of the Analyzer System Manager

The Analyzer System Manager (ASM) is a software solution for monitoring and evaluation of analyzer data collected by analyzers from Siemens and 3rd Party suppliers and sample preparations via various communications protocols like Modbus TCP or Profibus.

With the monitoring of live and historical analyzer measurement results as well as further data provided by the analyzers the plant manager has access to:

- **Device status**
- **Measured values**
- **Statistical evaluations & data analytics**

which enable identification of trends and predictive maintenance. The aforementioned KPIs along with handling of alarms and warnings are needed data to ensure optimized maintenance planning which is a key feature of ASM as well as documentation or handling of device-related

information. ASM also supports the important task of conducting validations to verify the accuracy of analyzer measurement systems.

Through ASM, validation test routines can either be started automatically, time-based or manually and validation results produced directly by the analyzer or by a Laboratory Information Management System (LIMS) can be collected and evaluated based on standards like ASTM D6299 or D3764. All results are shown with other analyzer data as well as maintenance information in a comprehensive reporting of key performance indicators.



Optimized performance through the Analyzer System Manager

The Analyzer System Manager simplifies your daily business and makes your life easier.

Benefits of using ASM

The Analyzer System Manager supports you throughout your entire operational business to identify optimization potential regarding the performance of the analytical part of the plant:

1. From unexpected to scheduled maintenance

Instead of conducting preventive maintenance tasks based on fixed time periods, a predictive approach is pursued: Service and its execution is planned based on the analyzer status. This leads to reduction of working time for not needed device inspections as well as walking time within the plant. ASM also enables to start validations from a centralized system manually or automatically which reduces efforts additionally. Costs can be reduced in a remarkable way.

2. Increased performance of the analytical measurement system

The centralized monitoring of analyzers enables service technicians to react fast if needed and predict challenges with a good chance of solving these pro-actively without unnecessary downtime. As a result, plant output can be increased.

3. Improved trust in analyzer data

Through statistical analysis of validation results, the analyzer performance can be improved and ASM leads to increased trust in the analyzer data due to higher reliability.

Fields of application

ASM is suitable for all industries such as oil and gas, petrochemical or chemical where process analysis devices are used. The system can be implemented successfully in greenfield as well as in brownfield plants. ASM is a modular and scalable system based on Siemens Industrial Automation components and the structure and scope of functionality can be adapted individually to your requirements. The engineered solution consists of the software, a central server and a customer workstation to control the system besides needed network communication and can be tailored flexibly depending on the amount of analyzers to be connected with ASM. Moreover, additional requirements regarding data handling like back-up systems or cybersecurity will be individually tailored to your needs.

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Core Features of ASM:

- Monitoring of analyzer measurement systems incl. sample handling systems
- Alarm & Warning Management
- Diagnostic of analyzer-internal parameters
- Initiate validations and evaluation of results based on ASTM D6299/D3764
- Maintenance Planning & Documentation
- Gas Bottle Management
- Enhanced Reporting incl. KPIs