

# SIEMENS

*Ingenuity for life*

## Plant asset management for smart field devices

SIMATIC PDM Maintenance Station V2.0

[siemens.com/simatic-pdmms](https://www.siemens.com/simatic-pdmms)

### Efficiently service and maintenance of intelligent field devices

Field devices are the eyes and ears of automation. The failure of a temperature, flow or pressure sensor can quickly lead to a malfunction of the equipment. With SIMATIC PDM Maintenance Station V2.0, Siemens offers the right solution for efficiently monitoring the condition of smart field devices, irrespective of the automation and control systems used.

#### Applications:

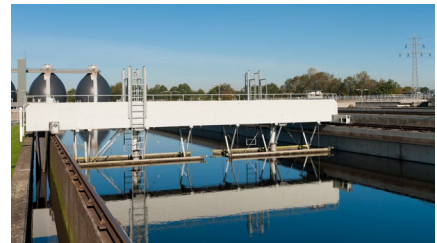
- Stand-alone maintenance station for diagnostics and condition monitoring of field devices with EDD technology
- Use as stand-alone maintenance station for small and medium-sized facilities (up to 500 field devices) in process and production automation
- Subsystem-specific use in large facilities

The integration is based on the DD/EDD description technology for field devices. Diagnostics, parameterization and condition data are cyclically read from the smart field devices and clearly displayed. Through an export function, the data collected can also be transmitted to enterprise asset management systems or cloud-based condition monitoring systems for further processing. Version 2.0 was refined on the basis of the NAMUR recommendations NE105, 107 and 129.

### SIMATIC PDM forms the basis for the SIMATIC PDM Maintenance Station

SIMATIC PDM (process device manager) forms the basis for the data and condition acquisition of the intelligent field devices in the maintenance station.

SIMATIC PDM is a universal, non-proprietary tool for the configuration, parameterization, commissioning and monitoring of smart field devices. It provides diagnostics, condition and parameter data to the SIMATIC PDM MS.



The SIMATIC PDM Maintenance Station is the first choice when it comes to the servicing and maintenance of intelligent field devices and is employed in a wide range of industries, e.g. sewage treatment plants, biogas plants and painting lines in the automotive industry.



The SIMATIC PDM MS consists of a preinstalled industrial PC – the Microbox IPC 427E, as well as software and functional licenses

### Consistent subsequent data processing

The information from SIMATIC PDM is prepared in the SIMATIC PDM MS and supplemented by functionalities such as overview or work progress lists; overview, segment and detail screens; condition logs; parameter data archiving; global and device-specific message lists as well as cyclic functions for reading and exporting field device information.

In production facilities with SIMATIC automation stations, the SIMATIC PDM MS is directly connected to the plant bus. It thus communicates with the field devices of the subordinated fieldbus systems through the automation stations. Even if it is not integrated into a SIMATIC PCS 7 project, it can utilize the existing infrastructure of a SIMATIC S7/PCS 7 project. In addition, a separate network to the field devices can be set up if direct access is not possible.

### Standardized display of messages

In its recommendation NE 107, NAMUR has uniformly defined four status signals for all field devices including device failure, maintenance requirement, outside the specification and function control. This enables identical condition visualization for all field devices that are based on the DD/EDD device description package – irrespective of type or manufacturer. The SIMATIC

PDM Maintenance Station records the diagnostic states and condition data of the field devices, which are implemented by the device manufacturers and described in DD/EDD. It cyclically and autonomously reads this information from the field devices and reports any maintenance requirements, requests or alarms based on the NE 107. The maintenance staff is thus immediately informed and can act or respond in a timely manner.

### Easy engineering

The engineering of the SIMATIC PDM Maintenance Station is simple and effortless. Network structures and field devices can be easily adopted from existing projects. Optionally, the SIMATIC PDM Maintenance Station can be adjusted to the field devices to be monitored in the quantity structure, as well as being enhanced by the server/client functionality of SIMATIC PDM.

### Trends in digitalization

Field devices are becoming ever smarter, i.e. they themselves are able to provide more and more information and transmit it via bus systems to other components in the network. With the new version of the SIMATIC PDM MS, field device data and information can be cyclically provided for transport into cloud-based applications. This opens up the way for condition monitoring functions to be realized as cloud-based

applications – independent of the automation system. The cyclical acquisition of data in the SIMATIC PDM MS results in long-term data series from which the applications can develop statements on the life cycle or intelligent service strategies.

### Highlights

- Same functions and user guidance as the SIMATIC PCS 7 Maintenance Station
- Possibility of data collection, analysis and further processing in the cloud
- Independent of the technological project and the automation system used
- Compact, flexible and expandable maintenance station
- Multiple maintenance stations per project possible
- Supports various communication types and gateways between bus systems, such as Ethernet, PROFINET, PROFIBUS DP/PA, HART
- Parameterization and detailed diagnostics of the field devices via integrated SIMATIC PDM

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