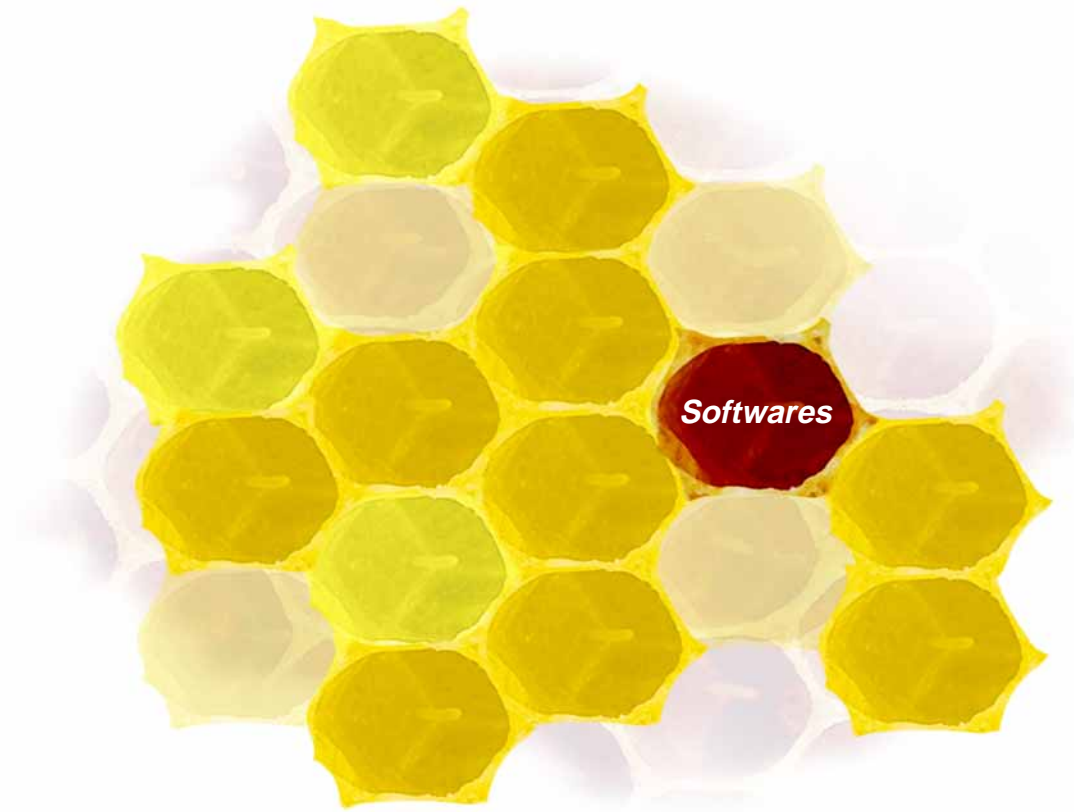


smar



AssetView

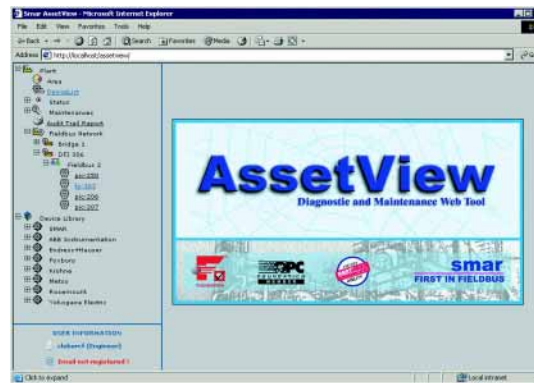
***Web-based Online Plant
Asset Management Software***

AssetView

Web-based Online Plant Asset Management Software

Features

- Totally integrated with SYSTEM302;
- All components in one tool;
- Device diagnostics and information storage;
- Audit trail reports;
- Device Library containing a set of information provided by the device's manufacturer, such as manuals, calibration procedures, preventive maintenance items, device related diagrams and images, and notes;
- Device status monitoring;
- Proactive maintenance;
- Maintenance scheduling and alarms;
- Preventive maintenance automatic scheduling;
- Detailed device tracking information;
- Device calibration and management via Internet;
- Reduced engineering and maintenance costs;
- Advanced diagnostics through sophisticated charts.



Introduction

Traditional Asset Management Systems required all device condition information and calibration activity to be checked and entered manually.

The Fieldbus technology present in SYSTEM302 makes it possible for [AssetView](#) to access new and valuable data such as diagnostic and operation statistics, instrument identification, and calibration history stored in the instrument itself.

A modern control system needs more than just a configuring and monitoring tool. To monitor the condition of the control system, a modern plant needs an asset management system that has configuring and monitoring functions, in addition to features for field device calibration, diagnostic, identification and setup.

No single manufacturer makes all the different device types and special application models that a plant requires. There is always a variety of instrument brands in a plant and it is necessary to use several maintenance tools. [AssetView](#), however, is designed to be independent of the device manufacturer, handling instruments from all brands.

The AssetView

Instruments, such as positioners and transmitters, are plant assets, and **AssetView** is designed to help manage these assets. Traditional systems store information for service orders and costs, based on manually entered data for process equipment and instruments.

Unlike traditional asset management systems, **AssetView** focuses on the instruments and is permanently connected to the Fieldbus devices, which provides online and continuous access to device information.

Web Technology

AssetView is designed based on new and open technologies. The main characteristic is the Web technology based architecture. The main user interface is a standard web browser such as Internet Explorer or Netscape Navigator, on any platform including Windows, Windows CE and Unix.

AssetView is installed only on the server. That means anyone in your company authorized to view process data can do so without the need for client-side software installation.

Device pages run on the **AssetView** server and can be accessed by the clients through Web browsers. These pages are supplied by the device manufacturer, Smar, the system integrator or even the user.

Anytime, Anywhere!

Device information is available to authorized personnel through any Web browser in the plant network. Graphics and historical information help the user identify problems and take corrective actions.

Authorized users may access the information anytime, anywhere in the world, connecting **AssetView** to the Internet through appropriate firewall security.

The ability to monitor plant activity is right at their fingertips.

Users Rights

AssetView has different levels of remote access to the server, and also allows continuous audit of all system activity. To avoid unauthorized access to system data, **AssetView** allows the administrator to create access levels with different rights for each user.

Interoperability

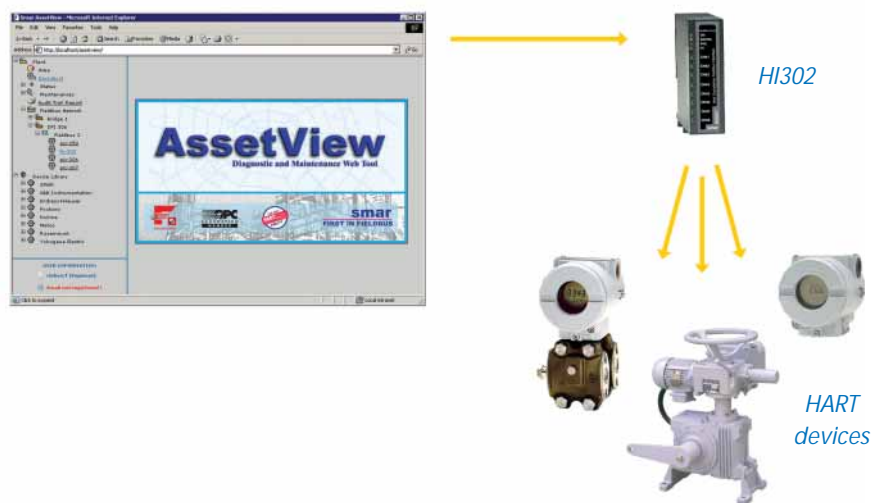
The access to information through OPC technology makes it possible to integrate the most varied types of protocols. The OPC interoperability makes it possible to select any hardware interface and access thousands of devices, opening up a large number of possible solutions.

The combination of Fieldbus networking and OPC software permits connection and tight integration of third-party components. SYSTEM302 provides a series of open technologies starting with FOUNDATION™ H1 networking at the field-level, HSE at the host-level, OPC and ADO/ODBC/SQL databases.

AssetView is the first maintenance tool to use the OPC technology for overall integrated plant maintenance and diagnostic.

AssetView & HART

Most plants are also equipped with smart instruments that use the HART communication protocol. These devices provide valuable information about the process and its maintenance. However, if the communication is only done occasionally through portable configurators, an important functionality of these devices is not being used: follow-up of instrument performance during its life cycle. The ability to continually analyze instrument performance and maintain historical data allows reduction in maintenance and replacement costs at every level, in addition to improvement of the process control itself.



The HI302 is a gateway between HART and FOUNDATION™ Fieldbus. It makes it possible for **AssetView** to communicate with HART instruments in a transparent way, as if they were FF devices. All necessary information required to manage the HART devices is obtained and analysed by **AssetView**. This HART-FF conversion allows uniformity in both the communication tools and access of the device data.

HI302 is the perfect companion for AssetView, to unleash the power of your HART devices.

AssetView & Syscon

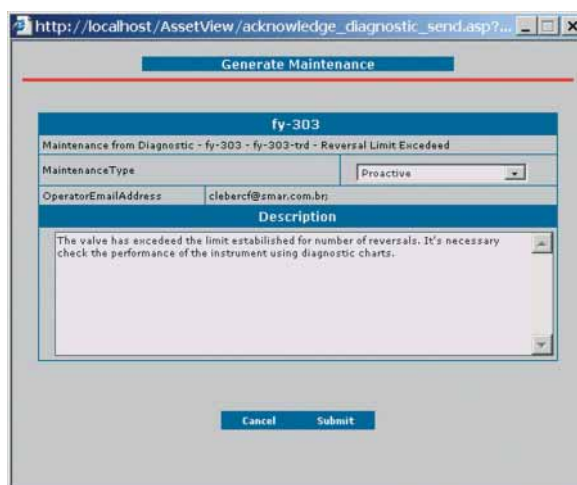
AssetView complements Syscon with additional diagnostic tools, such as charts and graphics for sophisticated valve analysis, as well as methods that guide the maintenance technician through test and calibration procedures step by step. While Syscon deals with both control strategy and instrument, particularly in relation to the initial configuration, **AssetView** deals only with the instrument itself and is used for long-term maintenance and instrument operation. **AssetView** is not restricted to just displaying error messages from the device, it also carries out test sequences, stores, plots and analyzes data, and provides much more sophisticated failure analysis.

Proactive Maintenance

There are several schemes for system maintenance. **AssetView** enables proactive maintenance that is based on the current conditions of each instrument, making it possible to execute maintenance only where it is necessary.

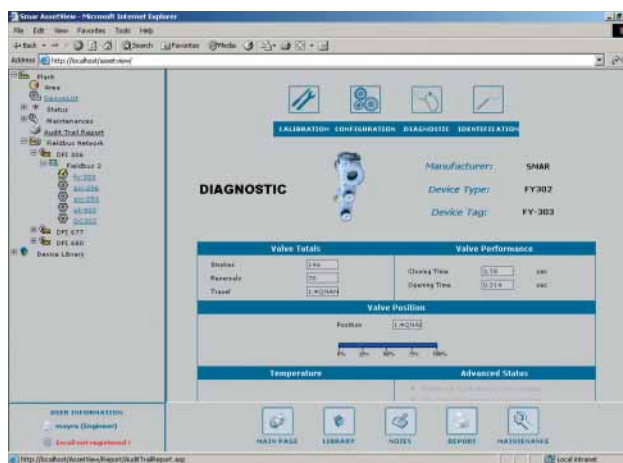
AssetView allows the user to retrieve information from the instruments, and reports their condition, giving a complete view of the entire plant operation at any time.

Because of the resources available in the devices and the online monitoring, it is possible to implement the proactive maintenance, anticipating the problems. The diagnostic potential of the field devices allow monitoring and registering the conditions, such as valve wearing. Through the diagnostics, the plant technicians execute the proactive maintenance based on the online information, before the problem occurs, not waiting for the device to fail, avoiding and reducing the idle time of the plant.



Browsing the Devices in the Plant Topology

AssetView uploads the network topology from the SYSTEM302 servers. The user can browse through the devices in different plant locations. Each device installed in the plant has a home page from where the user can proceed with the calibration, configuration, identification, diagnostics and reconciliation of the device.

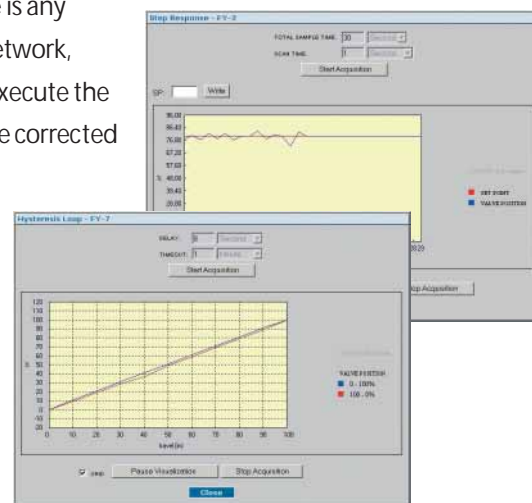


AssetView accesses detailed information from each device, such as its manufacturer, serial number and versions. This allows the user to identify all instruments in the plant from the control room, or from any computer connected to the Internet.

Depending on access rights, the user may read, write and reconcile the values of the device parameters. By comparing the current parameters with standard values, it is possible to detect tampering and spot reasons for misbehavior.

Diagnostics are displayed in a user-friendly format. Tests may be carried out periodically to check the conditions on the field instrument. Thanks to the diagnostics, it is possible to remote-check if there is any failure in the instrument or the network, before going out to the field to execute the maintenance. The problem can be corrected quicker!

For positioners, the combination of powerful diagnostics and operational statistics make it possible to determine the valve condition and estimate its remaining life.



The graphics show the real valve condition. It provides an analysis of the valve response, failures and degradation, and enables proactive and predictive maintenance. The user may save the signatures for comparison of current performance against initial baseline.

Some of the graphics available for valves are:

Characterization.	Plots the behavior of the current valve position compared to the desired value.
Travel Deviation Trend.	Plots the average deviation between the setpoint and the current valve position, while the valve is operating.
Hysteresis.	Displays the dynamic error band related to the valve performance, when moving the valve from fully closed to fully open and vice-versa.
Step Response.	Shows the behavior of the valve position when tuning the positioner. Analysing the chart, it is possible to determine the valve performance during the operation, studying overshooting, settling time, response time.
Valve Signature.	Displays the position related to the output pressure. The user analyzes the behavior of the valve response according to the air pressure. For example, save the chart during the commissioning procedure and then compare the current chart with that chart saved previously.

Operational statistics are collected individually for each device, and may be used to predict instrument condition with greater accuracy, helping to determine when maintenance is necessary. Maintenance can now be based on real-time data instead of relying on the instrument's history for suggested maintenance.

Calibration corrects the sensor's reading and physical outputs. During this process, [AssetView](#) guides the user step by step displaying messages that indicate the current device reading and advising the user to go through certain procedures.

All Essential Components In one Tool

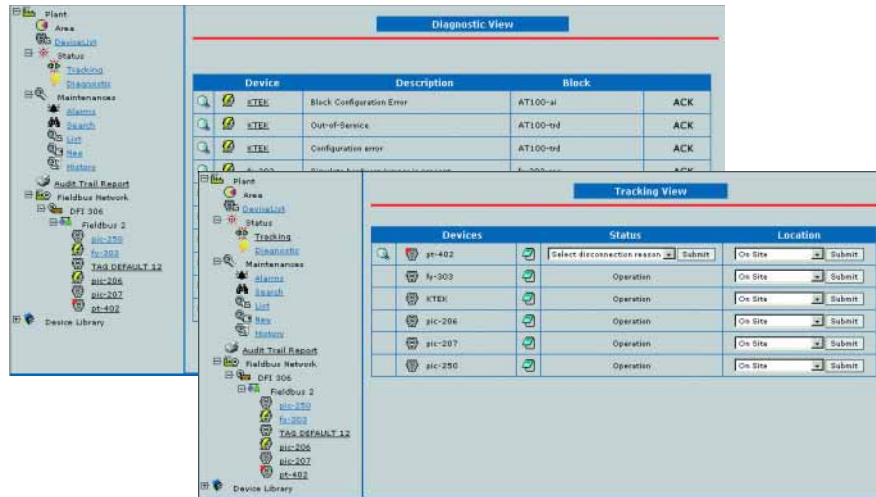
When [AssetView](#) is installed on the server, all of the essential applications are available, such as maintenance scheduling, device calibration, audit trail and alarms.

The user needs only one license to access all components. And yet, [AssetView](#) architecture is complete modular and extendable, allowing other components to be developed according to user's needs.

Global View of the Device Status

Field devices can notify the system when a diagnostic event occurs. Several operational conditions, such as number of reversals or travel limit exceeded, will also be notified by the devices. All of these events are monitored by [AssetView](#). The system will provide a complete report of these events.

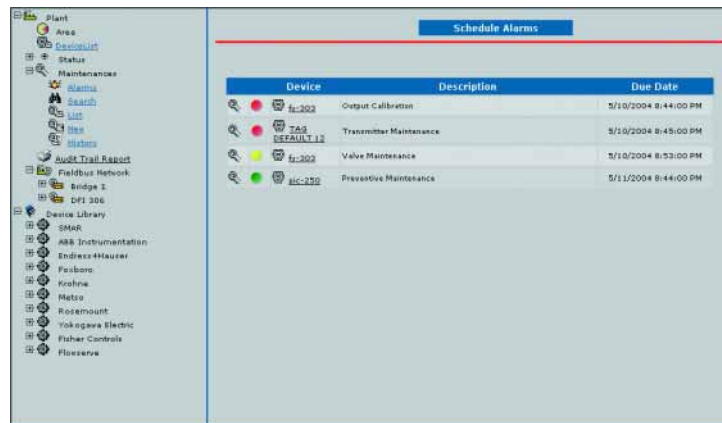
Communication failures and devices that have been disconnect from the plant are also reported to the user. [AssetView](#) tracks the network activity and registers the device status in the database, providing the user with the history of the instrument's life cycle.



Device Maintenance

[AssetView](#) lets the user schedule the maintenance for the devices in the plant. [AssetView](#) monitors the scheduled maintenance and send e-mails, letting the plant administrator and technicians know in advance when the maintenance procedure should be executed.

[AssetView](#) also notifies the user if maintenance hasn't been executed, sending e-mails to the plant administrator and the technicians responsible for the system.



The device's manufacturer can provide maintenance templates that include information for preventive maintenance. [AssetView](#) stores this information in the database, while registering the device, to automatically schedule the maintenance.

Audit Trail Reports

All information on diagnostic events and calibration procedures for a device is stored in the [AssetView](#) database.

[AssetView](#) automatically generates and updates the historical record for the devices, whether they are operating in the plant or stored at the warehouse. [AssetView](#) generates personalized reports based on this data, allowing the user to filter the information for a specific device.

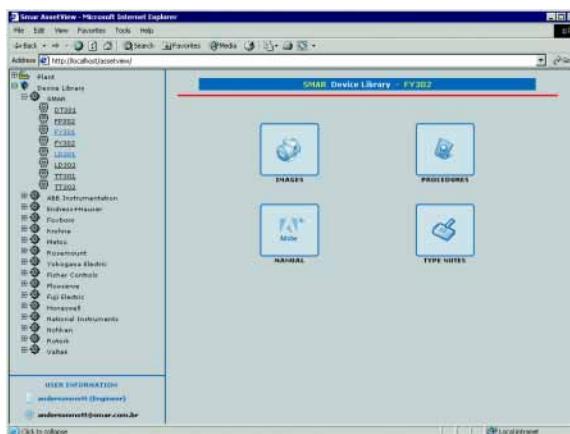
Reports can be based on the alterations made to the device configuration and on the device calibration.

Diagnostic information related to the device status, such as communication failure, timeouts and device malfunction, will be used in tracking reports.

[AssetView](#) is the consolidated tool that documents your instrument assets.

Device Library

The Device Library is a set of information provided by manufacturers related to the devices, such as user's manuals, calibration procedures and maintenance notes. [AssetView](#) can also provide links to diagrams and pictures corresponding to the device.



The Device Library is the reference for all devices installed in the plant.

Minimum Requirements

AssetView Server

- Windows NT 4.0 Server Service Pack 6 or Windows 2000 Server Service Pack 4
- Pentium 2.4 GHz Processor
- 512 MB RAM
- 1 GB of Free Disk Space
- Monitor 1024x768 - 256 Colors
- Windows NT 4.0 Option Pack for Windows NT Server or Internet Information Server 5.0 for Windows 2000
- Internet Explorer 6.0
- ADO 2.7

This product is protected by U.S. patent numbers 6,631,298,; 6,725,182 and other U.S. patents pending.

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