

# AMS Device Manager in SIS Applications

- Ensure your safety instruments are healthy
- Perform proof tests to maintain safety system integrity
- Use Audit Trail to create an accurate historical record



*Protect your plant by ensuring your safety instruments are doing their job.*

## Maintaining Your Safety Application

In typical applications, AMS Device Manager reduces reliability expenses through powerful predictive diagnostics. AMS Device Manager is especially critical for safety-instrumented systems (SIS) that are responsible for preventing major incidents in a plant. By using AMS Device Manager, you can configure, calibrate, diagnose, and troubleshoot your safety instruments to ensure they will perform effectively when you need them.

Ensure your plant will operate safely after startup with AMS Device Manager and the QuickCheck™ SNAP-ON™ application. Complete interlock checkouts quickly and accurately so you know your equipment is operating as expected. You can use AMS Device Manager in SIS applications to help you meet many of the IEC 61511 requirements.

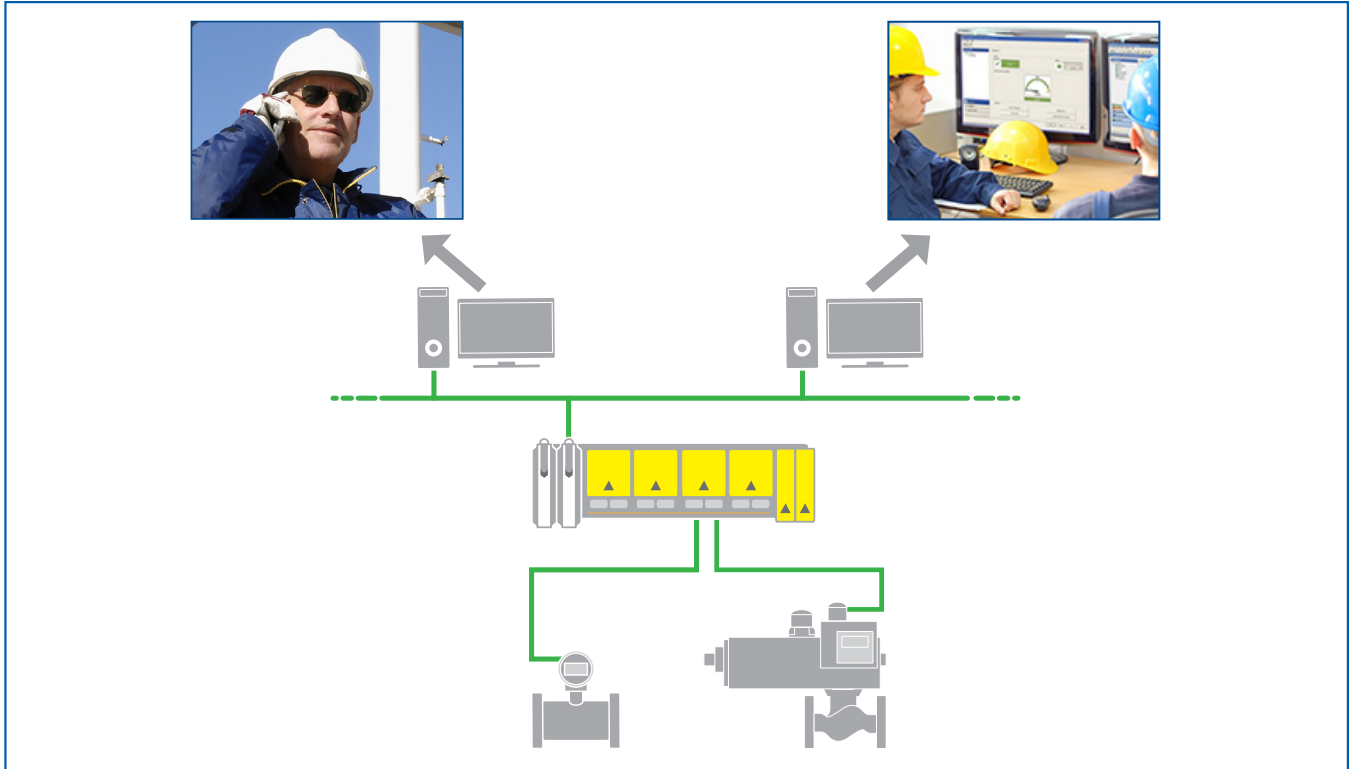
## Reduce Human Systematic Errors

AMS Device Manager delivers several tools that help you to reduce human errors. AMS Device Manager leverages Windows user security to assign permissions by plant location.

There are also special permissions that can restrict writing to device configurations, acknowledging alerts, and managing calibration information by asset type, including SIS assets. Any changes made by an individual user are automatically documented in the Audit Trail and are time- and date-stamped. With AMS Device Manager, you can be sure that only trained, qualified individuals can make changes to your critical SIS assets.

AMS Device Manager also allows you to lock devices using system-based write protection. Choose to apply protection to all devices, critical devices, SIS devices, by location, or other defined groups. If you need to make changes to devices, unlock devices for specific individual or group of people. Devices are automatically locked again when the time expires for added security.

When used with DeltaV SIS™, permissions can be turned off for users who cannot make changes to SIS devices. Users can only make changes when the DeltaV SIS logic solver is unlocked. All changes are also automatically logged in the Audit Trail.



AMS Device Manager and DeltaV SIS work together so you always know the status of your safety system.

## Extend Time Between Proof Tests

Proof test capabilities in SIS devices can be activated by AMS Device Manager, enabling partial online testing of a safety-instrumented function. This online testing allows you to extend the interval between offline proof tests. AMS Device Manager will automatically create a record of all online tests and will allow test personnel to enter additional comments if desired.

## Improve Interlock Checkout Procedures

The interlock checkout phase is critical to the safety and success of an SIS system. During this time, technicians check the proper response of the process control system against simulated normal and emergency conditions.

The QuickCheck SNAP-ON application for AMS Device Manager facilitates and accelerates interlock checkout, saving time and improving safety. AMS Device Manager and the QuickCheck SNAP-ON help you verify all wiring from the field to the control room so you can focus on checking the DCS configuration and DCS logic.

Sending technicians into the field to manually place devices in loop test mode is time intensive and exposes technicians to a variety of safety hazards, including heights, temperature extremes, and chemicals. By using the QuickCheck SNAP-ON application, you can group, monitor, and fix the output of HART® transmitters from the safety of your AMS Device Manager workstation.

## Audit Trail Creates Historical Record

AMS Device Manager tracks modifications to a device using Audit Trail. The Audit Trail logs alerts and alarms generated, as well as provides automatic online documentation of safety events.

With Audit Trail, you gain a historical record of:

- All tests, alerts, and alarms, which are date and time-stamped.
- All maintenance actions.
- Permanent and comparative test results.
- When read-write access is enabled/disabled.

## Improving Safety

Use AMS Device Manager to make changes to your smart field instruments. It automatically records details of the change and can be used to record impact analysis, authorization, and change approvals.

Results of tests and inspections are also automatically recorded. The AMS Device Manager Audit Trail provides documentation that proof tests and inspections were completed as required. AMS Device Manager can also be used for development of data about the SIS and SIS components.

Easily verify that all your SIS devices are operational and calibrated and keep documentation of any changes and test results. With AMS Device Manager, you can keep your plant safe and meet regulatory requirements.

©2020, Emerson. All rights reserved.

The Emerson logo is a trademark and service mark of Emerson Electric Co. The AMS logo is a mark of one of the Emerson family of companies. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while diligent efforts were made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.

**Emerson**  
**Reliability Solutions**  
12001 Technology Drive  
Eden Prairie, MN 55344 USA

 [www.emerson.com/ams](http://www.emerson.com/ams)