

## Maintenance 303

# Calibration

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- Combining calibration trips
- Identifying areas for more attention — or less
- Reducing paperwork

## Overview

### How can I reduce the time spent calibrating instruments?

Every field instrument must be calibrated periodically to ensure efficient operation of the process and to satisfy the requirements of regulatory agencies. But calibration using widely accepted procedures can take a technician up to four hours per device.

AMS Suite: Intelligent Device Manager software helps automate instrument calibration, substantially reducing the time and effort required.

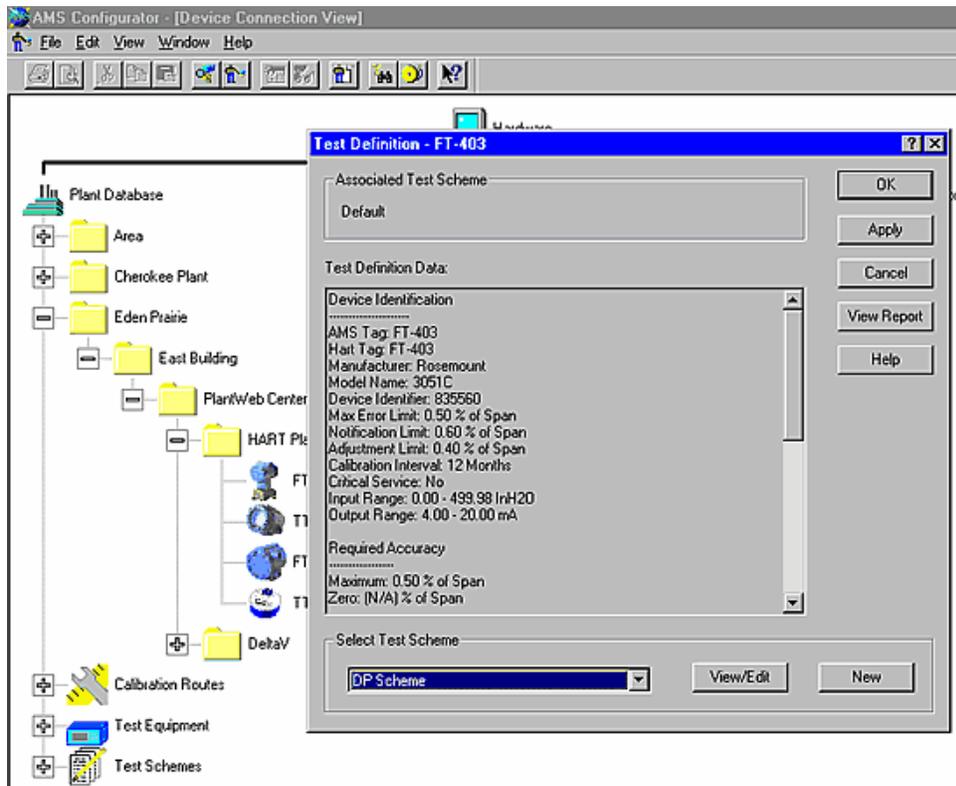
This course provides a brief overview of the ways AMS Device Manager streamlines calibration.

*Hint: As you go through the topics in this course, watch for answers to these questions:*

- *How does calibration-route management reduce trips to the field?*
- *How can "as left / as found" records help reduce maintenance?*
- *How does AMS Device Manager reduce calibration-related paperwork?*

## Automating the work

AMS Device Manager helps automate instrument calibration by maintaining calibration routes, calibration procedures, and calibration schedules, and then automatically downloading this information into smart (also called documenting) calibrators.



These smart calibrators automate the actual calibration process and capture the calibration information. This information can then be uploaded from the calibrator directly into the software's Audit Trail.

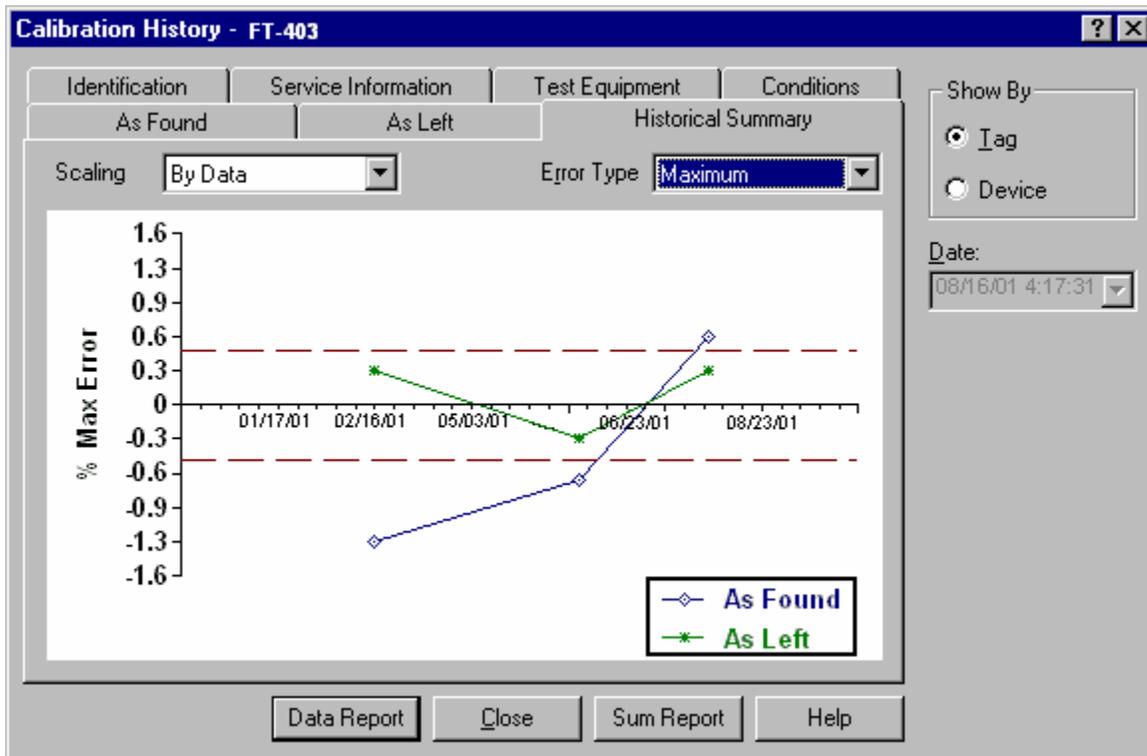
## Combining calibration trips

AMS Device Manager makes it easy to work more efficiently by combining multiple calibration tasks in one trip.

If you need to calibrate a specific instrument — for example, a pressure sensor that's recently been subjected to an overpressure condition — the software lets you identify other devices in the same area that may soon require calibration so you can take care of them without a return trip to the field.

## Identifying areas for more attention — or less

AMS Device Manager maintains “as found/as left” records for each maintenance activity on each device.



These records can help you work more efficiently by identifying maintenance practices that are unproductive, or areas of the plant that are chronic maintenance problems.

Devices that show patterns in performance degradation may suffer from systemic errors such as installation problems — indicating an opportunity to reduce maintenance work by correcting the root cause of the errors.

Conversely, if a device shows no deterioration in performance between routine calibrations, you can reduce maintenance work by extending the intervals between service.

## Reducing paperwork

As much as 50% of maintenance time is actually spent on paperwork, including manually recording calibration results.

AMS Device Manager eliminates manual data entry of calibration data — and the accompanying risk of errors. Calibration information can be uploaded from the smart calibrator into the software's database.

AMS Device Manager can then notify the CMMS that calibration is complete, which allows the work order to be closed out.