



Accelerated Calibration Implementation (ACI)

QMS's Accelerated Calibration Implementation (ACI)

ACI (Accelerated Calibration Implementation) is a consulting services solution offered by QMS that allows you to leverage SAP's Test Equipment Management functionality to manage your Calibrations. We provide the knowledge, toolset and implementation experience to accelerate your implementation!

ACI – A methodology and toolset all in one!

The core of *ACI* is our previous implementation experience; it's this experience that enables us to streamline your implementation. Having a thorough knowledge of the calibration processes and business requirements, we use an accelerated blueprint stage to drive out requirements and/or deltas to our pre-defined processes. We also deliver pre-canned solutions to bridge the gaps most customers identify in SAP's solution offering. Once integrated into your system, they can be tweaked and modified to fit your independent requirements.

Simplified Master Data Maintenance

As with any QM implementation, planning is critical to ensure specifications are pre-defined for use during the actual calibration. *ACI* enables users to create calibration templates that can be general or device specific and define what type of measurements are to be taken. Templates are defined using qualitative, quantitative, and calculated characteristics where needed and are created as general task lists.

Checkpoints and tolerance limit types can be assigned and maintained at the equipment or functional location level and represents the "where" part of the equation. This enables users to quickly and easily enter the requirements without having to search for MICs and/or create new data to support the calibration. Calibration requirements typically assigned to the technical object include:

- Reference Calibration Procedure
- Upper and Lower Ranges
- Accuracy
- Unit of Measure
- Reading Types
- Test Points
- Tolerances

Calibration Plans & Work Management

The *ACI* solution uses calibration maintenance plans and work orders specific to calibrations. The release of a calibration work order automatically creates an associated calibration sheet (inspection lot). "As Found and As Left" readings can be recorded along with standards used to perform the calibration. Completion of the calibration seamlessly completes the work order, and updates the maintenance plan. Calibration dates (last calibration date, and due date) and device readiness can be passed back to the technical objects to give users one central place to get an overview of the calibration status.

Paperless Calibration

ACI is a completely paperless solution that complies with 21 CFR Part 11. Leveraging standard templates (**what**) and using particular device specifications (**where**); *ACI* dynamically generates an electronic calibration sheet that is used for recording calibration results. "As Found and As Left" readings can be captured and calculations based on user-defined formulas are automatically performed thus eliminating errors. Procedures can be displayed in an electronic format utilizing SAP's Document Management functionality eliminating the need for paper copies. Rule- based Digital Signatures can be implemented to provide an audit trail providing Part 11 compliance.

End to End Traceability

ACI ensures traceability and accuracy by providing a streamlined screen for entering the standards used during the calibration. Standards are entered as part of the Results Recording process, as the screen is accessed through standard results recording transactions. The custom screen not only allows users to enter in the standards used to perform the calibration, but also performs checks needed to ensure accuracy of the calibration.

Using this data as well as historical information that can be loaded, *ACI* enables users to perform both forward and reverse traceability reports. Utilizing ALV (ABAP List Viewer) functionality, the report can be run for a device in a specified date range and report output can be quickly downloaded to Excel or emailed for further investigation.

Calibration History

Each time a calibration task is performed; *ACI* stores all relevant data for historic record, improvement analysis, and system audit. Calibration intervals can be automatically adjusted based on calibration history and statistical evidence.

Status	Standard Used	Cal Date	Description	Next Due Dt	St.
CC	10001438	04/21/2008	Barometer	05/21/2008	
CC	10001456	04/21/2008	Calibrator Multi-Function 5700A/EP	11/27/2008	
CC	10002211	04/21/2008	Humi & Temp. Transmitter	04/21/2008	

Status Codes: (L) Invalid Calibration Level for Standard Used
(D) Invalid Next Due Date for Standard Used

Reports

ACI provides additional customized reports that are typically found in the calibration process. The Calibration Certificate outputs all relevant information about a calibration including 'As Found and As Left' results as well as who performed the calibration. A calibration sticker can be generated using *ACI* to ensure system dates match dates specified on physical equipment.

QMS Accelerated Calibration Implementation Services

QMS has extensive experience in implementing SAP and Test Equipment Management Calibrations which is necessary to support and deliver a Quality Calibration Management Program that best meets your needs and requirements. We are available to assist you throughout the implementation process from user requirements, development, implementation, to continuous improvement. Our services include:

- Calibration Program Gap Assessment (CP Gap)
- Solution Implementation
- Project Planning and Control
- Master Data Development and Loading
- Specifications Development
- Calibration Templates Design
- Historical Data Migration
- System Validation
- Training



For additional information about these or other services offered by QMS please contact us at:
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