

Quality Control of your Products in Dynamics365 for Operations With Total Quality Control Management



A puzzle isn't right if the last piece doesn't fit

You buy, make, and sell your products in Dynamics 365. Consider the advantages of an advanced Quality Management Solution built right within Dynamics 365.



TQCM is the answer

TQCM is not a separate software solution. It operates right within Microsoft Dynamics 365 making quality control a solution within ERP, not a bolt-on. This means that sampling plans, inspections, and CAPA are part of the ERP process as is manufacturing. TQCM is a module within Dynamics 365 and operates in the same database and instance. And it is developed with the same tool set that Microsoft uses. Since it's a Dynamics 365 operations module, TQCM inherits the core features of Dynamics 365 including user setup, security, report writers, and same interface. You'll come up to speed quicker with our integrated solution and more importantly, you'll implement at a much lower cost.

Key Capabilities

Sampling Plans to Worldwide Standards

TQCM for Dynamics 365 supports ANSI Z1.4, ISO 2859-1, and NIST Series 6

CAPA/NCR

TQCM supports both ISO and 8D Corrective and Preventative Actions. Along with Nonconformance Reports that can be automatically generated from inspections, ISO audits, and customer complaints.

Instrument and Tool Calibration Table

Automatic scheduling for preventative maintenance and calibration of instruments by date and use requirements.

Integrated Auditing

Department and process audits are easily setup by facility and can be scheduled to automatically create planned audits with advanced notifications. Audit plans and audit steps are stored in the audit table and feature integration to nonconformance and corrective actions.

Customer Complaints

Customer complaints is a full featured solution including call-in-scripts to assist customer service. Including complaint rational with investigations and escalation to nonconforming conditions and CAPA. Seamless integration to customers and return orders.

It's Dynamics 365 for Operations

TQCM is designed specifically for Dynamics 365. We use the same standards and the same development tools as Microsoft. So, it's the same interface.

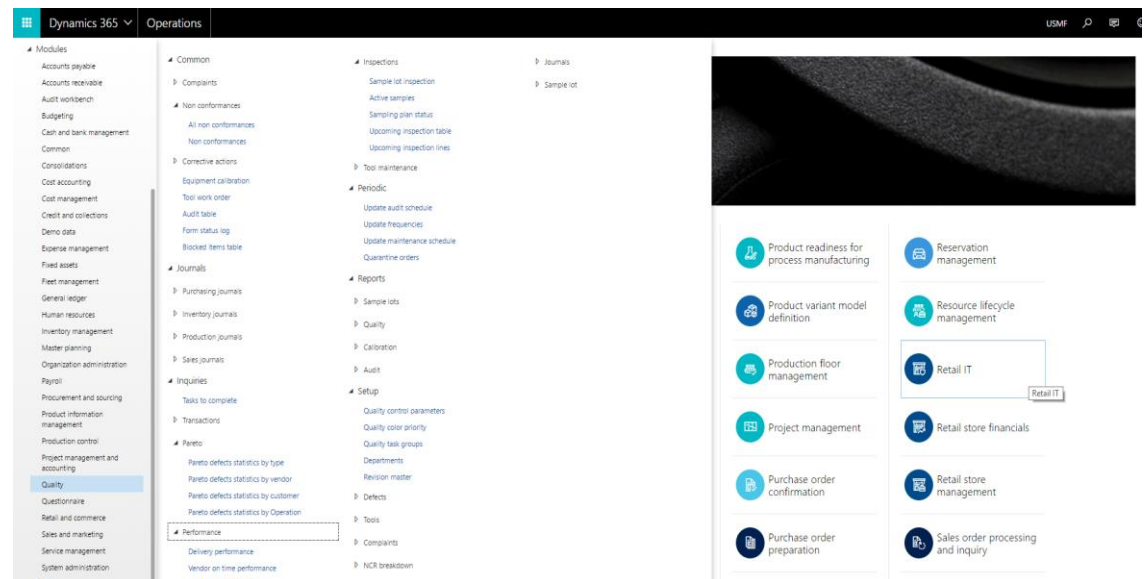
And since it's the same interface as your other Dynamics 365 modules, your users will find it is easy to learn, easy to use.

A solution you already know

Integration is a term loosely used to imply compatibility. But through the Dynamics 365 Framework integration for TQCM means it's an integral module right within Dynamics 365. There is no data to translate or to pass between TQCM and Dynamics 365. It installs within Dynamics 365 and embedded into the Dynamics 365 Application Object set, just like other modules in Dynamics 365.

Train Users Faster

Dynamics 365 users will learn TQCM quickly. That's because the user interface conforms to the high standards of Microsoft for Dynamics 365. TQCM is the same familiar interface your users are accustomed to. It uses the same ribbon, action and menu panes found in Dynamics 365 and Microsoft Office. Users come up to speed faster meaning you save money and reduce the time required for implementation.



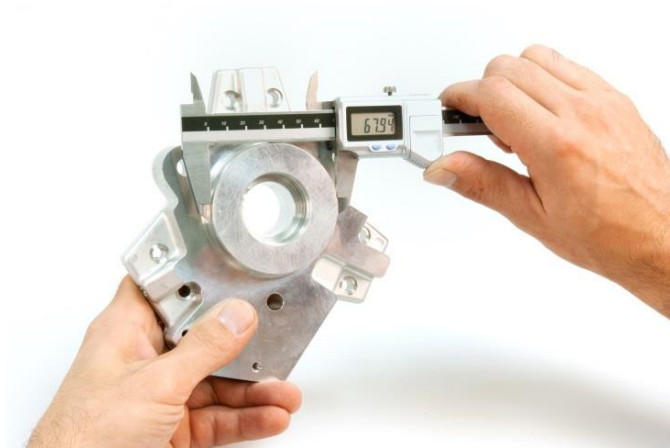
It's your same Business Partner

Since TQCM is sold through a worldwide network of Microsoft Business Partners, you benefit from your partner's expertise that implemented and supported your Dynamics 365 ERP System. ERP Solutions delivers world class solutions through partners that already know your business requirements. Our application design assures consistency for your users. And our mutual partner, who already supports you, guarantees your company continuity in services.

Total Quality Control

TQCM provides a comprehensive approach to quality management through its imbedded architecture within Dynamics 365. You benefit from a wide range of functionality for quality control while drawing on the rich features of Dynamics 365.

Quality starts with a plan and TQCM insures that the plan is followed from purchase of raw materials and throughout the production process to delivery.



Inspections

Inspections are performed in journals. And you can create plans from standards such as ANSI, ISO, or NIST. The inspection journal displays the information and as the results are entered the inspector is immediately notified if the actual information is in conformance. The lines in the grid can be color coded to make it more apparent to the operator if an observation is nonconforming. Inspection plans incorporate properties so more than one plan can hit a single item. And the plans are intelligent to know what vendors, operations, or customers require inspection. And when ANSI, ISO, or NIST are invoked, TQCM uses a method to qualify vendors for incoming inspections, operations for in process inspections, and customers for outgoing inspections.

Dynamics 365 Operations Quality Journals Purchasing journals Purchasing incoming inspection

USMF

Save New Delete Update Inquiries Reports Add lines OPTIONS

00000075: PURCHASE INCOMING INSPECTION

Sample lot journal

SAMPLE LOTS LINES STATUS PLANS

First article	Sample lot id	Description	Inspection qty	Minimum inspe...	Sample AQL	Pass lot
✓	Normal	USMF-000005	Material Hardness test	2.00000	0.00000	50.00 No
✓	Normal	USMF-000009	Transmission spacer	2.00000	0.00000	0.00 No

AQL AQL type LTPD LTPD type Status Current defect qty Acceptance number Rejection number

100.000000 % nonconforming 0.00 % nonconforming Pass 0 0 0

Equipment calibration details Inventory

DATA DIMENSIONS LIMITS TOOLING

Line type	Line number	Text	Description	Precision level	Data/dimension	Actual data/dim...	+Tolerance	-Tolerance	MeasurementUnit	Pass	Fail	Destructive test	Defective type code id	Defective subtype code id
Normal	1.00	✓	Visual inspect for defects	0	0	0	0	0		✓				
Normal	2.00	✓	Visual inspect for defects	0	0	0	0	0			✓		VIS	OD
Normal	1.00		Measure the OD	3	4	0	0	0	in			✓	DIM	OD
Normal	2.00		Measure the OD	3	4	4	0	0	in	✓				

Additional Inspection Features

Document attachments for supporting materials.

Escalate a failed inspection to a nonconformance report.

e-signature approvals with optional CFR Part 11 compliance.

Automatic scrapping for destructive tests.

One click inspection reports and variable control charts.

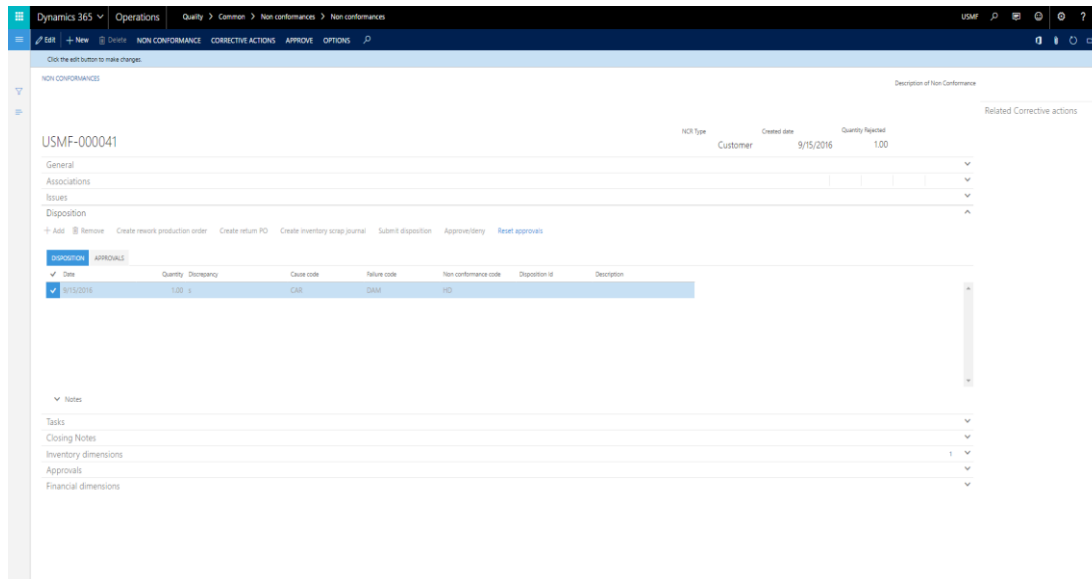
Linking of appropriate instruments to observation lines with notifications of stopped instruments, or in calibration, and Risk Instrument Notifications.

ANSI Z1.4, ISO 2859-1, NIST Series 6, plus modified versions and complete user defined plans.

Nonconformance material and processes

Nonconformance reports can be automatically generated from inspection processes and other areas of Dynamics 365. When created from inspections, the NCR inherits the information of the inspection results including defect codes. This provides the NCR administrator a complete snapshot of the nonconforming condition.

The NCR List Page provides a summary of all nonconformance reports. NCR's can be created from inspections, complaints, customers and vendors, return material, and department audits.

The screenshot shows the Dynamics 365 Nonconformance Form for a specific report (USMF-000041). The form is divided into several sections: General, Associations, Issues, and Disposition. The Disposition section is currently active, showing a table with columns for Date, Quantity, Discrepancy, Cause code, Failure code, Non-conformance code, Disposition id, and Description. A single row is visible with the date 9/15/2016, quantity 1.00, and a description of 'CAR'. Below the table, there are sections for Notes, Tasks, Closing Notes, Inventory dimensions, Approvals, and Financial dimensions. The top navigation bar includes options like 'New', 'Delete', 'NON CONFORMANCE', 'CORRECTIVE ACTIONS', 'APPROVE', and 'OPTIONS'.

The NCR process is where you disposition material. An NCR can be escalated to a corrective action or emailed to a supplier. User defined workflow can be used for e-signatures to sign off and close the NCR upon completion.

Nonconformance reports

The nonconformance process automatically generates nonconformance issues to the appropriate personnel for disposition and closure. These can be quickly generated from a process such as inspections or an audit. It provides the workplace with easy to use tools for personnel to properly disposition the material and issue.

Additional Features

Task assignments for the NCR administrator to bring other personnel into the workflow for assistance when needed.

Disposition codes to disposition materials.

Escalation to a corrective action directly from the NCR Form.

User defined workflow with *e-signatures* (optional CFR part 11 *e-signatures* available) for completing and closure of an NCR.

Integration to inspections, customer complaints, auditing, shop floor, and other areas.

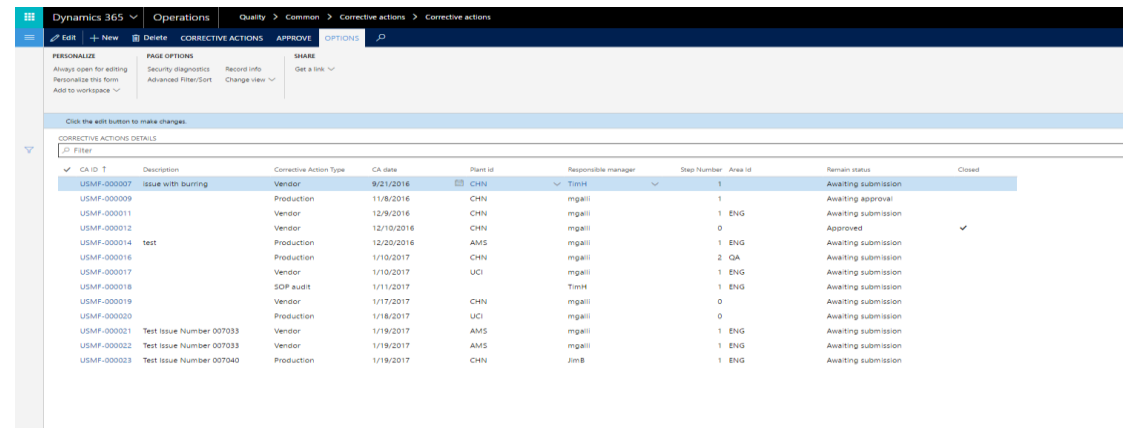
Email notifications and alerts.

The CAPA process

Corrective and preventative actions are the method for continuous improvement of quality management. Through a comprehensive integrated solution; TQCM documents the entire process to resolve the issues with the appropriate corrective measures. The CAPA process can be configured to use a more simplistic ISO compliant format, or, the more comprehensive 8D (Disciplines) CAPA process. Powerful and flexible to meet your processes.

Corrective and preventative actions

The List Page provides an overview of all corrective and preventative actions. CAPA's can be assigned to specific personnel to manage the overall objectives. Team members can be brought into the process and through standard D365 workflow or through *CAPA Tasks*, and assignments can be generated for assistance from other employees. The process provides direct integration to other areas of D365 meaning you have a single workplace to complete the objectives with quick access to other areas with a single mouse click.



The screenshot shows the Dynamics 365 interface for the 'Corrective actions' list page. The top navigation bar includes 'Dynamics 365', 'Operations', 'Quality', 'Common', and 'Corrective actions'. Below the navigation bar are tabs for 'Edit', 'New', 'Delete', 'CORRECTIVE ACTIONS', 'APPROVE', and 'OPTIONS'. The main content area displays a table of corrective actions with columns for CA ID, Description, Corrective Action Type, CA date, Plant id, Responsible manager, Step Number, Area id, Remain status, and Closed. The table contains 14 rows of data, including entries for 'Issue with burring', 'Production', 'Vendor', and 'Test'.

CA ID	Description	Corrective Action Type	CA date	Plant id	Responsible manager	Step Number	Area id	Remain status	Closed
USMF-000007	Issue with burring	Vendor	9/21/2016	CHN	TimH	1		Awaiting submission	
USMF-000009		Production	11/8/2016	CHN	mgall	1		Awaiting approval	
USMF-000011		Vendor	12/9/2016	CHN	mgall	1	ENG	Awaiting submission	
USMF-000012		Vendor	12/10/2016	CHN	mgall	0		Approved	✓
USMF-000014	test	Production	12/20/2016	AMS	mgall	1	ENG	Awaiting submission	
USMF-000016		Production	1/10/2017	CHN	mgall	2	QA	Awaiting submission	
USMF-000017		Vendor	1/10/2017	UCI	mgall	1	ENG	Awaiting submission	
USMF-000018		SOP audit	1/11/2017		TimH	1	ENG	Awaiting submission	
USMF-000019		Vendor	1/17/2017	CHN	mgall	0		Awaiting submission	
USMF-000020		Production	1/18/2017	UCI	mgall	0		Awaiting submission	
USMF-000021	Test Issue Number 007033	Vendor	1/19/2017	AMS	mgall	1	ENG	Awaiting submission	
USMF-000022	Test Issue Number 007033	Vendor	1/19/2017	AMS	mgall	1	ENG	Awaiting submission	
USMF-000023	Test Issue Number 007040	Production	1/19/2017	CHN	JimB	1	ENG	Awaiting submission	

Additional Features

Document attachments for supporting materials.

Full 8D (Disciplines) or simplified CAPA process.

Standard CAPA report and 8D report.

Department actions and research area.

Generate Engineering Changes Orders.

Integration to other areas of Dynamics 365 including complaints, vendors, customers, production, etc.

User defined workflow with *e-signatures* (optional CFR part 11 *e-signatures* available) for completing and closure of a CAPA.

Customer complaints matter

Often customers can be won or lost when they experience a problem with your product. And more directly, how you handle them when a problem occurs. Statistics show that the vast majority of customers will give you a second chance if you handle their complaint successfully and in a timely manner.

Customer Complaints

Customer Complaints is a standard module within the TQCM suite. It provides rich and deep functionality into other areas of Dynamics 365 and provides a central work area to effectively manage your customer complaints.

It provides a complete tool set to manage returns, regulatory considerations, investigations, conclusions with metrics for analytical purposes, and e-signature approvals with distribution lists.

The screenshot displays the Dynamics 365 interface for the 'COMPLAINTS' module, specifically for a record with ID 'USMF-000003'. The top navigation bar includes 'Dynamics 365', 'Operations', and 'Quality > Common > Complaints > Complaints'. The left sidebar shows the 'COMPLAINTS' section with a search bar and a list of records. The main content area is divided into several sections: 'General' (complaint ID, owner, transaction ID), 'CATEGORIES' (complaint category, sub-complaint category), 'SALES' (customer account, customer name), 'DELIVERY' (mode of delivery, delivery terms), 'COMPLAINT STATUS' (date, due date), 'APPROVALS STATUS' (status), and 'ISSUE REPORTED' (issue with speaker). The form is designed for data entry and management of customer complaints.

Additional Features

Escalation to Nonconformance and/or CAPA.

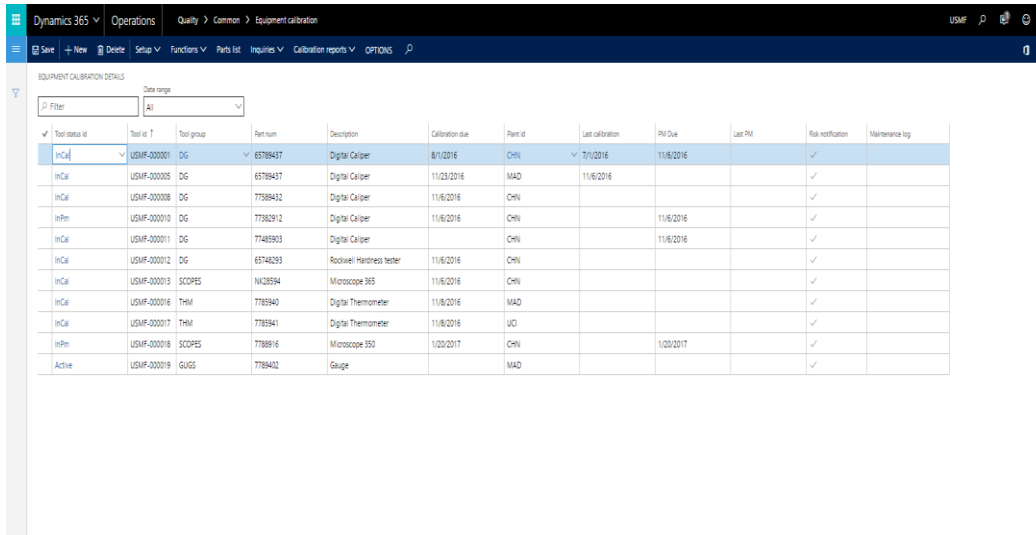
Task assignments.

Call-Scripts and Investigation-Scripts. Scripts can be created to provide the user the ability to deliver user defined questions by complaint categories or product.

User defined workflow with *e-signatures* (optional CFR part 11 *e-signatures* available) for completing and closure of Complaints.

Managing instruments and tools

Instruments and gauges are easily managed through one central workplace. TQCM lets you know through an Icon when calibration is due, and you can easily configure a standard D365 alert to email you and provide you a task at your role center.



The screenshot shows the Dynamics 365 interface for Equipment Calibration. The top navigation bar includes 'Dynamics 365', 'Operations', 'Quality', and 'Common'. The 'Equipment calibration' section is active. Below the navigation bar, there are tabs for 'Save', '+ New', 'Delete', 'Setup', 'Functions', 'Parts list', 'Inquiries', 'Calibration reports', and 'OPTIONS'. The main area displays a table titled 'EQUIPMENT CALIBRATION DETAILS' with a 'Data range' filter set to 'All'. The table has columns for 'Tool status id', 'Tool id T', 'Tool group', 'Part num', 'Description', 'Calibration due', 'Part id', 'Last calibration', 'PM Due', 'Last PM', 'Risk notification', and 'Maintenance log'. The table contains 12 rows of data, including various tools like Digital Caliper, Microscope 365, Digital Thermometer, and Microscope 350.

Tool status id	Tool id T	Tool group	Part num	Description	Calibration due	Part id	Last calibration	PM Due	Last PM	Risk notification	Maintenance log
InCal	USMF-000001	DG	65769437	Digital Caliper	8/1/2016	CHN	7/1/2016	11/6/2016		✓	
InCal	USMF-000005	DG	63769437	Digital Caliper	11/23/2016	MAD	11/6/2016			✓	
InCal	USMF-000008	DG	77589432	Digital Caliper	11/6/2016	CHN				✓	
InPm	USMF-000010	DG	77582912	Digital Caliper	11/6/2016	CHN		11/6/2016		✓	
InCal	USMF-000011	DG	77465903	Digital Caliper		CHN		11/6/2016		✓	
InCal	USMF-000012	DG	65742093	Rockwell Hardness tester	11/6/2016	CHN				✓	
InCal	USMF-000013	SCOPES	NK25594	Microscope 365	11/6/2016	CHN				✓	
InCal	USMF-000016	ThM	7765940	Digital Thermometer	11/6/2016	MAD				✓	
InCal	USMF-000017	ThM	7765941	Digital Thermometer	11/6/2016	UC				✓	
InPm	USMF-000018	SCOPES	7768916	Microscope 350	1/20/2017	CHN		1/20/2017		✓	
Active	USMF-000019	GUGS	7769402	Gauge		MAD				✓	

Instrument calibration

The instrument calibration table provides central control for maintaining calibration schedules and historical records for each instrument. It provides automation in letting you know when an instrument requires calibration and is integrated to the inspection process. This will warn the inspector if the instrument has missed its calibration due date, or if a Risk Instrument Notification is open. This provides the option to an inspector to use an alternative instrument.

Additional Features

Record instrument certificates and attach an image.

Create Risk Instrument Notifications (RINs).

Complete transactional history table recording all transactions against each instrument including each time the instrument is used for an observation within an inspection and when calibrated.

Group instruments by vendor for external calibration scheduling.

Group instruments by type.

Automatic instrument stops when out for calibration.

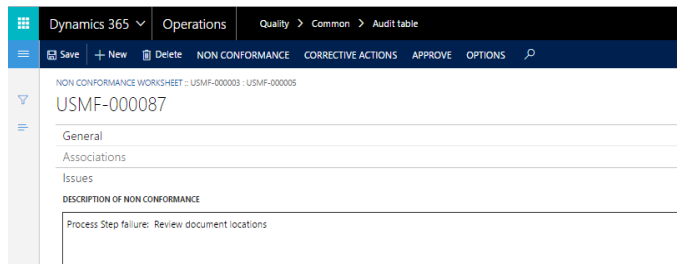
Automatic creation of work orders upon instrument due date.

Managing your processes

Managing vendors or your own internal processes, the audit table provides a central workplace where department or process audits can be automatically created, based upon scheduled due dates by facility. You can also create *Impromptu* audits at any time.

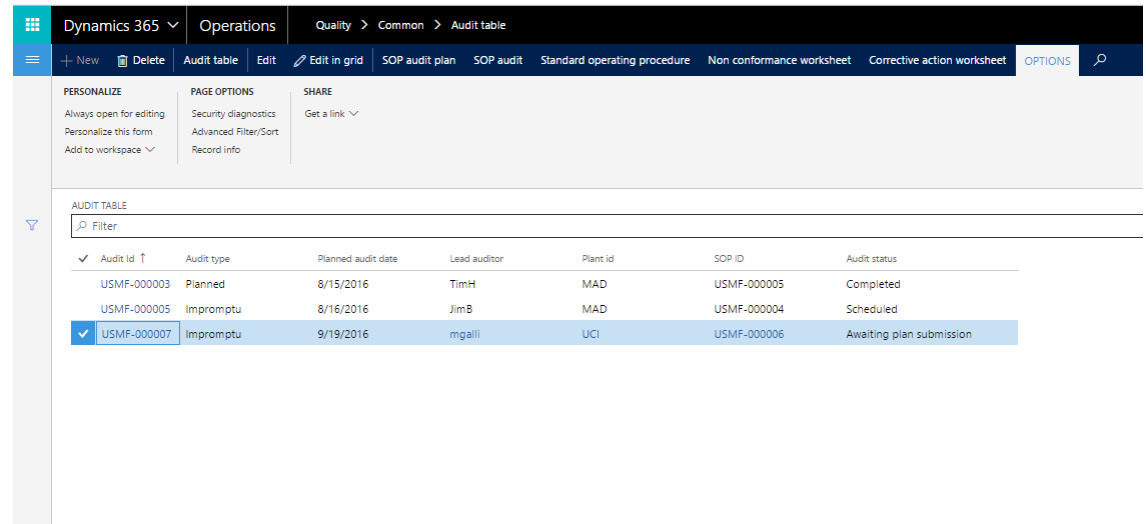
With the audit table, you create your plans and audit steps. And since an audit is directly integrated to the nonconformance and CAPA process, audit checks that fail can automatically generate the next control measures in the quality process.

Steps within an audit that fail can be processed through the NCR process and dispositioned. Defect codes can be associated and is available for reporting including Pareto charts. Preventative measures can be put in place through the CAPA process to insure that the corrections are in place.



TQCM auditing

The audit table can be setup to automatically schedule audits based upon a predefined schedule. You create your audit plans and your audit check list within the audit table. Each audit plan is integrated to the nonconformance and CAPA process, so any steps that fail within an audit, can automatically generate the next level of compliance in your quality process.



Audit Id	Audit type	Planned audit date	Lead auditor	Plant id	SOP ID	Audit status
USMF-000003	Planned	8/15/2016	TimH	MAD	USMF-000005	Completed
USMF-000005	Impromptu	8/16/2016	JimB	MAD	USMF-000004	Scheduled
USMF-000007	Impromptu	9/19/2016	mgalli	UCI	USMF-000006	Awaiting plan submission

Additional Features

Association of audit team members and roles.

e-signature approvals (optional CFR part 11 *e-signatures* available).

Creation of audit plans and audit steps.

Audit status.

Contact us

For more information contact your Microsoft Business partner or visit us at:



ERP Solutions, Inc.

P.O. Box 788

480 W.78th Street

Suite. 100

Chanhassen, MN 55317 USA

Phone: 612.284.3443

Fax: 612.392.2397

Email: sales@erpsolutions.biz

www.erpsolutions.biz

This document is for informational purposes only. ERP Solutions MAKES NO WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY, AS TO THE INFORMATION IN THIS DOCUMENT.

© 2013 ERP Solutions, Inc. All rights reserved. Microsoft, Microsoft Dynamics and the Microsoft Dynamics logo are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other trademarks of their respective holders.