



Inspection Management



GE VERNOVA

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Chapter 1

Overview

Topics:

- [Overview of the Inspection Management Module](#)
- [Access the Inspection Management Overview Page for a Functional Location](#)
- [Access the Inspection Management Overview Page for an Asset](#)
- [Inspection Management Workflow](#)

Overview of the Inspection Management Module

An accurate understanding of the current conditions of equipment and location conditions is critical to analyzing their reliability. The Inspection Management module allows you to document, manage, and analyze data associated with the inspections of equipment and locations in your facilities.

More Details


Inspection Management functionality is fully integrated with other APM features to give you access to other analytical tools, such as Thickness Monitoring and Risk Based Inspection.

Access the Inspection Management Overview Page for a Functional Location

Procedure

In the **Applications** menu, navigate to the **INTEGRITY** section, and then select **Inspection Management**.

Note: You can also access the **Inspection Management Overview** page for a hierarchy level. To do so:

- a. In the upper-left corner of the top navigation bar, select  .
The **Asset Hierarchy** page appears.
- b. In the left pane, navigate to the functional location for which you want to access the **Inspection Management Overview** page, and then select **Integrity** in the workspace.
The **Integrity** section appears.
- c. In the **Inspection Management** row, select the link.


Results

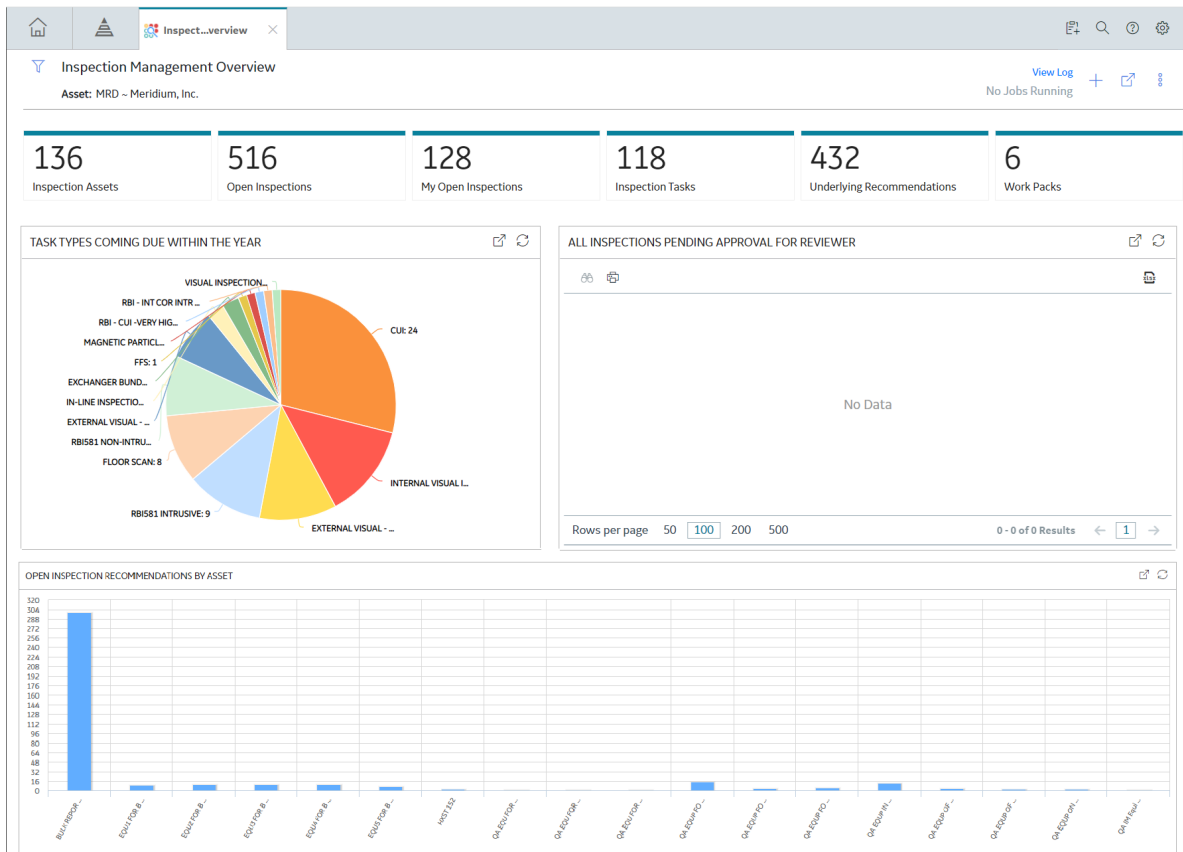
The **Inspection Management Overview** page appears, displaying the following information:

- The **Inspection Assets** section: Contains a list of assets with at least one Inspection or Inspection Task for the selected asset or underlying ones.
- The **Open Inspections** section: Contains a list of Inspections that are in the Draft, Pending Approval, or Rework state and for the underlying assets.
- The **My Open Inspections** section: Contains a list of Inspections assigned to you that are in the Draft, Pending Approval, or Rework state and for the underlying assets.
- The **Inspection Tasks** section: Contains a list of Inspection Tasks that are associated with underlying assets.
- The **Underlying Recommendations** section: Contains the following subsections:
 - **Underlying Open Recommendations:** Contains a list of Inspection Recommendations for underlying assets that are in the Proposed, Pending Review, or Pending Approval state.
 - **Recommendations Due for Implementation:** Contains a list of Inspection Recommendations for underlying assets that are in the Approved or In Progress state.
- The **Work Packs** section: Contains a list of Work Packs.
- The **Task Types Coming Due Within the Year** graph: Contains a graph that shows the total number of Inspection Tasks of each type that are due in the current year.

- The **All Inspections Pending Approval for Reviewers** section: Contains a list of Inspections that are pending your approval.
- The **Open Inspection Recommendations by Asset** graph: Contains a graph that shows the number of open Inspection Recommendations for each asset in the selected Functional Location.

Tip: To return to the **Inspection Management Overview** page after selecting a tab, select the tab again.

Note: To view the list of Inspections, Inspection Tasks, and Recommendations that are directly linked to the selected Functional Location, select  in the **Inspection Management Overview** page.



Access the Inspection Management Overview Page for an Asset

About This Task

This topic describes how to access the **Inspection Management Overview** page for an asset that does not contain underlying assets in the asset hierarchy.

Procedure

1. Access the **Inspection Management Overview** page for the Functional Location that contains the asset.
2. Select **Inspection Assets**.

The **Inspection Assets** section appears, displaying a list of assets (associated with the selected Functional Location or underlying assets) that are linked to an Inspection, Inspection Task or an Inspection Health Evaluation.

Inspection Management Overview

Asset: Home

137 Inspection Assets	392 Underlying Open Inspect...	90 Underlying Inspection Ta...	119 Underlying Recommend...	6 Work Packs
--------------------------	-----------------------------------	-----------------------------------	--------------------------------	-----------------

EQUIPMENT TECHNICAL NUMBER ↓	ASSET ID
ZL0032-097	ZL0032-097 ~ LOOP SYSTEMS ~ 000000000001058807
ZL0003-097	ZL0003-097 ~ LOOP SYSTEMS ~ 000000000001058787
testUtility2	testUtility2 ~ ~ QA COMPLIANCE UTILITY EQUP2
testUtility1	testUtility1 ~ ~ QA COMPLIANCE UTILITY EQUP1
testaction5	testaction5 ~ ~ QA COMPLIANCE IMPLEMENT ACTION
testaction4	testaction4 ~ ~ QA COMPLIANCE UNLINK ACTION
TECH-001	TECH-001 ~ ~ EQU UPDT INSP W CMMMS TECHNUM

Rows per page: 50 200 500

1 - 100 of 137 Results < 1 2 >

- In the row containing the Equipment for which you want to access the **Inspection Management Overview** page, select the link.

The **Inspection Management Overview** page for the selected asset appears, displaying the following information:

- The **Inspections** section: Contains a list of Inspections linked to the asset.
- The **Inspection Tasks** section: Contains a list of Inspection Tasks linked to the asset.
- The **Recommendations** section: Contains a list of Inspection Recommendations that are linked to the asset.
- The **Work Packs** section: Contains a list of Work Packs.
- The **Health Evaluations** section: Contains a list of Health Evaluations related to the asset.

Note: This section appears if at least one inspection event family has the **Health Evaluations** option selected in the **Event Configuration** section of the **Inspection Admin Preferences**.

Inspection Management Workflow

This workflow provides the basic, high-level steps for using this module. The steps and links in this workflow do not necessarily reference every possible procedure.

- [Access the Equipment or Functional Location to be inspected from the Asset Hierarchy.](#)
- [Create an Inspection.](#)
- [Create an Inspection Profile.](#)
- [Add an Inspection Method.](#)
- [Define the Inspection Scope.](#)
- [Create Inspection Tasks.](#)

7. Create Work Packs.

Chapter 2

Workflows

Topics:

- [Inspection Planning Workflow](#)
- [Inspection Assessment Workflow](#)

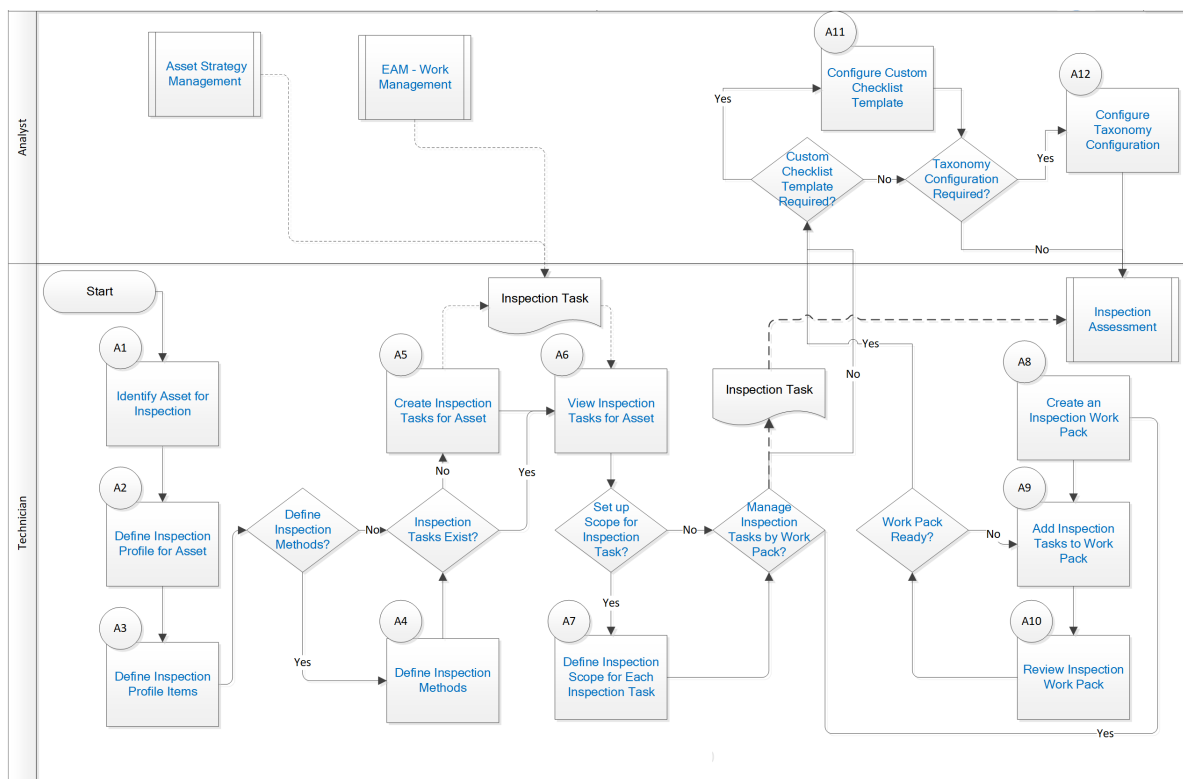
Inspection Planning Workflow

Inspection Management: Inspection Planning Workflow

This workflow details the process for managing Inspection Profile Items, Inspection Methods, Inspection Tasks, and Work Packs for Execution.

In the following workflow diagram, the blue text in a shape indicates that the corresponding description has been provided in the sections that follow the diagram. For more information, refer to the [Interpreting the Workflow Diagrams](#) topic in the [APM Product Workflows](#) documentation.

Note: For information on the personas associated with a APM module, refer to the [APM Product Workflows](#) documentation.



Identify Asset for Inspection

Persona: Technician

Depending on the inspection activities to be managed, select the appropriate assets for further definition.

Define Inspection Profile for Asset

Persona: Technician

Define an Inspection Profile to identify what can be inspected and documented during the inspection.

Define Inspection Profile Items

Persona: Technician

Define Inspection Profile Items to identify which individual parts or subcomponents of the asset may be inspected. The Inspection Profile represents the asset inspection configuration, not necessarily what is planned to be inspected for any given task.

Define Inspection Methods?

Persona: Technician

Determine if specific Inspection Methods must be defined to increase the confidence of detection of damage mechanisms.

Define Inspection Methods

Persona: Technician

For each Inspection Profile Item, define specific Inspection Methods (e.g., CUI Inspection, Penetrant Fluorescent Test, Wet Magnesium Particle, and Radiographic X-ray).

Asset Strategy Management

Persona: Analyst

Develop Asset Strategies from various strategy development methods, such as Risk Based Inspection. The actions defined in the strategy are implemented as Inspection Tasks for execution in Inspection Management.

Go to the [Asset Strategy Management workflow](#).

EAM - Work Order Generation

Persona: Analyst

If the overall schedule is being managed by Enterprise Asset Management (EAM), Inspection Tasks may also be created from an EAM work management system.

Go to the EAM - Work Order Generation workflow.

Inspection Tasks Exist?

Persona: Technician

If Inspection Tasks were created from the EAM - Work Management: Work Order Generation workflow, or based on actions from the Asset Strategy Management workflow, then proceed directly to the View Inspection Tasks for Asset step.

Otherwise, proceed to the Create Inspection Task for Asset step.

Create Inspection Tasks for Asset

Persona: Technician

Create Inspection Tasks manually outside of an Asset Strategy for inspection activities that are not managed as part of an overall strategy.

View Inspection Tasks for Asset

Persona: Technician

Irrespective of the initiating means, manage Inspection Tasks to track compliance and inspection activity execution.

Set Up Scope for Inspection Task?

Persona: Technician

Determine if Inspection Tasks should be further defined with specific scope requirements.

Define Inspection Scope for Each Inspection Task

Persona: Technician

Determine and select which of the possible Inspection Methods defined for the Inspection Profile Items of the asset will be carried out for the identified task.

Manage Inspection Tasks by Work Pack?

Persona: Technician

Determine if a group of Tasks will be managed by a Work Pack for work distribution.

If not, then the Inspection Tasks can be performed directly in Inspection Management.

Custom Checklist Template Required?

Persona: Analyst

Determine if the Inspection Tasks require a custom Checklist Template with custom or baseline checklist categories and items.

If not, then the Inspection Tasks can be created using an existing Checklist Template or baseline Inspection families.

Configure Custom Checklist Template

Persona: Analyst

Create a Checklist Configuration Template that includes a custom or baseline assortment of categories and items.

Taxonomy Configuration Required?

Persona: Analyst

Determine if the Checklist Template and/or Baseline Inspection families should be associated only with assets with a specific equipment taxonomy.

If not, the Checklist Template and/or Baseline Inspection families can be used to create Inspection Events for all assets.

Configure Taxonomy Configuration

Persona: Analyst

Create a Taxonomy Configuration that corresponds to equipment taxonomy for the selected asset taxonomy. Link Inspection Families or Checklist Templates to associate them with the assets with that Taxonomy Configuration.

Create an Inspection Work Pack

Persona: Technician

If you will manage Inspection Tasks by a Work Pack, then create an Inspection Work Pack.

Add Inspection Tasks to Work Pack

Persona: Technician

Assign the Inspection Tasks to the Work Pack for work distribution.

Review Inspection Work Pack

Persona: Technician

Review the Work Pack for completeness and accuracy to verify that it is ready to be performed.

Work Pack Ready?

Persona: Technician

Determine if the Work Pack is ready to be performed.

Inspection Assessment

Persona: Technician

If the individual Inspection Task or Work Pack is ready to be performed, then proceed to the Inspection Management: Inspection Assessment workflow.

Go to the [Inspection Management: Inspection Assessment workflow](#).

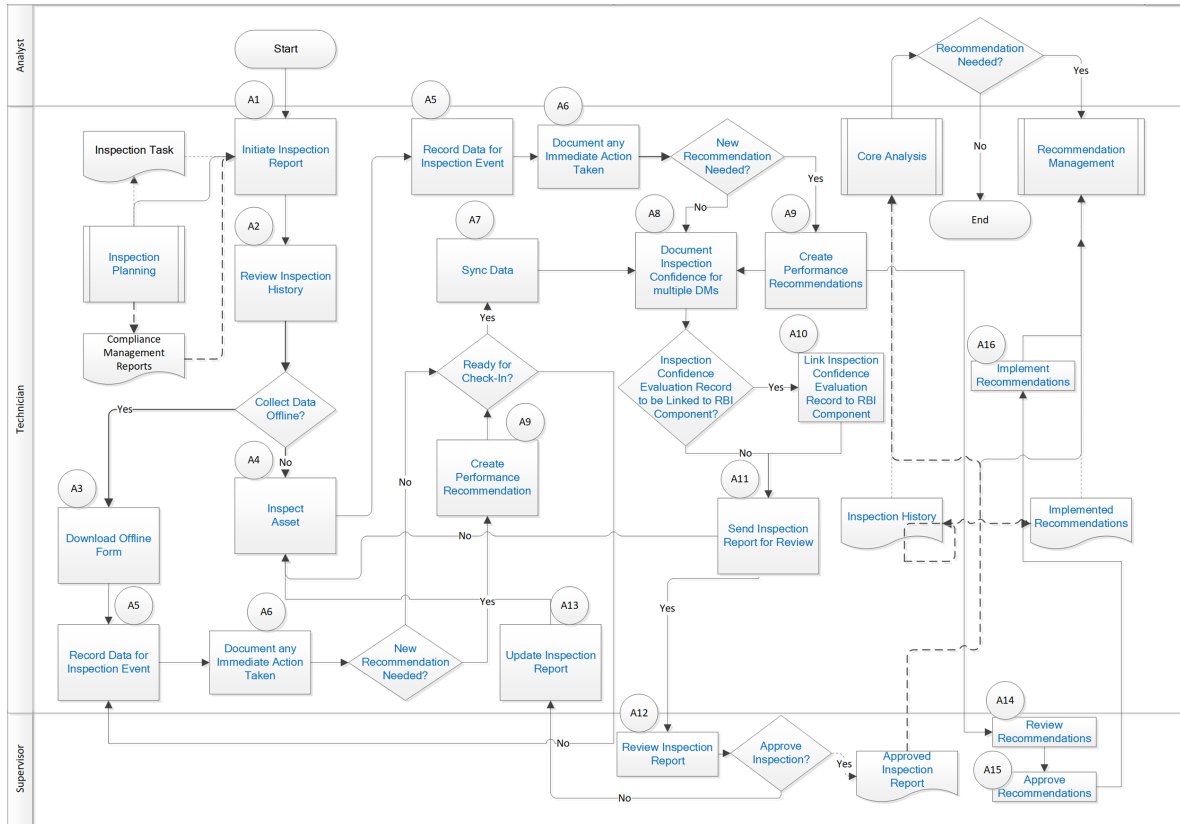
Inspection Assessment Workflow

Inspection Management: Inspection Assessment Workflow

This workflow details the process for executing Inspection Tasks and documenting inspection results. The result of any inspection may also yield recommendations for corrective work. The full documentation provides Inspection History, which is used to re-evaluate strategies to validate or improve the current planned work, procedures, or policies.

In the following workflow diagram, the blue text in a shape indicates that the corresponding description has been provided in the sections that follow the diagram. For more information, refer to the [Interpreting the Workflow Diagrams](#) topic in the [APM Product Workflows](#) documentation.

Note: For information on the personas associated with a APM module, refer to the [APM Product Workflows](#) documentation.



Inspection Planning

Persona: Technician

This workflow details procedures related to the management of inspection profile items, inspection methods, inspection tasks, and work packs for execution.

Go to the [Inspection Planning workflow](#).

Initiate Inspection Report

Persona: Technician

Based on Inspection Tasks or Work Pack definition, initiate Inspection Reports to document upcoming or completed inspection activities. You can also initiate an inspection report based on a one-time Inspection Task created as a result of a performance recommendation.

Review Inspection History

Persona: Technician

Prior to performing the inspection activities, review previous inspections based on past Inspection Reports.

Collect Data Offline?

Persona: Technician

Determine whether you want to collect data online (by entering data directly in APM) or offline (by entering data in the offline form).

Download Offline Form

Persona: Technician

Download the Offline Form of the Inspection record. This is used to record the findings when you inspect the asset.

Record Data for Inspection Event

Persona: Technician

Inspect each Inspection Profile Item based on the scope of the Inspection Task, and record the details either in the offline form or on the datasheet. If you have performed a Full Inspection Event, then record the General Findings. If you are performing a Checklist Event, then record the Checklist Findings. This information may help identify a degradation or a potential failure mechanism.

Document Any Immediate Action Taken

Persona: Technician

Based on the findings, if an immediate action has been taken to mitigate a potential risk, document the action in the Inspection Report.

New Recommendation Needed?

Persona: Technician

Based on the findings of the inspection, determine whether a new recommendation is needed.

Inspect Asset

Persona: Technician

Inspect the asset based on Task scope and, with consideration of the previous inspection history, implement recommendations and operational history.

This step is performed outside of APM, in the field.

Ready for Check-In?

Persona: Analyst

Determine whether the data that you have entered in the offline form is complete or additional information is needed.

Sync Data

Persona: Technician

After the information is ready to be checked-in, and the device is connected to the network, sync the data to APM.

Document Inspection Confidence for Multiple DMs

Persona: Technician

Create an Inspection Confidence Evaluation record to evaluate the Inspection Confidence or Inspection Effectiveness for multiple Damage Mechanisms (DMs) for this Inspection Event. This data will be used in Risk Based Inspection to evaluate the DMs.

Create Performance Recommendation

Persona: Technician

If follow-up action is necessary, then create one or more Recommendations and manage them forward.

Inspection Confidence Evaluation Record to be Linked to RBI Component?

Persona: Technician

Determine whether you want to link the Inspection Confidence Evaluation records to RBI Components.

Link Inspection Confidence Evaluation Record to RBI Component

Persona: Technician

Link the Inspection Confidence Evaluation records to RBI Components.

Send Inspection Report for Review

Persona: Technician

Based on the scope of the Inspection Task, and the information entered in the Inspection Report (including findings, recommendations, and any reference documents), determine if the Inspection Report is ready for review. If yes, send it to a supervisor for review.

Review Inspection Report

Persona: Supervisor

Review the information in the report, including the findings and recommendations.

Approve Inspection?

Persona: Supervisor

Determine if the Inspection Report is complete based on the scope defined in the Inspection Task. If the Inspection Report is incomplete, you can assign the Inspection Task again to the Technician to update the Inspection Report.

Update Inspection Report

Persona: Technician

Inspect the asset again, and update the Inspection Report based on the review comments.

Approved Inspection Report

Persona: Supervisor

After you approve the Inspection Report, the associated Inspection Tasks are updated with the new inspection dates based on the desired interval defined in the Asset Strategy.

Inspection History

Persona: Technician

The Inspection Report is included in the overall Inspection History for the asset. Inspection History is used to re-evaluate asset strategies to validate or improve the planned work, procedures and policies. The Inspection History is also available for follow-up analysis, using the Core Analysis Workflow.

Recommendation Needed?

Persona: Analyst

Determine if a follow-up action is necessary as a result of the overall inspection of the asset. This process is followed in the Recommendation Management work process.

Review Recommendations

Persona: Supervisor

Recommendations created from inspection activities are reviewed while reviewing the Inspection Report. These recommendations, are, however, reviewed again by the asset owner before they are implemented. This process is followed in the Recommendation Management work process.

Approve Recommendations

Persona: Approver

The reviewed recommendations are approved for implementation.

Implement Recommendations

Persona: Technician

The approved recommendations are implemented.

Core Analysis

Persona: Technician

For follow-up analysis, use Core Analysis.

Go to the [Core Analysis: Asset Event Analysis workflow](#).

Go to the [Core Analysis: Graph Analysis workflow](#).

Go to the [Core Analysis: Query Analysis workflow](#).

Go to the [Core Analysis: Report Analysis workflow](#).

Recommendation Management

Persona: Technician

The new recommendation is managed for approval and implementation through the Manage Performance Recommendations workflow.

Go to the Performance Recommendation Workflow.

Chapter

3

Inspections

Topics:

- [About Inspections](#)
- [About Types of Inspections](#)
- [About Inspection Reports](#)
- [About Inspection Checklists](#)
- [About Active and Archived Inspections](#)
- [About Inspection Intervals](#)
- [About Inspection Health Evaluations](#)
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- [Access the Inspection Details Section](#)
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- [Download Bulk Inspection Reports](#)
- [View Download Status](#)
- [Download the Generated Inspection Reports](#)

About Inspections

Inspections are a way to document, manage, and analyze data associated with the inspections of equipment and locations in your facility.

About Types of Inspections

You will record the results of each inspection in an Inspection and its linked successors. The baseline APM database contains Inspection families that you can use for recording the results of each type of inspection.

Details

Using Inspection Management, you can record inspection results for the following types of inspections:

- Shell and tube heat exchanger inspections.
- General routine inspections performed against any piece of equipment or location for compliance purposes.
- General routine inspections performed against any piece of equipment or location by operators versus inspectors (does not necessarily meet compliance standards).
- Hydrostatic tests (i.e., the process of filling a pressure vessel with liquid, such as water, and increasing the internal pressure to test for leaks).
- External and internal pressure vessel inspections (following API 510 standards).
- Internal exchanger inspections (following API 510 standards).
- External piping inspections (following API 570 standards).
- External and internal tank inspections (following API 653 standards).
- External visual inspections of pressure relief devices (PRDs).
- External functional inspections of PRDs (following API 576 standards).

Baseline Inspection Families

The following table lists the baseline Inspection families and the type of inspection to which each corresponds.

Family	Inspection Type
Bundle Inspection Bundle Sub-Inspection	Shell and tube heat exchanger inspections.
Full Inspection	General routine inspections performed against any piece of equipment or location for compliance purposes.
General Inspection	General routine inspections performed against any piece of equipment or location by operators versus inspectors (does not necessarily meet compliance standards).
Pressure Test Inspection Pressure Test Sub Inspection Report	Hydrostatic tests.

Family	Inspection Type
API 510 External Checklist API 510 Internal Exchanger Checklist API 510 Internal Checklist	External and internal pressure vessel inspections and internal exchanger inspections (following API 510 standards).
API 570 External Checklist	External piping inspections (following API 570 standards).
API 653 External Checklist API 653 Internal Checklist	External and internal tank inspections (following API 653 standards).
External PRD Checklist	External visual inspections of PRDs.
PRD Pop Test Checklist	External functional inspections of PRDs (following API 576 standards).

About Inspection Reports

The baseline Inspection Management module includes reports that can be used to view information about an inspection. When you view an Inspection report, you are viewing a main report and various subreports that exist in the Catalog. These reports are based on supporting queries that gather information from the Inspection record and records to which it is linked.

The following table lists the main reports that correspond with each Inspection subfamily, the query and subreports that are associated with each main report, and the sections that are included in each main report. Note that the subreports are not meant to be run independently of the associated main report.

Inspection Subfamily	Query Behind Main Report	Main Report(s)	Contributing Reports	Sections Included in Main Report
Bundle Inspection	MI INSPBUND	Bundle Inspection Report	<ul style="list-style-type: none"> Asset Corrosion Analysis Report Finding Report Inspection Recommendation Report Inspection Team Member Report Reference Document Report 	<ul style="list-style-type: none"> Bundle Inspection Asset Corrosion Analysis Findings Pressure Test Sub Inspections Recommendations Inspection Team Members Reference Documents
Checklists	Checklist Report Query	Checklist Inspection Report	<ul style="list-style-type: none"> Asset Corrosion Analysis Report Bundle Sub Inspection Report Checklist Finding Report Finding Report Inspection Recommendation Report Inspection Team Member Report Pressure Test Sub Inspection Report Reference Document Report 	<ul style="list-style-type: none"> Asset Corrosion Analysis Bundle Sub-Inspection Checklist Findings Findings Recommendations Inspection Team Members Pressure Test Sub Inspections Reference Documents
Checklists	Checklist Report Query	Blank Checklist Inspection Report	Checklist Finding Report	Checklist Findings
Full Inspection	MI INSPFULL	Full Inspection Report	<ul style="list-style-type: none"> Asset Corrosion Analysis Report Bundle Sub Inspection Report Finding Report Inspection Recommendation Report Inspection Team Member Report Pressure Test Sub Inspection Report Reference Document Report 	<ul style="list-style-type: none"> Full Inspection Asset Corrosion Analysis Findings Recommendations Pressure Test Sub Inspections Bundle Sub-Inspections Inspection Team Members Reference Documents Reference Images

Inspection Subfamily	Query Behind Main Report	Main Report(s)	Contributing Reports	Sections Included in Main Report
General Inspection	MI INSP GEN	General Inspection Report	<ul style="list-style-type: none"> Asset Corrosion Analysis Report Finding Report Inspection Recommendation Report Pressure Test Sub Inspection Report Inspection Team Member Report Reference Document Report 	<ul style="list-style-type: none"> General Inspection Asset Corrosion Analysis Findings Recommendations Pressure Test Sub Inspections Bundle Sub-Inspections Inspection Team Members Reference Documents Reference Images
Pressure Test Inspection	MI INSPPTST	Pressure Test Inspection Report	<ul style="list-style-type: none"> Asset Corrosion Analysis Report Finding Report Inspection Recommendation Report Inspection Team Member Report Reference Document Report 	<ul style="list-style-type: none"> Pressure Test Inspection Asset Corrosion Analysis Findings Recommendations Inspection Team Members Reference Documents

Interpreting Inspection Reports

In the baseline database, one report is provided for each of the following Inspection families:

- Checklists
- Bundle Inspection
- Full Inspection
- General Inspection
- Pressure Test Inspection

Note: The Checklist Inspection report is configured for each Checklists subfamily (for example, API 510 External Checklist).

While each family has its own report, many of the sections in the reports are common to all of the reports. This section of the documentation describes the sections that are included in the baseline reports and indicates whether or not the section is common to all reports.

Asset Corrosion Analysis

The **Asset Corrosion Analysis** section appears when an Asset Corrosion Analysis in Thickness Monitoring is linked to the inspection for which you are generating a report. This section displays information that is stored in the Asset Corrosion Analysis. An example of the Asset Corrosion Analysis section is shown in the following image.

Asset Corrosion Analysis

Controlling Corrosion Rate	Controlling Remaining Life	Controlling Next Inspection Date	Controlling Retire Date
0.01	-6.60	1/2/2000	12/25/2005

The following table lists the items that are included in the **Asset Corrosion Analysis** section and their corresponding fields. Note that the table displays field captions, which may differ from datasheet captions.

Report item	Asset Corrosion Analysis field
Controlling Corrosion Rate	Controlling Corrosion Rate
Controlling Next Inspection Date	Controlling Next Inspection Date
Controlling Remaining Life	Controlling Remaining Life
Controlling Retire Date	Controlling Retire Date

Bundle Inspection

The **Bundle Inspection** section appears only if you are viewing a report for a Bundle Inspection record. This section displays information that is stored in the Bundle Inspection record. An example of the Bundle Inspection section is shown in the following image.

Bundle Inspection

Inspection Reference INSP-20076
Functional Location ID MRD-ROA-REFN-RF097-E0012A-097
Asset ID 00000000001056820
Inspection Start Date 07/01/1993
Inspection Finish Date 03/31/2015
Inspection Headline Pulled and Cleaned - Loss of Efficiency
Reason For Inspection OPERATING PERFORMANCE
Type of Inspection EXCHANGER BUNDLE/TUBE INSPECTION

Signatures

Inspection Report Owner Inspector, _____ **Reviewer Name** InspectionSupervisor, _____
Inspection Summary One tube failed - plugged during this outage
Reviewer Comments Fit for Continued Service - Less than 25% Loss of Efficiency

Bundle Inspection Details

Total Number of Tubes in Bundle 280
Tubes Plugged at Inspection Start 12
Tubes (Previously Plugged) Replaced 0
Tubes Replaced Not Previously Plugged 0
Total Number of Tubes Replaced 0
Tubes Plugged at Inspection End 13
Percentage Heat Transfer Area Loss 4.64
Bundle Inspection Summary One tube failed - plugged during this outage

The following table lists the items that are included in the **Bundle Inspection** section and their corresponding Bundle Inspection fields. Note that the table displays field captions, which may differ from datasheet captions.

Report item	Bundle Inspection field
Asset ID	Asset ID
Bundle Inspection Summary	Inspection Summary
Functional Location ID	Functional Location ID
Inspection Finish Date)	Completion Date
Inspection Headline	Inspection Headline
Inspection Reference	Inspection Reference
Inspection Start Date	Commencement Date
Inspection Summary	Inspection Summary
Inspection Report Owner	Inspection Report Owner

Report item	Bundle Inspection field
Percentage Heat Transfer Area Loss	Percentage Heat Transfer Area Loss
Reason for Inspection	Reason for Inspection
Reviewer Comments	Reviewers Comments
Reviewer Name	Reviewers Name
Total Number of Tubes in Bundle	Total Number of Tubes in Bundle
Total Number of Tubes Replaced	Total Number of Tubes Replaced at Inspection End
Tubes (Previously Plugged) Replaced	Tubes (Plugged At Start) Replaced
Tubes Plugged at Inspection End	Total Number of Tubes Plugged at Inspection End
Tubes Plugged at Inspection Start	Tubes Plugged at Inspection Start
Tubes Replaced Not Previously Plugged	Tubes (Not Previously Plugged) Replaced
Type of Inspection	Type of Inspection

Bundle Sub Inspection

The **Bundle Sub Inspections** section appears if you are viewing a report for one of the following records:

- Checklists (unless you are viewing a blank Checklist Inspection report)
- Full Inspection

This section displays information that is stored in the Bundle Sub-Inspection records that are linked to the Full Inspection or Checklists record. An example of the Bundle Sub-Inspections section is shown in the following image.

Bundle Sub Inspections	
Bundle Tag	Tag-1234
Total Number of Tubes in Bundle	150
Tubes Plugged at Inspection Start	6
Tubes (Previously Plugged) Replaced	6
Tubes Replaced Not Previously Plugged	144
Total Number of Tubes Replaced	150
Tubes Plugged At Inspection End	6
Percentage Heat Transfer Area Loss	4.00

Report item	Bundle Sub-inspection field
Bundle Inspection Summary	Inspection Summary
Bundle Tag	Asset ID
Percentage Heat Transfer Area Loss	Percentage Heat Transfer Area Loss
Total Number of Tubes in Bundle	Total Number of Tubes in Bundle
Total Number of Tubes Replaced	Total Number of Tubes Plugged at Inspection End
Tubes (Previously Plugged) Replaced	Tubes (Plugged At Start) Replaced
Tubes Plugged at Inspection End	Total Number of Tubes Plugged at Inspection End

Report item	Bundle Sub-inspection field
Tubes Plugged at Inspection Start	Tubes Plugged at Inspection Start
Tubes Replaced Not Previously Plugged	Tubes (Not Previously Plugged) Replaced

Checklist Findings

The **Checklist Findings** section appears only if you are viewing a Checklist Inspection report. The items that appear in this section depend upon the finding sections that are associated with the Inspection family for which you ran the report and will vary based on what type of Checklist Inspection report you are viewing. If you are viewing a Checklist Inspection report that is:

- Associated with a particular Inspection record, this section displays values that are stored in the Checklist Finding records that are linked to the Inspection record.
- A blank Checklist Inspection report, the finding sections associated with the Inspection family for which you ran the report will appear, but the cells in the **Value** and **Finding Summary** columns will be empty.

The following image shows an example of the **Checklist Findings** section that is displayed when you run a Checklist Inspection Report for a particular Inspection record.

Checklist Findings			
Category	Name	Value	Finding Summary
General	Corrosion		
	Distortion		
	Weld Defect		
	Other		
	Insulation		
	Leaks		
	Vibration		
	Ladder/Stairway		
	Platform		
	Guy Wires		
	Electrical Ground		
	Coating/Painting		
	Exp Joint or Bellows		
	Gauge/Sight Glass		
Connections	Other		
	Small Branches		
	Nozzles		
	Manways		
Connections	Reinforcing Pads		
	Bolting		
	Flanges		
	Leak Clamps		
Supports	Other		
	Foundation		
	Anchor Bolts		
	Saddle/Skirt		
	Davit		
	Fireproofing		
Relief Devices	Other		
	Leaks		
	Restricted Inlet/Outlet		

Findings

The **Findings** section appears in all reports except blank Checklist Inspection reports and displays information that is stored in the General Finding records that are linked to the Inspection record. An example of the **Findings** section is shown in the following image.

Findings	
Profile Item	APPURTANCES
Type	OBSERVATION
Predictable	N
Predicted	N
Action Taken Code	NONE

Report item	General Finding field
Action Taken Code	Action Taken Code
Action Taken Description	Action Taken Description
Deterioration Mechanism	Deterioration Mechanism
Deterioration Mode	Deterioration Mode
Headline	Headline
Location Details	Location Details
Predictable	Predictable
Predicted	Predicted
Profile Item	Inspection Profile Item
Summary	Finding Summary
Type	Type

Full Inspection

The **Full Inspection** section appears only if you are viewing a report for a Full Inspection record. This section displays information that is stored in the Full Inspection record. An example of a Full Inspection section is shown in the following image.

Full Inspection

Inspection Reference	INSP-30122
Functional Location ID	MRD-ROA-REFN-RF097-F0065-097
Asset ID	000000000001057047
Inspection Start Date	05/15/2017
Inspection Finish Date	05/15/2017

Signatures

Inspection Report Owner	_____ Smith, Jane	Reviewer Name	_____
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The following table lists the items that are included in the Full Inspection section and their corresponding **Full Inspection** fields. Note that the table displays field captions, which may differ from datasheet captions.

Report item	Full Inspection field
Asset ID	Asset ID
Functional Location ID	Functional Location ID
Inspection Finish Date	Completion Date
Inspection Headline	Inspection Headline
Inspection Reference	Inspection Reference
Inspection Start Date	Commencement Date
Inspection Summary	Inspection Summary
Inspection Report Owner	Inspection Report Owner
Reason for Inspection	Reason of Inspection
Reviewer Comments	Reviewers Comments
Reviewer Name	Reviewers Name
Type of Inspection	Type of Inspection

Report item	Reference Document Field
ID	ID
Description	Description

General Inspection

The **General Inspection** section appears only if you are viewing a report for a General Inspection record. This section displays information that is stored in the General Inspection record. An example of a **General Inspection** section is shown in the following image.

General Inspection	
Inspection Reference	INSP-32
Functional Location ID	MRD-ROA-REFN-RF097-E0006A-097
Asset ID	000000000001056802
Inspection Start Date	07/25/2012
Inspection Finish Date	07/25/2012
Inspection Headline	Int VI
Reason For Inspection	REQUEST
Type of Inspection	INTERNAL VISUAL
Signatures	
Inspection Report Owner	Integrity, Mechanical
Inspection Summary	Bundle removed int visual performed
	Reviewer Name

The following table lists the items that are included in the **General Inspection** section and their corresponding General Inspection fields. Note that the table displays field captions, which may differ from datasheet captions.

Report item	General Inspection field
Asset ID	Asset ID
Functional Location ID	Functional Location ID
Inspection Finish Date	Completion Date
Inspection Headline	Inspection Headline
Inspection Reference	Inspection Reference
Inspection Start Date	Commencement Date
Inspection Summary	Inspection Summary
Inspection Report Owner	Inspection Report Owner
Reason for Inspection	Reason of Inspection
Reviewer Comments	Reviewers Comments
Reviewer Name	Reviewers Name
Type of Inspection	Type of Inspection

Report item	Reference Document Field
ID	ID
Description	Description

Inspection Team Members

The **Inspection Team Members** section appears in all reports except blank Checklist Inspection reports and displays information that is stored in the Inspection Team Member records that are linked to the Inspection record. An example of the Inspection Team Members section is shown in the following image.

Inspection Team Members			
Full Name	Applicable Certification	Certification ID	Expiration Date
Burgundy, Don			
Demo, Joe			
Inspector,			
Integrity, Mechanical			

Pressure Test Inspection

The **Pressure Test Inspection** section appears only if you are viewing a report for a Pressure Test Inspection record. This section displays information that is stored in the Pressure Test Inspection record. An example of the **Pressure Test Inspection** section is shown in the following image.

Pressure Test Inspection

Inspection Reference INSP-30126
Functional Location ID MRD-ROA-REFN-RF002-D0040-002
Asset ID 000000000001000071
Inspection Start Date 05/15/2017
Inspection Finish Date 05/15/2017

Signatures

Inspection Report Owner

Reviewer Name

The following table lists the items that are included in the **Pressure Test Inspection** section and their corresponding Pressure Test Inspection fields. Note that the table displays field captions, which may differ from datasheet captions.

Report item	Pressure Test Inspection field
# of Gauges Used	No. of Gauges Used (Shell)
# of Gauges Used	No. of Gauges Used (Tube)
Asset ID	Asset ID
Functional Location ID	Functional Location ID
Inspection Finish Date	Completion Date
Inspection Headline	Inspection Headline
Inspection Reference	Inspection Reference
Inspection Start Date	Commencement Date
Inspection Summary	Inspection Summary
Inspection Report Owner	Inspection Report Owner
Reason for Inspection	Reason for Inspection
Reviewer Comments	Reviewers Comments
Reviewer Name	Reviewers Name
SRV Set Pressure	SRV Set Pressure (Shell)
SRV Set Pressure	SRV Set Pressure (Tube)
Test Comments	Test Comments (Shell)
Test Comments	Test Comments (Tube)
Test Duration	Test Duration (Shell)
Test Duration	Test Duration (Tube)
Test Media	Test Media (Shell)
Test Media	Test Media (Tube)

Report item	Pressure Test Inspection field
Test Media Temp.	Test Media Temperature (Shell)
Test Media Temp.	Test Media Temperature (Tube)
Test Pressure	Test Pressure (Shell)
Test Pressure	Test Pressure (Tube)
Type of Inspection	Type of Inspection
Witnessed By	Witnessed By (Shell)
Witnessed By	Witnessed By (Tube)

Pressure Test Sub Inspections Section

The **Pressure Test Sub Inspections** section appears if you are viewing a report for one of the following records:

- Bundle Inspection
- Checklists (except blank Checklist Inspection reports)
- Full Inspection
- General Inspection

This section displays information that is stored in the Pressure Test Sub-Inspection records that are linked to the Inspection record. An example of the **Pressure Test Sub Inspections** section is shown in the following image.

Pressure Test Sub Inspections		
	Shell Side	Tube Side
Test Media	STEAM	CONDENSATE
Test Pressure	5 psi	3 psi
Test Duration	4	4
Test Media Temp.	214	188
# of Gauges Used	3	5
Witnessed By	Template, User	Burgandy, Ron
SRV Set Pressure	7	7
Test Comments	Steam shell inspection	Condensate tube inspection

The following table lists the items that are included in the **Pressure Test Sub Inspections** section and their corresponding Pressure Test Sub-Inspection fields. Note that the table displays field captions, which may differ from datasheet captions.

Report item	Pressure Test Sub-Inspection field
# of Gauges Used	No. of Gauges Used (Shell)
# of Gauges Used	No. of Gauges Used (Tube)
SRV Set Pressure	SRV Set Pressure (Shell)
SRV Set Pressure	SRV Set Pressure (Tube)
Test Comments	Test Comments (Shell)
Test Comments	Test Comments (Tube)
Test Duration	Test Duration (Shell)

Report item	Pressure Test Sub-Inspection field
Test Duration	Test Duration (Tube)
Test Media	Test Media (Shell)
Test Media	Test Media (Tube)
Test Media Temp.	Test Media Temperature (Shell)
Test Media Temp.	Test Media Temperature (Tube)
Test Pressure	Test Pressure (Shell)
Test Pressure	Test Pressure (Tube)
Witnessed By	Witnessed By (Shell)
Witnessed By	Witnessed By (Tube)

Recommendations

The **Recommendations** section is included in all reports except blank Checklist Inspection reports and displays information that is stored in the Inspection Recommendation records that are linked to the Inspection record. An example of the **Recommendations** section is shown in the following image.

Recommendations	
Recommendation ID	REC-462
Headline	Repair Leaking Sight Glass
Description	Repair Leaking Sight Glass
Basis	API 510
Target Completion Date	12/1/2005
AuthorName	Demo, Joe Demo

The following table lists the items that are included in the **Recommendations** section and their corresponding Inspection Recommendation fields. Note that the table displays field captions, which may differ from datasheet captions.

Report item	Inspection Recommendation field
Author Name	Author Name
Basis	Recommendation Basis
Description	Recommendation Description
Headline	Recommendation Headline
Profile Item	Inspection Profile Item
Recommendation ID	Inspection Recommendation ID
Target Completion Date	Target Completion Date

Reference Documents

The **Reference Documents** section is included in all reports except blank Checklist Inspection reports and displays information that is stored in the Reference Document records that are linked to the Inspection record. An example of the **Reference Documents** section is shown in the following image.

Reference Documents

Reference Document ID	Description	Document Path
Inspection Guide.pdf	Inspection Guide for Water Heater Inspection	C:\Documents and Settings\mdavis\Desktop\Inspe

The following table lists the items that are included in the **Reference Documents** section and their corresponding Reference Document fields. Note that the table displays field captions, which may differ from datasheet captions.

Report item	Reference Document field
Description	Description
Document Path	Document Path
Reference Document ID	ID

About Inspection Checklists

The Inspection Finding Checklist represents subcomponents belonging to the item that you are inspecting. Since the subcomponents that you will need to inspect will differ based upon the type of inspection that you are performing, the items that appear in the Inspection Finding Checklist will differ based upon the Inspection subfamily.

Checklist Details

The baseline Inspection families are:

- Checklist Inspection Template
- External Checklist
- Internal Checklist
- Internal Exchanger Checklist
- PRD Pop Test Checklist

Each of these families is hard-coded to use a particular [System Code Table](#) to create the finding sections and rows that appear in the grid on the **Inspection Findings Checklist** page. The sections and rows on the **Inspection Findings Checklist** page are built from System Code Tables and referenced System Codes.

Note: The Checklist Inspection Template family is not hard-coded to include specific Checklist Findings. The Checklist Findings are defined by the checklist categories and items for the Checklist Configuration Template.

Tip: If you create custom Checklists subfamilies, you must add the Checklist System Code Table ID field (i.e., a field in the Checklists family) to the custom family.

Example: API 653 External Checklist Findings

The baseline APM database contains the following System Code Table:

- **ID:** MI API 653 EXTERNAL CHECKLIST FINDING SECTIONS
- **Description:** API 653 External Checklist Finding Section

This System Code Table contains the following System Codes:

- General
- Connections

- Supports

Each of the System Codes that belong to this System Code Table contain referenced System Codes. For example, the System Code Supports contains the following referenced System Codes:

- Anchor Bolts
- Dike/Retaining Wall
- Foundation
- Other

Together, the System Code Tables, System Codes, and referenced System Codes determine which sections and rows you will see on the Inspection Finding Checklist page. Using this example:

- Each System Code belonging to the System Code Table MI API 653 EXTERNAL CHECKLIST FINDING SECTIONS becomes a finding section.
- In each finding section, each referenced System Code becomes a separate row.

Each field within the checklist can be modified by the user to best fit the work process.

About Active and Archived Inspections

Inspections that are still in the process of being completed or reviewed are referred to as Active Inspections.

Archived Inspections are Inspections that have been reviewed, locked, and archived.

Locking the Inspection record ensures that the information that you supplied will not be deleted or modified. After you lock an Inspection record, you cannot unlock it. You can lock Inspection records defined for any of the [following families](#) by accessing Record Manager.

- Bundle Inspection
- Full Inspection
- General Inspection
- Pressure Test Sub-Inspection

About Inspection Intervals

An inspection interval identifies the length of time between Equipment inspections. Various factors will impact the inspection intervals that you will define at various levels in your [location hierarchy](#).

About Inspection Intervals

When populating the value in the Desired Interval field in Inspection Tasks, the APM System uses the value stored in the Time-Based Inspection Interval Settings that you defined.

Example: Inspection Intervals

For example, jurisdictional regulations might dictate that a particular inspection must be conducted every two months. However, your organizational policy might dictate that this particular inspection be conducted every 30 days. In this case, you would define an inspection interval of 30 days.

About Inspection Health Evaluations

Inspection Health Evaluations allow you to assign Health Assessment values to Inspections and Inspection Checklist Categories. When the Health Evaluations admin setting is enabled for an Inspection Event Family, the Health Evaluation icon is available for new inspections created in the same Inspection Event Family.

Note: When updating a Health Assessment for a Checklist Category, the Health Assessment of the root Inspection is updated to the worst-case indicator level of the Checklist Categories that are associated with it.

About Image Gallery

You can access the images stored within reference documents of a record in the image gallery. The gallery is provided in the inspection, its related records, and checklist categories. The image gallery displays images that have either been directly stored as reference documents within APM or provided as a reference document with an external network path.

The **Description** text box contains the value entered in the Description field of the currently selected reference document. This text box is disabled.

If the currently selected reference document is related to either a General Finding or a Checklist Finding record, the **Finding Summary** text box contains the value entered in the Finding Summary field of the finding record. This text box is disabled.

Note: For reference documents with external network paths, the image path must end in a valid image extension. Also, valid credentials must be stored in the **Reference Document Server Credentials** admin page.

Access the Inspection Details Section

Procedure

1. Access the [Inspection Management Overview](#) page for the equipment whose inspection data you want to access.
2. Select the **Inspections** tab.
3. In the row containing the Inspection whose data you want to access, select the link. The **INSPECTION OVERVIEW** subsection for the selected Inspection appears, under the **Details** section.


Note: The Inspection record and all related Inspection Confidence Evaluations, Team Members, sub-inspection records, and recommendations are read-only when an inspection is downloaded for Integrity Mobile.


Access Inspection Checklist

Procedure

1. Access the [Inspection Details](#) section.
2. Expand the inspection type containing the checklist Inspection that you want to view.

A list of checklist inspections appears under the selected inspection type.

3. Next to the checklist title, select  to view the checklist.
The selected checklist appears in the workspace.

Note: As needed, you can modify the values in the [available fields](#), and then select  to save your changes.

Results

- You can now make adjustments to the **Inspection Data** section by accessing the Record Manager.


Create an Inspection

Before You Begin

If the asset that you are using does not have any existing inspections, you must access it through the Asset Hierarchy.

Note: The following steps apply to both creating an inspection and creating a checklist inspection.


Procedure

1. Access the [Inspection Management Overview](#) page for the asset for which you want to create an Inspection.
2. Select , and then select **Create Inspection**.
The **Create Inspection** window appears.

Note:

- Inspection Events are displayed according to the Taxonomy Configurations that have been defined for Checklist Configuration Templates and Inspection Families. If no Taxonomy Configurations have been defined or the selected asset's equipment taxonomy does not match any defined Taxonomy Configurations, a full list of Inspection Families and Checklist Configuration Templates appears.
 - If a Checklist Configuration Template with the **Enable Asset Mapping** option is selected in the **Inspection Event** box, an **Asset Mapping** section appears in the **Create Inspection** window. The **Asset Mapping** section allows you to map the existing assets to the Checklist Categories of the selected Checklist Configuration Template.
 - If the **Health Evaluation** option is enabled for the selected inspection family, Inspection Health Evaluation records will be created and are associated to the newly created inspection.
3. In the **Inspection Event** box, select the type of checklist to attribute to the new inspection.
 4. In the **Inspection Tasks** box, select any tasks that you want to add to the new inspection. This picklist will not display tasks with state Completed or Rejected.
 5. Select **Create**.
A new Inspection is created for the selected asset.

Results

- Inspection findings will be generated based on your Inspection Scope and your Inspection Profile settings.
- The new inspection is saved. You can modify the inspection by accessing the datasheet, and then selecting  to save your changes.
- Full Inspection Event Family findings will be generated automatically.


- Checklist Inspections will never be generated automatically.
- Other Event Families will require event configurations.
- If you selected an Inspection Event that represents a Checklist Configuration Template, the Inspection Event from the family defined for the Checklist Configuration Template is generated, and all Checklist Findings defined by the Checklist Configuration Template are created.
- You can now access offline inspections.
- If there is an archived Asset Corrosion Analysis associated with the asset, the most recent one will be linked to the Inspection.

Next Steps

- [Add an inspection profile](#)

Assign Inspections to a User

Procedure

1. Access the [Inspection Details](#) section for the Inspection record that you want to assign to a user.
2. In the **Inspection Report Owner** box, select the name of the user to whom you want to assign the selected inspection.
3. Select .

The Inspection is assigned to the selected user.

Delete an Inspection

Before You Begin


- If the Inspection that you want to delete is associated with any of the following records, [unlink](#) or [delete](#) the record:
 - Asset Corrosion Analysis
 - Bundle Sub-Inspection
 - General Finding
 - Inspection Recommendations
 - Inspection Task
 - Inspection Team Member
 - Pressure Test Sub-Inspection
 - Reference Document

About This Task

Note: You cannot delete [locked Inspections](#).

Procedure



1. Access the [Inspection Management Overview](#) page for the equipment that is linked to the Inspection you want to delete.
2. Select the **Inspections** tab.
The **Inspections** section appears.

3. Select the row containing the Inspection that you want to delete, and then select . A message appears, asking you to confirm that you want to delete the Inspection.
4. Select **Yes**.
The Inspection is deleted.

Note: If you are deleting an inspection that has Inspection Health Evaluation records, the associated records are also deleted. If any of the Inspection Health Evaluations have the Inspection Recommendations directly linked, those recommendations are also deleted.

Bulk Review Inspections

Procedure

1. Access the [Inspection Management Overview](#) page.
2. In the page, select , and then select **Bulk Review Inspections**.
The **Bulk Review Inspections** page appears, displaying a list of inspections for the underlying assets that are in the Draft, Pending Approval, or Rework states.
3. Select the check boxes next to the **Inspection ID** for which you want to change the state.
4. In the **Bulk Review Inspections** page, select .
The state control menu appears.

Note: The state control is enabled only when you select the inspections that are currently in the same state.

5. Select a state that you want to change from the drop-down list, and then select **Done**.
The state of the selected inspections is changed.

Note: If there are any errors that occurred while changing the state of the inspections, the **Bulk Review Inspections** window appears displaying the errors.

Lock an Inspection

About This Task

After you create an [Inspection record](#), you can lock it so that others cannot modify it. Locking the Inspection record ensures that the information that you provided is not deleted or modified.

Important: After an Inspection is locked, only an Inspection Report Owner of that Inspection can unlock it.

Procedure

1. Access the [Inspection Details](#) section for the Inspection record that you want to lock.
2. Select the **Inspection Lock** check box, and then select **Save**.

The Inspection is now locked and cannot be deleted or modified.

Note: You can select the **Inspection Lock** check box only if your name is selected in the Inspection Report Owner field.

3. **Optional:** Select the **Final Inspection Lock** check box, and then select **Save**.
This indicates that the inspection has been properly reviewed.

Results

All fields except for the following become disabled:

- Inspection Document Status
- Inspection Lock
- Reviewers Name
- Reviewers Comments
- Final Inspection Lock
- Published

View Related Record

Procedure

1. Access the **Inspection Details** section for the Inspection record that you want to assign to a user.
2. Expand the inspection type that you want to view for the related records.
The related records are displayed in the result grid.

The records are displayed based on the query created in the following folder by Family ID for the related records:

```
Public\Meridium\Modules\Inspection\Inspection Event Viewer
```

Note: Images column is not part of the query.


The following queries are available for the related records:

Related Family	Query
Asset Corrosion Analysis	Public\Meridium\Modules\Inspection\Inspection Event Viewer\MI Asset Corrosion Analysis
General Finding	Public\Meridium\Modules\Inspection\Inspection Event Viewer\MI_FIND_GEN
Bundle Sub-Inspection	Public\Meridium\Modules\Inspection\Inspection Event Viewer\MI_INSPBSUB
Pressure Test Sub-Inspection	Public\Meridium\Modules\Inspection\Inspection Event Viewer\MI_INSPPSUB


Note: You can add columns in the query to view more columns in the grid. You should not modify the ENTY_ID, ENTY_KEY, or PRED_ENTY_KEY columns.

Add a Related Record

Procedure

1. Access the **Inspection Details** section.
2. Expand the inspection type that you want to create, and then select .

The datasheet window appears for the related record.


3. In the upper-right corner of the workspace, select .
The related record is saved and added to the inspection.

Results

You can modify the inspection by [accessing the datasheet](#), and then selecting  to save your changes.

Link a Related Record to an Inspection

Procedure


1. Access the [Inspection Details](#) section.
2. Expand the inspection type that you want to link.
3. Select , and then select the related record type that you want to link to the Inspection.
The **Link <Type of Related Inspection> to <Asset>** window appears.
4. Search for the related record that you want to link, and then, next to that record, select the radio button.

Note: Only related families that can be linked to the selected Inspection will appear in the list.

5. Select **OK**.
The related record is linked to the selected Inspection.

Access Image Gallery for a Related Record



Procedure



1. Access the [Inspection Details](#) section.
2. Expand the family type of the related record that you want to access.
3. Select  **1 Images** of the related record from the result grid that you want to view.
The images stored within the related record appears.

Note: The hyperlink of the images column indicates the number of images associated with the related record.

Link Reference Document to an Inspection

Procedure

1. Access the [Inspection Details](#) section.
2. Select , and then select **Reference Documents**.
3. As needed, enter values in the available fields. All required information is provided, but for additional information, refer to the [Inspection Records](#) topic.
A list of all the linked reference documents appears in the **Inspection Data** section.
4. Select .
The **Add Reference Document** window appears.


5. In the **ID** box, enter an ID for the reference document.
6. In the **Description** box, enter a description of the reference document.
7. In the **Document Path** box, select  .
The **Edit Document Path** window appears.
8. Do one of the following:
 - If the document that you want to link is in your local drive, then select **Upload a Local File**, and then select the required document or provide a path to it.
Note: If you upload an image file, the images are displayed in the **Reference Images** section of the following event reports:
 - Full Inspection
 - General Inspection
 - API 510 External Checklist
 - API 510 Internal Checklist
 - API 510 Internal Exchanger Checklist
 - API 570 External Checklist
 - API 653 Internal Checklist
 - Checklist Inspection Template
 - External PRD ChecklistIt supports jpeg, .png, .tif, and .bmp image file formats.
 - If the document that you want to link is in an external location, select **Link to an External Network File**, and then provide the link of the file with its extension.
Note: If you link an image from an external location, the images are not displayed in the reports.
9. Select **Save**.
The **Document Path** box is populated with the path to the selected file.
10. Select  .
The new Reference Document record is linked to the inspection and appears in the **Reference Documents** section.

Results

The linked referenced images are displayed in the **Reference Images** section of Full Inspection and Generation Inspection reports.

Access Images for a Reference Document

Procedure

1. Access the [Inspection Details](#) section.
2. Select  **1 Images** from the **Inspection Overview** section.
The images associated with the reference document of the inspection appear in the image gallery.


Note:

- Images shown in the Image Gallery from the Inspection Data section also include images linked to the root inspection from other related records such as General Findings or Checklist Findings.
- Any image created or linked to a Checklist Finding either manually through the datasheet or when syncing data from Integrity Mobile, is also linked to the root inspection. If an image reference

document is manually unlinked from a Checklist Finding, it remains linked to the root inspection. You can manually unlink the image from the Inspection record.

Unlink a Related Record from an Inspection


Procedure

1. Access the [Inspection Details](#) section.
2. Expand the inspection type for the related record.
3. Select related record that you want to unlink, and then select .
A message appears, asking you to confirm that you want to unlink the related record.
4. Select **Yes**.

The related record is unlinked from the selected Inspection.

Delete a Related Record

Procedure


1. Access the [Inspection Details](#) section.
2. Expand the inspection type for the related record.
3. Select the related record that you want to delete, and then select .
A message appears, asking you to confirm that you want to delete the related record and all of its links to other records.
4. Select **Yes**.

The related record has been deleted from the selected Inspection.

5. Select **Yes**.


Access Inspection Reports

Procedure

1. Access the [Inspection Data](#) section.
2. In the upper-right corner of the section, select , and then select **Print**.
The **Select a Report to Print** window appears.
3. Select the **Print a report** check box, and then select the [type of inspection](#) report that you want to access.
4. Select **OK**.
The selected Inspection Report appears on a new page.

Access Reference Documents

Procedure

1. Access the [Inspection Details](#) section for the Inspection containing the Reference Documents that you want to view.
2. In the upper-right corner of the section, select , and then select **Reference Documents**.

The Reference Documents for the selected Inspection appear.

Tip: For Checklist Inspections, you must access Reference Documents through the Bulk Data Form.

Tip: For more information, refer to the [Manage Reference Documents](#) section of the Record Manager module for additional options when working with reference documents.

Add Inspection Confidence Evaluations

Procedure

1. Access the [Inspection Details](#) section.
2. Select the **Inspection Confidence Evaluation** tab.
The **Inspection Confidence Evaluation** section appears.
3. As needed, enter values in the available fields. All required information is provided, but for additional information, refer to the [Inspection Records](#) topic.

- a. In the **RBI Component** field, select the RBI Component that you want to add to the Inspection Confidence Evaluation.

Note: Only the RBI Components that are linked to the related Asset are displayed in this field. If the Asset does not have RBI Components, then this list is empty.

The **Filter** check-box is selected and the degradation mechanisms are filtered based on the selected RBI component.

- b. Optionally, clear the **Filter** check box to display all the degradation mechanisms.

Note: Note: This field is disabled if there is no value in **RBI Component** field.

- c. In the **Degradation Mechanism** field, select the degradations mechanism that you want to add to the Inspection Confidence Evaluation.
- d. In the **Type of Inspection** field, select the inspection type that you want to add to the Inspection Confidence Evaluation.
- e. In the **Extent** field, select the extent that you want to add to the Inspection Confidence Evaluation.

4. Select .

A new Inspection Confidence Evaluation is added to the selected inspection, and a new row appears.

Tip: As needed, you can repeat steps 3 and 4 to add additional records to Inspection Confidence Evaluation.

Results

You can now link an Inspection Confidence Evaluation to an RBI Degradation Mechanism Evaluation.

Auto-Generate Inspection Confidence Evaluations Based on RBI Components

Before You Begin

To auto-generate Inspection Confidence Evaluations, the RBI license must be active and you must be an Inspector or a super user.

Procedure

1. Access the [Inspection Details](#) section.
 2. Select **Inspection Confidence Evaluation**.
The **Inspection Confidence Evaluation** section appears.
 3. Select **Auto Generate**.
 - Inspection Confidence Evaluation (ICE) records are automatically generated for Active RBI Components and Potential Degradation Mechanisms (PDM) linked to RBI Components.
Note: If the Asset does not have RBI Components, or if no Potential Degradation Mechanisms are linked to RBI Components, Inspection Confidence Evaluation records are not generated.
 - A message appears, showing the number of Inspection Confidence Evaluation records generated for the Inspection, and the new records are displayed in the list of Inspection Confidence Evaluations.
Note: If an Inspection Confidence Evaluation record exists for the RBI Component and Degradation Mechanism, a duplicate record will not be created. You can, however, create a duplicate record manually using the **Add New Record** option.
- Note:**
- If a new PDM is linked to an RBI Component, auto-generating ICE records will create a new ICE record for the RBI Component and PDM.
 - If a PDM is unlinked from an RBI Component, auto-generating ICE records will not delete any existing generated ICE records. Degradation Mechanism field on the pre-existing ICE record for the RBI Component and PDM will be displayed as blank.

Review Inspection Confidence Evaluation

Before You Begin

- Make sure that the Risk Analyst resource role is assigned to you.
- Make sure that the **Allow Risk Analyst to Review Inspection Confidence Evaluation Records** check box is selected in **Application Configurations** section of the **Inspection Configuration** workspace.

Procedure

1. Access the [Inspection Details](#) section.
2. Select **Inspection Confidence Evaluation**.
The **Inspection Confidence Evaluation** section appears, displaying a list of Inspection Confidence Evaluations that have been added to the Inspection.



3. Verify the Inspection Confidence Evaluation records.
4. Select the button that indicates the current state of the Inspection Confidence Evaluation records. For example, if the current state of the Inspection Confidence Evaluation records is Not Reviewed, then select the **Not Reviewed** button.
A menu appears, displaying a list of available states.
5. Select **Reviewed**.
The Inspection Confidence Evaluation records are locked.

Results

- Any user who does not have the Risk Analyst resource role cannot add, update, or modify the Inspection Confidence Evaluation records.
- Your user name appears above the section to indicate other users about who locked the Inspection Confidence Evaluation records.


Delete Inspection Confidence Evaluations

Procedure

1. Access the [Inspection Details](#) section.
2. Select the **Inspection Confidence Evaluation** tab.
The **Inspection Confidence Evaluation** section appears, displaying a list of Inspection Confidence Evaluations that have been added to the Inspection.
3. Select .
- In the grid, a new column of check boxes appears to the left of the **RBI Component** column.
4. In the row for each Inspection Confidence Evaluation that you want to remove from the selected Inspection, select the check box.
5. Select  , and then select **Delete**.
A message appears, asking you to confirm that you want to delete the selected Inspection Confidence Evaluation records.
6. Select **Yes**.
The selected Inspection Confidence Evaluations records are deleted from the selected Inspection.

Update an Inspection Health Assessment


Procedure

1. Access the [Inspection Details](#) section.
2. To the right of the Inspection ID, select .
- A window appears displaying all the available Health Assessments.
Note: The icon may vary depending on the currently assigned Health Assessment.
3. Select the new Health Assessment value.
The Health Assessment is updated.

Note: The Health Assessment icons appear only if the **Health Evaluation** option was enabled for the current Inspection family, when you created the Inspection.

Update a Checklist Category Health Assessment

Procedure

1. Access the [Inspection Details](#) section.
2. To the right of the Checklist Category name, select .
A window appears displaying all the available Health Assessments.

Note: The icon may vary depending on the currently assigned Health Assessment.

3. Select the new Health Assessment value.
The Health Assessment is updated.

Note: The Health Assessment icons appear only if the **Health Evaluation** option was enabled for the current Inspection family, when you created the Inspection.

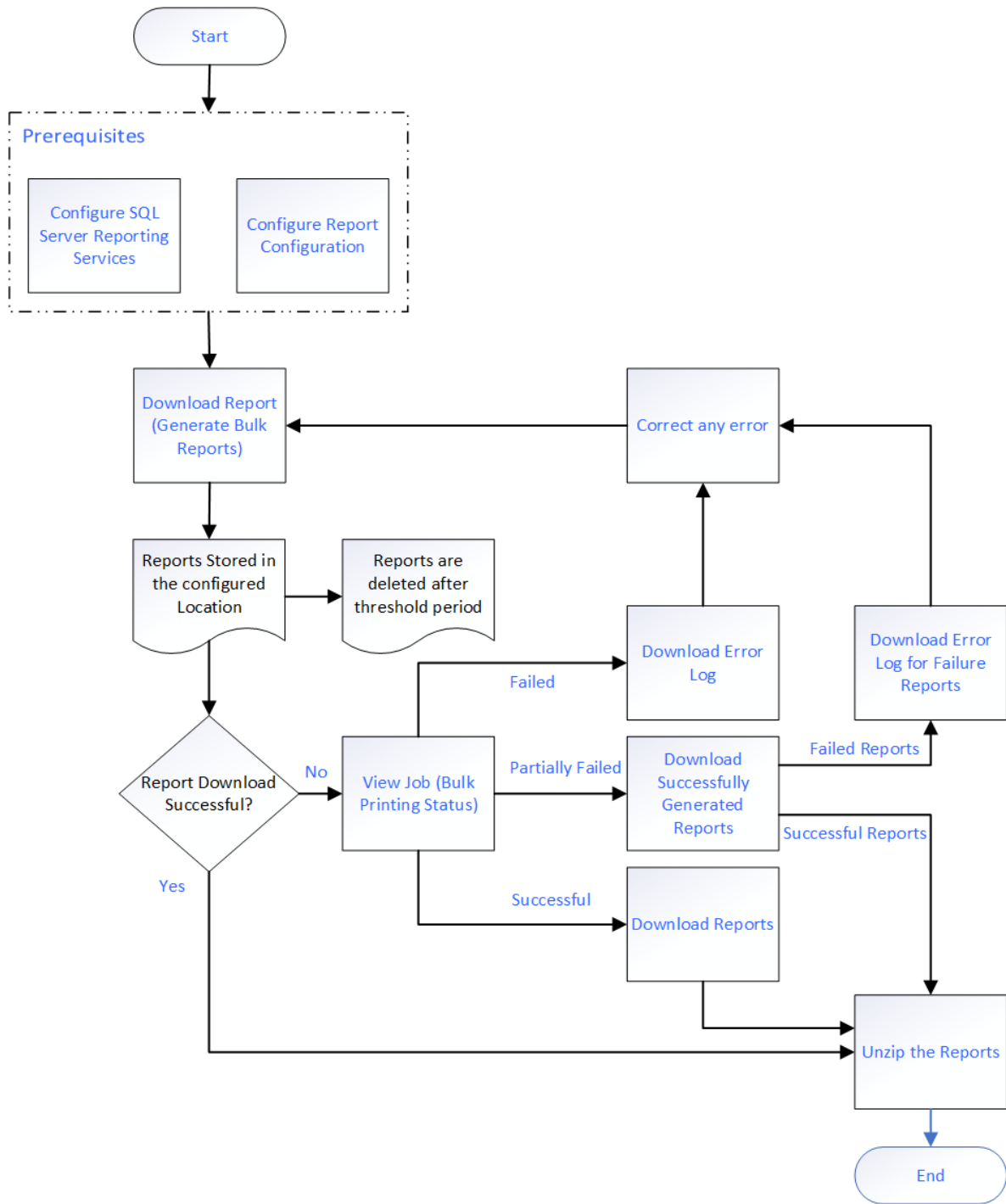
Note: When updating a Health Assessment for a Checklist Category, the Health Assessment of the root Inspection is updated to the worst-case indicator level of the Checklist Categories that are associated with it.

Bulk Printing of Inspection Reports

Using the bulk print functionality, you can generate multiple Inspection Reports at a time. The generated reports are stored in a location configured in SQL Server Reporting Services (SSRS). After you successfully generate the reports, you can download the reports as a .zip file.

Note: If you have a pop-up blocker enabled on your browser, disable it to download the report.

The bulk printing process consists of the following steps:



Print Bulk Inspection Reports

Before You Begin

- Make sure that following fields are configured in SQL Server Reporting Services:
 - Bulk Report Storage Path

- Bulk Report Storage User Name
- Bulk Report Storage User Password
- Bulk Report Storage Threshold (Days)
- Make sure that a default report is configured in the **Family Reports** section of the family associated to the Inspection.
- Make sure that the families of the selected Inspections contain only SSRS reports with a single parameter.


Procedure

1. Access the **Inspection Management Overview** page for the Functional Location that is linked to the Inspections for which you want to generate the reports.
2. Select the **Underlying Open Inspections** tab.

The **Underlying Open Inspections** section appears, displaying a list of open inspections for the selected asset.

Note: You can also access the **Inspection Management Overview** for the asset that is linked to the Inspections for which you want to generate the reports. In this case, you must select the **Inspections** tab to see the list of inspections.

3. Next to the Inspection IDs of the inspection for which you want to print the reports, select the check boxes.

The  icon is enabled.

Inspection Management Overview + ⋮

Asset: Home

47
Inspection Assets

37
Underlying Open Inspec...

39
Underlying Inspection Ta...


7
Underlying Recommend...

1
Work Packs

Underlying Open Inspections | My Open Inspections | All Inspections for this Location

	INSPECTION ID	INSPECTION FAMILY	ASSET ID
<input checked="" type="checkbox"/>	INSP-30241	Full Inspection	E0011A-097 - 000000000001056808 ~ EXCHANGER - MAIN COLUMN OVERH
<input checked="" type="checkbox"/>	INSP-30144	API 510 External Checklist	000000000001057047
<input checked="" type="checkbox"/>	INSP-30110	Full Inspection	000000000001057047
<input checked="" type="checkbox"/>	INSP-30105	API 510 Internal Checklist	000000000001057047
<input checked="" type="checkbox"/>	INSP-30100	API 510 External Checklist	000000000001000071
<input type="checkbox"/>	INSP-30101	Full Inspection	000000000001032830
<input type="checkbox"/>	INSP-30093	API 510 External Checklist	000000000001032830
<input type="checkbox"/>	INSP-30089	Full Inspection	000000000001032830
<input type="checkbox"/>	INSP-30081	Full Inspection	000000000001034605

Rows per page: 50 200 500 1 - 37 of 37 Results ← →

4. Select .
- A message appears, asking you to confirm that you want to print the inspection reports.
5. Select **Yes**.

The report generation process starts, and the **Downloads** page appears. After the reports are generated, they are stored in the location defined in the Bulk Report Storage Path field of the SQL Server Reporting Services.

Type	Description	Started	Percent Complete
SSRSBulkReportJob	Inspection Bulk Report requested by Administrator, Meridium ~ MIADMIN	11/6/2019 1:08:55 PM	20 %

Note: The generated reports are available for download only for the threshold period specified in SQL Server Reporting Services.

Important: The print job may fail in any of the following scenarios:

- The bulk report storage parameters in the SQL Server Reporting Services are not configured correctly.
- The family associated with the inspection is not configured with a default report.
- No reports are defined for the family.
- The families of the Inspection records contain SSRS reports with multiple parameter.

Note: The `%TimeOut;` within the SSRS section in `appsettings.json` is configurable. The default TimeOut is set to 60 minutes.

Next Steps

- [View Bulk Printing Status](#) on page 48
- [Download Bulk Inspection Reports](#) on page 50


View Bulk Printing Status

About This Task

You can view the status of the print jobs that you have generated. The generated reports are placed in the following three sections based on their status:

- **In progress:** Contains the print jobs that are currently in progress.
- **Successful:** Contains the print jobs that are successfully completed. You can download the reports and the log files from this section.
- **Failed:** Contains the print jobs that failed. The print job fails if any of the selected Inspection Report generation fails. From this section, you can download the error log and the Inspection Reports that are successfully generated.

Procedure

1. Access the **Inspection Management Overview** page.
2. Select , and then select **View Bulk Printing Status**.
The **Downloads** page appears, displaying the jobs that are in progress.

Manage Inspection Tasks

Procedure

1. Access the **Inspection Management Overview** page.
2. In the page, select , and then select **Manage Inspection Tasks**.
The **Manage Inspection Tasks** page appears, displaying a list of inspection tasks for the underlying assets that are linked with the Thickness Measurement Locations for scoping.

Import Thickness Measurements for TML Scoping

Before You Begin

Ensure that the file that you want to import meets the requirements of the Thickness Measurement - Assets Data Loader.

About This Task

This topic describes how to import Thickness Measurements for TMLs associated with an Inspection Task using the Thickness Measurement - Assets Data Loader. When these measurements are imported, a General Inspection is created automatically for the Inspection Task and the Thickness Measurements are linked to the Inspection.

Procedure

1. Access the **Manage Inspection Tasks** page.
2. Select **Import > Import File**.
The **Import Thickness Measurement** window appears.
3. Select the file that you want to import.
4. Enter a description, and then select **OK**.
The **Data Loaders** page appears, displaying the progress of the import. When these measurements are imported, a General Inspection is created for the Inspection Task and the Thickness Measurements are linked to the General Inspection.

Export Linked TML Records for TML Scoping

Procedure

1. Access the **Manage Inspection Tasks** page.
2. Select the check boxes next to the **Task ID** for which you want to export data for TML Scoping.
3. Select **Export > Export to File**.
The **Export Linked TML Records to a File** window appears.

4. Enter the file name in **Export Linked TML Records to a File** window and then select **Export**. A file is downloaded in the CSV format with name that you specified as file name.

Download Bulk Inspection Reports


Before You Begin

- Access the Report Configuration page and complete the configurations to store the generated reports.
- Make sure that a default report is configured in the Family Reports section of the family associated to the Inspection.

About This Task

You can download the reports for the print jobs that are successfully completed or partially failed.

Procedure

1. Access the **Inspection Management Overview** page.
2. Select  to download report.
The **Download** window appears, displaying the following options to download the report:
 - **Combined Report:** downloads all the inspections as one single PDF file.
 - **Individual Reports:** downloads each inspection as a single PDF file.
3. Select the **Combined Report** option.
4. Enter the **File Name** for the downloaded file.
5. Select **Download**.
The download starts and you can see the progress of the Download Reports job in the **View Log** section. After the Download Reports job is complete, the browser will download the file.
6. Extract the .zip file.

For Individual Reports,

The Inspection Report of each Inspection record appears as a single PDF file. The file name of the Inspection Report is the Inspection ID of the respective Inspection record.

For Combined Report,

The Inspection Report of all the Inspection records appears as a single PDF file. The file name of the report is the name specified when downloading the combined report.

Next Steps

- [View Download Status](#).
- [Download generated Inspection Reports](#).

View Download Status

Procedure

1. Access the **Inspection Management Overview** page.
2. Select **View Log**.

The **Downloads** page appears displaying the status of the print jobs that you have generated. The following are the different sections for each state of the report generated.

- **In progress:** Displays all the jobs that are currently in progress.
- **Successful:** Displays all the jobs that are successfully completed. You can download the **Report** and the **Log** for the corresponding job.
- **Failed:** Displays all the jobs that failed. You can download the error log and the Inspection Reports that are successfully generated.

Note: The print job fails if any of the selected Inspection Report generation fails.

Next Steps

[Download generated Inspection Reports.](#)

Download the Generated Inspection Reports

About This Task

You can download the reports from the successfully completed print jobs.


Procedure

1. Access the **Inspection Management Overview** page.
2. Select **View Log**.

The **Downloads** page appears displaying the status of the print jobs that you have generated. The following are the different sections for each state of the report generated.

- **In progress:** Displays all the jobs that are currently in progress.
- **Successful:** Displays all the jobs that are successfully completed. You can download the **Report** and the **Log** for the corresponding job.
- **Failed:** Displays all the jobs that failed. You can download the error log and the Inspection Reports that are successfully generated.

Note: The print job fails if any of the selected Inspection Report generation fails.

3. Select **Successful**.
The print jobs that are successfully completed are displayed as a table.
4. In the Report column of the print job you wanted to download, select .
5. Extract the .zip file.

For Individual Reports,

The Inspection Report of each Inspection record appears as a single PDF file. The file name of the Inspection Report is the Inspection ID of the respective Inspection record.

For Combined Report,

The Inspection Report of all the Inspection records appears as a single PDF file. The file name of the report is the name specified when downloading the combined report.

Chapter 4

Inspection Profiles

Topics:

- [About Inspection Profile](#)
- [About Inspection Scope](#)
- [About Creating and Modifying Inspection Scope](#)
- [Access the Inspection Profile Details Section](#)
- [Create an Inspection Profile](#)
- [Add an Existing Inspection Profile](#)
- [Manage Sequence Definitions for an Inspection Profile](#)
- [Delete an Inspection Profile](#)
- [Access the Inspection Methods Section](#)
- [Add an Inspection Method](#)
- [Delete Inspection Methods](#)
- [Access an Inspection Scope](#)
- [Define the Inspection Scope](#)

About Inspection Profile

An Inspection Profile is a combination of an Equipment record, Inspection Profiles, and Inspection Methods that together determine which equipment subcomponents need to be inspected and the methods that will be used to inspect them. Specifically:

- The Equipment record represents the equipment that needs to be inspected.
- Inspection Profiles represent subcomponents of the equipment that need to be inspected. Each Inspection Profile is linked directly to the Equipment record.
- Inspection Methods represent how you plan to inspect each subcomponent. Each Inspection Method is linked to an Inspection Profile.

Details

After you define the Inspection Profile for an Equipment record, when you [create an Inspection Task](#) to use for inspecting the equipment, you can [define the scope](#) of that individual inspection event by selecting which subcomponents (Inspection Profiles) and methods (Inspection Methods) you want to include in the inspection. In other words, after an Inspection Profile exists for an Equipment record, you can pick and choose which parts of the profile you want to include in each future inspection of the equipment.

If the [Event Configuration](#) is set up correctly, when you create an Inspection that is linked to an Equipment record, General Findings will be created automatically according to the Inspection Scope for the Equipment record.

Additionally, if the Application Configuration is set up correctly, Inspection Profiles will be created automatically for Equipment records that are not yet linked to Inspection Profiles.

Note: You do not need to define Inspection Profiles if you plan to create records only in the Inspection families whose captions contains the word Checklist. The process for recording subcomponent findings for these families does not rely on Inspection Profiles or Inspection Methods.

About Inspection Scope

While each piece of equipment has one [Inspection Profile](#), each time that you identify a need to inspect a piece of equipment, you will need to define the Inspection Scope for that individual inspection event. Each Inspection Scope defines the equipment subcomponents that need to be inspected in a given inspection, and the methods that should be used to inspect them.

What is an Inspection Scope?

An Inspection Scope consists of the following items:

- An Equipment record, which defines the equipment that should be inspected.
- An Inspection Task, which provides details about the inspection event that should be performed, including information such as the desired inspection date and any minimum or maximum date ranges for the inspection event. The Inspection Task is linked to the Equipment.
- One or more Inspection Profiles, which define the subcomponents that should be inspected.
- One or more Inspection Methods, which define the methods that should be used to inspect the individual subcomponents.

To define an Inspection Scope, you will need to [create an Inspection Task](#) or find an existing Inspection Task to link to the Inspection Profile.

Note: You do not need to define an Inspection Scope if you plan to create records only in the Inspection families whose captions contain the word Checklist. The process for recording subcomponent findings for these families does not rely on Inspection Profiles or Inspection Methods.

How is an Inspection Scope Used?

Each Inspection Scope consists of an Equipment record, an Inspection Task, one or more Inspection Profiles, and one or more Inspection Methods.

When you create an Inspection that is linked to an Equipment Record, the APM system generates General Findings automatically. The number of findings that are created automatically is based on the Inspection Profiles and Inspection Methods included in the Inspection Scope.

Note: If you plan to only create records in the Inspection families whose captions contain the word Checklist, you do not need to define an Inspection Scope. The process for recording subcomponent findings for these families does not rely on Inspection Profiles or Inspection Methods.

About Creating and Modifying Inspection Scope

When you create a new Inspection Scope, you will need to:

- [Select the equipment for which you want to create a new Inspection Scope.](#)
- [Select the subcomponents \(i.e., Inspection Profiles that you want to inspect\).](#)
- [Select the Inspection Methods that you want to use for the selected subcomponents.](#)
- [Create a new Inspection Task that you want to include in the new Inspection Scope.](#)

Details

If more than one inspection interval is defined for a particular task type, the Desired Interval field will be populated with the most conservative (i.e., lowest), non-zero inspection interval.

Example: Inspection Scope

For example, suppose that you define an Inspection Scope that includes the Inspection Task type CUI, which is associated with the following APM records and families:

- The Functional Location record that represents Unit A.
- Criticality Calculator RBI Components families Criticality RBI Component - Exchanger Bundle and Criticality RBI Component - Exchanger Header.
- The Equipment record with the Record ID HXST 55.

Now, suppose that the time-based inspection settings listed in the following table have been created:

Time-Based Inspection Setting	Unit	Component Family	Equipment	Task Type	Inspection Interval
1	N/A	Criticality RBI Component - Exchanger Bundle	N/A	CUI	48
2	Unit A	N/A	N/A	CUI	36
3	Unit A	Criticality RBI Component - Exchanger Bundle	N/A	CUI	24

Time-Based Inspection Setting	Unit	Component Family	Equipment	Task Type	Inspection Interval
4	Unit A	Criticality RBI Component - Exchanger Header	N/A	CUI	10
5	Unit A	N/A	HXST 55	CUI	12

In this case, the Desired Interval field in the associated Inspection Task record will be populated automatically with the value 10 (i.e., the most conservative inspection interval).

Access the Inspection Profile Details Section

Procedure



1. Access the [Inspection Methods](#) section for the Inspection whose Inspection Profile you want to access.
2. In the workspace, select the **Inspection Profile Details** tab.
The **Inspection Profile Details** section appears, displaying the Inspection Profile datasheet.

Create an Inspection Profile

Procedure

1. Access the [Inspection Methods](#) section for the Inspection whose Inspection Profile you want to access.

Note: If the selected Inspection does not have any existing Inspection Profiles, the **Inspection Profile Details** section appears with a blank datasheet. If this occurs, skip to step 3.

2. In the left pane, select , and then select **Create New Profile**.
A new Inspection Profile datasheet appears.
3. In the **Item Category** box, select the type of the profile.
4. In the **Item ID** box, enter a unique name for the profile.
5. As needed, enter values in the remaining [available fields](#).
6. Select .
The Inspection Profile is saved.

Next Steps




[Add an Inspection Method](#)

Add an Existing Inspection Profile

Procedure

1. Access the [Inspection Profile Details](#) section for the Inspection to which you want to add an existing Inspection Profile.

Note: If the selected Inspection does not have any existing Inspection Profiles, the **Inspection Profile Details** section appears with a blank datasheet. If this occurs, skip to step 3.




2. In the left pane, select , and then select **Add Existing Profile**.
The **Add Existing Profile** window appears.
3. Enter values in the search fields, and then select .
The existing Inspection Profiles that can be added to the selected Inspection appear.
4. Select .
The existing Inspection Profile is added to the Inspection and appears as the last list item in the **Manage Inspection Profiles** pane.

Manage Sequence Definitions for an Inspection Profile

About This Task


Inspections Tasks are completed in a specific order based on the constraints of the task's Inspection Profile. You can rearrange these tasks on the Inspection Profile to best fit the needs of your organization.

Procedure

1. Access the **Inspection Profile Details** section that you want to sequence.
2. In the left pane, select .
The **Sequence Definition** window appears.
3. In the grid, select the row for the Inspection Profile whose Sequence Definition you want to modify.
4. To the right of the grid, select either  or .
5. Select **Done**.
The Sequencing Definition for the selected Inspection Profile is modified.

Delete an Inspection Profile


Procedure

1. Access the **Inspection Profile Details** section for the Inspection Profile that you want to delete.
2. In the upper-right corner of the workspace, select .
A message appears, asking you to confirm that you want to delete the selected Inspection Profile and all its links to other records.
3. Select **Yes**.
The selected Inspection Profile is deleted.

Access the Inspection Methods Section

Procedure

1. Access the **Inspection Management Overview** page for the equipment associated with the Inspection whose Inspection Method that you want to access.

2. Select the **Inspections** tab.
The **Inspections** section appears.
3. In the upper-right corner of the page, select , and then select **Manage Equipment Profiles**.
The **Manage Inspection Profiles** page appears. The left pane contains a list of Inspection Profiles linked to the Equipment. The workspace displays the **Inspection Methods** section for the first Inspection Profile in the list.

Add an Inspection Method

Before You Begin

- [Create an Inspection Profile](#).

Procedure

1. Access the **Inspection Methods** section for the selected asset.
2. In the **Inspection Methods** section, in the **Category** column, select the blank row.
A drop-down list appears, displaying the available types of inspections for the new Inspection Method.
3. In the **Category** box, select the type of Inspection for the new Inspection Method.

Note: The only field required to add a new inspection method is the Category field. Once you select a Category value, a new row appears in the grid. You can then add additional Inspection Methods. You can, however, complete any of the [additional fields](#).



4. Select .
- The Inspection Methods are saved.

Next Steps

[Define Inspection Scope](#)

Delete Inspection Methods

Procedure

1. Access the **Inspection Methods** section containing the Inspection Method that you want to delete.
2. In the upper-right corner of the workspace, select .
3. In the **Inspection Method** grid, select the check boxes next to one or more Inspection Methods that you want to delete.
4. In the upper-right corner of the workspace, select , and then select **Delete**.
A message appears, asking you to confirm that you want to delete the selected Inspection Methods.
5. Select **Yes**.
The selected Inspection Methods are deleted.

Access an Inspection Scope

Procedure


1. Access the [Inspection Tasks workspace](#) for the asset associated with the Inspection whose Inspection Scope you want to access.
2. In the row containing the Inspection Task whose scope you want to access, select the link.
3. In the upper-right corner of the page, select **Define Scope**.
The **Manage Scope for Task** page appears, displaying the Inspection Scope for the task.

Define the Inspection Scope

Before You Begin

- [Create an Inspection Profile](#).

Procedure

1. Access the [Inspection Scope](#) that you want to define.
2. Next to the **Inspection Method** for the **Category** that you want to define as the Inspection Scope, select .
The Inspection Method appears.
3. As needed, define the Inspection Scope, and then select **Done**.
The Inspection Scope is defined.

Next Steps

[Create an Inspection Task](#)

Chapter 5

Team Members

Topics:

- [About Team Members](#)
- [About Roles](#)
- [About Certifications](#)
- [Add Team Members to an Inspection](#)
- [Remove Team Members from an Inspection](#)

About Team Members

An inspection team member is any person that participates in an inspection. When you view an inspection report, you will see a section that lists all team members associated with that inspection.

Details

When you view an Inspection, you can create a new Inspection Team Member to link to the Inspection. Any user that has been assigned the Inspector role or any of the roles mentioned in the Draft state of the Inspection can be selected in the Inspection Team Member field. After the Inspection Team Member has been linked to the Inspection, the name in the Team Member field will be displayed in the inspection report.

About Roles

Inspection Roles

Each Human Resource can be linked to one or more Resource Roles. The Role box indicates the position of a user within the organization. You can modify Roles in Security Manager.

After a Human Resource is linked to a Resource Role, the value in the **Role** box:

- Determines certain administrative tasks that a user can perform.
- Filters certain lists in Inspections.
- Controls the workflow of Inspection Management users.

The following roles are used with Human Resource records. Each role should be used as described in the following list.

Resource Role	Description
Contract Inspector	Gathers data to enter into a new or existing Inspection. This role is typically assigned to an Inspector who is also a contractor for your organization. The Contract Inspector must be assigned as a Team Member to request approval on the Inspection Report by updating the Status field.
Inspector	Gathers data to enter into a new or existing Inspection.
Inspection Supervisor	Reviews Inspections that have been created by a user with an Inspector Resource Role.
Inspection Administrator	Performs administrative tasks such as updating Security User roles and certifications, managing and creating Inspection Conditional Alerts, and defining default inspection intervals. A user who is assigned an Inspection Administrator role can complete the following tasks: <ul style="list-style-type: none">• Inspection Configuration• Manage Inspection Resources, Roles, and Certifications• Manage Inspection Alerts• Manage Strategies• Manage Time-Based Settings

Resource Role	Description
Inspection Specialist	Performs functions determined by your unique implementation of this Resource Role.

Inspection Role Assignments

To assign a role to a Security User, you will need to link a Resource Role record to the Human Resource record for that Security User. The Resource Role record contains the Role field, which should contain a value that indicates the role assigned to that user.

For example, if John Smith is responsible for reviewing Inspection records, you would create a Human Resource record for John Smith and link it to a Resource Role record. That Resource Role record would contain the value Inspection Supervisor in the Role field.

Security Roles

The following security roles are used when you assign secured users to roles in the Security Manager. These security roles are assigned to specific states in State Configuration for Inspection Recommendation and Inspections, and these roles are checked when users try to transition states.

Security Role	Description
MI Inspector	Transitions an Inspection Recommendations from the Proposed state to the Pending Review or Superseded state. Also used in transitioning state of an Inspection from Draft and Rework to Pending Approval.
MI Contract Inspector	Transitions an Inspection from Draft state and Rework state to Pending Approval.
MI Inspection Pre-Approver	Transitions an Inspection from Draft to any other intermediate state before Pending Approval.
MI Inspection Supervisor	Transitions an Inspection Recommendations from the Pending Review state to the Proposed, Pending Approval, Cancelled, or Rejected state. Also used in transitioning states of Inspections from Pending Approval to Approved or Audited.
SC Recommendation Reviewer	Transitions an Inspection Recommendations from the Pending Approval state to the Pending Review, Approved, Cancelled, or Rejected state.
SC Recommendation Implementer	Transitions an Inspection Recommendations from the Approved or In Progress state to the Completed state.

Note: Super users can transition Inspection Recommendations between states without assigned security roles.

About Certifications

You can indicate a user's certification level by creating a Personnel Certification to link to that user's Human Resource information.

Details



When that user creates or approves an Inspection, the Certification will serve as documentation that the user is qualified to perform that task. Because Inspections are often used as legal documentation to prove that an inspection took place, recording the responsible party's qualifications is an important step.

Add Team Members to an Inspection

Procedure

1. Access the **Inspection Data** section.
2. Select the **Team Members** tab.
The **Team Members** section appears.
3. As needed, enter values in the available fields.

Note: To complete the following fields, the **Applicable Certification** field must contain a value.



- In the **Full Name** box, select the name of the Team Member that you want to add.
 - In the **Applicable Certification** box, select the [type of certification](#) held by the selected Team Member.
 - In the **Certification ID** box, enter the identification value for the type of certification held by the selected Team Member.
 - In the **Certification Expiry Date** box, select  to choose the expiry date of the selected Team Member's certification.
4. Select .

A new team member is added and linked to the selected Inspection.

Tip: As needed, you can repeat these steps 3 and 4 to add multiple Team Members to the selected Inspection.

Remove Team Members from an Inspection

Procedure

1. Access the **Inspection Data** section.
2. Select the **Team Members** tab.
The **Team Members** section appears.
3. In the upper-right corner of the section, select .
4. In the row for each team member that you want to remove from the selected Inspection, select the check box.
5. Select , and then select **Delete**.
A message appears, asking you to confirm that you want to delete the selected Team Members.
6. Select **Yes**.
The selected Team Members are deleted from the selected Inspection.

Chapter 6

Inspection Tasks and Recommendations

Topics:

- [About Inspection Tasks and Recommendations](#)
- [About Generating Inspections for Related Inspection Tasks](#)
- [View Linked Inspection Tasks Details](#)
- [Access Inspection Recommendations](#)
- [Create Inspection Recommendations](#)
- [Modify the Date Filter for Inspection Recommendations](#)
- [Access the Inspection Tasks Section](#)
- [Create an Inspection Task](#)
- [Access the Related Records of an Inspection Task](#)
- [About Deferring an Inspection Task](#)
- [Create a Deferral for an Inspection Task](#)
- [Access the Deferrals of an Inspection Task](#)
- [Delete a Deferral of an Inspection Task](#)
- [Manage Deferrals](#)
- [Delete an Inspection Task](#)
- [Modify the Date Filter for Inspection Tasks](#)
- [Create an Inspection Report from an Inspection Task](#)
- [About Schematic Visualization of Scope of Work](#)

- [View Inspection Scope Visualization Details](#)
- [Upload an Inspection Scope Visualization Document](#)
- [Download an Inspection Scope Visualization Document](#)
- [Delete an Inspection Scope Visualization Document](#)

About Inspection Tasks and Recommendations

Based on the results of an inspection, you might need to suggest that further action be taken. For example, if you inspect an area of a warehouse and notice that the roof is leaking, you may want to suggest that the ceiling tiles be replaced.

You can [create a new Inspection Task record](#) that indicates that the ceiling tiles need to be replaced, or you could [create an Inspection Recommendation](#) record to record the recommendation to replace the ceiling tiles. Your business processes will dictate whether you should create an Inspection Task record or a Recommendation record. For example, inspectors may need to report all recommendations to a supervisor for approval. The supervisor might then be responsible for approving the recommendation, creating an associated Inspection Task record, and assigning that Inspection Task record to the appropriate inspector.

Additionally, if the Thickness Monitoring license is active and TM Analyses exist for the Equipment records that you analyze in Inspection Management, you can specify that Inspection Task records be updated based upon Thickness Measurement records that you create in Thickness Monitoring. Specifically, the value in the Last Date field in the Inspection Task record will be populated with the value in the Measurement Taken Date field in the Thickness Measurement records that you create via the **TM Measurement Data Entry** page.

About Generating Inspections for Related Inspection Tasks

After the cost has been estimated for the work associated with all Inspection Tasks for a given Work Pack, you can determine which inspections you will perform and which you will not. You can then create Inspections to represent the approved work that you will perform.

Example: Generating Inspections

For example, suppose a Work Pack includes tasks to inspect all pieces of equipment in a particular system. If you receive an estimate from an inspector that exceeds your budget, you might need to trim the inspection work and inspect only the pieces of equipment whose previous inspections revealed defects.

You can generate Inspections for the Inspection Tasks by:

- [Generating an Inspection from a single Inspection Task.](#)
- [Generating Inspections from all Inspection Tasks that are linked to the Work Pack.](#)

View Linked Inspection Tasks Details

Procedure

1. Access the [Inspection Details](#) section.
2. Select **Scope** tab.

The linked Inspection Tasks and Scope details are displayed. In the **Inspection Tasks** section, the linked Inspection Tasks details are displayed.

The Inspection Tasks are displayed based on the query created in the following folder:

```
Public\Meridium\Modules\Inspection\Task Queries\Inspection Task Details
```

Note: You can add columns in the query from the Inspection Task family to view more columns in the grid. You should not modify the ENTY_ID or Task ID columns.

In the **Scope Details** section, a text box is displayed containing the combined task details of all the tasks selected in the **Tasks Addressed** field of the Inspection. The APM updates this read-only value.


Note: When you update the Task Addressed field, the Inspection Task Details is updated automatically.

Access Inspection Recommendations

About This Task




Steps: Access an Inspection Recommendation from the Inspection

Procedure

- Access an Inspection Recommendation from the Inspection
 1. Access the **Inspection Details** section.
 2. In the upper-right corner of the page, select .
The **Recommended Actions** pane appears, displaying a list of Inspection Recommendations for the selected asset. You can now use the Recommended Actions functionality.
- Access an Inspection Recommendation from the Asset
 1. Access the **Inspection Management Overview** page for the equipment containing the Inspection Recommendation that you want to access.
 2. Select the **Underlying Recommendations** tab.
The **Underlying Recommendations** section appears, displaying a list of open recommendations for the selected asset. You can now use the Recommended Actions functionality.


Create Inspection Recommendations


Procedure

- Create Inspection Recommendation for Events
 1. Access the **Inspection Details** section.
 2. In the upper-right corner of the page, select .
A new Inspection Recommendation datasheet window appears.
 3. Enter values in the **available fields** as required, and then select .
A message appears, confirming that you have created an Inspection Recommendation. You can now use Recommended Actions functionality.
- Create Inspection Recommendation for General Finding
 1. Access the **Inspection Details** section.
 2. Expand the **General Finding** section and select a General Finding record, and then select .
A new Inspection Recommendation datasheet window appears.

Note:


- If you create a recommendation for a General Finding record, the Recommendation Headline field on the offline Inspection Record will be a concatenated value populated by the Inspection Profile and the Inspection Methods field of that General Findings record.

- The **Finding Basis** and **Finding Summary** fields are disabled on the datasheet and populated only when the recommendation is created against a General Finding.
 - The **Finding Basis** field displays the selected Inspection profile items field caption in the General Finding record.
 - The Finding Summary on inspection recommendation displays finding summary from General Finding.
 - The Inspection recommendation creation is not allowed if you select multiple General Finding from the grid.
3. Enter values in the [available fields](#) as required, and then select .

A message appears, confirming that you have created an Inspection Recommendation. You can now use the Recommended Actions functionality.
- Create Inspection Recommendation for Checklist Finding
 1. [Access the Inspection Details section](#).
 2. Expand the **Checklist Finding** section and select a Checklist Finding record, and then select +.

A new Inspection Recommendation datasheet window appears.

Note:

 - If you create a recommendation for a Checklist Finding record, the Recommendation Headline field on the offline Inspection Record will be a concatenated value populated by the category and the name field of that checklist Findings record.
 - The **Finding Basis** and **Finding Summary** fields are disabled on the datasheet and populated only when the recommendation is created against a Checklist finding.
 - The **Finding Basis** field displays caption of checklist category.
 - The Finding Summary on inspection recommendation displays finding summary from Checklist Finding.
 - The Inspection recommendation creation is not allowed if you select multiple Checklist Finding from the grid.
 3. Enter values in the [available fields](#) as required, and then select .


A message appears, confirming that you have created an Inspection Recommendation. You can now use Recommended Actions functionality.

Modify the Date Filter for Inspection Recommendations

About This Task

In the **Underlying Recommendations** tab, the **Underlying Open Recommendations** and **Recommendations Due for Implementation** sections can be filtered using the Target Completion Date Filter, which is based on the value in the Target Completion Date field. If you do not modify these filters when accessing tasks or recommendations, the sections may appear to be empty. You can modify the date filters to display the tasks and recommendations that you want to access. By default, the selected date filter is defined by the administrator.

Procedure

1. [Access the Underlying Recommendations section](#).
2. In the **Underlying Open Recommendations** or **Recommendations Due for Implementation** section, select .

The **Target Completion Date Filter** box appears, displaying a list of date filters.

Note: The date filters that appear in the **Target Completion Date Filter** box are defined by the administrator. If some date filters do not appear, an administrator can modify the filters in the **Date Filters** section of the **Overview Configuration** page in Application Settings.

3. Select the date filter that you want to use.
4. Select **Apply**.
Inspection recommendations with a Target Completion Date that matches the selected date filter parameters appear.

Note: If you navigate away from the **Underlying Open Recommendations** and **Recommendations Due for Implementation** sections or refresh the page, the date filter you selected will no longer be applied. Instead, when you return to the **Underlying Open Recommendations** or **Recommendations Due for Implementation** section, the default filter defined by the administrator is applied.



Access the Inspection Tasks Section

Procedure

1. Access the [Inspection Management Overview](#) page for the asset associated with the Inspection whose Inspection Task you want to access.
2. Select the **Inspection Tasks** tab.
The **Inspection Tasks** section appears.

Create an Inspection Task

Procedure

1. Access the [Inspection Management Overview](#) page for the asset associated with the Inspection whose Inspection Task you want to create.
2. In the upper-right corner of the page, select , and then select **Create Inspection Task**.
On a new page, an Inspection Task datasheet appears.
3. As needed, enter values in the [available fields](#), and then select .
The Inspection Task is created.

Next Steps

[Create a Work Pack](#)

Access the Related Records of an Inspection Task

Procedure

1. Access the Inspection Task whose related records you want to access.
 - [Access the Inspection Tasks Section](#) on page 68 and then select an Inspection Task.
 - [Create an Inspection Task](#) on page 68.
2. Select **Related Records**.
The related records of the Inspection Task appear, grouped based on the family. The set of collapsible sections within the **Related Records** section is based on the configuration in the **Inspection Task**

Configuration section in the **IM Admin Preferences** page. Within each collapsible section, the records appear based on the results of the catalog queries in the `Public\Meridium\Modules\Inspection\Inspection Task Related Families` folder. These records are named based on the associated family ID.

Note: The Catalog Queries in this folder must have a parameter, `pred_key` that corresponds to the Inspection Task key.

About Deferring an Inspection Task

There may be instances when a task cannot be completed by the specified **Next Date** due to various reasons. In this scenario, APM provides a workflow to request a deferral of the task. The deferral follows a review and approval process allowing an inspector to request the deferral by providing a reason and selecting the desired deferral date. The inspection supervisor can review the request and decide to approve or reject it.

Upon approval of a deferral request, the following fields are updated on the Inspection Task:

- **Original Next Date:** Updated with the value of the Next Date field on the task. This value is only updated upon the approval of the first deferral within this cycle and is retained until the task is executed.
- **Next Date:** Updated with the value of the Deferred Date field on the approved Deferral.
- **Deferred Next Date Basis:** Updated with the ID of the approved Deferral.
- **Is Deferred:** Updated to true to indicate that a Deferral has been approved for this task.
- **Reason:** Appended with the value from the Comments field along with the Deferral ID and current date of the approved Deferral.

Multiple Deferral records can be created and approved for a given Inspection Task if required. However, the number of times a task can be deferred is restricted and controlled by the [Deferral Configuration](#) for the Inspection Task family.

When there is at least one approved Deferral against a task and the task is either addressed by a completed inspection or the Next Date field is updated with a greater value, the following occurs:

- The Original Next Date, Deferred Next Date Basis, and Is Deferred fields are cleared.
- Any approved Deferrals are moved to the Archived state.

Note: When the approved Deferrals are moved to the Archived state, a new cycle is started for the deferral requests, and the Deferral Number field on any new Deferral will start back at 1.

Create a Deferral for an Inspection Task


Before You Begin


Ensure that **Enable Deferral** option is selected for the Inspection Task family in the **Deferral Configuration** workspace.

Procedure

1. Access the Inspection Task whose Deferral records you want to access.
 - [Access the Inspection Tasks Section](#) and then select an Inspection Task.
 - [Create an Inspection Task](#).
2. In the Inspection Task header select **Defer**.

The **Add Deferral** dialog appears with a new Deferral datasheet.

3. As needed, enter values in the available fields, and then select .
The Deferral is saved, and the state management control is now displayed. If required, use the state transition control to request for approval.

Note: If the Deferral has been approved, the Inspection Task header displays the  icon.

Access the Deferrals of an Inspection Task

Before You Begin

Ensure that **Enable Deferral** option is selected for the Inspection Task family in the **Deferral Configuration** workspace.

Procedure


1. Access the Inspection Task whose Deferral records you want to access.
 - [Access the Inspection Tasks Section](#) and then select an Inspection Task.
 - [Create an Inspection Task](#).
2. Select **Related Records**.
The related records of the Inspection Task appear, grouped based on the family. The **Deferral History** section is displayed first in the list.

Delete a Deferral of an Inspection Task

Before You Begin

Ensure that **Enable Deferral** option is selected for the Inspection Task family in the **Deferral Configuration** workspace.




Procedure

1. Access the Inspection Task whose Deferral records you want to access.
 - [Access the Inspection Tasks Section](#) and then select an Inspection Task.
 - [Create an Inspection Task](#).
2. Select **Related Records**.
The related records of the Inspection Task appear, grouped based on the family. The **Deferral History** section is displayed first in the list.
3. In the **Deferral History** section, select the Deferral record(s) you want to delete.
4. Select .
A confirmation dialog appears.
5. Select **Yes**.
The selected Deferral record(s) are deleted.

Note: You can not delete Deferral records that are in either of the following states: Approved, Rejected, Archived


Manage Deferrals

Procedure

1. Access the [Inspection Management Overview](#) page.
2. Select  and select **Manage Deferrals**.
The **Manage Deferrals** page appears, displaying a list of deferrals for the underlying inspection tasks or recommendations.
3. Select the check boxes next to the Deferral ID that you want to manage.
You can change the state of a deferral or delete a deferral.
4. Select an action:
 - **Manage State:**
 - a. In the upper-right corner, select .
The state control menu appears.
Note: The state control is enabled only when you select the deferrals that are currently in the same state.
 - b. Select a state that you want to change from the drop-down list, and then select **Done**.
The state of the selected deferral is updated.
Note: If an error occurs while changing the state of the deferrals, a message appears displaying the errors.
 - **Delete Deferral (s):**
 - a. In the upper-right corner, select .
A confirmation dialog appears.
 - b. Select **Yes**.
The deferral is deleted.
Note: You can not delete Deferral records that are in the following states: Approved, Rejected, or Archived.

Delete an Inspection Task

Procedure

1. Access the [Underlying Inspection Tasks](#) section.
Tip: If the Inspection Task that you want to use does not appear, check the date filter configuration.
2. Select the row containing the Inspection Task that you want to delete.
3. In the upper-right corner of the section, select .
A message appears, asking you to confirm that you want to delete the Inspection Task.
4. Select **Yes**.
The selected Inspection Task is deleted.

Modify the Date Filter for Inspection Tasks

About This Task

The **Underlying Inspection Tasks** section can be filtered using the Next Date Filter. Inspection tasks are filtered based on the value in the Task Next Date field. If you do not modify the filter when accessing tasks, the sections may appear to be empty. You can modify the date filters to display the tasks that you want to access. By default, the selected date filter is defined by the administrator.

Procedure

1. Access the **Underlying Inspection Tasks** section.

2. Select .

The **Next Date Filter** box appears, displaying a list of date filters.

Note: The date filters that appear in the **Next Date Filter** box are defined by the administrator. If some date filters do not appear, an administrator can modify the filters in the **Date Filters** section of the **Overview Configuration** page in Application Settings.

3. Select the date filter that you want to use.
4. Select **Apply**.

Inspection tasks with a Next Date that matches the selected date filter parameters appear.

Note: If you navigate away from the **Underlying Inspection Tasks** section or refresh the page, the date filter you selected will no longer be applied. Instead, when you return to the **Underlying Inspection Tasks** section, the default filter defined by the administrator is applied.

Create an Inspection Report from an Inspection Task

Procedure

1. Access the **Underlying Inspection Tasks** section.

Tip: If the Inspection Task that you want to use does not appear, check the date filter configuration.

2. In the row containing the Inspection Task whose report that you want to create, select the link. The **Manage Task** page appears, displaying the **Inspection Task** datasheet.
3. In the upper-right corner of the page, select **Generate Report**.

If there is a value in the **Inspection Document Type** box, the Inspection report is generated automatically.

-or-

If there is no value in the **Inspection Document Type** box, the **Create Inspection** window appears. In the **Inspection Families** box, select the type of Inspection report that you want to generate, and then select **Create**.

Note: Inspection Events are displayed according to the Taxonomy Configurations that have been defined for Checklist Configuration Templates and Inspection Families. If no Taxonomy Configurations have been defined or the selected asset's equipment taxonomy does not match any defined Taxonomy Configurations, a full list of Inspection Families and Checklist Configuration Templates appears.

The Generate Report option is disabled for inspection tasks that are either in Rejected or Completed state.

A new Inspection report is generated, and the **Inspection Overview** page appears, displaying the **Inspection Data** section.

Results

- A new [Inspection record](#) is created for the specified Inspection Document Type.
- You can now [access Inspection Reports](#).

About Schematic Visualization of Scope of Work

To aid in performance of inspections, a PDF document that outlines various aspects of the Inspection may be used. You can upload, download, and remove an Inspection Scope Visualization Document from the Scope tab of an Inspection.

Important: To access the Schematic Visualization of Scope of Work feature, you must have the Integrity Mobile license applied to the APM database.

View Inspection Scope Visualization Details

Procedure

1. [Access the Inspection Details](#) section.
2. Select **Scope** tab.

Within the Scope Details collapsible, the Inspection Scope Visualization section is

displayed. If an Inspection Scope Visualization Document has already been uploaded for an Inspection, it will be presented within this section.

Upload an Inspection Scope Visualization Document

Procedure

1. [Access the Inspection Details](#) section.
2. Select **Scope** tab.
3. Select **Upload .pdf** button in the Inspection Scope Visualization section.
A file select prompt appears, enabling you to select a PDF document from your local file system.
4. Upon confirmation, the selected PDF document is uploaded and assigned as the Inspection Scope Visualization Document for the Inspection. Upon completion, the Inspection Scope Visualization section gets updated to display the Inspection Scope Visualization Document link.

Note:

- You can store pdf documents upto 30MB as an Inspection Scope Visualization Document.
- You cannot upload an Inspection Scope Visualization Document for Approved or Downloaded Inspections.


Download an Inspection Scope Visualization Document

Procedure

1. Access the [Inspection Details](#) section.
2. Select **Scope** tab.
3. Select the filename hyperlink within the Inspection Scope Visualization section. The Inspection Scope Visualization Document will automatically be downloaded in your browser.

Delete an Inspection Scope Visualization Document

Procedure

1. Access the [Inspection Details](#) section.
2. Select **Scope** tab.
3. Select  next to the filename hyperlink in the Inspection Scope Visualization section. A prompt appears to confirm the deletion of the Inspection Scope Visualization Document.
4. Select **Yes**.
The Inspection Scope Visualization Document is deleted. Upon completion of the delete, the Inspection Scope Visualization section will update to display and no Inspection Scope Visualization Documents are linked to the Inspection.

Note: You will not be able to delete an Inspection Scope Visualization Document for Approved or Downloaded Inspections.

Chapter 7

Work Packs

Topics:

- [About Work Packs](#)
- [About the Work Pack Hierarchy](#)
- [Access the Work Packs Section](#)
- [Create a Work Pack](#)
- [Link a Work Pack](#)
- [Unlink a Work Pack](#)
- [Delete a Work Pack](#)
- [Create Single and Bulk Inspections](#)
- [Link an Existing Work Pack](#)
- [Unlink an Inspection from a Work Pack](#)
- [Link an Inspection Task to a Work Pack](#)
- [Unlink an Inspection Task from a Work Pack](#)
- [Move an Inspection Task to Another Work Pack](#)
- [Create a Sub Work Pack](#)
- [Delete a Sub Work Pack](#)

About Work Packs

A Work Pack is a collection of records that define inspection work that needs to be performed for a piece of equipment or functional location. Work Packs store preparatory information about necessary inspections. Work Packs, in combination with Inspections and Inspection Tasks that can be linked to Work Packs, are intended to define planned inspection work that can be estimated by the outside resources who perform the work.

About the Work Pack Hierarchy

You can create a Work Pack Hierarchy to organize the work that you will perform during inspections, where:

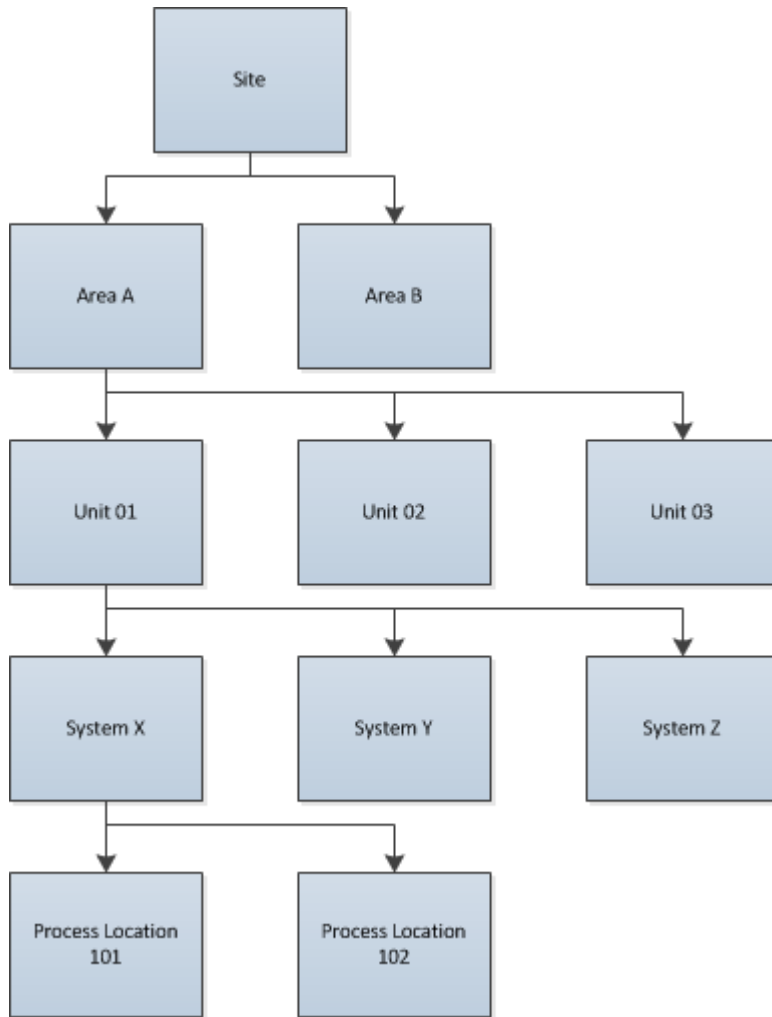
- The lowest level of the hierarchy contains a Work Pack for the actual item that will be inspected (i.e., a piece of equipment or location).
- The levels above the lowest level contain Work Pack for the locations containing the item that will be inspected.

Each Work Pack hierarchy can include up to three levels.

To fully understand this concept, you must understand the concept of a location hierarchy, where each location at a lower level belongs to a location at a higher level.

Work Pack Hierarchy

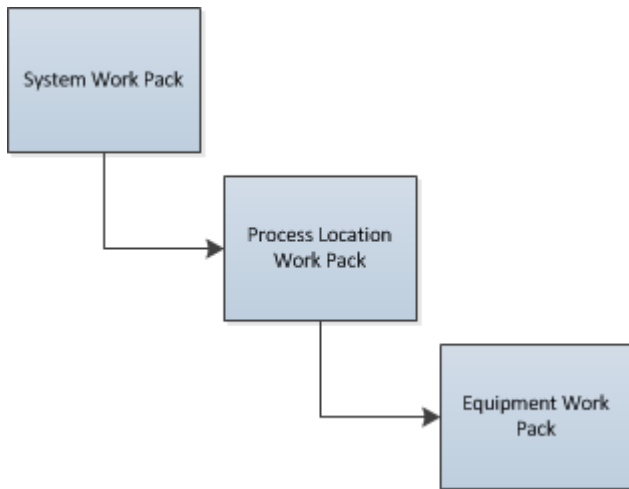
You might have a location hierarchy that looks like the following diagram, where process locations belong to systems, systems belong to units, and so on.



Regardless of how many levels you create in a Work Pack hierarchy, you should link Inspection Tasks and Inspections directly to the Work Pack that represents the asset that will be inspected. In other words, in the first example, you would link Inspection Tasks and Inspections directly to the equipment-level Work Packs (not the location-level Work Packs). In the second example, you would link Inspection Tasks and Inspections directly to the process-location-level Work Packs (not the system-level or unit-level Work Packs).

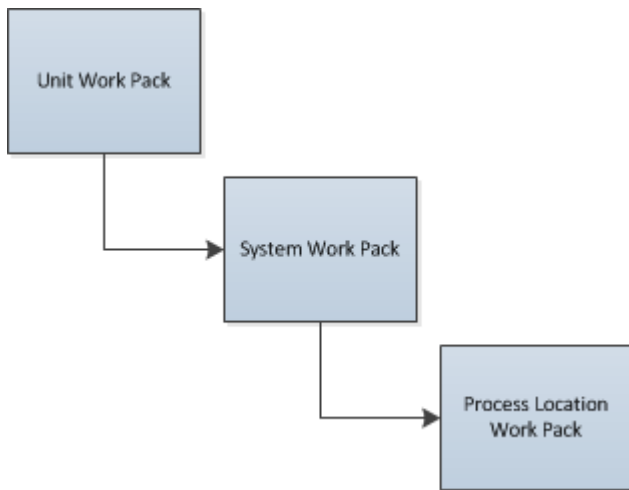
Example: Work Packs - Equipment

If you are inspecting equipment, the lowest level of the hierarchy should contain Work Packs representing the equipment. If you want to include three levels in the Work Pack hierarchy, the top two levels should represent the locations to which the equipment belong. For example, if your location hierarchy looks like the previous example, you would want to structure the Work Pack hierarchy as seen in the following diagram:



Example: Work Packs - Location

In your inspection locations, the lowest level of the hierarchy should contain Work Packs representing those locations. If you want to include three levels in the Work Pack hierarchy, the top two levels should represent the higher-level locations to which those locations belong. For example, if your location hierarchy looks like the diagram in the Work Pack Hierarchy section, you would want to structure the Work Pack hierarchy as seen in the following diagram:



Access the Work Packs Section

Procedure



1. Access the [Inspection Management Overview](#) page for the Inspection asset associated with the Inspection whose Work Pack you want to access.
2. Select the **Work Packs** tab.
The **Work Packs** section appears, displaying a list of Work Packs linked to the selected asset.

Results

- You can now select a Work Pack ID or a Sub Work Pack ID, and then edit the selection.

Create a Work Pack

Procedure



1. Access the [Inspection Management Overview](#) page for the Inspection asset for which you want to create a Work Pack.
2. In the upper-right corner of the page, select , and then select **Create Work Pack**.
On a new page, a Work Pack datasheet appears.
3. As needed, enter values in the [available fields](#).
4. Select .
The Work Pack is created.

Link a Work Pack

About This Task


Note: This procedure applies to linking existing Work Packs to other Work Packs and Sub Work Packs. APM recommends that you have no more than three levels of Work Packs (i.e., a Parent Work Pack, a Child Work Pack, and a subsequent (or grandchild) Child Work Pack).

Procedure

1. Access the [Work Packs](#) section.
2. In the row containing the Work Pack that you want to access, select the link.
The **Work Pack Overview** workspace for the selected Work Pack appears, displaying the **Definitions** section.
3. In the left pane, select .
The **Link Existing Work Pack Records to <Work Pack Name>** window appears.
4. As needed, enter values in the available search fields, and then select .
The Work Packs that can be linked to the selected Work Pack appear.
5. Next to each Work Pack that you want to link to the Work Pack, select the check box, and then select **OK**.
The selected Work Packs are linked.

Unlink a Work Pack


Procedure

1. Access the [Work Packs](#) section.
2. In the row containing the Work Pack that you want to unlink, select the link.
The **Work Pack Overview** workspace for the selected Work Pack appears, displaying the **Definitions** section.
3. In the left pane, select the Work Pack that you want to unlink.
4. In the left pane, select , and then select **Unlink**.
A message appears, asking you to confirm that you want to unlink the selected Work Pack.

5. Select **Yes**.
The selected Work Pack is unlinked.

Delete a Work Pack

Procedure

1. Access the **Work Packs** section.
2. Select the row containing the Work Pack that you want to delete, and then, in the upper-right corner of the section, select .

A message appears, asking you to confirm that you want to delete the selected Work Pack.

3. Select **Yes**.

The Work Pack is deleted.


Results

- Inspection Tasks and Inspection records that were linked to the deleted Work Pack are unlinked, although the records remain in the database.

Create Single and Bulk Inspections

About This Task

Procedure

- Create a Single Inspection for a Work Pack
 1. Access the **Inspection Management Overview** page for the Inspection that contains the Work Pack for which you want to create inspections.
 2. Select the **Work Packs** tab.
The **Work Packs** section appears.
 3. In the row containing the Work Pack to which you want to create a bulk inspection, select the link.
>The **Work Pack Overview** workspace appears.
 4. Select the **Linked Tasks** tab.
A list of previously linked Inspection Tasks appears.
 5. Next to the linked task to which you want to create an inspection, select .
 6. If there is a value in the **Inspection Document Type** box of the selected task, the Inspection report is generated automatically.
 7. If there is no value in the **Inspection Document Type** box of the selected task, the **Create Inspection** window appears. In the **Inspection Event** box, select the type of Inspection report that you want to generate, and then select **Create**.

Note: Inspection Events are displayed according to the Taxonomy Configurations that have been defined for Checklist Configuration Templates and Inspection Families. If no Taxonomy Configurations have been defined or the selected asset's equipment taxonomy does not match any defined Taxonomy Configurations, a full list of Inspection Families and Checklist Configuration Templates appears.



A single Inspection is created and linked to the Work Pack. The selected Inspection Task is unlinked from the Work Pack.

- Create a Bulk Inspection for a Work Pack
 1. Access the [Inspection Management Overview](#) page for the Inspection containing the Work Pack that you want to access.
 2. Select the **Work Packs** tab.
The **Work Packs** section appears.
 3. In the row containing the Work Pack to which you want to create a bulk inspection, select the link.
The **Work Pack Overview** workspace appears, displaying the **Definitions** section.
 4. In the upper-right corner of the workspace, select **Create Bulk Inspection**.
A message appears, asking you to confirm that you want to generate Inspection Documents for all associated tasks.
 5. Select **Yes**.
The **Generate Inspection Documents** window appears.
 6. Select **OK**.
The Bulk Inspection is created, and the Inspections Documents for the associated tasks are generated.

Note: If an inspection cannot be generated for an Inspection Task linked to the Work Pack, an error message for the task appears in the **Generate Inspection Documents** window. Those tasks will not be unlinked from the Work Pack.


Link an Existing Work Pack

Procedure

1. Access the [Work Packs](#) section.
2. In the row containing the Work Pack that you want to open, select the link.
The **Work Pack Overview** workspace for the selected Work Pack appears, displaying the **Definitions** section.
3. In the left pane, Select .
The **Link Existing Work Pack Records to <Work Pack ID>** window appears.
4. As needed, enter values in the available search fields, and then select .
The Work Packs that can be linked to the selected Work Pack appear.
5. Next to each Work Pack that you want to link, select the check box, and then select **OK**.
The Work Packs are linked to the selected Work Pack.

Unlink an Inspection from a Work Pack


Procedure

1. Access the [Work Packs](#) section.
2. In the row containing the Work Pack that you want to unlink, select the link.
The **Work Pack Overview** workspace for the selected Work Pack appears, displaying the **Definitions** section.
3. In the workspace, select the **Linked Inspections** tab.
The **Linked Inspections** section appears, displaying the Inspections currently linked to the selected Work Pack.
4. Select the Inspection that you want to unlink, and then select .
A message appears, asking you to confirm that you want to unlink the Inspection from the Work Pack.

5. Select **Yes**.
The Inspection is unlinked from the selected Work Pack.


Link an Inspection Task to a Work Pack

Procedure

1. Access the **Work Packs** section.
2. In the row containing the Work Pack that you want to link, select the link.
The **Work Pack Overview** page appears, displaying the **Definitions** section.
3. In the workspace, select the **Linked Tasks** tab.
The **Linked Tasks** section appears, displaying tasks currently linked to the selected Work Pack.
4. Select .
The **Enter Parameter Values** window appears.
5. As needed, enter values in the parameter value fields, and then select **Done**.
The **Link Existing Task Records to <Work Pack ID>** window appears, displaying the Inspection Tasks that can be linked to the selected Work Pack.
6. Next to each Inspection Task that you want to link to the Work Pack, select the check box, and then select **LINK**.
The selected Inspection Tasks are linked to the selected Work Pack.


Unlink an Inspection Task from a Work Pack

Procedure

1. Access the **Work Packs** section.
2. In the **Work Packs** section, select the Work Pack ID from which you want to unlink an Inspection Task.
The **Work Pack Overview** page appears, displaying the **Definitions** section.
3. In the workspace heading, select the **Linked Tasks** tab.
The **Linked Tasks** section appears, displaying tasks currently linked to the selected Work Pack.
4. Select the Inspection Task that you want to unlink from the Work Pack, and then select .
A message appears, asking you to confirm that you want to unlink the Inspection Task from the Work Pack.
5. Select **Yes**.
The Inspection Task is unlinked from the Work Pack.

Move an Inspection Task to Another Work Pack

Procedure



1. Access the **Work Packs** section.
2. In the **Work Packs** section, select the Work Pack ID from which you want to move an Inspection Task.
The **Work Pack Overview** page appears, displaying the **Definitions** section.
3. In the workspace heading, select the **Linked Tasks** tab.
The **Linked Tasks** section appears, displaying the tasks currently linked to the selected Work Pack.
4. Select the Inspection Task that you want to move from the Work Pack, and then select .

A **Move Task(s) To** window appears, displaying the available Work Packs to which you can move the selected task.

5. Select the Work Pack to which you want to move the selected task.
A message appears, asking you to confirm that you want to move the Inspection Task to the selected Work Pack.
6. Select **Yes**.
The Inspection Task is unlinked from the current Work Pack and linked to the selected Work Pack.


Create a Sub Work Pack

Procedure

1. Access the **Work Packs** section for the asset for which you want to create a Sub Work Pack.
Note: APM recommends that you have no more than three levels of Work Packs (Parent Work Pack, a Child Work Pack and a subsequent (or grandchild) Child Work Pack).
2. Select the Work Pack ID for the Work Pack for which you want to create a Sub Work Pack.
The **Work Pack Overview** workspace for the selected Work Pack appears, displaying the **Definitions** section.
3. In the left pane, select  and then select **Create Sub Work Pack**.
The **Work Pack** datasheet appears.
4. As needed, enter values in the **available fields**.
5. Select .
The Sub Work Pack is created.

Delete a Sub Work Pack

Procedure

1. Access the **Work Packs** section.
2. In the row containing the Work Pack whose Sub Work Pack you want to delete, select the link.
The **Work Pack Overview** workspace for the selected Work Pack appears, displaying the **Definitions** section.
3. In the left pane, select the Sub Work Pack that you want to delete.
The workspace for the selected Sub Work Pack appears.
4. In the left pane, select , and then select **Delete**.
A message appears, asking you to confirm that you want to delete the selected Sub Work Pack.
5. Select **Yes**.
The Sub Work Pack and its associated records are deleted.

Chapter 8

Admin

Topics:

- [Inspection Configuration](#)
- [Taxonomy Configuration](#)
- [Overview Configuration](#)
- [Compliance Configuration](#)
- [Human Resources](#)

Inspection Configuration

Access the Inspection Configuration Workspace

Procedure

In the **Applications** menu, navigate to **ADMIN > Application Settings > Inspection Management**. The **IM Admin Preferences** page appears, displaying the **Inspection Configuration** workspace. You can view the [Application Configuration settings](#) for Inspection Management and modify any necessary fields.

About Checklist Configuration Templates

Checklist Configuration Templates allow you to define a collection of checklist categories and the items that they contain to create Checklist Templates. Users can create Inspection Events using the Checklist Templates, and the Checklist Finding records are generated based on the selected template.

Using Checklist Configuration Templates

Checklist Configuration Templates should contain checklist categories and items that will result in detailed Checklist Templates that can be used to create Inspection Events. In the Checklist Configuration Templates section, you can create Checklist Configuration Templates that contain multiple checklist categories and items that are defined based on system code tables. You can modify the available checklist categories and items using the **MI CHECKLIST CATEGORIES** system code table. When you add a category to a Checklist Configuration Template, you can choose which items appear in the checklist. You can continue adding checklist categories and items to your Checklist Configuration Template until you have created a Checklist Template that will be useful for the intended asset. Creating a Checklist Configuration Template with checklist categories and items that correspond closely to existing assets streamlines inspections by including relevant Checklist Finding items in a user-created Inspection Event.

Checklist Configuration Templates and Taxonomy Configuration

The Checklist Configuration Templates that you create can be linked to a Taxonomy Configuration. When a Checklist Configuration Template has been linked to a Taxonomy Configuration, the Checklist Template appears as an option when users create Inspection Events for an asset whose equipment taxonomy matches the Taxonomy Configuration. The Checklist Configuration Template will also appear by default if the equipment taxonomy of the asset does not match an existing Taxonomy Configuration.

Checklist Configuration Templates and Asset Mapping

Asset Mapping allows the Checklist Template categories to be associated with the existing Assets. When creating or editing a Checklist Configuration Template, the **Enable Asset Mapping** option is available in the **Template Name** window. If you select this option when creating an Inspection Event using the Checklist Configuration Template, an **Asset Mapping** section appears, allowing you to map the Assets to the checklist categories.

Example: Fire Tube Boiler

A Checklist Configuration Template named Fire Tube Boilers Inspection Checklist contains the Tubes Waterside checklist category. The Tubes Waterside checklist category contains two items: Borescope Inspection and Corrosion.

When a user creates an Inspection Event, a Checklist Template named Fire Tube Boilers Inspection Checklist appears in the Inspection Event list. If the user creates an Inspection Event using the Fire Tube Boilers Inspection Checklist Checklist Template, the Checklist Finding record displays the Tubes Waterside checklist category with Borescope Inspection and Corrosion listed as Checklist Finding items.

Example: Fire Tube Boiler linked to a Taxonomy Configuration

The Fire Tube Boilers Inspection Checklist is linked to the following Taxonomy Configuration:

- Taxonomy Category: Fixed
- Taxonomy Class: Boiler
- Taxonomy Type: Misc Boiler

When a user creates an Inspection Event for an asset that shares that Taxonomy Configuration, Fire Tube Boilers Inspection Checklist appears in the list of available Checklist Templates for that asset.

About Application Configuration

This topic has been intentionally excluded from the APM product documentation website. This topic is available to you via the product documentation that is provided within the APM system.

Configure Recommendation Status to State Mapping

About This Task

APM supports the use of both Status and State Management for the approval work process of Inspection Recommendation. If you are currently using the Status field in Inspection Recommendation for the approval work process and want to use the State Management for Inspection Recommendation, you must map each Status value in the Inspection Recommendation Status field to a corresponding State in Inspection Recommendation State Configuration. After you configure and save the mapping, you must update the existing Inspection Recommendation records using the **Update Records** button so that all the Status values are updated to the mapped States. This ensures that current approval work process for Inspection Recommendation now uses states.

For example, the following Inspection Recommendation records use the Status field.

Recommendation ID	Asset ID	Functional Location ID	Recommendation Headline	Status
REC-21	HE-1608 CRUDE-HVY. ATMOS. GAS OIL	016-E-E3104A CRUDE-HVY. ATMOS. GAS OIL	Shell Corrosion	Created
Rec-2005	HE-1608 CRUDE-HVY. ATMOS. GAS OIL	C-488 LUBE/SEAL OIL COOLER ~ HXST 105	General Corrosion	Pending Review
Rec-244	HE-1608 CRUDE-HVY. ATMOS. GAS OIL	C-488 LUBE/SEAL OIL COOLER ~ HXST 105	General Distortion	Pending Review

To use the State field for Inspection Recommendation, map each Status to the corresponding State. The following table provides a sample Status-to-State mapping.

Source Family	Status	State
Inspection Recommendation	Created	Proposed
Inspection Recommendation	Pending Review	Pending Approval

You must update the existing records to use the State field for Inspection recommendation. The Inspection Recommendation records are now updated to use the State field. The following table provides the updated Inspection Recommendation records.

Recommendation ID	Asset ID	Functional Location ID	Recommendation Headline	State
REC-21	HE-1608 CRUDE-HVY. ATMOS. GAS OIL	016-E-E3104A CRUDE-HVY. ATMOS. GAS OIL	Shell Corrosion	Proposed
Rec-2005	HE-1608 CRUDE-HVY. ATMOS. GAS OIL	C-488 LUBE/SEAL OIL COOLER ~ HXST 105	General Corrosion	Pending Approval
Rec-244	HE-1608 CRUDE-HVY. ATMOS. GAS OIL	C-488 LUBE/SEAL OIL COOLER ~ HXST 105	General Distortion	Pending Approval

The State Configuration for Inspection Recommendations uses security roles to perform specific functions. For example, only a user with the Inspector Supervisor role can change the status from Pending Review to Pending Approval. However, during the update, security is not enforced to transition to a State. If you are using State Management for Inspection Recommendation and want to enforce security and prevent users from transitioning to certain states, make sure that all the required roles are assigned to the users. For more information on the security roles, refer to the topic.



Currently, APM only allows mapping of Status to States. After you update the Inspection Recommendation records using this feature, you can switch back to Status by clearing the **Use State Management for Inspection Recommendation** check box. However, the existing Inspection Recommendation records cannot be reverted to Status. To align Inspection Recommendations with other performance recommendations, we recommend using State Management to manage Inspection Recommendations.

Before You Begin

- Make sure that the State Functionality is enabled in the **State Configuration** section of the Inspection Recommendation Family Management.
- Make sure that the Inspection Admin role or the Super User role is assigned to you.

Important: After you transition from Status to State, you cannot revert to Status again. However, you can restore Status of the Inspection Recommendation records by deleting the Inspection Status Upgrade family.

Procedure

1. Access the [Inspection Configuration workspace](#).
2. Select .
You can now modify the **Application Configurations** section.
3. Select the **Use State Management for Inspection Recommendations** check box.
A warning message appears.
4. Select **OK**, and then select .
The **Configure Status to State Mapping** button is enabled.
5. Select **Configure Status to State Mapping**.
The **Configure Status to State Mapping** window appears.
6. Select **Inspection Recommendation** in the drop-down list box of the **Source Family** column.
7. Select an existing **Inspection Recommendation Status** in the drop-down list box of the **Status** column.

8. In the drop-down list box of the **State** column, select the State that you want to map to the specified Status.
9. Repeat steps 6 through 8 for each Status available in the drop-down list box of the **Status** column.

Note: If a status is not mapped, a warning message appears. The Inspection Recommendation records with a status that is not mapped to a state fail to update during the process.

10. Select .

The mappings are saved.

11. Select **Update Records**.

An alert message appears, providing the number of records that are updated.

12. Select **Yes**.

The update job starts.

You can select the **View Scheduling** button to view the status of the update job. The duration of the update process depends on the number of records being updated. You can also download the log file to view the detailed log of the update job. If any record fails to update, you can run the job again to update only the failed records.

Tip: The Inspection Status Upgrade family tracks all the Inspection Recommendation records that are updated. If any of the records are updated incorrectly due to an incorrect mapping, you can delete the records from the Inspection Status Upgrade family, and then restart the update job with the correct mapping.

Configure Inspection Status to State Mapping

About This Task

APM supports the use of State Management for the approval work process of Inspection. If you are currently using the custom Status field in Inspection for the approval work process and want to use the State Management for Inspection, you must map each Status value in the Inspection Status field to a corresponding State in Inspection State Configuration. After you configure and save the mapping, you must update the existing Inspection records using the **Update Records** button so that all the Status values are updated to the mapped States. This ensures that current approval work process for Inspection now uses states.

For example, the following Inspection records use the Status field.

Inspection Reference	Asset ID	Functional Location ID	Inspection Headline	Status
INSP-24	HE-1608 CRUDE-HVY. ATMOS. GAS OIL	016-E-E3104A CRUDE-HVY. ATMOS. GAS OIL	Shell Corrosion	Draft
INSP-25	HE-1608 CRUDE-HVY. ATMOS. GAS OIL	C-488 LUBE/SEAL OIL COOLER ~ HXST 105	General Corrosion	Pending Approval
INSP-26	HE-1608 CRUDE-HVY. ATMOS. GAS OIL	C-488 LUBE/SEAL OIL COOLER ~ HXST 105	General Distortion	Pending Approval

To use the State field for Inspection, map each Status to the corresponding State. The following table provides a sample Status-to-State mapping.

Source Family	Status	State
Inspection	Draft	Draft
Inspection	Pending Approval	Pending Approval

You must update the existing records to use the State field for Inspection. The Inspection records are now updated to use the State field. The following table provides the updated Inspection records.


Inspection Reference	Asset ID	Functional Location ID	Inspection Headline	State
INSP-24	HE-1608 CRUDE-HVY. ATMOS. GAS OIL	016-E-E3104A CRUDE- HVY. ATMOS. GAS OIL	Shell Corrosion	Draft
INSP-25	HE-1608 CRUDE-HVY. ATMOS. GAS OIL	C-488 LUBE/SEAL OIL COOLER ~ HXST 105	General Corrosion	Pending Approval
INSP-26	HE-1608 CRUDE-HVY. ATMOS. GAS OIL	C-488 LUBE/SEAL OIL COOLER ~ HXST 105	General Distortion	Pending Approval

The State Configuration for Inspection uses security roles to perform specific functions. For example, only a user with the Inspector Supervisor role can change the status from Pending Review to Pending Approval. However, during the update, security is not enforced to transition to a State.


Before You Begin

- Make sure that the State Functionality is enabled in the **State Configuration** section of the Inspection family and Custom states are added, which will be mapped to the custom statuses.
- Make sure that the Inspection Admin role or the Super User role is assigned to you.

Procedure

1. Access the [Inspection Configuration workspace](#).
2. Select  .
You can now modify the **Application Configurations** section.
3. Select **Configure Status to State Mapping** for the Map Inspection Status to State row.
The **Configure Status to State Mapping** window appears.
4. Select **Inspection** in the drop-down list box of the **Source Family** column.
5. Select an existing **Inspection Status** in the drop-down list box of the **Status** column.
6. In the drop-down list box of the **State** column, select the State that you want to map to the specified Status.
7. Repeat steps 4 through 6 for each Status available in the drop-down list box of the **Status** column.

Note:

- If a status is not mapped, a warning message appears. The Inspection records with a status that is not mapped to a state fail to update during the process.
 - To show a custom Status in the list, add it to MI_STATUS with a reference to Inspection Document Status.
8. Select  .
The mappings are saved.
 9. Select **Update Records**.
An alert message appears, providing the number of records that are updated.
 10. Select **Yes**.
The update job starts.

You can select the **View Scheduling** button to view the status of the update job. The duration of the update process depends on the number of records being updated. You can also download the log file to view the detailed log of the update job. If any record fails to update, you can run the job again to update only the failed records.

About Event Configurations




This topic has been intentionally excluded from the APM product documentation website. This topic is available to you via the product documentation that is provided within the APM system.

Modify the Asset Query Path and the Alerts Query Path

About This Task


The Asset Query Path and the Alerts Query Path fields are populated with [default query paths](#). This topic describes how to modify these values.


Procedure

1. Access the [Inspection Configuration workspace](#).
2. In the upper-right corner of the workspace, select .
The **Application Configurations** section is now modifiable.
3. In the **Application Configurations** section, in the row containing the Asset Query Path field, select .
The **Select a query from the catalog** window appears.
4. Navigate the Catalog to select the query that you want the Application Configuration to use for the Asset Query Path field, and then select **Open**.
The selected query appears in row containing the Asset Query Path field.
5. In the upper-right corner of the workspace, select .
The Asset Query Path is saved for the Application Configuration.
6. Repeat steps 3-5 for the Alerts Query Path field.

Modify Profile Configuration







Procedure

- Modify the Taxonomy Profile Configuration
 1. Access the [Inspection Configuration workspace](#).
 2. Select the **Profile Configurations** tab.
The **Profile Configurations** section appears.
 3. In the upper-right corner of the workspace, select .
The **Profile Configurations** section is now modifiable.
 4. In the **Pick a Source** box, select **Taxonomy**.

Tip: To add a Taxonomy Profile Configuration, in the upper-right corner of the section, select .

5. Enter values in the following boxes:
 - In the **Category** box, select the asset used by the Profile Configuration.
 - In the **Class** box, select the type of equipment used by the Profile Configuration.
 - In the **Type** box, select the type of component used by the Profile Configuration.

The value in the **Profiles** column is populated based on the selected information.




6. Select the link in the **Profiles** column.
The **Select Profiles** window appears.
 7. Select the check box for each profile that you want to add.
 8. Select **Done**.
The selected profiles are added to the Profile Configuration.
 9. In the workspace heading, select .
The new Taxonomy Profile Configuration is modified.
- Modify the Profile System Code Configuration
 1. Access the **Inspection Configuration** workspace.
 2. Select the **Profile Configurations** tab.
The **Profile Configurations** section appears.
 3. In the upper-right corner of the workspace, select .
The **Profile Configuration** section is now modifiable.
 4. In the **Pick a Source** box, select **System Code**.
 5. In the **Pick a system code table for generating profile items** box, select the System Code table that you want the Profile Configuration to use.
 6. In the upper-right corner of the workspace, select .
The System Code Profile Configuration is modified.
 - Modify the Profile Query Configuration
 1. Access the **Inspection Configuration** workspace.
 2. Select the **Profile Configurations** tab.
The **Profile Configurations** section appears.
 3. In the upper-right corner of the workspace, select .
The **Profile Configuration** section is now modifiable.
 4. In the **Pick a Source** box, select **Query**.
 5. Next to the **Path to profile query** box, select **Browse**.
The **Select a query from the catalog** window appears.
 - Modify the Profile Query Configuration
 1. Access the **Inspection Configuration** workspace.
 2. Select the **Profile Configurations** tab.
The **Profile Configurations** section appears.
 3. In the upper-right corner of the workspace, select .
The **Profile Configuration** section is now modifiable.
 4. In the **Pick a Source** box, select **Query**.
 5. Next to the **Path to profile query** box, select **Browse**.
The **Select a query from the catalog** window appears.
 6. Navigate the Catalog to select the query that you want the Profile Configuration to use, and then select **Open**.
 7. In the upper-right corner of the workspace, select .
The Query Profile Configuration is modified.

Results

You can access the [Application Configurations](#) page to view the changes to the datasheet.





Delete a Taxonomy Profile Configuration

Procedure

1. Access the **Inspection Configuration** workspace.
2. Select the **Profile Configurations** tab.
The **Profile Configurations** section appears.
3. In the upper-right corner of the workspace, select .
The **Profile Configurations** section is now modifiable.
4. In the **Taxonomy** grid, in the rows containing one or more Profile Taxonomy Configurations that you want to delete, select the check boxes.
5. In the upper-right corner of the section, select .
A message appears, confirming that you want to delete the selected Profile Taxonomies.
6. Select **Yes**.
The selected Profile Taxonomies are deleted.
7. In the upper-right corner of the workspace, select .
The Profile Configuration is saved.



Modify Method Configuration

Procedure

- Modify the Method System Code Configuration
 1. Access the **Inspection Configuration** workspace.
 2. In the upper-right corner of the workspace, select .
The **Inspection Configuration** workspace is now modifiable.
 3. Select the **Method Configurations** tab.
The **Method Configurations** section appears.
 4. In the **Pick a Source** box, select **System Code**.
 - a. In the **Pick a system code table for generating profile items** box, select the System Code table that you want the Method Configuration to use.
 - b. In the upper-right corner of the workspace, select .
The Method System Code Configuration is modified.
- Modify the Method Query Configuration
 1. Access the **Inspection Configuration** workspace.
 2. In the upper-right corner of the workspace, select .
The **Inspection Configuration** workspace is now modifiable.
 3. Select the **Method Configurations** tab.
The **Method Configurations** section appears.
 4. In the **Pick a Source** box, select **Query**.
 - a. Next to the **Path to method query** box, select **Browse**.
The **Select a query from the catalog** window appears.
 - b. Navigate the Catalog to select the query that you want the Method Configuration to use.
 - c. In the upper-right corner of the workspace, select .
The Method Query Configuration is modified.



Add or Modify Event Configuration

Procedure

- Add an Event Configuration
 1. Access the [Inspection Configuration workspace](#).
 2. In the **Inspection Configuration** workspace, select the **Event Configurations** tab.
The **Event Configurations** section appears, displaying a list of the Event Configurations currently applied to the Inspection Configuration.
 3. In the workspace heading, select .
The grid in the **Event Configurations** section can now be modified.
 4. In the **Event Configurations** section, in the section heading, select .
 5. In the **Inspection Families** box, select the Inspection Family that you want to add to the Event Configuration, and then select **Done**.

Note: Only Inspection Families that are not already added to the Event Configuration appear in the box.


The new Event Configuration is added.

6. In the upper-right corner of the workspace, select .
- The new Event Configuration is added to the Inspection Configuration.
- Steps: Modify an Event Configuration
 1. Access the [Inspection Configuration workspace](#).
 2. Select the **Event Configurations** tab.
The **Event Configurations** section appears, displaying a list of the Event Configurations applied to the Inspection Configuration.
 3. In the upper-right corner of the workspace, select .
 4. As needed, modify values in the [available fields](#) in the following columns:
 - **Health Evaluation:** Select this option to generate Inspection Health Evaluation records for inspections of the family and related Checklist Template categories.
Tip: If the option is already selected, and you do not want to generate Inspection Health Evaluation records, clear the option.
 - **Auto Generate:** Select or clear the check box to generate or not to generate General Findings records based on the Inspection Scope of the task being addressed.
 - **Reviewer's Datasheet:** Select the datasheet that the inspection will use to complete the tasks.
 - **Related Families** : Associate functional roles for any related families associated with the family caption.




Modify or Delete Family Preferences




Procedure

- Modify Related Family Preferences
 1. Access the [Inspection Configuration workspace](#).

2. Select the **Event Configurations** tab.
The **Event Configurations** section appears, displaying a list of the Event Configurations currently applied to the Inspection Configuration.
3. In the upper-right corner of the workspace, select .
The grid in the **Event Configurations** section can now be modified.
4. Select the **Related Families** link that you want to modify.
The **Related Families** window appears.




Tip: To add a Related Family, in the upper-right corner of the **Related Families** box, select .

5. As needed, modify the following values:
 - In the **Relationship** column, select the relationship family for new related family.
 - In the **Family** column, select the inspection family for the new related family.
 - In the **Create** column, select or clear the check box to allow users to create new related family records.
 - In the **Delete** column, select or clear the check box to allow users to delete related family records.
 - In the **Link** column, select or clear the check box to allow users to link related family records.
 - In the **Unlink** column, select or clear the check box to allow users to unlink related family records.
 - In the **Offline** column, select or clear the check box to allow users to add related families to offline form.
6. Select **Done**.
One or more related families are modified.
7. In the upper-right corner of the workspace, select .
Related Family preferences are modified.
- Delete a Related Family
 1. [Access the Inspection Configuration workspace.](#)
 2. Select the **Event Configurations** tab.
The **Event Configurations** section appears, displaying a list of the Event Configurations currently applied to the Inspection Configuration.
- Steps: Delete a Related Family
 1. [Access the Inspection Configuration workspace.](#)
 2. Select the **Event Configurations** tab.
The **Event Configurations** section appears, displaying a list of the Event Configurations currently applied to the Inspection Configuration.
 3. In the upper-right corner of the workspace, select .
The grid in the **Event Configurations** section can now be modified.
 4. In the grid in the **Event Configurations** section, select the **Related Families** link that you want to delete.
The **Related Families** window appears.
- Delete a Related Family
 1. [Access the Inspection Configuration workspace.](#)
 2. Select the **Event Configurations** tab.
The **Event Configurations** section appears, displaying a list of the Event Configurations currently applied to the Inspection Configuration.
 3. In the upper-right corner of the workspace, select .
The grid in the **Event Configurations** section can now be modified.

4. In the grid in the **Event Configurations** section, select the **Related Families** link that you want to delete.
The **Related Families** window appears.
5. In the row for each Related Family that you want to delete, select the check box.
- Delete a Related Family
 1. Access the [Inspection Configuration workspace](#).
 2. Select the **Event Configurations** tab.
The **Event Configurations** section appears, displaying a list of the Event Configurations currently applied to the Inspection Configuration.
 3. In the upper-right corner of the workspace, select .
The grid in the **Event Configurations** section can now be modified.
 4. In the grid in the **Event Configurations** section, select the **Related Families** link that you want to delete.
The **Related Families** window appears.
 5. In the row for each Related Family that you want to delete, select the check box.
 6. In the upper-right corner of the window, select .
A message appears, confirming that you want to delete the selected Related Families.
 7. Select **Yes**.
The selected Related Families are deleted.
 8. In the upper-right corner of the window, select .
The Related Family preferences are saved.

Delete an Event Configuration

Procedure

1. Access the [Inspection Configuration workspace](#).
2. Select the **Event Configurations** tab.
The **Event Configurations** section appears, displaying a list of the Event Configurations applied to the Inspection Configuration.
3. In the upper-right corner of the workspace, select .
The grid in the **Event Configurations** section can now be modified.
4. Next to each Event Configurations that you want to delete, select the check box.
5. In the upper-right corner of the workspace, select .
A message appears, confirming that you want to delete the selected Event Configuration.
6. Select **Yes**.
The selected Event Configuration is deleted.
7. In the workspace heading, select .
The Event Configuration is saved.

Access a Checklist Configuration Template

About This Task


Super Users and members of the MI Inspection Security Group who also have an Inspection Administrator resource role can use the Inspection Configuration workspace to configure the information that is displayed in Inspection Management. For more information, see the documentation for [Inspection Management](#).

Procedure

1. Access the [Inspection Configuration](#) workspace.
2. Select the **Checklist Configurations** tab.
The **Checklist Configurations** section appears, displaying a list of available Checklist Inspection Templates.


Create a Checklist Configuration Template

Procedure

1. Access the [Checklist Configurations](#) section.
2. In the **Checklist Configurations** section, select .
The **Template Name** window appears.
3. In the **Unique Template Name** box, enter a unique name for the Checklist Configuration Template, and then, in the **Select Family...** box, select an applicable Inspection family for the template.
Optionally, select the **Enable Asset Mapping** option when creating an Inspection based on the checklist inspection template. This allows you to map the checklist categories to the existing assets.
Note: This will be the Inspection family for which this template will create a set of Checklist Findings represented by the template. In the baseline configuration, Checklist Inspection Template is the only available family.
4. Select **Done**.
The new Checklist Configuration Template appears.

Delete a Checklist Configuration Template

Procedure


1. Access the [Checklist Configurations](#) section.
2. In the **Checklist Configurations** section, select the Checklist Configuration Template you want to delete.
3. Select .
4. Select **Yes**.
The selected Checklist Configuration Template is deleted.







Add Categories and Items to a Checklist Configuration Template

About This Task

After [creating a Checklist Configuration Template](#), you can select a checklist category from which you want to add items to the template. The selected checklist category is used to sort your selected items in the template. You can add multiple checklist categories that each contain one or more items to your Checklist Configuration Template.


Procedure

1. Access the [Checklist Configurations](#) section.
2. In the **Checklist Configurations** section, select the Checklist Configuration Template to which you want to add items.
3. In the **Checklist Configuration Template** section, select .


- The **New Category** window appears.
- In the **Category Name** box, select the category that contains the items you want to add.
The category items appear.
 - In the **Available Items** list, select one or more items that you want to include in the Checklist Configuration Template.
 - To add the items to the **Selected Items** list, select .
- Tip:** To remove an item from the **Selected Items** list, select the item you want to remove, and then select . To reorder items, select  and .
- Select **Done**.
The new category and selected items appear in the **Checklist Configuration Template** section.
- Note:** You can only add items from one checklist category at a time. To add another checklist category with items, you must complete the selections for the current checklist category, and then select .
- Select .
One or more checklist categories are added to the Checklist Configuration Template.

Delete a Category from a Checklist Configuration Template

Procedure

- Access the **Checklist Configurations** section.
- In the **Checklist Configurations** section, select the Checklist Configuration Template from which you want to delete checklist categories.
- In the **Checklist Configuration Template** section, select the checklist category you want to delete, and then select .


Note: When you delete a checklist category, the items contained in the checklist category are also deleted.

- Select **Yes**.
The checklist category is deleted.
- Select .
The Checklist Configuration Template is saved.

Delete an Item from a Checklist Configuration Template

Procedure

- Access the **Checklist Configurations** section.
- In the **Checklist Configurations** section, select the Checklist Inspection Template from which you want to delete an item.
- In the **Checklist Configuration Template** section, select the checklist category that contains the item you want to delete.

- Select the item you want to delete, and then select .
- Select **Yes**.



The item is deleted.

- Select .

The Checklist Configuration Template is saved.

Modify Categories and Items in a Checklist Configuration Template



Procedure

1. Access the [Checklist Configurations](#) section.
2. In the **Checklist Configurations** section, select the Checklist Configuration Template that you want to modify.
3. In the **Checklist Configuration Template** section, select the checklist category that you want to modify.
4. Select .
The **Edit Category** window appears.
5. Use > or < to add or remove items from the selected checklist category.
6. Optionally, you can modify the order of items within the selected checklist category using
7. Select **Done**.
8. Select .

The Checklist Configuration Template is saved.

Copy a Checklist Configuration Template

Procedure

1. Access the [Checklist Configurations](#) section.
2. In the **Checklist Configurations** section, select the Checklist Configuration Template you want to copy.
3. Select .
The **Template Name** window appears.
4. Enter a unique name for the Checklist Configuration Template you want to copy, and then select an Inspection Family in the list.
Optionally, select the **Enable Asset Mapping** option when creating an Inspection based on the checklist inspection template. This allows you to map the checklist categories to the existing assets.
5. Select **Done**.
The Checklist Configuration Template you copied appears in the **Inspection Configuration** workspace.
6. Select .
The copied Checklist Configuration Template is saved.

Taxonomy Configuration

About Taxonomy Configuration

This topic has been intentionally excluded from the APM product documentation website. This topic is available to you via the product documentation that is provided within the APM system.

Access Taxonomy Configuration

About This Task

This topic has been intentionally excluded from the APM product documentation website. This topic is available to you via the product documentation that is provided within the APM system.

Create a Taxonomy Configuration

About This Task

This topic has been intentionally excluded from the APM product documentation website. This topic is available to you via the product documentation that is provided within the APM system.

Delete a Taxonomy Configuration

About This Task

This topic has been intentionally excluded from the APM product documentation website. This topic is available to you via the product documentation that is provided within the APM system.

Link a Checklist Configuration Template to a Taxonomy Configuration

About This Task

This topic has been intentionally excluded from the APM product documentation website. This topic is available to you via the product documentation that is provided within the APM system.

Link an Inspection Family to a Taxonomy Configuration

About This Task

This topic has been intentionally excluded from the APM product documentation website. This topic is available to you via the product documentation that is provided within the APM system.

Unlink a Checklist Configuration Template from a Taxonomy Configuration

About This Task

This topic has been intentionally excluded from the APM product documentation website. This topic is available to you via the product documentation that is provided within the APM system.

Unlink an Inspection Family from a Taxonomy Configuration

About This Task

This topic has been intentionally excluded from the APM product documentation website. This topic is available to you via the product documentation that is provided within the APM system.

Overview Configuration

Modify Date Filters



About This Task

In the **Date Filters** section, you can modify the date filters that appear in the **Underlying Inspection Tasks**, **Underlying Open Recommendations**, and **Recommendations Due for Implementation** sections. When you select a Default filter, the selected filter will show only the corresponding tasks and recommendations when a user navigates to the page. When you select the **Display** check box beside a filter, the selected filter will appear as an option in the list of filters in the respective page.

Note: By default, the 30 Days filter is selected for the **Underlying Inspection Tasks**, and **Underlying Open Recommendations**, and **Recommendations Due for Implementation** sections.

Tip: If the user selects an available filter in the page other than the **Default** filter defined by the administrator, refreshing the page or navigating to a different page will reset the filter to the **Default** filter instead of the filter that the user selected.

Procedure

1. In the **Applications** menu, navigate to **ADMIN > Application Settings > Inspection Management**.
2. Select **Overview Configuration**.
The **Overview Configuration** workspace appears, displaying the **Date Filters** section.
3. In the **Date Filters** section, select .
The **Date Filters** section can now be modified.
4. In the **Task Next Date Filter Options** list:
 - In the **Default** column, select the filter that you want to use as the default.
 - In the **Display** column, select the filters that you want to use in the **Underlying Inspection Tasks** page.
 - Optionally, if you selected the **Custom** filter as the default filter, enter values in the **Months Prior to Current Date** and **Months After Current Date** boxes.
5. In the **Recommendation Target Completion Date Filter Options** list:
 - In the **Default** column, select the filter that you want to use as the default.
 - In the **Display** column, select the filters that you want to use in the **Underlying Recommendations** page.
 - Optionally, if you selected the **Custom** filter as the default filter, enter values in the **Months Prior to Current Date** and **Months After Current Date** boxes.
6. In the **Recommendations Due for Implementation Date Filter Options** list:
 - In the **Default** column, select the filter that you want to use as the default.
 - In the **Display** column, select the filters that you want to use in the **Underlying Recommendations** page.
 - Optionally, if you selected the **Custom** filter as the default filter, enter values in the **Months Prior to Current Date** and **Months After Current Date** boxes.
7. Select .
The date filters are saved.

About Queries

The **Queries** section of the **Overview Configuration** workspace displays query paths for navigating the **Functional Location Overview** and **Asset Overview** pages in Inspection Management. For a complete list of queries and their expected behavior, refer to the [Overview Queries Folder](#) on page 210 in Inspection Management.

Compliance Configuration

Compliance Configuration

For more information about the administrative settings for Compliance Management, refer to the Compliance Management documentation.

Human Resources

Access Human Resources

About This Task




Important: To access Human Resources, you must be associated with either the MI Inspection or the MI Power Security Group, and you must have the [Inspection Administrator Resource Role](#).

Procedure

1. [Access the Inspection Configuration workspace](#).
2. In the left pane, select **Manage Human Resources**.
The **Manage Human Resources** workspace appears, displaying a list of available Human Resources.
3. In the row containing the Human Resource whose Resource Roles you want to manage, select **Manage Resource Roles**.
The Human Resource with Role Details datasheet for the selected Human Resource appears, displaying the **Master** section.

Add a New Human Resource








Procedure

1. [Access Human Resources](#).
 2. In the upper-right corner of the workspace, select , and then select  **Add**.
The **Resource Information** datasheet appears.
 3. As needed, enter values in the available fields, and then select .
- The new Human Resource record is saved.

Note: Although you accessed an existing Human Resource to create a new Human Resource, the new record is not linked to the old record.



Copy a Human Resource

Procedure

1. [Access the Human Resource](#) that you want to copy.
2. In the upper-right corner of the workspace, select , and then select  **Copy**.
3. In the upper-right corner of the workspace, select , and then select  **Add**.
The **Resource Information** datasheet appears.
4. In the upper-right corner of the workspace, select , and then select  **Paste**.
The fields from the source record are copied to the new Human Resource record.
5. As needed, modify values in the available fields.
6. Select .
The copied Human Resource record is saved.


Delete a Human Resource

Procedure

1. [Access the Human Resource](#) that you want to delete.
2. In the upper-right corner of the workspace, select , and then select  **Delete**.
A message appears, asking you to confirm that you want to delete the Human Resource.
3. Select **Yes**.
The Human Resource record is deleted.


Add a Resource Role to an Existing Human Resource

Procedure

1. [Access the Human Resource](#) to which you want to add a Resource Role.
2. Select the **Detail** tab.
The **Detail** section appears.
3. Enter values in the following fields:
 - In the Category field, select the type of role the human resource will have.
 - In the Role field, select the user's position within the organization.
4. Select .
The Resource Role is saved and added to the existing Human Resource record.



Modify a Resource Role

Procedure

1. [Access the Human Resource](#) whose Resource Role that you want to modify.
2. As needed, modify values in the available fields, and then select .
The Resource Role is saved.




Unlink Resource Roles

Procedure

1. [Access the Human Resource](#) from which you want to unlink Resource Roles.
2. Select the **Detail** tab.
The **Detail** section appears.
3. In the upper-right corner of the **Detail** section, select .
A column of check boxes appear next to the Category field.
4. Next to each Resource Role that you want to unlink, select the check box.
5. In the upper-right corner of the **Detail** section, select , and then select **Unlink**.
A message appears, asking you to confirm that you want to unlink the selected Resource Roles.
6. Select **Yes**.
The selected Resource Roles are unlinked from the Human Resource record.

Delete Resource Roles

Procedure

1. [Access the Human Resource](#) containing the Resource Roles that you want to delete.
2. Select the **Detail** tab.
The **Detail** section appears.
3. In the upper-right corner of the **Detail** section, select .
A column of check boxes appears next to the **Category** column.
4. Next to each Resource Role that you want to delete, select the check box.
5. In the upper-right corner of the **Detail** section, select , and then select  **Delete**.
A message appears, asking you to confirm that you want to delete the selected Resource Roles.
6. Select **Yes**.
The selected Resource Roles are deleted from the Human Resource record.

Access Resource Certifications


Procedure

1. [Access the Inspection Configuration workspace](#).
2. In the **IM Admin Preferences** pane, select **Manage Human Resources**.
The **Manage Human Resources** workspace appears, displaying a list of available Human Resources.
3. In the row containing the Human Resource whose certifications you want to manage, select **Manage Resource Certifications**.
The Human Resource with Cert Details datasheet for the selected resource appears, displaying the **Master** section.

Add Resource Certifications to an Existing Human Resource


Procedure

1. [Access the Resource Certifications](#) of the Human Resource to which you want to add a Resource Certification.

2. Select the **Detail** tab.
The **Detail** section appears.
3. In the **Certification Type** box, select the type of Resource Certification that you want to add to the Human Resource, and:
 - In the **Cert ID** box, enter an ID number associated with the certification type.
 - In the **Cert Expiry Date** box, using the calendar function, select the date on which the certification expires.
4. Select .
The Resource Certification is saved and added to the existing Human Resource record.



Modify Resource Certifications

Procedure

1. [Access the Resource Certification](#) that you want to modify.
2. Modify values in the available fields, and then select .
The Resource Certification is saved.




Unlink Resource Certifications

Procedure

1. [Access the Resource Certifications](#) that you want to unlink from the Human Resource record.
2. Select the **Detail** tab.
The **Detail** section appears.
3. In the upper-right corner of the **Detail** section, select .
A column of check boxes appears next to the **Certification Type** column.
4. Next to each Resource Certification that you want to unlink, select the check box.
5. In the upper-right corner of the **Detail** section, select , and then select **Unlink**.
A message appears, asking you to confirm that you want to unlink the selected Resource Certifications.
6. Select **Yes**.
The selected Resource Certifications are unlinked from the Human Resource record.

Delete Resource Certifications

Procedure

1. [Access the Resource Certification](#) that you want to delete from the Human Resource record.
2. Select the **Detail** tab.
The **Detail** section appears.
3. In the upper-right corner of the Personnel Certification section, select .
A column of check boxes appears next to the **Certification Type** column.
4. Next to each Resource Certification that you want to delete, select the check box.
5. In the upper-right corner of the **Detail** section, select , and then select  **Delete**.
A message appears, asking you to confirm that you want to delete the selected Resource Certifications.

6. Select **Yes**.

The selected Resource Certifications are deleted from the Human Resource record.

Chapter 9

Deployment and Upgrade

Topics:

- [Deployment](#)
- [Upgrade](#)

Deployment

Deployment

Refer to the deployment information here [Deploy Inspection Management for the First Time](#).

Upgrade

Upgrade

Refer to the upgrade information here: Upgrade Inspection Management.

Chapter 10

Data Loaders

Topics:

- [Inspection Management \(IM\) Data Loaders](#)
- [Link TMLs to Inspection Task Data Loader](#)
- [Defer Inspection Tasks Data Loader](#)

Inspection Management (IM) Data Loaders

About the Inspection Management (IM) Data Loaders

The following Data Loaders are available in Inspection Management:

- Inspection Management (IM) Assets Data Loader
- Inspection Management (IM) Functional Location Data Loader

Throughout the documentation, these Data Loaders are collectively called the Inspection Management (IM) Data Loaders. You can use them to implement Inspection Management when you have inspection data in a legacy system. To import data using these Data Loaders, APM provides the following Excel templates:

- **Inspection Management (IM) Assets.xlsx:** Using this Data Loader, you can create or update Inspections and related records that are linked to Equipment records.
- **Inspection Management (IM) Functional Location.xlsx:** Using this Data Loader, you can create or update Inspections and related records that are linked to Functional Location records.

The data from the templates will be imported into APM using the corresponding Data Loaders.

Note:

- The Excel templates are referred to throughout this documentation as the data loader workbooks.
- Do not add any European Inspection related fields to the Data Loader templates.

You can use the data loader workbooks to create or update records in the following Inspection families:

- Inspection Confidence Evaluation
- Inspection Profile
- Inspection Method
- Inspection Task
- Inspection (i.e., Bundle Inspection, Full Inspection, General Inspection, Pressure Test Inspection, and all types of Checklists)
- General Finding
- Checklist Finding
- Bundle Sub-Inspection
- Pressure Test Sub-Inspection
- Inspection Recommendation
- Reference Document

Using the data loader workbooks, you can also create:

- Records that represent archived Inspections (i.e., inspections that have been completed and approved in the past). Since archived Inspections will be locked after creation, they cannot be updated using the data loader workbooks.
- Records of a custom sub inspection family that you may have created.

The data on the (Picklist) worksheet is not loaded when you load data.

Note: A data load for Inspection Management is intended to be completed by an individual in your organization who has been designated as being responsible for importing and maintaining Inspections in APM, usually an Inspector.

About the Inspection Management (IM) Data Loaders Requirements

This documentation assumes that your organization has fully completed the deployment of the Inspection Management module. The Inspection Management (IM) Data Loaders should only be used after the Inspection Management module has been implemented, and you have defined Site References, Functional Locations, and assets (Equipment records) for your organization.

Human Resources and Resource Roles

The Inspection Management (IM) Data Loaders expect that individuals in your organization who will be performing and reviewing Inspections have one or more of the following Resource Role records linked to their Human Resource records:

- Inspection Supervisor
- Inspector

Certain privileges are required to complete a data load based on to whether inspections are (Active or Archived and the State of the inspection Draft, Pending Approval, or Approved). Persons belonging to either the MI Inspection or the Data Loader User Security Group must:

... have the following Resource Role(s):	...with inspections that are:	...and inspections in the following State:	Notes
None	Active	Draft	None
Inspector or Contract Inspector Note: The Contract Inspector must be assigned as a Team Member to request approval on the Inspection Report by updating the State field.	Active	Pending Approval	None
Inspector and Inspection Supervisor	Archived	Approved	The Inspection Lock and the Final Inspection Lock are set to true.

Security Settings

The Security User performing the data load operation must be associated with either the MI Data Loader User or MI Data Loader Admin Security Role, and must also be associated with the MI Inspection Security Group, or a Security Role that is associated with this Security Group.

About the Inspection Management (IM) Data Loaders Inspection Types

The Inspection Management (IM) Data Loaders can be used to load two different types of Inspections:

- **Active Inspections:** Inspections that are still in the process of being completed or reviewed. After you load data, you can use the [Inspection Management Bulk Approval](#) feature to approve active inspections.

Note:

- If an inspection is currently downloaded for Integrity Mobile, it cannot be updated through the data loader until it has been synced back.

- If the **Use State Management for Inspection Recommendations** check box in Application Settings is selected, Active Inspection Recommendations are loaded in the Proposed state. If it is cleared, Active Inspection Recommendations are loaded in the Created status.
- **Archived Inspections:** Inspections that have been reviewed, locked, and archived. Because of the nature of approving archived inspections, it is best for one person to perform this function. In the data loader workbooks, archived Inspections are those that have both the Inspection Lock and Final Inspection Lock fields set to True, and the State field set to Approved. When an archived Inspection is loaded, the Inspection Report Owner and Reviewer's Name fields will be set to the name of the user performing the data load.

Note: If the **Use State Management for Inspection Recommendations** check box in Application Settings is selected, Archived Inspection Recommendations are loaded in the Completed state. If it is cleared, Archived Inspection Recommendations are loaded in the Implemented status.

Important: When you transition the state of a loaded recommendation to the Completed state, if the state is unavailable, an error appears in the data loader log, stating an error occurred while attempting to set the state for the archived recommendation to MI_COMPLETED. Also, the recommendation will remain in the Proposed state.

About the Inspection Management (IM) Data Loaders Data Model

This topic has been intentionally excluded from the APM product documentation website. This topic is available to you via the product documentation that is provided within the APM system.

About the Inspection Management (IM) Data Loaders General Loading Strategy

Prerequisites

- For Oracle databases, valid cell values are case-sensitive.
- The data loader workbook contains sample data in each column. It is only for your reference. You must remove this data before using the data loader workbook.

Best Practices

When importing data using the Inspection Management (IM) Data Loaders, you must use the following best practices:

- ID fields (the second row on each worksheet) must not include special characters or spaces.
- Columns (including columns representing custom fields) on the worksheets should be formatted as Text.
- When loading archived Inspections, you do not need to set values for the Inspection Report Owner and Reviewer's Name cells. These fields will be set automatically to the name of the user who loads the data.
- The supported date formats, time zone, and units of measure will be based on the user's settings.
- When creating ID numbers for loading inspection data, choose unique values.
- The value in the Inspection Reference field must be unique.
- State ID rules are not executed when transitioning states of an inspection when it is uploaded using a data loader Excel. If there are any fields that are set as part of the state transition rule logic, those should be included as part of the Excel. For example, in a baseline configuration for an inspection being loaded in the Pending Approval state, if it is expected that the **Inspection Lock** field is set to True due to the state, the field should be marked as True in the Excel.

Load Sequence

The Inspection Management data load is performed in a specific sequence in order to create all necessary relationships between records:

1. The first step of the load sequence differs based on whether you are using the Inspection Management (IM) Assets Data Loader or the Inspection Management (IM) Functional Location Data Loader.
If using the Inspection Management (IM) Assets Data Loader, the Assets worksheet is processed. An existing asset will be looked up based on values in the Equipment ID (MI_EQUIP000_EQUIP_ID_C), CMMS System (MI_EQUIP000_SAP_SYSTEM_C), and, if provided, Equipment Technical Number (MI_EQUIP000_EQUIP_TECH_NBR_C) cells.
If using the Inspection Management (IM) Functional Location Data Loader, the Functional_Location worksheet is processed. An existing Functional Location will be looked up based on values in the Functional Location ID (MI_FNCLOC00_FNC_LOC_C) and CMMS System (MI_FNCLOC00_SAP_SYSTEM_C) cells.
If an Asset or Functional Location specified on the respective worksheets does not exist, it will be skipped, along with all entries in the subsequent worksheets corresponding to that Asset or Functional Location.
2. The Inspection_Profile worksheet is processed. For each row based on the cells specified in step 1, an Inspection Profile is looked up. If the Asset or Functional Location does not have a corresponding Inspection Profile, a new record will be created and linked.
3. The Inspection_Method worksheet is processed. The assets or Functional Locations from step 1 and the Inspection Profiles from step 2 are considered, in addition to the following columns on the worksheet: Item Category (MI_PROFINSP_ITEM_CAT_C), Method Category (MI_INSPMETH_ITEM_CAT_C), Method ID (MI_INSPMETH_ITEM_ID_C), and (only for assets) RBI Degradation Mechanism (MI_INSPMETH_DAMAGE_MECH_C).
4. If a corresponding Inspection Method is not found, a new Inspection Method record will be created. Otherwise, the record will be updated. The Inspection_Task worksheet is processed. The assets or Functional Locations from step 1 are considered as well as the following columns on the worksheet: Task ID (MI_TASK_ID), Reoccurring (MI_TASK_REOCC_FLG), and Override Interval (MI_TASK_OVERRIDE_INTER_F).
If the Reoccurring cell is set to True, the Next Date cell cannot be specified because the task is reoccurring. As a result, the Next Date value will be automatically calculated.
If the Override Interval cell is set to False, the setting of the Desired Interval cell by the data loader will not occur and the Desired Interval will be set to 0. Therefore, the Override Interval cell cannot be set to False.
If the Override Interval cell is set to False, but the value in the Desired Interval cell is less than the value in the Minimum Interval cell, the Desired Interval will be set to the value of Minimum Interval.
If the Reoccurring cell of the task is set to False, the Last Date and the Desired Interval cells cannot be specified. For tasks that are not set to reoccur, the following cells will not be copied from the data loader spreadsheet and they will have the following default settings:
 - The Last Date cell will be empty.
 - The Desired Interval cell will be set to 0.
5. The Inspections worksheet is processed. For each row based on the cells specified in step 1, as well as the Inspection Reference (MI_EVENT_ID) column, an Inspection. If no corresponding Inspection record is found, then a new record is created. Otherwise, the record will be updated.
If the State cell is set to Approved and the Final Inspection Lock (MI_INSP_001_LOCK_FINAL_L) cell is set to True, the record will be considered an Archived Inspection. The Reviewer and Inspection Owner fields are automatically set to the user performing the data load.
If the Inspection Task Complete field has been added as a column to the worksheet, and if values have been provided, an error message will be added to the log, and data in the columns will be skipped.

State is used for Inspection approval process instead of Inspection Document Status. If a customer adds both the State (MI_SM_STATE_ID_C) and Inspection Document Status (MI_INSP_001_STATUS_INSP_C) in the excel, a warning message is logged, and the State field is used to process the record.

If there is an archived Asset Corrosion Analysis associated with the asset, the most recent analysis that is not archived is linked to the Inspection.

If an existing Inspection is being updated via the data load, but the Inspection Lock field for the record is set to True, and:

- ...you are not the user designated in the Inspection Report Owner field, an error message will be added to the log and the Inspection will not be updated.
 - or-
 - ...you are the user designated in the Inspection Report Owner field, but the data being loaded via the Excel workbook does not set the corresponding Inspection Lock cell to False, an error message will be added to the log and the Inspection will not be updated.
6. The General_Finding worksheet is processed. Based on the fields in steps 1 and 5, and the Inspection Profile and Method, a General Finding record will be looked up. If the record is not found, then a new record is created. Otherwise, the record will be updated.
 7. The Checklist_Finding worksheet is processed. Based on the fields in steps 1 and 5, and the Checklist Finding Name and Category, a Checklist Finding record is looked up. If a corresponding Checklist Finding is found, the record will be updated.
 8. The Inspection_Recommendation worksheet is processed. Based on the fields in steps 1 and 5, and the Recommendation ID (MI_REC_ID) column, an Inspection Recommendation is looked up. If a corresponding Inspection Recommendation is not found, then a new record is created. Otherwise, the record will be updated.
- If the Inspection Recommendation record is associated with an Archived Inspection, then the Author Name and Reviewer Name fields for the Inspection Recommendation record will be set to the user performing the data load.
9. The Reference_Document worksheet is processed. Based on the field in step 5, and the Reference Document ID (CTIT_ID) column, a Reference Document is looked up. If a corresponding Reference Document is not found, then a new record is created. Otherwise, the record will be updated.
 10. The Bundle_Sub_Inspection, the Pres_Test_Sub_Inspection, and the Inspection_Confidence Worksheets are processed. Based on the field in step 5, and the Inspection Reference (MI_EVENT_SUB_INSP_ID) column, the related inspection is looked up. If a corresponding related sub-inspection record is not found, a new record will be created.

Currently, the sub-inspection families that are supported by the Inspection Management (IM) Data Loaders are the Bundle Sub-Inspection and Pressure Test Sub-Inspection families.

For the Bundle Sub-Inspection family, there are several combinations of column values which you cannot load and the combination of these column values will result in an error:

- An error will be issued in the log if the value of the Action This Inspection column is set to NO ACTION and any of the following columns have a value:
 - Tubes Plugged During This Inspection
 - Tubes (Plugged At Start) Replaced
 - Tubes (Not Previously Plugged) Replaced
- An error will be issued in the log if the value in the Action This Inspection cell is set to TUBES PLUGGED, TOTAL RETUBE, or BUNDLE REPLACED and any of the following columns are set to:
 - Tubes (Plugged At Start) Replaced
 - Tubes (Not Previously Plugged) Replaced
 - The column header for the sub-inspection Reference value will be different for each sub-inspection family, but will be similar to <Sub-Inspection Family Name> Reference.

- The value in the sub-inspection reference column will be stored in the Inspection Reference column of each created Sub-Inspection record. That column will be used for lookup when performing further loads.
- The sub-inspection will be updated with the data given from the Inspection Management (IM) Data Loaders Template.
- Since a relationship definition does not exist between the Bundle Sub-Inspection family and the General Inspection family, an error will be issued.

Note: If the relationship definition is added between the Bundle Sub-Inspection family and the General Inspection family, the Bundle Sub Inspection family will load.

About the Inspection Management (IM) Data Loaders Workbook Layout and Use

To import data using the Inspection Management (IM) Data Loaders, APM provides the following Excel workbooks:

- Inspection Management (IM) Assets.xlsx (for Inspections related to Equipment records)
- Inspection Management (IM) Functional Location.xlsx (for Inspections related to Functional Location records)

You must use these workbooks to load the data. You can modify the Excel workbooks to include custom fields used by your organization. Generally, your organization will use one of the two workbooks, but not both.

Note: The Excel workbooks are referred to throughout this documentation as the data loader workbooks.

The following table provides a list of worksheets that are included in the data loader workbooks. Unless otherwise specified, the worksheets appear in both the workbooks.

Worksheet	Description
Assets	This worksheet is used to specify existing Equipment records to which Inspections and related records will be linked. This worksheet appears only in the Inspection Management (IM) Assets Data Loader workbook.
Functional_Location	This worksheet is used to specify existing Functional Location records to which Inspections and related records will be linked. This worksheet appears only in the Inspection Management (IM) Functional Location Data Loader workbook.
Inspection_Profile	This worksheet is used to specify Inspection Profile records that you want to create or update.
Inspection_Method	This worksheet is used to specify Inspection Method records that you want to create or update.
Inspection_Task	This worksheet is used to specify Inspection Task records that you want to create or update.

Worksheet	Description
Inspections	This worksheet is used to specify the following records: <ul style="list-style-type: none"> • Bundle Inspection • Full Inspection • General Inspection • Pressure Test Inspection • All types of Checklists
Inspection_Confidence_Eval	This worksheet is used to specify Inspection Confidence Evaluation records that you want to create or update.
Bundle_Sub_Inspection	This worksheet is used to specify Bundle Sub-Inspection records that you want to create or update.
Press_Test_Sub_Inspection	This worksheet is used to specify Pressure Test Sub-Inspection records that you want to create or update.
General_Finding	This worksheet is used to specify General Finding records that you want to create or update.
Checklist_Finding	This worksheet is used to specify Checklist Finding records that you want to update.
Custom_Sub_Inspection	If you have created a custom sub inspection family, this worksheet is used to specify the custom sub inspection records that you want to create or update.
Inspection_Recommendation	This worksheet is used to specify Inspection Recommendation records that you want to create or update.
Reference_Document	This worksheet is used to specify Reference Document records that you want to create or update.
(Picklist)	This worksheet contains a list of valid values that you can enter in each column (as applicable) in the aforementioned worksheets. When you load data using the data loader, the data on this worksheet is not loaded.

Color Coding

Certain columns on the worksheets have different functions and requirements. To illustrate this, certain columns are color-coded. The following table lists the colors and what they represent.

Color	Description	Comments
Grey	Lookup Fields	Indicates columns that contain values that are used by the Inspection Management (IM) Data Loaders to look up and create records. If these columns are removed from the worksheets, the data load will fail. While the worksheets require that these columns be present, values are not necessarily required in these columns.
Red	Fields Required for Saving Records	Indicates columns that contain values that are required to save the record.
Blue	Recommended Fields	Indicates columns that, according to APM Best Practice for Inspection Management, should contain values.
Green	Custom Fields	Indicates columns in which you can specify custom fields.

Limitations

The Inspection Management (IM) Data Loaders have the following limitations:

- The values that you enter in the data loader workbooks are case-sensitive.
- When you use the data loader to update Inspection Management families:
 - If a cell contains data, the value in the corresponding field will be updated in the database.
 - If a cell is blank, the value in the corresponding field will not be updated with a blank value in the database. The value that previously existed in the field is retained.
- If you reimport data, the records that have been created by the Data Loaders will be updated. Therefore, while reimporting data, if you remove the data for a field in the data loader workbooks, the value for the corresponding field in APM will be either a default value or blank.

Tip: If you do not want to update a field value, you can remove the corresponding column from the data loader workbooks. You cannot, however, remove columns that correspond to required fields.

Assets Worksheet

On the Assets worksheet, you can specify assets to which you want to link Inspections and related records. The columns that appear on this worksheet also appear on every subsequent worksheet, and are used to identify the records that will be linked, directly or indirectly, to the assets. This worksheet only appears in the Inspection Management (IM) Assets Data Loader workbook.

Note: Each row in this worksheet represents a unique asset. You should not include the same asset more than once.

Field Caption	Field ID	Data Type (Length)	Comments
Equipment ID	MI_EQUIP000_EQUIP_ID_C	Character (255)	A value is required in at least one cell.
CMMS System	MI_EQUIP000_SAP_SYSTEM_C	Character (255)	If the Equipment record for an asset has a value in the CMMS System field, you must enter that value in this column.
Equipment Technical Number	MI_EQUIP000_EQUIP_TECH_NBR_C	Character (255)	If the CMMS System column contains a value, and the Equipment record for the asset has a value in the Equipment Technical Number field, you must enter that value in this column. If the CMMS System column does not contain a value, this column can be blank, even if the Equipment record contains a value for the Equipment Technical Number field.

Functional_Location Worksheet

On the Functional_Location worksheet, you can specify Functional Location records to which you want to link Inspections and related records. The columns that appear on this worksheet also appear on every subsequent worksheet, and are used to identify the records that will be linked, directly or indirectly, to the Functional Locations. This worksheet appears only in the Inspection Management (IM) Functional Location Data Loader workbook.

Note: Each row in this worksheet represents a unique Functional Location. You should not include the same Functional Location more than once.

Field Caption	Field ID	Data Type (Length)	Comments
Functional Location ID	MI_FNCLOC00_FNC_LOC_C	Character (255)	A value is required in at least one cell.
CMMS System	MI_FNCLOC00_SAP_SYSTEM_C	Character (255)	If the CMMS System field in the Functional Location record contains a value, you must enter that value in this column.

Inspection_Profile Worksheet

On the Inspection_Profile worksheet, you can specify Inspection Profile records that you want to create or update.

Note: Each row represents a unique record, though multiple records may be related to the same asset.

Field Caption	Field ID	Data Type (Length)	Comments
Equipment ID	MI_EQUIP000_EQUIP_ID_C	Character (255)	Values in this column must match the values entered on the Assets worksheet. You can link multiple records to the same asset.
Functional Location ID	MI_FNCLOC00_FNC_LOC_C	Character (255)	Values in this column must match the values entered on the Functional_Location worksheet. You can link multiple records to the same Functional Location.
CMMS System	MI_EQUIP000_SAP_SYSTEM_C MI_FNCLOC00_SAP_SYSTEM_C	Character (255)	Values in this column must match the values entered on the Assets or Functional_Location worksheet, if they exist. You can link multiple records to the same asset or Functional Location.
Equipment Technical Number	MI_EQUIP000_EQUIP_TECH_N BR_C	Character (255)	Values in this column must match the values entered on the Assets worksheet, if they exist. You can link multiple records to the same asset.
Item Category	MI_PROFINSP_ITEM_CAT_C	Character (50)	A value is required. This column must only contain System Code IDs from the MI_INSPECTION_PROFILE_CATEGORY System Code Table. Refer to the (Picklist) worksheet for a list of values that you can enter in this column.
Item Description	MI_PROFINSP_ITEM_DESC_C	Text	None
RBI Component	MI_PROFINSP_COMPONENT_C	Character (250)	This column must only contain the Entity ID of an existing Criticality RBI Component record that is linked to the same asset or Functional Location as the Inspection Profile.

Field Caption	Field ID	Data Type (Length)	Comments
RBI Component Family	MI_PROFINSP_COMP_FAM_C	Character (100)	This column must only contain the Family name of the Criticality RBI Component specified in the RBI Component column (e.g., Criticality RBI Component - Piping). This column appears only in the Inspection Management (IM) Assets Data Loader workbook.
Sequence	MI_PROFINSP_SEQUENCE_N	Numeric	None

Inspection_Method Worksheet

On the Inspection_Method worksheet, you can specify Inspection Method records that you want to create or update.

Note: Each row represents a unique record, though multiple records may be related to the same Inspection Profile.

Field Caption	Field ID	Data Type (Length)	Comments
Equipment ID	MI_EQUIP000_EQUIP_ID_C	Character (255)	Values in this column must match the values entered on the Assets worksheet. You can link multiple records to the same asset.
Functional Location ID	MI_FNCLOC00_FNC_LOC_C	Character (255)	Values in this column must match the values entered on the Functional_Location worksheet. You can link multiple records to the same Functional Location.
CMMS System	MI_EQUIP000_SAP_SYSTEM_C MI_FNCLOC00_SAP_SYSTEM_C	Character (255)	Values in this column must match the values entered on the Assets or Functional_Location worksheet, if they exist. You can link multiple records to the same asset or Functional Location.
Equipment Technical Number	MI_EQUIP000_EQUIP_TECH_N BR_C	Character (255)	Values in this column must match the values entered on the Assets worksheet, if they exist. You can link multiple records to the same asset.

Field Caption	Field ID	Data Type (Length)	Comments
Item Category	MI_PROFINSP_ITEM_CAT_C	Character (50)	Values in this column must match the values entered on the Inspection_Profile worksheet, if they exist. You can link multiple records to the same Inspection Profile.
Item ID	MI_PROFINSP_ITEM_ID_C	Character (255)	Values in this column must match the values entered on the Inspection_Profile worksheet, if they exist. You can link multiple records to the same Inspection Profile.
Method Category	MI_INSPMETH_ITEM_CAT_C	Character (100)	A value is required. The combination of values in the Method Category, Method ID, and RBI Degradation Mechanism columns must be unique per Inspection Profile. This column must only contain one of the System Code IDs from the MI_INSPECTION_METHOD_CATEGORY System Code Table. To verify which options are acceptable in your APM system, via Configuration Manager, refer to the appropriate table.
Method ID	MI_INSPMETH_ITEM_ID_C	Character (255)	A value is required. The combination of values in the Method Category, Method ID, and RBI Degradation Mechanism columns must be unique per Inspection Profile.

Field Caption	Field ID	Data Type (Length)	Comments
RBI Degradation Mechanism	MI_INSPMETH_DAMAGE_MECH_C	Character (255)	<p>A value is required.</p> <p>This column must only contain the Entity ID of a Potential Degradation Mechanism that is linked to the Criticality RBI Component specified in the corresponding RBI Component column on the Inspection_Profile worksheet.</p> <p>The combination of values in the Method Category, Method ID, and RBI Degradation Mechanism columns must be unique per Inspection Profile.</p> <p>Important: This column appears only in the Inspection Management (IM) Assets Data Loader workbook, and should not be included in the Inspection Management (IM) Functional Location Data Loader workbook.</p>
Description	MI_INSPMETH_ITEM_DESC_C	Character (1000)	None

Inspection_Task Worksheet

On the Inspection_Task worksheet, you can specify Inspection Task records that you want to create or update.

Note: Each row represents a unique record, though multiple records may be related to the same Inspection Profile.

Field Caption	Field ID	Data Type (Length)	Comments
Equipment ID	MI_EQUIP000_EQUIP_ID_C	Character (255)	Values in this column must match the values entered on the Assets worksheet. You can link multiple records to the same asset.
Functional Location ID	MI_FNCLOC00_FNC_LOC_C	Character (255)	Values in this column must match the values entered on the Functional_Location worksheet. You can link multiple records to the same Functional Location.

Field Caption	Field ID	Data Type (Length)	Comments
CMMS System	MI_EQUIP000_SAP_SYSTEM_C MI_FNCLOC00_SAP_SYSTEM_C	Character (255)	Values in this column must match the values entered on the Assets or Functional_Location worksheet, if they exist. You can link multiple records to the same asset or Functional Location.
Equipment Technical Number	MI_EQUIP000_EQUIP_TECH_N BR_C	Character (255)	Values in this column must match the values entered on the Assets worksheet, if they exist. You can link multiple records to the same asset.
Task ID	MI_TASK_ID	Numeric	A value is required and must be unique. This value identifies the Inspection Task.
Task Type	MI_TASK_TASK_TYPE_CHR	Character (255)	None
Task Description	MI_TASK_DESC_TX	Text	None
Task Details	MI_TASK_DETAILS_T	Text	None
Last Date	MI_TASK_LAST_DATE_DT	Date	Enter a value in the following format: YYYY-MM-DD hh:mm:ss
Override Interval	MI_TASK_OVERRIDE_INTER_F	Boolean	Enter True or False.
Desired Interval	MI_TASK_DESIR_INTER_NBR	Numeric	None
Next Date	MI_TASK_NEXT_DATE_DT	Date	Enter a value in the following format: YYYY-MM-DD hh:mm:ss
Next Date Basis	MI_TASK_NEXT_DATE_BASIS_C	Character (1000)	None
Coverage	MI_TASK_COVER_NBR	Numeric	None
Task Assigned To	MI_TASK_ASSGN_TO_C	Character (50)	None
Reoccurring	MI_TASK_REOCC_FLG	Boolean	Enter True or False. You can enter a value in this column only if you want to create an Inspection Task. If, however, you want to modify an Inspection Task using the data loader workbook, you cannot modify the value in this column.
Unconstrain Min/Max Dates	MI_TASK_UNCONSTR_MN_MX_ DT_FLG	Boolean	Enter True or False.
Min Interval	MI_TASK_MIN_INTER_NBR	Numeric	None

Field Caption	Field ID	Data Type (Length)	Comments
Max Interval	MI_TASK_MAX_INTER_NBR	Numeric	None
Inspection Document Type	MI_TASK_INSP_INSPTYPE_FML YID_C	Character (50)	None

Inspections Worksheet

On the Inspections worksheet, you can specify the following types of Inspections that you want to create or update:

- Bundle Inspection
- All types of Checklists (e.g., API 510 External Checklist, ILI Checklist)
- Full Inspection
- General Inspection
- Pressure Test Inspection

Note: Each row represents a unique record, though multiple records may be related to the same asset or Functional Location.

Important: If you have created a custom Inspection, and if you want to create or update records of that family using the data loader workbooks, ensure that the custom inspection family is linked to the Equipment or Functional Location family using the Has Inspections relationship definition.

Field Caption	Field ID	Data Type (Length)	Comments
Equipment ID	MI_EQUIP000_EQUIP_ID_C	Character (255)	Values in this column must match the values entered on the Assets worksheet. You can link multiple records to the same asset.
Functional Location ID	MI_FNCLOC00_FNC_LOC_C	Character (255)	Values in this column must match the values entered on the Functional_Location worksheet. You can link multiple records to the same Functional Location.
CMMS System	MI_EQUIP000_SAP_SYSTEM_C MI_FNCLOC00_SAP_SYSTEM_C	Character (255)	Values in this column must match the values entered on the Assets or Functional_Location worksheet, if they exist. You can link multiple records to the same asset or Functional Location.
Equipment Technical Number	MI_EQUIP000_EQUIP_TECH_N BR_C	Character (255)	Values in this column must match the values entered on the Assets worksheet, if they exist. You can link multiple records to the same asset.

Field Caption	Field ID	Data Type (Length)	Comments
Inspection Reference	MI_EVENT_ID	Character (255)	<p>A value is required.</p> <p>If the value in the Use System Generated ID column is False (or if the column is blank), then the value in this column must be unique.</p> <p>If the value in the Use System Generated ID column is True, then, after you load data, the value in this column is not used to populate the Inspection Reference field in the Inspection. Instead, a system-generated value is used to populate the field. In this case, the value in this column is used only to identify the records that must be linked to the Inspection.</p>
Use System Generated ID	MI_SYS_GEN_ID	Logical	<p>Enter True or False.</p> <p>If you enter False (or leave this column blank), after you load data, the value in the Inspection Reference column is used to populate the Inspection Reference field in the Inspection. The default value is False.</p> <p>If you enter True, after you load data, the value in the Inspection Reference field in the Inspection is populated with a system-generated value. In this case, even if you enter a value in the Inspection Reference column, it is not used to populate the field.</p> <p>If you want to use the data loader workbooks to modify an Inspection, the value in this column must be False (or you can leave this column blank). If, however, the value in this column is True, then, after you load data, the Inspection is not modified. Instead, a new Inspection is created.</p>

Field Caption	Field ID	Data Type (Length)	Comments
Checklist template name	MI_INSP_001_CHK_TMP_C	Character (255)	Values in this column are used to create Checklist Findings based on valid Checklist Template configuration.
Family ID	FMLY_ID	Character (255)	Values in this column are used to identify the type of the Inspection record that you want to create or update. In addition to the values specified on the (Picklist) worksheet, if you want to enter the family ID of a custom inspection family that you created, ensure that the family is linked to the Equipment or Functional Location family using the Has Inspections relationship family.
Inspection Headline	MI_EVENT_SHRT_DSC_CHR	Character (255)	None
Commencement Date	MI_EVENT_STRT_DT	Date	Enter a value in the following format: YYYY-MM-DD hh:mm:ss
Completion Date	MI_EVENT_END_DT	Date	Enter a value in the following format: YYYY-MM-DD hh:mm:ss
Tasks Addressed	MI_EVENT_TASKKEYS_C	Character (1000)	Enter a list of Entity Keys or Task IDs of Inspection Tasks, separated by commas. You can enter up to 20 values in each cell.
Equipment Operating State	MI_INSP_001_STATE_EQUIP_O P_C	Character (50)	This column must only contain the System Code IDs from the MI_EQUIP_OP_STATE System Code Table. If the system code table has been customized, the valid values could be different. Refer to the (Picklist) worksheet for a list of values that you can enter in this column.
Reason for Inspection	MI_INSP_001_REASON_C	Character (50)	Refer to the (Picklist) worksheet for a list of values that you can enter in this column.
Inspection Summary	MI_EVENT_LNG_DSC_TX	Text	None

Field Caption	Field ID	Data Type (Length)	Comments
Inspection Report Owner	MI_INSP_001_NAME_INSPECTOR_C	Character (255)	The value in this column must match an existing Security User who is assigned the Inspector Resource Role. Enter value in the following format: <Last Name>, <First Name> ~ <User ID>
State Id	MI_SM_STATE_ID_C	Character (50)	Refer to the (Picklist) worksheet for a list of values that you can enter in this column.
Inspection Lock	MI_INSP_001_LOCK_INSP_L	Boolean	Enter True or False. If the value in this column is True, and the Final Inspection Lock column is blank or False, the value in the Inspection Report Owner column must match the Security User who is loading the data.
Reviewers Name	MI_INSP_001_NAME_REVIEWER_C	Character (255)	The value in this column must match an existing Security User who is assigned the Inspection Supervisor Resource Role. Enter value in the following format: <Last Name>, <First Name> ~ <User ID>
Reviewers Comments	MI_INSP_001_COMMENTS_REVIEW_T	Text	None
Final Inspection Lock	MI_INSP_001_LOCK_FINAL_L	Boolean	Enter True or False. If the value in this column and the Inspection Lock column is True, the Inspection Report Owner and Reviewer's Name fields for the record will be populated with the name of the user who is loading the data.

Field Caption	Field ID	Data Type (Length)	Comments
Published	MI_INSP_001_PUBLISHED_L	Boolean	Enter True or False.
Inspection Confidence Evaluation Reviewed	MI_INSP_001_ICE_COMP_F	Boolean	<p>Enter True of False.</p> <p>If the value in this column is True, the Inspection Confidence Evaluation records are locked.</p> <p>You can update this field only if:</p> <ul style="list-style-type: none"> You have the Risk Analyst resource role assigned to you. The Allow Risk Analyst to Lock Inspection Confidence Evaluation Records check box is selected in the Application Configurations section of the Inspection Configuration workspace. <p>Note: This column is not a part of the baseline data loader template. If required, you can add this column to the Inspections worksheet.</p>

Inspection_Confidence_Eval Worksheet

On the Inspection_Confidence_Eval Worksheet, you can specify Inspection Confidence Evaluation records that you want to create or update.

Note: Each row represents a unique record, though multiple records may be related to the same Inspection Profile.

Field Caption	Field ID	Data Type (Length)	Comments
Equipment ID	MI_EQUIP000_EQUIP_ID_C	Character (255)	Values in this column must match the values entered on the Assets worksheet. You can link multiple records to the same asset.
Functional Location ID	MI_FNCLOC00_FNC_LOC_C	Character (255)	Values in this column must match the values entered on the Functional Location worksheet. You can link multiple records to the same Functional Location.

Field Caption	Field ID	Data Type (Length)	Comments
CMMS System (only for Asset load)	MI_EQUIP000_SAP_SYSTEM_C	Character (255)	Values in this column must match the values entered on the Assets worksheet. You can link multiple records to the same asset.
Equipment Technical Number	MI_EQUIP000_EQUIP_TECH_N BR_C	Character (255)	Values in this column must match the values entered on the Assets worksheet. You can link multiple records to the same asset.
Inspection Reference	MI_EVENT_ID	Character (255)	Value in this column must match the value in the Inspection Reference column of the parent inspection specified on the Inspections worksheet.
Inspection Confidence ID	MI_EVENT_SUB_INSP_ID	Character (255)	Enter a unique value in the following format: <Inspection Reference>-<Sequence Number>
RBI Component	MI_INSCONFEV_RBI_COMP_N	Numeric	<p>Enter the Component field value of an existing RBI Component.</p> <p>The value in this field should be a valid RBI Component for the Asset that the Inspection is related to.</p> <p>Note: This column is not a part of the baseline data loader template. If required, you can add this column to the Inspection_Confidence_Eval worksheet.</p>

Field Caption	Field ID	Data Type (Length)	Comments
Filter DM	MI_INSCONFEV_FILT_DM_F	Boolean	<p>Enter True or False.</p> <p>This field is required if the RBI Component field has a value. If the RBI Component field is blank, this field is ignored during loading.</p> <p>If the value in this column is True, and an RBI Component is specified, the degradation mechanism must belong to the specified RBI Component.</p> <p>Note: This column is not a part of the baseline data loader template. If required, you can add this column to the Inspection_Confidence_Eval worksheet.</p>
Degradation Mechanism	MI_INSP_001_DEG_MECH_C	Character (100)	<p>This column must only contain the System Code IDs from the DEGRADATION_MECHANISM_TYPES System Code Table.</p> <p>Refer to the (Picklist) worksheet for a list of values that you can enter in this column.</p>
Type of Inspection	MI_INSP_001_TYPE_C	Character (255)	<p>Refer to the (Picklist) worksheet for a list of values that you can enter in this column.</p>
Extent	MI_INSP_001_EXTENT_C	Character (1000)	<p>This column must only contain System Code IDs from the MI_MI_INSPECTION_EXTENT System Code Table.</p> <p>Refer to the (Picklist) worksheet for a list of values that you can enter in this column.</p>

Bundle_Sub_Inspection Worksheet

On the Bundle_Sub_Inspection worksheet, you can specify Bundle Sub-Inspection records that you want to create or update.

Note: Each row represents a unique record, though multiple records may be related to the same Inspection Profile.

Field Caption	Field ID	Data Type (Length)	Comments
Equipment ID	MI_EQUIP000_EQUIP_ID_C	Character (255)	Values in this column must match the values entered on the Assets worksheet. You can link multiple records to the same asset.
CMMS System	MI_EQUIP000_SAP_SYSTEM_C MI_FNCLOC00_SAP_SYSTEM_C	Character (255)	Values in this column must match the values entered on the Assets or Functional_Location worksheet, if they exist. You can link multiple records to the same asset or Functional Location.
Equipment Technical Number	MI_EQUIP000_EQUIP_TECH_N BR_C	Character (255)	Values in this column must match the values entered on the Assets worksheet, if they exist. You can link multiple records to the same asset.
Inspection Reference	MI_EVENT_ID	Character (255)	Values in this column must match the Inspection Reference of the parent inspection specified on the Inspections worksheet.
Bundle Sub Inspection Reference	MI_EVENT_SUB_INSP_ID	Character (255)	Values in this column are used to uniquely identify the Bundle Sub-Inspection. This field does not appear on the datasheet; however, it is used to uniquely identify the Bundle Sub-Inspection.
Bundle Tag	MI_EVENT_ASST_ID_CHR	Character (255)	None
Bundle Type	MI_INSPBUND_BUNDLE_TYPE_C	Character (50)	Refer to the (Picklist) worksheet for a list of values that you can enter in this column.
Total Number of Tubes In Bundle	MI_INSPBUND_TUBES01_N	Numeric	None
Action This Inspection	MI_INSPBUND_ACTION_THIS_I NSP_C	Character (50)	Refer to the (Picklist) worksheet for a list of values that you can enter in this column.
Tubes Plugged At Inspection Start	MI_INSPBUND_TUBES02_N	Numeric	None

Field Caption	Field ID	Data Type (Length)	Comments
Tubes Plugged During This Inspection	MI_INSPBUND_TUBES07_N	Numeric	This column is not applicable if the value in the Action This Inspection column is NO ACTION.
Tubes (Plugged At Start) Replaced	MI_INSPBUND_TUBES03_N	Numeric	This column is not applicable if the Action This Inspection column contains one of the following values: <ul style="list-style-type: none"> • NO ACTION • TUBES PLUGGED • TOTAL RETUBE • BUNDLE REPLACED
Tubes (Not Previously Plugged) Replaced	MI_INSPBUND_TUBES04_N	Numeric	This column is not applicable if the Action This Inspection column contains one of the following values: <ul style="list-style-type: none"> • NO ACTION • TUBES PLUGGED • TOTAL RETUBE • BUNDLE REPLACED
Bundle Inspection Summary	MI_EVENT_LNG_DSC_TX	Text	None

Press_Test_Sub_Inspection Worksheet

On the Press_Test_Sub_Inspection worksheet, you can specify Pressure Test Sub-Inspection records that you want to create or update.

Note: Each row represents a unique record, though multiple records may be related to the same parent Inspection Record.

Field Caption	Field ID	Data Type (Length)	Comments
Equipment ID	MI_EQUIP000_EQUIP_ID_C	Character (255)	Values in this column must match the values entered on the Assets worksheet. You can link multiple records to the same asset.
Functional Location ID	MI_FNCLOC00_FNC_LOC_C	Character (255)	Values in this column must match the values entered on the Functional_Location worksheet. You can link multiple records to the same Functional Location.

Field Caption	Field ID	Data Type (Length)	Comments
CMMS System	MI_EQUIP000_SAP_SYSTEM_C MI_FNCLOC00_SAP_SYSTEM_C	Character (255)	Values in this column must match the values entered on the Assets or Functional Location worksheet, if they exist. You can link multiple records to the same asset or Functional Location.
Equipment Technical Number	MI_EQUIP000_EQUIP_TECH_N BR_C	Character (255)	Values in this column must match the values entered on the Assets worksheet, if they exist. You can link multiple records to the same asset.
Inspection Reference	MI_EVENT_ID	Character (255)	Values in this column must match the Inspection Reference of the parent inspection specified on the Inspections worksheet.
Pressure Test Inspection Reference	MI_EVENT_SUB_INSP_ID	Character (255)	Enter a unique value. Values in this column are used to identify the Pressure Test Sub-Inspection.
Test Media - Shell Side	MI_INSPPTST_MEDIA_TEST_SH_C	Character (50)	None
Test Media - Tube Side	MI_INSPPTST_MEDIA_TEST_TB_C	Character (50)	None
Test Pressure - Shell Side	MI_INSPPTST_PRESS_TEST_SH_N	Numeric	None
Test Pressure - Tube Side	MI_INSPPTST_PRESS_TEST_TB_N	Numeric	None
Test Duration - Shell Side	MI_INSPPTST_DURATION_TEST_SH_N	Numeric	None
Test Duration - Tube Side	MI_INSPPTST_DURATION_TEST_TB_N	Numeric	None
Test Media Temperature - Shell Side	MI_INSPPTST_MEDIA_TEMP_SH_N	Numeric	None
Test Media Temperature - Tube Side	MI_INSPPTST_MEDIA_TEMP_TB_N	Numeric	None
No. of Gauges Used - Shell Side	MI_INSPPTST_NO_GAUGE_USE_D_SH_N	Numeric	None
No. of Gauges Used - Tube Side	MI_INSPPTST_NO_GAUGE_USE_D_TB_N	Numeric	None

Field Caption	Field ID	Data Type (Length)	Comments
Witnessed By - Shell Side	MI_INSPPTST_WITNESS_BY_SH_C	Character (255)	Enter a value in the following format: <Last Name>, <First Name> ~ <User ID>
Witnessed By - Tube Side	MI_INSPPTST_WITNESS_BY_TB_C	Character (255)	Enter a value in the following format: <Last Name>, <First Name> ~ <User ID>
SRV Set Pressure - Shell Side	MI_INSPPTST_SRV_SET_PRESS_SH_N	Numeric	None
SRV Set Pressure - Tube Side	MI_INSPPTST_SRV_SET_PRESS_TB_N	Numeric	None
Test Comments - Shell Side	MI_INSPPTST_COMMENTS_TES_T_SH_T	Text	None
Test Comments - Tube Side	MI_INSPPTST_COMMENTS_TES_T_TB_T	Text	None

General_Finding Worksheet

On the General_Finding worksheet, you can specify General Finding records that you want to create or update.

Note: Each row represents a unique record, though multiple records may be related to the same Full Inspection.

Field Caption	Field ID	Data Type (Length)	Comments
Equipment ID	MI_EQUIP000_EQUIP_ID_C	Character (255)	Values in this column must match the values entered on the Assets worksheet. You can link multiple records to the same asset.
Functional Location ID	MI_FNCLOC00_FNC_LOC_C	Character (255)	Values in this column must match the values entered on the Functional_Location worksheet. You can link multiple records to the same Functional Location.
CMMS System	MI_EQUIP000_SAP_SYSTEM_C MI_FNCLOC00_SAP_SYSTEM_C	Character (255)	Values in this column must match the values entered on the Assets or Functional_Location worksheet, if they exist. You can link multiple records to the same asset or Functional Location.

Field Caption	Field ID	Data Type (Length)	Comments
Equipment Technical Number	MI_EQUIP000_EQUIP_TECH_N BR_C	Character (255)	Values in this column must match the values entered on the Assets worksheet, if they exist. You can link multiple records to the same asset.
Inspection Reference	MI_EVENT_ID	Character (255)	Values in this column must match the values entered on the Inspections worksheet, if they exist. You can link multiple records to the same Inspection.
Inspection Profile Category	MI_FIND_001_ITEM_PROFILE_C AT_C	Character (100)	<p>A value is required.</p> <p>This column must only contain System Code IDs from the MI_INSPECTION_PROFILE_CATEGORY System Code Table. To verify which options are acceptable in your APM system, via Configuration Manager, refer to the appropriate table.</p> <p>The combination of values in the Inspection Profile Category, Inspection Profile Item, and Inspection Method Item columns must be unique.</p>
Inspection Profile Item	MI_FIND_001_ITEM_PROFILE_C	Character (100)	<p>A value is required.</p> <p>The combination of values in the Inspection Profile Category, Inspection Profile Item, and Inspection Method Item columns must be unique.</p>

Field Caption	Field ID	Data Type (Length)	Comments
Inspection Method Item	MI_FIND_001_ITEM_METHOD_C	Character (100)	<p>A value is required for each row.</p> <p>This column must only contain the System Code IDs from the MI_INSPECTION_METHOD_CATEGORY System Code Table. To verify which options are acceptable in your APM system, via Configuration Manager, refer to the appropriate table.</p> <p>The combination of values in the Inspection Profile Category, Inspection Profile Item, and Inspection Method Item columns must be unique.</p>
Sequence	MI_FIND_001_SEQUENCE_N	Numeric	None
Location Details	MI_FIND_001_LOCATION_DETAILS_C	Text	None
Headline	MI_FIND_001_HEADLINE_C	Character (50)	None
Finding Summary	MI_FIND_001_SUMMARY_T	Text	None
Type	MI_FIND_001_TYPE_C	Character (100)	<p>This column must only contain the System Code IDs from the MI_FINDING_TYPE System Code Table.</p> <p>Refer to the (Picklist) worksheet for a list of values that you can enter in this column.</p>
As Found Degradation Mechanism	MI_FIND_001_MECH_DET_C	Character (100)	<p>This column must only contain the System Code IDs from the MI_DAMAGE_MECHANISM System Code Table.</p> <p>Refer to the (Picklist) worksheet for a list of values that you can enter in this column.</p>
Damage Mode	MI_FIND_001_MODE_DET_C	Character (100)	<p>This column must only contain the System Code IDs from the MI_DAMAGE_MODE System Code Table.</p> <p>Refer to the (Picklist) worksheet for a list of values that you can enter in this column.</p>

Field Caption	Field ID	Data Type (Length)	Comments
Action Taken Code	MI_FIND_001_ACT_TAKEN_CODE_C	Character (100)	Refer to the (Picklist) worksheet for a list of values that you can enter in this column.
Action Taken Description	MI_FIND_001_ACT_TAKEN_DESCRIPTION_T	Text	None
Predictable	MI_FIND_001_PREDICTABLE_C	Character (3)	In the baseline APM system, This column must only contain the following System Code IDs: <ul style="list-style-type: none"> • Y • N The list in this field is populated by the MI_YES_NO System Code Table. If the system code table has been customized, the valid values could be different. To verify which options are acceptable in your APM system, via Configuration Manager, refer to the appropriate table.

Checklist_Finding Worksheet

On the Checklist_Finding worksheet, you can specify Checklist Finding records that you want to update.

Note: Each row represents a unique record, although multiple records may be related to the same Full Inspection.

Field Caption	Field ID	Data Type (Length)	Comments
Equipment ID	MI_EQUIP000_EQUIP_ID_C	Character (255)	Values in this column must match the values entered on the Assets worksheet. You can link multiple records to the same asset.
Functional Location ID	MI_FNCLOC000_FNC_LOC_C	Character (255)	Values in this column must match the values entered on the Assets or Functional_Location worksheet, if they exist. You can link multiple records to the same asset or Functional Location.

Field Caption	Field ID	Data Type (Length)	Comments
CMMS System	MI_EQUIP000_SAP_SYSTEM_C MI_FNCLOC00_SAP_SYSTEM_C	Character (255)	Values in this column must match the values entered on the Assets or Functional_Location worksheet, if they exist. You can link multiple records to the same asset or Functional Location.
Equipment Technical Number	MI_EQUIP000_EQUIP_TECH_N BR_C	Character (255)	Values in this column must match the values entered on the Assets worksheet, if they exist. You can link multiple records to the same asset.
Inspection Reference	MI_EVENT_ID	Character (255)	Values in this column must match the values entered on the Inspections worksheet, if they exist. You can link multiple records to the same Inspection.
Checklist Finding Category	MI_FIND_CHECK_CATEG_C	Character (100)	A value is required. This column must only contain System Code IDs from the MI_CHECKLIST_CATEGORIES System Code Table. To verify which options are acceptable in your APM system, via Configuration Manager, refer to the appropriate table.
Checklist Finding Name	MI_FIND_CHECK_NAME_C	Character (100)	A value is required. This column must only contain System Code IDs from the MI_CHECKLIST_FINDING_ITEMS System Code Table. To verify which options are acceptable in your APM system, via Configuration Manager, refer to the appropriate table.
Checklist Finding Value	MI_FIND_CHECK_VALUE_C	Character (100)	A value is required. This column must only contain System Code IDs from the MI_CHECKLIST_FINDING_TYPES System Code Table. To verify which options are acceptable in your APM system, via Configuration Manager, refer to the appropriate table.
Checklist Finding Summary	MI_FIND_001_SUMMARY_T	Text	None

Custom_Sub_Inspection Worksheet

If you have created a custom sub inspection family, on the Custom_Sub_Inspection worksheet, you can specify the custom sub inspection records that you want to create or update.

Important: Ensure that the custom sub inspection family that you have created is linked to the Inspections family using the Has Sub Inspections relationship definition.

Field Caption	Field ID	Data Type (Length)	Comments
Equipment ID	MI_EQUIP000_EQUIP_ID_C	Character (255)	Values in this column must match the values entered on the Assets worksheet. You can link multiple records to the same asset.
Functional Location ID	MI_FNCLOC00_FNC_LOC_C	Character (255)	Values in this column must match the values entered on the Functional_Location worksheet. You can link multiple records to the same Functional Location.
CMMS System	MI_EQUIP000_SAP_SYSTEM_C MI_FNCLOC00_SAP_SYSTEM_C	Character (255)	Values in this column must match the values entered on the Assets or Functional_Location worksheet, if they exist. You can link multiple records to the same asset or Functional Location.
Equipment Technical Number	MI_EQUIP000_EQUIP_TECH_N BR_C	Character (255)	Values in this column must match the values entered on the Assets worksheet, if they exist. You can link multiple records to the same asset.
Inspection Reference	MI_EVENT_ID	Character (255)	Values in this column must match the values entered for the parent Inspection on the Inspections worksheet. You can link multiple records to the same Inspection.
Sub Inspection Reference	MI_EVENT_SUB_INSP_ID	Character (255)	A value is required and must be unique. Values in this column are used to identify the custom sub inspection record.
Family ID	FMLY_ID	Character (255)	A value is required and must match the value entered for the parent Inspection family on the Inspections worksheet.

Inspection_Recommendation Worksheet

On the Inspection_Recommendation worksheet, you can specify Inspection Recommendation records that you want to create or update.

Note: Each row represents a unique record, though multiple records may be related to the same Full Inspection.

Field Caption	Field ID	Data Type (Length)	Comments
Equipment ID	MI_EQUIP000_EQUIP_ID_C	Character (255)	Values in this column must match the values entered on the Assets worksheet. You can link multiple records to the same asset.
Functional Location ID	MI_FNCLOC00_FNC_LOC_C	Character (255)	Values in this column must match the values entered on the Functional_Location worksheet. You can link multiple records to the same Functional Location.
CMMS System	MI_EQUIP000_SAP_SYSTEM_C MI_FNCLOC00_SAP_SYSTEM_C	Character (255)	Values in this column must match the values entered on the Assets or Functional_Location worksheet, if they exist. You can link multiple records to the same asset or Functional Location.
Equipment Technical Number	MI_EQUIP000_EQUIP_TECH_N BR_C	Character (255)	Values in this column must match the values entered on the Assets worksheet, if they exist. You can link multiple records to the same asset.
Inspection Reference	MI_EVENT_ID	Character (255)	Values in this column must match the values entered on the Inspections worksheet, if they exist. You can link multiple records to the same Full Inspection.
Recommendation ID	MI_REC_ID	Character (255)	A value is required and must be unique.
Target Completion Date	MI_REC_TARGE_COMPL_DATE_ DT	Date	A value is required. Enter a value in the following format: YYYY-MM-DD hh:mm:ss
Recommendation Headline	MI_REC_SHORT_DESCR_CHR	Character (255)	None
Recommendation Description	MI_REC_LONG_DESCR_TX	Text	None

Field Caption	Field ID	Data Type (Length)	Comments
Recommendation Priority	MI_REC_PRIORITY_C	Character (50)	This column must only contain the System Code IDs from the MI_PRIORITY System Code Table. Refer to the (Picklist) worksheet for a list of values that you can enter in this column.
Required Equipment Status	MI_REC_REQUI_EQUIP_STATU_CHR	Character (50)	This column must only contain the System Code IDs from the MI_EQUIP_OP_STATE System Code Table. Refer to the (Picklist) worksheet for a list of values that you can enter in this column.
Business Impact	MI_REC_IMPAC_CHR	Character (100)	This column must only contain the System Code IDs from the MI_BUSINESS_IMPACT System Code Table. Refer to the (Picklist) worksheet for a list of values that you can enter in this column.
Mandatory Date	MI_REC_MANDA_DATE_DT	Date	Enter a value in the following format: YYYY-MM-DD hh:mm:ss
Assigned To Name	MI_REC_ASSIG_NM_CHR	Character (255)	Enter a value in the following format: <Last Name>, <First Name> ~ <User ID>
Author Name	MI_REC_AUTHO_NM_CHR	Character (255)	The value in this column must match an existing Security User who is assigned the Inspector, Inspection Administrator, or Inspection Supervisor Resource Role. Enter a value in the following format: <Last Name>, <First Name> ~ <User ID> Note: If the Use State Management for Inspection Recommendations check box in Application Settings is selected, we recommend removing this field from the worksheet.

Field Caption	Field ID	Data Type (Length)	Comments
Reviewer Name	MI_REC_REVIEW_NM_CHR	Character (255)	<p>The value in this column must match an existing Security User who is assigned the Inspection Supervisor Resource Role.</p> <p>Enter a value in the following format: <Last Name>, <First Name> ~ <User ID></p> <p>Note: If the Use State Management for Inspection Recommendations check box in Application Settings is selected, we recommend removing this field from the worksheet.</p>
Final Approver Name	MI_REC_FINAL_APPROVE_NAME_C	Character (255)	<p>Enter a value in the following format: <Last Name>, <First Name> ~ <User ID></p>
Implemented Date	MI_REC_COMPL_DATE_DT	Date	<p>Enter a value in the following format: <Last Name>, <First Name> ~ <User ID></p>

Reference_Document Worksheet

On the Reference_Document worksheet, you can specify Reference Document records that you want to create or update.

Note: Each row represents a unique record, though multiple records may be related to the same Full Inspection.

Field Caption	Field ID	Data Type (Length)	Comments
Equipment ID	MI_EQUIP000_EQUIP_ID_C	Character (255)	<p>Values in this column must match the values entered on the Assets worksheet. You can link multiple records to the same asset.</p>
Functional Location ID	MI_FNCLOC00_FNC_LOC_C	Character (255)	<p>Values in this column must match the values entered on the Functional_Location worksheet. You can link multiple records to the same Functional Location.</p>

Field Caption	Field ID	Data Type (Length)	Comments
CMMS System	MI_EQUIP000_SAP_SYSTEM_C MI_FNCLOC00_SAP_SYSTEM_C	Character (255)	Values in this column must match the values entered on the Assets or Functional_Location worksheet, if they exist. You can link multiple records to the same asset or Functional Location.
Equipment Technical Number	MI_EQUIP000_EQUIP_TECH_N BR_C	Character (255)	Values in this column must match the values entered on the Assets worksheet, if they exist. You can link multiple records to the same asset.
Inspection Reference	MI_EVENT_ID	Character (255)	Values in this column must match the values entered on the Inspections worksheet, if they exist. You can link multiple records to the same Full Inspection.
Reference Document ID	CTIT_ID	Character (255)	A value is required and must be unique.
Description	CTIT_DESC_TX	Character (255)	None
Document Path	MIRD_DOC_PATH_CHR	Character (1023)	None

About the Inspection Management (IM) Data Loaders Load Verification

Following a data load, you should perform the following steps in APM to confirm the integrity and accuracy of the data imported from the data loader workbooks:

- Access the details of the import job. These details will indicate if any errors, minor or otherwise, were encountered during the import job. The log may help account for any records that are unexpectedly absent after the data load.
- In Inspection Management or Record Manager, access the assets or Functional Locations specified in the data loader workbooks, and then verify that the expected Inspection Profiles, Inspection Methods, and Inspections are present or updated, and that any associated records that you expected to be created are also present in the database.

Link TMLs to Inspection Task Data Loader

About the Link TMLs to Inspection Data Loader

To create TM scoping on an Inspection Task, you must link the TMLs to the Inspection Task. You can link these records using the Link TMLs to Inspection Task Data Loader.

About the Link TMLs to Inspection Task Data Loader Requirements

Before you use the Link TMLs to Inspection Task Data Loader, you must complete the following steps:

- Ensure that the Inspection Management and Thickness Monitoring modules are deployed.
- Ensure that the following conditions are satisfied:
 - In an Inspection Task:
 - Task ID must be unique.
 - The Related Entity ID field must contain a value.
 - In a Thickness Measurement Location:
 - TML ID must be unique.
 - The TML Asset ID field must contain a value.

Note: Do not link TMLs from nested TML Groups.

Security Settings:

The Security User performing the data load operation must be associated with either the MI Data Loader User or MI Data Loader Admin Security Role, and must also be associated with the MI Inspection/ MI Thickness Monitoring Inspector Security Group or a Security Role that is associated with this Security Group.

About the Link TMLs to Inspection Task Data Loader General Loading Strategy

Best Practices

- Do not modify the first two rows in the InspectionTasks_To_TMLs worksheet.
- The data loader workbook contains sample data in each column. It is only for your reference. You must remove this data before using the data loader workbook.
- Columns (including columns representing custom fields) in the worksheets should be formatted as Text.
- Import a maximum of 5000 records in each data load.
- It is recommended to use Configuration sheet data provided in the Link TMLs to Inspection Task.xlsx workbook. Do not change the data in the Configuration sheet (except Batch Size).

About the Link TMLs to Inspection Task Data Loader Workbook Layout and Use

To import data using the Link TMLs to Inspection Task Data Loader, APM provides an Excel workbook that must be used to perform the data load.

The following table lists the worksheets that are included in the Link TMLs to Inspection Task.xlsx workbook.

Note: The Excel workbook is referred to throughout this documentation as the data loader workbook.

Worksheet	Description
Configuration	The Configuration worksheet is needed to describe the type of data that you will be loading and how that data should be handled during the data load.
InspectionTasks_To_TMLs	This worksheet is used to link Inspection Tasks to TMLs.

Color Coding

Certain columns on the worksheets have different functions and requirements, which are identified by various color codes. The following table lists the colors and what they represent.

Color	Description
Red	Indicates columns that contain values that are required to link records.
None	Indicates columns in which you can specify custom fields.

Limitations

- The values that you enter in the data loader workbook are case-sensitive.
- If there are multiple Inspection Tasks with same ID within an asset, TMLs will not be linked to the Inspection Task.

Configuration Worksheet

Field Caption	Field ID	Data Type (Length)	Description
Data Worksheet ID	DATA_WORKSHEET_ID	Character	Enter the name of the <data> worksheet where the actual data is located. Enter the same name as the <data> worksheet in the data loader workbook.
Batch Size	BATCH_SIZE	Character	Enter the number of records per batch that you want to data loader to process. Note: The default as well as the recommended batch size is 100. In addition, the log file reports progress by batch.
Primary Family ID	PRIMARY_FAMILY_ID	Character	Depending on the type of data that you are working with, enter the Relationship Family ID or the Entity Family ID. You can also allow the data in source file to determine the Family ID by enclosing the Field ID that contains the Family ID data in angular brackets (<>). For example, in the <data> worksheet, if there is a column with the ID PRIMARY_FAMILY_ID, where each row contains the corresponding Family ID, then in the Primary Family ID column, enter <PRIMARY_FAMILY_ID>. If the Family ID in the APM metadata contains spaces, then you must use this column.
Primary Family Key Fields	PRIMARY_FAMILY_KEY_FIELDS	Character	Enter the Field IDs associated with the Primary Family that are used to uniquely identify a record. In case of multiple values, use a pipe character () to separate each value. In the case where you are loading data for a relationship family, if key fields are not available or not used, use the <none> constant. If the Primary Action is ACTION_INSERTONLY, you need not specify key fields; you can use the <none> constant.

Field Caption	Field ID	Data Type (Length)	Description
Family Type	FAMILY_TYPE	Character	Enter Entity or Relationship depending on the type of data that is being loaded.
Predecessor Family ID	PRED_FAMILY_ID	Character	When the Family Type is Relationship, enter the value of the Entity Family ID that is the predecessor in the relationship. Otherwise, enter <none>. You can also use the data in each of the rows to determine the Predecessor Family ID.
Predecessor Family Key Fields	PRED_FAMILY_KEY_FIELDS	Character	Enter the Field ID or IDs associated with the Predecessor family that are used to uniquely identify the predecessor record. In case of multiple values, use a pipe character () to separate each value. If the Primary Action is ACTION_INSERTONLY, you need not specify key fields; you can use the <none> constant.
Successor Family ID	SUCC_FAMILY_ID	Character	When the Family Type is Relationship, enter the value of the Entity Family ID that is the successor in the relationship. Otherwise, enter <none>. You can also use the data in each of the rows to determine the Successor Family ID.
Successor Family Key Fields	SUCC_FAMILY_KEY_FIELDS	Character	Enter the Field ID or IDs associated with the Successor Family that are used to uniquely identify the successor record. In case of multiple values, use a pipe character () to separate each value. If the Successor Action is ACTION_INSERTONLY, you need not specify key fields; you can use the <none> constant.

Field Caption	Field ID	Data Type (Length)	Description
Primary Action	PRIMARY_ACTION	Character	<p>The value in this column determines the action that will be applied to the Primary Family records.</p> <p>If the Family Type is Relationship, enter any of the following values:</p> <ul style="list-style-type: none"> • ACTION_INSERTONLY • ACTION_INSERTUPDATE • ACTION_UPDATEONLY • ACTION_DELETE <p>If the Family Type is Entity, enter any of the following values:</p> <ul style="list-style-type: none"> • ACTION_INSERTONLY • ACTION_INSERTUPDATE • ACTION_UPDATEONLY • ACTION_DELETE • ACTION_PURGE <p>Deleting or purging a record will delete the current record, the difference being that purging will delete the record and all of the links or relationships tied to that record, whereas deleting a record will only delete the record, and if the record is related to another record, you cannot delete it.</p>
Predecessor Action	PRED_ACTION	Character	<p>The value in this column will determine the action that will be applied to the Predecessor Family records.</p> <p>Enter any of the following values:</p> <ul style="list-style-type: none"> • ACTION_INSERTONLY • ACTION_INSERTUPDATE • ACTION_UPDATEONLY • ACTION_DELETE • ACTION_PURGE • ACTION_LOCATE <p>For an entity family, enter ACTION_NONE.</p>
Successor Action	SUCC_ACTION	Character	<p>The value in this column will determine the action that will be applied to the Successor Family records.</p> <p>Enter any of the following values:</p> <ul style="list-style-type: none"> • ACTION_INSERTONLY • ACTION_INSERTUPDATE • ACTION_UPDATEONLY • ACTION_DELETE • ACTION_PURGE • ACTION_LOCATE <p>For an entity family, enter ACTION_NONE.</p>

Field Caption	Field ID	Data Type (Length)	Description
Insert with Null Values?	OPTION_INSERT_ON_NULL	Boolean	When setting field values on a new record, if a value coming across is NULL, the field values will be set to NULL if this option is set to True.
Update with Null Values?	OPTION_UPDATE_ON_NULL	Boolean	If you enter True in this column, when setting field values for an existing record, if a value is NULL, the field values will be set to NULL.
Replace an Existing Link?	OPTION_REPLACE_EXISTING_LINK	Boolean	<p>The Replace Existing Relationship option is used to determine how a relationship is to be maintained by its cardinality definition.</p> <p>For example, suppose for the relationship Location Contains Asset that is defined in the Configuration Manager:</p> <ul style="list-style-type: none"> • The cardinality is Zero or One to Zero or One. • The Location is LP-2300. • The Asset is P-2300. <p>While loading the data, if you assign the Asset P-5000 to be contained in the Location LP-2300, and you have set the Replace Existing Link property to True, the data loader will link P-5000 to LP-2300 and unlink P-2300 from LP-2300, assuming P-5000 is not currently linked to another location. The same is true for a relationship that is defined as Zero or One to Zero or Many, or Zero or Many to Zero or One.</p>
Allow Change of Family?	OPTION_ALLOW_CHANGE_OF_FAMILY	Boolean	<p>Specify whether you want to move an entity from one family to another.</p> <p>For example, you can move an entity that is currently assigned to the Centrifugal Pump family to the Reciprocating Pump family.</p> <p>All relationships will be maintained as long as the family to which the entity is being moved allows the same relationships.</p> <p>Note: Because of the extra processing required, selecting this option can impact the performance.</p>

InspectionTasks_to_TMLs Worksheet

In the InspectionTasks_To_TMLs worksheet, you can specify the Inspection Task and the Thickness Measurement Location details that you want to link.

Field Caption	Field ID	Data Type (Length)	Description
Task Related Entity ID	MI_TASK_RELAT_ENTITY_ID_CHR	Character (255)	Enter the Related Entity ID field value of the Inspection Task. A value is required.
Task ID	MI_TASK_ID	Character (255)	Enter the Task ID field value of the Inspection Task. A value is required.

Field Caption	Field ID	Data Type (Length)	Description
TML Asset ID	MI_DP_ASSET_ID_CHR	Character (255)	Enter the TML Asset ID field value of the Thickness Measurement Location. A value is required.
TML ID	MI_DP_ID_CHR	Character (250)	Enter the TML ID field value of the Thickness Measurement Location. A value is required.

Defer Inspection Tasks Data Loader

About the Defer Inspection Tasks Data Loader

To create a Deferral on an Inspection Task, you must first create the Deferral and link to the Inspection Task. You can create and link these records using the Defer Inspection Tasks Data Loader.

About the Defer Inspection Tasks Data Loader Requirements

Before you use the Defer Inspection Task Data Loader, you must complete the following steps:

- Ensure that the Inspection Management module is deployed.
- Ensure that the following conditions are met:
 - In an Inspection Task:
 - Task ID must be unique.
 - The Related Entity ID field must contain a value.
 - In a Deferral:
 - Deferral ID must be unique.
 - The Deferred Record ID field must contain a value and match the Inspection Task ID field.

Security Settings

The Security User performing the data load operation must be associated with either the MI Data Loader User or MI Data Loader Admin Security Role, and must also be associated with the MI Inspection Security Group or a Security Role that is associated with this Security Group.

About the Defer Inspection Tasks Data Loader General Loading Strategy

Best Practices

- Do not modify the first two rows in the Inspection_Task_Deferral worksheet.
- The data loader workbook contains sample data in each column. This data is for reference only. You must remove this data before using the data loader workbook.
- Columns (including columns representing custom fields) in the worksheets should be formatted as Text.
- Import a maximum of 5000 records in each data load.
- It is recommended to use Configuration sheet data provided in the Defer Inspection Tasks.xlsx workbook. Do not modify the data in the Configuration sheet, except for Batch Size.

About the Defer Inspection Tasks Data Loader Workbook Layout and Use

To import data using the Defer Inspection Tasks Data Loader, APM provides an Excel workbook that must be used to perform the data load.

The following table lists the worksheets that are included in the Defer Inspection Tasks.xlsx workbook.

Note: The Excel workbook is referred to throughout this documentation as the data loader workbook.

Worksheet	Description
Configuration	The Configuration worksheet is needed to describe the type of data that you will be loading and how that data should be handled during the data load.
Inspection_Task_Deferral	This worksheet is used to create and link Deferrals to Inspection Tasks.

Color Coding

Certain columns on the worksheets have different functions and requirements, which are identified by various color codes. The following table lists the colors and what they represent.

Color	Description
Red	Indicates columns that contain values that are required to link records.
None	Indicates columns in which you can specify custom fields.

Limitations

- The values that you enter in the data loader workbook are case-sensitive.

Configuration Worksheet

Field Caption	Field ID	Data Type (Length)	Description
Data Worksheet ID	DATA_WORKSHEET_ID	Character	Enter the name of the <data> worksheet where the actual data is located. Enter the same name as the <data> worksheet in the data loader workbook.
Batch Size	BATCH_SIZE	Character	Enter the number of records per batch that you want to data loader to process. Note: The default as well as the recommended batch size is 100. In addition, the log file reports progress by batch.

Field Caption	Field ID	Data Type (Length)	Description
Primary Family ID	PRIMARY_FAMILY_ID	Character	<p>Depending on the type of data that you are working with, enter the Relationship Family ID or the Entity Family ID. You can also allow the data in source file to determine the Family ID by enclosing the Field ID that contains the Family ID data in angular brackets (<>).</p> <p>For example, in the <data> worksheet, if there is a column with the ID PRIMARY_FAMILY_ID, where each row contains the corresponding Family ID, then in the Primary Family ID column, enter <PRIMARY_FAMILY_ID>.</p> <p>If the Family ID in the APM metadata contains spaces, then you must use this column.</p>
Primary Family Key Fields	PRIMARY_FAMILY_KEY_FIELDS	Character	<p>Enter the Field IDs associated with the Primary Family that are used to uniquely identify a record. In case of multiple values, use a pipe character () to separate each value. In the case where you are loading data for a relationship family, if key fields are not available or not used, use the <none> constant.</p> <p>If the Primary Action is ACTION_INSERTONLY, you need not specify key fields; you can use the <none> constant.</p>
Family Type	FAMILY_TYPE	Character	Enter Entity or Relationship depending on the type of data that is being loaded.
Predecessor Family ID	PRED_FAMILY_ID	Character	When the Family Type is Relationship, enter the value of the Entity Family ID that is the predecessor in the relationship. Otherwise, enter <none>. You can also use the data in each of the rows to determine the Predecessor Family ID.
Predecessor Family Key Fields	PRED_FAMILY_KEY_FIELDS	Character	<p>Enter the Field ID or IDs associated with the Predecessor family that are used to uniquely identify the predecessor record. In case of multiple values, use a pipe character () to separate each value.</p> <p>If the Primary Action is ACTION_INSERTONLY, you need not specify key fields; you can use the <none> constant.</p>
Successor Family ID	SUCC_FAMILY_ID	Character	When the Family Type is Relationship, enter the value of the Entity Family ID that is the successor in the relationship. Otherwise, enter <none>. You can also use the data in each of the rows to determine the Successor Family ID.

Field Caption	Field ID	Data Type (Length)	Description
Successor Family Key Fields	SUCC_FAMILY_KEY_FIEL DS	Character	<p>Enter the Field ID or IDs associated with the Successor Family that are used to uniquely identify the successor record. In case of multiple values, use a pipe character () to separate each value.</p> <p>If the Successor Action is ACTION_INSERTONLY, you need not specify key fields; you can use the <none> constant.</p>
Primary Action	PRIMARY_ACTION	Character	<p>The value in this column determines the action that will be applied to the Primary Family records.</p> <p>If the Family Type is Relationship, enter any of the following values:</p> <ul style="list-style-type: none"> • ACTION_INSERTONLY • ACTION_INSERTUPDATE • ACTION_UPDATEONLY • ACTION_DELETE <p>If the Family Type is Entity, enter any of the following values:</p> <ul style="list-style-type: none"> • ACTION_INSERTONLY • ACTION_INSERTUPDATE • ACTION_UPDATEONLY • ACTION_DELETE • ACTION_PURGE <p>Deleting or purging a record will delete the current record, the difference being that purging will delete the record and all of the links or relationships tied to that record, whereas deleting a record will only delete the record, and if the record is related to another record, you cannot delete it.</p>
Predecessor Action	PRED_ACTION	Character	<p>The value in this column will determine the action that will be applied to the Predecessor Family records.</p> <p>Enter any of the following values:</p> <ul style="list-style-type: none"> • ACTION_INSERTONLY • ACTION_INSERTUPDATE • ACTION_UPDATEONLY • ACTION_DELETE • ACTION_PURGE • ACTION_LOCATE <p>For an entity family, enter ACTION_NONE.</p>

Field Caption	Field ID	Data Type (Length)	Description
Successor Action	SUCC_ACTION	Character	<p>The value in this column will determine the action that will be applied to the Successor Family records.</p> <p>Enter any of the following values:</p> <ul style="list-style-type: none"> • ACTION_INSERTONLY • ACTION_INSERTUPDATE • ACTION_UPDATEONLY • ACTION_DELETE • ACTION_PURGE • ACTION_LOCATE <p>For an entity family, enter ACTION_NONE.</p>
Insert with Null Values?	OPTION_INSERT_ON_NULL	Boolean	When setting field values on a new record, if a value coming across is NULL, the field values will be set to NULL if this option is set to True.
Update with Null Values?	OPTION_UPDATE_ON_NULL	Boolean	If you enter True in this column, when setting field values for an existing record, if a value is NULL, the field values will be set to NULL.
Replace an Existing Link?	OPTION_REPLACE_EXISTING_LINK	Boolean	<p>The Replace Existing Relationship option is used to determine how a relationship is to be maintained by its cardinality definition.</p> <p>For example, suppose for the relationship Location Contains Asset that is defined in the Configuration Manager:</p> <ul style="list-style-type: none"> • The cardinality is Zero or One to Zero or One. • The Location is LP-2300. • The Asset is P-2300. <p>While loading the data, if you assign the Asset P-5000 to be contained in the Location LP-2300, and you have set the Replace Existing Link property to True, the data loader will link P-5000 to LP-2300 and unlink P-2300 from LP-2300, assuming P-5000 is not currently linked to another location. The same is true for a relationship that is defined as Zero or One to Zero or Many, or Zero or Many to Zero or One.</p>
Allow Change of Family?	OPTION_ALLOW_CHANGE_OF_FAMILY	Boolean	<p>Specify whether you want to move an entity from one family to another.</p> <p>For example, you can move an entity that is currently assigned to the Centrifugal Pump family to the Reciprocating Pump family.</p> <p>All relationships will be maintained as long as the family to which the entity is being moved allows the same relationships.</p> <p>Note: Because of the extra processing required, selecting this option can impact the performance.</p>

Inspection_Task__Deferral_Worksheet

In the Inspection_Task_Deferral worksheet, you can specify the Inspection Task and the Deferral details that you want to link.

Field Caption	Field ID	Data Type (Length)	Description
Task Related Entity ID	MI_TASK_RELAT_ENTIT_ID_CHR	Character (255)	Enter the Related Entity ID field value of the Inspection Task. A value is required.
Task ID	MI_TASK_ID	Character (255)	Enter the Task ID field value of the Inspection Task. A value is required.
Deferral ID	MI_DEFRL_ID_C	Character (255)	Enter the Deferral ID field value of the Deferral. A value is required.
TML ID	MI_DP_ID_CHR	Character (250)	Enter the TML ID field value of the Thickness Measurement Location. A value is required.
Deferred Date	MI_DEFRL_DFD_DT_D	Date	Enter the Deferred Date field value of the Deferral. A value is required.
Reason	MI_DEFRL_REASON_C	Character (255)	Enter the Reason field value of the Deferral.
Comments	MI_DEFRL_COMMENTS_C	Text	Enter the Comments field value of the Deferral.

Chapter 11

Reference

Topics:

- [Family Field Descriptions](#)
- [Catalog Items](#)
- [General Reference](#)

Family Field Descriptions

Checklist Inspection Template Records

The table below provides an alphabetical list and description of the fields that exist for the Checklist Inspection Template family. The information in the table reflects the baseline state and behavior of these fields. This list is not comprehensive.

This family is not enabled for site filtering, which means that records in this family can be accessed by any user with the appropriate license and family privileges. See the Site Filtering section of the documentation for more information.

Field	Data Type	Description	Behavior and Usage
Inspection Family	Character	The family associated with the checklist configuration template.	This field is populated by a list of Inspection Families that contain the Checklist Template field.
Template JSON	Text	Stores the category configuration for the template as JSON text.	This field is populated by the application using a JSON structure. This field is populated automatically by the APM system. Important: Do not modify the contents of this field.
Template Name	Character	Stores the unique name for the template.	This field is populated by the unique name of the Checklist Configuration Template.

General Finding

General Finding records store information about the results of an inspection at the subcomponent level. The following table provides an alphabetical list and description of the fields that exist in the General Finding family. The information in the table reflects the baseline state and behavior of these fields. This list is not comprehensive.

Field	Data Type	Description	Behavior and Usage
Action Taken Code	Character	The action taken to address the finding of an inspection.	This field displays a list of the IDs and Descriptions of the System Codes that are stored in the MI_Action (CORE, Actions Taken) System Code Table.
Action Taken Description	Text	A description of the action taken to address the finding of an inspection.	This field records any additional information about the action that is not stored in another field, in the General Finding record.
Asset ID	Character	Optional. To snapshot the tag of the asset to which the finding of an inspection is being applied. Typically, not on datasheet	Note: This field is deprecated and is no longer in use.
Deterioration Mechanism	Character	The Degradation Mechanism that was observed during the inspection.	This field displays a list of the IDs and Descriptions of the System Codes that are stored in the MI_DAMAGE_MECHANISM (Inspection, Damage Mechanism) System Code Table. The datasheet caption for this field is <i>As Found Degradation Mechanism</i> .
Deterioration Mode	Character	How the Degradation Mechanism was observed during the inspection.	This field displays a list of the IDs and Descriptions of the System Codes that are stored in the MI_DAMAGE_MODE (Inspection, Damage Mode) System Code Table.
Expected RBI Degradation Mechanism	Character	The Potential Degradation Mechanism associated with the Inspection Method Item.	This field contains the value that is stored in the RBI Degradation Mechanism field in the Inspection Method record that corresponds with the selection in the Inspection Method Item field. If the Inspection Method record that corresponds with the selection in the Inspection Method Item field does not contain a value in the RBI Degradation Mechanism field, this field does not contain a value. This field is always disabled.

Field	Data Type	Description	Behavior and Usage
Finding Summary	Text	A summary of the findings of an inspection.	This field records any additional information about the findings that are not stored in another field, in the General Finding record.
Headline	Character	A short description of the findings of an inspection.	This field does not contain a value by default. You can enter a value in this field, as required.
Inspection Method Item	Character	The Inspection Method that corresponds with the Inspection Profile for which the findings are being recorded.	This field displays a list of the IDs and Descriptions of the System Codes that are stored in the MI_INSPECTION_METHOD_CATEGORY (Inspection Method Category) System Code Table. This field is enabled only when the Inspection Profile Item field contains a value.
Inspection Profile Item	Character	The Inspection Profile that represents the subcomponent for which the findings are being recorded.	This field is populated with a list of the Inspection Profiles that you have defined for the particular Inspection Scope.
Inspection Reference ID	Character	Optional. Stores the Reference ID of the Inspection that originated the Finding. Typically, not on datasheet	Note: This field is deprecated and is no longer in use.
Predictable	Character	Indicates whether past events could have predicted the findings of the inspection.	This field displays a list of the IDs and Descriptions of the System Codes that are stored in the MI_YES_NO (MI Core, Yes-No) System Code Table.
Predicted	Character	Indicates whether or not the findings were predicted by a past event.	This field displays a list of the IDs and Descriptions of the System Codes that are stored in the MI_YES_NO (MI Core, Yes-No) System Code Table.

Field	Data Type	Description	Behavior and Usage
RBI Component	Character	The RBI Component that is associated with the Inspection Profile Item.	This field contains the value that is stored in the RBI Component field in the Inspection Profile record that corresponds with the selection in the Inspection Profile Item field. If the Inspection Profile record that corresponds with the selection in the Inspection Profile Item field does not contain a value in the RBI Component field, this field does not contain a value. This field is always disabled.
Type	Character	The type of inspection findings for which you are creating a General Finding record.	This field displays a list of the IDs of the System Codes that are stored in the MI_FINDING_TYPE (MI Inspection, Provides categories for an inspection finding) System Code Table.

Inspection Records

Inspection records store information about:

- Bundle Inspections
- Bundle Sub-Inspections
- Checklist Inspections
- Full Inspections
- General Inspections
- Inspection Confidence Evaluation
- Pressure Test Inspections
- Pressure Test Sub Inspections

The table below provides an alphabetical list and description of the fields that exist for the Inspection family. The information in the table reflects the baseline state and behavior of these fields. This list is not comprehensive.

This family is enabled for site filtering, which means that records in this family can be assigned to a specific site and will only be accessible to users who are assigned to the same site and have the appropriate license and family privileges. For more information, refer to the [Sites](#) section of the documentation.


Field	Data Type	Description	Behavior and Usage
Action This Inspection	Character	The action that was performed on the tube bundle during the inspection.	This field displays a list of the IDs and Descriptions of the System Codes that are stored in the MI BUNDLE ACTION (Bundle Sub-Inspection) System Code Table. The value No Action is selected in the list by default. Bundle Replacement Date will be enabled when Bundle Replaced is selected in this field.
Actual Work Time	Numeric	The number of hours required to complete the inspection.	This field appears on datasheets configured for Inspection families whose caption contains the word Checklist and on SAP Integration datasheets configured for the following families: <ul style="list-style-type: none"> • Bundle Inspection • Full Inspection • General Inspection • Pressure Test Inspection
Applicable Regulation	Character	Stores the application regulation for an event	This field is populated with a list of regulations to be linked to a task. This field is populated with a description of system codes stored in MI_INTGY_REGULATION system code table. This field is always disabled.
As Found Pop Pressure	Numeric	The pressure at which the PRD opens at the time of the inspection.	This field accepts non-negative, numeric values only (for example, 10).
As Left Pop Pressure	Numeric	The pressure at which the PRD opens after maintenance has been performed on the PRD (for example, cleaning).	This field accepts non-negative, numeric values only (for example, 10).
Asset ID	Character	The Equipment Record ID to which the Inspection is linked.	This field is populated by the associated Equipment Record ID. This field is populated with either the Equipment Record ID or with the Equipment Record ID that is linked to the selected Functional Location.

Field	Data Type	Description	Behavior and Usage
Asset ID Link	Character	A formatted link to the Equipment record to which the Inspection record is linked. Contains localized text Open Asset Datasheet.	When you select this link, the Equipment record is opened.
Average Measured Wall Thickness	Numeric	The average tube wall thickness measured during inspection.	This field is used in the RBI 581 Risk Analysis calculation if the bundle inspection is linked to an analysis associated with an RBI 581 HE Bundle Damage Evaluation.
Bundle Inspection Summary	Text	A summary of the inspection.	You can use this field to record any additional information about the inspection that is not stored in another field in the Bundle Sub-Inspection record.
Bundle Installation Date	Date	The date on which the current exchanger bundle was installed.	This field is used to calculate the time in service (in years) for each bundle.
Bundle Leak?	Character	Indicates whether a bundle leakage was detected during the previous inspection.	This field is used to calculate the number of failed bundles in the bundle history. You can choose from the following values: <ul style="list-style-type: none"> • Yes • No • Unknown
Bundle Replacement Date	Date	The date on which the exchanger bundle was replaced.	This field is used to calculate the time in service (in years) for each bundle. This field is required if the Action field contains the value Bundle replaced.
Bundle Tag	Text	Unique ID applied by the user to identify the bundle.	You can specify a value for this field using the datasheet.
Bundle Type	Character	The type of the tube bundle equipment.	This field is populated with a list of the IDs and Descriptions of the System Codes that are stored in the MI BUNDLE TYPE (Inspection; Bundle Types) System Code Table.

Field	Data Type	Description	Behavior and Usage
Certification	Character	Stores the certification value	The values in this field are populated from a drop-down list box and contains a list of system codes that exist in the MI_COMPLIANCE_STANDARDS system code table. In baseline, the Certification field populates the values which are referenced by MI_INTGY_REGULATION system code table. By default, it shows ZUS and BP.
Completion Date	Date	The date on which the inspection was completed.	By default, this value is set to the date that the Inspection is created. You can modify this date to reflect the actual completion date. If the value in the Inspection Task Complete field is set to True, the value in the Completion Date field will be used to populate the Last Date field when the Inspection is saved. The commencement date and completion date are always the same.
Cracking Detected?	Boolean	Indicates whether cracking is detected during the inspection.	Select this check box if cracking is detected during the inspection. When the Inspections are linked to RBI 581 Cracking Damage Evaluation or RBI 581 External Cracking Damage Evaluation, if you select the Cracking Detected? check box for any of the linked Inspections, Susceptibility Type will be set to Detected .
Degradation Mechanism	Character	The Degradation Mechanism that was observed during the inspection.	This field displays a list of the IDs and Descriptions of the System Codes stored in the MI DAMAGE MECHANISM (Inspection, Damage Mechanism) System Code Table. The datasheet caption for this field is As Found Degradation Mechanism.


Field	Data Type	Description	Behavior and Usage
Deterioration Mode	Character	How the Degradation Mechanism was observed during the inspection.	This field displays a list of the IDs and Descriptions of the System Codes stored in the MI DAMAGE MODE (Inspection, Damage Mode) System Code Table.
Design Set Pressure	Numeric	The pressure at which the PRD was designed to open.	This field accepts non-negative, numeric values only (for example, 10).
Downloaded	Boolean	Indicates whether the inspection has been downloaded for Integrity Mobile.	This field is set to true when an inspection is downloaded for Integrity Mobile. It is set to false when the inspection is synced back.
Equipment Operating Status	Character	Documents the operating state that the equipment was in at the time of the inspection.	You can specify a value for this field using the datasheet.
Equipment Technical Number	Character	Unique ID that identifies the equipment.	This ID is assigned during manufacture.
Extent	Character	The extent to which the inspection was performed.	<p>This field displays a list of values based on the value that you selected in the Type of Inspection field and the values that exist in the Inspection Extent field in Inspection Strategy records.</p> <p>The Extent field displays a list of values that exist in the Inspection Extent field in all Inspection Strategy records whose Inspection Task Type field contains the value that you selected in the Type of Inspection field.</p>
Filter DM	Boolean	Indicates whether the degradation mechanisms must filter based on the selected RBI component in an Inspection Confidence Evaluation record.	<p>If you select this, the degradation mechanisms are filtered based on the selected RBI component in an Inspection Confidence Evaluation record.</p> <p>This field is enabled only when the Risk Based Inspection license is active and an RBI component is selected in an Inspection Confidence Evaluation record.</p>

Field	Data Type	Description	Behavior and Usage
Final Inspection Lock	Boolean	Indicates whether the Inspection record has reached a final state.	<p>Typically, changing the state of Inspection Document from Pending Approval to Approved will set this field to True which indicates that the review is complete.</p> <p>Changing the state of Inspection from Approval to Pending Approval will set this field to False.</p> <p>This field is always disabled in the datasheet.</p> <p>When the Final Inspection Lock is set to True, the following fields are disabled:</p> <ul style="list-style-type: none"> • Inspection Document Status • Inspection Lock • Reviewers Name • Reviewers Comments
Functional Location ID	Character	The ID of the Functional Location record linked to the Inspection record.	This field is populated with the ID of the Functional Location record with which the Inspection record is associated. This field is either populated by the Functional Location record ID or the Functional Location record of the Equipment record.
Functional Location ID Link	Character	<p>A formatted link to the Functional Location record to which the Inspection record is linked.</p> <p>Contains localized text Open Functional Location Datasheet.</p>	When you select this link, the Functional Location record will be opened.

Field	Data Type	Description	Behavior and Usage
Generate Represented Inspections	Boolean	Indicates whether or not Inspection records will be created automatically for equipment in Inspection Groups that you create using the Risk Based Inspection (RBI) module.	<p>When the value in this field is set to True, Represented Inspections may be created.</p> <p>This field is enabled only when the Inspection record fulfills two criteria:</p> <ul style="list-style-type: none"> The Inspection Task Record is associated with an Equipment record in an Inspection Group. The Inspection Task record was created from an RBI Recommendation record that was created from that Inspection Group. <p>Note: This field is not available in datasheets for the External PRD Checklist and PRD Pop Test Checklist subfamilies.</p>
Inspection Completion Date	Date	The date on which the inspection was completed.	<p>This field is populated automatically by the APM system; however, you can modify the date by selecting .</p>
Inspection Confidence Evaluation Reviewed	Boolean	Indicates if the Inspection Confidence Evaluation records are reviewed and locked.	<p>You can lock the Inspection Confidence Evaluation records only if:</p> <ul style="list-style-type: none"> You have the Risk Analyst resource role assigned to you. The Allow Risk Analyst to Lock Inspection Confidence Evaluation Records check box is selected in the Application Configurations section of the Inspection Configuration workspace. <p>If the value in this column is True, the Inspection Confidence Evaluation records are locked.</p>
Inspection Document Status	Character	The status of the Inspection Document.	This field is deprecated.

Field	Data Type	Description	Behavior and Usage
Inspection Document Category	Character	Stores the inspection document category	<p>This field will display a pick list. It will be disabled if Applicable regulation is "European Inspection Regulation" and Certification is "ZUS".</p> <p>If no option is selected or anyone of the option is selected, then the respective field will be enabled.</p> <p>It contains a list of system codes that exist in the MI_EN_DOC_CTGY system code table.</p> <p>The field populates the following values:</p> <ul style="list-style-type: none"> • Test Certificate by ZUS • Test Record by Company Inspector • Test Report by Subcontractor
Inspection Instruction	Character	Stores instructions for the inspector	It contains a list of system codes that exist in the EU_INSP_INST system code table.
Inspection Headline	Character	A short description of the findings of the inspection.	You can specify a value for this field using the datasheet.

Field	Data Type	Description	Behavior and Usage
Inspection Lock	Boolean	Indicates whether the Inspection record is locked. When this field is set to False, the Inspection record is unlocked. When this field is set to True, the Inspection record is locked.	<p>Typically, changing the state of Inspection Document from Draft to Pending Approval will set this field to True.</p> <p>Changing the state of Inspection Document from Pending Approval to Rework will set this field to False.</p> <p>This field is always disabled in the datasheet.</p> <p>When an Inspection record is locked, all fields except for the following fields are disabled:</p> <ul style="list-style-type: none"> • Inspection Document Status • Inspection Lock • Reviewers Name • Reviewers Comments • Final Inspection Lock • Published <p>You can lock an Inspection if you are the Inspection Report Owner or a Contract Inspector who is also a Team Member in the associated Inspection Record.</p>
Inspection Reference	Character	A value used to identify the Inspection record.	This value is generated automatically by the APM system.

Field	Data Type	Description	Behavior and Usage
Inspection Report Owner	Character	The first and last name of the APM Security User who performed the inspection.	<p>This field contains a list of Security Users who have been assigned the Inspector role and the users who have any one of the security roles assigned to the Draft state except MI Contract Inspector. When you create the Inspection record, and if you are an Inspector, your name will be auto populated in this field. If you are a Contract Inspector, this field will not contain a value.</p> <p>The Human Resource records that are listed in this field are filtered based on the user's applied sites.</p> <p>If the Human Resource record is not associated with a specific user, the record is included by default.</p> <p>If this field does not contain a value and the user changes the state from Draft to Pending Approval, then the user's name will be populated in this field. The field value will not be changed if it is already populated.</p>
Inspection Start Date	Date	The date on which the inspection began.	<p>This field is populated automatically by the APM system; however, you can modify the date by selecting .</p>
Inspection Summary	Text	A summary of the inspection.	You can specify a value for this field using the datasheet.

Field	Data Type	Description	Behavior and Usage
Inspection Task Complete	Boolean	Indicates whether the Inspection record is closed and the associated Task records have been updated. When this field is set to True, the Inspection record is closed.	<p>When you close an Inspection record:</p> <ul style="list-style-type: none"> The value in the Completion Date field will be used to populate the Last Date field in the Task record. A Task Execution record will be created automatically and linked to the Inspection and Inspection Task records. The value in the Date Executed field in the Task Execution record will be set automatically to the date on which the Inspection record was closed. <p>Note: To modify this check box, you must be assigned the Human Resource role of Inspector.</p>
Last Downloaded By	Character	The user ID of the resource that downloaded the inspection for Integrity Mobile.	This field is set to the user ID of the current user when an inspection is downloaded.
Last Downloaded Date	Date	The date when the inspection was downloaded for Integrity Mobile.	This field is set to the current date when an inspection is downloaded.
Last Synced Back By	Character	The resource which synced the inspection to APM.	This field is set to the user ID of the current user when an inspection is synced to APM through Integrity Mobile.
Last Synced Date	Date	The date when the inspection was synced to APM.	This field is set to the current date when an inspection is synced to APM through Integrity Mobile.

Field	Data Type	Description	Behavior and Usage
Leak Category	Character	The type of leak that is associated with the PRD.	<p>In the datasheet, this field appears as list that contains the following values:</p> <ul style="list-style-type: none"> • Minor • Moderate • Stuck Open <p>This list is populated with the descriptions of the System Codes stored in the MI INSPECTION LEAK CATEGORY (Inspection Leak Category) System Code Table.</p> <p>This field is enabled and can retain a value only when the Leak Test Results field contains the value Leak.</p>
Leak Test Results	Character	Indicates whether there was a leak detected on the PRD during the inspection.	<p>In the datasheet, this field appears as a list that contains the following values:</p> <ul style="list-style-type: none"> • No Leak • Leak <p>This list is populated with the descriptions of referenced System Codes for the MI INSP RESULTS LEAK System Code that is stored in the System Code Table with the ID MI RBI REFERENCES.</p>
Life Extension Method	Character	The life extension method that was implemented during the inspection.	This field is used in the RBI 581 Risk Analysis calculation if the bundle inspection is linked to an analysis associated with an RBI 581 HE Bundle Damage Evaluation.
No. of Gauges Used	Numeric	The total number of gauges used by a piece of equipment.	You can specify a value for this field using the datasheet.

Field	Data Type	Description	Behavior and Usage
Over Pressure Test Results	Character	Indicates whether the PRD passed the Pressure Test that you performed during the inspection.	In the datasheet, this field appears as a list that contains the following values: <ul style="list-style-type: none"> Pass Fail This list is populated with the descriptions of referenced System Codes for the MI INSP RESULTS OVER PRESSURE System Code that is stored in the System Code Table with the ID MI RBI REFERENCES.
Percentage Heat Transfer Area Loss	Numeric	The percentage of the area of the tube bundle that will experience heat transfer loss due to plugged tubes.	This value is calculated using the following formula: Percentage Heat Transfer Area Loss = (Total Number of Tubes Plugged At Inspection End / Total Number of Tubes In Bundle) x 100
Published	Boolean	Indicates whether the Inspection Document is published.	N/A
RBI Component	Character	The Entity ID of the RBI Component in an Inspection Confidence Evaluation record.	This field displays the RBI Components that are linked to the related asset. If the asset does not have RBI Components, then this list is empty. Based on the value in this field, the degradation mechanisms are filtered in an Inspection Confidence Evaluation record if the Filter check box is selected. This field is enabled only when the Risk Based Inspection license is active.
Reason for Inspection	Text	The comments from the inspector about why the inspection was performed.	You can specify a value for this field using the datasheet.
Reviewers Comments	Text	The comments from the reviewer about the Inspection Document.	You can specify a value for this field using the datasheet. Note: This field does not apply to Third Party Damage.

Field	Data Type	Description	Behavior and Usage
Reviewers Name	Character	The first and last name of the APM Security User who is responsible for reviewing the Inspection Document.	<p>This field contains a list of Security Users who have been assigned the Inspection Supervisor role and the users who have any one of the security roles assigned to Pending Approval state except MI Contract Inspector. When you create the Inspection record, you should specify in this field the Security User who will be responsible for reviewing the Inspection record.</p> <p>The Human Resource records that are listed in this field are filtered based on the users applied sites.</p> <p>If the Human Resource record is not associated with a specific user, the record is included by default.</p> <p>This field is populated with the approving user's name when the user changes the state from Pending Approval to Approved.</p>
Scope	Text	The recommended scope for this type of inspection.	<p>This field displays a value based on the value that you selected in the Type of Inspection field, the value that you selected in the Extent field, and the values that exist in the Recommended Inspection Scope field in Inspection Strategy records.</p> <p>The Scope field displays the value that exists in the Recommended Inspection Scope field in all Inspection Strategy records whose:</p> <ul style="list-style-type: none"> • Inspection Task Type field contains the value that you selected in the Type of Inspection field. • Inspection Extent field contains the value that you selected in the Extent field.

Field	Data Type	Description	Behavior and Usage
SRV Set Pressure	Text	The pressure at which the test is set.	You can specify a value for this field using the datasheet.
Tasks Addressed	Character	The tasks that are addressed by the inspection.	<p>You can select Task records associated with the Inspection record from the list of Task Record IDs when you open an existing Inspection record:</p> <ul style="list-style-type: none"> Defined for a family whose caption includes the word Checklist in the Tasks Addressed list. Defined for a family whose caption does not include the word Checklist in the Tasks Addressed list in the Inspection datasheet. <p>Note: The picklist will not include tasks that are marked as Completed or Rejected, unless the tasks were already selected in the field.</p>
Test Comments	Text	The comments from the inspector about the performed test.	You can specify a value for this field using the datasheet.
Test Duration	Numeric	The length of time pressure was held.	You can specify a value for this field using the datasheet.
Test Media	Text	The liquid or gas used to perform the Pressure Test.	You can specify a value for this field using the datasheet.
Test Media Temperature	Numeric	The temperature of the test media used.	You can specify a value for this field using the datasheet.
Test Pressure	Numeric	The pressure at which the test was performed.	You can specify a value for this field using the datasheet.

Field	Data Type	Description	Behavior and Usage
Thinning Type	Character	The type of thinning detected in the component.	<p>This field contains the descriptions of all System Codes in the CORROSION TYPES System Code Table.</p> <p>You can choose from the following baseline values:</p> <ul style="list-style-type: none"> • General • Localized • Pitting <p>When Inspections are linked to a RBI 581 Thinning and Lining, RBI 581 External Damage Evaluation or Int. Corr. Deg. Mech.Evaluation DME, the value from the latest Inspection is mapped to the Thinning Type field of the DME.</p> <p>Note: Inspections with Thinning Type set to Pitting are not considered while mapping the Thinning Type to RBI 581 Thinning and Lining, RBI 581 External Damage Evaluation DMEs.</p>

Field	Data Type	Description	Behavior and Usage
Total Number of Tubes in Bundle	Numeric	The number of tubes in the tube bundle.	<p>This value is used to calculate the value in the Percentage Heat Transfer Area Loss field. By default, this field contains the value 0 (zero). If you enter a value in this field, save the record, and then modify the value, the following fields will be populated with the value 0 (zero) because, if you modify the value in the Total Number Of Tubes In Bundle field after saving the record, you should re-enter values in these fields:</p> <ul style="list-style-type: none"> • Tubes Plugged at Inspection Start • Tubes (Plugged At Start) Replaced • Tubes Plugged During This Inspection • Tubes (Not Previously Plugged) Replaced • Total Number of Tubes Replaced at Inspection End <p>The value in this field must be greater than or equal to the:</p> <ul style="list-style-type: none"> • Value in the Tubes Plugged at Inspection Start field. • Value in the Tubes Plugged During This Inspection field. • Sum of the values in the Tubes Plugged At Inspection Start and Tubes Plugged During This Inspection

Field	Data Type	Description	Behavior and Usage
Total Number of Tubes Plugged at Inspection End	Numeric	The number of tubes in the tube bundle that were plugged at the end of the inspection.	<p>This field is populated based on the following values:</p> <ul style="list-style-type: none"> • Tubes Plugged at Inspection Start • Tubes Plugged During Inspection • Tubes (Plugged At Start) Replaced <p>Depending on which of these fields contain values, this field is populated as follows:</p> <ul style="list-style-type: none"> • If only the Tubes Plugged At Inspection Start and Tubes Plugged During Inspection field contain a value, the Total Number of Tubes Plugged At Inspection End field is populated with that value. • If the Tubes Plugged At Inspection Start and fields contain values, the Total Number of Tubes Plugged At Inspection End field is populated with the sum of these values. • If all three fields contain values, the Total Number of Tubes Plugged At Inspection End field is populated with the sum of the values in the Tubes Plugged At Inspection Start and Tubes Plugged During Inspection minus the value in the Tubes (Plugged At Start) Replaced field. This field is disabled when the Action This Inspection field contains a value.

Field	Data Type	Description	Behavior and Usage
Total Number of Tubes Replaced at Inspection End	Numeric	The total number of tubes in the tube bundle that have been replaced at the end of a given inspection.	<p>By default, this field contains the value 0 (zero). This field is disabled when the Action This Inspection field contains a value. When the Action This Inspection field contains the value:</p> <ul style="list-style-type: none"> • Partial Retube (PARTIAL RETUBE), this field is populated with the sum of the values in the Tubes (Plugged At Start) Replaced and Tubes (Not Previously Plugged) Replaced fields. If only one of these fields contains a value, the Total Number of Tubes Replaced at Inspection End field is populated with that value. • Bundle Replaced (BUNDLE REPLACED) or Total Retube (TOTAL RETUBE), this field is populated with the value in the Total Number of Tubes In Bundle field. • Tubes Plugged (TUBES PLUGGED) or No Action (NO ACTION), this field is populated with the value 0 (zero).
Tubes (Not Previously Plugged) Replaced	Numeric	The number of tubes in the tube bundle that were not plugged before the inspection started but were plugged during the inspection.	N/A
Tubes (Plugged At Start) Replaced	Numeric	The number of tubes in the tube bundle that were plugged before the inspection started but were replaced during the inspection.	<p>This field is enabled only when the value in the Action This Inspection field is Partial Retube (PARTIAL RETUBE). This value must be less than or equal to the value in the Tubes Plugged At Inspection Start field. By default, this field contains the value 0 (zero).</p>

Field	Data Type	Description	Behavior and Usage
Tubes Plugged at Inspection Start	Numeric	The number of tubes in the tube bundle that were not plugged before the inspection started but were replaced during the inspection.	This field is enabled only when the value in the Action This Inspection field is Partial Retube (PARTIAL RETUBE). By default, this field contains the value 0 (zero).
Tubes Plugged During This Inspection	Numeric	The number of tubes in the tube bundle that were plugged during the inspection.	This field is enabled only when the Action This Inspection field contains a value other than No Action (NO ACTION). By default, this field contains the value 0 (zero). The value in this field must be less than or equal to the value in the Total Number Of Tubes In Bundle field. When the value in the Action This Inspection field is Bundle Replaced (BUNDLE REPLACED), this field is populated with the value 0 (zero).

Field	Data Type	Description	Behavior and Usage
Tubes Plugged in at Inspection Start	Numeric	The number of tubes in the tube bundle that were plugged before the inspection started.	<p>By default, this field contains the value 0 (zero). The value in this field must be:</p> <ul style="list-style-type: none"> Greater than or equal to the value in the Tubes (Plugged At Start) Replaced field. Less than or equal to the value in the Total Number Of Tubes In Bundle field. <p>This value is used to calculate the value in the Percentage Heat Transfer Area Loss field.</p>
Type of Inspection	Character	The type of inspection that was performed.	<p>This field displays a list of values stored in the Task Type ID field in Task Types records whose Reference field contains the value INSPECTION STRATEGY.</p> <p>The values that appear in this list depend on the type of Inspection record that you are viewing. For Inspection records belonging to:</p> <ul style="list-style-type: none"> The PRD Pop Test Checklist subfamily, the values in this list are populated using the System Code Table MI PRD INSPECTION TYPE FILTER (PRD Inspection Type Filter). Any Inspection subfamily except the PRD Pop Test Checklist subfamily, this list is populated with the Task Type ID value in each Task Types record that does not correspond to a value in the System Code Table MI PRD INSPECTION TYPE FILTER (PRD Inspection Type Filter).

Inspection Health Evaluation

Inspection Health Evaluations represent health evaluations recorded either on a root asset or a sub-asset because of an inspection. The following table provides an alphabetical list and description of the fields

that exist in the Inspection Health Evaluation family. This list is not comprehensive, and some fields are sourced from the parent Inspection family.

This family is enabled for site filtering, which means that records in this family can be assigned to a specific site and will only be accessible to users who are assigned to the same site and have the appropriate license and family privileges. For more information, refer to the [Sites](#) section of the documentation.

Field	Data Type	Description	Behavior and Usage
Acknowledged	Boolean	Indicates whether this evaluation has been acknowledged.	If you select this, the Acknowledged By and Acknowledged Date fields will be populated by the user that performed the action and the current date.
Acknowledged By	Character	Indicates the user that Acknowledged this evaluation.	Automatically populated based on the setting of the Acknowledged field.
Acknowledged Date	Date	Indicates the date this evaluation was acknowledged.	Automatically populated based on the setting of the Acknowledged field.
Asset ID	Character	The Equipment Record ID to which the Inspection is linked.	This field is populated by the associated Equipment Record ID. This field is populated with either the Equipment Record ID or with the Equipment Record ID that is linked to the selected Functional Location.
Checklist Category	Character	Stores the category name of the Checklist Finding this health evaluation is intended for	Automatically populated upon creation of a checklist inspection that is based on a template and the Checklist Inspection Template family has the Health Evaluation property enabled in the Event Configuration.
Commencement Date	Date	The date on which the health assessment was created	Automatically populated with the current date upon inspection creation
Completion Date	Date	The date on which the health assessment was performed.	Automatically updated when the value of Health Assessment is changed.
Driving Category	Character	Contains the category name of the checklist category that is driving this rolled-up health evaluation.	If this assessment is for the root asset, automatically populated with the category name of the checklist category that is currently driving this assessment.

Field	Data Type	Description	Behavior and Usage
Functional Location ID	Character	The ID of the Functional Location record linked to the Inspection record.	This field is populated with the ID of the Functional Location record with which the Inspection record is associated. This field is either populated by the Functional Location record ID or the Functional Location record of the Equipment record.
Health Assessment	Character	Captures the health assessment for the asset.	Populated by the APM application when the user selects a health assessment value in the Inspection page for either a checklist category or for the direct asset. The value in this field is an ID from the system code table MI_FINDING_TYPE.
Parent Inspection	Character	Formatted link to the root inspection for which this evaluation is related.	When you select the link, the root inspection will be opened.


Inspection Recommendation

Inspection Recommendations represent actions that need to be taken as a result of an inspection. The following table provides an alphabetical list and description of the fields that exist in the Inspection Recommendation family.


This family is enabled for site filtering, which means that records in this family can be assigned to a specific site and will only be accessible to users who are assigned to the same site and have the appropriate license and family privileges. For more information, refer to the [Sites](#) section of the documentation.

Field	Data Type	Description	Behavior and Usage
Alert Assigned When Due?	Boolean	Indicates whether an email notification must be sent to the user selected in the Assigned To Name field when the recommendation is due.	<p>When this check box is selected, the following fields are enabled:</p> <ul style="list-style-type: none"> Days Before Due Date to be Notified Frequency of Alert After Due Date <p>This field appears in the Alert datasheet.</p>
Asset ID	Character	The Equipment Record ID to which the Inspection is linked.	This field is populated by the Equipment Record ID with which the Inspection record is associated. This field is either populated with the Equipment Record ID, or with the Equipment Record ID that is linked to the selected Functional Location.
Assigned to Name	Character	The first and last name of the person to whom the recommendation is assigned.	<p>The value in this field is populated by the First Name and Last Name fields in the corresponding Human Resource records. If the Human Resource record also has an associated Security User, the value from the User ID field also appears.</p> <p>In the database, values in this field are stored in the following formats:</p> <p><Last Name>, <First Name> ~ <User Name></p> <p>-or-</p> <p><Last Name>, <First Name> ~</p> <p>For example, a name stored in the database would be Smith, Jane ~ jsmith.</p> <p>The Human Resource records that populate the drop-down list box in this field are filtered based on the site that is applied to the Inspection Recommendation.</p>

Field	Data Type	Description	Behavior and Usage
Author Name	Character	The first and last name of the person who is proposing the recommendation.	<p>The value in this field is populated by the First Name and Last Name fields in corresponding Human Resource records that have one of the following roles:</p> <ul style="list-style-type: none"> • Inspection Supervisor • Inspection Administrator • Inspector <p>If the Human Resource record also has an associated Security User, the value from the User ID field also appears.</p> <p>In the database, values in this field are stored in the following formats:</p> <p><Last Name>, <First Name> ~ <User Name></p> <p>-or-</p> <p><Last Name>, <First Name> ~</p> <p>For example, a name stored in the database would be Smith, Jane ~ jsmith.</p> <p>The Human Resource records that populate the drop-down list box in this field are filtered based on the site that is applied to the Inspection Recommendation.</p>
Business Impact	Character	Records the impact on the manufacturing process during the recommendation implementation.	<p>This field contains a list of System Codes that exist in the MI BUSINESS IMPACT System Code Table. You can choose from the following baseline values:</p> <ul style="list-style-type: none"> • Facility Shutdown (FACILITY SHUTDOWN) • Facility Slowdown (FACILITY SLOWDOWN) • Unit Shutdown (UNIT SHUTDOWN) • Unit Slowdown (UNIT SLOWDOWN) • System Shutdown (SYSTEM SHUTDOWN) • System Slowdown (SYSTEM SLOWDOWN)
Completion Comments	Character	Contains notes regarding the completion of the Inspection Recommendation	By default, this field does not contain a value. This field is required if an Inspection Recommendation is superseded.


Field	Data Type	Description	Behavior and Usage
Create Work Request?	Boolean	Indicates whether or not a Work Request will be created for the Inspection Recommendation.	N/A
Days Before Due Date to be Notified	Number	The number of days before the Target Completion Date that an email notification must be sent to the user selected in the Assigned To Name field.	This field uses  to manage time conversions. This field appears in the Alert datasheet. This field is required when the Alert Assignee When Due check box is selected.
Finding Basis	Character	This field displays the ID of the family for which recommendation was generated. This field can be the Family ID for General Findings or Checklists.	Displays ID of the family for which recommendation was generated.
Finding Summary	Text	This field displays finding summary from either the General Findings or Checklists in accordance with the family ID visible in the Finding Basis.	Displays finding summary from either the General Findings or Checklists in accordance with Finding Basis

Field	Data Type	Description	Behavior and Usage
Final Approver Name	Character	The first and last name of the person who is giving the final approval for an Inspection Recommendation.	<p>The value in this field is populated by the First Name and Last Name fields in the corresponding Human Resource records. If the Human Resource record also has an associated Security User, the value from the User ID field also appears.</p> <p>In the database, values in this field are stored in the following formats:</p> <p><Last Name>, <First Name> ~ <User Name></p> <p>-or-</p> <p><Last Name>, <First Name> ~</p> <p>For example, a name stored in the database would be Smith, Jane ~ jsmith.</p> <p>The Human Resource records that populate the drop-down list box in this field are filtered based on the site that is applied to the Inspection Recommendation.</p> <p>Final Approver Name is only used when the Use State Management option for Inspection Recommendations is disabled in the IM Admin Preferences page.</p>
Frequency of Alert After Due Date	Numeric	Specifies how often email messages will be sent after the completion date has passed.	<p>You can choose any of the following options:</p> <ul style="list-style-type: none"> • Never • Daily • Weekly • Monthly • Yearly <p>This field appears in the Alert datasheet. This field is required when the Alert Assignee When Due check box is selected.</p>
Functional Location ID	Character	The Record ID of the Functional Location record linked to the Inspection record.	This field is populated with the Record ID of the Functional Location record with which the Inspection Recommendation is associated. This field is either populated by the Functional Location record ID or the Functional Location record of the Equipment record.

Field	Data Type	Description	Behavior and Usage
Implementation Alert Text	Character	The text that will be included in the email notification sent to the approver.	This field appears in the Alert datasheet. By default, this field does not contain a value. Optionally, you can type a value in this field.
Implemented Date	Date	The date on which the Inspection Recommendation was implemented.	N/A
Inspection Profile Item	Character	The Inspection Profile that represents the subcomponent for which findings are being recorded.	This field is populated with a list of the Inspection Profiles that you have defined for the particular Inspection Scope.
Mandatory Date	Character	The date on which the Inspection Recommendation must be completed.	N/A This field contains a  button, which you can select to access the Calendar feature.
Recommendation Basis	Text	Allows the user to explain the reasoning for why an Inspection Recommendation was proposed.	By default, this field does not contain a value. Optionally, you can enter a value in this field.

Field	Data Type	Description	Behavior and Usage
Recommendation Description	C	A description of the Inspection Recommendation.	By default, this field does not contain a value. Optionally, you can enter a value in this field.
Recommendation Headline	C	A short description of the Inspection Recommendation	In the Alert datasheet, if you select the Alert Assignee When Due check box, the value that you provide in the Recommendation Headline field becomes the subject of the alert email.
Recommendation ID	C	Unique ID assigned to the Inspection Recommendation.	This field is generated by the APM system through business rules.
Recommendation Priority	N	The priority value used to rank the importance of the Inspection Recommendation.	<p>N/A</p> <p>This field contains a list of System Codes that exist in the MI_PRIORITY System Code Table. You can choose from the following baseline values:</p> <ul style="list-style-type: none"> • High (HIGH) • Medium (MEDIUM) • Low (LOW)
Reevaluate?	B	Indicates whether you want to reevaluate the Recommendation.	This field appears in the Alert datasheet.

Field	Data Type	Description	Behavior and Usage
Reevaluation Alert Body Text	Character	The text that will be included in the reevaluation email message.	This field appears in the Alert datasheet. This field is enabled only when the Reevaluate? check box is selected.
Reevaluation Date	Date	The date on which a reevaluation email message will be sent to the users selected in the Reevaluation Notification List field.	This field appears in the Alert datasheet. This field is enabled only when the Reevaluate? check box is selected.
Reevaluation Notification List	Text	The first and last name of the person who is notified about reevaluating an Inspection Recommendation.	<p>This field appears in the Alert datasheet. This field is enabled only when the Reevaluate? check box is selected.</p> <p>The value in this field is populated by the First Name and Last Name fields in the corresponding Human Resource records. If the Human Resource record also has an associated Security User, the value from the User ID field also appears.</p> <p>In the database, values in this field are stored in the following formats:</p> <p><Last Name>, <First Name> ~ <User Name></p> <p>-or-</p> <p><Last Name>, <First Name> ~</p> <p>For example, a name stored in the database would be Smith, Jane ~ jsmith.</p> <p>You can select more than one user in this field.</p>
Required Equipment Status	Character	Records the operating state of the equipment used to implement the Inspection Recommendation.	<p>N/A</p> <p>This field contains a list of System Codes that exist in the MI_STATUS System Code Table. You can choose from the following baseline values:</p> <ul style="list-style-type: none"> • ON-LINE (ON-LINE) • Off-line (OFF-LINE) • Not Applicable (N/A)

Field	Data Type	Description	Behavior and Usage
Reviewer Name	Character	The first and last name of the person who reviewed the Inspection Recommendation.	This field contains a list of Security Users who have been assigned the Inspection Supervisor role. When you create the Inspection Recommendation record, you should specify in this field the Security User who will be responsible for reviewing the Inspection Recommendation record. The Human Resource records that populate this field are filtered based on the site that is applied to the Inspection Recommendation.
Service Record ID	Character	The ID of the service record.	This field is populated by Service Max when the status of a work request is modified.
Status	Character	Indicates the status of the Inspection Recommendation as indicated by the user.	This field is populated automatically and set to Created.
Target Completion Date	Date	The date by which the Inspection Recommendation is intended to be implemented.	This field is required. This field contains a  button, which you can select to access the Calendar feature.

Field	Data Type	Description	Behavior and Usage
Technical Number	Character	A unique ID for the asset to which the recommendation is assigned.	N/A
Witnessed By	Character	The APM Security User who witnessed the test, which appears in the following format: <Last Name>, <First Name> ~ <User ID>	N/A
Work Request Equipment	Character	The equipment against which the work request will be generated.	N/A This field is disabled and populated after the external work request is created.

Field	Data Type	Description	Behavior and Usage
Work Request Functional Location	Character	The Functional Location against which the work request will be generated.	N/A This field is disabled and populated after the external work request is created.
Work Request Reference	Character	The ID of the work request.	N/A

Inspection Profile

Inspection Profiles represent subcomponents of a piece of equipment on which inspections are performed. The following table provides an alphabetical list and description of the fields that exist in the Inspection Profile family. By default, all fields in the Inspection Profile family appear on the Inspection Profile datasheet.

This family is enabled for site filtering, which means that records in this family can be assigned to a specific site and will only be accessible to users who are assigned to the same site and have the appropriate license and family privileges. For more information, refer to the [Sites](#) section of the documentation.

Field	Data Type	Description	Behavior and Usage
Item Category	Character	The type of subcomponent (e.g., pipes) that exists on the piece of equipment needing inspection.	This field appears as a list that contains the System Code IDs and Descriptions in the MI INSPECTION PROFILE CATEGORY (Inspection, Profile Category) System Code Table. The Profile Configuration setting determines how this field will be populated. You can modify the value in this field using the datasheet.
Item Description	Character	A description of the subcomponent.	You can specify a value for this field using the datasheet.
Item ID	Character	The ID of the subcomponent.	This field is populated automatically based on the value in the Item Category field. You can modify the value in the Item ID field using the datasheet.
RBI Component	Character	The Record ID of the RBI Component that is associated with the Inspection Profile.	This field appears as a list that contains the Record IDs of all RBI Components that are linked to the associated Equipment. This field is null, by default. This field is enabled only when the Risk Based Inspection license is active.
RBI Component Family	Character	The RBI Component subfamily that is associated with the Inspection Profile.	This field appears as a list that contains the captions of all RBI Components subfamilies that exist in the baseline APM database. This field is populated automatically when you select a value in the RBI Component list. You can modify the selection in this list using the datasheet.
Sequence	Numeric	The order in which the subcomponent should be inspected, relative to other subcomponents on the piece of equipment.	You can specify a value for this field using the datasheet.

Inspection Method

Inspection Method records represent the method that will be used to inspect a subcomponent of a piece of equipment that is represented by a linked Inspection Profile record. The following table provides an alphabetical list and description of the fields that exist in the Inspection Method family. All fields in the Inspection Method family, appear on the Inspection Method datasheet by default.

This family is enabled for site filtering, which means that records in this family can be assigned to a specific site and will only be accessible to users who are assigned to the same site and have the appropriate license and family privileges. For more information, refer to the [Sites](#) section of the documentation.

Field	Data Type	Description	Behavior and Usage
Category	Character	The method that should be used to inspect the subcomponent that is represented by an Inspection Profile record to which the Inspection Method record is linked.	This field appears as a list that contains the System Code IDs and Descriptions in the MI INSPECTION METHOD CATEGORY (Inspection Method Category) System Code Table. The Method Configuration setting determines how this field will be populated. You can modify the value in this field using the datasheet.
Description	Character	A description of the Inspection Method.	You can specify a value for this field using the datasheet.
ID	Character	The ID of the Inspection Method.	This field is populated automatically based on the value in the Category field. You can modify the value in the ID field using the datasheet.
RBI Degradation Mechanism	Character	The Potential Degradation Mechanisms record that is associated with the Inspection Method record.	This field appears as a list that contains the Record IDs of all Potential Degradation Mechanisms records that are linked to the Criticality Calculator RBI Components record that is associated with the Inspection Profile record to which the Inspection Method record is linked. You can specify a value for this field using the datasheet.

Inspection State Mapping Records

Inspection State Mapping records are used when an administrator uses the Configure Status to State Mapping utility in Application Settings. This topic provides an alphabetical list and description of the fields

that exist for the Inspection State Mapping family. The information in the table reflects the baseline state and behavior of these fields.

This family is not enabled for site filtering, which means that records in this family can be accessed by any user with the appropriate license and family privileges. For more information, refer to the [Sites](#) section of the documentation.

Field	Data Type	Description	Behavior and Usage
Source Family	Character	Stores the ID of the family that is being mapped.	The default value for this field is the ID for the Inspection Recommendation family.
Status	Character	Stores the system code value of the status that is being mapped. The value in this field will be converted to a corresponding state in Inspection Recommendation records.	The values available in this field appear based on the system code table that is associated with the value that populates in the Source Family Status field.
State	Character	Stores the state ID of the state that is being mapped. The value in this field will be used to replace an existing status in Inspection Recommendation records.	The values available in this field appear based on the available states configured for the source family.

Inspection Strategy

Inspection Strategies represent methods by which inspections are performed. The following table provides an alphabetical list and description of the fields that exist in the Inspection Strategy family. By default, all fields in the Inspection Strategy family appear on the Inspection Strategy datasheet.

This family is not enabled for site filtering, which means that records in this family can be accessed by any user with the appropriate license and family privileges. For more information, refer to the [Sites](#) section of the documentation.

Field	Data Type	Description	Behavior and Usage
Inspection Confidence	Character	A value that indicates how effective prior inspections were at identifying the degradation mechanism and the rate of degradation.	<p>This field is populated automatically based on the value that you selected in the Type of Inspection field, the value that you selected in the Extent field, and the values that exist in the Inspection Confidence field in Inspection Strategy records.</p> <p>Specifically, the Inspection Confidence field is populated with the value that exists in the Inspection Confidence field in the Inspection Strategy record whose:</p> <ul style="list-style-type: none"> • Inspection Task Type field contains the value that you selected in the Type of Inspection field. • Inspection Extent field contains the value that you selected in the Extent field. <p>This field is not available on the baseline Inspection datasheets.</p> <p>The value that you select in this field is used in RBI when you assign Inspection records to RBI Degradation Mechanism Evaluation records.</p>
Inspection Extent	Character	The extent to which the inspection was performed.	<p>This field displays a list of values based upon the value that you selected in the Type of Inspection field and the values that exist in the Inspection Extent field in Inspection Strategy records.</p> <p>The Extent field displays a list of values that exist in the Inspection Extent field in all Inspection Strategy records whose Inspection Task Type field contains the value that you selected in the Type of Inspection field.</p>
Inspection Strategy Description	Character	A description of the Inspection Strategy.	You can specify a value for this field using the datasheet.

Field	Data Type	Description	Behavior and Usage
Inspection Strategy ID	Character	The unique ID of the Inspection Strategy.	This field is required.
Inspection Task Type	Character	The Inspection Method used during the inspection event.	You can specify a value for this field using the datasheet.
Recommended Inspection Interval	Numeric	The recommended time between inspection events.	You can specify a value for this field using the datasheet.
Recommended Inspection Scope	Character	An explanation of the tasks that should be performed during an inspection event.	You can specify a value for this field using the datasheet.
Use Calculated Data	Boolean	Indicates whether or not to use calculated data over data that has been recommended by the APM system.	N/A

Inspection Task

The following table provides an alphabetical list and description of the fields that exist in the Inspection Task family. By default, all fields in the Inspection Task family appear in the Inspection Strategy datasheet.

This family is enabled for site filtering, which means that records in this family can be assigned to a specific site and will only be accessible to users who are assigned to the same site and have the appropriate license and family privileges. For more information, refer to the [Sites](#) section of the documentation.



Note: European Inspection Task is introduced to the Inspection Task family to manage the Inspection tasks, according to the Compliance regulation.

Field	Data Type	Description	Behavior and Usage
Applicable Regulation	Character	Stores the regulation type that is applicable to a task.	This field is populated with a list of regulations to be linked to a task. This field is populated with a description of system codes stored in MI_INTGY_REGULATION system code table. This field is always disabled. The value is mapped from Compliance Recommendation.
Certification	Character	Stores the certification value.	The values in this field are populated from a drop-down list box and contains a list of system codes that exist in the MI_COMPLIANCE_STANDARDS system code table. In baseline, the Certification field populates the values which are referenced by MI_INTGY_REGULATION system code table. By default, it shows ZUS and BP.
Compliance Window	Numeric	Stores information about the duration of Compliance in months. The UOM is measured in Months.	This field is copied from the Application Settings when a new European Inspection task is created. You can edit the values in the European Inspection Task datasheet. This field is used for calculating the values for the following: <ul style="list-style-type: none"> • Compliance Minimum Date • Compliance Maximum Date • Inspection Documentation Completion Date

Field	Data Type	Description	Behavior and Usage
Compliance Minimum Date	Date	Mentions the minimum compliance date for a task to be performed.	The Compliance Minimum Date is calculated as the start date of the Next Date minus the Compliance Window (Next Date - Compliance Window). For example: If Compliance Window: 3 months Next Date: December 3rd, 2020 Compliance Min Date: September 1st, 2020
Compliance Maximum Date	Date	Mentions the maximum compliance date for a task to be performed.	The Compliance Maximum Date is calculated as the end date of the next date plus the Compliance Window (Next Date + Compliance Window). For example: If Compliance Window: 3 months Next Date: December 3rd, 2020 Compliance Max Date: March 31st, 2021
Consider TM Remaining Life	Boolean	Stores whether TM Remaining Life should be considered for Inspection Task or not.	If the checkbox is selected and the Inspection Task entity is saved, following fields are either populated from TM or Calculated: <ul style="list-style-type: none"> • Projected T-Min Date • Remaining Life Factor • TM Remaining Life • Last Measurement Date • Next Date
Coverage	Text	A definition of the percentage of the asset to be inspected.	You can specify a value for this field using the datasheet.
Deferred Next Date Basis	Character (255)	Stores the ID of the approved Deferral.	Populated by the system with the ID of the Deferral which was approved. This field is disabled on the datasheet.
Desired Interval	Numeric	The number of months between inspection events.	N/A

Field	Data Type	Description	Behavior and Usage
Desired Interval Basis	Text	The comments from the inspector that explain the reasoning for the selected Desired Interval.	<p>If the value in the Override Interval field is set to True, the value in Desired Interval Basis field will be User-Defined.</p> <p>If the value in the Override Interval field is set to False, the system populates the Desired Interval Basis field with one of the following values:</p> <ul style="list-style-type: none"> • Compliance Recommendation • RBI Recommendation • Undefined
EAM Object Type	Character (50)	Includes the Work Order, Notification, and No Action options; it is populated from the EAM Object Type system code. The default option is Work Order.	<p>This field will have the Work Order, Notification, and No Action options. It is populated from the EAM Object Type system code. The default option is Work Order.</p> <p>Based on the selection of this field, Work Order and Notification fields are enabled and disabled.</p> <p>This field decides whether a newly created task is of the Work Order type or Notification type.</p>
Exported On	Date	The date on which the TMLs linked to the Inspection Task were exported.	This field is disabled and populated automatically.
Exported By	Character	The ID of the user who exported the TMLs linked to the Inspection Task.	This field is disabled and populated automatically.
Grace Period Basis	Character	Stores the information about the basis on which the Grace Period is populated.	This field is populated with a description of system codes stored in MI_INTGY_GRACE_PERIOD_BASIS system code table.
Grace Period	Numeric	Stores the Grace Period value.	The field captures the grace period in units of Days.
Inspection Grace Due Date	Date	Stores the date considering the Grace Period duration from the Next Date, as per legal requirement.	This field is calculated by adding Grace Period to the Next Date field.

Field	Data Type	Description	Behavior and Usage
Inspection Documentation Window	Numeric	Stores information about the duration in months for documenting an Inspection report. The UOM is measured in Months.	This field is duplicated from the administrator's settings when a new European Inspection task is created. You can edit the values in the European Inspection Task datasheet. This field populates values for the Inspection Documentation Completion Date.
Inspection Documentation Completion Date	Date	Mentions the completion date for documenting an Inspection report.	The value in this field is populated based on the addition of Inspection Documentation Window and Grace Period to the next date. For example: If Inspection Documentation Window: 1 month Grace Period: 5 days Next Date: December 3rd, 2020 Inspection Documentation Completion Date: January 8th, 2021
Inspection Document Type	Character	The type of document that will be created during Work Pack execution.	N/A
Inspection Event	Character	The key of the Inspection Event that was created when you uploaded Thickness Measurements as part of TML Scoping using the Link TMLs to Inspection Task Data Loader.	This field is disabled and populated automatically.
Is Deferred	Boolean	Indicates if the Inspection Task currently has an Approved Deferral against it.	This field is disabled and populated automatically by the APM system.
Last Measurement Date	Date	Stores the last measurement date taken for the TML that is driving the Projected T-Min Date of the asset.	This field will be copied from TML's Corrosion Analysis. This field will be disabled in datasheet.
Last Date	Date	The date on which the last inspection was performed.	This field is populated automatically by the APM system; however, you can modify the date by selecting  .

Field	Data Type	Description	Behavior and Usage
Max Date	Date	The date furthest in the future on which the inspection can be performed and still be in compliance.	This field is populated automatically by the APM system; however, you can modify the date by selecting  .
Max Interval	Numeric	The time between the Last Date and the Max Date.	N/A
Min Date	Date	The earliest date on which an inspection may be performed.	This field is populated automatically by the APM system; however, you can modify the date by selecting  .
Min Interval	Numeric	The earliest date on which the inspection can be performed and still be in compliance.	The Desired Interval value must be between the value in this field and that of the Max Interval field. If this field is set to a value that is higher than the Max Interval or Desired Interval, those values are adjusted to be equal to the Min Interval value.
Modifiable	Boolean	Indicates whether a user can modify fields.	N/A
Next Date	Date	Date on which the inspection event is schedule.	This field is populated automatically by the APM system; however, when the task is reoccurring, you can modify the date by selecting  When an Inspection Task is newly created, this field can be modified when the Last Date field is cleared.
Next Date Basis	Text	The comments of the inspector; the comments explain the reasoning for the Next Date.	This field displays a list of IDs and Descriptions of the System Codes that are stored in the MI_NEXT_DATE_BASIS (Next Date Basis) System Code Table.
Notification Number	Character (50)	Populates Notification Number from the EAM system	Populates Notification Number from the EAM System. This field is always disabled.

Field	Data Type	Description	Behavior and Usage
Notification Type	Character (50)	Populates Notification Type from the system code and determines the type of notification	Populates Notification Type from the system code and determines the type of notification. The default value is M2.
Previous Next Date	Date	The date is calculated based on the Inspection Completion date.	This field is populated automatically by the APM system. This field stores the Next Date before the rescheduling occurs. This field is always disabled.
Original Next Date	Date	Stores the original date this task was scheduled to be executed.	When this field is null, it is populated by the system with the current value of the Next Date field when a Deferral related to the task is approved. This field is disabled on the datasheet.
Override Interval	Boolean	Indicates whether the user may define their own interval.	This field is automatically set to True by the APM system; however, you can modify field by clearing the check box.
Operation Number	Character (50)	Populates from the EAM system	This field is populated from the EAM system.
Projected T-Min Date	Date	Stores the Projected T-Min date value.	The values in this field are populated from Asset Corrosion Analysis linked to the Asset. This field will be disabled in datasheet.
Rejectable	Boolean	Indicates whether the inspection task may be rejected and not performed.	This field is automatically set to True by the APM system; however, you can modify field by clearing the check box.
Related Entity ID	Character	The unique ID of that asset that is related to the inspection event.	N/A
Remaining Life Factor	Numeric	Stores the value of Remaining Life Factor.	This field is copied from Corrosion Analysis Settings linked to the Asset. This field will be disabled in datasheet.

Field	Data Type	Description	Behavior and Usage
Reoccurring	Boolean	Indicates whether the task is recurring.	This field is populated by Strategy rules, which document the basis of the proposed Next Date. After you save the Inspection Task, you cannot modify the value in this field.
Source Type	Character	The work process that generated this task.	This field is populated automatically based on the Inspection Scope.
TM Remaining Life	Numeric	This is a calculated field.	This value is calculated using the following formula: $\text{TM Remaining Life} = (\text{Projected T-Min Date} - \text{Last Date}) * \text{Remaining Life Factor}$ This field will be disabled in datasheet.
Task Assigned To	Character	The first and last name of the APM Security User responsible for completing the inspection task.	You can enter the name of a Security User in this field.
Task Description	Text	Defines the requirement for completing this task.	You can specify a value for this field using the datasheet.
Task Details	Text	A field for the inspector to record additional details about the task.	You can specify a value for this field using the datasheet.
Task ID	Character	The unique ID used to track the task through the workflow.	This field is required.
Task State	Character	Indicates to the user the state of the current task.	N/A
Task Type	Character	The type of inspection that should be performed on the piece of equipment at the interval indicated in the Interval field.	This field is populated with the value that is stored in the Task Type ID field in the Task Types record associated with the time-based inspection setting (that is, the task type for which an inspection interval is defined in the Time-Based Inspection Settings page).

Field	Data Type	Description	Behavior and Usage
Task Rescheduling Basis	Character (255)	The rescheduling of the inspection task information is captured in this field.	This field captures the information based on how the Next Date field is calculated. The field can be calculated either by the Completion Date or the Previous Next Date . This field is populated with a description of system codes stored in MI_EU_TASK_RESCHEDULE system code table. This field is always disabled.
Task List Link	Character (500)	Populates from the SAP Task list	This field is populated with the value from the SAP Task list.
Unconstrain Min/Max Dates	Boolean	Indicates whether the user may define their own min or max dates.	This field is automatically set to True by the APM system; however, you can modify field by clearing the check box.
Uploaded On	Date	The date on which Thickness Measurements were created for the Inspection Task as part of TML Scoping using the Link TMLs to Inspection Task Data Loader.	This field is disabled and populated automatically.
Uploaded By	Character	The ID of the user who created the Thickness Measurements for the Inspection Task as part of TML Scoping using the Link TMLs to Inspection Task Data Loader.	This field is disabled and populated automatically.
User Status for Work Order	Character	Populates from the User Status for Work Order system code and stores the value that will determine the status that the user wants to pass to the SAP object on creation.	This field populates from the User Status for Work Order system code. This field stores the value that will determine the status that the user wants to pass to the SAP object on creation. This is not a mandatory field.
User Status for Notification	Character	Populates from the User Status for Notification system code and stores the value that will determine the status that the user wants to pass to the SAP object on creation	This field populates from the User Status for Notification system code and stores the value that will determine the status that the user wants to pass to the SAP object on creation. This is not a mandatory field.

Field	Data Type	Description	Behavior and Usage
Work Order Type	Character	Contains various work order types	This field has an input drop-down list box with the Work Order, Notification, and No Action options. This field is populated from the Work Order Type system code. The default value is PM01.
Work Order Number	Character	Populates Work Order Number from the EAM system	This field populates the Work Order Number from the EAM system. This field is always disabled.

Inspection Taxonomy Configuration Records

The table below provides an alphabetical list and description of the fields that exist for the Inspection Taxonomy Configuration family. The information in the table reflects the baseline state and behavior of these fields.

This family is not enabled for site filtering, which means that records in this family can be accessed by any user with the appropriate license and family privileges. For more information, refer to the [Sites](#) section of the documentation.

Field	Data Type	Description	Behavior and Usage
Checklist Template	Character	Stores and displays the defined Checklist Configuration Template name.	This field is populated automatically by the APM system with the name of a Checklist Configuration Template that has been linked to a Taxonomy Configuration.
Checklist Template Key	Character	Stores the entity key of the defined Checklist Configuration Template.	This field is populated automatically by the APM system. Important: Do not modify the contents of this field.
Inspection Family	Character	Stores the defined Family ID and caption.	This field is populated automatically by the APM system with the Family ID and caption of an Inspection Family that has been linked to a Taxonomy Configuration.
Taxonomy Category	Character	Stores the defined Taxonomy Category.	This field contains a list of available Taxonomy Categories that are available in APM. This field can be modified in the Taxonomy Configurations section of Application Settings.

Field	Data Type	Description	Behavior and Usage
Taxonomy Class	Character	Stores the defined Taxonomy Class.	This field contains a list of available Taxonomy Classes that are available in APM. This field can be modified in the Taxonomy Configurations section of Application Settings. This field is filtered based on the selected Taxonomy Category.
Taxonomy Type	Character	Stores the defined Taxonomy Type.	This field contains a list of available Taxonomy Types that are available in APM. This field can be modified in the Taxonomy Configurations section of Application Settings. This field is filtered based on the selected Taxonomy Category and Taxonomy Class.

Inspection Team Member Records

Inspection Team Member records contain information for Team Members, such as names and certification information.

An inspection team member is any person that participates in an inspection. When you view an inspection report, you will see a section that lists all team members associated with that inspection.

The table below provides an alphabetical list and description of the fields that exist for the Inspection Team Member family. The information in the table reflects the baseline state and behavior of these fields. This list is not comprehensive.

This family is enabled for site filtering, which means that records in this family can be assigned to a specific site and will only be accessible to users who are assigned to the same site and have the appropriate license and family privileges. For more information, refer to the [Sites](#) section of the documentation.

Field	Data Type	Description	Behavior and Usage
Applicable Certification	Character	The relevant certification held by the Team Member.	This field is populated with certifications based on the value in the Full Name field. When you select a Full Name, the certifications associated with that Human Resource appear in the drop-down list box.
Certification Expiry Date	Date	The date on which the Applicable Certification expires.	This field is populated automatically when you select an Applicable Certification.

Field	Data Type	Description	Behavior and Usage
Certification ID	Character	The ID of the Applicable Certification.	This field is populated automatically when you select an Applicable Certification.
Full Name	Character	The name of the Human Resource for whom the Team Member record is created.	This field is populated by a list of Human Resources who have the Inspector or Contract Inspector role. The Human Resource records listed in the Full Name field are not filtered based on the site.

Work Pack

Work Packs store preparation information about inspection work that needs to be performed for equipment and/or locations. The following table provides an alphabetical list and description of the fields that exist in the Work Pack family. By default, all fields in the Work Pack family appear on the Work Pack datasheet.

This family is enabled for site filtering, which means that records in this family can be assigned to a specific site and will only be accessible to users who are assigned to the same site and have the appropriate license and family privileges. For more information, refer to the [Sites](#) section of the documentation.

Field	Data Type	Description	Behavior and Usage
Preparation Details	Text	Preparation information about the inspection work associated with the Work Pack	You can enter any preparation details about the inspections in this field.
Work Pack ID	Character	The Record ID of the Work Pack	This is a required field. You must enter a value in this field before you can save a Work Pack.
Work Pack Description	Character	A description of the Work Pack	This is a required field. You must enter a value in this field before you can save a Work Pack.

Pipe Rotation Event

Pipe Rotation Event family is used in Thickness Monitoring module to capture Rotation or Flip movements for Piping Assets. The following table provides an alphabetical list and description of the fields that exist in the Piping Rotation Event family.

This family is enabled for site filtering, which means that records in this family can be assigned to a specific site and will only be accessible to users who are assigned to the same site and have the appropriate license and family privileges. For more information, refer to the [Sites](#) section of the documentation.

Field	Data Type	Description	Behavior and Usage
Component ID	Character	Specifies a unique ID for the component that is rotated or flipped.	This field is automatically populated during a rotation or flip. This field is always disabled.
Movement Date	Date	Stores the date of the rotation or flip.	This field is automatically populated during a rotation or flip. This field is always disabled.
Moved By	Character	Stores the Security User key of the user that performed a rotation or flip.	This field is automatically populated during a rotation or flip. This field is always disabled.
Move Type	Character	Identifies the type of movement that occurred. For example, Rotate or Flip.	This field is automatically populated during a rotation or flip. This field is always disabled. This field is populated by the MI_PIPE_MOVE_TYPES System Code Table.
Rate Method	Character	Stores the Rate Method specified when performing a rotation or flip.	The value in this field must be selected when performing a rotation or flip.
Remaining Life Before	Numeric	Stores the remaining life of the component, prior to the rotation or flip.	This field is automatically populated during a rotation or flip. This field is always disabled.
Retirement Date Before	Date	Stores the retirement date of the component, prior to the rotation or flip.	This field is automatically populated during a rotation or flip. This field is always disabled.
Remaining Life After	Numeric	Stores the remaining life of the component after the rotation or flip.	This field is automatically populated during a rotation or flip. This field is always disabled.
Reverted	Boolean	Identifies Pipe Rotation Events that have been reverted.	This field is automatically set to True when a Pipe Rotation Event undo an action. This field is always disabled.
Rotation Sequence Number	Numeric	Stores the sequence number of the rotation of the component.	This field is automatically populated during a rotation or flip. This field is always disabled.
Scenario ID	Character	Stores the Scenario ID for a What If scenario.	The value in this field must be entered when a What If scenario is created.
Top Center Moved To	Numeric	Stores the Position ID of the position that the Top-Center position was moved to.	This field is automatically populated during a rotation or flip. This field is always disabled.
What If Method	Character	Stores the method used to generate the What If scenario.	This field is populated automatically when a What If scenario is created. This field is populated by the MI_PIPE_WHAT_IF_TYPES System Code Table. This field is always disabled.

Inspection Sync Errors

Inspection Sync Errors family is used by Inspection Management when syncing data received from the Mobile Inspection application. The family stores a JSON data object pertaining to the scheduled jobs status and any errors that occurred during that job.

This family is not enabled for site filtering, which means that records in this family can be accessed by any user with the appropriate license and family privileges. For more information, refer to the [Sites](#) section of the documentation.

Field	Data Type	Description	Behavior and Usage
Error Data JSON	Text	Serialized JSON object representing the results of the data sync with APM. The object contains values indicating the records which had errors as well as entity key to client key mappings for any newly created entities.	This field is populated automatically during the process of syncing data to APM.
Job Key	Character	Specifies a unique ID for the job that was scheduled when syncing data from the mobile application.	This field is populated automatically during the process of syncing data to APM.

Catalog Items

Config Queries Folder

The Catalog folder `\\Public\Meridium\Modules\Inspection\Config Queries` contains the following items.

Query	Behavior and Usage
Asset Query	This query is used to identify the records that store information about pieces of equipment for which you perform inspections. In the baseline database, this query returns a count of all Equipment records with the Entity Key specified in the query prompt (i.e., one or zero).
Base Summary Query	Used by the Inspection History Summary Query.
Inspection History Summary Query	Returns a list of all Inspection records that are linked to a certain Equipment or Functional Location record. This query uses the Base Summary Query to determine the Entity Key of the Equipment or Functional Location record.
Published Documents	Returns a list of all Inspection records whose Published fields are set to true. This query contains a Load Inspection hyperlink that lets you open Inspection records in the Record Manager.

Query	Behavior and Usage
Published Documents by Asset	This query returns the same results as the Published Documents query; however, this query contains a prompt on the Asset Key field in the Inspection record.
User Key for HR Key	<p>Returns the Entity Key of each Security User record and the Entity Key of each Human Resource record to which that Security User record is linked. This query exists simply to support the workflow facilitated by the following queries, which exist in the Review Queries folder:</p> <ul style="list-style-type: none"> • Bundle Inspections for Review for Current User - Choose State • Bundle Inspections Pending Approval for Current User • Full Inspections for Review for Current User - Choose State • Full Inspections Pending Approval for Current User • General Inspections for Review for Current User - Choose State • General Inspections Pending Approval for Current User • Pressure Inspections Pending Approval for Current User • Pressure Test Inspections for Review for Current User - Choose State

Inspection Task Related Families Folder

The Catalog folder `\\Public\Meridium\Modules\Inspection\Inspection Task Related Families` contains the following queries:

Query	Behaviour and Usage	Required Fields
MI_CONFMATN	Returns a list of Task Confirmations for an Inspection Task. This query is used to display results in the Related Records section of the Inspection Task.	pred_key (Inspection Task Key)
MI_TASKEEXEC	Returns a list of Task Executions for an Inspection Task. This query is used to display results in the Related Records section of the Inspection Task.	pred_key (Inspection Task Key)

Overview Charts Folder

The Catalog folder `\\Public\Meridium\Modules\Inspection\Overview Charts` contains the following items.

Graph Name	Behavior and Usage
Open Recommendations by Asset	This graph shows the number of open Recommendations for the selected Asset. It appears in the OPEN INSPECTION RECOMMENDATIONS BY ASSET section on the Inspection Management Overview page.
Task Types Coming Due Within the Year	This graph shows the number of Inspection Tasks of each type that must be completed in the current year. It appears in the TASK TYPES COMING DUE WITHIN THE YEAR section on the Inspection Management Overview page.

Overview Queries Folder

The Catalog folder `\\Public\Meridium\Modules\Inspection\Overview Queries` contains queries that are used on the following pages:

- The **Inspection Management Overview** page for the selected hierarchy level.
- The **Inspection Management Overview** page for the selected asset.

The following table provides a list of queries that are used in the **Inspection Management Overview** page for the selected hierarchy level, along with a list of required fields and their alias names for each query.

Important: The queries in the table below may have one or more required fields or parameters. When using the queries:

- Do not remove the required fields from a query.
- Do not change the alias of the required fields.
- Do not modify the order of required fields.
- Do not modify the IDs of the query parameters.

If you do so, you cannot perform certain operations in the **Inspection Management Overview** page.

Query Name	Behavior and Usage	Required Fields
All Inspection Assets for Unit	Returns a list of assets with at least one Inspection or Inspection Task in the selected unit or underlying assets. This query is used to display results in the grid in the Inspection Assets section.	ENTY_KEY (Alias Name: ENTY_KEY)
All Inspections for Unit	Returns a list of Inspections performed on the selected Functional Location. This query is used to display results in the All Inspections for This Location subsection in the Underlying Inspections section.	<ul style="list-style-type: none"> • ENTY_KEY (Alias Name: Inspection Entity Key) • ENTY_ID (Alias Name: Inspection ID)
All Inspections for Unit and Below	Returns the count of Inspections performed on the selected Functional Location or underlying assets.	None

Query Name	Behavior and Usage	Required Fields
All Inspection Assets with Inspection Or Task for Unit	Returns a list of assets with at least one Inspection or Inspection Task. This query is used by the All Inspection Assets for Unit query.	None
All Tasks for Unit	Returns all Inspection Tasks performed on the assets in the unit.	ENTY_KEY (Alias Name: ENTY_KEY0)
Count of Task Types due Within the Year	Returns the number of Task Types that are due within the calendar year. This query is used in the graph in the TASK TYPES COMING DUE WITHIN THE YEAR section.	None
Inspection Overview Parameters	Returns the parameters used to navigate through the Asset Hierarchy.	All fields in the query
My Open Inspections	Returns a list of open Inspections assigned to you. This query is used to display results in the My Open Inspections subsection in the Underlying Inspections section.	<ul style="list-style-type: none"> ENTY_KEY (Alias Name: Inspection Entity Key) ENTY_ID (Alias Name: Inspection ID)
Open Inspection Recommendations by Asset	Returns the number of open Inspection Recommendations for each asset contained within the unit. This query is used in the graph in the OPEN INSPECTION RECOMMENDATIONS BY ASSET section.	None
Open Inspections for Unit	Returns a list of open Inspections for Equipment or Functional Locations contained within the unit based on their current assigned status. This query is used to display results in the Underlying Open Inspections subsection in the Underlying Inspections section.	<ul style="list-style-type: none"> ENTY_KEY (Alias Name: Inspection Entity Key) ENTY_ID (Alias Name: Inspection ID)
Open Recommendations for Asset	<p>Returns a list of Inspection Recommendations for the given asset based on their current assigned status. This query is used to display results in the following sections:</p> <ul style="list-style-type: none"> All Recommendations for this Location subsection in the Overdue Recommendations section Recommendation section in the Inspection Management Asset Overview page <p>This query is used when the Use State Management for Inspection Recommendations check box in Application Settings is cleared.</p>	<ul style="list-style-type: none"> ENTY_KEY (Alias Name: Inspection Entity Key) startDate endDate

Query Name	Behavior and Usage	Required Fields
Open Recommendations for Asset (State Management)	<p>Returns a list of open Inspection Recommendations for the given asset based on their current assigned state. This query is used to display results in the following sections:</p> <ul style="list-style-type: none"> • All Recommendations for this Location subsection in the Overdue Recommendations section • Recommendation section in the Inspection Management Asset Overview page <p>This query is used when the Use State Management for Inspection Recommendations check box in Application Settings is selected.</p>	<ul style="list-style-type: none"> • ENTY_KEY (Alias Name: ENTY_KEY) • startDate • endDate
Open Inspection Recommendations for Unit	<p>Returns a list of open Inspection Recommendations for assets within the unit based on their current assigned status and filtered by date. This query is used to display results in the Underlying Open Recommendations subsection in the Underlying Recommendations section. This query is used when the Use State Management for Inspection Recommendations check box in Application Settings is cleared.</p>	<ul style="list-style-type: none"> • ENTY_KEY (Alias Name: ENTY_KEY) • startDate • endDate
Open Inspection Recommendations for Unit (State Management)	<p>Returns a list of open Inspection Recommendations that are associated with the asset and Functional Locations in the unit based on their current assigned state and filtered by date. This query is used to display results in the Underlying Open Recommendations subsection in the Underlying Recommendations section. This query is used when the Use State Management for Inspection Recommendations check box in Application Settings is selected.</p>	<ul style="list-style-type: none"> • ENTY_KEY (Alias Name: ENTY_KEY) • startDate • endDate

Query Name	Behavior and Usage	Required Fields
Overdue Inspection Recommendations for Unit	Returns a list of overdue Inspection Recommendations that are associated with the asset and Functional Locations in the unit based on their current assigned status and filtered by date. This query is used to display results in the Recommendations Due for Implementation subsection in the Underlying Recommendations section. This query is used when the Use State Management for Inspection Recommendations check box in Application Settings is cleared.	<ul style="list-style-type: none"> • ENTY_KEY (Alias Name: Inspection Entity Key) • startDate • endDate
Overdue Inspection Recommendations for Unit (State Management)	Returns a list of overdue Inspection Recommendations that are associated with the asset and Functional Locations in the unit based on their current assigned state and filtered by date. This query is used to display results in the Recommendations Due for Implementation subsection in the Underlying Recommendations section. This query is used when the Use State Management for Inspection Recommendations check box in Application Settings is selected.	<ul style="list-style-type: none"> • ENTY_KEY (Alias Name: ENTY_KEY) • startDate • endDate
Overdue Tasks for Unit	Returns a list of Inspection Tasks that are overdue and associated with the Equipment or Functional Locations in the unit. This query is used to display results in the Overdue Tasks subsection in the Inspection Tasks subsection.	ENTY_KEY (Alias Name: ENTY_KEY0)
Top-Level Work Packs	Returns a list of top-level Work Packs in APM. This query is used to display results in the Work Packs section.	<ul style="list-style-type: none"> • Work Pack ID (Alias Name: Work Pack ID) • ENTY_KEY (Alias Name: ENTY_KEY)
All Tasks for Unit	Returns all Inspection Tasks for this Functional Location.	<ul style="list-style-type: none"> • ENTY_KEY (Alias Name: ENTY_KEY0) • ENTY_KEY (Alias Name: ENTY_KEY) • ENTY_ID (Alias Name: Task ID)

The following table provides a list of queries that are used on the **Inspection Management Overview** page for the selected asset.

Query Name	Behavior and Usage	Required Fields
All Inspections for Asset	Returns a list of Inspections performed on the selected asset. This query is used to display results in the Inspections section.	<ul style="list-style-type: none"> • ENTY_KEY (Alias Name: Inspection Entity Key) • ENTY_ID (Alias Name: Inspection ID)
All Health Evaluations for Asset	Returns a list of Health Evaluations for the selected assets. This query is used to display results in the Health Evaluations section.	<ul style="list-style-type: none"> • PRED_ENTY_KEY (Alias Name: INSP_KEY) • ENTY_KEY (Alias Name: HEALTH_EVAL_KEY) • ENTY_ID (Alias Name: Inspection ID) • ML_INSP_HLTH_EVAL_ASSMNT_C (Alias Name: Health Assessment)
All Tasks for Asset	Returns a list of Inspection Tasks for the selected asset. This query is used to display results in the Inspection Tasks section.	<ul style="list-style-type: none"> • ENTY_KEY (Alias Name: ENTY_KEY0)
Open Recommendations for Asset	Returns a list of Inspection Recommendations for the given asset. This query is used to display results in the Recommendations section.	<ul style="list-style-type: none"> • ENTY_KEY (Alias Name: ENTY_KEY)
Top-Level Work Packs	Returns a list of top-level Work Packs in APM. This query is used to display results in the Work Packs section.	<ul style="list-style-type: none"> • ML_WORKPACK_ID_C (Alias Name: Work Pack ID) • ENTY_KEY (Alias Name: ENTY_KEY)

Recommendation Queries Folder

The Catalog folder \\Public\Meridium\Modules\Inspection\Recommendation Queries contains the following queries:

Query	Behavior and Usage	Required Fields
Inspection Recommendation Details	Returns list of Inspection Recommendation for an inspection. This query is used to display results in the Recommendation section of the Inspection.	PRED_ENTY_KEY (Inspection Key)

Report Queries Folder

The Catalog folder `\\Public\Meridium\Modules\Inspection\Report Queries` contains the following items.

Query	Behavior and Usage
Checklist Report Query	Generates the report for an Inspection Document associated with a Checklists record.
MI Asset Corrosion Analysis	Generates information in the Asset Corrosion Analysis section of each main report.
MI Reference Document	Generates information in the Reference Documents section of each main report.
MI FIND CHECK	Generates information in the Checklist Findings section of a Checklist Inspection report.
MI FIND GEN	Generates information in the Findings section of each main report.
MI INSP GEN	Generates the report for a General Inspection Document.
MI INSPBSUB	Generates information in the Bundle Sub Inspections section of a Full Inspection report.
MI INSPBUND	Generates the report for a Bundle Inspection Document.
MI INSPFULL	Generates the report for a Full Inspection Document.
MI INSPPSUB	Generates the information in the Pressure Test Sub Inspections section of a Full and General Inspection report.
MI INSPPTST	Generates the report for a Pressure Test Inspection Document.
MI RECINSP	Generates the information in the Recommendations section of each main report.
MI TEAMINSP	Generates the information in the Inspection Team Members section of each main report.
MI_INSPHIST_RECINSP	Generates the information in the Recommendation History section of an Inspection History Report.

Reports and SSRS Reports

The Catalog folders `\\Public\Meridium\Modules\Inspection\Reports` and `\\Public\Meridium\Modules\Inspection\SSRS` contain the following items.

Report Name	Behavior and Usage
Asset Corrosion Analysis Report	Generates the SSRS report that provides a summary of the Asset Corrosion Analysis.
Blank Checklist Finding Report	Generates the sub-report for the Blank Checklist Inspection report. This sub-report provides blank entries for the Checklist Findings related to a particular Checklist Inspection.
Blank Checklist Inspection Report	Generates the SSRS report that provides blank entries for the Checklist Inspection and a blank section for the manual entry of Checklist Finding details.
Bundle Inspection Report	Generates the SSRS report that displays the number of tubes present in a bundle and the condition of the tubes.
Bundle Sub Inspection Report	Generates the SSRS report that provides details on bundle subinspections for the Bundle Inspection Report.
Checklist Findings Report	Generates the SSRS report that displays all of the Checklist Findings associated with a Checklist Inspection.
Checklist Inspection Report	Generates the SSRS report that provides a summary of Checklist Inspection data, Checklist Findings, and related sub-report data.
Finding Report	Generates the SSRS report that displays all the Findings for an Inspection.
Full Inspection Report	Generates the SSRS report that provides a summary of Findings, Bundle Inspection, Pressure Test, Recommendations, Inspection Team Members, and reference documents.
General Inspection Report	Generates the SSRS report that provides a summary of Findings, Bundle Inspection, Pressure Test, Recommendations, Inspection Team Members, and reference documents.
Inspection Recommendation Report	Generates the SSRS report that displays all recommendations that are associated with a given Inspection.
Inspection Team Member Report	Generates the SSRS report that displays all team members associated with an Inspection.
NR13 Full Inspection	Generates the SSRS report (NR13 Version) that provides a summary of Findings, Bundle Inspection, Pressure Test, Recommendations, Inspection Team Members, and reference documents.
NR13 General Inspection Report	Generates the SSRS report (NR13 Verison) that provides a summary of Findings, Bundle Inspection, Pressure Test, Recommendations, Inspection Team Members, and reference documents.
Pressure Test Inspection Report	Generates the SSRS report that displays results of a Pressure Test for Corrosion Analysis, Findings, and Recommendations, using subreports.
Pressure Test Sub Inspection Report	Generates the SSRS report that provides details on Pressure Test subinspections for the Pressure Test Inspection report.

Report Name	Behavior and Usage
Reference Document Report	Generates the SSRS report that displays a summary of all the reference documents that are associated with an Inspection.
Work Pack Inspection Findings Summary Report	Generates the Work Pack Inspection Findings Summary Report.
Work Pack Inspection Scope Summary Report	Generates the Work Pack Inspection Scope Summary Report.

Resource Queries Folder

The Catalog folder `\\Public\Meridium\Modules\Inspection\Resource Queries` contains the following items.

Query	Behavior and Usage
All Human Resources	<p>Returns a list of all the Human Resource records in the database.</p> <p>This query contains the following URL Fields:</p> <ul style="list-style-type: none"> • Manage Resource Roles (Field Alias: Manage Roles): Displays the Human Resource record in the master/detail datasheet. The detail grid lets you view and create Resource Role records that are linked to the Human Resource record. • Manage Resource Certifications (Field Alias: Manage Certifications): Displays the Human Resource record in the master/detail datasheet. The detail grid lets you view and create Personnel Certification records that are linked to the Human Resource record.
Human Resources with Certification	<p>Returns a list of Human Resource records that are linked to a Personnel Certification record.</p> <p>This query contains the following URL Field:</p> <ul style="list-style-type: none"> • Last Name: Displays the Human Resource Record in the master/detail datasheet. The detail grid lets you view and create Personnel Certification records that are linked to the Human Resource record.
Human Resources with Roles	<p>Returns a list of Human Resource records that are linked to a Resource Role record.</p> <p>This query contains the following URL Field:</p> <ul style="list-style-type: none"> • Last Name: Displays the Human Resource Record in the master/detail datasheet. The detail grid lets you view and create Resource Role records that are linked to the Human Resource record.

Work Pack Queries Folder

The Catalog folder `\\Public\Meridium\Modules\Inspection\Work Pack Queries` contains the following items:

Query Name	Behavior and Usage	Required Fields
Available Tasks for Work Pack	Returns a list of Tasks available for linkage to a Work Pack	<ul style="list-style-type: none"> ENTY_KEY (Alias Name: TASK_ENTY_KEY)
All Inspections in a Work Pack	Returns a list of Inspections linked to a given Work Pack	<ul style="list-style-type: none"> Inspection.ENTY_KEY (Alias Name: INSP_ENTY_KEY) Inspection.ENTY_ID (Alias Name: INSP_ID)
All related Work Packs	Returns a list of Work Packs linked to a given Work Pack	<ul style="list-style-type: none"> KEY ID LEVEL
All Tasks in a Work Pack	Returns a list of Inspection Tasks linked to a given Work Pack	<ul style="list-style-type: none"> ENTY_KEY (Alias Name: TASK_ENTY_KEY) MI_TASK_ID (Alias Name: TASK_ID) MI_TASK_INSP_ID (Alias Name: INSP_DOC_TYPE) PRED_ENTY_KEY (Alias Name: ASSET_ENTY_KEY)

General Reference

General Reference

This section contains information on NR13, State Management, and Site Filtering.

About NR13

NR13 is a Brazilian Regulatory Standard issued by the Department of Labor, applicable only to sites in Brazil. Its general purpose is to ensure safety in all aspects of designing, installing, operating, and maintaining certain types of equipment.

The NR13 module expands APM's baseline function to support the collecting and storing of technical data that is required to create NR13-compliant inspection reports. The module also adds two new inspection reports specifically for NR13 inspections.

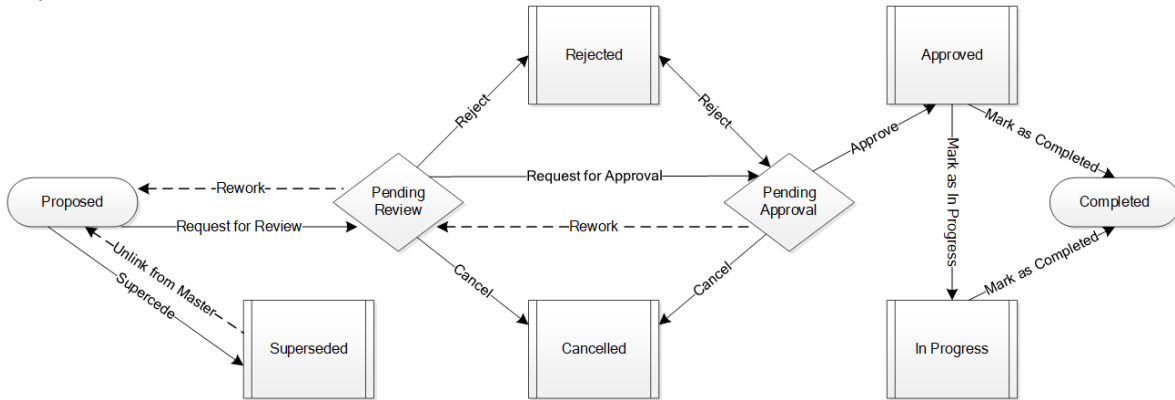
The NR13 module is enabled by the NR13 license.

You can download the [NR13ModuleEnglish.pdf](#) (PDF).


Inspection Management State Management

Inspection Recommendation

The diagram below shows the workflow of the baseline State Management process as it applies to Inspection Recommendations.



Details:

- The Proposed state is the initial state of all Inspection Recommendations.
- By default, states will appear in the **Recommended Actions** pane when you are viewing an Inspection Recommendation or the Record Manager.
- Operations that are not in reserved states can be accessed by selecting an Inspection Recommendation and then selecting .

Reserved States and Operations

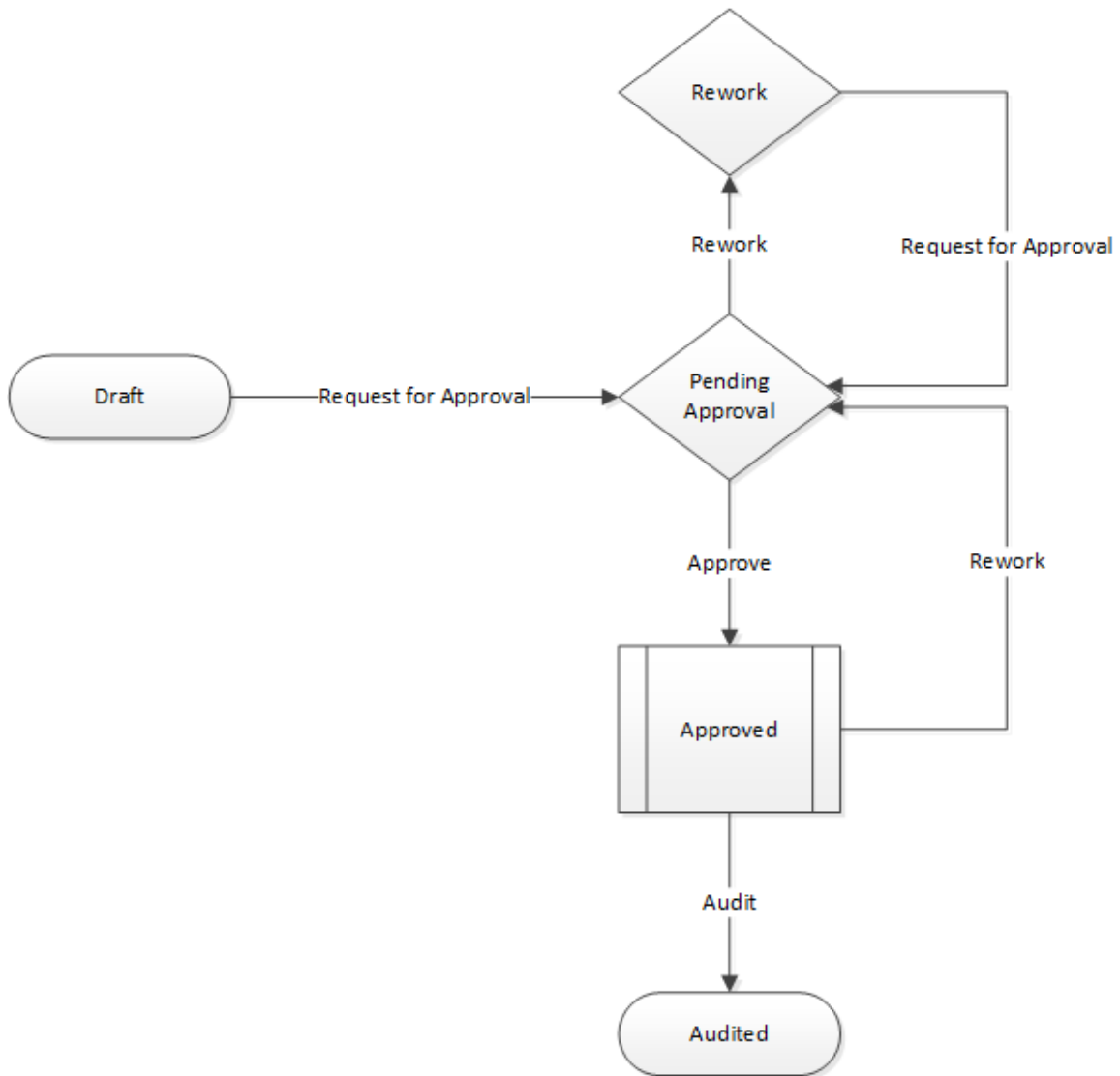
The following tables indicate whether or not the baseline states and operations are reserved. You cannot remove or modify reserved states or operations. You can, however, add your own states and operations to the State Assignment.

State Caption	Reserved State	Security Role
Approved	No	SC Recommendation Implementer Role
Cancelled	No	None
Completed	No	None
In Progress	No	SC Recommendation Implementer Role
Pending Approval	No	SC Recommendation Reviewer Role
Pending Review	No	MI Inspection Supervisor
Proposed	Yes	MI Inspector
Rejected	No	None
Superseded	Yes	None

Operations	Reserved Operation	Predecessor States	Successor State
Approve	No	Pending Approval	Approved
Cancel	No	<ul style="list-style-type: none"> • Pending Approval • Pending Review 	Cancelled
Mark as Completed	No	<ul style="list-style-type: none"> • Approved • In Progress 	Completed
Reject	No	<ul style="list-style-type: none"> • Pending Approval • Pending Review 	Rejected
Request for Approval	No	Pending Review	Pending Approval
Request for Review	No	Proposed	Pending Review
Rework	No	Pending Approval	Pending Review
Rework	No	Pending Review	Proposed
Supersede	Yes	Proposed	Superseded
Unlink from Master	Yes	Superseded	Proposed

Inspections

The following diagram shows the workflow of the baseline State Management process as it applies to Inspections.



Details:

- The Draft state is the initial state of all Inspection families
- Operations in the inspections allow you to change the state if you have a required security role to execute them.

Reserved States and Operations:

The following tables indicate whether the baseline states and operations are reserved. You cannot remove or modify reserved states or operations.

State Caption	Reserved State	Security Role
Draft	Yes	<ul style="list-style-type: none"> • MI Inspector • MI Contract Inspector
Pending Approval	No	MI Inspector Supervisor

State Caption	Reserved State	Security Role
Rework	No	<ul style="list-style-type: none"> MI Inspector MI Contract Inspector
Approved	No	MI Inspector Supervisor
Audited	No	NA

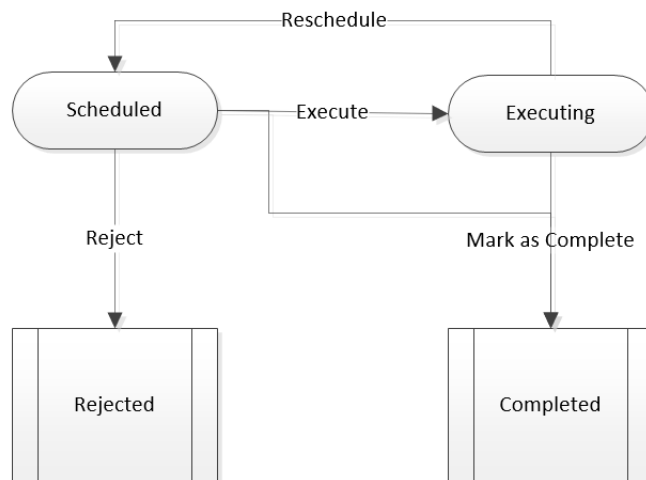
Operations	Reserved Operation	Predecessor States	Successor State
Request for Approval	No	Draft	Pending Approval
Rework	No	Pending Approval	Rework
Approve	No	Pending Approval	Approved
Request for Approval	No	Rework	Pending Approval
Audit	No	Approved	Audited
Rework	No	Approved	Pending Approval

Note: The Inspection Report Owner field populates the users who are assigned any roles that are in the Draft state, except MI Contract Inspector role, along with the users who are assigned the Inspection Human Resource role.

Similarly, Inspection Reviewer field populates the users who are assigned any roles that are in the Pending Approval state, except MI Contract Inspector role, along with the users who are assigned the Inspection Supervisor Human Resource role.

Inspection Task

The following diagram shows the workflow of the baseline State Management process as it applied to an



Inspection Task.

Details:

- The Scheduled state is the initial state of the Inspection Task family.
- Most states and operations of the Inspection Task family are reserved and are automatically transitioned. However, you can manually transition an Inspection Task from the Scheduled to Rejected state if needed.

Reserved State and Operations

The following tables indicate whether the baseline states and operations are reserved. You cannot remove or modify reserved states or operations.

Operations	Reserved Operation	Predecessor States	Successor State
Reject	No	Scheduled	Rejected
Execute	Yes	Scheduled	Executing
Reschedule	Yes	Executing	Scheduled
Mark As Complete	Yes	Executing	Completed
Mark As Complete	Yes	Scheduled	Completed

State Caption	Reserved State	Security Role
Scheduled	Yes	N/A
Rejected	No	N/A
Executing	Yes	N/A
Completed	Yes	N/A

Inspection Management Site Filtering

The [Work Pack](#) family employs the APM **Site** Control; however, Work Packs are not linked to specific assets or Functional Locations. When a Work Pack record is initially created, it is assigned the default site of the user who created the record. The site of the root level Work Pack can only be modified prior to saving the record.

Tip: For more information, refer to the Site Filtering section of the documentation.

If a multi-site user who has access to every site in a root-level Work Pack record links child records from multiple sites to that Work Pack record, another user who does not have access to every sites may only see a potion of the data associated with that record.

Tip: Although having site-specific tasks is allowed by APM, Inspection Management Best Practices recommends that Work Packs and their associated tasks be limited to a single location.

Example: Work Pack Records

Consider an organization that has three sites, Site X, Site Y, and Site Z. Work Pack A, a global record, contains the following tasks:

- Task 1: Assigned to Site X
- Task 2: Assigned to Site Y
- Task 3: Assigned to Site Z

Scenario 1: User assigned to only Site X.

When this user views Work Pack A, he or she will see the following:

- Work Pack A.
- Task 1.

Scenario 2: User assigned to both Site Y and Site X.

When this user views Work Pack A, he or she will see the following:

- Work Pack A.
- Task 1.
- Task 2.

Scenario 3: Super User

When this user views Work Pack A, he or she will see the following:

- Work Pack A.
- Task 1.
- Task 2.
- Task 3.

Important: Although all tasks are contained within the global record Work Pack A, the user will only see the tasks associated with the current site to which they are assigned.

Inspection Management URLs

There is one URL route associated with Inspection Management: **im**. The following table describes the various paths that build on the route, and the elements that you can specify for each.

Element	Description	Accepted Value(s)	Notes
im/asset/<AssetEntityKey>/<WorkspaceName>: Accesses the Inspection Management page. im/asset/<AssetEntityKey>/inspection/<InspectionEntityKey>: Accesses the Inspection Data section of the Inspection Overview page. im/asset/<AssetEntityKey>/task/<InspectionTaskEntityKey>: Accesses the Manage Task page.			
<AssetEntityKey>	Specifies the level of the Asset Hierarchy for which you want to view Inspection information.	Any Asset Entity Key that is associated with an asset in the Asset Hierarchy.	N/A
<WorkspaceName>	Specifies the Inspection Management page that you want to view.	Overview	Accesses the Inspection Management Overview workspace.
		Profile	Accesses the Inspection Profile Details section.
<InspectionEntityKey>	Specifies the level of the Asset Hierarchy for which you want to view Inspection information.	Any Inspection Entity Key that is associated with an asset in the Asset Hierarchy.	Accesses the Inspection Data section.
		-1	The Inspection Data section. If the <InspectionEntityKey> is a valid Inspection record, you can bypass the <AssetEntityKey> by entering -1.

Element	Description	Accepted Value(s)	Notes
<InspectionTaskEntityKey>	Specifies the level of the Asset Hierarchy for which you want to view Inspection Task information.	Any Inspection Task Entity Key that is associated with an asset in the Asset Hierarchy.	Accesses the Manage Task page.
<p>im/functionallocation/<FunctionalLocationEntityKey>/<WorkspaceName>: Accesses the Inspection Management page.</p> <p>im/functionallocation/<FunctionalLocationEntityKey>/inspection/<InspectionEntityKey>: Accesses the Inspection Data section of the Inspection Overview page.</p> <p>im/functionallocation/<FunctionalLocationEntityKey>/task/<InspectionTaskEntityKey>: Accesses the Manage Task page.</p>			
<FunctionalLocationEntityKey >	Specifies the functional location level of the Asset Hierarchy for which you want to view Inspection information.	Any Functional Location Entity Key that is associated with an asset in the Asset Hierarchy.	N/A
<WorkspaceName>	Specifies the Inspection Management page that you want to view.	Overview	Accesses the Inspection Management Overview page.
		Profile	Accesses the Inspection Profile Details section.
<InspectionEntityKey>	Specifies the functional location level of the Asset Hierarchy for which you want to view Inspection information.	Any Inspection Entity Key that is associated with an asset in the Asset Hierarchy.	Accesses the Inspection Data section.
<InspectionTaskEntityKey>	Specifies the functional location level of the Asset Hierarchy for which you want to view Inspection Task information.	Any Inspection Task Entity Key that is associated with an asset in the Asset Hierarchy.	Accesses the Manage Task page.
<p>im/workpack/<WorkPackEntityKey>: Accesses the Work Pack Overview page.</p> <p>im/workpack/<WorkPackEntityKey>/subworkpack/<SubWorkPackEntityKey>: Accesses the Work Pack Overview page for the selected Sub Work pack.</p>			
<WorkPackEntityKey>	Specifies the Work Pack that you want to view.	Any related Work Pack Entity Key.	Accesses the Definitions section.
<SubWorkPackEntityKey>	Specifies the Sub Work Pack that you want to view.	Any related Sub Work Pack Entity Key.	Accesses the Definitions section. Note: You may have two Sub Work Pack strings in a single URL.

Element	Description	Accepted Value(s)	Notes
im/task/<InspectionTaskEntityKey>/inspection/0/inspectionfamkey/<InspectionDocumentTypeFamilyKey>: Creates an inspection that is linked to an inspection task.			
<InspectionTaskEntityKey>	Specifies the Inspection Task key for which you are creating an inspection.	Any Inspection Task Entity Key that is associated with an asset in the Asset Hierarchy.	The inspection that you create using the URL will be associated with this task.
<InspectionDocumentTypeFamilyKey>	Specifies the inspection document type family key that is associated with the document type of the inspection.	Any Inspection Document Type Family Key that is associated with the selected asset.	If you do not have a document type defined, a dialog appears, asking you to select an inspection family or checklist template.
im/asset/<AssetEntityKey>/inspection/0: Creates an inspection that is associated with an asset.			
<AssetEntityKey>	Specifies the level of the Asset Hierarchy for which you want to create an inspection.	Any Asset Entity Key that is associated with an asset in the Asset Hierarchy.	The inspection that you create using the URL will be associated with this asset.
im/asset/<AssetEntityKey>/inspectionfamkey/<InspectionFamilyKey>: Creates an inspection that is associated with an asset and an inspection family.			
<AssetEntityKey>	Specifies the level of the Asset Hierarchy for which you want to create an inspection.	Any Asset Entity Key that is associated with an asset in the Asset Hierarchy.	The inspection that you create using the URL will be associated with this asset.
<InspectionFamilyKey>	Specifies the family key that is associated with the inspection family for which you want to create an inspection.	Any Inspection Family Key that is associated with the selected asset.	The inspection that you create using the query will be associated with this inspection family. You cannot associate this inspection with a checklist template.

Example URLs

Example URL	Destination
im/asset/64251821851/overview	The Inspection Management Overview page.
im/asset/64251821851/inspection/64251866183	The Inspection Data section of the Inspection Overview page.
im/asset/-1/inspection/64251866183	The Inspection Data section of the Inspection Overview page.
im/asset/64251821851/task/64252712345	The Manage Task page.
im/functionallocation/64253088766/Overview	The Inspection Management Overview page.
im/functionallocation/64253088766/inspection/64251866183	The Inspection Data section of the Inspection Overview page.
im/functionallocation/64253088766/task/64252712345	The Manage Task page.

Example URL	Destination
im/workpack/64253082425 -or- im/workpack/64253082425/subworkpack/64253156890 -or- im/workpack/64253082425/subworkpack/64253156890/ subworkpack/6425315689	The Definitions section of the Work Pack Overview page.
im/task/64252712345/inspection/0/inspectionfamkey/ 6598721675	The Inspection Details page for the inspection you created from the selected inspection task.
im/asset/64251821851/inspection/0	The Inspection Details page for the inspection you created from the selected asset.
im/asset/64251821851/inspectionfamkey/6256448923	The Inspection Details page for the inspection you created from the selected asset.

Inspection Management System Code Tables

The following grid lists the System Code Tables that are used by Inspection Management.

Table ID	Table Description	Function
INSM	Inspection Interval Types	Used to populate the Desired Interval Basis list in Inspection Task records.
INST	Inspection Status Code	None.
MI ACTION	CORE, Actions Taken	Used to populate the Action Taken Code list in General Finding records. Note that only system codes that contain the reference INSPECTION_FINDING_ACTION appear in the Action Taken Code list.
MI API 510 EXTERNAL CHECKLIST FINDING SECTIONS	API 510 External Checklist Finding Section	Used to display sections and rows on the Inspection Finding Checklist page.
MI API 510 INTERNAL CHECKLIST FINDING SECTIONS	API 510 Internal Checklist Finding Section	Used to display sections and rows on the Inspection Finding Checklist page.
MI API 510 INTERNAL EXCHANGER CHECKLIST FINDING SE	API 510 Internal Exchanger Checklist Finding Section	Used to display sections and rows on the Inspection Finding Checklist page.
MI API 570 EXTERNAL CHECKLIST FINDING SECTIONS	API 570 External Checklist Finding Section	Used to display sections and rows on the Inspection Finding Checklist page.
MI API 653 EXTERNAL CHECKLIST FINDING SECTIONS	API 653 External Checklist Finding Section	Used to display sections and rows on the Inspection Finding Checklist page.
MI API 653 INTERNAL CHECKLIST FINDING SECTIONS	API 653 Internal Checklist Finding Section	Used to display sections and rows on the Inspection Finding Checklist page.

Table ID	Table Description	Function
MI BUNDLE ACTION	Inspection; Inspection / Maintenance Actions taken on a exchanger bundle	Used to populate the Action This Inspection list in Bundle Sub-Inspection records.
MI BUNDLE TYPE	Inspection; Bundle Types	Used to populate the Bundle Type list in Bundle Sub-Inspection records.
MI BUSINESS IMPACT	CORE, Impact to company's production carrying out equipment work	Used to populate the Business Impact list in Inspection Recommendation records.
MI CHECKLIST CATEGORIES	MI_CHECKLIST_CATEGORIES; Checklist Categories	Used to populate the Categories list in Checklist Configuration Template page.
MI CHECKLIST FINDING ITEMS	Checklist Finding Items	Used to display values in the first column on the Inspection Finding Checklist page.
MI CHECKLIST FINDING TYPES	Checklist Finding Types	Used to populate the Finding Value lists on the Inspection Finding Checklist page.
MI COMPLIANCE STANDARD	CORE, Compliance Standard	Used to populate the Certification Type list in Personnel Certification records. Note that only the System Codes that contain the reference INSPECTION_PERS_CERTS appear in the Certification Type list.
MI CORE REFERENCES	CORE, Used to limit values by common components	Used to populate the Status list in Inspection Recommendation records.
MI DAMAGE MECHANISM	Inspection, Damage Mechanisms	Used to populate the Damage Mechanism list in General Finding records.
MI DAMAGE MODE	Inspection, Damage Mode	Used to populate the Damage Mode list in General Finding records.
MI DAMAGECHECKLIST SECTIONS	Damage Checklist Sections	Used to populate the Third Party Damage list in Checklist Findings records.
MI DEGRADATION MECHANISM TYPES	Degradation Mechanism Types	Used to populate the Degradation Mechanism list in Inspection records.
MI EQUIP OP STATE	MI Inspection, Equipment Operating State	Used to populate the Equipment Operating State list in Inspection records. Note that only the System Codes that contain the reference INSPECTION_EQUIPMENT_STATE appear in the Equipment Operating State list.

Table ID	Table Description	Function
MI EVENT REASON	CORE, Reason for Event	Used to populate the Reason for Inspection list in Inspection records. Note that: <ul style="list-style-type: none"> References that have been added to the INSPECTION REASON1 System Code Table are available in a Full Inspection record, and references that have been added to the INSPECTION REASON2 System Code Table are available in a General Inspection record. All System Codes in the MI EVENT REASON System Code appear in the Reason for Inspection list in Bundle Inspection and Pressure Test Inspection records.
MI EXTERNAL PRD CHECKLIST FINDING SECTIONS	External PRD Checklist Finding Section	Used to display sections and rows on the Inspection Finding Checklist page.
MI FINDING TYPE	MI Inspection, Provides categories for an inspection finding	Used to populate the Type list in General Finding records.
MI FREQUENCIES	CORE, Frequencies	Used to populate the Frequency of Alert After Due Date list in Inspection Recommendation records. Note that only the System Codes that contain the reference INSPECTION ALERT INTERVAL appear in the Frequency of Alert After Due Date list.
MI INSPCONFEV	Inspection Confidence Evaluation	None.
MI_INSPECTION_HEALTH_EVALUATION_LEVELS	Inspection Health Evaluation Levels	Used to cross reference values from the MI_FINDING_TYPE table with health alert levels. The references in this table determine the assigned alert level for a health assessment value.
MI INSPECTION METHOD CATEGORY	MI INSPECTION METHOD CATEGORY	Used to populate the Category list in Inspection Method records.
MI INSPECTION METHOD REFERENCE	MI Inspection, Stores system codes and descriptions that represent Inspection Methods	Used to determine the confidence for each Degradation Mechanism used in RBI Analyses.
MI INSPECTION PROFILE CATEGORY	Inspection, Profile Category	Used to populate the Item Category list in Inspection Profile records.

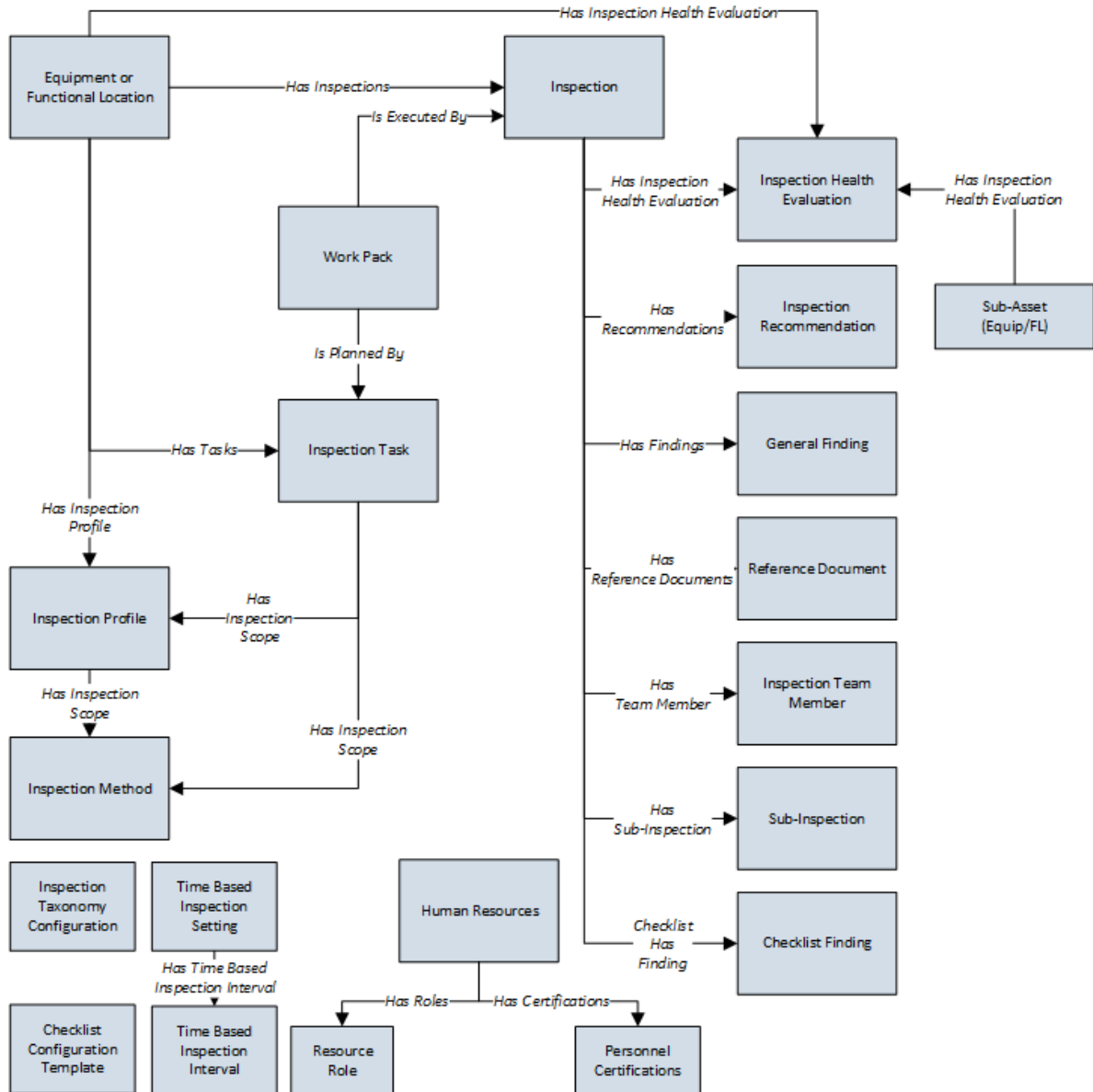
Table ID	Table Description	Function
MI INSPECTION PROFILE REFERENCE	MI Inspection	Stores the equipment family ID's, system codes, and descriptions to limit the Profile Categories shown for a piece of equipment. Built during implementation when equipment model known
MI INSPECTION REFERENCES	MI Inspection, Inspection Reference Codes - Inspection	Used to limit values in System Code Tables to values used in the inspection solution.
MI INSPECTION STRATEGY	MI Inspection Strategy	None.
MI_NEXT_DATE_BASIS	Next Date Basis	Used to populate the Next Date Basis list in Inspection Task records.
MI PDM FILTER	MI RBI, Potential Degradation Filter	Used to populate the Degradation Mechanism list in Inspection records belonging to the PRD Pop Test Checklist subfamily.
MI PRD INSPECTION TYPE FILTER	PRD Inspection Type Filter	Used to populate the Type of Inspection list in PRD Pop Test Checklist records.
MI PRD PT CHECKLIST FINDING SECTIONS	PRD Pop Test Checklist Finding Sections	Used to display sections and rows on the Inspection Finding Checklist page.
MI PRIORITY	CORE, baseline priority types	Used to populate the Recommendation Priority list in Inspection Recommendation records.
MI RECOMMENDATION TYPE	CORE, Recommendation Type	Used to populate the Recommendation Type list in Inspection Recommendation records. Note that the Recommendation Type field is not included on the baseline Inspection Recommendation datasheet.
MI RESOURCE ROLE	List of user roles	Used to populate the Role list in Resource Role records.
MI STATUS	Status Codes - CORE	Used to populate the Inspection Document Status list in Inspection records. Note that only the System Codes that contain the reference INSPECTION_DOCUMENT_STATUS appear in the Inspection Document Status list.
MI TASK TYPE REFERENCE	CORE, Reference values to limit task type lists when creating tasks	Used to populate the list in the Reference list in Task Types records.

Table ID	Table Description	Function
MI TEST MEDIA	Fluids used for testing	Used to populate the Test Media list in Pressure Test Sub-Inspection records.
MI YES NO	MI Core, Yes-No	Used to populate the Predictable list in General Finding records.

Inspection Management Data Model

Inspection Management simply offers a customized view of individual records that belong to families in the data model. In addition, each step in the [Inspection Management workflow](#) allows you to create, view, or manage those records.

The following diagram illustrates how records are linked to one another within Inspection Management. The shaded boxes represent entity families, and the arrows represent relationship families. You can determine the direction of each relationship from the direction of the arrowhead: the box to the left of each arrow head is the predecessor in that relationship, and the box to the right of each arrowhead is the successor in that relationship. For example, you can see that Inspection records are linked to Inspection Recommendation records through the Has Recommendations relationship, where the Inspection family is the predecessor.



While the image shows one box for the Inspection family, APM provides the following Inspection families as part of the baseline Inspection Management content:

- Bundle Inspection
- Bundle Sub-Inspection
- API 510 External Checklist
- API 510 Internal Exchanger Checklist
- API 510 Internal Checklist
- API 570 External Checklist
- API 653 External Checklist
- API 653 Internal Checklist
- External PRD Checklist
- Full Inspection
- General Inspection
- PRD Pop Test Checklist

- Pressure Test Inspection
- Pressure Test Sub Inspection
- Pipe Rotation Event
- Inspection Health Evaluation

In the image above, the Inspection box is the predecessor to the Checklist Finding box. In the baseline database, however, only the following Inspection families are related to the Checklist Finding family:

- API 510 External Checklist
- API 510 Internal Exchanger Checklist
- API 510 Internal Checklist
- API 570 External Checklist
- API 653 External Checklist
- API 653 Internal Checklist
- External PRD Checklist
- PRD Pop Test Checklist

Note that although both the Equipment and Functional Location families are related to the Inspection Profile family, this documentation assumes that you will create Inspection Profiles only for equipment. You will typically not create Inspection Profiles for locations.

The MIExecution Service

The MIExecution Service is a service available in the APM server, which processes jobs in the Inspection Management, Integrity Mobile, Risk Based Inspection, and Thickness Monitoring module queues. It uses a single shared ActiveMQ queue service across APM.

Supported Job Types

- Inspection Management
- Integrity Mobile
- Risk Based Inspection
- Thickness Monitoring

Configuration

You can configure the following parameters of the MIExecution Service:

Parameter	Description	Default Value
ConcurrencyLimit	The maximum number of messages consumed concurrently.	100
Retries	The number of times the service retries to send the messages to ActiveMQ in case of a failure.	5

For instructions of configuring these settings, refer to .

Configure Custom Inspection Families using Family Policies

About This Task

You can configure custom inspection families using family policies to execute baseline Inspection Utility rules. When adding non-baseline inspection families, you need to configure family policies so that they can execute baseline logic in the Inspection Utility rules, such as BeforeUpdate, AfterInsert, and BeforeInsert. These rules execute logic such as creating relationships between the inspection and asset,

and auto-generate General Findings if the admin preference is enabled. The following procedure shows how to create this configuration.

Procedure

1. In the **Applications** menu, navigate to **ADMIN > Configuration Manager > Family Management**.
The **Family Management** page appears.
2. Select the family for which you want to create a family policy.
The workspace for the selected family appears.
3. Select the **Rules and Policies** tab.
The **Rules and Policies** section appears.
4. Select **Family Policies** and then select **Save**.
The Inspection Utility rules appear.
5. Select **Add** to add hyperlink for the Before Insert family policy.
The policy opens in **Design Workspace**.
6. Select **Inputs>Current Entity** to add the Current Entity node to the canvas.
7. Select **Actions -> Rule** to add the Rule node to the canvas.
8. Add a connection between the Current Entity and Rule nodes.
9. Select the Rule node and in the Properties dialog box, select the Rule Path as `Public \RulesLibrary\Meridium\Inspection\Inspection`.
10. In the Rule Class dropdown, select **Library.Baseline.InspectionBeforeInsertRuleNode**.
11. Save the policy.
12. Repeat steps 5-11 and configure policies for the following family policies:
 - Before Insert
 - After Insert
 - Before Update
 - After Update
 - Before Delete