

Asset Performance Management On-Premises APM V5.0.7.0.0

Inspection Management

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Chapter

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.

Tip: Some features of the Inspection Management module are available for use offline through Inspection Field Data Collection. .

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 \triangleq . 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:

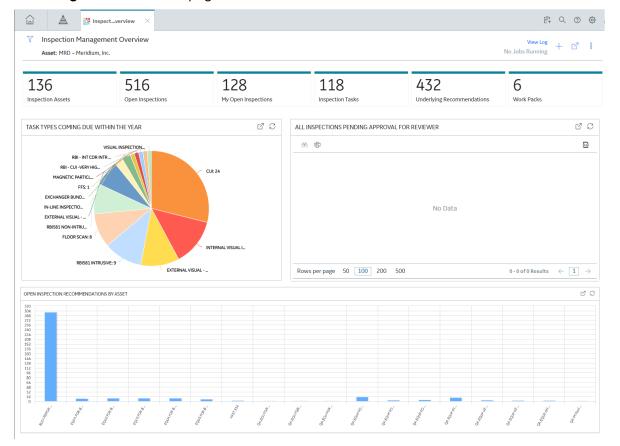
- The **Inspection Assets** section: Contains a list of assets with at least one Inspection or Inspection Task for the selected asset or underlying ones.
- The **Open Inspections** section: Contains a list of Inspections that are in the Draft, Pending Approval, or Rework state and for the underlying 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 \square 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.

| Image: Second system Image: Second system Image: Second system Image: Second system |
|---|
|---|

| | Asset: Home | | | | | | |
|---|----------------------------------|--|--|---|---|----|--|
| Y | V Inspection Management Overview | | | + | 1 | 65 | |

| 137 Inspection Assets | 392 Underlying Open Inspect | 90 Underlying Inspection Ta | 119 Underlying Recommend | 6 Work Packs |
|---|--------------------------------|--------------------------------|-----------------------------|--|
| 66 | | | | |
| EQUIPMENT TECHNICAL NUMBER | R↓ ASSETID | | | |
| ZL0032-097 | ZL0032-097 ~ L | OOP SYSTEMS ~ 0000000000 | 01058807 | |
| ZL0003-097 | ZL0003-097 ~ L | OOP SYSTEMS ~ 0000000000 |)1058787 | |
| testUtility2 | testUtility2 ~ ~ | QA COMPLIANCE UTILITY EQU | P2 | |
| testUtility1 | testUtility1 ~ ~ | QA COMPLIANCE UTILITY EQU | P1 | |
| testaction5 | testaction5 ~ ~ | QA COMPLIANCE IMPLEMENT | ACTION | |
| testaction4 | testaction4 ~ ~ | QA COMPLIANCE UNLINK ACT | ION | |
| TECH-001 ~ ~ EQU UPDT INSP W CMMS TECHNUM | | | | |
| Rows per page 50 10 | 200 500 | | 1 - 100 of 137 F | Results \leftarrow 1 2 \rightarrow |

3. 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.

- 1. Access the Equipment or Functional Location to be inspected from the Asset Hierarchy.
- 2. Create an Inspection.
- 3. Create an Inspection Profile.
- 4. Add an Inspection Method.
- 5. Define the Inspection Scope.
- 6. Create Inspection Tasks.
- 7. Create Work Packs.

Chapter 2

Workflows

Topics:

- Inspection Planning
 Workflow
- Inspection Assessment
 Workflow

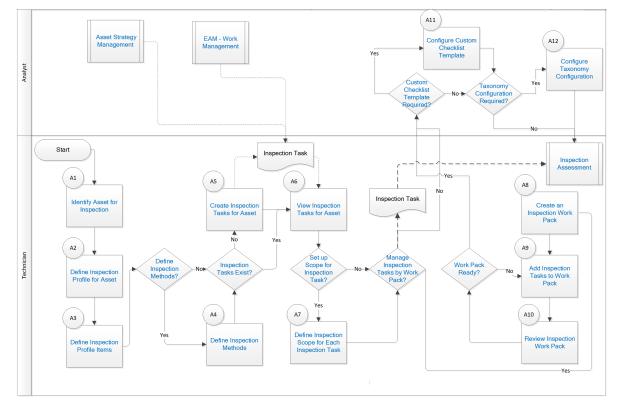
Inspection Planning Workflow

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.

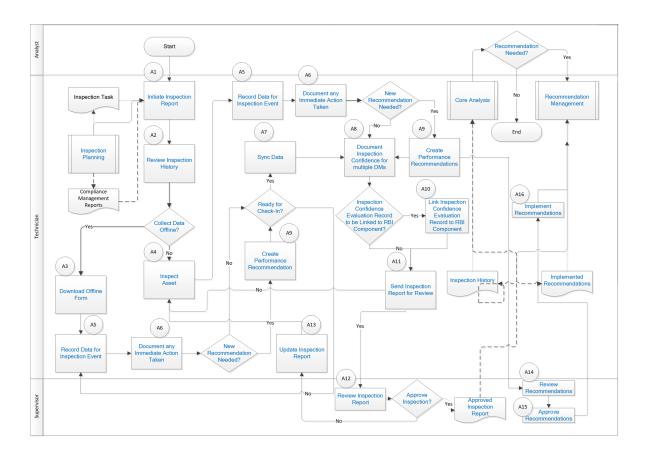
Inspection Assessment Workflow

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
- About Image Gallery
- Access the Inspection
 Details Section
- Access Inspection Checklist
- Create an Inspection
- Assign Inspections to a
 User
- Delete an Inspection
- Bulk Review Inspections
- Lock an Inspection
- View Related Record
- Add a Related Record
- Link a Related Record to an Inspection
- Access Image Gallery for a Related Record
- Link Reference Document to an Inspection
- Access Images for a Reference Document
- Unlink a Related Record from an Inspection
- Delete a Related Record
- Access Inspection Reports

- Access Reference
 Documents
- Add Inspection Confidence
 Evaluations
- Review Inspection
 Confidence Evaluation
- Delete Inspection
 Confidence Evaluations
- Update an Inspection
 Health Assessment
- Update a Checklist Category Health Assessment
- Bulk Printing of Inspection Reports
- Print Bulk Inspection Reports
- View Bulk Printing Status
- 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 | Shell and tube heat exchanger inspections. |
| Bundle Sub-Inspection | |
| 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 | Hydrostatic tests. |
| Pressure Test Sub Inspection Report | |

| 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 | Asset Corrosion Analysis Report Finding Report Inspection Recommendation Report Inspection Team Member Report Reference Document Report | Bundle Inspection Asset Corrosion Analysis Findings Pressure Test Sub Inspections Recommendation s Inspection Team Members Reference Documents |
| Checklists | Checklist Report Query | Checklist Inspection Report | 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 | Asset Corrosion Analysis Bundle Sub- Inspection Checklist Findings Findings Recommendation s Inspection Team Members Pressure Test Sub Inspections Reference Documents |
| Checklists | Checklist Report Query | Blank Checklist Inspection Report | Checklist Finding Report | Checklist Findings |

| Inspection Subfamily | Query Behind Main Report | Main Report(s) | Contributing Reports | Sections Included in Main Report |
|-----------------------------|-----------------------------|------------------------------------|--|--|
| Full Inspection | MI INSPFULL | Full Inspection Report | 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 | Full Inspection Asset Corrosion Analysis Findings Recommendation s Pressure Test Sub Inspections Bundle Sub- Inspection Team Members Reference Documents Reference Images |
| General Inspection | MI INSP GEN | General Inspection Report | Asset Corrosion Analysis Report Finding Report Inspection Recommendation Report Pressure Test Sub Inspection Report Inspection Team Member Report Reference Document Report | General Inspection Asset Corrosion Analysis Findings Recommendation s Pressure Test Sub Inspections Bundle Sub- Inspections Inspection Team Members Reference Documents Reference Images |
| Pressure Test Inspection | MI INSPPTST | Pressure Test Inspection Report | Asset Corrosion Analysis Report Finding Report Inspection Recommendation Report Inspection Team Member Report Reference Document Report | Pressure Test Inspection Asset Corrosion Analysis Findings Recommendation s 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 t | his outage | |
| Reviewer Comments | Fit for Continued Service - Less the | an 25% Loss of Efficiency | |

Bundle Inspection Details

| 280 |
|--|
| 12 |
| 0 |
| 0 |
| 0 |
| 13 |
| 4.64 |
| 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.

| 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 | | |
| E | Reinforcing Pads | | |
| | Bolting | | |
| | Flanges | | |
| | Leak Clamps | | |
| Supports | Other | | |
| | Foundation | | |
| | Anchor Bolts | | |
| | Saddle/Skirt | | |
| | Davit | | |
| | Fireproofing | | |
| Relief Devices | Other | | |
| | Leaks | | |

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 |
|-------------------|-------------|
| Туре | 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 |
| Туре | Туре |

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 | 00000000001057047 |
| Inspection Start Date | 05/15/2017 |
| Inspection Finish Date | 05/15/2017 |
| | |

Signatures

| Inspection Report Owner | Smith, Jane | Reviewer Name |
|-------------------------|-------------|---------------|
| | | |

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.

| Genera | l Inspection |
|--------|--------------|
| Genera | mapeccion |

| Inspection Reference | INSP-32 |
|------------------------|-------------------------------|
| Functional Location ID | MRD-ROA-REFN-RF097-E0006A-097 |
| Asset ID | 00000000001056802 |
| 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 | Reviewer Name |
|-------------------------|-------------------------------------|---------------|
| Inspection Summary | Bundle removed int visual performed | ł |

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.

| 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 | 00000000001000071 |
| 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 | |
| STEAM | CONDENSATE | |
| 5 psi | 3 psi | |
| 4 | 4 | |
| 214 | 188 | |
| 3 | 5 | |
| Template, User | Burgandy, Ron | |
| 7 | 7 | |
| Steam shell inspection | Condensate tube inspection | |
| | Shell Side STEAM 5 psi 4 214 3 Template, User 7 | |

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.
- 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 Inspection Field Data Collection.

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 is 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.

Note: 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.

Note: 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.
- 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.

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 $\boxed{\blacksquare}$. 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.
- In the page, select ³/₈, 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 \square . 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 \mathscr{P} , 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.

Images of the related record from the result grid that you want to view. 3. Select 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**.
- 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.
- In the Document Path box, select ^{eve}. 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 Checklist

It 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.

I Images from the Inspection Overview section. 2. Select

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 Inspection Field Data Collection, 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 X. 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 $\overline{\square}$.

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.
- In the upper-right corner of the section, select ⁸/₈, 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.

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.
- 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.
- 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.
- Select ^I.
 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 ⁸, and then select **Delete**. A message appears, asking you to confirm that you want to delete the selected Inspection Confidence Evaluation records.
- 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.
- 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.
- 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.

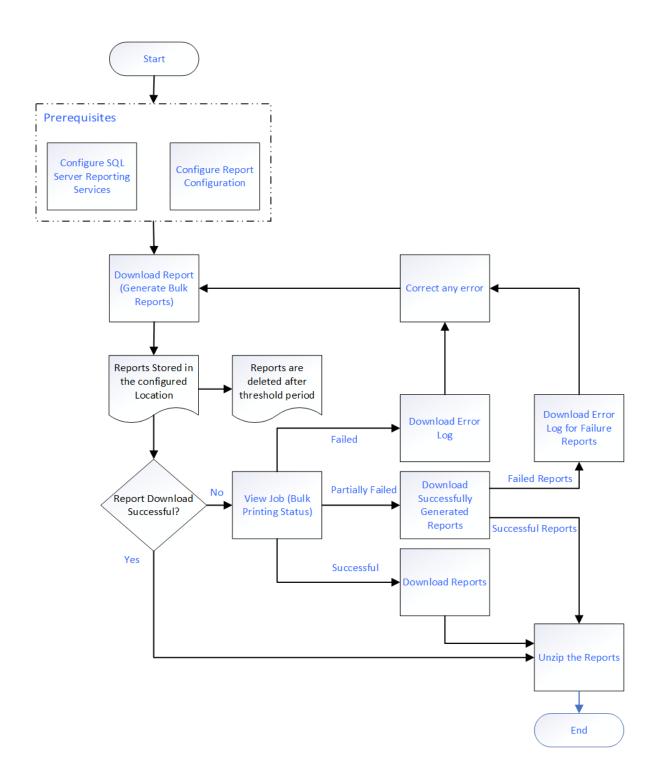
Note: When updating a Health Assessment for a Checklist Category, the Health Assessment of the root Inspection is updated to the worst-case indicator level of the Checklist Categories that are associated with it.

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.

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|---|--|----------------------------|--|------------------------|-----------------|-------|
| nspectio | nspection Assets Underlying Open Inspec Underlying Inspection Ta | | Underlying Recommend | Work Packs | | |
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| <i>6</i> 8 | | | | , | | İ |
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| | INSP-30105 | API 510 Internal Checklist | 0000000001057047 | | | |
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| | INSP-30089 | Full Inspection | 0000000000103283 | 50 | | |
| | INSP-30081 | Full Inspection | 0000000000103460 |)5 | | |

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.

| | 🔅 Inspectverview X 🔄 Downloads X | | 1 Q ? 🅸 |
|-------------------|--|-------------------------|---------------------|
| In progre | ss 1 Successful 0 | Failed | 1 🕢 |
| Туре | 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 49
- 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.
- Select 3, and then select View Bulk Printing Status. The Downloads page appears, displaying the jobs that are in progress.

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 \checkmark 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 $\stackrel{\scriptstyle }{\rightharpoonup}$. The report associated with the print job is downloaded as a .zip file.
- 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

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 spection 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 |
| 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.
- 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.
- Enter values in the search fields, and then select Section 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.
- In the left pane, select \$\$\frac{1}{6}\$.
 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 \frown or \blacktriangleright
- 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 $\overline{10}$.

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 ⁸/₈, 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.
- 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.
- In the upper-right corner of the workspace, select ^I.
 A new column of check boxes appears in the Inspection Methods grid.
- 3. In the **Inspection Method** grid, select the check boxes next to one or more Inspection Methods that you want to delete.
- In the upper-right corner of the workspace, select 3, 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.
- 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: Inspection Configuration |

| Resource Role | Description |
|-----------------------|---|
| | Manage Inspection Resources, Roles, and Certifications Manage Inspection Alerts Manage Strategies Manage Time-Based Settings |
| 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 ≤. In the grid, a new column of check boxes appears to the left of the **Full Name** column.
- 4. In the row for each team member that you want to remove from the selected Inspection, select the check box.

5. Select ⁸/₈, 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 Underlying
 Inspection Tasks Section
- Create an Inspection Task
- Delete an Inspection Task
- Modify the Date Filter for Inspection Tasks
- Create an Inspection Report from an Inspection Task

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.
 - 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.
 - 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 \mathcal{V}_+ . A new Inspection Recommendation datasheet window appears.
 - 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 \mathcal{P}_+ .

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.
- 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 \mathcal{P}_+

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 \square .

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 V.

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 Underlying 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 **Underlying Inspection Tasks** tab. The **Underlying Inspection Tasks** section appears.

Note: You can delete Inspection Tasks via Record Manager.

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 🛅.

Note: The Inspection Task datasheet inherits the required values from the selected Inspection Family. You do not have to enter any values in the Inspection Task datasheet; however, you can modify the datasheet prior to saving.

The Inspection Task is saved.

Next Steps

Create a Work Pack

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 $\fbox{10}$.

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 \bigvee .

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.

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.

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:

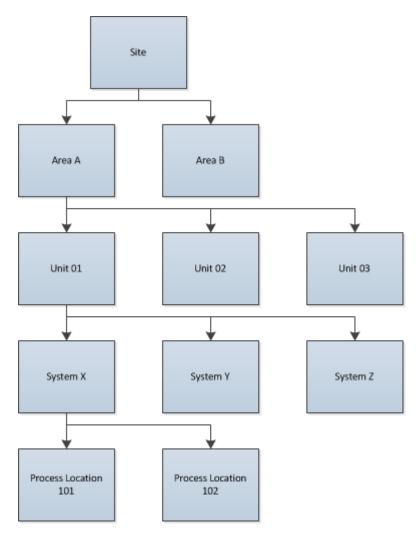
- The lowest level of the hierarchy contains a Work Pack for the actual item that will be inspected (i.e., a piece of equipment or location).
- The levels above the lowest level contain Work Pack for the locations containing the item that will be inspected.

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

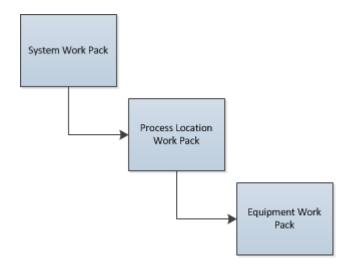
You might have a location hierarchy that looks like the following diagram, where process locations belong to systems, systems belong to units, and so on.



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 processlocation-level Work Packs (not the system-level or unit-level Work Packs).

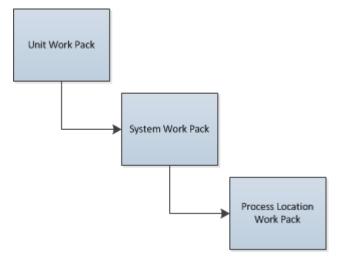
Example: Work Packs - Equipment

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

- 1. Access the **Inspection Management Overview** page for the Inspection asset associated with the Inspection whose Work Pack you want to access.
- 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.
- 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 X. The **Link Existing Work Pack Records to <Work Pack Name>** window appears.
- 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.
- 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

- 1. Access the **Work Packs** section.
- 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 upperright corner of the section, select i.

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.
 - 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.
 - 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.
 - 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.

- 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.
- 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.
- In the left pane, Select *C*.
 The Link Existing Work Pack Records to <Work Pack ID> window appears.
- 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

- 1. Access the Work Packs section.
- 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.

- Select the Inspection that you want to unlink, and then select X.
 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.
- 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.

- 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.

- In the workspace heading, select the Linked Tasks tab. The Linked Tasks section appears, displaying tasks currently linked to the selected Work Pack.
- 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.

- 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.

- 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).

- 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.
- In the left pane, select ⁸/₈, 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 Security groups 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.
- Select
 You can now modify the Application Configurations section.
- 3. Select the **Use State Management for Inspection Recommendations** check box. A warning message appears.
- Select OK, and then select https://www.elect.com.
 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.
- 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.

- 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.
 - 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 \mathscr{P} .

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 \square .

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 \mathscr{P} .

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.
 - 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**.
 - In the upper-right corner of the workspace, select <a>i. 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.
- In the upper-right corner of the workspace, select *O*. 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.
- In the upper-right corner of the section, select <a>[II].
 A message appears, confirming that you want to delete the selected Profile Taxonomies.
- 6. Select **Yes**. The selected Profile Taxonomies are deleted.
- In the upper-right corner of the workspace, select .
 The Profile Configuration is saved.

Modify Method Configuration

- Modify the Method System Code Configuration
 - 1. Access the Inspection Configuration workspace.
 - In the upper-right corner of the workspace, select
 The Inspection Configuration workspace is now modifiable.
 - 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.
 - In the upper-right corner of the workspace, select
 The Inspection Configuration workspace is now modifiable.
 - 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 +. The **Add New Event Configuration** window appears.
 - 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.
 - Select the Event Configurations tab. The Event Configurations section appears, displaying a list of the Event Configurations applied to the Inspection Configuration.
 - In the upper-right corner of the workspace, select
 The grid in the Event Configurations section can now be modified.
 - 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

- 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.

- 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.

- In the upper-right corner of the workspace, select .
 Related Family preferences are modified.
- Delete a Related Family
 - 1. Access 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.
- Steps: Delete a Related Family
 - 1. Access 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.
 - 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.
 - 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 \mathscr{P} .

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.
 - Select the Event Configurations tab. The Event Configurations section appears, displaying a list of the Event Configurations currently applied to the Inspection Configuration.
 - 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>[.
 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.
- Select the Event Configurations tab. The Event Configurations section appears, displaying a list of the Event Configurations applied to the Inspection Configuration.
- 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.
- In the upper-right corner of the workspace, select <a>[.
 A message appears, confirming that you want to delete the selected Event Configuration.
- 6. Select **Yes**. The selected Event Configuration is deleted.
- 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.
- 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.

- 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.
- 4. In the **Category Name** box, select the category that contains the items you want to add. The category items appear.
- 5. In the **Available Items** list, select one or more items that you want to include in the Checklist Configuration Template.
- 6. 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 \leq . To reorder items, select > and \sim .

7. 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 .

8. Select 🛅.

One or more checklist categories are added to the Checklist Configuration Template.

Delete a Category from a Checklist Configuration Template

Procedure

- 1. Access the Checklist Configurations section.
- 2. In the **Checklist Configurations** section, select the Checklist Configuration Template from which you want to delete checklist categories.
- 3. In the **Checklist Configuration Template** section, select the checklist category you want to delete, and then select $\boxed{10}$.

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

4. Select Yes.

The checklist category is deleted.

5. Select 🛅.

The Checklist Configuration Template is saved.

Delete an Item from a Checklist Configuration Template

- 1. Access the **Checklist Configurations** section.
- 2. In the **Checklist Configurations** section, select the Checklist Inspection Template from which you want to delete an item.
- 3. In the **Checklist Configuration Template** section, select the checklist category that contains the item you want to delete.
- 4. Select the item you want to delete, and then select \blacksquare .
- 5. Select Yes.

The item is deleted.

6. 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.

- 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.
- In the Date Filters section, select *O*.
 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 202 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.

- 1. Access the **Inspection Configuration** workspace.
- In the left pane, select Manage Human Resources. The Manage Human Resources workspace appears, displaying a list of available Human Resources.

 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 $\frac{8}{3}$, 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 $\frac{3}{2}$, and then select \mathbf{D}^{2} Copy.
- 3. In the upper-right corner of the workspace, select $\frac{8}{3}$, and then select + Add.

The Resource Information datasheet appears.

- 4. In the upper-right corner of the workspace, select $\frac{8}{3}$, and then select \square 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 $\frac{1}{8}$, and then select $\overline{10}$ 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.
- Select A. Select A. 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 ^I. 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.
- In the upper-right corner of the **Detail** section, select ⁸/₈, and then select **Unlink**. A message appears, asking you to confirm that you want to unlink the selected Resource Roles.
- Select Yes. The selected Resource Roles are unlinked from the Human Resource record.

Delete Resource Roles

- 1. Access the Human Resource containing the Resource Roles that you want to delete.
- 2. Select the **Detail** tab. The **Detail** section appears.
- 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 $\frac{1}{2}$, and then select $\boxed{11}$ **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.
- In the IM Admin Preferences pane, select Manage Human Resources. The Manage Human Resources workspace appears, displaying a list of available Human Resources.
- 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.
- 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.
- In the upper-right corner of the **Detail** section, select ⁸/₈, 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 $\frac{1}{2}$, and then select $\boxed{11}$ **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 Q

Deployment and Upgrade

- Deployment ٠
- 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 or Update Inspection Management to V5.0.7.0.0.

Chapter 10

Data Loaders

Topics:

- About the Inspection Management (IM) Data Loaders
- About the Inspection Management (IM) Data Loaders Requirements
- About the Inspection Management (IM) Data Loaders Inspection Types
- About the Inspection Management (IM) Data Loaders Data Model
- About the Inspection Management (IM) Data Loaders General Loading Strategy
- About the Inspection Management (IM) Data Loaders Workbook Layout and Use
- About the Inspection Management (IM) Data Loaders Load Verification

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
- 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 | Active | Pending Approval | None |
| Note: The Contract Inspector must be assigned as a Team Member to request approval on the Inspection Report by updating the State field. | | | |
| 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 Inspection Field Data Collection, 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:

 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.
- 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), Item ID (MI_PROFINSP_ITEM_ID_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.

If logical cells (i.e. Override Interval, Reoccurring) do not have values, they will be set to True by default.

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 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 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.

- 8. 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.
- 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. |
| Inspections | This worksheet is used to specify the following records: 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. |
| 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. |

| Worksheet | Description |
|--------------------|--|
| 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_SYSTE M_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_TEC H_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_SYSTE M_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_SYSTE M_C MI_FNCLOC00_SAP_SYSTE M_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_TEC H_NBR_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) | A value is required. The combination of values in the Item Category and Item ID columns must be unique per asset. |
| | | | 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 ID | MI_PROFINSP_ITEM_ID_C | Character (255) | A value is required. |
| | | | The combination of values in the Item Category and Item ID columns must be unique per asset. |
| Item Description | MI_PROFINSP_ITEM_DESC _C | Text | None |
| RBI Component | MI_PROFINSP_COMPONEN T_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. |
| 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_SYSTE M_C MI_FNCLOC00_SAP_SYSTE M_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_TEC H_NBR_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) | 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. |

| Field Caption | Field ID | Data Type (Length) | Comments |
|-----------------|----------------------------|--------------------|---|
| 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 | |
|---|---|---------------------------------------|---|--|
| Field Caption RBI Degradation Mechanism | Field ID MI_INSPMETH_DAMAGE_M ECH_C | Data Type (Length) Character (255) | Comments A value is required. 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. | |
| | | | | The combination of values in the Method Category, Method ID, and RBI Degradation Mechanism columns must be unique per Inspection Profile. |
| | | | 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. | |
| 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. |
| CMMS System | MI_EQUIP000_SAP_SYSTE M_C MI_FNCLOC00_SAP_SYSTE M_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_TEC H_NBR_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_NB R | 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_BASI S_C | Character (1000) | None |

| Field Caption | Field ID | Data Type (Length) | Comments |
|------------------------------|------------------------------------|--------------------|---|
| 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 |
| Max Interval | MI_TASK_MAX_INTER_NBR | Numeric | None |
| Inspection Document Type | MI_TASK_INSP_INSPTYPE_ FMLYID_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_SYSTE M_C MI_FNCLOC00_SAP_SYSTE M_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_TEC H_NBR_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) | A value is required. 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. |
| | | | 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. |

| Field Caption | Field ID | Data Type (Length) | Comments |
|--|---------------------------|--------------------|--|
| Field Caption Use System Generated ID | Field ID MI_SYS_GEN_ID | Logical | Comments Enter True or False. 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. 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. 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. |
| 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 |

| Field Caption | Field ID | Data Type (Length) | Comments |
|---------------------------|----------------------------------|--------------------|---|
| 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_EQUI P_OP_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 |
| Inspection Report Owner | MI_INSP_001_NAME_INSPE CTOR_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=""></user></first></last> |
| 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. |

| Field Caption | Field ID | Data Type (Length) | Comments |
|-----------------------|-----------------------------------|--------------------|--|
| 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_REVIE WER_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=""></user></first></last> |
| 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 | Enter True of False. If the value in this column is True, the Inspection Confidence Evaluation records are locked. You can update this field only if: 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. Note: This column is not a part of the baseline data loader template. If required, you can add this column to the Inspections worksheet. |

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. |
| CMMS System (only for Asset load) | MI_EQUIP000_SAP_SYSTE M_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_TEC H_NBR_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=""></sequence></inspection> |
| RBI Component | MI_INSCONFEV_RBI_COMP _N | Numeric | Enter the Component field value of an existing RBI Component. |
| | | | The value in this field should be a valid RBI Component for the Asset that the Inspection is related to. |
| | | | Note: This column is not a part of the baseline data loader template. If required, you can add this column to the Inspection_Confidence_Eva I worksheet. |

| Field Caption | Field ID | Data Type (Length) | Comments |
|-----------------------|----------------------------|--------------------|--|
| Filter DM | MI_INSCONFEV_FILT_DM_F | Boolean | Enter True or False. |
| | | | 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. |
| | | | If the value in this column is True, and an RBI Component is specified, the degradation mechanism must belong to the specified RBI Component. |
| | | | Note: This column is not a part of the baseline data loader template. If required, you can add this column to the Inspection_Confidence_Eva I worksheet. |
| Degradation Mechanism | MI_INSP_001_DEG_MECH_ C | Character (100) | This column must only contain the System Code IDs from the DEGRADATION_MECHANIS M_TYPES System Code Table. |
| | | | Refer to the (Picklist) worksheet for a list of values that you can enter in this column. |
| Type of Inspection | MI_INSP_001_TYPE_C | Character (255) | Refer to the (Picklist) worksheet for a list of values that you can enter in this column. |
| Extent | MI_INSP_001_EXTENT_C | Character (1000) | This column must only contain System Code IDs from the MI_MI_INSPECTION_EXTE NT System Code Table. |
| | | | Refer to the (Picklist) worksheet for a list of values that you can enter in this column. |

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_SYSTE M_C MI_FNCLOC00_SAP_SYSTE M_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_TEC H_NBR_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_TY PE_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 |

| Field Caption | Field ID | Data Type (Length) | Comments |
|--|------------------------------------|--------------------|---|
| Action This Inspection | MI_INSPBUND_ACTION_TH IS_INSP_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 |
| 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: 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: 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. |
| CMMS System | MI_EQUIP000_SAP_SYSTE M_C MI_FNCLOC00_SAP_SYSTE M_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_TEC H_NBR_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 |

| Field Caption | Field ID | Data Type (Length) | Comments |
|--|------------------------------------|--------------------|--|
| Test Duration - Tube Side | MI_INSPPTST_DURATION_ TEST_TB_N | Numeric | None |
| Test Media Temperature - Shell Side | MI_INSPPTST_MEDIA_TEM P_SH_N | Numeric | None |
| Test Media Temperature - Tube Side | MI_INSPPTST_MEDIA_TEM P_TB_N | Numeric | None |
| No. of Gauges Used - Shell Side | MI_INSPPTST_NO_GAUGE_ USED_SH_N | Numeric | None |
| No. of Gauges Used - Tube Side | MI_INSPPTST_NO_GAUGE_ USED_TB_N | Numeric | None |
| Witnessed By - Shell Side | MI_INSPPTST_WITNESS_B Y_SH_C | Character (255) | Enter a value in the following format: <last Name>, <first name=""> ~ <user id=""></user></first></last |
| Witnessed By - Tube Side | MI_INSPPTST_WITNESS_B Y_TB_C | Character (255) | Enter a value in the following format: <last Name>, <first name=""> ~ <user id=""></user></first></last |
| SRV Set Pressure - Shell Side | MI_INSPPTST_SRV_SET_PR ESS_SH_N | Numeric | None |
| SRV Set Pressure - Tube Side | MI_INSPPTST_SRV_SET_PR ESS_TB_N | Numeric | None |
| Test Comments - Shell Side | MI_INSPPTST_COMMENTS _TEST_SH_T | Text | None |
| Test Comments - Tube Side | MI_INSPPTST_COMMENTS _TEST_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_SYSTE M_C MI_FNCLOC00_SAP_SYSTE M_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_TEC H_NBR_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. |

| Field Caption | Field ID | Data Type (Length) | Comments |
|-----------------------------|------------------------------------|--------------------|---|
| Inspection Profile Category | MI_FIND_001_ITEM_PROFIL E_CAT_C | Character (100) | A value is required. 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. The combination of values in the Inspection Profile Category, Inspection Profile Item, and Inspection |
| | | | Method Item columns must be unique. |
| Inspection Profile Item | MI_FIND_001_ITEM_PROFIL E_C | Character (100) | A value is required. The combination of values in the Inspection Profile Category, Inspection Profile Item, and Inspection Method Item columns must be unique. |
| Inspection Method Item | MI_FIND_001_ITEM_METH OD_C | Character (100) | A value is required for each row. 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. |
| | | | The combination of values in the Inspection Profile Category, Inspection Profile Item, and Inspection Method Item columns must be unique. |
| Sequence | MI_FIND_001_SEQUENCE_ N | Numeric | None |

| Field Caption | Field ID | Data Type (Length) | Comments |
|-----------------------------------|------------------------------------|--------------------|---|
| Location Details | MI_FIND_001_LOCATION_D ETAILS_C | Text | None |
| Headline | MI_FIND_001_HEADLINE_C | Character (50) | None |
| Finding Summary | MI_FIND_001_SUMMARY_T | Text | None |
| Туре | MI_FIND_001_TYPE_C | Character (100) | This column must only contain the System Code IDs from the MI_FINDING_TYPE System Code Table. |
| | | | Refer to the (Picklist) worksheet for a list of values that you can enter in this column. |
| As Found Degradation Mechanism | MI_FIND_001_MECH_DET_ C | Character (100) | This column must only contain the System Code IDs from the MI_DAMAGE_MECHANISM System Code Table. |
| | | | Refer to the (Picklist) worksheet for a list of values that you can enter in this column. |
| Damage Mode | MI_FIND_001_MODE_DET_C | Character (100) | This column must only contain the System Code IDs from the MI_DAMAGE_MODE System Code Table. |
| | | | Refer to the (Picklist) worksheet for a list of values that you can enter in this column. |
| 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. |

| Field Caption | Field ID | Data Type (Length) | Comments |
|--------------------------|----------------------------------|--------------------|--|
| Action Taken Description | MI_FIND_001_ACT_TAKEN_ DESC_T | Text | None |
| Predictable | MI_FIND_001_PREDICTABL E_C | Character (3) | In the baseline APM system, This column must only contain the following System Code IDs: • 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. |

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. |

| Field Caption | Field ID | Data Type (Length) | Comments |
|-------------------------------|--|--------------------|---|
| CMMS System | MI_EQUIP000_SAP_SYSTE M_CMI_FNCLOC00_SAP_S YSTEM_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_TEC H_NBR_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_SYSTE M_C MI_FNCLOC00_SAP_SYSTE M_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_TEC H_NBR_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_D ATE_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_C HR | 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_STA TU_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=""></user></first></last |

| Field Caption | Field ID | Data Type (Length) | Comments |
|---------------------|---------------------------------|--------------------|--|
| 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=""></user></first></last |
| | | | Note: If the Use State Management for Inspection Recommendations check box in Application Settings is selected, GE Vernova recommends removing this field from the worksheet. |
| Reviewer Name | MI_REC_REVIE_NM_CHR | Character (255) | The value in this column must match an existing Security User who is assigned the Inspection Supervisor Resource Role. |
| | | | Enter a value in the following format: <last Name>, <first name=""> ~ <user id=""></user></first></last |
| | | | Note: If the Use State Management for Inspection Recommendations check box in Application Settings is selected, GE Vernova recommends removing this field from the worksheet. |
| Final Approver Name | MI_REC_FINAL_APPROVE_ NAME_C | Character (255) | Enter a value in the following format: <last Name>, <first name=""> ~ <user id=""></user></first></last |
| Implemented Date | MI_REC_COMPL_DATE_DT | Date | Enter a value in the following format: <last Name>, <first name=""> ~ <user id=""></user></first></last |

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) | 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_SYSTE M_C MI_FNCLOC00_SAP_SYSTE M_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_TEC H_NBR_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.

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 As Found Degradation Mechanism. |
| 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. |

| Field | Data Type | Description | Behavior and Usage |
|---------------------------------------|-----------|---|--|
| 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. |
| 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. |

| Field | Data Type | Description | Behavior and Usage |
|-------------------------|-----------|--|--|
| 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. |
| 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. |
| Туре | 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. |
| 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: 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. |

| Field | Data Type | Description | Behavior and Usage |
|------------------------------|-----------|---|--|
| 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. |
| 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. |
| 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 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_STANDA RDS 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 |
| Degradation Mechanism | Character | The Degradation Mechanism that was observed during the inspection. | always the same. 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. |
| 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. |

| Field | Data Type | Description | Behavior and Usage |
|-------------------------------|-----------|--|---|
| 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 field data collection. | This field is set to true when an inspection is downloaded for field data collection. 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. | 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. 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. |
| Filter DM | Boolean | Indicates whether the degradation mechanisms must filter based on the selected RBI component in an Inspection Confidence Evaluation record. | If you select this, the degradation mechanisms are filtered based on the selected RBI component in an Inspection Confidence Evaluation record. 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. |

| Field | Data Type | Description | Behavior and Usage |
|-----------------------------|-----------|---|---|
| Final Inspection Lock | Boolean | Indicates whether the Inspection record has reached a final state. | 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. |
| | | | Changing the state of Inspection from Approval to Pending Approval will set this field to False. |
| | | | This field is always disabled in the datasheet. |
| | | | When the Final Inspection Lock is set to True, the following fields are disabled: |
| | | | 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 | A formatted link to the Functional Location record to which the Inspection record is linked. | When you select this link, the Functional Location record will be opened. |
| | | Contains localized text Open Functional Location Datasheet. | |

| 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. | When the value in this field is set to True, Represented Inspections may be created. This field is enabled only when the Inspection record fulfills two criteria: 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. |
| | | | Note: This field is not available in datasheets for the External PRD Checklist and PRD Pop Test Checklist subfamilies. |
| Inspection Completion Date | Date | The date on which the inspection was completed. | This field is populated automatically by the APM system; however, you can modify the date by selecting |

| Field | Data Type | Description | Behavior and Usage |
|--|-----------|---|--|
| Inspection Confidence Evaluation Reviewed | Boolean | Indicates if the Inspection Confidence Evaluation records are reviewed and locked. | You can lock the Inspection Confidence Evaluation records only if: 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. If the value in this column is True, the Inspection Confidence Evaluation records are locked. |
| Inspection Document Status | Character | The status of the Inspection Document. | This field is deprecated. |
| Inspection Document Category | Character | Stores the inspection document category | This field will display a pick list. It will be disabled if Applicable regulation is "European Inspection Regulation" and Certification is "ZUS". |
| | | | If no option is selected or anyone of the option is selected, then the respective field will be enabled. |
| | | | It contains a list of system codes that exist in the MI_EN_DOC_CTGY system code table. |
| | | | The field populates the following values: |
| | | | Test Certificate by ZUS Test Record by Company Inspector Test Report by Subcontractor |

| Field | Data Type | Description | Behavior and Usage |
|------------------------|-----------|---|---|
| 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. |
| 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. | Typically, changing the state of Inspection Document from Draft to Pending Approval will set this field to True. Changing the state of Inspection Document from Pending Approval to Rework will set this field to False. This field is always disabled in the datasheet. When an Inspection record is locked, all fields except for the following fields are disabled: Inspection Document Status Inspection Lock Reviewers Name Reviewers Name Reviewers Comments Final Inspection Lock Published 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. |
| 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. | 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. The Human Resource records that are listed in this field are filtered based on the user's applied sites. |
| | | | If the Human Resource record is not associated with a specific user, the record is included by default. |
| | | | 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. |
| Inspection Start Date | Date | The date on which the inspection began. | This field is populated automatically by the APM system; however, you can modify the date by selecting |
| 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. | When you close an Inspection record: 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. Note: To modify this check box, you must be assigned the Human Resource role of Inspector. |
| Last Downloaded By | Character | The user ID of the resource that downloaded the inspection for field data collection. | 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 field data collection. | 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 after the field data collection. | This field is set to the user ID of the current user when an inspection is synced to APM through Inspection Field Data Collection. |
| Last Synced Date | Date | The date when the inspection was synced to APM after the field data collection. | This field is set to the current date when an inspection is synced to APM through Inspection Field Data Collection. |

| Field | Data Type | Description | Behavior and Usage |
|--------------------|-----------|---|---|
| Leak Category | Character | The type of leak that is associated with the PRD. | In the datasheet, this field appears as list that contains the following values: |
| | | | MinorModerateStuck Open |
| | | | This list is populated with the descriptions of the System Codes stored in the MI INSPECTION LEAK CATEGORY (Inspection Leak Category) System Code Table. This field is enabled and can retain a value only when the Leak Test Results field contains the value Leak. |
| Leak Test Results | Character | Indicates whether there was a leak detected on the PRD during the inspection. | In the datasheet, this field appears as a list that contains the following values: • No Leak • Leak |
| | | | 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. |
| 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: • 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 |
| Reason for Inspection | Text | The comments from the inspector about why the inspection was performed. | Inspection license is active. You can specify a value for this field using the datasheet. |

| Field | Data Type | Description | Behavior and Usage |
|--------------------|-----------|--|---|
| 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. |
| Reviewers Name | Character | The first and last name of the APM Security User who is responsible for reviewing the Inspection Document. | 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. The Human Resource records that are listed in this field are filtered based on the users applied sites. If the Human Resource record is not associated with a specific user, the record is included by default. This field is populated with the approving user's name when the user changes the state from Pending Approval to Approved. |

| Field | Data Type | Description | Behavior and Usage |
|------------------|-----------|---|---|
| Scope | Text | The recommended scope for this type of inspection. | 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. |
| | | | The Scope field displays the value that exists in the Recommended Inspection Scope field in all Inspection Strategy records whose: 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. |
| 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. | You can select Task records associated with the Inspection record from the list of Task Record IDs when you open an existing Inspection record: 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. |
| Test Comments | Text | The comments from the inspector about the performed test. | You can specify a value for this field using the datasheet. |

| Field | Data Type | Description | Behavior and Usage |
|------------------------|-----------|--|---|
| 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 |
|------------------------------------|-----------|---|---|
| Total Number of Tubes in Bundle | Numeric | The number of tubes in the tube bundle. | 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: • Tubes Plugged at Inspection Start • Tubes (Plugged At Start) Replaced • Tubes (Not Previously Plugged) Replaced • Total Number of Tubes |
| | | | Replaced at Inspection End The value in this field must be greater than or equal to the: 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. | This field is populated based on the following values: Tubes Plugged at Inspection Start Tubes Plugged During Inspection Tubes (Plugged At Start) Replaced Depending on which of these fields contain values, this field is populated as follows: 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 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 End field is populated with the sum of the values in the Tubes Plugged At Inspection End field is populated with the sum of the values in the Tubes Plugged At Inspection End field is populated with the sum of the values in the Tubes Plugged At Inspection End field is populated with the sum of the values in the Tubes Plugged At Inspection End field is populated with the sum of the values in the Tubes Plugged At Inspection End 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. | 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: |
| | | | 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 |

| Field | Data Type | Description | Behavior and Usage |
|---|-----------|--|---|
| 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. | 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). |
| 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. | By default, this field contains the value 0 (zero). The value in this field must be: 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. This value is used to calculate the value in the Percentage Heat Transfer Area Loss field. |

| Field | Data Type | Description | Behavior and Usage |
|--------------------|-----------|--|--|
| Type of Inspection | Character | The type of inspection that was performed. | 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. |
| | | | The values that appear in this list depend on the type of Inspection record that you are viewing. For Inspection records belonging to: |
| | | | 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.

| Fiel d | D a t a T y p e | Description | Behavior and Usage |
|---|---|---|--|
| Ale rt Ass ign ee Wh en Du e? | B o I e a n | Indicates whether an email notification must be sent to the user selected in the Assigned To Name field when the recommendation is due. | When this check box is selected, the following fields are enabled: Days Before Due Date to be Notified Frequency of Alert After Due Date This field appears in the Alert datasheet. |
| Ass et ID | C h a r a c t e r | 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. |
| Ass ign ed to Na me | C h a c t e r | The first and last name of the person to whom the recommendation is assigned. | 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. In the database, values in this field are stored in the following formats: <last name="">, <first name=""> ~ <user name=""> -or- <last name="">, <first name=""> ~ For example, a name stored in the database would be Smith, Jane ~ jsmith. 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.</first></last></user></first></last> |

| Fiel d | D a t a T y p e | Description | Behavior and Usage |
|--------------------------------|--------------------------------------|---|---|
| Aut hor Na me | C h a r a c t e r | The first and last name of the person who is proposing the recommendation. | 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: Inspection Supervisor Inspector Administrator If the Human Resource record also has an associated Security User, the value from the User ID field also appears. In the database, values in this field are stored in the following formats: <last name="">, <first name=""> ~ <user name=""> -or- <last name="">, <first name=""> ~ For example, a name stored in the database would be Smith, Jane ~ jsmith. 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.</first></last></user></first></last> |
| Bus ine ss Imp act | C h a c t e r | Records the impact on the manufacturing process during the recommendation implementation. | 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: Facility Shutdown (FACILITY SHUTDOWN) Facility Slowdown (FACILITY SLOWDOWN) Unit Shutdown (UNIT SHUTDOWN) Unit Slowdown (UNIT SLOWDOWN) System Shutdown (SYSTEM SHUTDOWN) System Slowdown (SYSTEM SLOWDOWN) |

| Fiel d | D a t a T y p e | Description | Behavior and Usage |
|--|---|--|---|
| Co mpl eti on Co mm ent s | C h a r a c t e r | 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. |
| Cre ate Wo rk Re qu est ? | B o I e a n | Indicates whether or not a Work Request will be created for the Inspection Recommendation. | N/A |
| Da ys Bef Ou e Dat e to be Not ifie d | N u m e ri c | 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 ⁽²²⁾ 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. |
| Fin din g Bas is | C h a r a c t e r | 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. |

| Fiel d | D a t a T y p e | Description | Behavior and Usage |
|---|--------------------------------------|---|---|
| Fin din g Su mm ary | T e x t | 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 |
| Fin al Ap pro ver | C h a r a | The first and last name of the person who is giving the final approval for an Inspection Recommendation. | 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. |
| Na me | c t e | | In the database, values in this field are stored in the following formats: |
| | r | | <last name="">, <first name=""> ~ <user name=""></user></first></last> |
| | | | -or- |
| | | | <last name="">, <first name=""> ~</first></last> |
| | | | For example, a name stored in the database would be Smith, Jane ~ jsmith. |
| | | | 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. |
| Fre qu enc y of Ale rt Aft er | N m e ri c | Specifies how often email messages will be sent after the completion date has passed. | You can choose any of the following options: Never Daily Weekly Monthly Yearly This field appears in the Alert datasheet. This field is required when the Alert Assignee When Due |
| Du e Dat e | | | check box is selected. |

| Fiel d | D a t a T y p e | Description | Behavior and Usage |
|---|---|--|--|
| Fun ctio nal Loc ati on ID | C h a r a c t e r | 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. |
| Imp Iem ent ati on Ale rt Tex t | C h a r a c t e r | 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. |
| Imp Iem ent ed Dat e | D a t e | The date on which the Inspection Recommendation was implemented. | N/A |
| Ins pec tio n Pro file Ite m | C h a r a c t e r | 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. |
| Ma nd ato ry Dat e | C h a r a c t e r | 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. |

| Fiel d | D a t a T y p e | Description | Behavior and Usage |
|---|---|--|---|
| Re co mm en dat ion Bas is | T e x t | 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. |
| Re co mm en dat ion De scri pti on | C h a c t e r | A description of the Inspection Recommendation. | By default, this field does not contain a value. Optionally, you can enter a value in this field. |
| Re co mm en dat ion He adli ne | C h a c t e r | 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. |
| Re co mm en dat ion ID | C h a r a c t e r | Unique ID assigned to the Inspection Recommendation. | This field is generated by the APM system through business rules. |

| Fiel d | D a t a T y p e | Description | Behavior and Usage |
|---|--------------------------------------|--|--|
| Re co mm en dat ion Pri orit y | N m e ri c | The priority value used to rank the importance of the Inspection Recommendation. | N/A 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: High (HIGH) Medium (MEDIUM) Low (LOW) |
| Re eva luat e? | B o I e a n | Indicates whether you want to reevaluate the Recommendation. | This field appears in the Alert datasheet. |
| Re eva luat ion Ale rt Bo dy Tex t | C h a c t e r | 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. |
| Re eva luat ion Dat e | D a t e | 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. |

| Fiel d | D a t a T y p e | Description | Behavior and Usage |
|--|---|---|--|
| Re eva luat ion Not ific ati on List | T e x t | The first and last name of the person who is notified about reevaluating an Inspection Recommendation. | This field appears in the Alert datasheet. This field is enabled only when the Reevaluate? check box is selected. 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. In the database, values in this field are stored in the following formats: <last name="">, <first name=""> ~ <user name=""> -or- <last name="">, <first name=""> ~ For example, a name stored in the database would be Smith, Jane ~ jsmith. You can select more than one user in this field.</first></last></user></first></last> |
| Re qui red Eq uip me nt Sta tus Rev | C h a c t e r C h | Records the operating state of the equipment used to implement the Inspection Recommendation. | N/A 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: ON-LINE (ON-LINE) Off-line (OFF-LINE) Not Applicable (N/A) |
| iew er Na me | h a r a c t e r | the Inspection Recommendation. | 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. |

| Fiel d | D a t a T y p e | Description | Behavior and Usage |
|--|---|--|--|
| Ser vic e Re cor d ID | C h a r a c t e r | The ID of the service record. | This field is populated by Service Max when the status of a work request is modified. |
| Sta tus | C h a c t e r | Indicates the status of the Inspection Recommendation as indicated by the user. | This field is populated automatically and set to Created. |
| Tar get Co mpl eti on Dat e | D a t e | 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. |
| Tec hni cal Nu mb er | C h a r a c t e r | A unique ID for the asset to which the recommendation is assigned. | N/A |

| Fiel d | D a t a T y p e | Description | Behavior and Usage |
|---|---|--|--|
| Wit nes sed By | C h a r a c t e r | The APM Security User who witnessed the test, which appears in the following format: <last Name>, <first name=""> ~ <user id=""></user></first></last | N/A |
| Wo rk Re qu est Eq uip me nt | C h a r a c t e r | 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. |
| Wo rk Re qu est Fun ctio nal Loc ati on | C h a c t e r | 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. |
| Wo rk Re qu est Ref ere nce | C h a r a c t e r | 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.

| 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. | |

| Field | Data Type | Description | Behavior and Usage |
|----------------------|-----------|---|--|
| 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.

| 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. |

| Field | Data Type | Description | Behavior and Usage |
|------------------------------|-----------|--|---|
| 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.

| 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.

| 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. | 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. |
| | | | Specifically, the Inspection Confidence field is populated with the value that exists in the Inspection Confidence field in the Inspection Strategy record whose: 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. This field is not available on the baseline Inspection datasheets. |
| | | | The value that you select in this field is used in RBI when you assign Inspection records to RBI Degradation Mechanism Evaluation records. |

| Field | Data Type | Description | Behavior and Usage |
|------------------------------------|-----------|--|--|
| Inspection Extent | Character | The extent to which the inspection was performed. | 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. |
| | | | 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. |
| Inspection Strategy Description | Character | A description of the Inspection Strategy. | You can specify a value for this field using the datasheet. |
| 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.

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_STANDA RDS 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: 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 |
| Coverage | Text | A definition of the percentage of the asset to be inspected. | You can specify a value for this field using 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. | If the value in the Override Interval field is set to True, the value in Desired Interval Basis field will be User-Defined. |
| | | | 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: • 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. | 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. |
| | | | Based on the selection of this field, Work Order and Notification fields are enabled and disabled. |
| | | | This field decides whether a newly created task is of the Work Order type or Notification type. |
| 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 |
| 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 |
| 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 |

| Data Type | Description | Behavior and Usage |
|----------------|---|---|
| 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 |
| 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. |
| Boolean | Indicates whether a user can modify fields. | N/A |
| 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. |
| Text | The comments of the inspector; the comments explain the reasoning for the Next Date. | N/A |
| Character (50) | Populates Notification Number from the EAM system | Populates Notification Number from the EAM System. This field is always disabled. |
| 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. |
| | Date Date Numeric Boolean Date Date Date Text Character (50) | DateThe earliest date on which an inspection may be performed.NumericThe earliest date on which the inspection can be performed and still be in compliance.BooleanIndicates whether a user can modify fields.DateDate on which the inspection event is schedule.TextThe comments of the inspector; the comments explain the reasoning for the Next Date.Character (50)Populates Notification Number from the EAM systemCharacter (50)Populates Notification Type from the system code and determines the type of |

| Field | Data Type | Description | Behavior and Usage |
|--------------------|----------------|---|--|
| Previous Next Date | Date | The date is calculated based on the Inspection Completion date. | This field is populated automatically by the APM system. This filed stores the Next Date before the rescheduling occurs. This field is always disabled. |
| 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. |
| 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 |
| 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. |
| 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. |

| Field | Data Type | Description | Behavior and Usage |
|------------------------------|-----------------|--|--|
| 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). |
| 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. |
| 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. |

| Field | Data Type | Description | Behavior and Usage |
|------------------------------|-----------|---|---|
| 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. |
| 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.

| 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. |

| Field | Data Type | Description | Behavior and Usage |
|-------------------|-----------|--|---|
| 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. |
| 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. |
| 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.

| 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.

| 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. |
| Моvе Туре | 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. |

| Field | Data Type | Description | Behavior and Usage |
|-----------------------------|-----------|---|--|
| 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.

| 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 | 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: 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 General Inspections Pending Approval for Current User Pressure Inspections Pending Approval for Current User Pressure Inspections Pending Approval for Current User |

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. | 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 |
| 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 |

| Query Name | Behavior and Usage | Required Fields |
|---|---|---|
| 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. | 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. | ENTY_KEY (Alias Name: Inspection Entity Key) ENTY_ID (Alias Name: Inspection ID) |
| Open Recommendations for Asset | 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: | ENTY_KEY (Alias Name: Inspection Entity Key) startDate endDate |
| | All Recommendations for this Location subsection in the Overdue Recommendations section Recommendation section in the Inspection Management Asset Overview page This query is used when the Use | |
| | State Management for Inspection Recommendations check box in Application Settings is cleared. | |

| Query Name | Behavior and Usage | Required Fields |
|--|---|---|
| Open Recommendations for Asset (State Management) | 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: All Recommendations for this Location subsection in the | ENTY_KEY (Alias Name: ENTY_KEY) startDate endDate |
| | Overdue Recommendations section Recommendation section in the Inspection Management Asset Overview page | |
| | This query is used when the Use State Management for Inspection Recommendations check box in Application Settings is selected. | |
| Open Inspection Recommendations for Unit | 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. | ENTY_KEY (Alias Name: ENTY_KEY) startDate endDate |
| Open Inspection Recommendations for Unit (State Management) | 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. | 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. | 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. | 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. | 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. | 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. | 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. | PRED_ENTY_K EY (Alias Name: INSP_KEY) ENTY_KEY (Alias Name: HEALTH_EVAL_ KEY) ENTY_ID (Alias Name: Inspection ID) MI_INSP_HLTH _EVL_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. | 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. | 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. | MI_WORKPACK _ID_C (Alias Name: Work Pack ID) ENTY_KEY (Alias Name: ENTY_KEY) |

Report Queries Folder

The Catalog folder $\$ 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. |

| Report Name | Behavior and Usage |
|-------------------------------------|---|
| 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 | Returns a list of all the Human Resource records in the database. |
| | This query contains the following URL Fields: |
| | 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 | Returns a list of Human Resource records that are linked to a Personnel Certification record. |
| | This query contains the following URL Field: |
| | • 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 | Returns a list of Human Resource records that are linked to a Resource Role record. |
| | This query contains the following URL Field: |
| | • 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 | ENTY_KEY (Alias Name: TASK_ENTY_K EY) |
| All Inspections in a Work Pack | Returns a list of Inspections linked to a given Work Pack | Inspection.ENT Y_KEY (Alias Name: INSP_ENTY_KE Y) Inspection.ENT Y_ID (Alias Name: INSP_ID) |
| All related Work Packs | Returns a list of Work Packs linked to a given Work Pack | KEY ID LEVEL |
| All Tasks in a Work Pack | Returns a list of Inspection Tasks linked to a given Work Pack | ENTY_KEY (Alias Name: TASK_ENTY_K EY) MI_TASK_ID (Alias Name: TASK_ID) MI_TASK_INSP _INSPTYPE_FM LYID_C (Alias |

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.

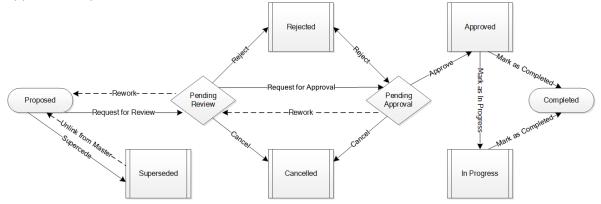
The NR13 module expands APM's baseline function to support the collecting and storing of technical data that is required to create NR13-compliant inspection reports. The module also adds two new inspection reports specifically for NR13 inspections.

The NR13 module is enabled by the NR13 license.

You can download the NR13ModuleEnglish.pdf (PDF).

Inspection Management State Management

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

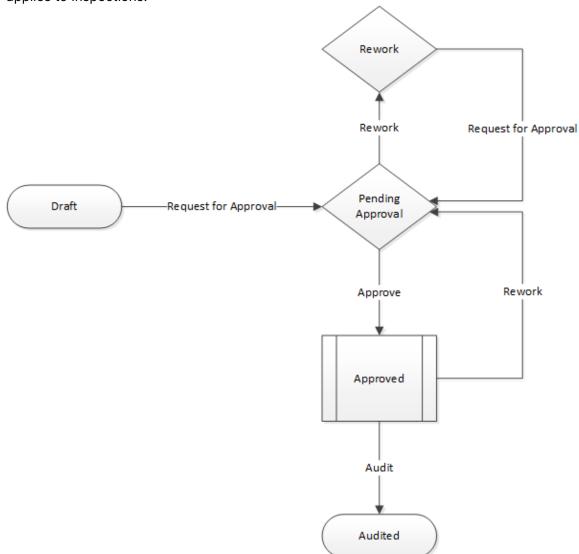
Reserved States and Operations

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 |

| State Caption | Reserved State | Security Role |
|------------------|----------------|---------------------------------------|
| 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 | Pending ApprovalPending Review | Cancelled |
| Mark as Completed | No | Approved In Progress | Completed |
| Reject | No | Pending ApprovalPending 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 |



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 | MI InspectorMI Contract Inspector |
| Pending Approval | No | MI Inspector Supervisor |
| Rework | No | MI InspectorMI 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 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.</workspacename></assetentitykey> | | | | |
| <pre>im/asset/<assetentitykey>/inspection/<inspectionentitykey>: Accesses the Inspection Data section of the Inspection Overview page.</inspectionentitykey></assetentitykey></pre> | | | | |
| im/asset/ <assetent< td=""><td>ityKey>/task/<insp< td=""><td>ectionTaskEntityKey</td><td>>: Accesses the Manage</td></insp<></td></assetent<> | ityKey>/task/ <insp< td=""><td>ectionTaskEntityKey</td><td>>: Accesses the Manage</td></insp<> | ectionTaskEntityKey | >: Accesses the Manage | |
| Task page. | | | | |
| <assetentitykey></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></workspacename> | Specifies the Inspection Management page that you want to | Overview | Accesses the Inspection Management Overview workspace. | |
| | view. | Profile | Accesses the Inspection Profile Details section. | |

| Element | Description | Accepted Value(s) | Notes |
|--|---|--|--|
| <inspectionentitykey></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.</assetentitykey></inspectionentitykey> |
| <inspectiontaskentitykey></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. |
| im/functionallocat | ion/ <functionalloc< td=""><td>ationEntityKey>/</td><td><u>.</u></td></functionalloc<> | ationEntityKey>/ | <u>.</u> |
| <workspacename>: Ac</workspacename> | cesses the Inspection Mana | gement page. | |
| | | ationEntityKey>/ins | |
| <inspectionentityp< td=""><td>ley>: Accesses the Inspection</td><td>on Data section of the Inspec</td><td>tion Overview page.</td></inspectionentityp<> | ley>: Accesses the Inspection | on Data section of the Inspec | tion Overview page. |
| | tion/ <functionalloc tityKey>: Accesses the M</functionalloc | ationEntityKey>/tas anage Task page. | sk/ |
| <functionallocationentityk ey></functionallocationentityk | 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 |
| | information. | | |
| <workspacename></workspacename> | Specifies the Inspection Management page that you want to | Overview | Accesses the Inspection Management Overview page. |
| <workspacename></workspacename> | Specifies the Inspection Management | Overview Profile | Management Overview |
| <workspacename> <inspectionentitykey></inspectionentitykey></workspacename> | Specifies the Inspection Management page that you want to | | Management Overview page. Accesses the Inspection |

| Element | Description | Accepted Value(s) | Notes |
|--|--|--|---|
| im/workpack/ <worke< td=""><td>PackEntityKey>: Acces</td><td>ses the Work Pack Overview</td><td>page.</td></worke<> | PackEntityKey>: Acces | ses the Work Pack Overview | page. |
| im/workpack/ <workb< td=""><td>?ackEntityKey>/subw</td><td>orkpack/<subworkpac< td=""><td>:kEntityKey>:</td></subworkpac<></td></workb<> | ?ackEntityKey>/subw | orkpack/ <subworkpac< td=""><td>:kEntityKey>:</td></subworkpac<> | :kEntityKey>: |
| Accesses the Work Pack Ov | verview page for the selected | Sub Work pack. | |
| <workpackentitykey></workpackentitykey> | Specifies the Work Pack that you want to view. | Any related Work Pack Entity Key. | Accesses the Definitions section. |
| <subworkpackentitykey></subworkpackentitykey> | Specifies the Sub Work Pack that you want to | Any related Sub Work Pack Entity Key. | Accesses the Definitions section. |
| | view. | | Note: You may have two Sub Work Pack strings in a single URL. |
| | | spection/0/inspecti ates an inspection that is linke | |
| <inspectiontaskentitykey></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. |
| <inspectiondocumenttype FamilyKey></inspectiondocumenttype | 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/ <assetent asset.</assetent | tityKey>/inspection | / 0: Creates an inspection tha | t is associated with an |
| <assetentitykey></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. |
| | tityKey>/inspection | famkey/ <inspectione tion family.</inspectione | TamilyKey>: Creates an |
| <assetentitykey></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></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 wil be associated with this inspection family. You cannot associate this inspection with a checklist template. |

Example URLs

| Destination |
|--|
| The Inspection Management Overview page. |
| The Inspection Data section of the Inspection Overview page. |
| The Inspection Data section of the Inspection Overview page. |
| The Manage Task page. |
| The Inspection Management Overview page. |
| The Inspection Data section of the Inspection Overview page. |
| The Manage Task page. |
| The Definitions section of the Work Pack Overview page. |
| The Inspection Details page for the inspection you created from the selected inspection task. |
| The Inspection Details page for the inspection you created from the selected asset. |
| 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. |

| Table ID | Table Description | Function |
|---|---|---|
| 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. |
| 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. |

| Table ID | Table Description | Function | |
|-----------------------------------|---|--|--|
| 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. | |
| MI EVENT REASON | CORE, Reason for Event | Used to populate the Reason for Inspection list in Inspection records. Note that: 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. | |

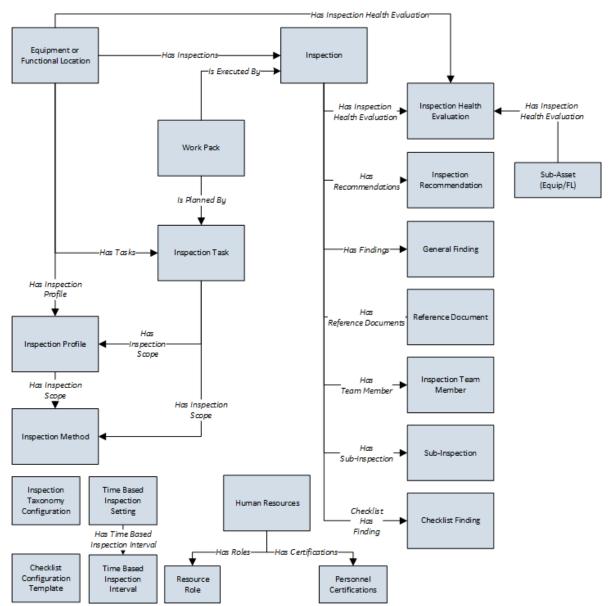
| Table ID | Table Description | Function | |
|---|---|--|--|
| MI EXTERNAL PRD CHECKLIST FINDING SECTIONS | External PRD Checklist Finding Section | Used to display sections and rows on the Inspection Finding Checklist page. | |
| MI FINDING TYPE | MI Inspection, Provides categories for an inspection 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_EVALUATI ON_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. | |
| 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 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. | |

| Table ID | Table Description | Function | |
|---|---|--|--|
| 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. | |
| 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 .