

# **Meridium APM Inspection Management**

V3.6.1.6.0



#### Meridium APM Inspection Management

V3.6.1.6.0

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#### **About This Document**

This file is provided so that you can easily print this section of the Meridium APM Help system.

You should, however, use the Help system instead of a printed document. This is because the Help system provides hyperlinks that will assist you in easily locating the related instructions that you need. Such links are not available in a print document format.

The Meridium APM Help system can be accessed within Meridium APM itself or via the Meridium APM Documentation Website (<a href="https://www.me-ridium.com/secure/documentation/WebHelp/Home.htm">https://www.me-ridium.com/secure/documentation/WebHelp/Home.htm</a>).

Note: If you do not have access to the Meridium APM Documentation Website, contact GE Global Support (https://www.ge.com/digital/asset-performance-management).

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# **Overview of Inspection Management**

Accurate understanding of current equipment and location conditions is critical to analyzing the reliability and future availability of the equipment and locations. Meridium APM provides a solution for this requirement through the *Inspection Management* module, a tool that you can use to document, manage, and analyze data associated with the inspections of equipment and locations in your facility. The Inspection Management functionality is fully integrated with other Meridium APM features to give you access to other analytical tools, such as Thickness Monitoring. Throughout the documentation, we refer to the Inspection Management module and its associated functionality simply using the term *Inspection*.

# Inspection Management System Requirements

The *Inspection Management* license is required to take advantage of Inspection Management functionality. In addition, your system must contain the basic Meridium APM system architecture.

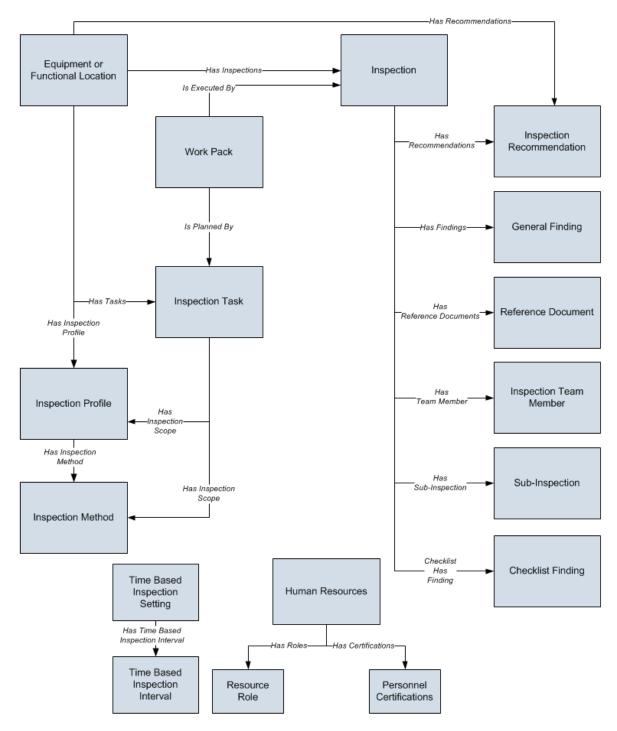
After you have installed and configured the basic system architecture, you will need to perform some configuration tasks specifically for the Inspection Management module.

### **Inspection Management Data Model**

Like all Meridium APM modules, the Meridium APM Inspection Management module consists of entity families, relationship families, and business rules. When attempting to understand and make use of Inspection Management functionality, it can be helpful to visualize the Inspection Management data model.

Because you should already be familiar with the concept of records and viewing records in the Meridium APM Record Manager, as you attempt to get your bearings in Inspection Management, it may be useful to remember that the pages in Inspection Management simply offer a customized view of individual records that belong to families in the data model. In addition, each step in the <a href="Inspection Management workflow">Inspection Management workflow</a> 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 arrow head: the box to the *left* of each arrow head is the *predecessor* in that relationship, and the box to the *right* of each arrow head 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, Meridium 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

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.

### Inspection Management and RBI Integration

In addition to the families shown in the <u>Inspection Management data model</u>, access to the following Risk Based Inspection (RBI) entity and relationship families is provided when the Inspection Management license is active:

- Asset Group
- Criticality Calculator PRD Components
- Criticality Calculator RBI Components
- Criticality PRD Component Relief Valve
- Criticality PRD Component Rupture Disk
- Criticality RBI Component Cylindrical Shell
- Criticality RBI Component Exchanger Bundle
- Criticality RBI Component Exchanger Header
- Criticality RBI Component Exchanger Tube
- · Criticality RBI Component Piping
- Criticality RBI Component Tank Bottom
- Grouping Element
- Has Asset Group
- · Has RBI Components
- Has RBI Systems
- Is Part of Group
- RBI Components
- RBI Degradation Mechanism Evaluation
- RBI System
- Represents Inspections

The MI Inspection Security Group has View privileges to *all* families in this list. These families support the following functionality:

• <u>Time-based inspection settings</u>, which play a role in populating values in Inspection Task records that are associated with the equipment that you analyze in RBI and Inspection. In the baseline Meridium APM database, the entity families that support this functionality are related to the Equipment family through the Has RBI Components relationship.

Additionally, when the RBI license is active, the inspection intervals that are associated with the time-based inspection settings you define are considered by the Meridium APM system when determining the value that will be populated in the Desired Interval field in Inspection Task records that you create in RBI.

Inspection Grouping, which allows you to group RBI Components based on certain
criteria and perform inspections for a subset of the equipment in the group rather
than for *every* piece of equipment in the group. When the RBI license is active, the
Inspection Groups that you create in RBI facilitate the creation of Represented
Inspections in Inspection Management.

# **Inspection Documents**

Inspection Documents contain all of the information associated with a given inspection. You can think of an Inspection Document as the collection of information stored in any Inspection record and each record that is linked to that record, which are best viewed together using the configured explorer that is defined for the Inspection family.

For example, if you view a Full Inspection record in its configured explorer, you will see a list of records that have been linked to that Full Inspection record. The *Inspection Document* is the information in the Full Inspection record and the records that are linked to it, such as General Finding and Recommendation records. You can also think of an Inspection Document as all of the information that is included when you print an inspection report.

Throughout the Inspection Management interface, you will see the term *Inspection Document*. When you see this term in the documentation, keep in mind that we are referring collectively to the information that is stored in an Inspection record and each record that is linked to it.

Because of how we define an Inspection Document, you will not find specific instructions for creating an Inspection Document in this documentation. Instead, you will find instructions for creating individual Inspection records, General Finding records, Inspection Recommendations records, and so on, which together are used to build the Inspection Document. Because an Inspection Document is the compilation of various records, the Inspection workflow does not facilitate the creation of an Inspection Document directly. An Inspection Document is a *concept* rather than a specific entity.

## Types of Inspections

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 pressure relief devices (PRDs) (following API 576 standards).

You will record the results of each inspection in an *Inspection record* and in successor records to which the Inspection record is linked. The baseline Meridium APM database contains Inspection families that you can use for recording the results of each type of inspection. The following table lists the baseline Inspection families and the type of inspection to which they correspond.

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	

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

Depending upon the type of inspection that you want to conduct, the <u>workflow you will</u> <u>use</u> in Inspection Management to record the results will be different.

#### **Inspection Profiles**

An *Inspection Profile* is a combination of an Equipment record, Inspection Profile records, and Inspection Method records 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 Profile records represent subcomponents of the equipment that need to be inspected. Each Inspection Profile record is linked directly to the Equipment record.
- Inspection Method records represent how you plan to inspect each subcomponent. Each Inspection Method record is linked to an Inspection Profile record.

Note: Typically, you will want to configure Inspection Profiles only for *equipment* and not for locations. Throughout this documentation, therefore, we refer to creating Inspection Profiles using Equipment records and not Functional Location records.

For example, suppose you need to inspect a water heater. The water heater represents the equipment as a whole, but you need to inspect individual parts of that water heater separately. You might need to inspect the pipes, heating rods, thermostat, and insulation and then record your findings in separate records. In addition, for each part that needs to be inspected, there might be multiple ways in which it can be inspected. For example, to fully inspect the pipes, you might need to look for cracks and heat loss.

You would, therefore, need to create:

- A Water Heater record to represent the equipment.
- Individual Inspection Profile records to represent each subcomponent of the
  water heater. In each Inspection Profile record, you would use the Item Category
  field to indicate the part of the water heater that you need to inspect. For
  example, you might create the *Pipes* Inspection Profile record.
- Individual Inspection Method records to represent how each subcomponent needs to be inspected. For example, you might create the following Inspection Method records, which would be linked to the Pipes Inspection Profile record: Check for cracks and Evaluate heat loss.

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

If the Event Configuration is set up correctly, when you create an Inspection record that is linked to an Equipment record, General Finding records will be created automatically

according to the Inspection Scope for the equipment. For example, if the Inspection Task record that was used to create the Inspection record is linked to five Inspection Profile records, and each of those records is linked to two Inspection Method records, ten General Finding records will be created, one per Inspection Method record that was included in the Inspection Scope. You can then record your findings for each subcomponent in a separate record. This is useful if parts of the equipment passed the inspection and other parts failed the inspection. If you had only one record to record your findings, you would be unable to fully represent the inspection results.

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

You can <u>create</u> or modify an Inspection Profile record from the **Inspection Profile for <Equipment Record ID>** page, where **<Equipment Record ID>** is the Record ID of the Equipment record whose inspection profile is defined on the page.

Note: You do not need to define Inspection Profiles if you plan to create records only in the Inspection families whose caption contains the word *Checklist*. The <u>process</u> for recording subcomponent findings for these families does not rely on Inspection Profile or Inspection Method records.

### What is an 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 for an individual inspection the equipment parts that need to be inspected and the methods that should be used to inspect them.

An Inspection Scope consists of the following items:

- An Equipment record, which defines the equipment that should be inspected.
- An Inspection Task record, 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 record is linked to the Equipment record
- One or more Inspection Profile records, which define the subcomponents that should be inspected.
- One or more Inspection Method records, which define the methods that should be used to inspect the individual subcomponents.

For example, suppose that you define an Inspection Profile for a water heater with the following information.

Inspection Profile	Inspection Method
Pipes	Check for cracks     Evaluate heat loss
Heating Rods	Check for proper functioning
Thermostat	Check for proper functioning
Insulation	<ul><li>Check for heat loss</li><li>Check for corrosion</li></ul>
Tank	<ul><li>Check for heat loss</li><li>Check for corrosion</li><li>Check for rust buildup</li></ul>

This Inspection Profile indicates *all* possible subcomponents and inspection methods for those subcomponents.

Suppose that after a week of washing the dishes or showering, you realize that the water is taking too long to get warm. If you suspect that the water heater is somehow losing too much heat, you might identify a need to inspect the parts of the water heater that affect its ability to retain heat: pipes, tank, and insulation.

In this case, the Inspection Scope for this inspection event would include a subset of the entire Inspection Profile. This inspection scope might contain the following items:

- Inspection Task record
- Equipment record (which represents the water heater)
- Multiple Inspection Profile and Inspection Method records, as shown in the following image.

Inspection Pro- file	Inspection Method
Pipes	Evaluate heat loss
Insulation	Check for heat loss
Tank	Check for heat loss

To define an Inspection Scope, you will need to create an Inspection Task record or find an existing Inspection Task record and link it to the Inspection Profile and Inspection Method records that identify the subcomponents that should be inspected and the methods that should be used. You can <u>create an Inspection Scope</u> from the **Inspection Management Start Page** or the **Inspection Profile** page. When you create an Inspection Scope from the **Inspection Management Start Page**, you will need to select the Equipment record that represents the equipment that should be inspected. When you create an Inspection Scope from the **Inspection Profile** page, however, the Meridium APM system assumes that you want to define the Inspection Scope for the equipment that is currently displayed on the **Inspection Profile** page.

Note: You do not need to define an Inspection Scope if you plan to create records only in the Inspection families whose caption contains the word *Checklist*. The <u>process</u> for recording subcomponent findings for these families does not rely on Inspection Profile or Inspection Method records.

### How is an Inspection Scope Used?

Each Inspection Scope consists of an Equipment record, an Inspection Task record that is linked to the Equipment record, one or more Inspection Profile records, and optionally, one or more Inspection Method records.

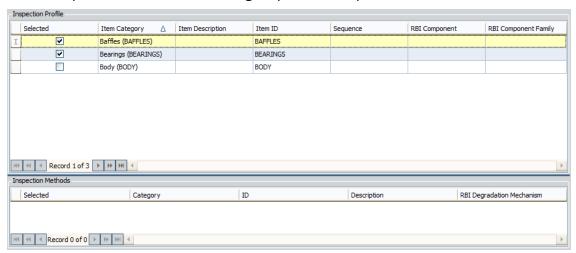
When you create an Inspection record that is linked to that Equipment record, the Meridium APM system will generate General Finding records (assuming the <u>Event Configuration</u> that is defined for the Inspection family is configured correctly) automatically. The number of records that are created automatically is based upon the Inspection Profile and Inspection Method records that are included in the Inspection Scope.

Note: You do not need to define an Inspection Scope if you plan to create records only in the Inspection families whose caption contains the word *Checklist*. The <u>process</u> for recording subcomponent findings for these families does not rely on Inspection Profile or Inspection Method records.

You can use the following guidelines to determine how the Meridium APM system will use the Inspection Scope to generate General Finding records automatically:

 If the Inspection Scope contains Inspection Profile records that are not linked to Inspection Method records, one General Finding record will be generated for each Inspection Profile record that is included and not linked to an Inspection Method record.

For example, consider the following Inspection Scope.



In this example, you can see that only the following Inspection Profile records are included in the scope: BAFFLES and BEARINGS. Neither of these Inspection Profile records is linked to an Inspection Method record.

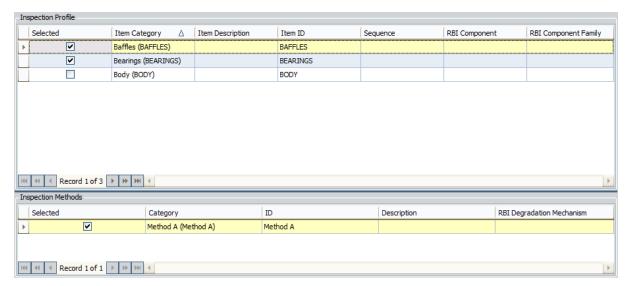
In this case, if an Inspection record is generated, the following General Finding records will be created automatically:

- BAFFLES
- BEARINGS

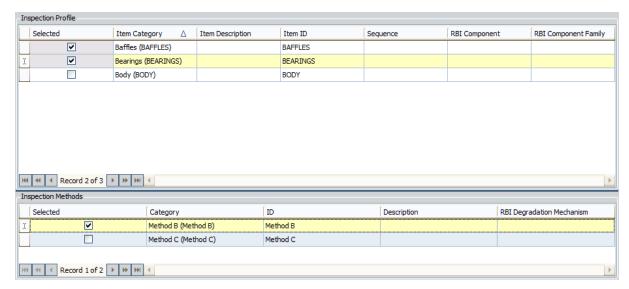
• If the Inspection Scope contains Inspection Profile records that are linked to Inspection Method records and one or more of those Inspection Method records are included in the Inspection Scope, one General Finding record will be generated for each *Inspection Method* record that is included.

For example, consider an Inspection Scope where the following are true:

■ The Inspection Profile record *BAFFLES* is linked to Inspection Method record *Method A*, and *Method A* is included in the Inspection Scope, as shown in the following image.



■ The Inspection Profile record *BEARINGS* is linked to Inspection Method records *Method B* and *Method C*, and *Method B* is included in the Inspection Scope, as shown in the following image.



The Inspection Profile records BODY is linked to Inspection Method record Method D, and Method D is not included in the Inspection Scope, as shown

#### Inspection Profile RBI Component Item Category Item ID Sequence RBI Component Family Baffles (BAFFLES) BAFFLES $\checkmark$ Bearings (BEARINGS) BEARINGS Body (BODY) H4 44 4 Record 3 of 3 → → → → Inspection Methods Category ID Description RBI Degradation Mechanism Method D (Method D) Method D

#### in the following image.

In other words, the Inspection Scope includes Inspection Method records *Method A*, which is linked to Inspection Profile record *BAFFLES*, and *Method B*, which is linked to Inspection Profile record *BEARINGS*.

In this case, if an Inspection record is generated, the following General Finding records will be created automatically:

- BAFFLES
- BEARINGS

In addition to determining the number of General Finding records that are created, the Inspection Scope also determines the values that will be used to populate the RBI Component fields in those General Finding records. If the Inspection Scope includes an Inspection Profile record with a value in the RBI Component field, when a General Finding record is created from that Inspection Profile record (or any Inspection Method record to which it is linked), the value in the RBI Component field will be transferred to the RBI Component field in the General Finding record.

#### **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 location in your organization. Work Pack records store preparation information about the inspection work that needs to be performed. Work Packs records, in combination with the following records that can be linked to Work Pack records, are intended to define planned inspection work that can be estimated by outside resources who might perform the work:

- Inspection Task
- Inspection

The general process for managing Work Packs is as follows:

- 1. Create one or more Work Pack records, depending upon what should be inspected and the type of those inspections.
- 2. <u>Link the Work Pack records that represent the items that should be inspected to the Inspection Task records that define the planned inspection work.</u>
- 3. Generate a report that includes details about the Inspection Task records that are linked to the Work Pack records.
- 4. Print the report and distribute it to the appropriate resources so that the cost of performing the inspection work can be estimated.
- 5. Based on the estimates, determine which inspections will be performed and which ones will not.
  - 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.
- 6. Generate an Inspection record from each Inspection Task record that defines work that is actually planned, based on the final estimates. For each Inspection record that is created from an Inspection Task record, the Meridium APM system will also create a General Finding record based on the Inspection Profile and Inspection Method records that are included in the Inspection Scope containing that Inspection Task record.
- 7. Generate a report that includes a list of the General Finding records, and distribute the report to the individuals responsible for performing the inspection. They can record their findings on the printed report.

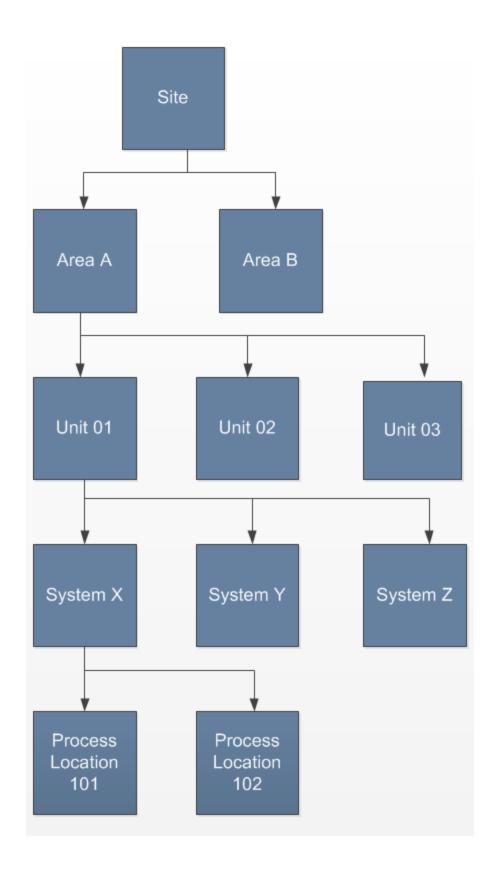
### About the Work Pack Hierarchy

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

- The lowest level of the hierarchy contains a Work Pack record 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 records for the locations containing the item that will be inspected.

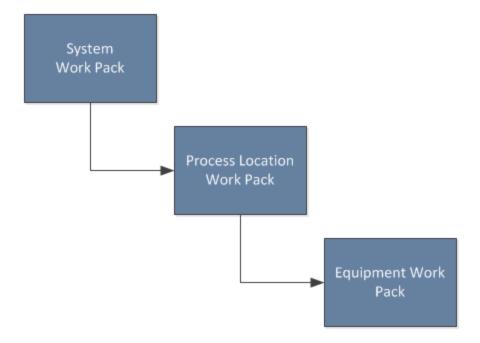
Each Work Pack hierarchy can include up to three levels.

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. For example, 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.

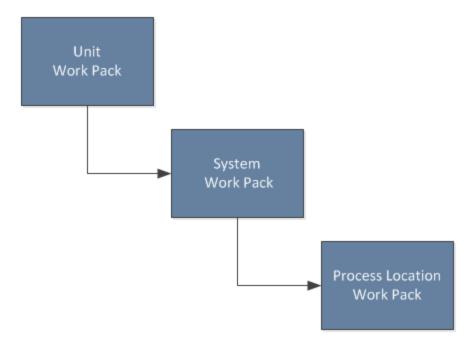


Assuming that your location hierarchy contains at least three levels (where level 1 is higher than level 2, level 2 is higher than level 3, and so on):

If you are inspecting equipment, the lowest level of the hierarchy should contain
Work Pack records 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 belongs. For example, if your location hierarchy looks like
the previous example location hierarchy, you would want to structure the Work
Pack hierarchy like this:



• If you are inspection *locations*, the lowest level of the hierarchy should contain Work Pack records 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 previous example location hierarchy, you would want to structure the Work Pack hierarchy like this:



These examples illustrate the use of three levels in the Work Pack hierarchy, but you may want to create *fewer than* three levels, depending upon your needs.

Regardless of how many levels you create in a Work Pack hierarchy, you should <a href="Iink">Iink</a><a href="Inspection Task">Inspection Task and Inspection records</a> directly to the Work Pack record that represents the item that will be inspected. In other words, in the first example, you would link Inspection Task and Inspection records directly to the equipment-level Work Pack records (not the location-level Work Pack records). In the second example, you would link Inspection Task and Inspection records directly to the process-location-level Work Pack record (not the system-level or unit-level Work Pack records).

## **Inspection 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.

When you view an Inspection record in the Record Manager or on the **Inspection Finding Checklist** page, you can use the record hierarchy to create a new Inspection Team Member record to link to the Inspection record. Any user that has been assigned the Inspector role can be selected in the *Full Name* field of that Inspection Team Member record. After the Inspection Team Member record has been linked to the Inspection record, the information in the Team Member record will be displayed in the Inspection Team Members section of the inspection report.

#### Roles

Each Human Resource record can be linked to one or more Resource Role records, where each Resource Role record contains a Role field. The value in the Role field is used to indicate that user's role within the organization.

After a Human Resource record is linked to a Resource Role record, the value in the Role field:

- Determines certain administrative tasks that a user can perform by controlling which links the user can see on the **Inspection Administration** page.
- Filters certain lists in Inspection records.

Roles are intended to control the workflow of users who work with Inspection Management. As they are delivered, each role should be used as described in the following list. Note, however, that the Inspection Specialist role does not have a pre-delivered function. This role is provided so that you can customize the associated rules to fit any responsibility within your company.

- Inspector: Gathers data to enter into a new or existing Inspection record. Users assigned the Inspector role appear in the Inspection Report Owner list on the Inspection datasheet. The Inspection record would then be assigned to a reviewer, which would be assigned the Inspection Supervisor role. A user who is assigned an Inspector role will see only the Manage Inspection Alerts and Manage Strategies links on the Inspection Administration page.
- Inspection Supervisor: Reviews Inspection records that have been created by a
  user with an Inspector role. Users assigned this role appear in the Reviewers
  Name list on the Inspection datasheet. Users assigned an Inspection Supervisor
  role will see only the Manage Inspection Alerts and Manage Strategies links on
  the Inspection Administration page.
- Inspection Administrator: Performs administrative tasks such as updating Security User roles and certifications, managing existing Inspection Conditional Alert records, creating new Inspection Conditional Alert records, creating new configured explorers for new Inspection families, and defining default inspection intervals. A user who is assigned an Inspection Administrator role will see the following links on the Inspection Administration page:
  - Inspection Configuration
  - Manage Inspection Resources, Roles and Certifications
  - Manage Inspection Alerts
  - Manage Strategies
  - Manage Time-Based Settings
- **Inspection Specialist:** Performs functions as determined by your unique implementation of this role.

### Certifications

You can <u>indicate a user's certification level</u> by creating a Personnel Certification record to link to that user's Human Resource record. When that user creates or approves an Inspection record, the Certification record will serve as documentation that the user is qualified to perform that task. Because Inspection records are often used as legal documentation to prove that an inspection took place, recording the responsible party's qualifications is an important step.

## **Published Inspections**

In an Inspection record, you can select the **Published** check box. The **Published** check box does not restrict access to the document, however. It serves only as a visual indicator about the status of the inspection. You can <u>access published Inspection records</u> from the **Published Inspection Documents** page.

Note that if you have View privileges to an Inspection family, you will be able to see all published and unpublished Inspection records that belong to that family. By default, the Everyone group has View privileges to the baseline Inspection families.

You can <u>publish inspections</u> using the Inspection datasheet for any of the following Inspection families:

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

## **Event Configurations**

By default, each of the baseline Inspection families has its own Event Configuration. The Event Configuration is created using the **Inspection Event Configuration Wizard** and determines:

- Whether General Finding records or Observation records will be created automatically for each subcomponent of the piece of equipment that you inspected when you created a new Inspection record for that piece of equipment. The subcomponents are determined by the value that you specify in the Item Category field in Inspection Profile records that are linked to the Equipment record (i.e., each Inspection Profile record represents a different subcomponent of the piece of equipment).
- The datasheet that the inspection reviewer (i.e., the user whose name appears in the Reviewers Name field in the Inspection record) will see.
- The configured explorer that will be used to display the Inspection record and all records to which it is linked.

If you create new Inspection families, you must <u>create an Event Configuration</u> for those families.

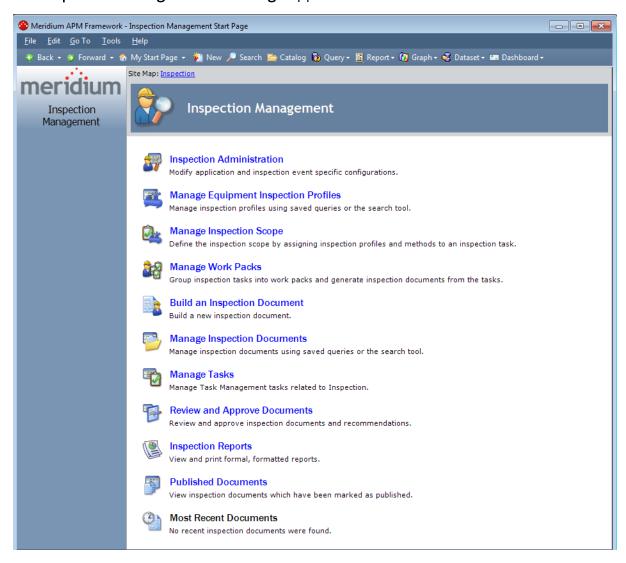
## Accessing the Inspection Management Start Page

The **Inspection Management Start Page** serves as the starting point for all of the tasks that you can perform in Inspection Management.

### To access the Inspection Management Start Page:

• On the Meridium APM main menu, click **Go To**, point to **Mechanical Integrity**, and then click **Inspection Management**.

The **Inspection Management Start Page** appears.



## Aspects of the Inspection Management Start Page

The **Inspection Management Start Page** displays links that let you access the features in Inspection Management.

Note: The content of the Inspection Management Start Page is determined by your assigned role. Depending on your assigned role, some of these links may not be available to you. For example, only Super Users and Security Users who have been assigned a role will see the Inspection Administration link. All users will be able to see the Published Documents and Most Recent Documents links, but if you are a non-Super User with no assigned roles, you will see *only* these two links.

Site Map: Inspection



## Inspection Management



### Inspection Administration

Modify application and inspection event specific configurations.



### Manage Equipment Inspection Profiles

Manage inspection profiles using saved queries or the search tool.



### Manage Inspection Scope

Define the inspection scope by assigning inspection profiles and methods to an inspection task.



#### Manage Work Packs

Group inspection tasks into work packs and generate inspection documents from the tasks.



### **Build an Inspection Document**

Build a new inspection document.



### **Manage Inspection Documents**

Manage inspection documents using saved queries or the search tool.



#### Manage Tasks

Manage Task Management tasks related to Inspection.



#### Review and Approve Documents

Review and approve inspection documents and recommendations.



#### Inspection Reports

View and print formal, formatted reports.



#### **Published Documents**

View inspection documents which have been marked as published.



#### Most Recent Documents

No recent inspection documents were found.

The **Inspection Management Start Page** contains the following links:

- **Inspection Administration:** Displays the **Inspection Administration** page, which displays links to administrative tasks.
- Manage Equipment Inspection Profiles: Displays the Inspection Manage Profiles

- page, which displays a list of searches and queries that have been set up to retrieve <u>inspection profiles</u>. By executing a search or query, you can create and modify Inspection Profiles.
- Manage Inspection Scope: Displays the Task Builder, where you can select the Equipment record and Task record that belong to the <u>Inspection Scope</u> that you want to manage.
- Manage Work Packs: Displays the Manage Work Packs page, which displays a list of existing Work Pack records.
- **Build an Inspection Document:** Displays the **Event Builder**, which walks you through the process of <u>creating an Inspection record</u>.
- Manage Inspection Documents: Displays the Inspection Manage Documents page, which displays a list of queries and searches that have been set up to retrieve Inspection Event records.
- Manage Tasks: Displays the <u>Inspection Manage Tasks page</u>, which displays a list
  of searches and queries that have been set up to return Equipment or Functional
  Location records that can be linked to Inspection Task records. After you run a
  search or query to retrieve these Equipment or Functional Location records, you
  can then manage the Task records to which they are linked from the Task List
  page in Task Management.
- Review and Approve Documents: Displays the Review and Approve Inspection
   Documents page, which displays a list of saved searches and queries that have
   been created to facilitate the review and approval process. You can run a search or
   query to locate Inspection Event records that have been submitted for approval
   and retrieve Inspection Event records based on the reviewer's name and the document state.
- Inspection Reports: Displays the Inspection Reports page, which displays a list of saved searches and queries that have been created for the purpose of retrieving inspection reports.
- Published Documents: Displays the Published Inspection Documents page, which displays a list of Inspection records that have been flagged as published.
- Most Recent Documents: Displays in the Record Manager the Inspection record associated with the link that you click. The list displays your four most recently accessed Inspection records.

## First-Time Deployment Workflow

Deploying and configuring Inspection Management for the first time includes completing multiple steps, which are outlined in the table in this topic. The steps in this section of the documentation provide all the information that you need to deploy and configure Inspection Management on top of the basic Meridium APM system architecture.

Whether a step is required or optional is indicated in the **Required/Optional** cell. Steps are marked as *Required* if you must perform the step to take advantage of Inspection Management functionality.

The person responsible for completing each task will vary within your organization. We recommend, however, that the steps be performed in relatively the same order in which they are listed in the table.

Step	Task	Required/Optional	Notes
1	Review the Inspection Management data model to determine which relationship definitions you will need to modify to include your custom equipment and location families. Modify any relationship definitions as needed via the Configuration Manager application.	Optional	This task is necessary only if you store equipment and location information in families other than the baseline Equipment and Functional Location families.
2	Assign Security Users to one or more of the Inspection Management Security Groups via the Configuration Manager application.	Required	Security Users will need permissions to the Inspection Management families before they can use the Inspection Management features.

Step	Task	Required/Optional	Notes
3	Set the Asset Query Path setting to the baseline Asset Query via the Meridium APM Framework application.	Required	In the baseline data- base, this setting is not defined. The doc- umentation assumes that you are using the product according to the Meridium APM Best Practice. As such, we assume that you will set the Asset Query Path setting to the baseline Asset Query.
4	Set the Associated Relationship Family setting to Functional Location Has Equipment. You can accomplish this task using the Meridium APM Framework application.	Required	In the baseline database, this setting is not defined. The documentation assumes that you are using the product according to the Meridium APM Inspection Best Practice. As such, we assume that you will set the Associated Relationship Family setting to Functional Location Has Equipment.

Step	Task	Required/Optional	Notes
			The following Application Configurations are defined in the baseline database:  • Published Query
			Path
			<ul> <li>Summary Query Path</li> </ul>
	Modify baseline <u>Application Configuration</u> settings via the		Alerts Query Path
5	Meridium APM Framework application.	Optional	<ul><li>Asset Is Successor</li><li>Profile Configuration</li></ul>
			Method Configuration
			<ul> <li>Strategy Rule Configuration</li> </ul>
			You can modify these Application Configurations if you want.
6	Assign roles to users who should be able to complete tasks in Inspection Management. You can accomplish this task using the Meridium APM Framework application.	Required	None
7	Define the Inspection Profile for each piece of equipment that you will inspect. You can accomplish this task using the Meridium APM Framework application.		This step is required only if you plan to create Inspection records in baseline families other than the Checklists subfamilies.
8	Modify the baseline Asset query via the Meridium APM Framework application.	Optional	This step is required only if you want Inspection records to be linked to records in a family other than the Equipment family.

Step	Task	Required/Optional	Notes
9	Define Event Configurations for any new Inspection families that you have created. You can accomplish this task using the Meridium APM Framework application.	Optional	This step is required only if you have created custom Inspection families that you want to use within Inspection Management.
10	Assign certifications to users via the Meridium APM Framework application.	Optional	None
11	Configure Meridium APM to send email messages about inspection data to the appropriate recipients. You can accomplish this task using the Meridium APM Framework application.	Optional	None
12	Group inspection work into Work Packs. You can accomplish this task using the Meridium APM Framework application.	Optional	None
13	Define time-based inspection settings. You can accomplish this task using the Meridium APM Framework application.	Optional	None

# Upgrade or Update Inspection Management to V3.6.1.6.0

The following tables list the steps that are required to update or upgrade Inspection Management to V3.6.1.6.0. These steps assumes that you have completed the steps for upgrading the basic Meridium APM system architecture.

### Update from any version V3.6.1.0.0 through V3.6.1.5.0

The Inspection Management module will be upgraded to V3.6.1.6.0 automatically when you upgrade the components in the basic Meridium APM system architecture. No additional steps are required.

### Upgrade from any version V3.6.0.0.0 through V3.6.0.12.8

The Inspection Management module will be upgraded to V3.6.1.6.0 automatically when you upgrade the components in the basic Meridium APM system architecture. No additional steps are required.

### Upgrade from any version V3.5.1.0.0 through V3.5.1.12.1

The Inspection Management module will be upgraded to V3.6.1.6.0 automatically when you upgrade the components in the basic Meridium APM system architecture. No additional steps are required.

### Upgrade from any version V3.5.0 SP1 LP through V3.5.0.1.10.0

Step	o Task	Required/Optional	Notes
1	Define time-based inspection settings. You can accomplish this task using the Meridium APM Framework application.	Optional	None

### Upgrade from any version V3.5.0 through V3.5.0.0.7.1

Ste	p Task	Required/Optional	Notes
1	Define time-based inspection settings. You can accomplish this task using the Meridium APM Framework application.	Optional	None

### Upgrade from any version V3.4.5 through V3.4.5.0.1.4

Step	Task	Required/Optional	Notes
1	If you have added System Codes to the MI_INSPECTION_ TYPE System Code Table, create Task Types records rep- resenting those task types, and set the value in the Reference field to <i>Inspection_Strategy</i> . You can do so via the Configuration Manager application.	Optional	This step is necessary only if you have added System Codes to the MI_INSPECTION_TYPE System Code table.
2	Define time-based inspection settings. You can accomplish this task using the Meridium APM Framework application.	Optional	None

## Inspection Management Security Groups

The baseline Inspection Management module contains one Security Group, *MI Inspection*. The following table lists the default privileges that members of the MI Inspection Security Group have to the Inspection entity and relationship families.

Family	Privileges
Entity Families	
Alert	View, Insert, Update, Delete
Certification	View, Insert, Update, Delete
Checklist Finding	View, Insert, Update, Delete
Conditional Alerts	View, Insert, Update, Delete
Corrosion	View, Insert, Update, Delete
Equipment	View, Insert, Update, Delete
Event	View, Insert, Update, Delete
Finding	View, Insert, Update, Delete
Human Resource	View
Inspection Method	View, Insert, Update, Delete
Inspection Profile	View, Insert, Update, Delete
Inspection Team Member	View, Insert, Update, Delete
Potential Degradation Mechanisms	View
RBI Degradation Mechanisms	View
Recommendation	View, Insert, Update, Delete
Reference Document	View, Insert, Update, Delete
Resource Role	View, Insert, Update, Delete
SAP System	View
Security User	View
Strategy	View, Update
Task	View, Insert, Update, Delete
Task Execution	View, Insert

Family	Privileges
Taxonomy References	View
Time Based Inspection Interval	View, Insert, Update, Delete
Time Based Inspection Setting	View, Insert, Update, Delete
Work Pack	View, Insert, Update, Delete
Relationship Families	
Belongs to a Unit	View, Update, Insert, Delete
Checklist Has Finding	View, Insert, Update, Delete
Has Certifications	View, Insert, Update, Delete
Has Degradation Mechanisms	View
Has Event Execution	View, Insert
Has Findings	View, Insert, Update, Delete
Has Inspection Method	View, Insert, Update, Delete
Has Inspection Profile	View, Insert, Update, Delete
Has Inspection Scope	View, Insert, Update, Delete
Has Inspections	View, Insert, Update, Delete
Has Potential Degradation Mechanisms	View
Has Recommendations	View, Insert, Update, Delete
Has Reference Documents	View, Insert, Update, Delete
Has Roles	View, Insert, Update, Delete
Has Sub-Inspections	View, Insert, Update, Delete
Has Tasks	View, Insert, Update, Delete
Has Task History	Insert
Has Task Execution	View, Insert
Has Task Revision	View, Insert
Has Team Member	View, Insert, Update, Delete
Has Taxonomy Hierarchy Element	View
Has Taxonomy Mapping	View

Family	Privileges
Has Time Based Inspection Interval	View, Insert, Update, Delete
Has Work Pack	View, Update, Insert, Delete
Is a User	View
Is Planned By	View, Insert, Update, Delete
Is Executed By	View, Insert, Update, Delete

#### Note that:

- The family-level privileges granted to the following families are also spread to all of their subfamilies:
  - Event
  - Taxonomy References
- The Has Task History relationship family is inactive in the baseline Meridium APM database.
- In addition to the families listed in the preceding table, members of the MI Inspection Security Group have View privileges to additional families to facilitate <u>integration with the Risk Based Inspection module</u>. Since these families are not used elsewhere in Inspection Management, they are not listed in this table.

Note: As part of implementing Inspection Management, you will decide whether you want to link Inspection records to Equipment records, Functional Location records, or both. If you want to link Inspection records to Functional Location records, you will need to grant members of the MI Inspection Security Group at least View privileges to the Functional Location family and the Functional Location Has Equipment relationship family.

## **About Inspection Configuration Pages**

This section of the documentation provides information on the following pages that are used to perform configuration tasks for first-time deployments of the Inspection Management module:

- Inspection Administration page
- Inspection Configuration page
- Inspection Manage Resources page
- Time-Based Inspection Settings page
- Inspection Manage Profiles page
- Inspection Profile page

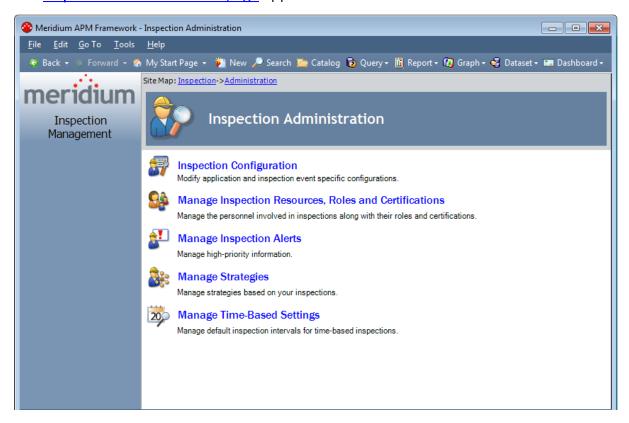
## Accessing the Inspection Administration Page

The **Inspection Administration** page serves as the starting point for performing administrative tasks. The following instructions provide details on accessing the **Inspection Administration** page.

### To access the Inspection Administration page:

 In the Meridium APM Framework, on <u>theInspection Management Start Page</u>, click the <u>Inspection Administration</u> link.

The Inspection Administration page appears.



### Aspects of the Inspection Administration Page

The **Inspection Administration** page serves as the starting point for performing administrative tasks and contains the following links:

- Inspection Configuration: Displays the <u>Inspection Configuration page</u>, where you can manage configuration settings and provide information about your Inspection Management data model.
- Manage Inspection Resources, Roles, and Certifications: Displays the Inspection
   Manage Resources page, where you can manage the personnel involved in inspections, along with their roles and certifications.
- Manage Inspection Alerts: Displays the Inspection Alerts page, where you can
  manage high-priority information, such as overdue inspections. You can <u>create</u>
  and <u>modify</u> alerts and generate email messages based on certain alert conditions.
- Manage Strategies: Displays the Strategy List page, where you can locate and manage strategy rules for a selected family.
- Manage Time-Based Settings: Displays the <u>Time-Based Inspection Settings page</u>, where you can define time-based inspection settings.

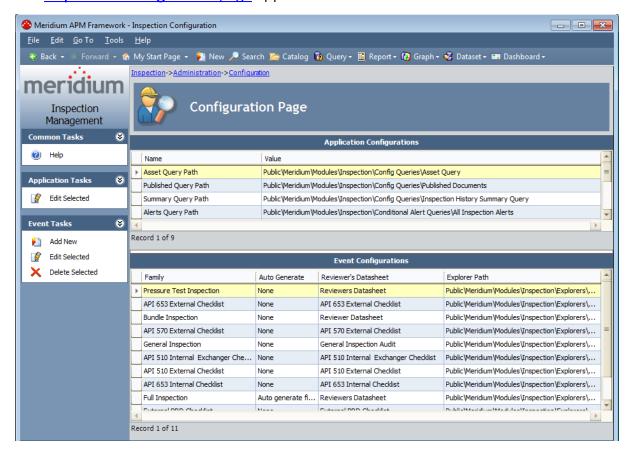
Note that some links may not appear, depending on your assigned role.

## Accessing the Inspection Configuration Page

To access the Inspection Configuration page:

 In the Meridium APM Framework, on the <u>Inspection Administration page</u>, click the <u>Inspection Configuration</u> link.

The Inspection Configuration page appears.



## Aspects of the Inspection Configuration Page

The **Inspection Configuration** page contains the following grids:

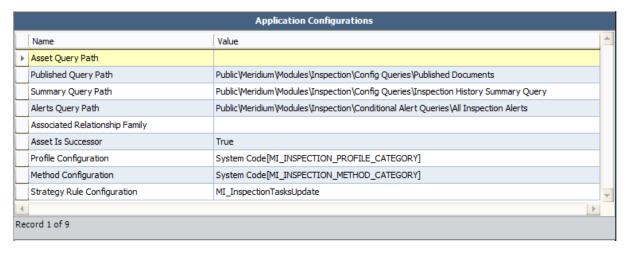
- Application Configurations: Displays one row for each Application Configuration setting that must be configured before beginning work in the Inspection module.
- Event Configurations: Displays one row for each Inspection family for which an Event Configuration has been defined.



The **Inspection Configuration** page contains the following task menus: **Common Tasks**, **Application Tasks**, and **Event Tasks**.

## **Application Configuration Grid**

The **Application Configurations** grid displays one row for each Application Configuration setting that must be defined before users can being using the Inspection Management module. Some Application Configuration settings are defined in the baseline database, and others <u>must be defined manually</u>. We recommend that you accept the baseline setting for each setting that is configured by default. The following image shows what the **Application Configurations** grid looks like in the baseline database.



The following columns are displayed in the Application Configurations grid:

- Name: The name of the Application Configuration setting. Throughout the documentation, each setting is referred to using the value that is displayed in this column. For example, the Asset Query Path setting corresponds with the row containing the value Asset Query Path in the Name column.
- Value: The value or selection defined for the setting.

The following table lists the Application Configuration settings that are displayed in the grid, a description of each setting, and whether or not the setting is defined in the baseline database.

Application Con- figuration Setting	Description	Defined in the baseline database? (Yes/N-o)	Notes
Asset Query Path	Specifies the query that is used to identify records that store information about pieces of equipment for which you perform inspections.	No	The documentation assumes that you will set the Asset Query Path setting to the baseline Asset Query.
Published Query Path	Specifies the query that is used to display results on the Published Inspection Documents page.	Yes	In the baseline database, the Published Documents query in the following Catalog location is specified for this setting: \\Public\Meridium\Modules\Inspection\Config Queries.
Summary Query Path	Specifies the query that is used to load all Inspection records that are linked to a specific Equipment or Functional Location record.	Yes	In the baseline database, the <a href="Inspection History Summary query">Instory Summary query</a> in the following Catalog location is specified for this setting:  \Public\Meridium\Modules\Config Queries.
Alerts Query Path	Specifies the query that is used to populate the results displayed on the Inspection Alerts page.	Yes	In the baseline database, the All Inspection Alerts query in the following Catalog location is specified for this setting:  \Public\Meridium\Modules\Conditional Alert Queries

Application Con- figuration Setting	Description	Defined in the baseline database? (Yes/N-o)	Notes
Associated Relationship Family	Specifies the relationship that you use to relate Functional Location records to Equipment records.	No	The documentation assumes that you will set the Associated Relationship Family setting to Functional Location Has Equipment.
Asset Is Suc- cessor	Specifies whether the Equipment family is the predecessor or the successor in the relationship that you defined in the Associated Relationship Family setting.	Yes	In the baseline database, this setting is set to <i>True</i> , meaning that the Equipment family is the successor in the Functional Location Has Equipment relationship.

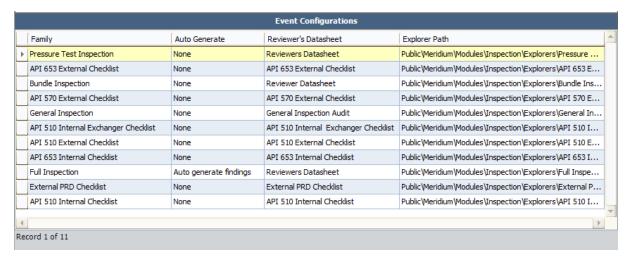
Profile Configuration  Profile Configuration  Profile Configuration  Profile Configuration  Profile Configuration  Profile Configuration  Profile records that are created automatically.  List of values available in the ltem Category field in Inspection Profile records that are created manually.  In the baseline database, the MI_INSPECTION_PROFILE_CATEGORY System Code Table is specified for this ting.	

Application Con- figuration Setting	Description	Defined in the baseline database? (Yes/N-o)	Notes
Method Configuration	Determines which of the following items will be used to populate the Item Category field in Inspection Profile records that are created automatically (for Equipment records that are not already linked to Inspection Profile records):  System Codes in a System Code Table Results from a query Field values in the Equipment record to which the Inspection Profile records will be linked.	Yes	In the baseline database, the MI_INSPECTION_METHOD_CATEGORY System Code Table is specified for this setting.

Application Con- figuration Setting	Description	Defined in the baseline database? (Yes/N-o)	Notes
Strategy Rule Con- figuration	Determines the strategy rulethat will be executed when you select the Inspection Task Complete check box in an Inspection record.	Yes	In the baseline database, the MI_InspectionTasksUpdate strategy rule is specified for this setting.  The strategy rule MI_InspectionTasksUpdate updates the values in the Last Date and Next Date fields in all Inspection Task records that are linked to Inspection records that have a value in the Completion Date field.

## **About Event Configurations**

The **Event Configurations** grid displays one row for each Inspection family for which an Event Configuration has been defined.



In the baseline database, an Event Configuration is defined for each baseline Inspection family. As a result, one row is displayed in the grid for each baseline Inspection family. The following columns are displayed in the **Event Configurations** grid:

- Family: Displays the family caption.
- Auto Generate: Displays one of the following values:
  - Auto generate findings: Indicates that General Finding records will be created automatically when you create an Inspection record in this family.
  - Auto generate observations: Indicates that Observations records will be created automatically when you create an Inspection record in this family.
  - None: Indicates that neither General Finding nor Observation records will be created automatically when you create an Inspection record in this family.
- Reviewer's Datasheet: Displays the datasheet caption that was specified when the <a href="Event Configuration was defined">Event Configuration was defined</a> for the family, (i.e., the datasheet that was selected in the Reviewer's Datasheet list on the Select Reviewer's Datasheet screen in the Inspection Event Configuration Wizard).
- Explorer Path: Displays the Catalog location of the configured explorer that was created when the <u>Event Configuration was defined</u> for the family, (i.e., the value that was specified in the <u>Customized Explorer</u> text box on the <u>Configure Explorer</u> screen in the <u>Inspection Event Configuration Wizard</u>). This Catalog location will be used to display records in the Inspection family.

You can select rows in this grid to <u>modify</u> or <u>delete an existing Event Configuration</u>.

## **Common Tasks**



The **Common Tasks** menu on the **Inspection Configuration** page contains the following link:

• **Help:** Displays the context-sensitive Help topic for the **Inspection Configuration** page.

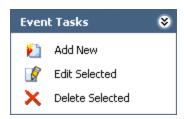
## **Application Tasks**



The **Application Tasks** menu on the **Inspection Configuration** page contains the following link:

- Edit Selected: Opens a dialog box specific to your selection in the Application Configurations grid. You can use the dialog box to specify the following settings:
  - Asset Query Path
  - Published Query Path
  - Summary Query Path
  - Alerts Query Path
  - Associated Relationship Family
  - Asset Is Successor
  - Profile Configuration
  - Method Configuration

### **Event Tasks**



The **Event Tasks** menu on the **Inspection Configuration** page contains the following links:

- Add New: Displays the Inspection Event Configuration Wizard, which you can use to create a new Event Configuration for an Inspection family.
- Edit Selected: Displays the Inspection Event Configuration Wizard, which you can use to edit the Event Configuration that has been created for the Inspection family that is selected in the Event Configurations grid.
- **Delete Selected:** After displaying a confirmation message, <u>deletes the Event Configuration</u> for the specified family and then lets you choose whether or not to delete the configured explorer for the specified family.

## Accessing the Inspection Manage Resources Page

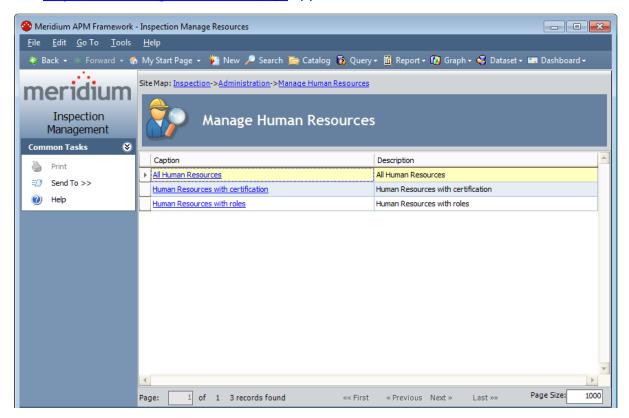
You can use the Inspection Manage Resources page to view the following types of records in your database:

- All Human Resource records.
- All Human Resource records that are linked to a Personnel Certification record.
- All Human Resource records that have been assigned a role.

### To access the Inspection Manage Resources page:

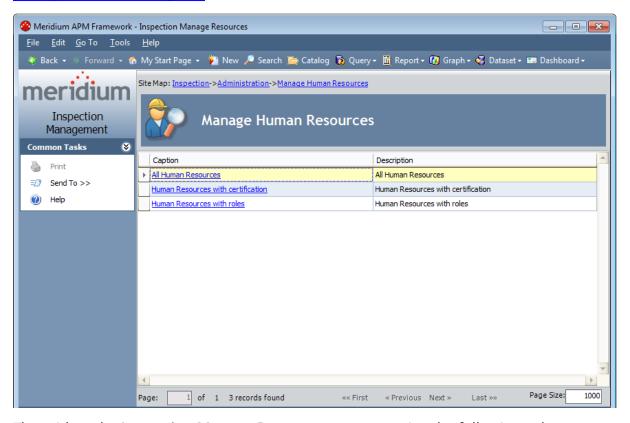
 In the Meridium APM Framework, on the <u>Inspection Administration page</u>, click the Manage Inspection Resources, Roles, and Certifications link.

The Inspection Manage Resources page appears.



## Aspects of the Inspection Manage Resources Page

The Inspection Manage Resources page contains a grid that displays rows that correspond with the queries that are stored in the Catalog location \\Public\Meridium\Modules\Inspection\Resource Queries. You can access the results of these queries via the Inspection Manage Resources page in order to assign a new role to a user or modify a user's existing role.



The grid on the **Inspection Manage Resources** page contains the following columns:

- Caption: Displays the hyperlinked captions of the following queries:
  - All Human Resources: Displays the Saved Search: All Human Resources page, which displays a list of all Human Resource records.
  - Human Resources with certification: Displays the Saved Search: Human Resources with certification page, which displays a list of all Human Resource records that are linked to a Personnel Certification record.
  - Human resources with roles: Displays the Saved Search: Human Resources with roles page, which displays a list of all Human Resource records that have been assigned a role.

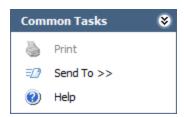
**Note:** In the Meridium APM baseline database, each page described in the preceding list displays in the page title the catalog item *caption* for the query

with which it is associated. This documentation assumes that you have not modified these query captions.

• **Description:** Displays the description of each Catalog item.

The **Inspection Manage Resources** page contains one task menu, **Common Tasks**.

### Common Tasks Menu



The **Common Tasks** menu on the **Inspection Manage Resources** page contains the following links:

- **Print:** This link is always disabled.
- **Send To:** Displays a submenu with options that let you provide a link to the current page on your desktop (create shortcut), in an email message, or on a Home Page.
- Help: Displays the context-sensitive Help topic for the Inspection Manage Resources page.

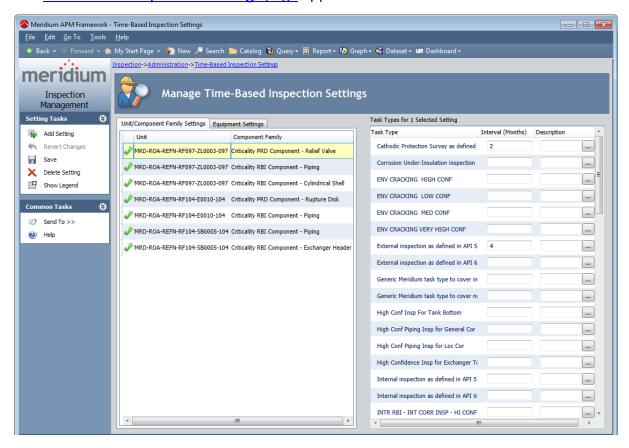
## Accessing the Time-Based Inspection Settings Page

You can use the **Time-Based Inspection Settings** page to define <u>time-based inspection</u> <u>settings</u>.

To access the Time-Based Inspection Settings page:

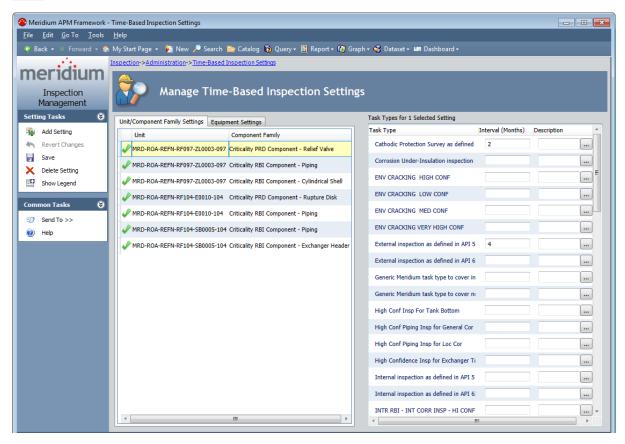
• In the Meridium APM Framework, on the <u>Inspection Administration page</u>, click the <u>Manage Time-Based Settings</u> link.

The Time-Based Inspection Settings page appears.



### Aspects of the Time-Based Inspection Settings Page

The **Time-Based Inspection Settings** page is used to <u>define time-based inspection settings</u>.



The **Time-Based Inspection Settings** page contains the **Manage Time-Based Inspection Settings** workspace. This workspace contains the following items:

- The Unit/Component Family Settings tab: Contains a grid that displays one row for each Functional Location record and/or Criticality Calculator RBI Components family for which time-based inspection settings have been defined. The grid contains the following columns:
  - **Unit:** Displays the Record ID of the Functional Location record associated with the time-based inspection setting.
  - Component Family: Displays the family caption of the Criticality Calculator RBI Components family associated with the time-based inspection setting.
- The Equipment Settings tab: Contains a grid that displays one row for each Equipment record for which time-based inspection settings have been defined. The grid contains the following columns:
  - Unit: Displays the Record ID of the Functional Location record representing a Unit that is linked to the Equipment record associated with the time-based

inspection setting.

- **Equipment ID:** Displays the Record ID of the Equipment record associated with the time-based inspection setting.
- The Task Types for <number> Selected Settings pane: Contains a grid that displays one row for each Task Types record in the database whose Reference field contains one of the following values, where <number> is the number of rows selected in the grid on the Unit/Component Family Settings or Equipment tab:
  - INSPECTION\_STRATEGY (Inspection Strategy), if the following conditions are met:
    - The Risk Based Inspection (RBI) license is active.
      - -and-
    - The Generate Recommendations using Policy Manager setting is enabled on the Administrative Tasks page in RBI.
      - -or-
    - The RBI license is *not* active.
  - *INSPECTION (Inspection)*, if the following conditions are met:
    - The RBI license is active.
      - -but-
    - The Generate Recommendations using Policy Manager setting on the Administrative Tasks page in RBI is disabled.

Throughout this documentation, the **Task Types for <number> Selected Settings** pane is referred to simply as the **Task Types** pane. The grid in this pane contains the following columns:

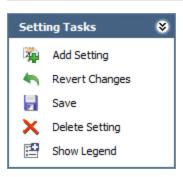
- Task Type: Displays the value stored in the Task Type Description field in the Task Types record.
- Interval (Months): Displays the user-specific inspection interval. The value that you type in this cell is stored in the Interval field in the associated Time Based Inspection Interval record.
- **Description:** Displays the user-specific description for the inspection interval. The value that you type in this cell is stored in the Description field in the associated Time Based Inspection Interval record. The cells in this column contain the .... button, which displays the **Description** dialog box that can be used to specify the description.
- The legend: Displays the icons listed in the following table. One icon is displayed for each row in the grids on the Unit/Component Family Settings and Equipment Settings tabs and indicates whether or not the associated time-based inspection setting is valid:

Icon	Description
<b>₽</b>	Indicates that at least one valid inspection interval has been defined for the record or family. You can save time-based inspection settings only when at least one valid inspection interval is defined.
?	Indicates one of the following, depending upon the tab that is selected in the Manage Time-Based Inspection Settings workspace. When the:
	<ul> <li>Unit/Component Family Settings tab is selected, indicates that one of the following has not been defined:</li> </ul>
	<ul> <li>A Unit or Criticality Calculator RBI Components family.</li> </ul>
	<ul> <li>At least one inspection interval.</li> </ul>
	<ul> <li>Equipment Settings tab is selected, indicates that at least one inspection interval has not been defined.</li> </ul>
×	Indicates that one or more invalid inspection intervals (e.g., a text value) are defined for the record or family.
•	Indicates that time-based inspection settings for the record or family already exist.

The legend is hidden by default. To show the legend, click the **Show Legend** link on the **Setting Tasks** menu.

The **Time-Based Inspection Settings** page contains the following task menus: <u>Setting Tasks</u> and <u>Common Tasks</u>.

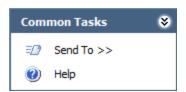
#### **Setting Tasks**



The **Setting Tasks** menu on the **Time-Based Inspection Settings** page contains the following links:

- Add Setting: Results in the following behavior, depending upon which tab is selected in the Manage Time-Based Inspection Settings workspace. When the:
  - Unit/Component Family Settings tab is selected, a new row is added to the grid on the tab that you can use to define new time-based inspection settings for a Functional Location record or a Criticality Calculator RBI Components family.
  - Equipment Settings tab is selected, the Find Items window is displayed, where you can perform a search for the Equipment record for which you want to define new time-based inspection settings.
- Revert Changes: After displaying a confirmation message, reverses any modifications that you have made on the page since you last saved your changes.
- Save: Saves the time-based inspection settings that you have defined.
- Delete Setting: After displaying a confirmation message, <u>deletes the time-based</u> <u>inspection settings</u> associated with the record or family that is selected on the Unit/Component Family Settings or Equipment Settings tab.
- Show Legend: Displays the legend at the bottom of the Manage Time-Based Inspection Settings workspace. When you click the Show Legend link, the label of this link changes to *Hide Legend*. When you click the Hide Legend link, the legend will be hidden.

#### **Common Tasks**



The **Common Tasks** menu on the **Time-Based Inspection Settings** page contains the following links:

- **Send To:** Displays a submenu with options that let you provide a link to the current page on your desktop (create shortcut), in an email message, or on a Home Page.
- Help: Displays the context-sensitive Help topic for the current page.

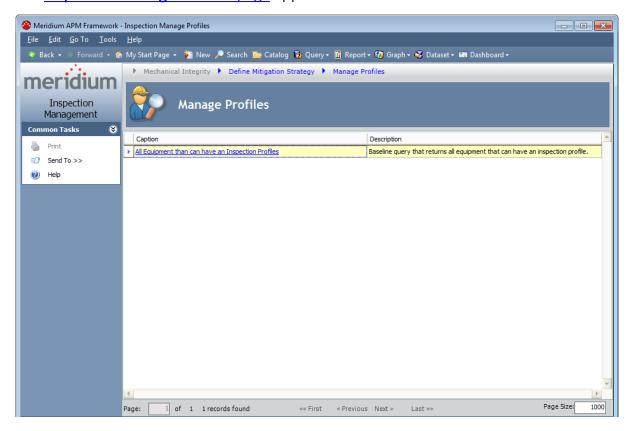
## Accessing the Inspection Manage Profiles Page

You can use the **Inspection Manage Profiles** page to <u>access the Inspection Profile page</u> for an Equipment record.

#### To access the Inspection Manage Profiles page:

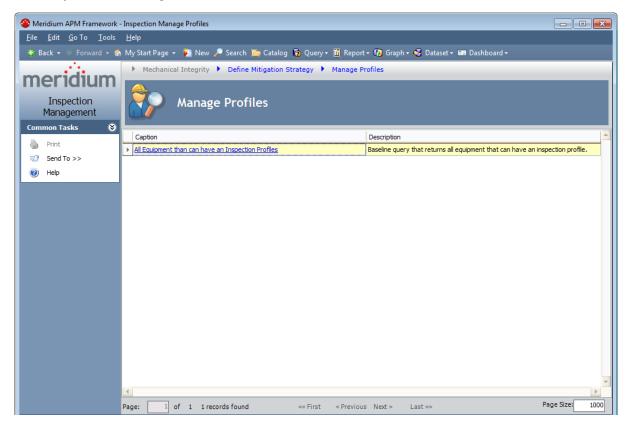
On the <u>Inspection Management Start Page</u>, click the <u>Manage Equipment Inspection Profiles link</u>.

The Inspection Manage Profiles page appears.



## Aspects of the Inspection Manage Profiles Page

The **Inspection Manage Profiles** page contains a grid with one row.



The grid contains the following columns:

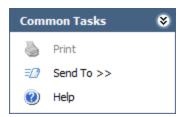
• Caption: Displays the hyperlinked text *All Equipment that can have an Inspection Profiles*, which displays the results of the All Equipment that can have an Inspection Profiles query on the **Saved Search: All Equipment that can have an Inspection Profiles** page. On this page, you can select the Equipment record to which you want to link an Inspection Profile record.

**Note:** In the Meridium APM baseline database, the page described here displays in the page title the catalog item *caption* for the query with which it is associated. This documentation assumes that you have not modified this query caption.

• **Description:** Displays the Catalog description of the All Equipment that can have Inspection Profiles query.

The **Inspection Manage Profiles** page contains the following task menu: **Common Tasks**.

#### Common Tasks Menu



The **Common Tasks** menu on the **Inspection Manage Profiles** page contains the following links:

- **Print:** This link is always disabled.
- **Send To:** Displays a submenu with options that let you provide a link to the current page on your desktop (create shortcut), in an email message, or on a Home Page.
- **Help:** Displays the context-sensitive Help topic for the **Inspection Manager Profiles** page.

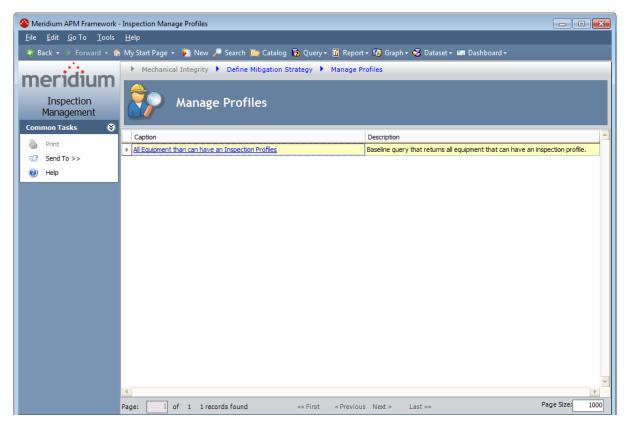
#### Accessing the Inspection Profile Page

You can use the **Inspection Profile** page to create or modify the Inspection Profile for a piece of equipment that you will inspect.

#### To access the Inspection Profile page:

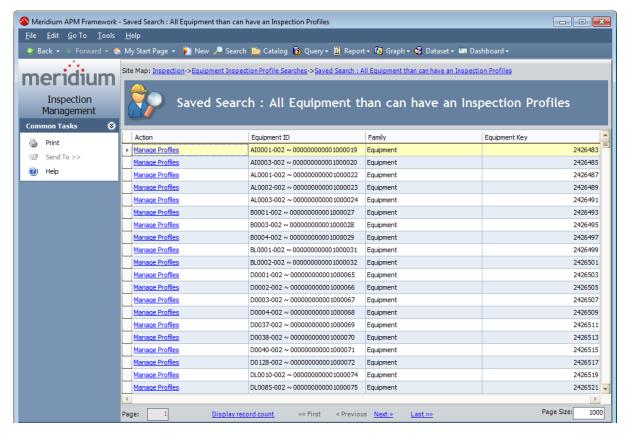
1. In the Meridium APM Framework, on the <u>Inspection Management Start Page</u>, click the Manage Equipment Inspection Profiles link.

The **Inspection Manage Profiles** page appears, displaying a list the queries that are stored the **Profile Queries** folder in the Catalog. The following image shows an example of what this page looks like by default.



2. In the grid, click the All Equipment that can have an Inspection Profiles link.

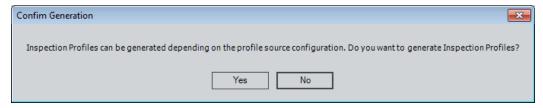
The Saved Search: All Equipment that can have an Inspection Profiles page appears, displaying a list of all Equipment records that can be linked to an Inspection Profile record.



3. In the row containing the Equipment record whose Inspection Profile you want to view on the **Inspection Profile** page, click the **Manage Profiles** link.

If the Equipment record for which you are accessing the Inspection Profile is:

- Already linked to at least one Inspection Profile record, the Inspection Profile page appears
- Not linked to any Inspection Profile records, the Confirm Generation dialog box appears.

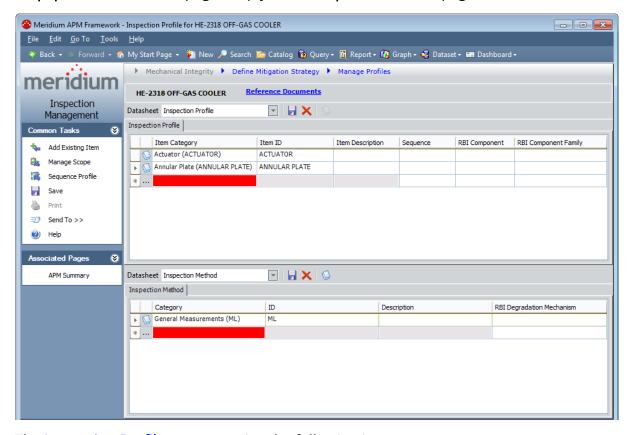


If you click the:

- **Yes** button, the **Inspection Profile** page appears, and Inspection Profile records *will be* created automatically for the Equipment record, according to your <u>profile configuration setting</u>.
- No button, the Inspection Profile page appears, and Inspection Profile records will not be created automatically for the Equipment record, according to your profile configuration setting.s

### Aspects of the Inspection Profile Page

The Inspection Profile - < Equipment Record ID> page, where < Equipment Record ID> is the Record ID of the Equipment record that is linked to the Inspection Profile record displays details for a specific Inspection Profile record and any associated Inspection Method records. Throughout the documentation, we refer to the Inspection Profile - < Equipment Record ID> page simply as the Inspection Profile page.



The **Inspection Profile** page contains the following items:

- <u>Inspection Profile tab</u>: Displays a grid containing the Inspection Profile records that are linked to the Equipment record.
- <u>Inspection Method tab</u>: Displays a grid containing the Inspection Method records that are linked to the Inspection Profile record that is selected in the **Inspection Profile** section.
- Task menus: Menus that provide specific functionality. The following menus are available: <u>Common Tasks</u> and <u>Associated Pages</u>.

#### **Inspection Profile Tab**

The **Inspection Profile** tab on the **Inspection Profile** page contains a grid that contains a row for each Inspection Profile record that is linked to the Equipment record identified by the Record ID that appears below the Site Map.

The following columns of information are displayed on the **Inspection Profile** tab:

- Item Category
- Item ID
- Item Description
- Sequence
- RBI Component

**Note:** The cells in the **RBI Component** column are enabled only if the Risk Based Inspection (RBI) module is active.

RBI Component Family

Above the grid, the following items are displayed:

- Reference Documents link: Displays the Reference Documents dialog box, where
  you can manage the Reference Document records that are linked to the Equipment record.
- **J** button: Saves any changes that you have made on the **Inspection Profiles** tab.
- **button**: After asking for confirmation, deletes the selected Inspection Profile record and any Inspection Method records to which it is linked.
- **Solution:** Displays the Reference Documents dialog box, when you can manage the Reference Document records that are linked to the Equipment record.

Below the grid, buttons are displayed that you can use to navigate between the rows in the grid.

## **Inspection Method Tab**

The **Inspection Method** tab on the <u>Inspection Profile page</u> contains a grid that contains a row for each Inspection Method record that is linked to the Inspection Profile record that is selected on the <u>Inspection Profile</u> tab.

The following columns are displayed on the **Inspection Method** tab:

- Category
- ID
- Description
- RBI Degradation Mechanism

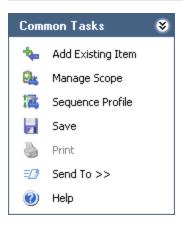
**Note:** The cells in the **RBI Degradation Mechanism** column are enabled only if the Risk Based Inspection (RBI) module is active.

Above the grid, the following buttons are displayed.

Button	Function
	Saves any changes that you have made on the Inspection Method tab.
×	After asking for confirmation, deletes the selected Inspection Method record.
0	Displays the <b>Reference Documents</b> dialog box, where you can manage the Reference Document records that are linked to the selected Inspection Method record.

Below the grid, buttons are displayed that you can use to navigate between the rows in the grid.

#### **Common Tasks**



The **Common Tasks** menu on the **Inspection Profile** page contains the following links:

- Add Existing Item: Displays the Find Items window, where you can search for an
   Equipment record whose Inspection Profile you want to use to create new Inspection Profile and Inspection Method records that are linked to the current Equipment record.
- Manage Inspection Scope: Displays the Task Builder, where you can choose to define a new Inspection Scope or view an existing Inspection Scope for the current equipment.
- Sequence Profile: Displays the Sequencing page, where you can apply a sequence value to the Inspection Profile records that are displayed on the Inspection Profile page.
- Save: Saves any changes that you have made in either the **Inspection Profile** section or the **Inspection Method** section.
- **Print:** Displays the **Preview** window, which shows you a preview of the **Inspection Profile** page as it will appear on the printed page.
- **Send To:** Displays a submenu with options that let you provide a link to the current page on your desktop (create shortcut), in an email message, or on a Home Page.
- **Help:** Displays the context-sensitive Help topic for the **Inspection Profile** page.

## **Associated Pages**

The **Associated Pages** menu on the **Inspection Profile** page displays Associated Pages that have been configured for the family of the record that is linked to the Inspection Profile records that are displayed on the page.

## **About Required Tasks**

This section of the documentation provides details on the following tasks that *must* be completed prior to beginning work in Inspection Management in order to take advantage of Inspection Management functionality:

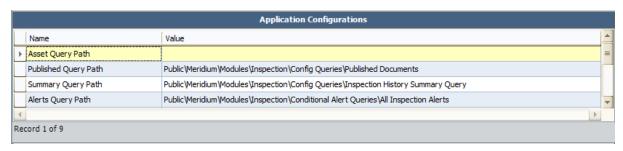
- Defining the Asset Query Path setting
- Defining the Associated Relationship Family setting
- Assigning roles to users who should be able to complete tasks in Inspection
- Defining Inspection Profiles

### **Defining the Asset Query Path Setting**

The Asset Query Path Setting defines the query that identifies the record in which you store information for pieces of equipment for which you perform inspections.

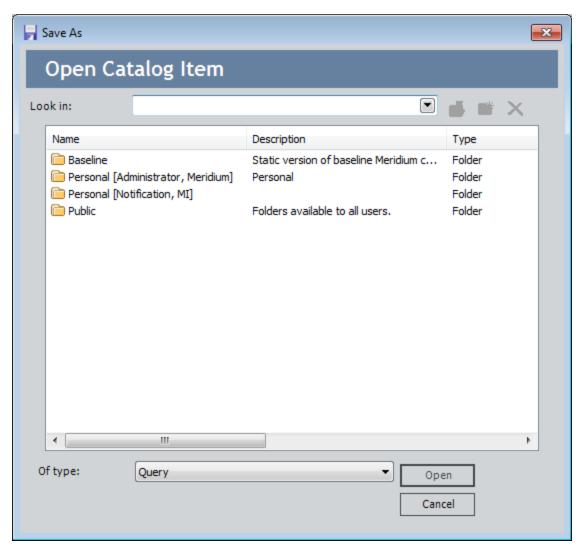
#### To define the Asset Query Path setting:

- 1. in the Meridium APM Framework, access the Inspection Configuration page.
- 2. In the **Application Configurations** grid, select the row containing the value *Asset Query Path* in the **Name** column, as shown in the following image.



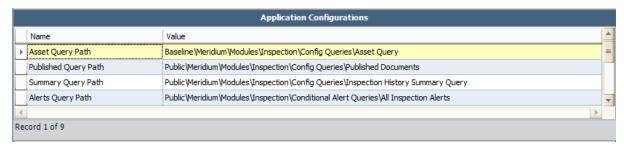
3. On the **Application Tasks** menu, click the **Edit Selected** link.

The **Save As** window appears.



- 4. Navigate to the following Catalog location and select the Asset Query: \\Public\Meridium\Modules\Inspection\Config Queries.
- 5. Click the **Open** button.

The **Save As** window closes, and the Catalog location is populated in the **Value** column in the **Application Configurations** grid.



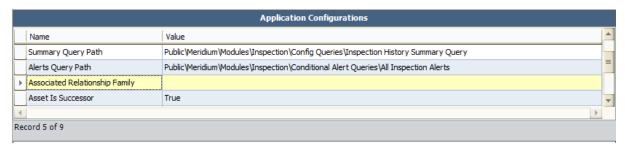
## Defining the Associated Relationship Family Setting

The Associated Relationship Family setting specifies the relationship that relates Functional Location records to Equipment records. When you create Inspection records using the **Event Builder**, certain fields in the Inspection record will be populated with values from both the Equipment and Functional Location record based upon this setting.

MPORTANT: The following instructions assume that you are conducting a baseline deployment of the Inspection module. (i.e., Equipment records will be linked to Functional Location records through the Functional Location Has Equipment relationship family). If you are conducting a custom deployment of the Inspection module, this setting should specify the relationship family that is used to link the records in which you store equipment data to the records in which you store location data).

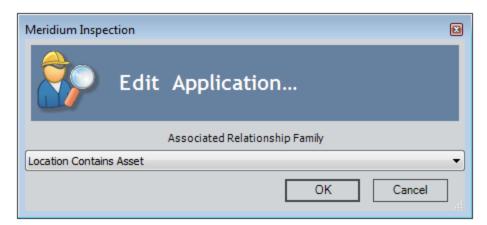
#### To define the Associated Relationship Family setting:

- 1. In the Meridium APM Framework, access the Inspection Configuration page.
- 2. In the **Application Configurations** grid, select the row containing the value *Associated Relationship Family* in the **Name** column, as shown in the following image.



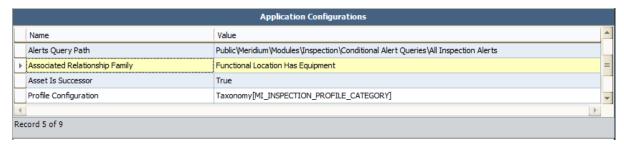
3. On the **Application Tasks** menu, click the **Edit Selected** link.

The **Meridium Inspection** dialog box appears.



4. In the Associated Relationship Family list, select Functional Location Has Equipment, and click OK.

The **Meridium Inspection** dialog box closes, and the **Value** column in the grid is populated with the relationship family that you specified.



#### Assigning a Role

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.

#### To assign a role to an Inspection Management user:

1. On the <u>Inspection Administration page</u>, click the <u>Manage Inspection Resources</u>, Roles, and Certifications link.

The **Inspection Manage Resources** page appears, displaying a list of all queries and searches in the **Resource Queries** folder in the Catalog.

2. Click the All Human Resources link.

The **Saved Search: All Human Resources** page appears, displaying a list of all Human Resource records that exist in the database.

3. In the row containing the user to whom you want to assign a role, click the **Manage Resource Roles** link.

The Record Manager appears, displaying the Human Resource record in the master/detail datasheet.

- 4. In the **Resource Role** section:
  - a. In the **Category** list, select **Inspection**.
  - b. In the **Role** list, select the role you want to assign the Security User.

**Note:** If you assign a user the Inspector role, that user's name will appear in the Inspection Report Owner field when you create an Inspection record. If you assign a user the Inspection Supervisor role, that user's name will appear in the Reviewers Name field when you create an Inspection record.

- 5. If desired, assign a second role to the user by selecting on a new row the Inspection category and a different value in the **Role** field.
- 6. On the **Common Tasks** menu, click the **Save** link.

The Human Resource record and the linked Resource Role record(s) are saved.

## Modifying a User's Role

#### To modify a user's role:

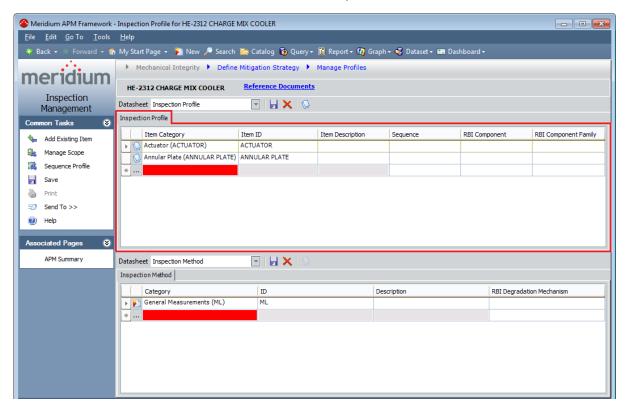
- 1. In the Meridium APM Framework, access the Inspection Administration page.
- 2. Click the Manage Inspection Resources, Roles, and Certifications link.
  - The **Inspection Manage Resources** page appears, displaying a list of all queries and searches in the **Resource Queries** folder in the Catalog.
- 3. Click the **Human Resources with roles** link.
  - The **Saved Search: Human Resources with Roles** page appears, displaying a list of all users that have been assigned a role.
- 4. In the row containing the user whose role you want to modify, click the hyperlink in the **Last Name** column.
  - The Record Manager appears, displaying the Human Resource record in the master/detail datasheet.
- 5. In the detail grid, modify the roles as desired.
- 6. Save the record.

### Creating an Inspection Profile Record

#### To create an Inspection Profile record:

1. In the Meridium APM Framework, access the Inspection Profile page.

The **Inspection Profile** page appears, displaying on the **Inspection Profile** tab the Inspection Profile records that are that is linked to the Equipment record identified by the Record ID that appears below the Site Map. A red outline has been added to the following image to highlight the **Inspection Profile** tab.



2. On the **Inspection Profile** tab, in the first blank row at the bottom of the grid, in the **ItemCategory** list, click inside the cell and then click the ▼ button, and select the subcomponent that needs to be inspected. The list of values is generated based on the **Profile Configuration setting** on the **Inspection Configuration** page.

The **ItemID** cell is populated automatically with the value that you selected in the **Category** cell. You can modify the ID if desired.

- 3. In the **ItemDescription** cell, type a description for the subcomponent.
- 4. In the **Sequence** cell, type a number indicating the order in which the sub-component should be inspected, relative to the other subcomponents in the grid.
- 5. In the **RBIComponent** list, select the subcomponent type. The list contains the

Record ID of all Criticality Calculator RBI Components records that are linked to the Equipment record.

6. In the **RBI Component Family** list, select the Criticality Calculator RBI Components family associated with the Inspection Profile record.

**Note:** This step is required only if you define <u>time-based inspection settings at</u> <u>the Criticality Calculator RBI Components level</u> and perform inspections by <u>defining Inspection Scope</u>.

7. On the **Common Tasks** menu, click the **Save** link.

The Inspection Profile record is saved and linked to the Equipment record.

# Copying an Inspection Profile from One Piece of Equipment to Another Piece of Equipment

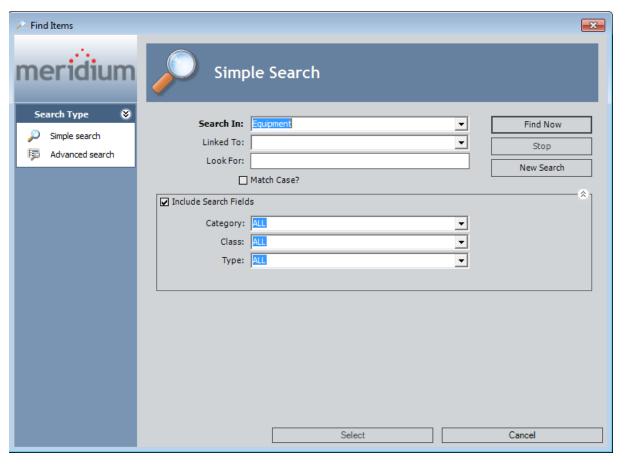
If you define an Inspection Profile for a piece of equipment and another similar piece of equipment already has an Inspection Profile, you can create all or part of the Inspection Profile for the current piece of equipment using the Inspection Profile that is already defined for the similar piece of equipment. When you do so, Meridium APM will use the Inspection Profile records that are already linked to the similar piece of Equipment as the basis for creating new Inspection Profile records that will be linked to the Equipment record that you are working with. In addition, any Inspection Method records in the source Inspection Profile will be used to create new Inspection Method records in the new Inspection Profile.

In other words, when you are finished with the process, the two Equipment records will be linked to *different* Inspection Profile records that have the same values in the Category, ID, and Description fields. The Inspection Method records from the source Inspection Profile will also be *different* records from the Inspection Method records in the new Inspection Profile.

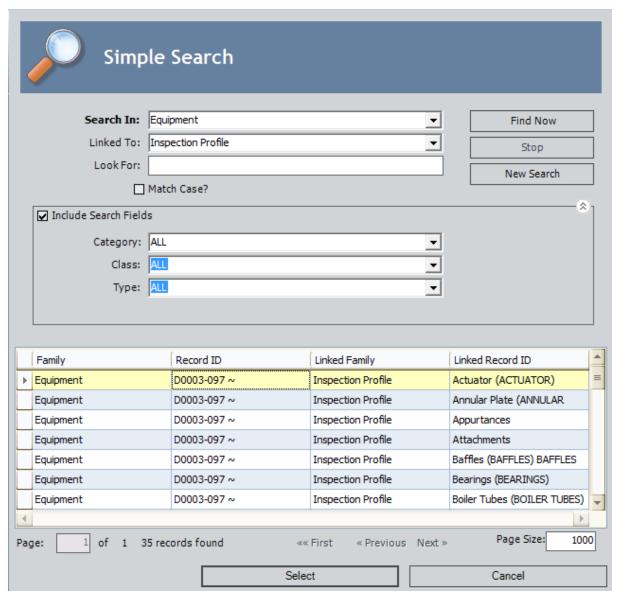
To copy an Inspection Profile from one piece of equipment to another piece of equipment:

- 1. In the Meridium APM Framework, <u>access the Inspection Profile</u> for the Equipment record *to which* you want to copy an existing Inspection Profile.
- 2. On the <u>Inspection Profile page</u>, on the <u>Common Tasks</u> menu, click the <u>Add Existing Item</u> link.

The **Find Items** window appears, displaying the **Simple Search** workspace. The **Search In** list is populated automatically with the *Equipment* family.



- 3. In the **Linked To** list, select *Inspection Profile*.
- 4. If desired, add additional search criteria. You can do so using the **Look For** text box on the **Simple Search** workspace or the additional advanced search optionson the Advanced Search workspace, which you can access by clicking the **Advanced Search** link on the **Search Type** menu.
- 5. When you are finished adding criteria to the search, click the **Find Now** button.
  - The search results appear, displaying all Equipment records that are linked to an existing Inspection Profile record and meet the additional search criteria that you defined.



6. In the search results, select the row containing the Equipment record that is linked to the Inspection Profile records that you want to use to create new Inspection Profile records that will be linked to the Equipment record that you are working with on the Inspection Profile page, and click the Select button.

New Inspection Profile records appear in the grid in the **Inspection Profile** section, where the Category, ID, and Description values are the same as the values in the Inspection Profile records that are linked to the similar Equipment record. If any of the source Inspection Profile records are linked to Inspection Method records, new Inspection Method records also appear in the grid in the **Inspection Method** section.

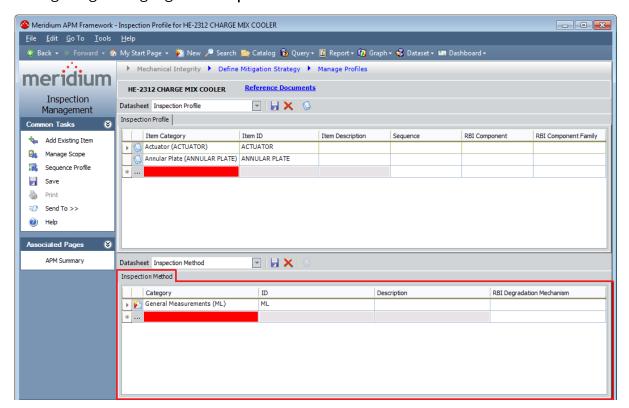
#### Creating an Inspection Method Record

To identify the ways in which you could inspect equipment subcomponents, you will need to create Inspection Method records and link them to the Inspection Profile records that represent those subcomponents.

#### To create an Inspection Method record and link it to an Inspection Profile record:

1. In the Meridium APM Framework, access the Inspection Profile page.

The **Inspection Profile** page appears, displaying on the <u>Inspection Method tab</u> each Inspection Method record that is linked to the Inspection Profile record that is selected on the <u>Inspection Profile tab</u>. A red outline has been added to the following image to highlight the **Inspection Method** tab.



- 2. On the **Inspection Profile** tab, select the row containing the Inspection Profile record that you want to link to a new Inspection Method record.
- 3. On the **Inspection Method** tab, in the first blank row at the bottom of the grid, in the **Category** list, click the ▼ button, and select the method that should be used to inspect the subcomponent. The list of values is generated based on the <u>Profile Configuration setting</u> on the **Inspection Configuration** page.

The **ID** cell is populated automatically with the value that you selected in the **Category** cell. You can modify the ID if desired.

- 4. In the **Description** cell, type a description of the inspection method.
- 5. In the **RBI Degradation Mechanism** list, select the RBI degradation mechanism with which the inspection method is associated. The list is filtered automatically to display only the Potential Degradation Mechanisms records that are linked to the Criticality Calculator RBI Components record that appears in the **RBI Component** cell for the currently selected Inspection Profile record.
- 6. On the Common Tasks menu, click the Save link.

The Inspection Method record is saved and linked to the Inspection Profile record.

# Applying a Sequence Value to Inspection Profile Records

To apply a sequence value to Inspection Profile records:

- 1. In the Meridium APM Framework, access the Inspection Profile page.
- On the Common Tasks menu, click the Sequence Profile link.
   The Sequencing page appears, displaying the Inspection Profile records that were displayed on the Inspection Profile page.
- 3. Use the **Sequencing** page to apply a sequence value to the **Inspection Profile** records.

## **About Optional Tasks**

This section of the documentation provides details on optional configuration tasks that you may complete when deploying the Inspection Management module.

- Modify the baseline Asset Query
- Modify Query Path settings
- Modify the Profile Configuration setting
- Modify the Method Configuration setting
- Modify the Strategy Rule Configuration setting
- Define additional Event Configurations
- Modify email alerts
- Create work packs
- · Define time-based inspection settings

## Modifying the Baseline Asset Query

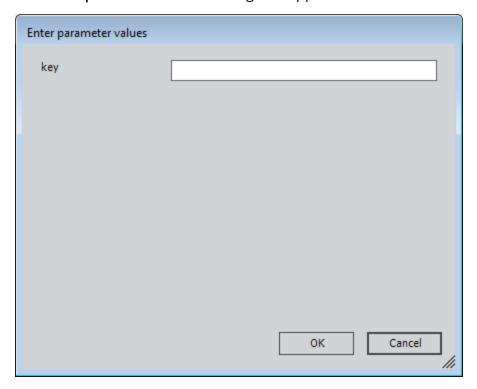
Meridium APM provides the Asset Query in the Catalog folder \Public\Meridium\Modules\Inspection\Config Queries. This query is configured to return Equipment records by default, and it is used to identify records that store information about pieces of equipment for which you perform inspections.

Note that the Asset Query searches the Equipment family and returns the result of a single Count expression and prompt for the Equipment Entity Key.

#### To modify the baseline Asset Query:

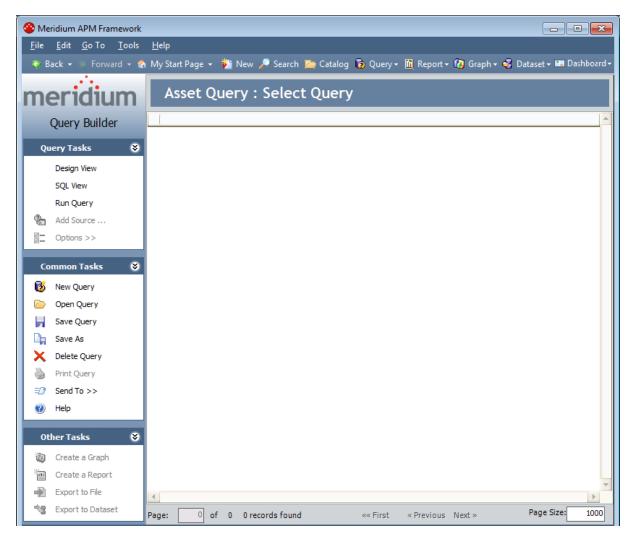
1. In the Meridium APM Framework, navigate to the Catalog, and open the Asset Query in the folder \\Public\Meridium\Modules\Inspection\Config Queries.

The **Enter parameter values** dialog box appears.



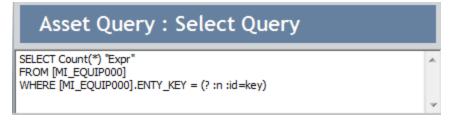
2. Click Cancel.

Blank query results appear.



3. On the **Query Tasks** menu, click the **SQL View** link.

The query SQL code appears.



- 4. Replace the text **MI\_EQUIP000** with the ID of the family whose records store information about the pieces of equipment for which you perform inspections.
- 5. Save the query.

Your modification is saved.

## **Modifying Query Path Settings**

The following instructions provide details on defining the following Application Configuration settings:

- Published Query Path
- Summary Query Path
- Alerts Query Path

#### To modify a query path:

- 1. In the Meridium APM Framework, <u>access the Inspection Configuration page</u>.
- 2. In the **Application Configurations** grid, select the row containing the query path that you want to specify.
- 3. On the **Application Tasks** menu, click the **Edit Selected** link.
  - The **Save As** dialog box appears.
- 4. In the Catalog, select the query that you want to use, and click the **Open** button.
  - The **Save As** dialog box closes, and **Value** column in the grid is populated with the Catalog location of the query that you selected.

### How is the Profile Configuration Setting Used?

The Profile Configuration setting is used to determine the:

- Inspection Profile records that will be created automatically when you access the
   Inspection Profile page for an Equipment record that is not linked to Inspection
   Profile records. Specifically, the Profile Configuration setting determines which
   value will be used to populate the Item Category field in Inspection Profile records
   that are created automatically.
- List of values that is available in the Item Category field in Inspection Profile records that are created *manually*.

By default, the product is configured to use the MI\_INSPECTION\_PROFILE\_CATEGORY System Code Table to populate the Item Category field (in records created automatically) and list (in records created manually). You can modify this setting to specify that one of the following options be used to populate the Item Category field and list:

- IDs of active System Codes in a specific System Code Table.
- Results from a query.
- Field values in the Equipment record to which the Inspection Profile records will be linked.

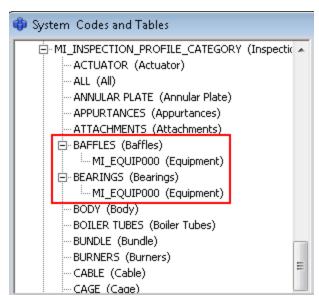
# Using a System Code Table to Populate the Item Category Field Automatically

When Inspection Profile records are created automatically, the Item Category field in those records can be populated automatically with the Description and ID of active System Codes in a specific System Code table. Consider the following example.

Suppose that when you access the <u>Inspection Profile page</u> for an Equipment record, you want the Meridium APM system to create two Inspection Profile records with the following values in the Item Category field:

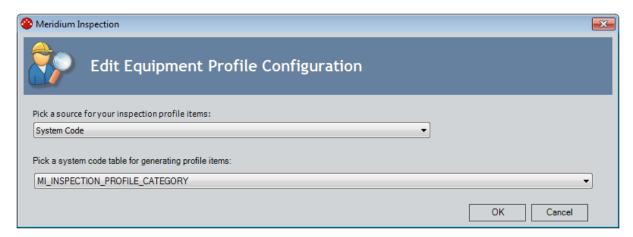
- Baffles (BAFFLES)
- Bearings (BEARINGS)

In this case, an administrative user could define the references outlined in red in the following MI\_INSPECTION\_PROFILE\_CATEGORY System Code Table (via the Configuration Manager).

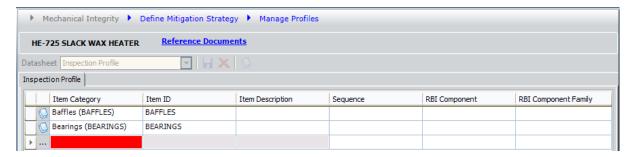


Notice how the referenced System Codes use the ID *MI\_EQUIP000*, which is the family ID of the Equipment family.

Based on these System Codes, if you accepted this default profile configuration setting:



...when you accessed the **Inspection Profile** page for an Equipment record, the following Inspection Profile records would be created automatically.



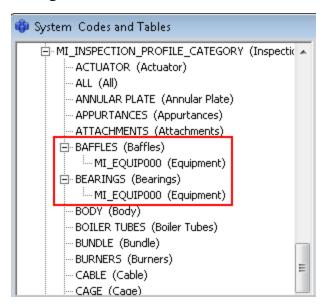
# Using a System Code Table to Populate the Item Category List Manually

When you create an Inspection Profile record manually, the Item Category field contains a list of available values. If you configure the profile configuration setting accordingly, this list can contain the IDs of active System Codes in a specific System Code Table. Consider the following example.

Suppose that for Inspection Profile records that are linked to Equipment records, you want the list in the Item Category field to contain the following values:

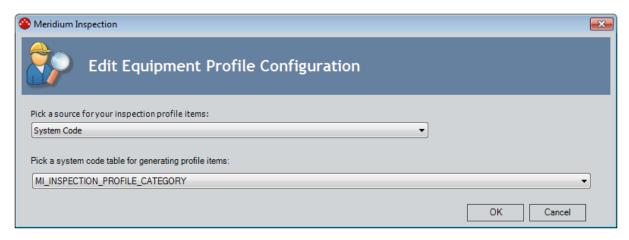
- BAFFLES
- BEARINGS

In this case, an administrative user could define the references outlined in red in the following MI\_INSPECTION\_PROFILE\_CATEGORY System Code Table (via the Configuration Manager).

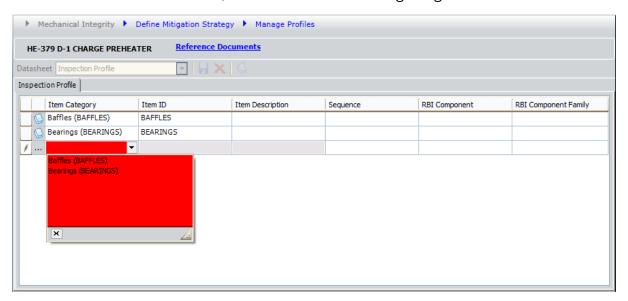


Notice how the referenced System Codes use the ID *MI\_EQUIP000*, which is the family ID of the Equipment family.

Based on these System Codes, if you accepted this default profile configuration setting:



...when you accessed the **Inspection Profile** page for an Equipment record, the Item Category list in any Inspection Profile records that you created manually would contain the values *BAFFLES* and *BEARINGS*, as shown in the following image.



# Using a Query to Populate the Item Category Field/List Automatically

When Inspection Profile records are created automatically, the Item Category field in those records can be populated with a value that is determined by the results from a query. This option exists only to support custom solutions, which are beyond the scope of the Meridium APM documentation.

Likewise, when Inspection Profile records are created manually, the Item Category list can contain a list of values that is determined by the results from a query. This option exists only to support custom solutions, which are beyond the scope of the Meridium APM documentation.

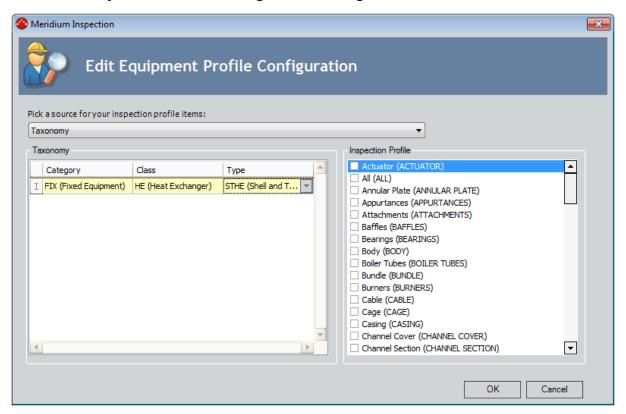
# Using Equipment Record Values to Populate the Item Category Field Automatically

When Inspection Profile records are created automatically, if you or someone else in your organization has completed the steps to classify your equipment, the Item Category field in those records can be populated with field values in the Equipment record to which the Inspection Profile records will be linked. Consider the following example.

Suppose that when you access the <u>Inspection Profile page</u> for an Equipment record containing the following field values, you want the Meridium APM system to create two Inspection Profile records, one with the Item Category value *Baffles (BAFFLES)* and one with the Item Category value *Bearings (BEARINGS)*:

Taxonomy Category: FIXTaxonomy Class: HEATaxonomy Type: SHE

In this case, if you defined this configuration setting:



...when you accessed the <u>Inspection Profile page</u> for an Equipment record whose Taxonomy Category, Taxonomy Class, and Taxonomy Type fields contain the values listed above, the following Inspection Profile records would be created automatically.

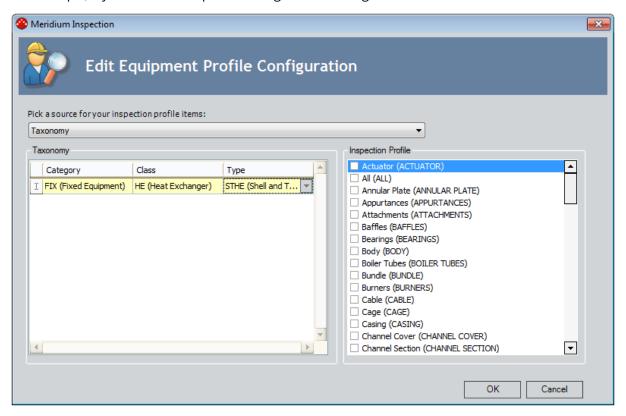
Using Equipment Record Values to Populate the Item Category Field Automatically



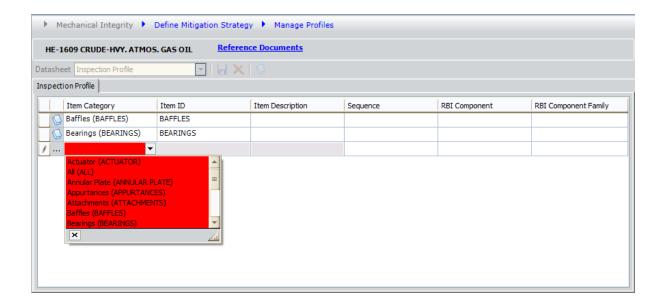
# Using Equipment Record Values to Populate the Item Category List Automatically

When you configure the profile configuration setting to populate the Item Category field in automatically created Inspection Profile records using values in the Equipment records to which the Inspection Profile records are linked, when you create Inspection Profile records *manually*, the Item Category list will contain the Description and IDs of all the active System Codes in theMI\_INSPECTION\_PROFILE\_CATEGORY System Code Table.

For example, if you defined this profile configuration setting:



...when you accessed the **Inspection Profile** page for an Equipment record to create an Inspection Profile record manually, the Item Category list would contain the Descriptions and IDs of all the active System Codes in the MI\_INSPECTION\_PROFILE\_CATEGORY System Code Table, as shown in the following image.



## Aspects of the Meridium Inspection Window

You can use the **Meridium Inspection** window to define the Profile Configuration setting, which identifies the method that will be used to populate the:

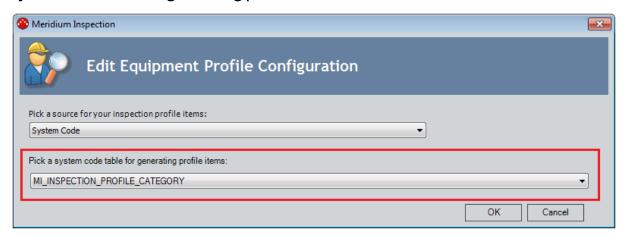
- Item Category field in Inspection Profile records that are created automatically.
- List of values in the Item Category field in Inspection Profile records that are created manually.

The **Meridium Inspection** window displays the **Pick a source for your inspection profile item** list, which contains the following values:

- System Code
- Query
- Taxonomy

Your selection in the list determines which additional items will be displayed on the **Meridium Inspection** window. If you select:

• <u>System Code</u>, the Pick a system code table for generating profile items list is displayed. A red outline has been added to the following image to highlight the Pick a system code table for generating profile items list.



The **Pick a system code table for generating profile items** list contains the IDs of all the System Code Tables in the baseline Meridium APM database. The value *MI\_INSPECTION\_PROFILE\_CATEGORY* is selected by default.

- Query, the following items are displayed:
  - Path to profile query: A text box that identifies the path to the query that you want to use to populate the Item Category field in Inspection Profile records that are created automatically and the list of values in the Item Category field in Inspection Profile records that are created manually. You cannot type a value in this text box. Instead it will be populated automatically after you select a query using the Browse for query hyperlink.

■ Browse for query: A hyperlink that displays the Open Catalog Item dialog box, which you can use to browse for the query that you want to use.

A red outline has been added to the following image to highlight the **Path to profile query** text box and **Browse for query** link.

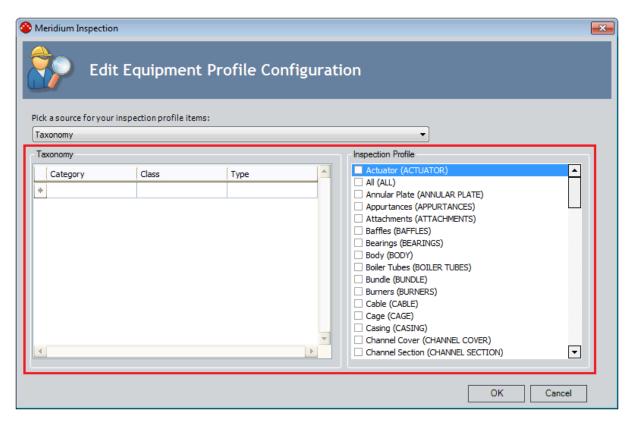


- <u>Taxonomy</u>, the following sections are displayed:
  - Taxonomy: Displays a grid containing the Category, Class, and Type columns. The cells in each column contain a list of values that are stored in Taxonomy Mapping records:
    - Category: A list of the unique values that are stored in the Taxonomy Category field in all Taxonomy Mapping records.
    - Class: A list of the unique values that are stored in the Taxonomy Class field in all Taxonomy Mapping records whose Taxonomy Category field contains the value that is selected in the Category list.
    - Type: A list of the unique values that are stored in the Taxonomy Type field in all Taxonomy Mapping records whose Taxonomy Category and Taxonomy Class fields contain the values that are selected in the Category and Class lists, respectively.

You can populate multiple rows in the grid, where each row contains a unique set of Equipment field values for which you will select values in the list in the **Inspection Profile** section.

■ Inspection Profile: Displays the IDs of all the active System Codes that are stored in the MI\_INSPECTION\_PROFILE\_CATEGORY System Code Table. The value that you select in this list will be used to populate Item Category field in the Inspection Profile records that are created automatically for Equipment records with the selected classification values.

A red outline has been added to the following image to highlight the **Taxonomy** and **Inspection Profile** sections.



The following buttons are displayed at the bottom of the **Meridium Inspection** window:

- **OK:** Saves any selections that you have made and closes the **Meridium Inspection** window.
- Cancel: Closes the Meridium Inspection window and does not retain your selections.

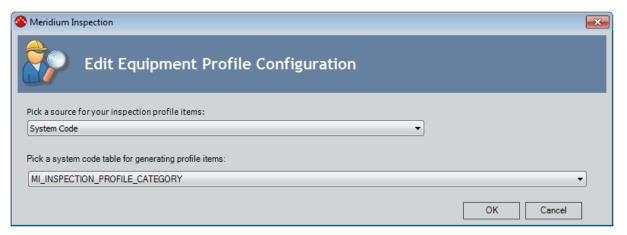
## Modifying the Profile Configuration Setting

The <u>Profile Configuration setting</u> determines how the Item Category field (in Inspection Profile records created automatically) and list (in Inspection Profile records created manually) is populated. By default, this setting is configured to use the MI\_INSPECTION\_PROFILE\_CATEGORY System Code Table.

## To modify the Profile Configuration setting:

- On the <u>Inspection Configuration page</u>, in the grid in the <u>Application Configurations</u> section, select the row containing *Profile Configuration* in the <u>Name</u> column.
- 2. On the **Application Tasks** menu, click the **Edit Selected** link.

The Meridium Inspection window appears.



- 3. In the **Pick a source for your Inspection Profile items** list, select the desired source for the <u>Profile Configuration setting</u>.
- 4. Depending upon your selection in the **Pick a source for your Inspection Profile items** list, make selections in the additional fields that are displayed on the **Meridium Inspection** window.
  - If you selected <u>System Code</u>, in the Pick a system code table for generating profile items list, select the desired System Code Table.
  - If you selected <u>Query</u>, click the Browse for query hyperlink to browse for and select the desired query.
  - If you selected <u>Taxonomy</u>, in the <u>Taxonomy</u> and <u>Inspection Profile</u> sections, select the desired values.
- 5. Click OK.
- 6. The Profile Configuration setting is saved, the **Meridium Inspection** window closes, and the **Inspection Configuration** page returns to focus.

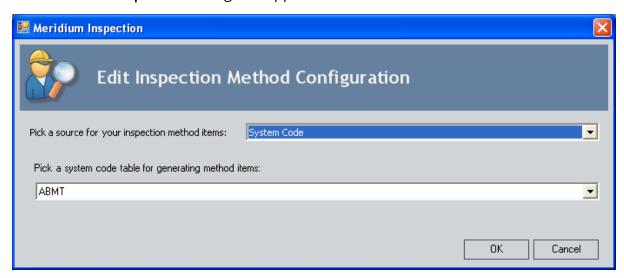
## **Defining the Method Configuration**

The Method Configuration setting determines the list of values that will be populated in the Category field in <u>Inspection Method records that you create</u>. By default, this setting is configured to use the MI\_INSPECTION\_METHOD\_CATEGORY System Code Table.

## To modify the Method Configuration setting:

- 1. In the Meridium APM Framework, access the Inspection Configuration page.
- 2. In the **Application Configurations** list, select the **Method Configuration** row.
- 3. On the **Application Tasks** menu, click the **Edit Selected** link.

The **Meridium Inspection** dialog box appears.



- 4. In the **Pick a source for your inspection method items** list, select the desired source for the values in the Category field.
- 5. If you selected **System Code** in the previous list, in the **Pick a system code table for generating method items** list, select the desired System Code Table.

-or-

If you selected **Query** in the previous list, click the **Browse for query** link, locate the desired query in the Catalog, select it, and click the **Open** button. The name of the query that you selected will be displayed in the text box.

6. Click OK.

Your selection is saved.

## **About Managing Strategy Rules**

Inspection Management uses the following strategy rules, which are provided as part of the baseline Inspection Management content:

- MI\_ProcessConditionalAlerts
- MI\_InspectionTasksUpdate

The strategy rule MI\_InspectionTasksUpdate is executed automatically when you update an Inspection record. When this strategy rule is executed, the Last Date and Next Date fields are updated in all Inspection Task records that are linked to Inspection records that:

- Have a value in the Completion Date field are updated.
- Whose Inspection Task Complete field is set to True.

For example, if the Inspection record that is linked to Pump 14 is completed on May 1, 2006, and the Inspection Task record that is linked to Pump 14 has a Last Date of April 1, 2006 and a Next Date of May 1, 2006, when you execute the strategy rule, the Last Date will be updated to May 1, 2006 (the date the inspection was completed), and the Next Date will be updated according to the desired interval in the Inspection Task record.

The strategy rule MI\_ProcessConditionalAlerts searches for all records in the <u>Conditional Alerts</u> family, and when it is executed, generates an email message based on the conditions in all Conditional Alerts records that it finds. This strategy rule must be executed manually.

You can use Inspection Management to <u>access the **Strategy List** page</u>, where you can select the strategy rule that you want to execute.

## Modifying the Strategy Rule Configuration Setting

In the baseline Meridium APM database, the Strategy Rule Configuration setting is set to *MI\_InspectionTasksUpdate*. As a result, when the MI\_InspectionTasksUpdate strategy rule is executed, the Last Date and Next Date fields are updated in all Inspection Task records that are linked to Inspection records whose:

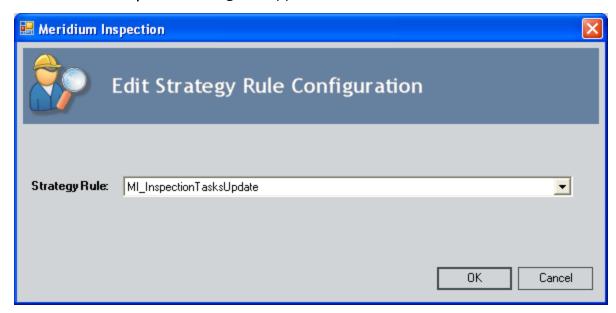
- Completion Date field contains a value.
- Inspection Task Complete field is set to True.

You can modify the Strategy Rule Configuration setting if you want.

## To modify the Strategy Rule Configuration setting:

- 1. In the Meridium APM Framework, access the **Inspection Configuration** page.
- 2. In the **Application Configurations** list, select the **Strategy Rule Configuration** row.
- 3. On the **Application Tasks** menu, click the **Edit Selected** link.

The Meridium Inspection dialog box appears.



- 4. In the **Strategy Rule** list, select the desired strategy rule.
- 5. Click OK.

Your selection is saved.

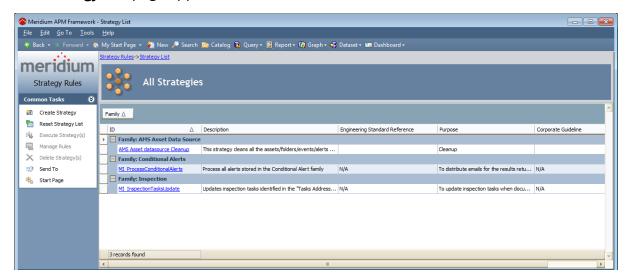
# Accessing the Strategy List Page Via Inspection Management

You can access the **Strategy List** page via the Inspection module in order to locate the strategy rule that you want to execute.

## To access the Strategy List page via the Inspection module:

• In the Meridium APM Framework, on the <u>Inspection Administration page</u>, click the <u>Manage Strategies</u> link.

The **Strategy List** page appears.



# **Defining Event Configurations for Custom Families**

An Event Configuration is defined for each baseline Inspection family. If you store information about inspections in non-baseline records, you must define Event Configurations for these families.

## To define a new Event Configuration:

- 1. In the Meridium APM Framework, access the Inspection Configuration page.
- 2. On the **Event Tasks** menu, click the **Add New** link.

The **Inspection Event Configuration Wizard** appears, displaying the **Select Inspection Family** screen.



- 3. In the **Inspection Family** list, select the family for which you want to define an Event Configuration.
- 4. Click the Next button.

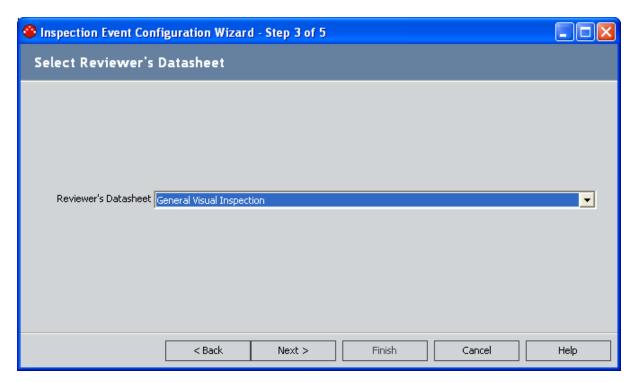
The **Select Auto Generate Options** screen appears.



If selected, the option that appears on this screen will automatically create a General Finding or Observation record for each component of the piece of equipment that you inspected.

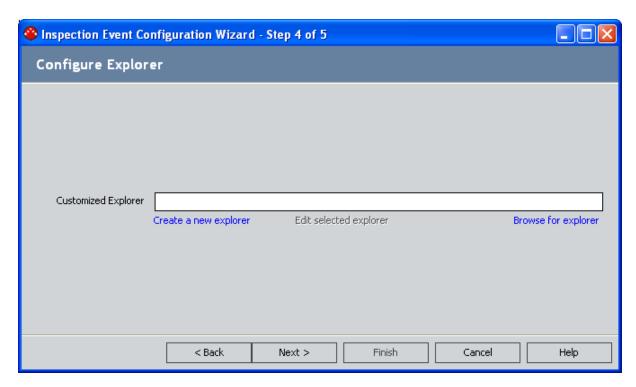
- If the family that you selected on the previous screen is related only to the
  Observation family, the check box is labeled **Auto generate observations**. If
  it is selected, Observation records will be created automatically when you
  create this type of record.
- If the family that you selected on the previous screen is related only to the General Finding family, the check box is labeled **Auto generate findings**. If it is selected, General Finding records will be created automatically when you create this type of record.
- If the family that you selected on the previous screen is related to both the
  Observation and General Finding family, the check box is labeled Auto generate observations. If it is selected, only Observation records will be created
  automatically when you create this type of record.
- If the family that you selected on the previous screen is not related to either the Observation family or the General Finding family, a disabled label that reads *There are no auto generate options available* displayed. In this case, neither Observation nor General Finding records will be created automatically when you create this type of record.
- 5. If you want to generate General Finding or Observation records automatically when you create new records in this Inspection Event family, select the check box.
- 6. Click the **Next** button.

The **Select Reviewer's Datasheet** screen appears.



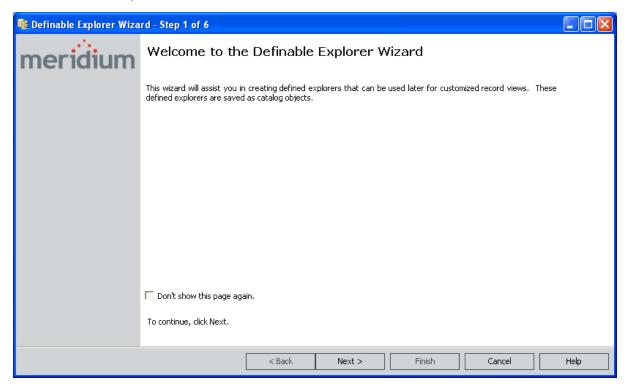
- 7. In the **Reviewer's Datasheet** list, select the datasheet that you want reviewers to see. The reviewer is the user whose name appears in the Reviewer's Name field in the Inspection record. Datasheets will be available in this list only if they have been created for the family that you selected in step 3.
- 8. Click the **Next** button.

The **Configure Explorer** screen appears.



9. Click the **Create a new explorer** link.

The **Definable Explorer Wizard** appears, displaying the **Welcome** screen.

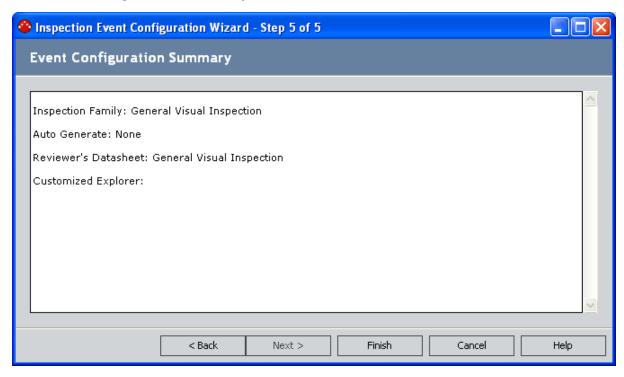


10. Proceed through the **Definable Explorer Wizard**, and click the **Finish** button when you have saved the new configured explorer.

The **Configure Explorer** screen of the Inspection **Event Configuration Wizard** appears again, displaying the Catalog path in the **Customized Explorer** text box.

11. Click the **Next** button.

The **Event Configuration Summary** screen appears.



12. Review the information, and click the **Finish** button to save the Event Configuration.

The Event Configuration is saved to the database, and a new row is added to the **Event Configurations** grid on the **Inspection Configuration** page.

# Modifying an Existing Event Configuration

## To modify an existing Event Configuration:

- 1. In the Meridium APM Framework, <u>access the Inspection Configuration page</u>.
- 2. In the list in the **Event Configurations** section, select the Event Configuration that you want to modify.
- 3. On the **Event Tasks** menu, click the **Edit Selected** link.
  - The **Inspection Event Configuration Wizard** appears, displaying the **Select Auto Generate Options** screen.
- 4. Proceed through the builder, and modify selections as desired. The builder provides the same options that were presented when you <u>originally created the Event Configuration</u>.

## **Deleting an Event Configuration**

## To delete an Event Configuration:

- 1. In the Meridium APM Framework, access the Inspection Configuration page.
- 2. In the **Event Configurations** list, select the Event Configuration that you want to delete.
- 3. On the **Event Tasks** menu, click the **Delete Selected** link.
  - A confirmation message appears, asking if you are sure that you want to delete the selected Event Configuration for the specified family.
- 4. Click the **Yes** button to delete the Event Configuration.

If there is a configured explorer associated with the Event Configuration, a message will be displayed, asking if you also want to delete the configured explorer associated with the Event Configuration. Note that the configured explorer is created during one step of the event configuration creation process. You can delete an Event Configuration for a family and still retain the configured explorer that was set up during the Event Configuration process.

If you click the **Yes** button, the configured explorer will be deleted from the Catalog. If you click the **No** button, the configured explorer will not be deleted, but the Event Configuration will still be deleted.

## Recording a User's Certification

#### To record a user's certification:

- 1. In the Meridium APM Framework, access the Inspection Administration page.
- 2. Click the Manage Inspection Resources, Roles, and Certifications link.

The **Inspection Manage Resources** page appears, displaying a list of all queries and searches in the **Profile Queries** folder in the Catalog.

3. Click the All Human Resources link.

The **Saved Search: All Human Resources** page appears, displaying a list of all Human Resource records in the database.

4. In the row containing the user for which you want to record certifications, click the Manage Resource Certifications link.

The Human Resource record appears in the Record Manager in the master/detail datasheet. The Human Resource record is the master record, and any Personnel Certification records you create will be the detail records.

- 5. In the detail grid, create the desired Personnel Certification records.
- 6. On the Common Tasks menu, click the Save link.

The Personnel Certification records are saved and linked to the Human Resource record.

# Modifying a User's Certification

## To modify a user's certification:

- 1. In the Meridium APM Framework, access the Inspection Administration page.
- 2. Click the Manage Inspection Resources, Roles, and Certifications link.
  - The **Inspection Manage Resources** page appears, displaying a list of all queries and searches in the **Profile Queries** folder in the Catalog.
- 3. Click the **Human Resources with certification** link.
  - The **Saved Search: Human Resources with certification** page appears, displaying a list of all Human Resources records that are linked to a Personnel Certification record.
- 4. In the row containing the user whose certification that you want to modify, click the hyperlink in the **Last Name** column.
  - The Record Manager appears, displaying the Human Resource record in the master/detail datasheet.
- 5. In the detail grid, modify the certifications as desired.
- 6. On the Common Tasks menu, click the Save link.

# Accessing the Inspection Alerts Page

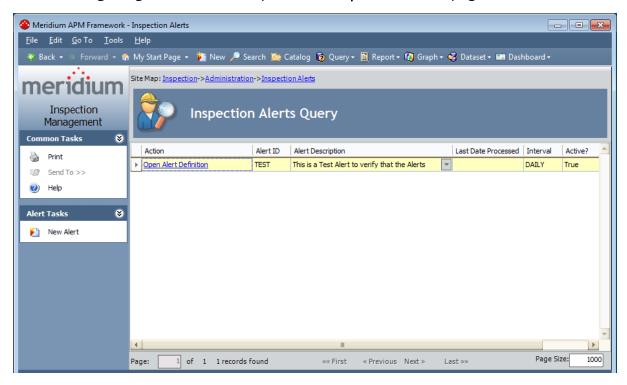
You can use the **Inspection Alerts** page to view all of the Conditional Alerts records in your database, <u>create a new Conditional Alerts record</u>, or <u>modify an existing Conditional Alerts record</u>.

## To access the Inspection Alerts page:

 In the Meridium APM Framework, on the <u>Inspection Administration page</u>, click the Manage Inspection Alerts link.

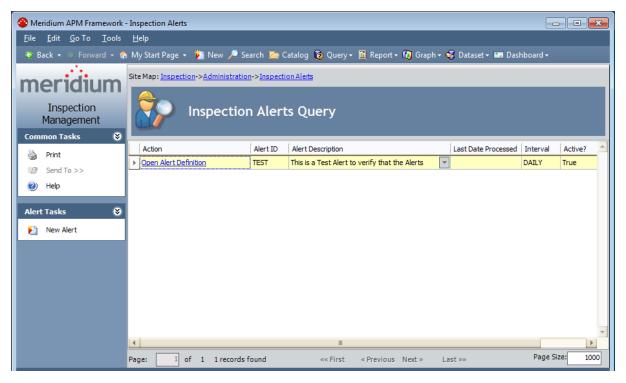
The **Inspection Alerts** page appears.

The following image shows an example of the **Inspection Alerts** page.



# Aspects of the Inspection Alerts Page

The **Inspection Alerts** page contains a grid that displays the results of the <u>All Inspection Alerts</u> query that is stored in the following Catalog location: \\Public\Meridium\Modules\Inspection\Conditional Alert Queries.

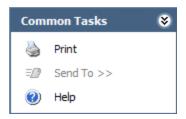


One row is displayed in the grid for each Conditional Alerts record in your database. With the exception of the **Action** column, which displays a hyperlink that you can use to view the Conditional Alerts record in Record Manager, the following columns that correspond with the following Conditional Alerts field are displayed in the grid.

Column label	Conditional Alerts field
Alert Description	Description
Last Date Processed	Last Date Processed
Interval	Interval
Active?	Active?

The **Inspection Alerts** page contains the following task menus: **Common Tasks** and **Alert Tasks**.

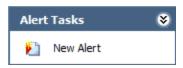
## **Common Tasks**



The **Common Tasks** menu on the **Inspection Alerts** page contains the following links:

- **Print:** Displays the **Preview** window, which shows you a preview of the results of the Inspection Alerts Querypage as it will appear on the printed page.
- Send To: This link is always disabled.
- Help: Displays the context-sensitive Help topic for the Inspection Alerts page.

## **Alert Tasks**



The Alert Tasks menu on the **Inspection Alerts** page contains the following link:

• **New Alert:** Displays the datasheet for a new Conditional Alerts record in Record Manager.

## **About Email Alerts**

After you create a Conditional Alerts record, you must execute the Meridium APM-provided strategy rule MI\_ProcessConditionalAlerts, which will search for all records in the Conditional Alerts family and generate an email message for each record it finds based on the conditions specified in those records. You can create Conditional Alerts records for any reason and at any time.

For example, suppose you configure a query that returns a list of all Inspection Task records that contain a Next Date that falls within the next month. You might want to send an email message to the users who are responsible for performing those inspections to remind them that the inspections are due. To do so, you would need to:

- 1. Create and save the query.
- 2. Create a Conditional Alerts record that points to the saved query and is assigned to the responsible users.
- 3. Execute the strategy rule MI\_ProcessConditionalAlerts, which will find the Conditional Alerts record and send an email message to the users that are specified in the Conditional Alerts record.

## **Creating a Conditional Alerts Record**

#### To create a new Conditional Alerts record:

- 1. In the Meridium APM Framework, access the Inspection Administration page.
- 2. Click the **Manage Inspection Alerts** link.

The **Inspection Alerts** page appears. If any Conditional Alerts records contain the value *Inspection* in the Alert Source field, they will appear on this page. Otherwise, you will see a message indicating that no Conditional Alerts records were found.

- On the Alert Tasks menu, click the New Alert link.
   The Record Manager appears, displaying the Conditional Alert datasheet.
- 4. Complete the datasheetas desired.
- 5. On the **Common Tasks** menu, click the **Save** link.

**Note:** An email message containing the results of the specified query will not be sent until you execute the MI\_ProcessConditionalAlerts strategy rule.

## Modifying a Conditional Alerts Record

## To modify a Conditional Alerts record:

- 1. In the Meridium APM Framework, access the Inspection Administration page.
- 2. Click the **Manage Inspection Alerts** link.
  - The **Inspection Alerts** page appears. If any Conditional Alerts records contain the value *Inspection* in the Alert Source field, they will appear on this page.
- 3. In the row containing the Conditional Alerts record that you want to modify, click the **Open Alert Definition** link.
  - The Conditional Alerts record appears in the Record Manager.
- 4. Modify the record as desired, and then on the **Common Tasks** menu, click **Save** link to save your changes.

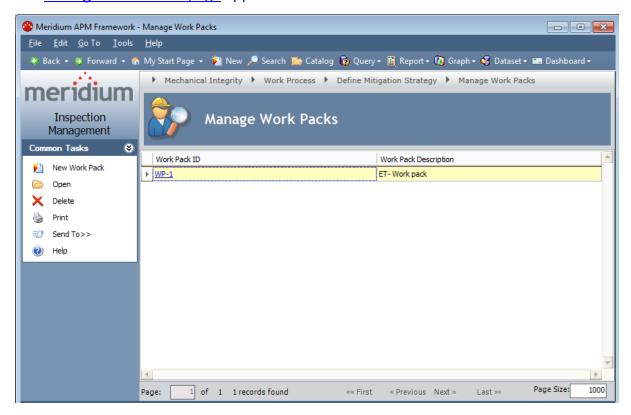
# Accessing the Manage Work Packs Page

You can access the **Manage Work Packs** page to view and manage all of the Work Pack records that exist in the database.

## To access the Manage Work Packs page:

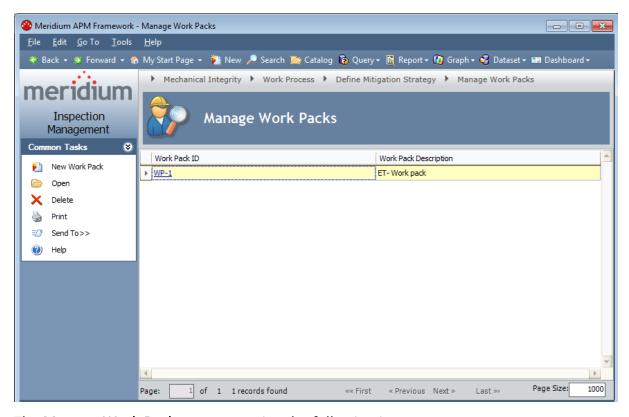
• In the Meridium APM Framework, on the **Inspection Start Page**, click the **Manage Work Packs** link.

The Manage Work Packs page appears.



# Aspects of the Manage Work Packs Page

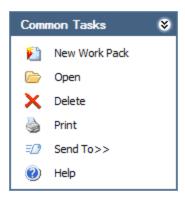
You can use the **Manage Work Packs** page to view and manage all of the Work Pack records that exist in the database.



The Manage Work Packs page contains the following items:

- Manage Work Packs workspace: Contains a grid that displays all of the Work Pack records that exist in the database.
- Common Tasks menu: Contains links that let you perform actions related to Work Pack records.

## Common Tasks Menu



The **Common Tasks** menu on the **Manage Work Packs** page contains the following links:

- New Work Pack: Displays the Inspection Work Pack page, where you can <u>create a</u> new Work Pack record.
- Open: Opens the selected Work Pack record on the Inspection Work Pack page.
- Delete: After asking for confirmation, deletes the selected Work Pack record.
- **Print:** Displays the **Preview** window, which shows you a preview of the **Manage Work Packs** page as it will appear on the printed page.
- **Send To:** Displays a submenu with options that let you provide a link to the current page on your desktop (create shortcut), in an email message, or on a Home Page.
- Help: Displays the context-sensitive Help topic for the Manage Work Packs page.

# Creating a Work Pack Hierarchy

Depending upon the number of levels that you want to create in your <u>Work Pack hierarchy</u>, you will use one of two pages:

- Manage Work Packs: You can use this page to create a new Work Pack record that will appear at the root level in your Work Pack hierarchy.
- Inspection Work Pack: You can use this page to:
  - Create a new Work Pack record that will appear below the root level in your Work Pack hierarchy.
  - Link a Work Pack record in your hierarchy to an existing Work Pack record.

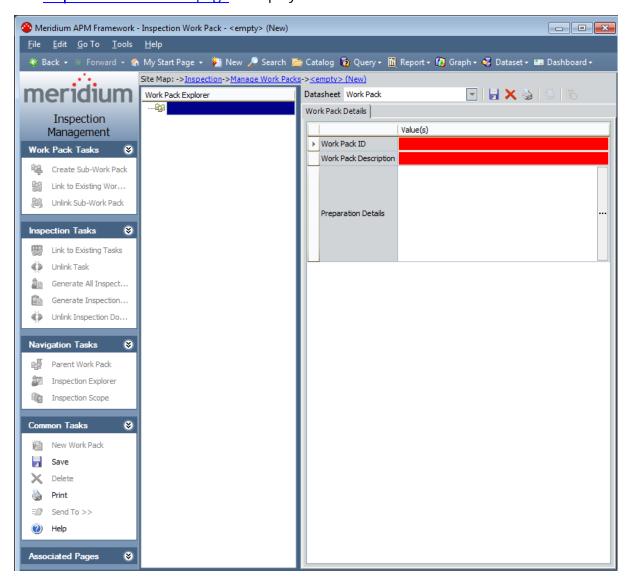
# Creating a Work Pack Record Using the Manage Work Packs Page

You can use the **Manage Work Packs** page to create a Work Pack record that will appear at the root level in your <u>Work Pack hierarchy</u>. You must use the <u>Inspection Work Pack</u> page to <u>create a Work Pack record that will appear below the root level in your Work Pack hierarchy</u>.

To create a Work Pack record that will appear at the root level in your Work Pack hierarchy:

- 1. In the Meridium APM Framework, access the Manage Work Packs page.
- 2. On the **Common Tasks** menu, click the **New Work Pack** link.

The Inspection Work Pack page is displayed.



A blank Work Pack datasheet is displayed in the <u>datasheet area</u>, and a blank Work Pack node is displayed at the root level in the <u>Work Pack Explorer pane</u>.

- 3. On the Work Pack datasheet, specify <u>values in the Work Pack record</u>.
- 4. On the **Common Tasks** menu, click the **Save** link.

The Work Pack record is saved. You can now:

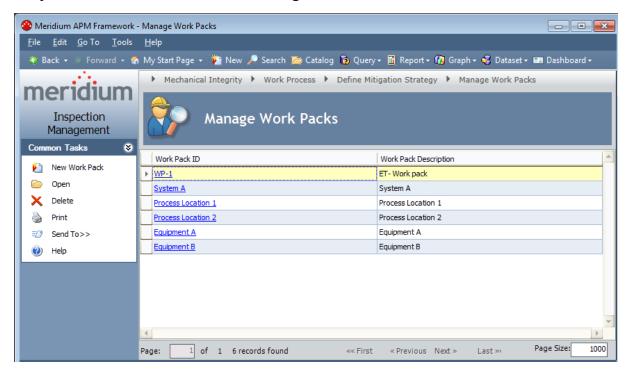
- Link it to an existing Inspection Task record.
- Link it to an existing Work Pack record to build a Work Pack hierarchy.
- Create additional Work Pack records to build a Work Pack hierarchy.

### Opening an Existing Work Pack

#### To open an existing Work Pack:

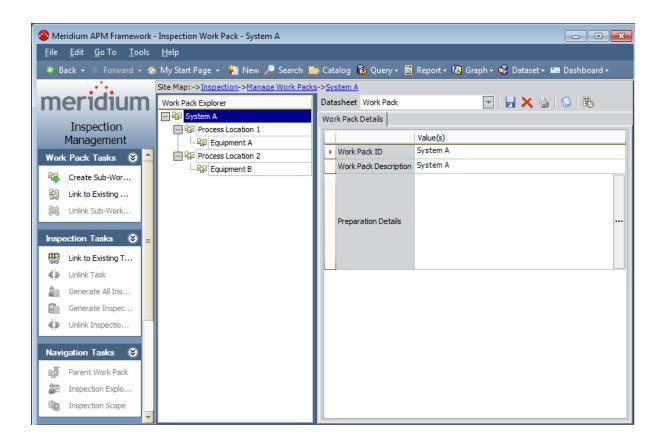
- 1. In the Meridium APM Framework, access the Manage Work Packs page.
- 2. In the grid in the Manage Work Packs workspace, select the row containing the Work Pack record that you want to open.

In the following image, the row containing the Work Pack record with Work Pack ID *System A* is selected is selected in the grid.



3. On the **Common Tasks** menu, click the **Open** link.

The Inspection Work Pack page appears for the selected Work Pack record.



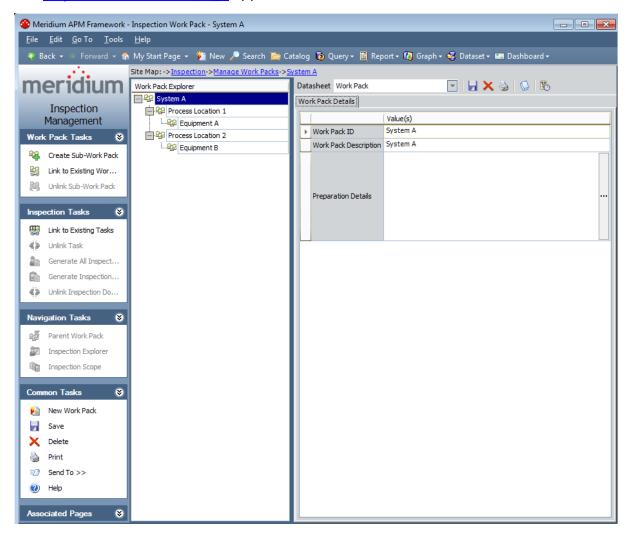
### Accessing the Inspection Work Pack Page

You can use the <u>Inspection Work Pack page</u> to view an existing Work Pack record, <u>create Work Pack records in your Work Pack hierarchy</u>, and perform other tasks to manage your Work Packs. The Work Pack record for which you access the <u>Inspection Work Pack page</u> will appear at the root level in the <u>Work Pack Explorer</u>.

#### To access the Inspection Work Pack page:

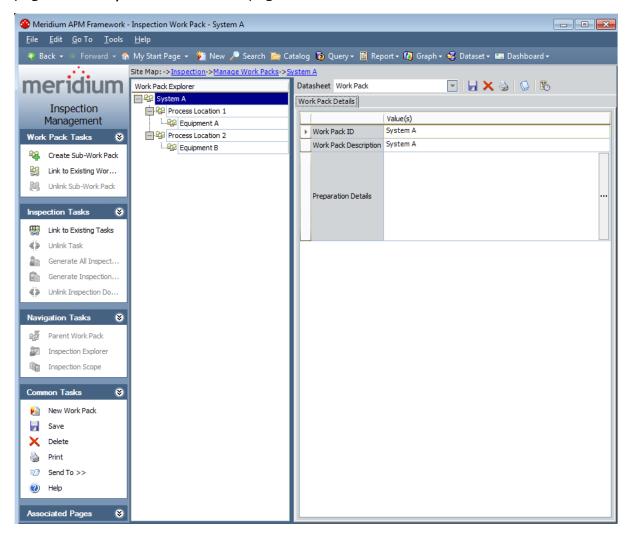
• On the <u>Manage Work Packs page</u>, in the grid in the <u>Manage Work Packs</u> workspace, in the <u>Work Pack ID</u> column, click the hyperlink for the Work Pack record that you want to work with on the <u>Inspection Work Pack</u> page.

The Inspection Work Pack page appears.



### Aspects of the Inspection Work Pack Page

The Inspection Work Pack - <Work Pack ID> page, where <Work Pack ID> is the Work Pack ID in the Work Pack record for which you accessed the page, displays the details of the Work Pack record and its associated Inspection Task and Inspection records. Throughout this documentation, we refer to the Inspection Work Pack - <Work Pack ID> page as the Inspection Work Pack page.



The **Inspection Work Pack** page contains the following items:

- Work Pack Explorer pane: Displays a hierarchy of Work Pack records and the Inspection Task and Inspection records to which they are linked.
- <u>Datasheet Area</u>: Displays the datasheet for the record that is selected in the Work Pack Explorer pane.
- Task menu pane: Contains menus that provide access to functions that allow you to manage Work Packs. The following menus are available:

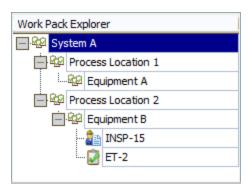
- Work Pack Tasks
- Inspection Tasks
- Navigation Tasks
- Common Tasks
- Associated Pages

### Work Pack Explorer Pane

The Work Pack Explorer pane on the Inspection Work Pack page displays a hierarchical view of Work Pack records and the Inspection Task and Inspection records to which they are linked. When you select a node in the Work Pack Explorer pane, the datasheet for the corresponding record is displayed in the datasheet area to the right of the Work Pack Explorer pane. The following types of nodes are displayed in the Work Pack Explorer pane. The names of the nodes correspond with the records that the nodes represent.

- Work Pack: Displayed at the root level, and up to two levels below the root level, in the hierarchy. <u>Depending upon what you will inspect and the type of inspections</u> work that you will perform, the number of Work Pack nodes displayed and the level in your location hierarchy that they represent will vary.
- **Inspection:** Displayed below the lowest-level Work Pack node. **Inspection Task** nodes are also displayed at this level.
- Inspection Task: Displayed below the lowest-level Work Pack node. Inspection nodes are also displayed at this level.

The following image shows an example of the **Work Pack Explorer** pane.



The following table lists the types of nodes displayed in the image shown above, and the Record IDs of the records that they represent.

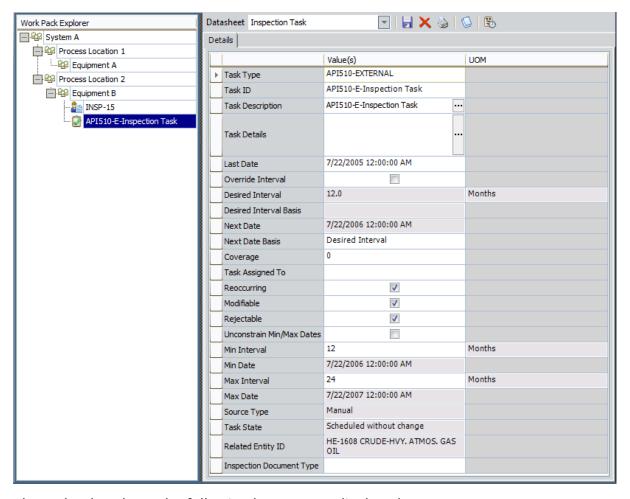
Node type	Corresponding Record ID
Work Pack	System A
Work Pack	Process Location 1
Work Pack	Equipment A
Work Pack	Process Location 2
Work Pack	Equipment B
Inspection Task	ET-2

Node type	Corresponding Record ID
Inspection	INSP-15

#### **Datasheet Area**

The datasheet area on the <u>Inspection Work Pack page</u> displays the datasheet for the record that is selected in the <u>Work Pack Explorer</u>pane.

In the following image, the Inspection Task datasheet for the Inspection Task record *API510-E-Inspection Task*is displayed in the datasheet area.

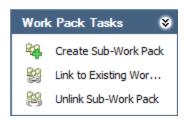


Above the datasheet, the following buttons are displayed.

Button image	Button functionality
	Saves any changes that you have made on the Inspection Work Pack page.
×	After asking for confirmation, deletes the currently selected record.
	Displays the <b>Select Report to Print</b> dialog box where you can choose the report that you want to generate.

Button image	Button functionality
	Displays the <b>Reference Documents</b> window, where you can manage Reference Document records for the currently selected record.
₿	Displays the <b>Field Change History</b> dialog box if revision history exists for any fields in the currently selected record.

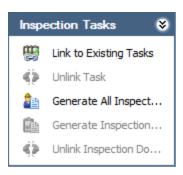
### **Work Pack Tasks**



The **Work Pack Tasks** menu on the **Inspection Work Pack** page contains the following links:

- Create Sub-Work Pack: Displays a blank Work Pack datasheet in a new window, which you can use <u>create a Work Pack record</u> that will be displayed one level below the Work Pack record that is selected in the Work Pack Explorer pane. This link is enabled only when the selected Work Pack record is displayed at the root level or *one* level below the root level.
- Link to Existing Work Pack: Displays the Link Existing Work Pack window, which you can use to search for Work Pack records to link to the Work Pack record that is currently selected in the Work Pack Explorer pane. This link is enabled only when the selected Work Pack record is:
  - Displayed at the root level or one level below the root level.
     -and-
  - Not already linked to a Work Pack Record.
- Unlink Sub-Work Pack: After displaying a confirmation message, removes the link between the selected Work Pack record and all Work Pack records displayed above it in the Work Pack Explorer pane. This link is enabled only when one or more levels of Work Pack records are displayed above the Work Pack record that is selected in the Work Pack Explorer pane.

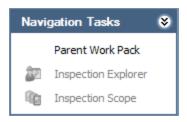
#### **Inspection Tasks**



The **Inspection Tasks** menu on the **Inspection Work Pack** page contains the following links:

- Link to Existing Tasks: Displays the Inspection Task Search Options dialog box, where you can search for an existing Inspection Task record to link to the Work Pack record. This link is enabled only when a Work Pack record is selected in the Work Pack Explorer pane.
- Unlink Task: After displaying a confirmation message, <u>removes the link between</u> the selected Inspection Task record and the Work Pack record to which it is linked. This link is enabled only when an Inspection Task record is selected in the Work Pack Explorer pane.
- Generate All Inspection Documents: After displaying a confirmation message, <u>creates Inspection records from all Inspection Task records</u> that are displayed in the Work Pack Explorer pane. This link is enabled only if a Work Pack record is selected in the Work Pack Explorer pane, and that Work Pack record is linked to one or more Inspection Task records.
- Generate Inspection Document: After displaying a confirmation message, <u>creates an Inspection record from the Inspection Task record</u> that is selected in the Work Pack Explorer pane. This link is enabled only when an Inspection Task record is selected in the Work Pack Explorer pane.
- Unlink Inspection Document: After displaying a confirmation message, <a href="removes the link between the selected Inspection record and the Work Pack record">record to which it is linked. This link is enabled only when an Inspection record is selected in the Work Pack Explorer pane.</a>

### **Navigation Tasks**



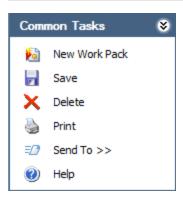
The **Navigation Tasks** menu on the **Inspection Work Pack** page contains the following links:

- Parent Work Pack: Displays the <u>Inspection Work Pack page</u> for the Work Pack record that appears one level above the current Work Pack record in your Work Pack hierarchy. This link is enabled only when you are viewing the <u>Inspection</u> Work Packpage for a Work Pack record that exists at the second or third level in your Work Pack hierarchy.
- Inspection Explorer: Opens the selected Inspection record in the Record Manager.
   This link is enabled only when an Inspection record is selected in the Work Pack Explorer pane.

**Note:** When you view an Inspection record in Record Manager, the content of the record hierarchy will differ from what is displayed on the **Inspection Work Pack** page because the content is controlled by the configured explorer that is defined for the Inspection family (e.g., Full Inspection).

• Inspection Scope: Displays the <u>Inspection Scope page</u>, which displays the Inspection Scope that includes the selected Inspection Task record. This link is enabled only when an Inspection Task record is selected in the **Work Pack Explorer** pane.

#### **Common Tasks**



The **Common Tasks** menu on the **Inspection Work Pack** page contains the following links:

- New Work Pack: Displays a blank Work Pack datasheet in the datasheet area, and a blank root level Work Pack node in the Work Pack Explorer pane on the Inspection Work Pack page.
- Save: Saves any changes that you have made on the Inspection Work Pack page.
- **Delete:** After asking for confirmation, deletes the selected record.
- **Print:** Displays the **Select Report to Print** dialog box, where you can choose the report that you want to generate.
- **Send To:** Displays a submenu with options that let you provide a link to the current page on your desktop (create shortcut), in an email message, or on a Home Page.
- Help: Displays the context-sensitive Help topic for the Inspection Work Pack page.

### **Associated Pages**

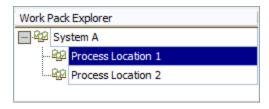
The **Associated Pages** menu on the **Inspection Work Pack** page displays Associated Pages that have been configured for the family of the record that is selected in the **Work Pack Explorer** pane.

# Creating a Work Pack Record Using the Inspection Work Pack Page

A Work Pack record is <u>one of three records</u> used to define the inspection work that needs to be completed for equipment and/or locations. You can use the **Inspection Work Pack** page to create a Work Pack record *below* the root level in your <u>Work Pack hierarchy</u>. You must use the <u>Manage Work Packs</u> page to <u>create a root level Work Pack record in your Work Pack hierarchy</u>.

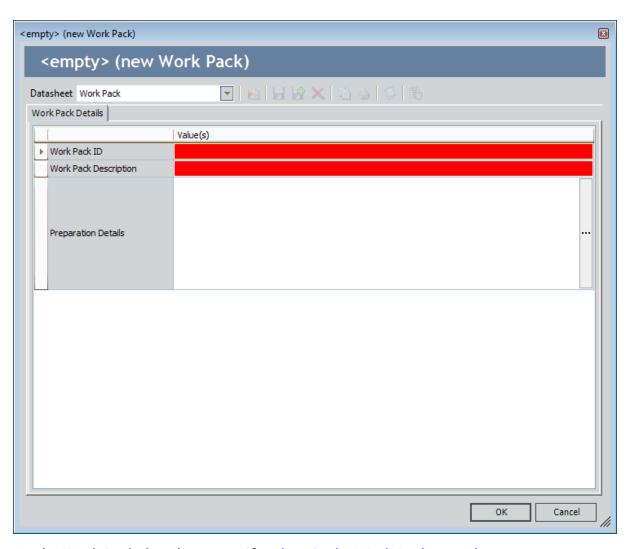
To create a Work Pack record below the root level in your Work Pack hierarchy:

1. On the <u>Inspection Work Pack page</u>, in the <u>Work Pack Explorer pane</u>, select the Work Pack record for which you want to create a second or third level Work Pack record. In the following image, the Work Pack record *Process Location 1* is selected in the **Work Pack Explorer** pane.



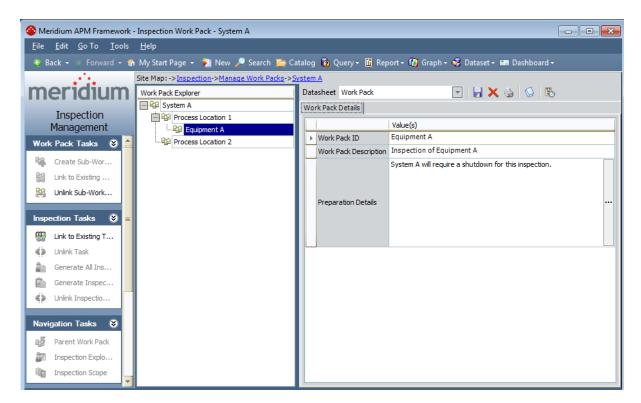
2. On the Work Pack Tasks menu, click the Create Sub-Work Pack link.

A blank Work Pack datasheet is displayed in a new window.



- 3. On the Work Pack datasheet, specify values in the Work Pack record.
- 4. Click OK.

The window closes, and the **Inspection Work Pack** page returns to focus.



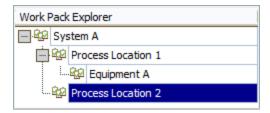
A new Work Pack record is created, and a new Work Pack node is displayed in the **Work Pack Explorer**pane. In the preceding image, the node for the new Work Pack record *Equipment A* is selected in the **Work Pack Explorer** pane, and the details of the Work Pack record are displayed in the datasheet area.

## Linking a Work Pack Record to an Existing Work Pack Record

You can create levels in your <u>Work Pack hierarchy</u> below the root level by linking a Work Pack record in your hierarchy to an existing Work Pack record. The following instructions assume that you are viewing the <u>Inspection Work Pack page</u> for the Work Pack record that you want to link to an existing Work Pack record.

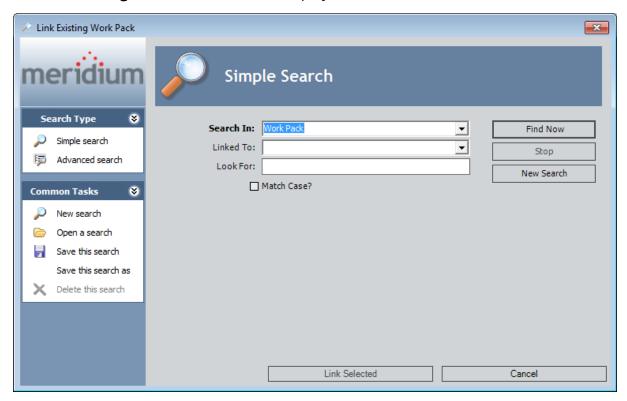
#### To link a Work Pack record to an existing Work Pack record:

1. In the **Work Pack Explorer** pane, select the Work Pack record to which you want to link an existing Work Pack record. In the following image, the Work Pack record *Process Location 2* is selected in the **Work Pack Explorer** pane.



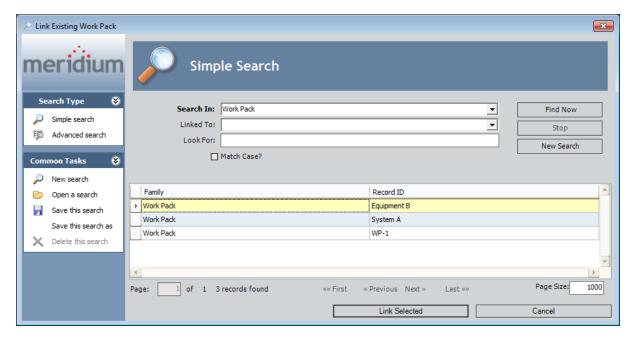
2. On the Inspection Tasks menu, click the Link to Existing Work Pack link.

The Link Existing Work Pack window is displayed.



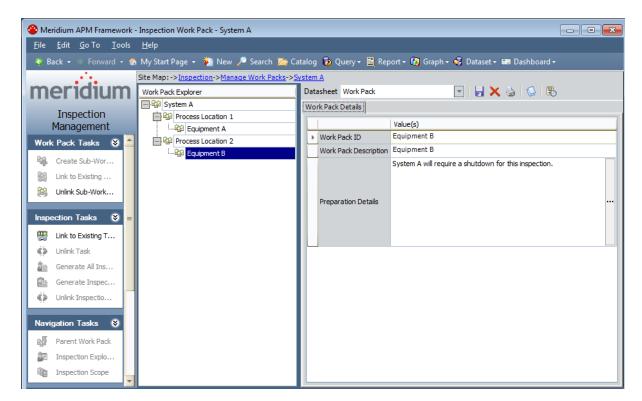
Work Pack is selected in the **Search In** list. You cannot modify this selection.

3. Perform a search, and in the search results, select the row containing the Work Pack record that you want to link to the currently selected Work Pack record. In the following image, the row containing the Work Pack record *Equipment B* is selected in the search results.



4. Click the Link Selected button.

The **Link Existing Work Pack** window closes, and the **Inspection Work Pack** page returns to focus.



A new node is displayed in the **Work Pack Explorer** pane for the Work Pack record that you selected on the **Link Existing Work Pack** window. In the preceding image, the node representing the Work Pack record *Equipment B* is selected in the **Work Pack Explorer** pane, and the datasheet for the record is displayed in the datasheet area.

# About Linking Inspection Task Records to Work Pack Records

Inspection Task records store information about the work that you need to perform for equipment and/or locations. You should link Inspection Task records directly to the Work Pack records that represent the level in the location hierarchy at which you will perform inspections. An Inspection Task record can be linked to only one Work Pack record at a time. You can search for existing Inspection Task records to link to a Work Pack records using:

- A search
  - -or-
- A query

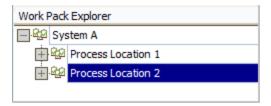
# Linking Inspection Task Records to Work Pack Records Using a Search

You can use a search to find existing Inspection Task records that you want to link to a Work Pack record. The following instructions assume that you are viewing the <a href="Inspection Work Pack">Inspection Work Pack</a> page for the Work Pack record to which you want to link an Inspection Task record.

To use a search to find an existing Inspection Task record and link it to a Work Pack record:

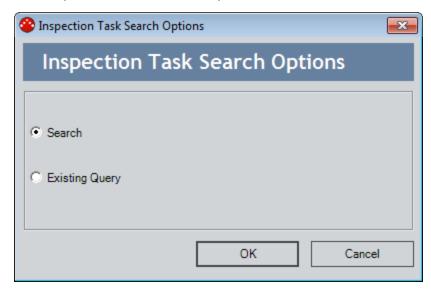
1. In the <u>Work Pack Explorer pane</u>, select the Work Pack record to which you want to link an Inspection Task record.

In the following image, the Work Pack record *Process Location 2* is selected in the **Work Pack Explorer** pane.



2. On the Inspection Tasks menu, click the Link to Existing Tasks link.

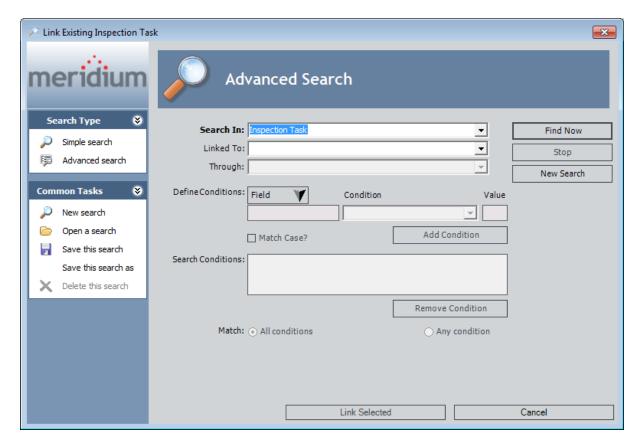
The **Inspection Task Search Options** dialog box appears.



The **Search** option is selected by default.

3. Accept the default selection, and click **OK**.

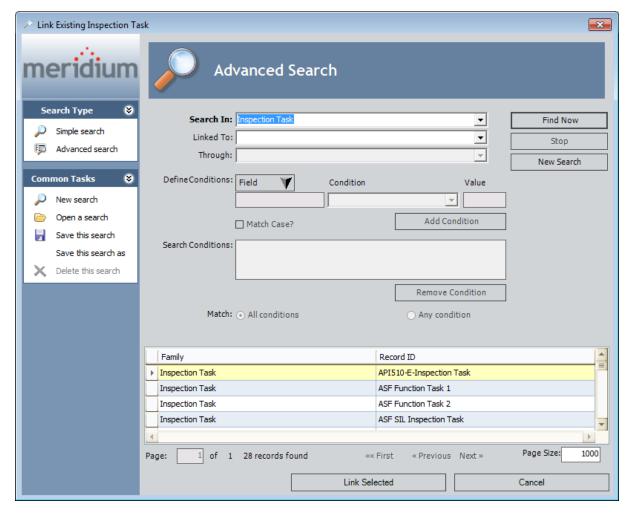
The **Link Existing Inspection Task** window appears.



The value in the **Search In** list is *Inspection Task*. You cannot modify this selection.

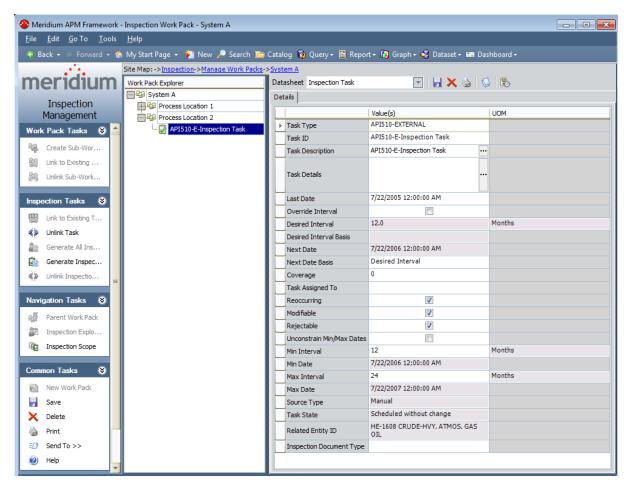
- 4. If desired, define additional search criteria.
- 5. Click the **Find Now** button.

The search results appear.



- 6. In the search results, select the rows containing the Inspection Task records that you want to link to the selected Work Pack record. In the preceding image, the row containing the Inspection Task record with Record ID *API510-E-Inspection Task* is selected in the search results.
- 7. Click the **Link Selected** button.

The **Link Existing Inspection Task** window closes, and the **Inspection Work Pack** page returns to focus.



The Inspection Task record that you selected is linked inked to the selected Work Pack record, and a new Inspection Task node is displayed in the **Work Pack Explorer** pane. In the preceding image, the Inspection Task node for the Inspection Task record *API510-E-Inspection Task* is selected in the **Work Pack Explorer** pane.

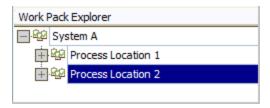
# Linking Inspection Task Records to Work Pack Records Using a Query

You can use a query to search for existing Inspection Task records that you want to link to Work Pack record. The following instructions assume that you are viewing the <a href="Inspection Work Pack">Inspection Work Pack</a> page for the Work Pack record to which you want to link an Inspection Task record.

To use a query to search for an existing Inspection Task record and link it to a Work Pack record:

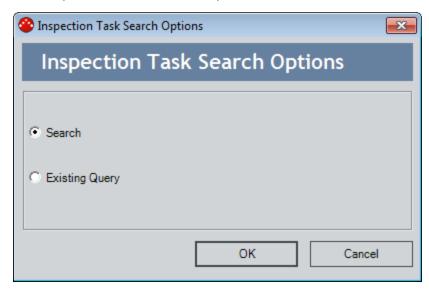
1. In the <u>Work Pack Explorer pane</u>, select the Work Pack record to which you want to link an Inspection Task record.

In the following image, the Work Pack record *Process Location 2* is selected in the **Work Pack Explorer** pane.



2. On the Inspection Tasks menu, click the Link to Existing Tasks link.

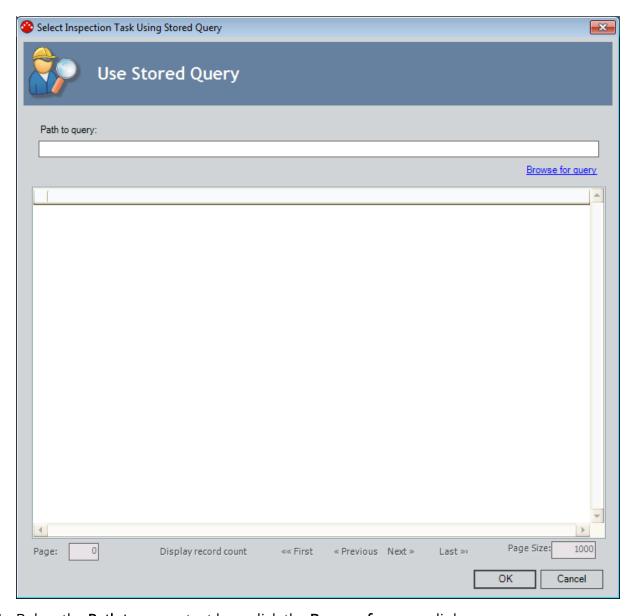
The **Inspection Task Search Options** dialog box appears.



The **Search** option is selected by default.

3. Select the **Existing Query** option, and click **OK**.

The **Select Inspection Task Using Stored Query** window appears.

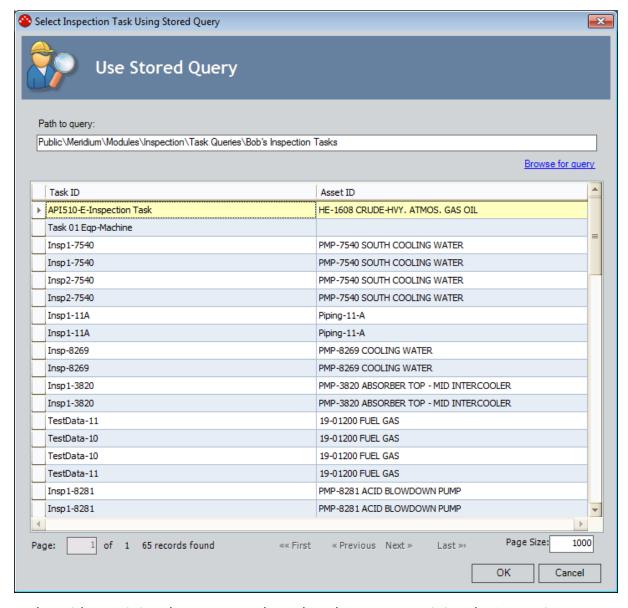


4. Below the **Path to query** text box, click the **Browse for query** link.

The **Save As** dialog box appears.

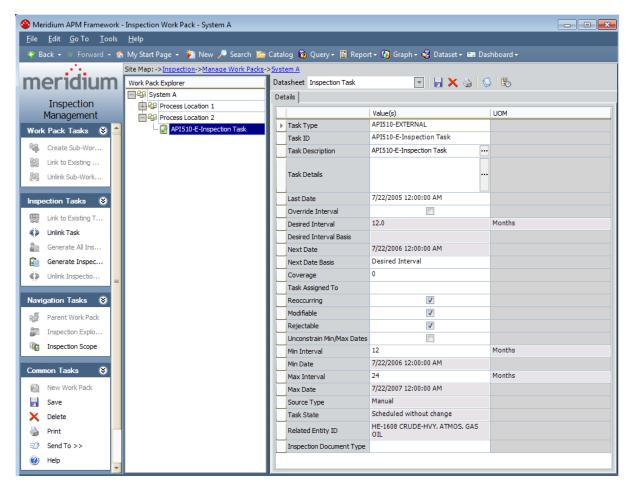
5. Navigate to the Catalog location containing the query that you want to use, select the query, and click the **Open** button.

The Path to query text box is populated with the Catalog location of the query that you selected, and the results of the query are populated in the grid. In the following image, the Path to query text box is populated with the Catalog location Public\Meridium\Modules\Inspection\Task Queries\Bob's Inspection Tasks, and the results of this query are displayed in the grid.



6. In the grid containing the query results, select the rows containing the Inspection Task records that you want to link to the Work Pack record, and click **OK**.

The **Select Inspection Task Using Stored Query** window closes and the **Inspection Work Pack** page returns to focus.



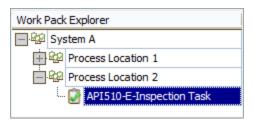
The Inspection Task record that you selected is linked inked to the selected Work Pack record, and a new Inspection Task node is displayed in the **Work Pack Explorer** pane. In the preceding image, the Inspection Task node for the Inspection Task record *API510-E-Inspection Task* is selected in the **Work Pack Explorer** pane.

### Removing the Link Between an Inspection Task Record and a Work Pack Record

The following instructions assume that you are viewing the <u>Inspection Work Pack page</u> for the Work Pack record whose link to an Inspection Task record you want to remove.

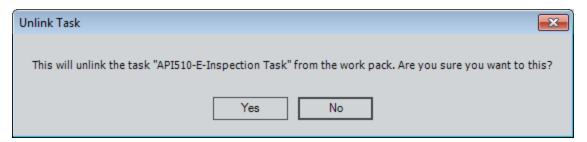
#### To remove the link between an Inspection Task record and a Work Pack record:

1. In the <u>Work Pack Explorer pane</u>, select the Inspection Task record whose link to a Work Pack record you want to remove. In the following image, the Inspection Task record *API510-3-Inspection Task* is selected in the **Work Pack Explorer** pane.



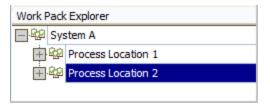
2. On the **Inspection Tasks** menu, click the **Unlink Task** link.

A confirmation message appears, asking if you are sure that you want to remove the link between the records.



3. Click the **Yes** button.

The link between the Inspection Task record and the Work Pack record is removed, and the associated Inspection Task node is no longer displayed in the **Work Pack Explorer** pane.



# Generating a Report Containing Inspection Task Details

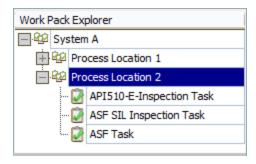
You can generate a report that summarizes the details of all Inspection Task records that are linked to a given Work Pack record for distribution to the appropriate resources to estimate the cost of performing the inspection work.

The following instructions assume that:

- The report *Workpack Inspection Scope Summary Report* has been associated with the Work Pack family via the Configuration Manager.
- You are viewing the **Inspection Work Pack** page for the Work Pack record for whose associated Inspection Tasks you want to generate a report.

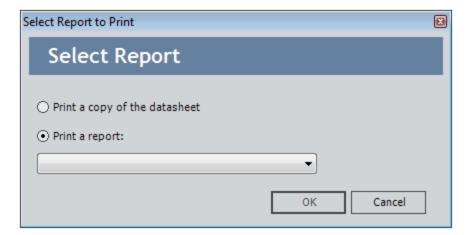
To generate a report containing details about the Inspection Task records that are linked to a Work Pack record:

1. In the <u>Work Pack Explorer pane</u>, select the Work Pack record for whose associated Inspection Tasks you want to generate a report. In the following image, the Work Pack record *Process Location 2* is selected in the **Work Pack Explorer** pane.



2. On the **Common Tasks** menu, click the **Print** link.

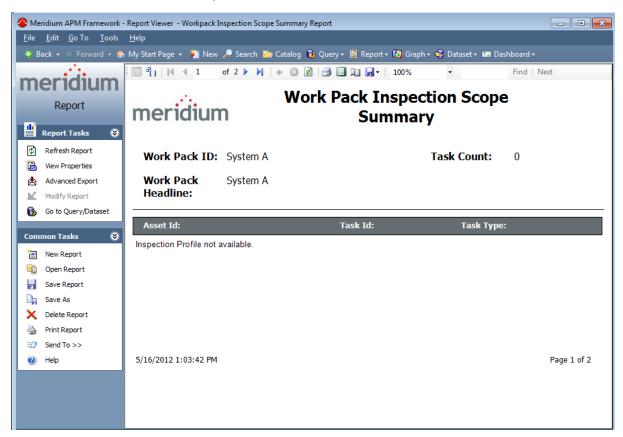
The **Select Report to Print** dialog box appears.



The **Print a report** option is selected by default.

3. In the **Print a report** list, select *Workpack Inspection Scope Summary Report*, and click **OK**.

The report appears on the **Report Viewer** page.



You can print the report and distribute it to the appropriate resources so that they can estimate the cost of performing the work associated with the Inspection Tasks.

# About Generating Inspection Records from Inspection Task Records

After the cost of the work associated with all Inspection Task records for a given Work Pack record has been estimated, you can determine which inspections you will perform and which you will not. Then, you can create Inspection records to represent the work that you will perform.

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.

On the <u>Inspection Work Pack page</u>, you can generate Inspection records for the from Inspection Task records by:

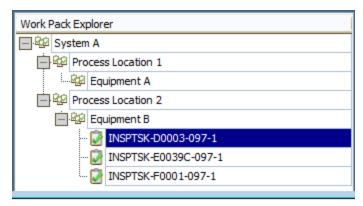
- Generating an Inspection record from a single Inspection Task record.
- Generating Inspection records from *all* Inspection Task records that are linked to the Work Pack record.

# Generating an Inspection Record from a Single Inspection Task Record

The following instructions assume that you want to generate an Inspection record from a single Inspection Task record that is linked to a Work Pack record for which you are viewing the <a href="Inspection Work Pack">Inspection Work Pack</a> page. You can also generate Inspection records from all the Inspection Task records that are linked to a Work Pack record.

#### To generate an Inspection record from a single Inspection Task record:

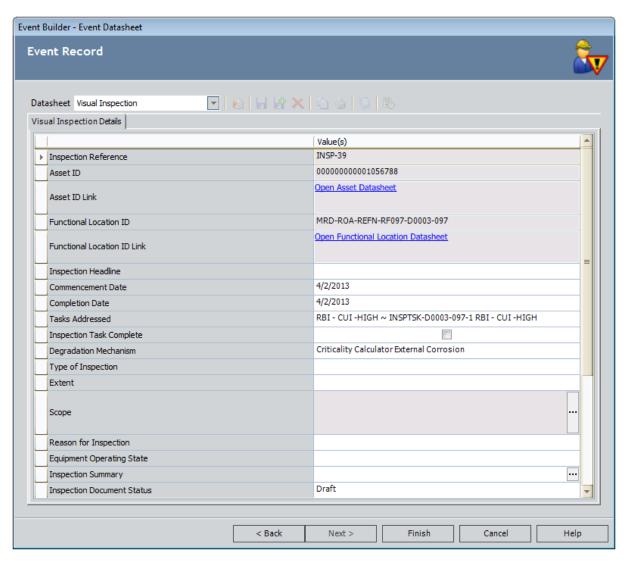
In the Work Pack Explorer pane, select the Inspection Task record from which you
want to generate an Inspection record. In the following image, the Inspection Task
record INSPTSK-D0003-097-1 is selected in the Work Pack Explorer pane.



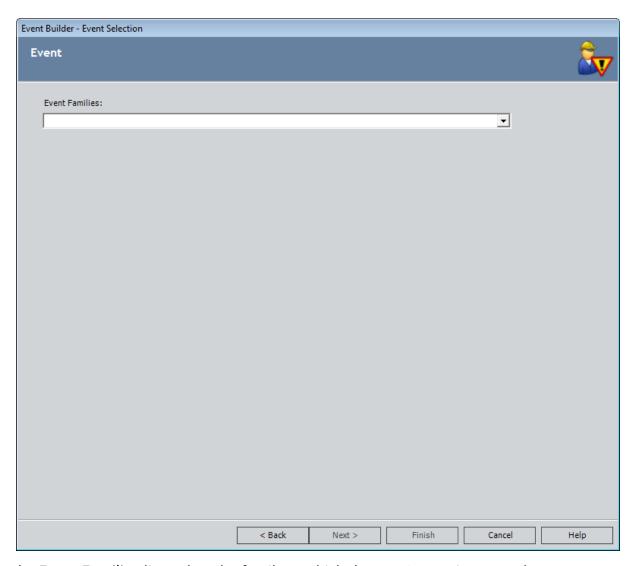
2. On the Work Pack Tasks menu, click the Generate Inspection Document link.

The **Event Builder** appears. Depending upon whether or not the selected Inspection Task record contains a value in the Inspection Document type field, one of the following screens is displayed:

 If the Inspection Task record contains a value in the Inspection Document Type field, the Event Record screen is displayed. The Event Record screen displays datasheet for the new Inspection record. The following image shows an example of what the Event Record screen looks like. In this case, skip to step 5 of these instructions.



 If the Inspection Task record does not contain a value in the Inspection Document Type field, the Event Record screen is displayed. The following image shows an example of what the Event screen looks like. In this case, proceed with step 3 of these instructions.

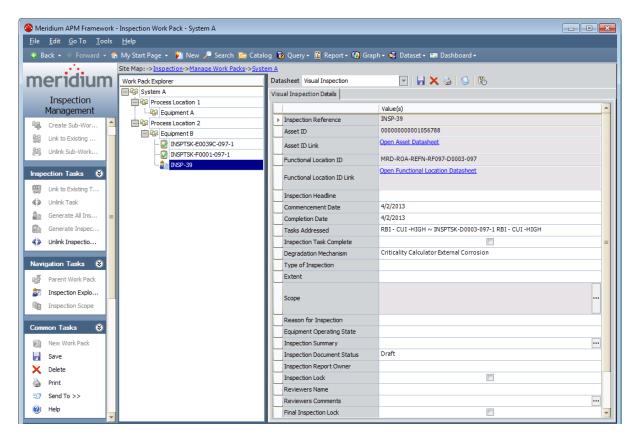


- 3. In the **Event Families** list, select the family to which the new Inspection record should belong.
- 4. Click the **Next** button.

The **Event Record** screen appears, displaying the datasheet for the new Inspection record.

- 5. On the datasheet, specify values in the <u>Inspection record</u>.
- 6. Click the Finish button.

The **Event Builder** closes, and the **Inspection Work Pack** page returns to focus.



An Inspection record is created and linked to the selected Work Pack record. The link between the Work Pack record and the Inspection Task record from which the Inspection record was created is removed. A new Inspection node is displayed in the **Work Pack Explorer** pane, and the Inspection Task node that represented the Inspection Task record that was used to create the Inspection record is no longer displayed in the **Work Pack Explorer** pane.

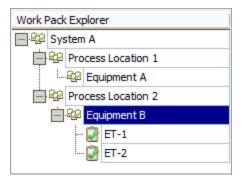
### Generating Inspection Records from All Inspection Task Records

Before you can generate Inspection records from all Inspection Task records that are linked to a Work Pack record, those Inspection Task records must contain a value in the *Inspection Document Type* field. The value in this field will be used to create the corresponding Inspection record in the appropriate family.

The following instructions assume that you want to generate Inspection records from ALL Inspection Task records that are linked to a Work Pack record for which you are viewing the <a href="Inspection Work Pack">Inspection Work Pack</a> page. You can also generate an Inspection record from a single Inspection Task record that is linked to a Work Pack record.

To generate Inspection records from ALL Inspection Task records that are linked to a Work Pack record:

In the Work Pack Explorer pane, select the Work Pack record from whose associated Inspection Task records you want to generate Inspection records. In the following image, the Work Pack record Equipment B is selected in the Work Pack Explorer pane.

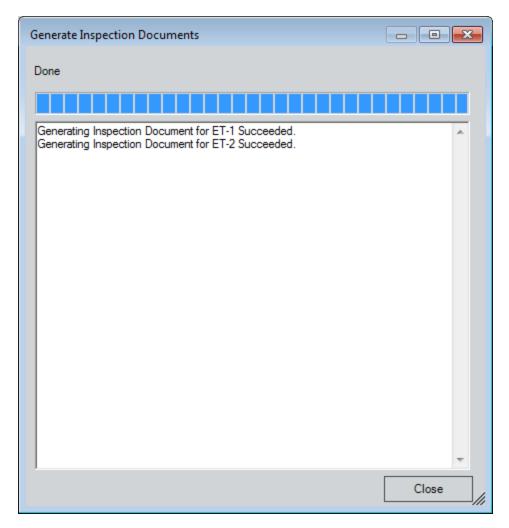


2. On the Inspection Tasks menu, click the Generate All Inspection Documents link.

A confirmation message appears, asking if you are sure that you want to generate the Inspection records.

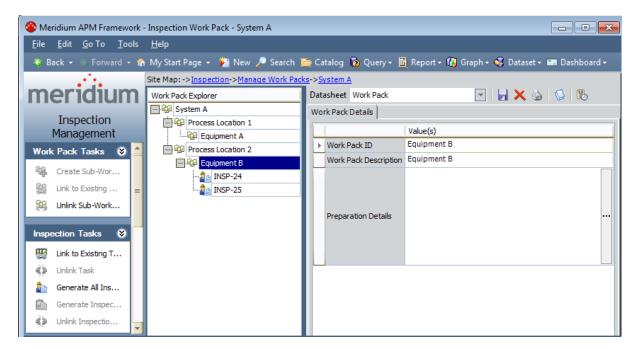
3. Click the **Yes** button.

The **Generate Inspection Documents** window appears, displaying the status of the process.



4. When the process is complete, click the **Close** button.

The **Generate Inspection Documents** window closes and the **Inspection Work Pack Page** returns to focus.



The Inspection records are created and linked to the selected Work Pack record. The links between the Work Pack record and the Inspection Task records from which the Inspection records were created are removed. New Inspection nodes are displayed in the **Work Pack Explorer** pane, and the Inspection Task nodes that represented the Inspection Task records that were used to create the Inspection records are no longer displayed in the **Work Pack Explorer** pane.

# Generating a Report that Includes a List of General Finding Records

For each <u>Inspection record that is created from an Inspection Task record</u>, the Meridium APM system will also create a General Finding record based on the Inspection Profile and Inspection Method records that are included in the Inspection Scope containing that Inspection Task record. You can generate a report that include a list of these General Finding records, and distribute it to the individuals responsible for performing the inspections so they can record their findings on the printed report.

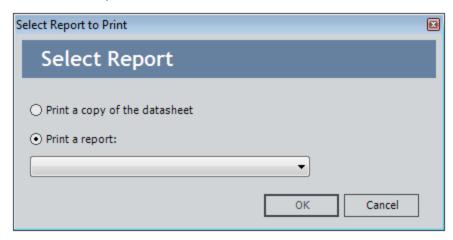
The following instructions assume that:

- The report *Workpack Inspection Findings Summary Report* is associated with the Work Pack family via the Configuration Manager.
- You are viewing the Inspection Work Pack page for the Work Pack record for whose associated General Findings records you want to generate a report.

#### To generate a report that contains a list of General Finding records:

- 1. In the Work Pack Explorer pane, select the Work Pack record for whose associated General Findings records you want to generate a report.
- 2. On the **Common Tasks** menu, click the **Print** link.

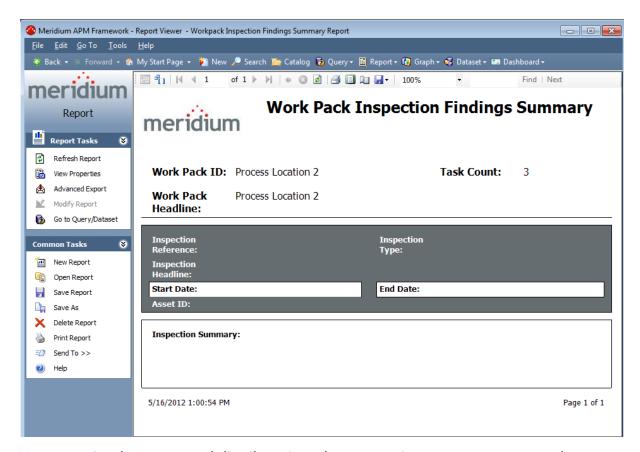
The Select Report to Print dialog box appears.



The **Print a report** option is selected by default.

3. In the **Print a report** list, select *Workpack Inspection Findings Summary Report*, and click **OK**.

The report appears on the **Report Viewer** page.



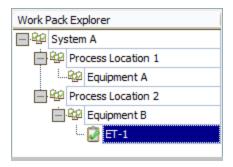
You can print the report and distribute it to the appropriate resources to record their findings on the printed report.

## Removing the Link Between an Inspection Record and a Work Pack Record

The following instructions assume that you are viewing the <u>Inspection Work Pack page</u> for the Work Pack record whose link to an Inspection record you want to remove.

To remove the link between an Inspection record and a Work Pack record:

1. In the <u>Work Pack Explorer pane</u>, select the Inspection record whose link to a Work Pack record you want to remove. In the following image, the Inspection record *INSP-17* is selected in the **Work Pack Explorer** pane.

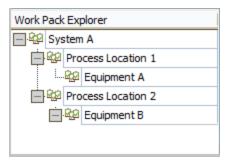


2. On the **Inspection Tasks** menu, click the **Unlink Inspection Document** link.

A confirmation message appears, asking if you are sure that you want to remove the link between the records.

3. Click the **Yes** button.

The link between the Inspection record and the Work Pack record is removed, and the node for the associated Inspection record is no longer displayed in the **Work Pack Explorer** pane.



## **Deleting a Work Pack Record**

The following instructions explain how to delete a Work Pack record from the Manage Work Packs page or the Inspection Work Pack page.

#### To delete a Work Pack record:

- 1. In the Meridium APM Framework, <u>access the Manage Work Packs page</u> or the <u>Inspection Work Pack page</u>.
- 2. On the Manage Work Packs page, in the list of Work Pack records, select the row containing the record that you want to delete.

-or-

On the <u>Inspection Work Pack page</u>, in the **Work Pack Explorer** pane, select the Work Pack record that you want to delete.

3. On the **Common Tasks** menu, click the **Delete** link.

A confirmation message appears, asking if you are sure that you want to delete the Work Pack record.

4. Click the Yes button.

The Work Pack record is deleted.

## **About Time-Based Inspection Settings**

Time-based inspection settings specify the <u>intervals</u> at which inspections should occur for various pieces of equipment. Time-based inspection settings are used in one of the following ways, depending upon whether or not the Risk Based Inspection (RBI) license is active in conjunction with the Inspection Management license. When the RBI license is:

- Active, the inspection intervals associated with the time-based inspection settings
  will be considered by the Meridium APM System when populating the Desired
  Interval field in Inspection Task records created in RBI.
- *Not active*, the inspection intervals associated with the time-based inspection settings will be used to determine the value that is populated in the Desired Interval field in Inspection Task records created in *Inspection*.

Note: The Meridium APM Inspection Best Practice assumes that the RBI license is active and that you will create Inspection Task records for the equipment that you analyze in RBI and Inspection via the RBI module.

A time-based inspection setting consists of the following records:

- One Time Based Inspection Setting record that identifies the family or record for which you will define inspection intervals.
- One or more Time Based Inspection Interval records that identify the various inspection intervals that should be used when inspecting the equipment identified by the Time Based Inspection Setting record. The number of Time Based Inspection Interval records that are created will vary, depending on the number of inspection intervals that you define.

You can define time-based inspection settings at the following levels:

• <u>Unit</u>: Settings defined at this level are applied to all Equipment records that are linked to a particular Functional Location record representing a Unit.

For example, consider *Unit A*, a Functional Location record that represents a Unit that is linked to the following Equipment records:

- Equipment 1
- Equipment 2

The time-based inspection settings that you define for *Unit A* will be applied to *Equipment 1* and *Equipment 2*. In other words, when an Inspection Task record that is linked to *Equipment 1* or *Equipment 2* has a Task Type value that corresponds with a time-based inspection setting that you defined for *Unit A*, that setting will be used to populate values in the Inspection Task record that is linked to *Equipment 1* and *Equipment 2*.

• <u>Criticality Calculator RBI Components family</u>: Settings defined at this level are applied to *all* Equipment records that are linked to a particular type of Criticality Calculator RBI Components record, regardless of the Unit in which they reside.

For example, suppose that you defined time-based inspection settings for the Criticality RBI Component - Exchanger Bundle family. Now, consider that the Functional Location and Equipment records listed in the following table are linked to the following Criticality Calculator RBI Components records.

The Functional Location record that represents:	is linked to the Equipment record:	that is linked to these types of Criticality Calculator RBI Components records:
Unit A	Equipment 1	Criticality RBI Component - Exchanger Bundle
		Criticality RBI Component - Exchanger Header
Unit A	Equipment 2	Criticality RBI Component - Piping
Unit B	Equipment 3	Criticality RBI Component - Exchanger Bundle
		Criticality RBI Component - Piping

The time-based inspection settings that you defined for the Criticality RBI Component - Exchanger Bundle family will be applied to *Equipment 1* and *Equipment 3*. In other words, when an Inspection Task record that is linked to *Equipment 1* or *Equipment 3* has a Task Type value that corresponds with a time-based inspection setting that you defined for the Criticality RBI Component - Exchanger Bundle family, that setting will be used to populate values in the Inspection Task record that is linked to *Equipment 1* and *Equipment 3*.

• <u>Unit and Criticality Calculator RBI Components family</u>: Settings defined at this level are applied to all Equipment records that reside in a particular Unit *and* that are linked to a particular type of Criticality Calculator RBI Components record.

For example, using the same data shown in the preceding table, the time-based inspection settings that you define for the Functional Location record *Unit A* and the *Criticality RBI Component - Piping* family will be applied to *Equipment 2* because *Equipment 2* is linked to both Unit A *and* a record in the Criticality RBI Component - Piping family. In other words, when an Inspection Task record that is linked to *Equipment 2* has a Task Type value that corresponds with a time-based inspection setting that you defined for *Unit A* and the *Criticality RBI Component - Piping* family, that setting will be used to populate values in the Inspection Task record that is linked to *Equipment 2*.

• Equipment: Settings defined at this level are applied to a single Equipment record.

For example, if you defined time-based inspection settings for *Equipment 1*, the settings will be applied to that record *only*. In other words, when an Inspection

Task record that is linked to *Equipment 1* has a Task Type value that corresponds with a time-based inspection setting that you defined for *Equipment 1*, that setting will be used to populate values in the Inspection Task record that is linked to *Equipment 1*.

## **About Inspection Intervals**

An *inspection interval* identifies the interval of time at which inspections should occur on equipment in your facility. Various factors will impact the inspection intervals that you will define at various levels in your location hierarchy.

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

An inspection interval is stored in the Interval field in a <u>Time Based Inspection Interval</u> <u>record</u>, and this value is considered by the Meridium APM system when populating the value in the Desired Interval field in Inspection Task records.

Default inspection intervals are represented by the time-based inspection settings that you define via the <u>Time-Based Inspection Settings</u> page.

## Creating Time-Based Inspection Settings at the Unit Level

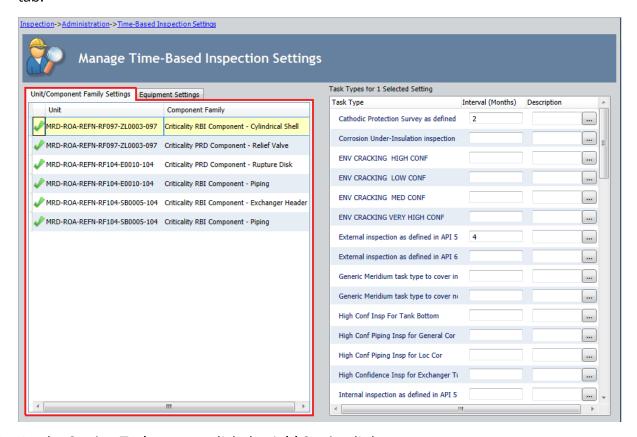
When you create time-based inspection settings at the Unit level, you are defining the frequency at which certain inspections will be performed on a piece of equipment that resides in a given Unit.

You can also modify existing time-based inspection settings.

To create time-based inspection settings at the Unit level:

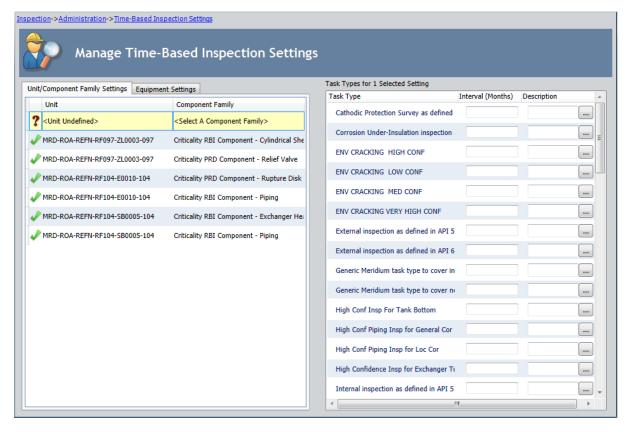
1. In the Meridium APM Framework, <u>access the Time-Based Inspection Settings</u> page.

The **Time-Based Inspection Settings** page appears. The **Unit/Component Family Settings** tab is selected by default in the **Manage Time-Based Inspection Settings** workspace. A red outline has been added to the following image to highlight this tab.

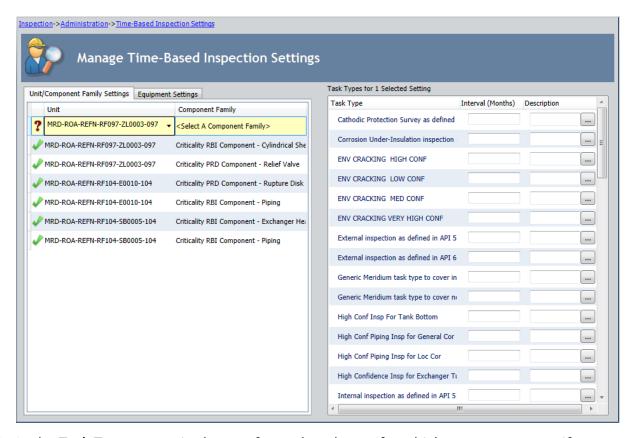


2. On the **Setting Tasks** menu, click the **Add Setting** link.

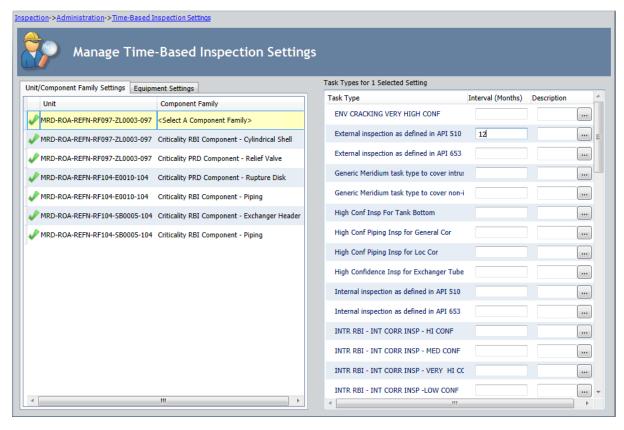
A new row is added to the grid that is displayed on the **Unit/Component Family Settings** tab.



3. In the **Unit** cell, select the Unit for which you want to create time-based inspection settings. For example, in the following image, the Unit *MRD-ROA-REFN-RF097-ZL0003-097* is selected in the list.



4. In the **Task Types** pane, in the row for each task type for which you want to specify an <u>inspection interval</u>, type an inspection interval in the **Interval (Months)** cell. For example, in the following image, an interval of *12* months has been defined for the Task Type *External inspection as defined in API 510* associated with the Unit *MRD-ROA-REFN-RF097-ZL0003-097*.



- 5. In the **Description** cell in the row for each task type for which you have specified an inspection interval, type a description if you want to add comments.
- 6. Repeat steps 2 through 5 for each Unit for which you want to define time-based inspection settings.
- 7. On the **Setting Tasks** menu, click the **Save** link.

The **Saving Settings** dialog box is displayed, indicating the progress of the save operation. The dialog box closes automatically, and the following records are created and saved to the database:

- One Time Based Inspection Setting record for each Unit defined in the grid on the Unit/Component Family Settings tab.
- One Time Based Inspection Interval record for each inspection interval defined in the grid in the **Task Types** pane.

Continuing with the example used in these instructions, the records in the families listed in the following table would be created.

Family	Record ID
Time Based Inspection Set- ting	MRD-ROA-REFN-RF097-ZL0003-097 - <select a="" component="" family=""> -</select>

Family	Record ID
Time Based Inspection Interval	External inspection as defined in API 510 - 12

# Creating Time-Based Inspection Settings at the Criticality Calculator RBI Components Family Level

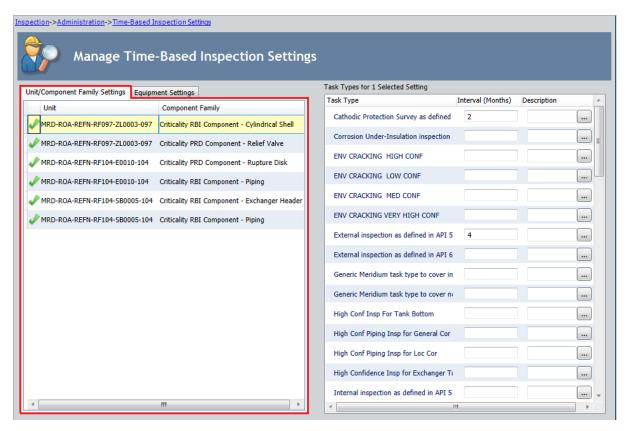
When you create time-based inspection settings at the Criticality Calculator RBI Components family level, you are defining the frequency at which certain inspections will be performed on a piece of equipment that is associated with certain RBI Components (i.e., linked to a record in a particular Criticality Calculator RBI Components family).

You can also modify existing time-based inspection settings.

To create time-based inspection settings at the Criticality Calculator RBI Components family level:

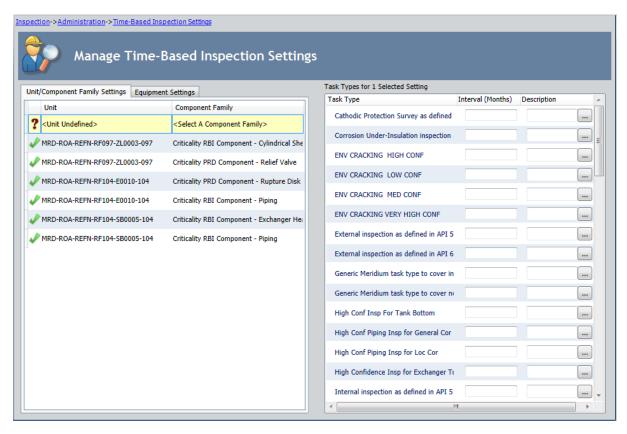
1. In the Meridium APM Framework, <u>access the Time-Based Inspection Settings</u> <u>page</u>.

The **Time-Based Inspection Settings** page appears. The **Unit/Component Family Settings** tab is selected by default in the **Manage Time-Based Inspection Settings** workspace. A red outline has been added to the following image to highlight this tab.

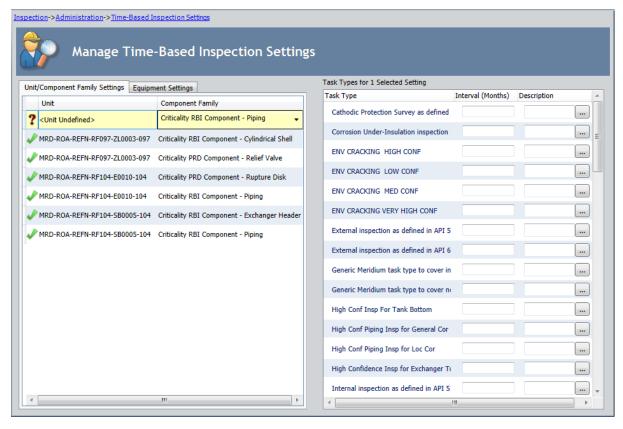


2. On the Setting Tasks menu, click the Add Setting link.

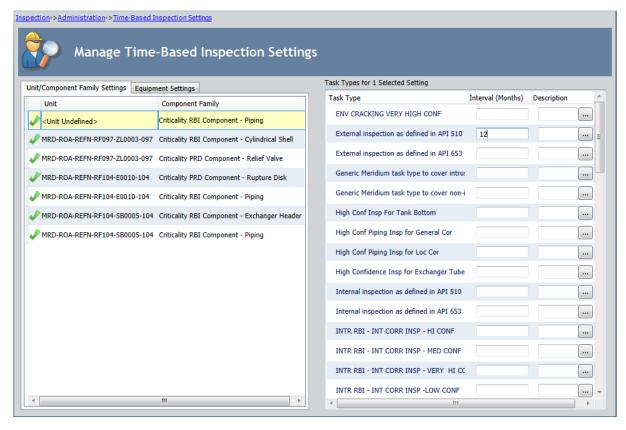
A new row is added to the grid that is displayed on the **Unit/Component Family Settings** tab.



3. In the **Component Family** cell, select in the list the family for which you want to create time-based inspection settings. For example, in the following image, the *Criticality RBI Component - Piping* family has been selected in the list in the **Component Family** cell.



4. In the **Task Types** pane, in the row for each task type for which you want to specify an <u>inspection interval</u>, type an inspection interval in the **Interval (Months)** cell. For example, in the following image, an interval of *12* months has been defined for the Task Type *External inspection as defined in API 510* associated with the *Criticality RBI Component - Piping* family.



- 5. In the **Description** cell in the row for each task type for which you have specified an inspection interval, type a description if you want to add comments.
- 6. Repeat steps 2 through 5 for each Criticality Calculator RBI Components family for which you want to define time-based inspection settings.
- 7. On the **Setting Tasks** menu, click the **Save** link.

The **Saving Settings** dialog box is displayed, indicating the progress of the save operation. The dialog box closes automatically, and the following records are created and saved to the database:

- One Time Based Inspection Setting record for each Criticality Calculator RBI Components family defined in the grid on the **Unit/Component Family Settings** tab.
- One Time Based Inspection Interval record for each inspection interval defined in the grid in the **Task Types** pane.

Continuing with the example used in these instructions, the records in the families listed in the following table would be created.

Family	Record ID
Time Based Inspection Set- ting	<unit undefined=""> - Criticality RBI Component - Piping -</unit>

Creating Time-Based Inspection Settings at the Criticality Calculator RBI Components Family Level

Family	Record ID
Time Based Inspection Interval	External inspection as defined in API 510 - 12

# Creating Time-Based Inspection Settings at the Unit and Criticality Calculator RBI Components Family Level

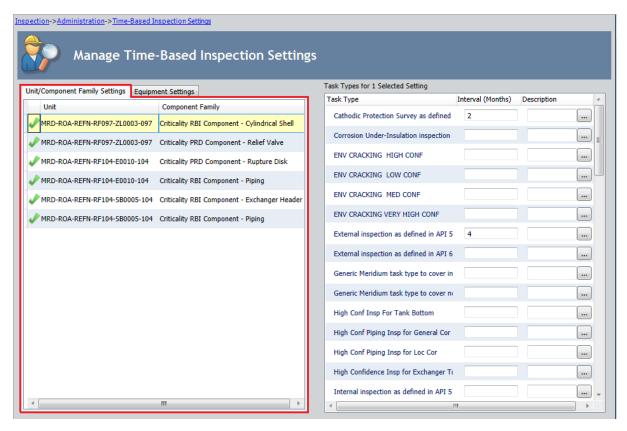
When you create time-based inspection settings at the Unit *and* Criticality Calculator RBI Components family level, you are defining the frequency at which certain inspections will be performed on a piece of equipment that resides in a given Unit *and* is associated with certain RBI Components.

You can also modify existing time-based inspection settings.

To create time-based inspection settings at the Unit *and* Criticality Calculator RBI Components family level:

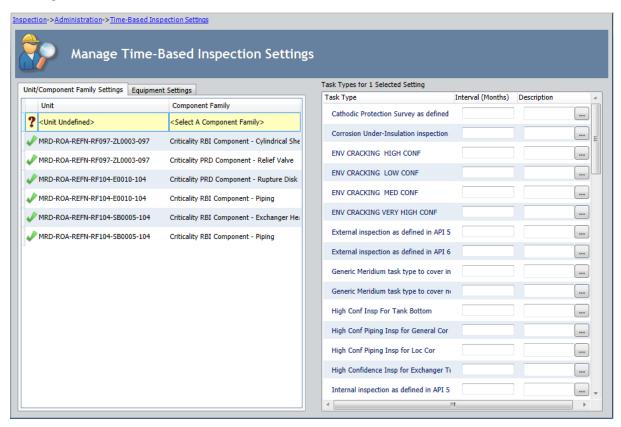
1. In the Meridium APM Framework, <u>access the Time-Based Inspection Settings</u> page.

The **Time-Based Inspection Settings** page appears. The **Unit/Component Family Settings** tab is selected by default in the **Manage Time-Based Inspection Settings** workspace. A red outline has been added to the following image to highlight this tab.

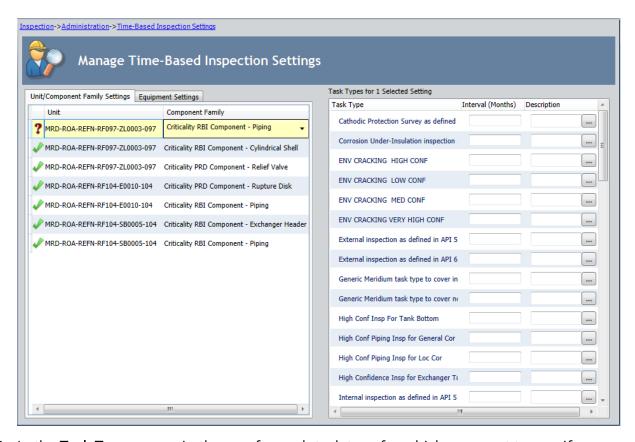


2. On the **Setting Tasks** menu, click the **Add Setting** link.

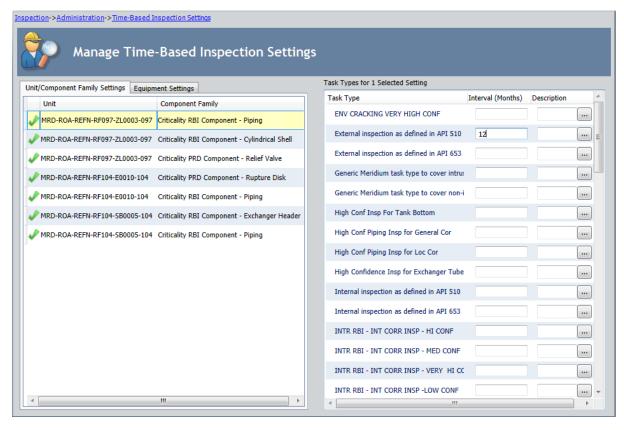
A new row is added to the grid that is displayed on the **Unit/Component Family Settings** tab.



3. In the **Unit** and **Component Family** cells, select the Unit and Criticality Calculator RBI Components family for which you want to create time-based inspection settings. For example, in the following image, the Unit *MRD-ROA-REFN-RF097-ZL0003-097* has been selected in the **Unit** cell, and the *Criticality RBI Component - Piping* family has been selected in the **Component Family** cell.



4. In the **Task Types** pane, in the row for each task type for which you want to specify an <u>inspection interval</u>, type an inspection interval in the **Interval (Months)** cell. For example, in the following image, an interval of *12* months has been defined for the Task Type *External inspection as defined in API 510* associated with the Unit *MRD-ROA-REFN-RF097-ZL0003-097* and the *Criticality RBI Component - Piping* family.



- 5. In the **Description** cell in the row for each task type for which you have specified an inspection interval, type a description if you want to add comments.
- 6. Repeat steps 2 through 5 for each Unit and Criticality Calculator RBI Components family for which you want to define time-based inspection settings.
- 7. On the **Setting Tasks** menu, click the **Save** link.
  - The **Saving Settings** dialog box is displayed, indicating the progress of the save operation. The dialog box closes automatically, and the following records are created and saved to the database:
  - One Time Based Inspection Setting record for each Unit and Criticality Calculator RBI Components family defined in the grid on the Unit/Component Family Settings tab.
- One Time Based Inspection Interval record for each inspection interval defined in the grid in the **Task Types** pane.

Continuing with the example used in these instructions, the records in the families listed in the following table would be created.

Family	Record ID
Time Based Inspection Set-	MRD-ROA-REFN-RF097-ZL0003-097 - Criticality RBI
ting	Component - Piping -

Creating Time-Based Inspection Settings at the Unit and Criticality Calculator RBI Components Family

Family	Record ID
Time Based Inspection Interval	External inspection as defined in API 510 - 12

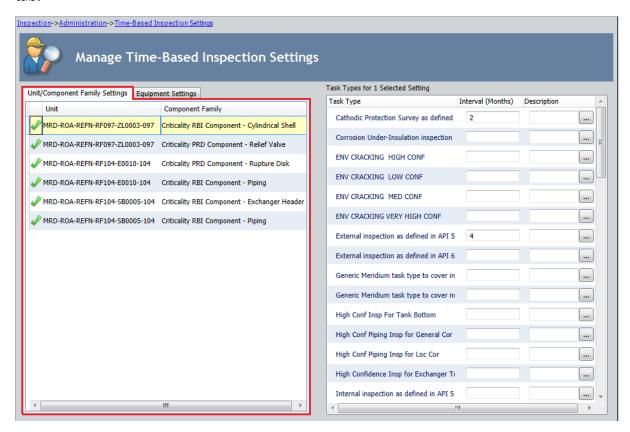
# Creating Time-Based Inspection Settings at the Equipment Level

When you create time-based inspection settings at the equipment level, you are defining the frequency at which certain inspection tasks will be performed on a particular piece of equipment. You can also <u>modify existing time-based inspection settings</u> at the equipment level.

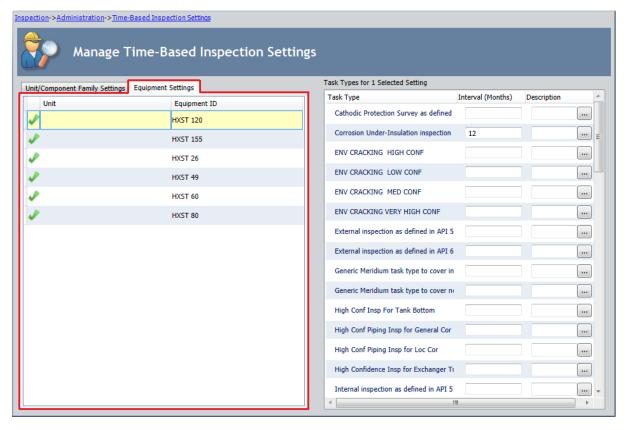
#### To create time-based inspection settings at the equipment level:

1. In the Meridium APM Framework, <u>access the Time-Based Inspection Settings</u> <u>page</u>.

The **Time-Based Inspection Settings** page appears. The **Unit/Component Family Settings** tab is selected by default in the **Manage Time-Based Inspection Settings** workspace. A red outline has been added to the following image to highlight this tab.

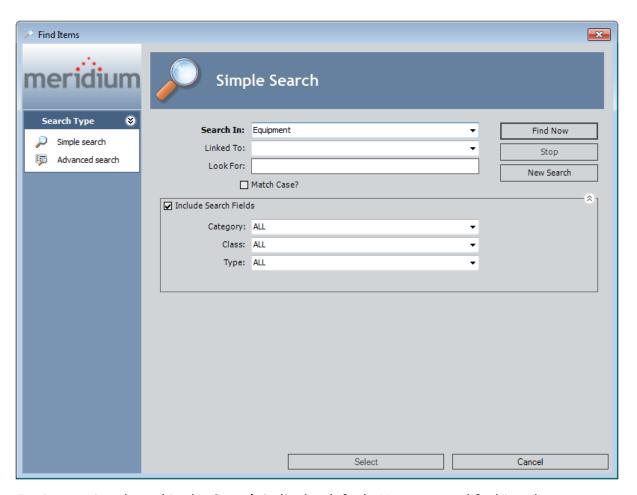


2. In the Manage Time-Based Inspection Settings workspace, select the Equipment Settings tab. A red outline has been added to the following image to highlight this tab.



3. On the **Setting Tasks** menu, click the **Add Setting** link.

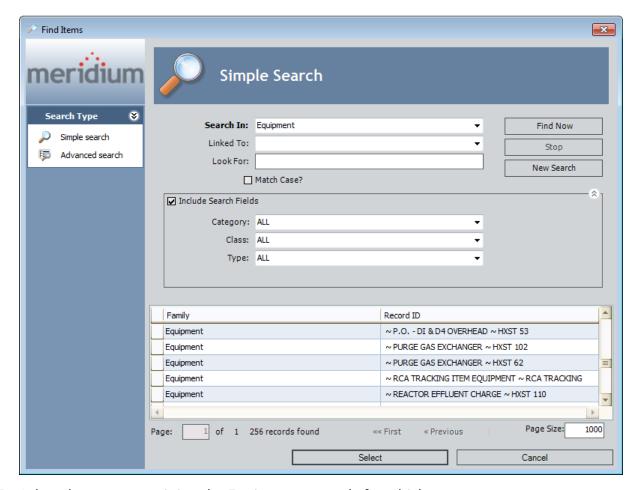
The **Find Items** window appears.



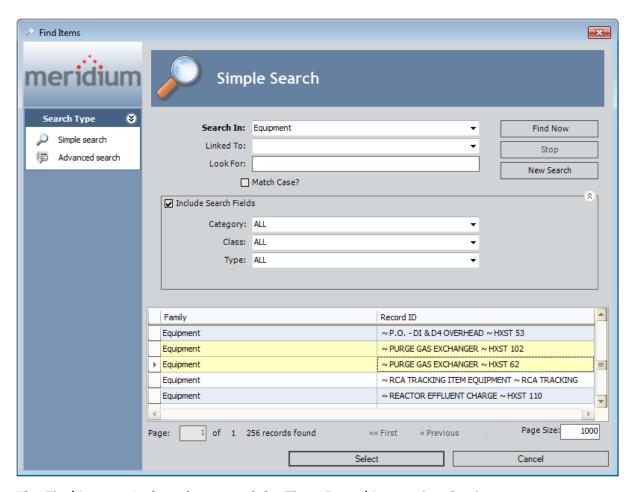
*Equipment* is selected in the **Search In** list by default. You can modify this selection.

#### 4. Click the Find Now button.

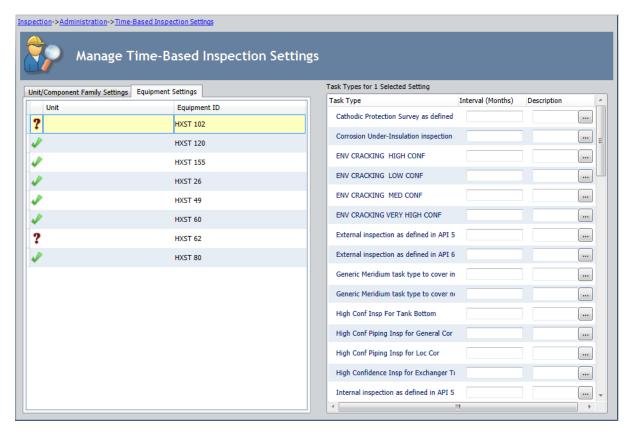
In the search results, one row is displayed in the grid for each Equipment record in your database.



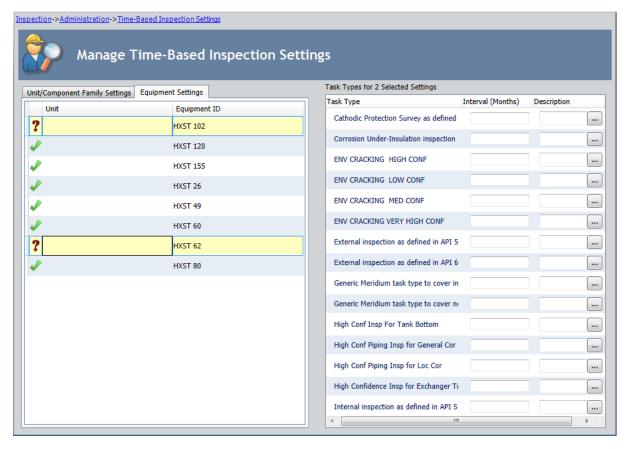
5. Select the rows containing the Equipment records for which you want to create time-based inspection settings, and click the **Select** button. For example, in the following image, the Equipment records with the Record IDs ~ PURGE GAS EXCHANGER ~ HXST 102 and ~ PURGE GAS EXCHANGER ~ HXST 62 are selected.



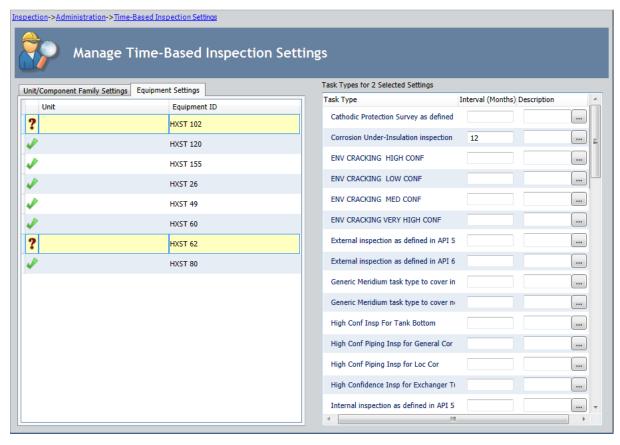
The **Find Items** window closes, and the **Time-Based Inspection Settings** page returns to focus. One row is added to the grid displayed on the **Equipment Settings** tab for each Equipment record that you selected.



6. On the **Equipment Settings** tab, select the row(s) in the grid associated with the Equipment record for which you want to define settings. For example, in the following image, the rows associated with Equipment records *HSXT 102* and *HXST 62* are selected on the **Equipment Settings** tab.



7. In the **Task Types** pane, in the row for each task type for which you want to specify an <u>inspection interval</u>, type an inspection interval in the **Interval (Months)** cell. For example, in the following image, an interval of *12* months has been defined for the Task Type *Corrosion Under-Insulation inspection* for the Equipment records *HXST 102* and *HXST 62*.



- 8. In the **Description** cell in the row for each task type for which you have specified an inspection interval, type a description if you want to add comments.
- 9. Repeat steps 6 through 8 for each Equipment record for which you want to define time-based inspection settings.
- 10. On the **Setting Tasks** menu, click the **Save** link.

The **Saving Settings** dialog box is displayed, indicating the progress of the save operation. The dialog box closes automatically, and the following records are created and saved to the database:

- One Time Based Inspection Setting record for each Equipment record defined in the grid on the **Equipment Settings** tab.
- One Time Based Inspection Interval record for each inspection interval defined in the grid in the **Task Types** pane.

Continuing with the example used in these instructions, the records listed in the following table would be created.

Family	Record ID	
Time Based Inspection Set-	HXST 102	
ting	HXST 62	
Time Based Inspection Inter-	Corrosion Under-Insulation inspection - 12	
val	Corrosion Under-Insulation inspection - 12	

# About Modifying Existing Time-Based Inspection Settings

You can modify the:

- Level at which an existing time-based inspection setting is defined.
   -or-
- Inspection interval defined for an existing time-based inspection setting.

## Modifying the Level at Which Existing Time-Based Inspection Settings are Defined

You can modify the level at which a time-based inspection setting is defined when the time-based inspection setting is defined at any of the following levels:

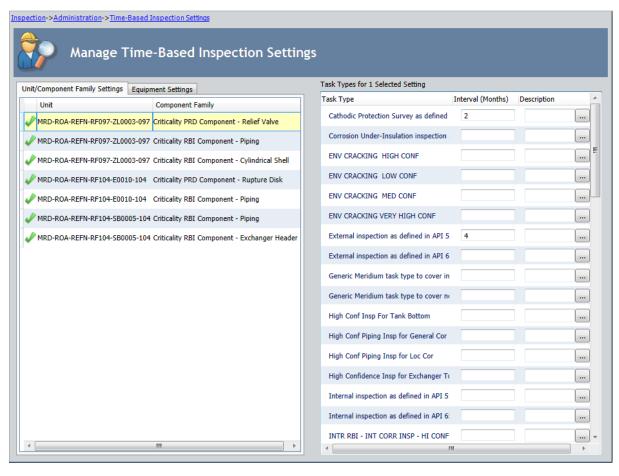
- Unit
- Criticality Calculator RBI Components family
- Unit and Criticality Calculator RBI Components family

For example, suppose that you have defined time-based inspection settings for Unit A and the Criticality RBI Component - Exchanger Bundle family, but your facility recently moved the equipment associated with the Criticality RBI Component - Exchanger Bundle family to *Unit B*. In this case, you might want to change the level with which these time-based inspection settings are associated to account for this change in location.

To modify the level at which existing time-based inspection settings are defined:

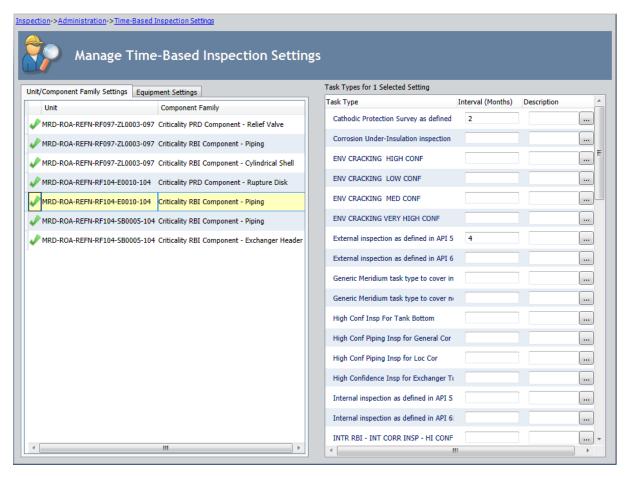
1. Access the <u>Time-Based Inspection Settings</u> page.

In the Manage Time-Based Inspection Settings workspace, the Unit/Component Family Settingstab is selected by default, as shown in the following image.



2. In the grid on the **Unit/Component Family Settings** tab, select the row that contains the time-based inspection setting whose level you want to modify.

For example, in the following image, the time-based inspection setting associated with Unit MRD-ROA-REFN-RF104-E0010-104 and the Criticality RBI Component - Piping family is selected in the grid on the Unit/Component Family Settings tab.



3. Depending upon the level you want to modify, select a value in the list in the cell that corresponds with the level that you are modifying. The following tables lists the levels, their corresponding cells, and the values that you can select in their corresponding lists.

Level	Cell	Acceptable values
Unit	Unit	A different Unit <i>or</i> the value <i><unit undefined=""></unit></i> if you do not want a Unit to be associated with the time-based inspection setting.
Criticality Cal- culator RBI Components	Component Family	A different Criticality Calculator RBI Components family <i>or</i> the value <i><select a="" component="" family=""></select></i> if you do not want a Criticality Calculator RBI Components family to be associated with the time-based inspection setting.

4. On the **Setting Tasks** menu, click the **Save** link.

The **Saving Settings** dialog box is displayed, indicating the progress of the save operation. The dialog box closes automatically, and the associated Time Based Inspection Setting record is updated.

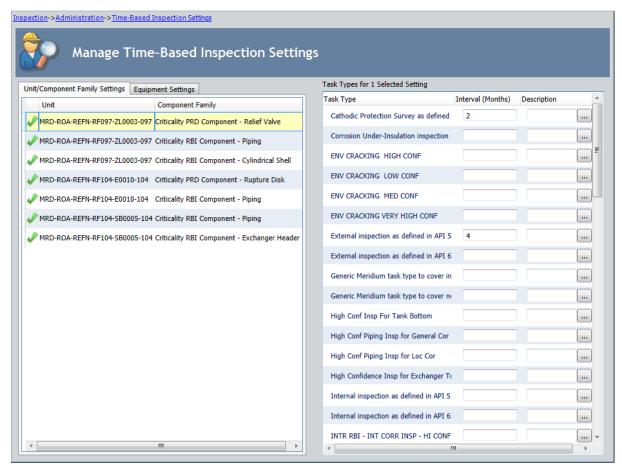
## Modifying the Inspection Interval Defined for Existing Time-Based Inspection Settings

You can modify the inspection interval defined for any existing time-based inspection setting. For example, suppose that you defined an inspection interval for a particular type of inspection based upon an organizational policy, and that policy has changed. You could modify the existing time-based inspection setting to reflect the interval that is now defined by the organizational policy. The following instructions assume that you are viewing the Time-Based Inspection Settings page.

#### To modify inspection intervals defined for existing time-based inspection settings:

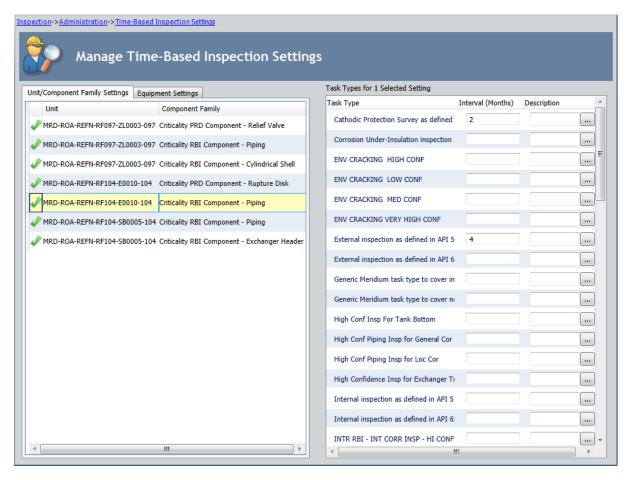
- In the Manage Time-Based Inspection Settings workspace, select one of the following tabs, depending upon the level at which the existing time-based inspection setting is defined:
  - Unit/Component Family Settings: Select this tab if you want to modify the inspection interval for a time-based inspection setting at the Unit and/or Criticality Calculator RBI Components family level.
  - **Equipment Settings:** Select this tab if you want to modify the inspection interval for a time-based inspection setting at the equipment level.

For example, in the following image, the **Unit/Component Family Settings** tab is selected.



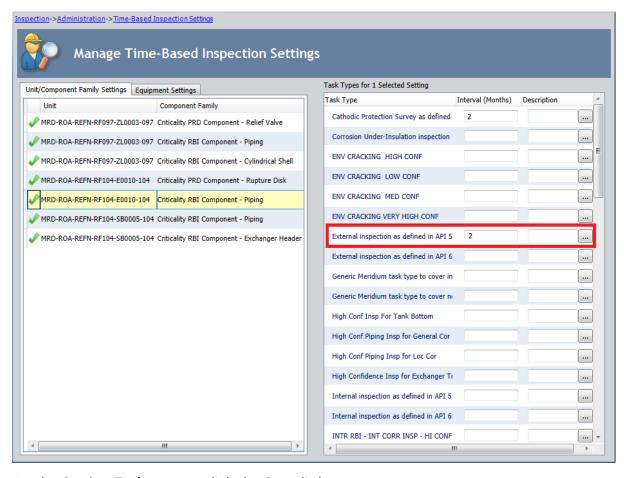
2. In the grid on the selected tab, select the row for the record and/or family whose associated inspection interval you want to modify.

For example, in the following image, the time-based inspection setting associated with the Unit *MRD-ROA-REFN-RF104-E0010-104* and the *Criticality RBI Component - Piping* family is selected in the grid on the **Unit/Component Family Settings** tab.



3. In the **Task Types** pane, in the row for the inspection type whose inspection interval you want to modify, type the inspection interval that you want to use in the **Interval (Months)** cell.

For example, in the preceding image, the inspection interval for the task type *External inspection as defined in API 510* is *4 months*. Suppose your new organizational policy recommends that this type of inspection be completed every *2 months*. In this case, you would type the value *2* in the **Interval (Months)** cell. A red outline has been added to the following image to highlight this task type and its associated inspection interval.



4. On the **Setting Tasks** menu, click the **Save** link.

The **Saving Settings** dialog box is displayed, indicating the progress of the save operation. The dialog box closes automatically, and the associated Time Based Inspection Interval record is updated.

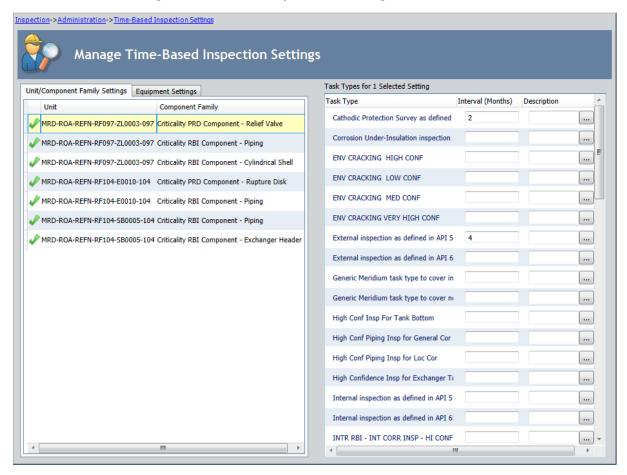
## **Deleting Time-Based Inspection Settings**

The following instructions assume that you are viewing the <u>Time-Based Inspection Settings</u> page.

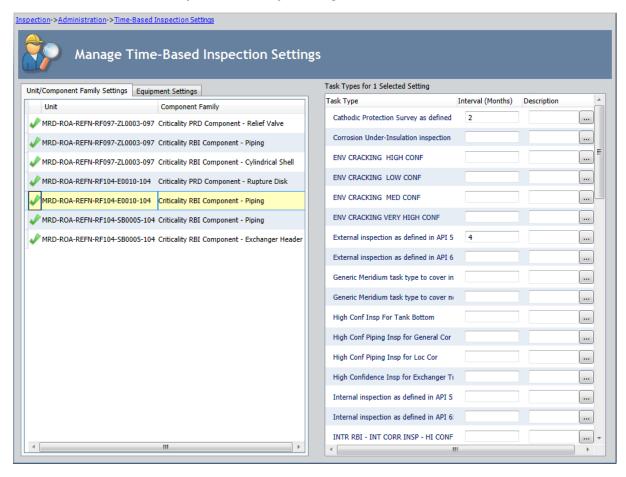
To delete time-based inspection settings:

- 1. In the **Manage Time-Based Inspection Settings** workspace, select one of the following tabs, depending upon the level at which the time-based inspection setting you want to delete is defined:
  - Unit/Component Family Settings: Select this tab if you want to delete a time-based inspection setting at the Unit and/or Criticality Calculator RBI Components family level.
  - Equipment Settings: Select this tab if you want to delete a time-based inspection setting at the equipment level.

For example, in the following image, the **Unit/Component Family Settings** tab is selected in the **Manage Time-Based Inspection Settings** workspace.



2. In the grid on the selected tab, select the row for the record and/or family whose time-based inspection setting you want to delete. For example, in the following image, the time-based inspection setting associated with Unit *MRD-ROA-REFN-RF104-E0010-104* and the *Criticality RBI Component - Piping* family is selected in the grid on the **Unit/Component Family Settings** tab.

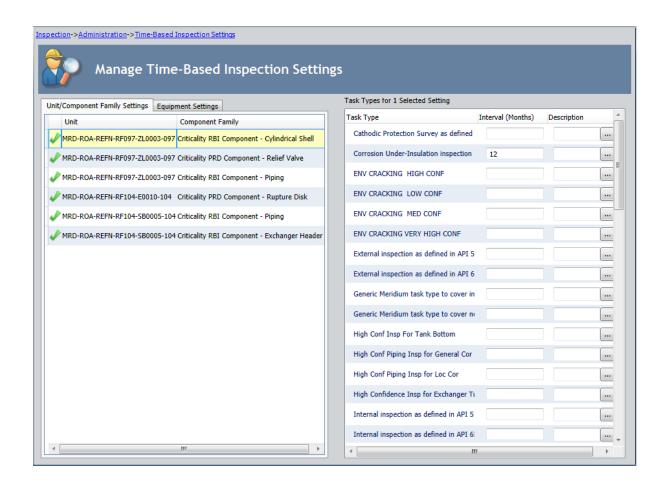


3. On the Setting Tasks menu, click the Delete Setting link.

A confirmation message appears, asking if you are sure that you want to delete the selected time-based inspection setting.

4. Click the Yes button.

The **Time-Based Inspection Settings** page returns to focus. The associated row is removed from the grid, and the associated Time Based Inspection Setting record and its associated Time Based Inspection Interval records are deleted from the database.



## **Inspection Management Workflow**

After various <u>administrative tasks</u> have been completed, you are ready to start recording inspection data and making recommendations for future actions. The steps in the following table suggest one possible workflow for doing so. You are not required to follow these steps in this order, but they provide a general idea of the tasks you can accomplish using Inspection Management.

Note: If you are performing an inspection using one of the Inspection families whose captions contains the word *Checklist*, you can skip steps 2 and 3 of the following workflow.

Step	Task	Notes
1	Identify the equipment or location that needs to be inspected, and make sure that a record exists to identify the equipment or location.	None
2	If you are going to inspect a piece of equipment, make sure that an administrative user has created an <a href="Inspection Profile">Inspection Profile</a> for the equipment to determine which parts of the equipment (i.e., subcomponents) can be inspected and the methods that should be used to inspect them.	Typically, you will want to configure Inspection Profiles only for equipment and not for locations.
3	If you are inspecting a piece of equipment, define the scope of work for the inspection. To do so, you will create an Inspection Task record and link it to the Inspection Profile records and Inspection Method records that represent the parts of the equipment that should be inspected and how. Note that you are not required to define an Inspection Scope if you want to inspect all subcomponents using all inspection methods that are defined by the Inspection Profile for the equipment.  Also, if you are inspecting a location, because you will not have created an Inspection Profile for it, you will not be able to define the scope of work.	If you do not define the Inspection Scope, you can still create an Inspection Task record for the equipment or location and generate the Inspection record from the Inspection Task record. This documentation, however, explains how to define the Inspection Scope each time that you need to perform an inspection.

Step	Task	Notes
4	Create an Inspection record from the Task record that belongs to the inspection scope that you defined in step 3.	If the Task record is linked to a Work Pack record, you can generate the Inspection record directly from the Inspection Task record while viewing the Work Pack record.
5	Inspect the equipment or location according to the details laid out in the Task record from which the Inspection record was generated.	None

Step	Task Notes			
6	Record your findings from the inspection.	<ul> <li>Write the findings on a printed document that was generated from an inspection report in Meridium APM. If you choose this option, we recommend that you transfer the written findings to Meridium APM records (i.e., the Inspection record, Checklist Finding records, and General Finding records) so that users can retrieve information about completed inspections.</li> <li>-or-</li> <li>Record the findings in Meridium APM records. For example, you can record general inspection information in the Inspection record, such as the type of inspection that was performed, the inspector's name, date of inspection, and reason for inspection. You can also record specific findings in General Finding records, Observation records, or Checklist Finding records that are linked to the Inspection record.</li> </ul>		
7	Assign users to the inspection team to indicate the people who are involved with the inspection.	None		
8	<u>Create Inspection Recommendation</u> <u>records</u> to capture any recommended follow-up procedures.	None		

Step	Task	Notes
9	Lock the Inspection record to prevent other users from modifying it.	None
10	Set the Inspection record to Pending Approval.	None
11	Review the Inspection record, any linked General Finding records, and any linked Inspection Recommendation records.	None
12	When you are satisfied with the findings, set the Inspection record to Approved. You can also change the Inspection Recommendation records from their current status (e.g., Created) to the appropriate status (e.g., Reviewed).	None
13	Publish the Inspection record for all users to see.	None

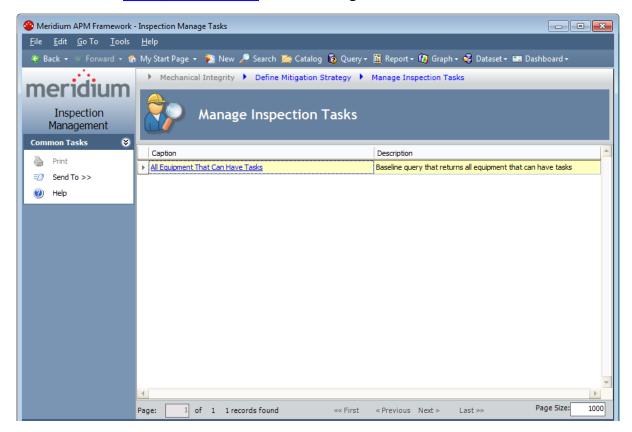
Note that these steps could be performed by the same person or by different people, depending on how you assign inspection roles and family-level permissions. This documentation does not assume that you have assigned inspection roles in any specific way. It describes only the steps that can be completed using Inspection Management. When a task must be completed by a specific user (i.e., only the Inspection Supervisor can set an Inspection record to Approved), we note the requirement.

## Viewing Inspection Tasks

#### To view Inspection Task records:

1. On the <u>Inspection Management Start Page</u>, click the **Manage Tasks** link.

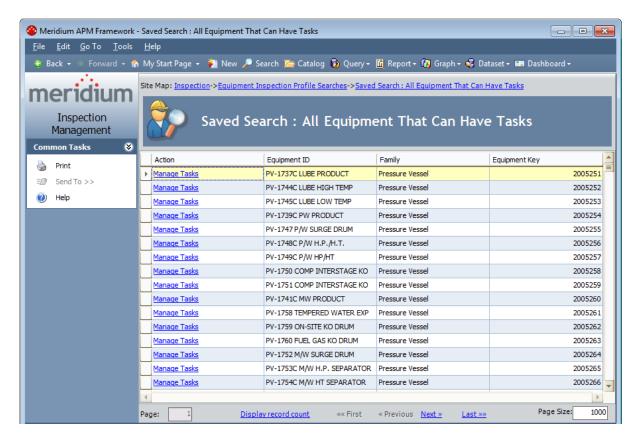
The **Inspection Manage Tasks** page appears, displaying a list of all queries and searches in the <u>Task Queries folder</u> in the Catalog.



2. Click the **All Equipment That Can Have Tasks** link.

The **Saved Search: All Equipment That Can Have Tasks** page appears, displaying a list of all records that can be linked to a Task record through the Has Tasks relationship.

**Note:** In the Meridium APM baseline database, this page displays in the page title the catalog item *caption* for the query with which it is associated. This documentation assumes that you have not modified this query caption.



3. In the row containing the record whose related Task records you want to view, click the **Manage Tasks** link.

The **Task List** page appears, displaying all Task records that are linked to the record that you selected on the **Manage Tasks** page.

## About Creating and Modifying an Inspection Scope

Note: You do not need to define Inspection Profiles if you plan to create records only in the Inspection families whose caption contains the word *Checklist*. The <u>process</u> for recording subcomponent findings for these families does not rely on Inspection Profile or Inspection Method records.

You can create a new Inspection Scope or modify an existing Inspection Scope using the Inspection Scope Builder.

When you use the **Inspection Scope Builder** to modify an existing Inspection Scope, after you select the equipment and the existing Inspection Task record that belong to the Inspection Scope that you want to modify, you will then be directed to the **Inspection Scope** page for the selected equipment.

When you use the **Inspection Scope Builder** to <u>create a new Inspection Scope</u>, you will need to:

- Select the equipment for which you want to create a new Inspection Scope.
- Select the subcomponents (i.e., Inspection Profile records that you want to inspect.)
- Select the inspection methods that you want to use for the selected subcomponents.
- Create a new Inspection Task record that you want to include in the new Inspection Scope.

After you complete these steps, you will be directed to the **Inspection Scope** page for the selected equipment.

When you create or modify Inspection Scope, if the value that you select in the **Task Type** list on the Inspection Task datasheet corresponds with a Task Types record that is associated with <u>time-based inspection settings</u>, the value in the Desired Interval field in the Inspection Task record to which the Inspection Scope record is linked will be populated automatically with the value in the Interval field in the associated Time Based Inspection Interval record.

Note that in order for <u>time-based inspection settings defined at the Criticality Calculator RBI Components family level</u> to be considered by the Meridium APM system when you create or modify an Inspection Scope, the value populated in the RBI Component Family field in the associated Inspection Profile record must match the family for which the time-based inspection settings have been defined. You can select the Criticality Calculator RBI Components family with which an Inspection Profile record is associated in the **RBI Component Family** list in the **Inspection Profile** grid:

- On the Select Inspection Scope screen in the Inspection Scope Builder.
   -or-
- On the Inspection Profile page.

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 among those that have been defined. For example, suppose that you define an Inspection Scope that includes the inspection task type *CUI*, which is associated with the following Meridium 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 Com- ponent - Exchanger Bundle	N/A	CUI	48
2	Unit A	N/A	N/A	CUI	36
3	Unit A	Criticality RBI Com- ponent - Exchanger Bundle	N/A	CUI	24
4	Unit A	Criticality RBI Com- ponent - 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).

Note: If you do not define inspection intervals (i.e., create time-based inspection settings) for *any* inspection task types that are included in an Inspection Scope, the Desired Interval field in the associated Inspection Task record will be populated with the value zero (0), by default.

## Creating a New Inspection Scope

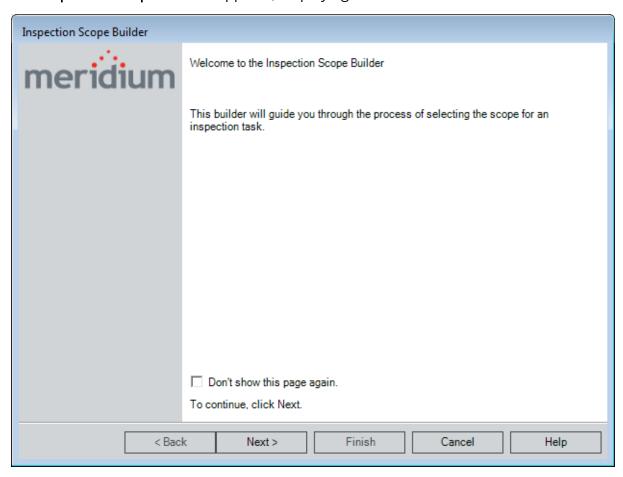
The following instructions assume that you want to create a new Inspection Scope from the **Inspection Management Start Page**. When you do so, the **Inspection Scope Builder** is displayed.

You can also create a new Inspection Scope from the <u>Inspection Profile page</u>. When you do so, the <u>Inspection Scope Builder</u> is displayed, but the <u>Select Equipment</u> screen is bypassed. The Meridium APM system assumes that you want to define the Inspection Scope for the equipment that you are currently working with on the <u>Inspection Profile</u> page. If you are initiating the process from the <u>Inspection Profile</u> page, you can skip steps 1 through 6, and begin with step 7.

#### To create a new Inspection Scope:

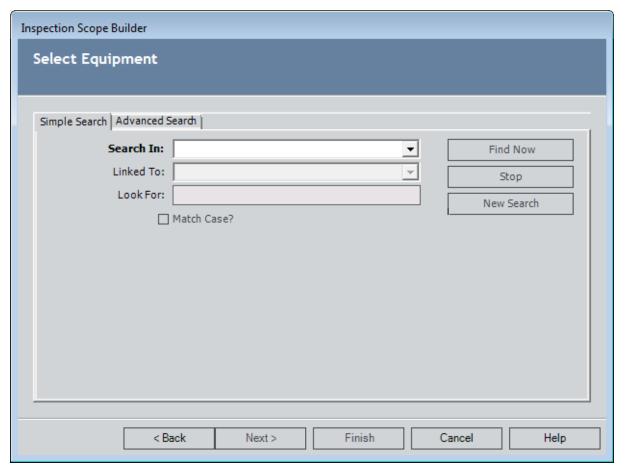
1. On the **Inspection Management Start Page**, click the **Manage Inspection Scope** link.

The **Inspection Scope Builder** appears, displaying the Welcome screen.



2. Click the **Next** button.

The **Select Equipment** screen appears.

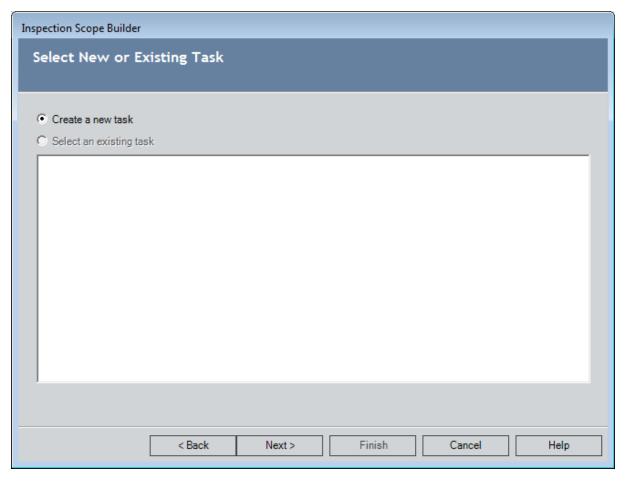


- 3. In the **Search In** list, select the *Equipment* family. You can define additional search criteria if you want.
- 4. Click the Find Now button.

The search results appear, displaying all Equipment records that meet the specified search criteria.

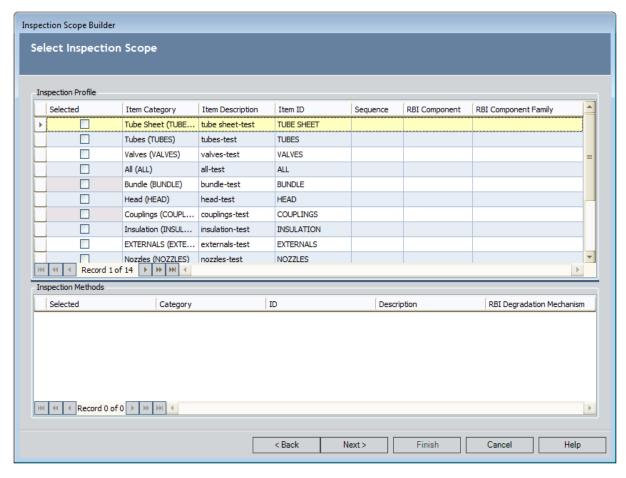
5. In the search results, select the row containing the Equipment record that represents the equipment that needs to be inspected, and click the **Next** button.

The **Select New or Existing Task** screen appears.



6. Select the **Create a new task** option, and click the **Next** button.

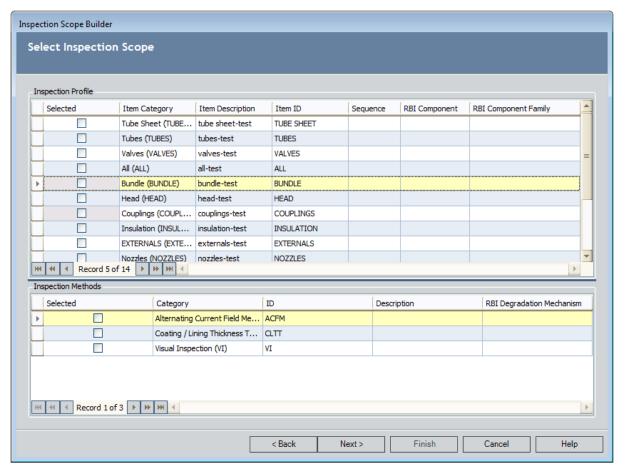
The **Select Inspection Scope** screen appears, displaying the **Inspection Profile** and **Inspection Methods** grids.



In the **Inspection Profile** grid, the cells in the **Selected** column are disabled for Inspection Profile records that are linked to one or more Inspection Method records. In this image, the cells in **Selected** column are disabled to indicate that Inspection Method records are linked to the Inspection Profile records with the Item ID *BUNDLE* and *COUPLINGS*.

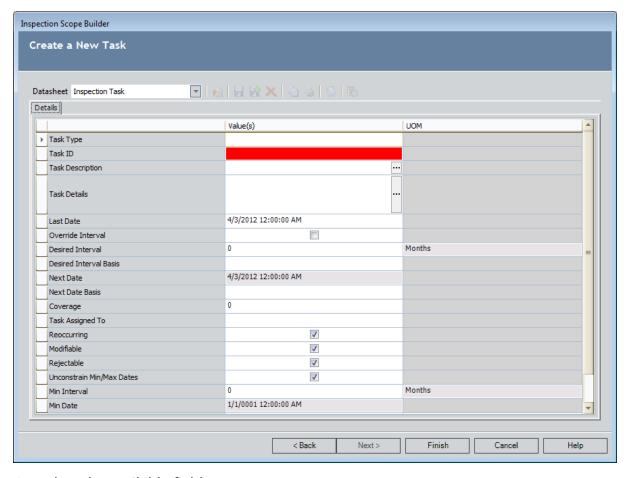
- 7. In the **Inspection Profile** grid, make the selections that you want, according to the following guidelines:
  - For Inspection Profile records that are not linked to Inspection Method records, select the check boxes in the Selected column in the rows containing the Inspection Profile records that you want to include in the Inspection Scope.
  - For Inspection Profile records that are linked to at least one Inspection Method record, select the check boxes in the Selected column in the rows containing the Inspection Profile records that you want to include in the Inspection Scope.

The Inspection Method records that are linked to the selected Inspection Profile records appear in the **Inspection Method** section.



- 8. In the **Inspection Method** grid, select the check boxes in the **Selected** column in the rows containing the Inspection Method records that you want to include in the Inspection Scope.
- 9. Repeat steps 8 and 9 to select all of the Inspection Profile records and Inspection Method records that you want to include in the Inspection Scope.
- 10. Click the **Next** button.

The Create a New Task screen appears, displaying the Inspection Task datasheet.



#### 11. Complete the available fields.

**Note:** If you select in the **Task Types** list an inspection task type that is associated with a time-based inspection setting (i.e., a Time Based Inspection Interval record exists whose Task Type value matches the Task Type value in the Inspection Task record), values are populated automatically in the Desired Interval and Desired Interval Basis fields in the Inspection Task record.

#### 12. Click the Finish button.

The **Inspection Scope** page appears, displaying the datasheet that was viewed when the Inspection Task record was last accessed and the Inspection Profile and Inspection Method records that you selected in the **Inspection Scope Builder**. You can modify any of the available fields.

## Modifying an Existing Inspection Scope

When you modify an existing Inspection Scope, you can change:

- Which Inspection Profile records are included in the Inspection Scope.
- Which Inspection Method records are included in the Inspection Scope.

You cannot, however, change which Equipment record or Task record is included in the Inspection Scope.

If you choose to create a new Task record when defining an Inspection Scope, doing so will create a new Inspection Scope.

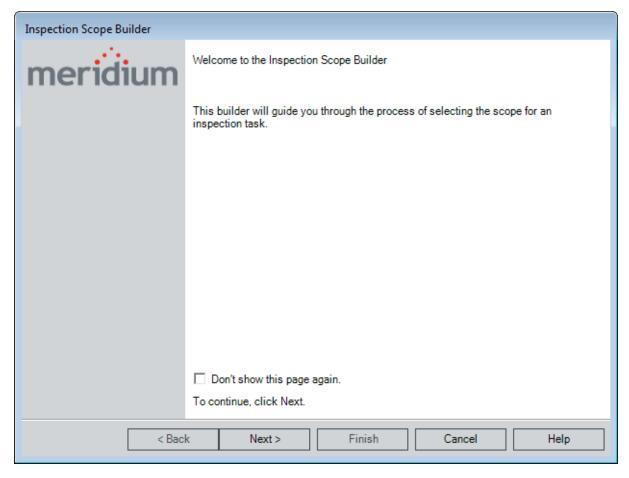
The following instructions assume that you want to modify an existing Inspection Scope from the **Inspection Management Start Page**. When you do so, the **Inspection Scope Builder** is displayed, where you can select the existing Equipment record and Task record that belongs to the existing Inspection Scope that you want to modify.

You can also view an existing Inspection Scope from the <u>Inspection Profile page</u>. When you do so, the <u>Inspection Scope Builder</u> is displayed, but the <u>Select Equipment</u> screen is bypassed. The Meridium APM system assumes that you want to view the Inspection Scope for the equipment that you are currently working with on the <u>Inspection Profile</u> page. If you are initiating the process from the <u>Inspection Profile</u> page, you can skip steps 1 through 6, and begin with step 7.

#### To modify an existing Inspection Scope:

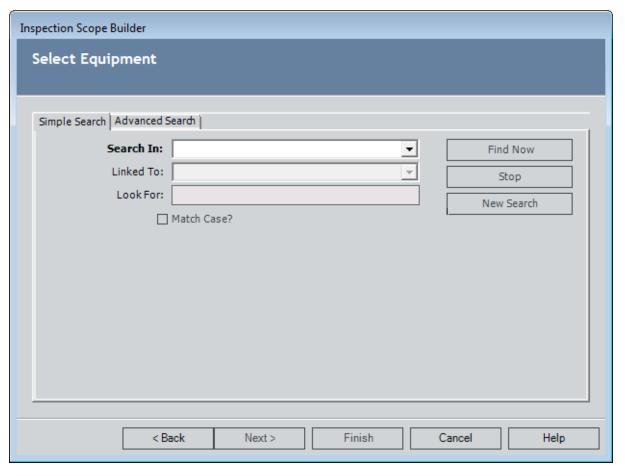
1. On the **Inspection Management Start Page**, click the **Manage Inspection Scope** link.

The **Inspection Scope Builder** appears, displaying the Welcome screen.



2. Click the **Next** button.

The **Select Equipment** screen appears.

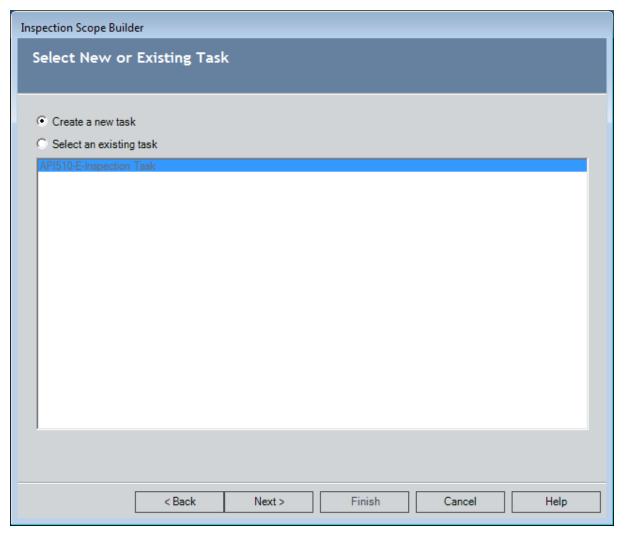


- 3. In the **Search In** list, select the *Equipment* family.
- 4. If desired, define additional criteria.
- 5. Click the **Find Now** button.

The search results appear, displaying all Equipment records that meet the specified search criteria.

6. In the search results, select the row containing the Equipment record that is part of the Inspection Scope that you want to modify, and click the **Next** button.

The **Select New or Existing Task** screen appears.



- 7. Select the **Select an existing task** option, and select the Task record that belongs to the Inspection Scope that you want to modify.
- 8. Click the **Finish** button.

The **Inspection Scope**page appears, displaying the datasheet that was viewed when the Task record was last accessed and the **Inspection Profile** and **Inspection Methods** grids. You can modify the Inspection Scope by including or excluding the desired Inspection Profile and Inspection Method records.

## Aspects of the Inspection Scope Page

You can access the **Inspection Scope** - **<Equipment Record ID>** page, where **<Equipment Record ID>** is the Record ID of the Equipment record that is linked to the Inspection Task record that appears on the page, by <u>creating a new Inspection Scope</u> or <u>viewing an existing Inspection Scope</u>. Throughout the Inspection Management documentation, this page is referred to as the *Inspection Scope* page.

The **Inspection Scope** page contains the following items:

- Inspection Scope for <Equipment Record ID>: A label that displays the Record ID of the Equipment record that is linked to the Inspection Task record that appears on the page.
- Reference Documents link: A link that displays the Reference Documents dialog box, where you can manage the Reference Document records that are linked to the Equipment record.
- Task Record ID: A label that displays the Record ID of the Task record that is displayed on the page.
- **Task datasheet:** The section that displays the datasheet for the Inspection Task record that belongs to the Inspection Scope.
- **Inspection Profile section:** The section that displays a grid containing the Inspection Profile records that are linked to the Equipment record.
- **Inspection Methods section:** The section that displays a grid containing the Inspection Method records that are linked to the Inspection Profile record that is selected in the **Inspection Profile** section.
- Task menus: Menus that provide specific functionality. The following menus are available: Common Tasks menu and Associated Pages menu.

## **Inspection Profile Section**

The **Inspection Profile** section on the **Inspection Scope** page contains a grid, which contains a row for each Inspection Profile record that is linked to the Equipment record identified by the **Inspection Scope for <Equipment Record ID>** label that appears below the Site Map.

The following columns of information are displayed in the **Inspection Profile** section:

- **Selected:** Contains a check box, which you can select to indicate that the Inspection Profile record is included in the Inspection Scope. Note, however, that if the Inspection Profile record is linked to one or more Inspection Method records, you can select only the **Selected** check box for the individual Inspection Method records. The **Selected** check box for the Inspection Profile record will be selected automatically when one or more Inspection Method records are selected.
- **Item Description:** Displays the value in the Item Description field in the Inspection Profile record.
- **Item Category:** Displays the value in the Item Category field in the Inspection Profile record.
- Item ID: Displays the value in the Item ID field in the Inspection Profile record.
- Sequence: Displays the value in the Sequence field in the Inspection Profile record.
- **RBI Component:** Displays the value in the RBI Component field in the Inspection Profile record.
- **RBI Component Family:** Displays the value in the RBI Component Family field in the Inspection Profile record.

Below the grid are buttons that you can use to navigate between the rows in the grid.

## **Inspection Methods Section**

The **Inspection Methods** section on the <u>Inspection Scope page</u> contains a grid, which contains a row for each Inspection Method record that is linked to the Inspection Profile record that is selected in the <u>Inspection Profile</u> section.

The following columns of information are displayed in the **Inspection Methods** section:

- **Selected:** Contains a check box, which you can select to indicate that the Inspection Method record is included in the Inspection Scope.
- Category: Displays the value in the Category field in the Inspection Method record.
- **ID:** Displays the value in the ID field in the Inspection Method record.
- **Description:** Displays the value in the Description field in the Inspection Method record.
- **RBI Degradation Mechanism:** Displays the value in the RBI Degradation Mechanism field in the Inspection Method record.

Below the grid are buttons that you can use to navigate between the rows in the grid.

### **Common Tasks**



The **Common Tasks** menu on the **Inspection Scope** page contains the following links:

- **Inspection Profile:** Displays the **Inspection Profile** page, which displays Inspection Profile records that are linked to the Equipment record that is displayed on the **Inspection Scope** page.
- Save: Saves any changes that you have made in either the **Inspection Profile** section or the **Inspection Methods** section.
- **Print:** Displays the **Preview** window, which shows you a preview of the **Inspection Scope** page as it will appear on the printed page.
- **Send To:** Displays a submenu with options that let you provide a link to the current page on your desktop (create shortcut), in an email message, or on a Home Page.
- Help: Displays the context-sensitive Help topic for the Inspection Scope page.

# **Associated Pages**

The **Associated Pages** menu on the **Inspection Scope Page** displays Associated Pages that are configured for the family of the record that is linked to the Inspection Task record that appears on the page.

# Adding an Inspection Profile Record to an Inspection Scope

You can add Inspection Profile records to an Inspection Scope in one of two ways:

- If the Inspection Profile record is not linked to any Inspection Method records, you can add the Inspection Profile record directly.
- If the Inspection Profile record is linked to one or more Inspection Method records, you must <u>add the Inspection Method records</u>, which will add the corresponding Inspection Profile record automatically.

The following instructions explain how to add an Inspection Profile record directly.

#### To add an Inspection Profile record to an Inspection Scope:

- 1. Access the **Inspection Scope** page by <u>viewing an existing Inspection Scope</u> or by <u>creating a new Inspection Scope</u>.
- 2. In the **Inspection Profile** section, in the row containing the Inspection Profile record that you want to add to the Inspection Scope, select the **Selected** check box.
- 3. On the **Common Tasks** menu, click the **Save** link.

The Inspection Profile record is added to the Inspection Scope.

# Adding an Inspection Method Record to an Inspection Scope

The following instructions explain how to add an Inspection Method record to an Inspection Scope. Note that if an Inspection Method record is linked to an Inspection Profile record, adding the Inspection Method record to the Inspection Scope will add the corresponding Inspection Profile record automatically.

#### To add an Inspection Method record to an inspection scope:

- 1. Access the **Inspection Scope** page by <u>viewing an existing Inspection Scope</u> or by creating a new Inspection Scope.
- 2. In the **Inspection Methods** section, in the row containing the Inspection Method record that you want to add to the Inspection Scope, select the **Selected** check box.
- 3. On the Common Tasks menu, click the Save link.

The Inspection Method record and the Inspection Profile record to which it is linked are added to the Inspection Scope.

# Removing an Inspection Profile or Inspection Method Record from an Inspection Scope

To remove an Inspection Profile or Inspection Method record from an Inspection Scope:

- 1. Access the **Inspection Scope** page by <u>viewing an existing Inspection Scope</u> or by creating a new Inspection Scope.
- 2. If you want to remove an Inspection Profile record from the Inspection Scope, in the Inspection Profile section, in the row containing the Inspection Profile record that you want to remove, clear the **Selected** check box. Note that if the Inspection Profile record is linked to one or more Inspection Method records, you will need to remove all Inspection Method records to which it is linked in order to remove the Inspection Profile record completely.
- 3. If you want to remove an Inspection Method record, in the **Inspection Methods** section, in the row containing the Inspection Method record that you want to remove from the Inspection Scope, clear the **Selected** check box.
- 4. On the **Common Tasks** menu, click the **Save** link.

The Inspection Profile records and Inspection Method records are removed from the Inspection Scope.

# **Creating Inspection Records**

#### To create an Inspection record:

 On the <u>Inspection Management Start Page</u>, click the <u>Build an Inspection Docu-</u> ment link.

The **Event Builder** appears, displaying the **Welcome** screen.

2. Click the **Next** button.

The **Equipment Selection** screen appears.

3. In the **Search In** list, select the family that represents the item that you inspected (i.e., *Equipment* or *Functional Location*), and click the **Find Now** button.

The results of the search are displayed.

4. Select the row containing the equipment or location that you inspected, and click the **Next** button.

The **Event Selection** screen appears.

- 5. In the **Event Families** list, select the family representing the type of inspection that you performed.
- 6. Click the **Next** button.

The **Task(s) Selection** screen appears.

Since the <u>Inspection Management workflow</u> assumes that you performed an inspection because a Task record(s) indicated that the inspection was due, this screen will list the Task record to which your inspection responded.

7. Select the **Existing** option.

(i) Hint: If your list of existing tasks is long enough such that you cannot easily locate the desired record, you can click the Filter Tasks link to perform an Advanced Search or open an existing search to locate the desired task(s). In the search results, you can select the record(s) that you want to appear in the list of existing tasks and then click the Open button. When you do so, the existing tasks list will include only the record(s) that you selected. If you no longer want to view the limited list of tasks, you can click the Remove Filter link to view the complete list.

- 8. Select the check box next to the Task record(s) to which you responded.
- 9. Click the **Next** button.

The **Event Datasheet** screen appears, displaying the Inspection datasheet.

- 10. Complete the fields as desired.
- 11. Click the Finish button.

If you created an Inspection record in a family whose caption contains the word *Checklist* (e.g., API 510 External Checklist), the Inspection record appears on the <u>Inspection Finding Checklist page</u>. In addition, Checklist Finding records are created automatically and linked to the Inspection record. Each Checklist Finding record is displayed as a <u>separate row</u> in the <u>Inspection Finding Checklist</u> workspace.

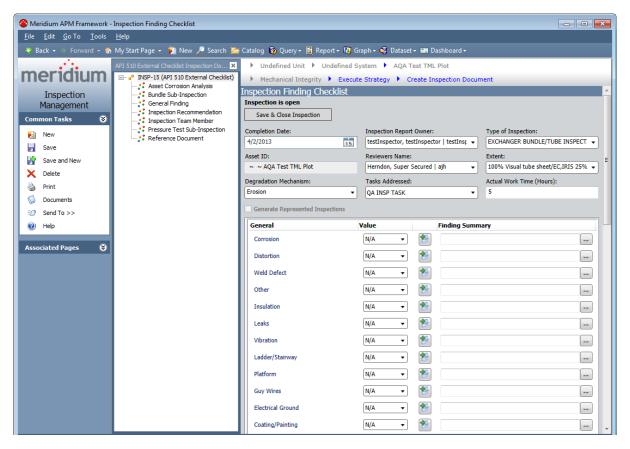
-or-

If you created an Inspection record in a family whose caption does *not* contain the word *Checklist* (i.e., Bundle Inspection), the Inspection record appears in the Record Manager. Also, if the Event Configuration for the current Inspection family is configured to display General Finding or Observation records, in the tree, you will see a General Finding or Observation record for each subcomponent of the piece of equipment that you selected.

Either way, if a configured explorer has been configured for the Inspection family, you will see the configured explorer.

# Aspects of the Inspection Finding Checklist Page

The **Inspection Finding Checklist** page appears when you select <u>in the **Event Builder**</u> one of the Inspection families whose caption contains the word *Checklist* (e.g., API 510 External Checklist).



The **Inspection Finding Checklist** page contains the following items:

Record hierarchy: Contains nodes representing the Inspection record and the successor records to which it is linked. The record hierarchy contents are controlled by the configured explorer that is defined for the root Inspection family. The pane is labeled according to the configured explorer that is driving the contents of the pane.

**Note:** If you select a node other than the root Inspection node, the datasheet for the corresponding record will be displayed in place of the **Inspection Finding Checklist** workspace.

- Inspection Finding Checklist workspace: Contains the following items:
  - A gray <u>header area</u> that displays fields in the Inspection record.
  - Various sections containing rows where you can record findings for subcomponents of the piece of equipment that you inspected. Each row

represents a <u>Checklist Finding record</u>. Throughout this documentation, these sections are referred to as *finding sections*.

- Task menu pane: Contains the following task menus:
  - Common Tasks
  - Associated Pages

### **Header Area**

The items in the header area in the **Inspection Finding Checklist** workspace on the **Inspection Finding Checklist** page will vary based upon the type of Inspection record for which you access the page (i.e., the record that is represented by the root node in the tree). Certain items will appear for *every* Inspection record type that you can view on the **Inspection Finding Checklist** page. Additional items will be displayed for:

- PRD Pop Test Checklist records.
- Checklists records that do not belong to the PRD Pop Test Checklist or External PRD Checklist subfamily.

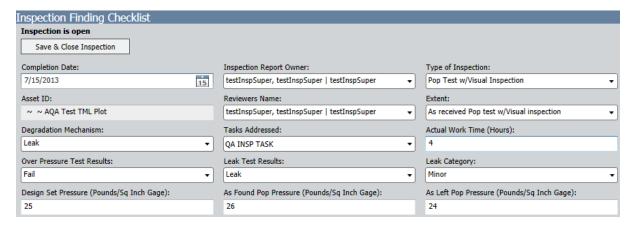
The following items will appear for *any* Inspection record that you can open on the **Inspection Finding Checklist** page:

- Actual Work Time (Hours) text box
- Asset ID text box
- Completion Date text box
- Degradation Mechanism list
- Extent list
- Inspection Report Owner list
- Reviewers Name list
- Save & Close Inspection/Reopen Inspection button
- Tasks Addressed list
- Type of Inspection list

The following additional items will appear *only* when you are viewing a PRD Pop Test Checklist record on the **Inspection Finding Checklist** page:

- As Found Pop Pressure (Pounds/Sq Inch Gage) text box
- As Left Pop Pressure (Pounds/Sq Inch Gage) text box
- Design Set Pressure (Pounds/Sq Inch Gage) text box
- Leak Category list
- Leak Test Results list
- Over Pressure Test Results list

The following image shows an example of what the header area in the **Inspection Finding Checklist** workspace will look like when you open a PRD Pop Test Checklist record on the **Inspection Finding Checklist** page.



When you open any Inspection record *except* an External PRD Checklist *or* PRD Pop Test Checklist record on the **Inspection Finding Checklist** page, the header area will contain the **Generate Represented Inspections** check box in addition to the items that appear for *all* Inspection records that you can open on this page. The following image shows an example of what the header area in the **Inspection Finding Checklist** workspace will look like in this case.

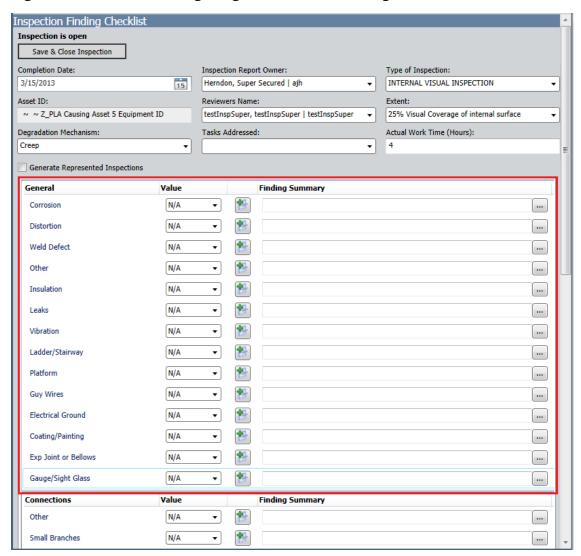


The items that are displayed on the **Inspection Finding Checklist** page are associated with <u>fields that are defined for the family of the Inspection record</u> that is represented by the root node in the tree.

The Meridium APM system is hard-coded to display *only* these fields in the header area. If you add fields to the Inspection family of the root Inspection record, those fields will not appear in the header area. In addition, the header area displays the *field* captions, not the datasheet captions.

## **About Finding Sections**

On the **Inspection Finding Checklist** page, the finding sections appear below the gray header area. Each finding section contains rows representing individual Checklist Finding records. In the following image, the **General** finding section is outlined in red.



In each finding section, the rows are labeled according to the subcomponents that belong to the equipment or location that you inspected. The <u>sections and rows that are displayed for an Inspection record</u> are based on System Code Tables and referenced System Codes that are configured for each Checklists family in the Meridium APM baseline database. This concept is best understood through an <u>example</u>.

To the right of each row label, you will see the following columns:

 Value: Contains a list from which you can select the finding value for that subcomponent. In the baseline database, each list contains the following values: Yes, No, N/A. The content of the list is controlled by the System Codes that belong to the System Code Table MI\_CHECKLIST\_FINDING\_TYPES. In other words, each value in the list is the description of a separate System Code belonging to this System Code Table. The list is populated automatically with the description of the *default* System Code. If no System Codes are set as the default System Code, the list is empty by default.

**Note:** The label of this column (*Value* in the baseline database) is the field caption of the field with the ID MI\_FIND\_CHECK\_VALUE\_C, which belongs to the Checklist Finding family.

• Finding Summary: Contains a text box where you can type additional comments about your findings for that subcomponent. To the left of each Finding Summary text box, you will see the button, which you can click to create a new Inspection Recommendation record, which will be linked to the Inspection record automatically. Several values will be <a href="mapped automatically to the Inspection Recommendation record">mapped automatically to the Inspection Recommendation record</a>.

**Note:** The label of this column (*Finding Summary* in the baseline database) is the field caption of the field with the ID MI\_FIND\_001\_SUMMARY\_T, which belongs to the Finding family.

# How are the Sections and Rows Created on the Inspection Checklist Page?

The <u>sections and rows on the Inspection Finding Checklist page</u> are built from System Code Tables and referenced System Codes. Consider an example using an *API 653 External Checklist Finding* record.

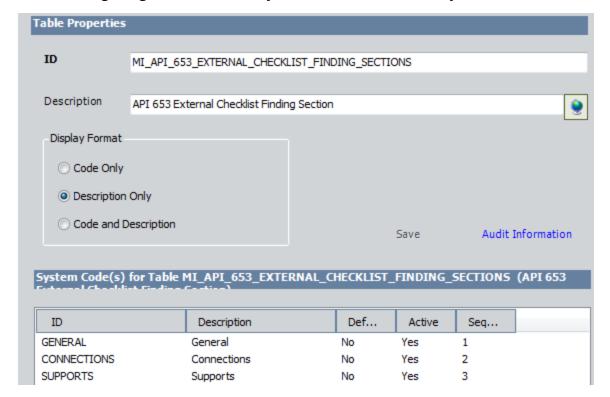
The baseline Meridium APM database contains the following corresponding System Code Table:

- 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

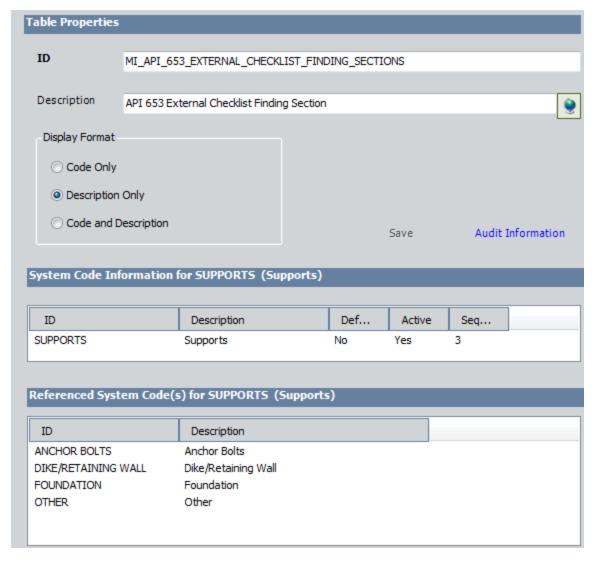
The following image illustrates this System Code Table and its System Codes.



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

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

The following image illustrates this System Code and its referenced System Codes.



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 on the Inspection Finding Checklist page.
- In each finding section, each referenced System Code becomes a *separate row* (representing a Checklist Finding record).

You can see in the image below that the System Code *Supports* corresponds to a section, and the referenced System Code *Anchor Bolts* corresponds to a row in the **Supports** section.



Note: The sequence value of the System Codes determines the order in which the corresponding sections appear on the Inspection Checklist Finding page. In addition, only active System Codes are displayed on the page.

### **About Baseline Sections and Rows**

When you open on the **Inspection Finding Checklist** page an Inspection record whose caption includes the word *Checklist*, the finding sections and rows displayed in the **Inspection Finding Checklist** workspace represent 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 you are performing, the items that appear in the **Inspection Finding Checklist** workspace will differ based upon the Inspection subfamily to which the record you are viewing belongs. In this section of the documentation, you will find lists of the items that appear by default for each of the following baseline Inspection families:

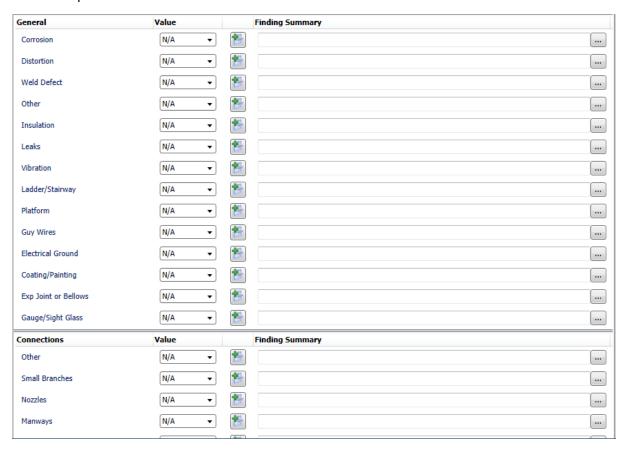
- API 510 External Checklist
- API 510 Internal Checklist
- API 510 Internal Exchanger Checklist
- API 570 External Checklist
- API 653 External Checklist
- API 653 Internal Checklist
- External PRD Checklist
- PRD Pop Test Checklist

Each of these families is hard-coded to use a particular <u>System Code Table</u> to create the finding sections and rows that appear on the <u>Inspection Finding Checklist</u> page. If you create custom Checklists subfamilies, however, you must add the Checklist System Code Table ID field (i.e., a field in the Checklists family) to the custom family, type in this field the System Code Table ID for the System Code Table that stores the finding items that are associated with the family, and modify the family rules so that the code can identify the System Code Table that will be used to build the finding sections and rows when you open a record belonging to the custom Checklists family.

Because this documentation assumes that you follow the Meridium APM Best Practice (i.e., you use the entity and relationship families that are delivered to the baseline Meridium APM database), no further details are provided for using the Checklist System Code Table ID field or creating custom Checklists subfamilies.

## **API 510 External Checklist**

When you open on the **Inspection Finding Checklist** page an *API 510 External Checklist* record, the finding sections and rows that are displayed in the **Inspection Finding Checklist** workspace look like this:



The following list provides the name of each *section* (e.g., Connections) and its corresponding *rows* (e.g., Bolting) that appear by default when you access the **Inspection Finding Checklist** page for an API 510 External Checklist record:

- Connections
  - Bolting
  - Flanges
  - Leak Clamps
  - Manways
  - Nozzles
  - Other
  - Reinforcing Pads
  - Small Branches

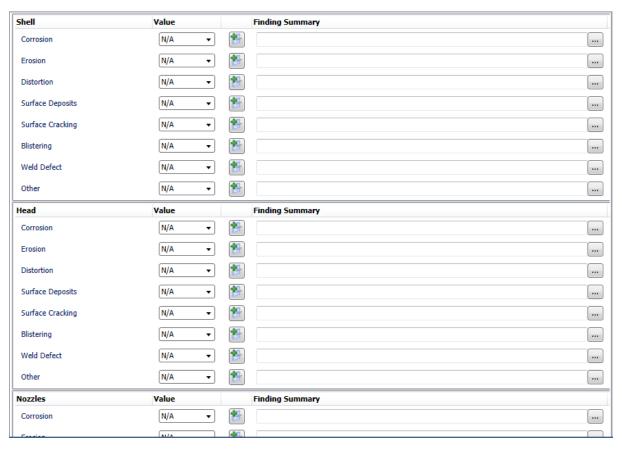
#### General

- Coating/Painting
- Corrosion
- Distortion
- Electrical Groud
- Exp Joint or Bellows
- Gauge/Sight Glass
- Guy Wires
- Insulation
- Ladder/Stairway
- Leaks
- Other
- Platform
- Vibration
- Weld Defect
- Relief Devices
  - Leaks
  - Manual Operation Lever
  - Other
  - Restricted Inlet/Outlet
- Supports
  - Anchor Bolts
  - Davit
  - Fireproofing
  - Foundation
  - Other
  - Saddle/Skirt

Each *section* corresponds with a System Code in the System Code Table MI\_API\_510\_EXTERNAL\_CHECKLIST\_FINDING\_SECTIONS. Each System Code references additional System Codes that make up the *rows* in each section. If you want to display additional items in this workspace, you can add System Codes manually to the System Code Table MI\_API\_510\_EXTERNAL\_CHECKLIST\_FINDING\_SECTIONS.

## **API 510 Internal Checklist**

When you open on the **Inspection Finding Checklist** page an *API 510 Internal Checklist* record, the finding sections and rows that are displayed in the **Inspection Finding Checklist** workspace look like this:



The following list provides the name of each *section* (e.g., Head) and its corresponding *rows* (e.g., Blistering) that appear by default when you access the **Inspection Finding Checklist** page for an API 510 Internal Checklist record:

- Head
  - Blistering
  - Corrosion
  - Distortion
  - Erosion
  - Other
  - Surface Cracking
  - Surface Deposits
  - Weld Defect

#### Internals

- Attachment Welds Cracked
- Baffle/Weir Corrosion
- Distributor Damaged
- Distributor Fouling
- Impingement Plates Damaged
- Impingement Plates Missing
- Mixer/Agitator Components
- Mixer/Agitator Distortion
- Other
- Thermowells Bent/Broken
- Tray Corrosion
- Tray Damaged Components
- Tray Fouling

#### Linings

- Cladding Bulged
- Cladding Cracked
- Cladding Damaged
- Coating Bulged
- Coating Damaged
- Liner Bulged
- Liner Cracked
- Liner Damaged
- Other

#### Nozzles

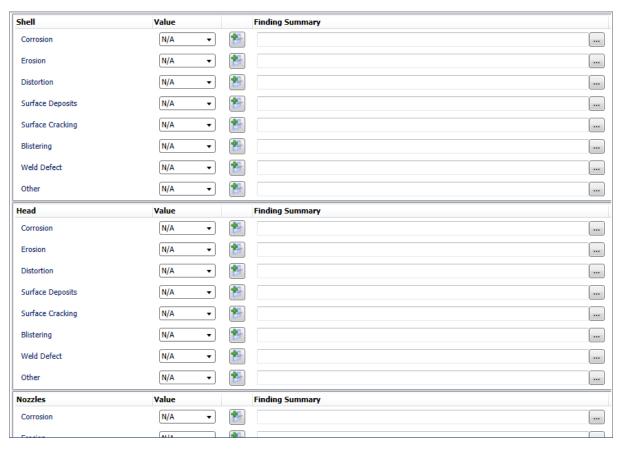
- Blistering
- Corrosion
- Distortion
- Erosion
- Flange Face Damaged
- Fouling
- Other
- Surface Cracking

- Surface Deposits
- Weld Defect
- Shell
  - Blistering
  - Corrosion
  - Distortion
  - Erosion
  - Other
  - Surface Cracking
  - Surface Deposits
  - Weld Defect

Each *section* corresponds with a System Code in the System Code Table MI\_API\_510\_INTERNAL\_CHECKLIST\_FINDING\_SECTIONS. Each System Code references additional System Codes that make up the *rows* in each section. If you want to display additional items in this workspace, you can add System Codes manually to the System Code Table MI\_API\_510\_INTERNAL\_CHECKLIST\_FINDING\_SECTIONS.

# **API 510 Internal Exchanger Checklist**

When you open on the **Inspection Finding Checklist** page an *API 510 Internal Exchanger Checklist* record, the finding sections and rows that are displayed in the **Inspection Finding Checklist** workspace look like this:



The following list provides the name of each *section* (e.g., Channel/Bundle) and its corresponding *rows* (e.g., Blistering) that appear by default when you access the **Inspection Finding Checklist** page for an API 510 Internal Exchanger Checklist record:

- Channel/Bundle
  - Blistering
  - Channel Cover
  - Corrosion
  - Distortion
  - Erosion
  - Other
  - Surface Cracking
  - Surface Deposits

- Tube Corrosion
- Tube Cracking
- Tube Distortion
- Tube Erosion
- Tube Fouling
- Tube to Tubesheet Joint Cracked
- Tubesheet Damaged
- Weld Defect

#### Head

- Blistering
- Corrosion
- Distortion
- Erosion
- Other
- Surface Cracking
- Surface Deposits
- Weld Defect

#### Internals

- Attachment Welds Cracked
- Baffle/Weir Corrosion
- Distributor Damaged
- Distributor Fouling
- Impingement Plates Damaged
- Impingement Plates Missing
- Mixer/Agitator Components
- Mixer/Agitator Distortion
- Other
- Thermowells Bent/Broken
- Tray Corrosion
- Tray Damaged Components
- Tray Fouling

#### Linings

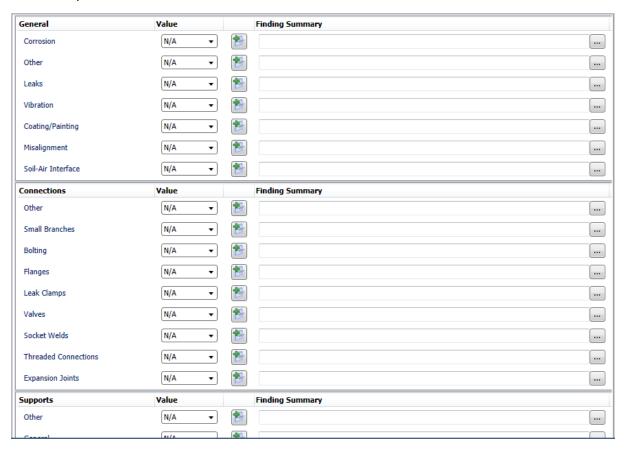
- Cladding Bulged
- Cladding Cracked

- Cladding Damaged
- Coating Bulged
- Coating Damaged
- Liner Bulged
- Liner Cracked
- Liner Damaged
- Other
- Nozzles
  - Blistering
  - Corrosion
  - Distortion
  - Erosion
  - Flange Face Damaged
  - Fouling
  - Other
  - Surface Cracking
  - Surface Deposits
  - Weld Defect
- Shell
  - Blistering
  - Corrosion
  - Distortion
  - Erosion
  - Other
  - Surface Cracking
  - Surface Deposits
  - Weld Defect

Each section corresponds with a System Code in the System Code Table MI\_API\_510\_INTERNAL\_EXCHANGER\_CHECKLIST\_FINDING\_SE. Each System Code references additional System Codes that make up the rows in each section. If you want to display additional items in this workspace, you can add System Codes manually to the System Code Table MI\_API\_510\_INTERNAL\_EXCHANGER\_CHECKLIST\_FINDING\_SE.

## **API 570 External Checklist**

When you open on the **Inspection Finding Checklist** page an *API 570 External Checklist* record, the finding sections and rows that are displayed in the **Inspection Finding Checklist** workspace look like this:



The following list provides the name of each *section* (e.g., Connections) and its corresponding *rows* (e.g., Bolting) that appear by default when you access the **Inspection Finding Checklist** page for an API 570 External Checklist record:

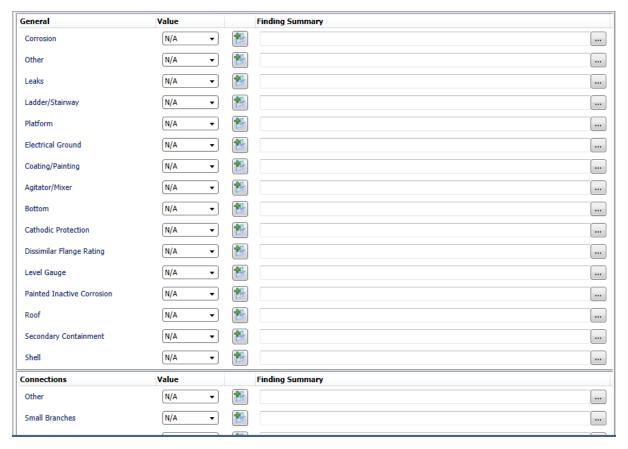
- Connections
  - Bolting
  - Expansion Joints
  - Flanges
  - Leak Clamps
  - Other
  - Small Branches
  - Socket Welds

- Threaded Connections
- Valves
- General
  - Coating/Painting
  - Corrosion
  - Leaks
  - Misalignment
  - Other
  - Soil-Air Interface
  - Vibration
- Insulation
  - Banding
  - Damage
  - Jacket
  - Other
  - Penetrations
  - Seals/Joints/Caulking
- Supports
  - General
  - Other
  - Pipe Hangers
  - Support Shoes

Each *section* corresponds with a System Code in the System Code Table MI\_API\_570\_EXTERNAL\_CHECKLIST\_FINDING\_SECTIONS. Each System Code references additional System Codes that make up the *rows* in each section. If you want to display additional items in this workspace, you can add System Codes manually to the System Code Table MI\_API\_570\_EXTERNAL\_CHECKLIST\_FINDING\_SECTIONS.

## API 653 External Checklist

When you open on the **Inspection Finding Checklist** page an *API 653 External Checklist* record, the finding sections and rows that are displayed in the **Inspection Finding Checklist** workspace look like this:



The following list provides the name of each *section* (e.g., Connections) and its corresponding *rows* (e.g., Flanges) that appear by default when you access the **Inspection Finding Checklist** page for an API 653 External Checklist record:

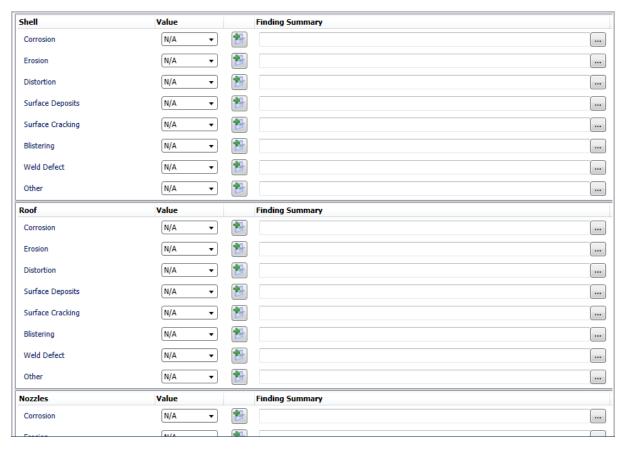
- Connections
  - Flanges
  - Inadequate Thread Engagement
  - Manways/Hatches
  - Nozzles
  - Other
  - Pipe Manifolds
  - Reinforcing Pads

- Small Branches
- Swing Lines
- General
  - Agitator/Mixer
  - Bottom
  - Cathodic Protection
  - Coating/Painting
  - Corrosion
  - Dissimilar Flange Rating
  - Electrical Ground
  - Ladder/Stairway
  - Leaks
  - Level Gauge
  - Other
  - Painted Inactive Corrosion
  - Platform
  - Roof
  - Secondary Containment
  - Shell
- Supports
  - Anchor Bolts
  - Dike/Retaining Wall
  - Foundation
  - Other

Each *section* corresponds with a System Code in the System Code Table MI\_API\_653\_ EXTERNAL\_CHECKLIST\_FINDING\_SECTIONS. Each System Code references additional System Codes that make up the *rows* in each section. If you want to display additional items in this workspace, you can add System Codes manually to the System Code Table MI\_API\_653\_EXTERNAL\_CHECKLIST\_FINDING\_SECTIONS.

## API 653 Internal Checklist

When you open on the **Inspection Finding Checklist** page an *API 653 Internal Checklist* record, the finding sections and rows that are displayed in the **Inspection Finding Checklist** workspace look like this:



The following list provides the name of each *section* (e.g., Bottom) and its corresponding *rows* (e.g., Corrosion) that appear by default when you access the **Inspection Finding Checklist** page for an API 653 Internal Checklist record:

- Bottom
  - Corrosion
  - Distortion
  - Erosion
  - Other
  - Surface Cracking
  - Surface Deposits
  - Vacuum Box Testing
  - Weld Defect

#### Internals

- Baffle/Weir Corrosion
- Distributor Damaged
- Level Gauge Operable
- Other
- Pontoon Corrosion
- Roof Support Corrosion
- Sump Corrosion
- Swing Line Damage
- Thermowells Bent/Broken
- Vacuum Breaker Operable

#### Linings

- Cladding Bulged
- Cladding Cracked
- Cladding Damaged
- Coating Bulged
- Coating Damaged
- Liner Bulged
- Liner Cracked
- Liner Damaged
- Other

#### Nozzles

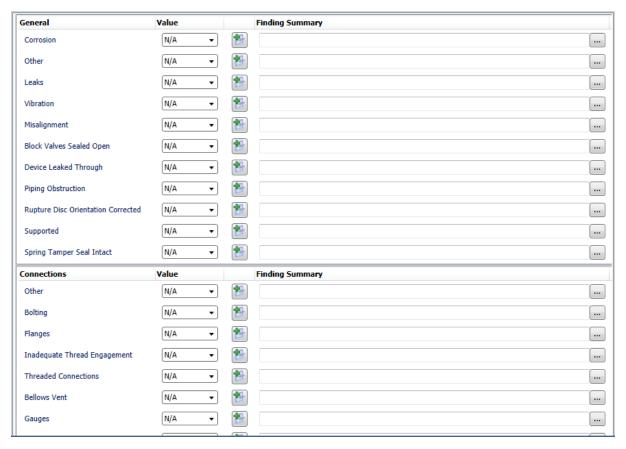
- Blistering
- Corrosion
- Distortion
- Erosion
- Flange Face Damaged
- Fouling
- Other
- Surface Cracking
- Surface Deposits
- Weld Defect
- Roof

- Blistering
- Corrosion
- Distortion
- Erosion
- Other
- Surface Cracking
- Surface Deposits
- Weld Defect
- Shell
  - Blistering
  - Corrosion
  - Distortion
  - Erosion
  - Other
  - Surface Cracking
  - Surface Deposits
  - Weld Defect

Each *section* corresponds with a System Code in the System Code Table MI\_API\_653\_INTERNAL\_CHECKLIST\_FINDING\_SECTIONS. Each System Code references additional System Codes that make up the *rows* in each section. If you want to display additional items in this workspace, you can add System Codes manually to the System Code Table MI\_API\_653\_INTERNAL\_CHECKLIST\_FINDING\_SECTIONS.

## **External PRD Checklist**

When you open on the **Inspection Finding Checklist** page an *External PRD Checklist* record, the finding sections and rows that are displayed in the **Inspection Finding Checklist** workspace look like this:



The following list provides the name of each *section* (e.g., Connections) and its corresponding *rows* (e.g., Bellows Vent) that appear by default when you access the **Inspection Finding Checklist** page for an External PRD Checklist record:

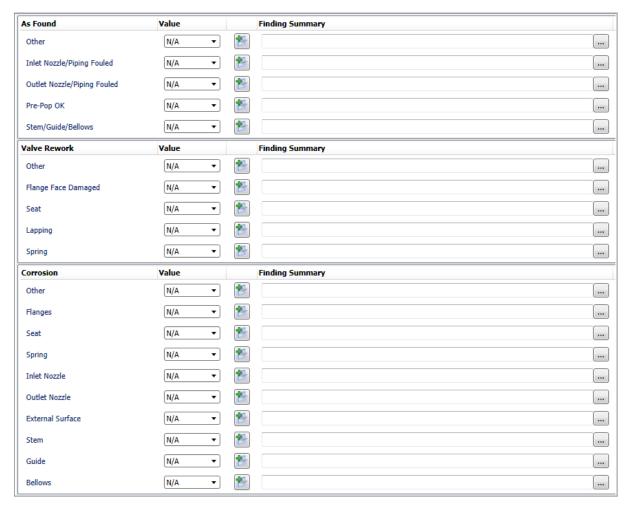
- Connections
  - Bellows Vent
  - Bolting
  - Drain Open
  - Flanges
  - Gauges
  - Inadequate Thread Engagement
  - Manual Operating Lever
  - Other

- Threaded Connections
- Vent Piping
- General
  - Block Valves Sealed Open
  - Corrosion
  - Device Leaked Through
  - Leaks
  - Misalignment
  - Other
  - Piping Obstruction
  - Rupture Disc Orientation Corrected
  - Spring Tamper Seal Intact
  - Supported
  - Vibration

Each *section* corresponds with a System Code in the System Code Table MI\_EXTERNAL\_PRD\_CHECKLIST\_FINDING\_SECTIONS. Each System Code references additional System Codes that make up the *rows* in each section. If you want to display additional items in this workspace, you can add System Codes manually to the System Code Table MI\_EXTERNAL\_PRD\_CHECKLIST\_FINDING\_SECTIONS.

# PRD Pop Test Checklist

When you open on the **Inspection Finding Checklist** page a *PRD Pop Test Checklist* record, the finding sections and rows that are displayed in the **Inspection Finding Checklist** workspace look like this:



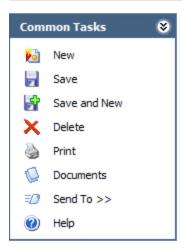
The following list provides the name of each *section* (e.g., As Found) and its corresponding *rows* (e.g., Inlet Nozzle/Piping Fouled) that appear by default when you access the **Inspection Finding Checklist** page for a PRD Pop Test Checklist record:

- As Found
  - Inlet Nozzle/Piping Fouled
  - Other
  - Outlet Nozzle/Piping Fouled
  - Pre-Pop OK
  - Stem/Guide/Bellows
- Corrosion

- Bellows
- External Surface
- Flanges
- Guide
- Inlet Nozzle
- Other
- Outlet Nozzle
- Seat
- Spring
- Stem
- Valve Rework
  - Flange Face Damaged
  - Lapping
  - Other
  - Seat
  - Spring

Each *section* corresponds with a System Code in the System Code Table MI\_PRD\_PT\_CHECKLIST\_FINDING\_SECTIONS. Each System Code references additional System Codes that make up the *rows* in each section. If you want to display additional items in this workspace, you can add System Codes manually to the System Code Table MI\_PRD\_PT\_CHECKLIST\_FINDING\_SECTIONS.

### **Common Tasks**



The **Common Tasks** menu on the **Inspection Finding Checklist** page contains the following links:

- New: Displays the Event Builder, where you can <u>create a new Inspection record</u>.
- Save: Saves the Inspection record and all Checklist Finding records to which it is linked.
- Save and New: After saving the Inspection record and all Checklist Finding records
  to which it is linked, displays the Event Builder, where you can <u>create a new Inspec-</u>
  tion record.
- **Delete:** After asking for confirmation, deletes the Inspection record.

**Note:** You can delete the Inspection record only if it not linked to a Recommendation record.

- **Print:** Displays the **Select Report to Print** dialog box, which you can use to generate a Checklist Inspection report.
- **Documents:** Displays the Reference Documents window, where you can view, edit, and add reference documents for the current record.
- Send To: Displays a submenu with options that let you provide a link to the current page on your desktop (create shortcut), in an email message, or on a Home Page.
- **Help:** Displays the context-sensitive Help topic for the **Inspection Finding Check-list** page.

## **Associated Pages**

The **Associated Pages** menu on the **Inspection Finding Checklist** page displays links defined by the Associated Pages that are configured for the record that is currently selected in the record hierarchy.

## **Workflow for Recording Inspection Results**

After you have completed an inspection, you can use the Inspection Management module to record your results. The workflow that you will use to record your results will be different depending upon the type of inspection that you performed. In each workflow, the first step is the same: *create an Inspection record*. The second step differs, however, in the records you will use to record *specific subcomponent* findings.

The following workflow applies to the following types of inspections:

- Bundle inspections
- Full inspections
- General inspections
- Pressure test inspections

Step	Task	Notes
1	Create an Inspection record to store general information about the inspection, such as the start and completion date, the type of inspection, and a summary of your findings.	The family in which you create the Inspection record should correspond to the type of inspection you performed.  The Inspection record will be linked automatically to the Equipment or Functional Location record representing the equipment or location that you inspected.  You can create this type of Inspection record from either of the following locations:  • The Inspection Management Start Page.  • The Inspection Work Pack page. To create an Inspection record from the Inspection Work Pack page, you will need to generate the Inspection record from an Inspection Task record.

Step	Task	Notes
2	Record specific sub- component findings in General Finding and Observation records.	If the Event Configuration is set up correctly, when you create an Inspection record that is linked to an Equipment record, General Finding records will be created automatically according to the Inspection Scope for the equipment.
		For example, if the Inspection Task record that was used to create the Inspection record is linked to <i>five</i> Inspection Profile records and each of those records is linked to <i>two</i> Inspection Method records, <i>ten</i> General Finding records will be created automatically, one per Inspection Method record that was included in the Inspection Scope. You can then record your findings for each subcomponent in a separate record. This is useful if parts of the equipment passed the inspection and other parts failed the inspection. If you had only one record to record your findings, you would be unable to fully represent the inspection results.

The following workflow applies to the following types of inspections:

- 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 and functional inspections of pressure relief device (PRDs)

Step	Task	Notes
1	Create an Inspection record to store general information about the inspection, such as the start and completion date, the type of inspection, and a summary of your findings.	The family in which you create the Inspection record should correspond to the type of inspection you performed. The Inspection record will be linked automatically to the Equipment or Functional Location record representing the equipment or location that you inspected.  You can create this type of Inspection record from any of the following locations:  • The Inspection Management Start Page.  • The Inspection Work Pack page. To create an Inspection record from the Inspection Work Pack page, you will need to generate the Inspection Task record.  • The Inspection Finding Checklist page.
2	Record specific sub- component findings in Checklist Finding records.	None

## Recording Findings in General Finding and Observation Records

In some cases, you might inspect an equipment or location as a whole. In other cases, however, you might inspect parts of the equipment or location separately. When you inspect parts of the equipment or location, you might have different results for different parts of that equipment or location.

For example, if you need to inspect a tank, you might want to inspect the internal surfaces separately from the external surfaces. On a more granular level, you might want to inspect the top separately from the bottom. The findings of each inspection might be very different, whereas if you inspected the automobile as a whole, you would have only one finding.

You can record the findings for each subcomponent in a separate <u>General Finding</u> or Observation record.

#### To record findings for subcomponents:

- Access the Inspection record that corresponds to the inspection for which you
  want to record more detailed findings about the subcomponents that you inspected.
- 2. In the record hierarchy, expand the General Finding or Observation family to view the records that were <u>created automatically when you created the Inspection</u> record.
- 3. Select each General Finding or Observation record, and record the findings for that subcomponent.
  - Note that in the Type field in a Finding record, you can choose from the following options:
- **Observation:** The inspector did not notice any significant, negative conditions.
- **Degradation:** The inspector noticed deterioration beyond what is expected for the subcomponent, considering normal as-designed use.
- **Potential Failure:** The inspector noticed conditions that may lead to the sub-component's failure.
- Failure: The subcomponent is no longer performing its designed function.
- Not Inspected: The subcomponent was not inspected.

## Recording Findings in Checklist Finding Records

The following instructions assume that you are viewing the **Inspection Finding Checklist** page for the Inspection record representing the inspection for which you want to record subcomponent findings. You can access this page by <u>creating the Inspection record</u> or by opening an existing Inspection record.

#### To record findings in Checklist Finding records:

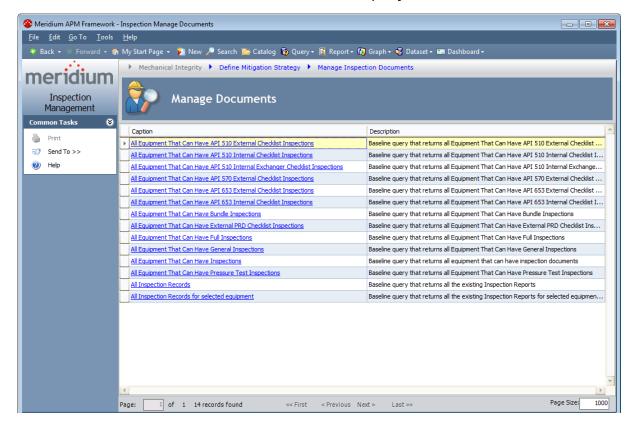
- 1. On the **Inspection Finding Checklist** page, in the row containing the subcomponent for which you want to record a finding, in the **Finding Value** list, select the value representing your finding.
- 2. In the same row, in the **Comments** text box, type any comments describing your findings.

## **Opening Existing Inspection Documents**

#### To open an existing Inspection Document:

On the <u>Inspection Management Start Page</u>, click the <u>Manage Inspection Documents</u> link.

The **Inspection Manage Documents** page appears, displaying a list of all queries and searches that are stored in the **Document Queries folder** in the Catalog. Each row represents a different query or search you can run to retrieve a list of Inspection Documents associated with the criteria in that query.



- 2. Click one of the following links:
  - All Equipment That Can Have <Inspection Type> Inspections: This link will display a page showing a list of all Equipment or Functional Location records for which you can create Inspection records represented by the <Inspection Type> value (based upon the relationship definitions that are configured via the Configuration Manager). For example, if you click the All Equipment That Can Have Full Inspections link, the page that appears will display a list of all Equipment or Functional Location records for which you can create a Full Inspection record. You can click the Existing Documents link in any row in the results grid on this page to display existing Inspection records that are associated with the Equipment or Functional Location record whose ID appears in that row.

**Note:** The PRD Pop Test Checklist family does *not* have a corresponding query that you can use to display Equipment and Functional Location records for which you can create an Inspection record of this type. If you want to open an existing PRD Pop Test Checklist record, you can use the **All Inspection Records** or **All Inspection Records** for **selected equipment** link.

- All Inspection Records: This link will display a page listing all Inspection records that exist in the database, regardless of inspection type, equipment, or location.
- All Inspection Records for selected equipment: This link will display a page
  with a prompt for the equipment or location whose existing Inspection Documents you want to view.

A new page appears, displaying results that correspond to the link that you clicked on the previous page. If you see the **Enter Parameter Values** dialog box, you can specify the equipment or location whose existing Inspection Document you want to open. In this case:

• If you want to open an Inspection Document for a *location*, in the first prompt field, type the Location ID of the desired Functional Location record.

-or-

• If you want to open an Inspection Document for a piece of *equipment*, in the first prompt field, type the Equipment ID of the desired Equipment record.

**Note:** Each Saved Search page that you can access via one of the links listed above is configured to display in the page title the catalog item *caption* for the query with which the query results are associated. This documentation assumes that you have *not* modified these query captions.

3. On the page that appears, click the **Load Inspection** link in any row to view the results of that Inspection Document.

**Note:** If you also see a **New Documents** or **New <Inspection Type>** link, you can click it to create a new Inspection record.

## Assigning a User to the Inspection Team

#### To assign a user to the inspection team:

- 1. Open the Inspection record to which you want to assign team members.
- 2. In the record hierarchy, right click the Inspection Team Member family, and click Create a new Inspection Team Member to link to [root record], where [root record] is the Inspection Event record.

The **<empty>** (new Inspection Team Member) window appears.

- 3. In the **Full Name** list, select the desired user. The list displays all users who have been assigned the Inspector role.
- 4. Complete the remaining fields as desired.
- 5. Click OK.

The Inspection Team Member record is saved and linked to the Inspection record. When you view the inspection report, information about the team member will appear in the Inspection Team Members section.

### **Generating Represented Inspections**

Inspection Groups that you create using the Risk Based Inspection (RBI) moduleallow you to group RBI Components based upon certain criteria and perform inspections for a subset of the equipment in the group rather than for *every* piece of equipment in the group. Grouping Element records that represent the RBI Components that are included in an Inspection Group are designated as one of the following types based upon evaluation by the Meridium APM system when Inspection Groups are generated:

- Representative RBI Component: RBI Components for which you *must* perform an inspection on the associated piece of equipment in order to meet the inspection requirements that are defined by American Petroleum Institute specifications. Grouping Element records that are classified as Representative RBI Components meet the following criteria:
  - The Selected for Inspection field in the Grouping Element record contains the value *True*.
  - The Grouping Element record is linked to at least one other Grouping Element record and is the predecessor in the Represents Inspections relationship definition.
- Represented RBI Component: RBI Components whose inspection requirements (defined by American Petroleum Institute specifications) will be satisfied by the inspection of the piece of equipment that is associated with a Representative RBI Component in the Inspection Group. Grouping Element records that are classified as Represented RBI Components meet the following criteria:
  - The Selected for Inspection field in the Grouping Element record contains the value *False*.
  - The Grouping Element record is linked to one other Grouping Element record and is the successor in the Represents Inspections relationship definition.

The distinction between these categories is important because when you create an Inspection Task record from an RBI Recommendation record that was generated from an Inspection Group and then <u>build an Inspection Document</u> that includes that Inspection Task record, you will have the option to generate Inspection records automatically for the Equipment records that are associated with Represented RBI Components. Throughout this documentation, we refer to these Inspection records as *Represented Inspections*.

Note the following details about Represented Inspections:

- These Inspection records will *always* belong to the General Inspection family.
- In these Inspection records, the value in the *Is a Represented Inspection* field is set to *True*.
- The Inspection Confidence value in these Inspection records will be set automatically to the nextmost conservative value than the one in the Inspection record that you created. For example, if the value in the Inspection Confidence field is set to High in the Inspection record that you created (associated with a Representative)

RBI Component), the value in this field in Represented Inspections that are generated automatically will be set to *Medium*.

Additionally, when you generate Represented Inspections, the value in the Represented Inspections Generated field in the Inspection record that you created (i.e., the one that is associated with the Represented RBI Component) is set to *True*.

#### To generate Represented Inspections:

On the datasheet configured for the Inspection record with which you have associated an Inspection Task record generated from an RBI Recommendation record that was created from an Inspection Group, select the Generate Represented Inspections check box.

-or-

If the Inspection record belongs to a family that contains *Checklist* in its caption (e.g., API 510 External Checklist), on the **Inspection Finding Checklist** page, in the header area, select the **Generate Represented Inspections** check box.

Note: You can generate Represented Inspections only while the Inspection record is new (i.e., you have *not* saved the Inspection record yet).

## Values Mapped to Represented Inspections

Represented Inspections represent Inspection records that are associated with equipment items whose inspection requirements are satisfied by the inspection of the piece of equipment associated with a Representative RBI Component in an Inspection Group. The following table lists the fields and values that are mapped to these Inspection records.

This Inspection field:	is populated with:	from this source:
Asset	The value in the Asset field.	The associated Grouping Element record.
Inspection Confidence	The Inspection Confidence value that is the next most conservative value than the source record Inspection Confidence value.	The Inspection record that is associated with the piece of equipment for which inspections will occur (i.e., the Inspection record from which you generated the Represented Inspections).
	For example, if the Inspection Confidence value in the source record is <i>Medium</i> , the Inspection Confidence value in the associated Represented Inspection will be <i>High</i> .	

This Inspection field:	is populated with:	from this source:
This Inspection field: Inspection Head-line1	One of the following values, depending upon the value in the Inspection Headline field in the source Inspection record:  • Actual inspection performed on Asset <record id="">, where <record id=""> is the Record ID of the Equipment record stored in the Asset ID field in the source Inspection</record></record>	The Inspection record that is associated with the piece of equipment for which inspections will occur (i.e., the Inspection record from which you generated the Represented Inspections).
	tion record. This value is populated in the Inspection Headline field in the Represented Inspection when the Inspection Headline field in the source Inspection record does not contain a value.	
	-or-  • Actual inspection performed on Asset <inspection headline="">, where <inspection headline=""> is the value that is stored in the Inspection Head-</inspection></inspection>	

This Inspection field:	is populated with:	from this source:
	line field in the source Inspection record. This value is populated in the Inspection Headline field in the Represented Inspection when the Inspection Headline field in the source Inspection record does contain a value.	
Type of Inspection	The value in the Type of Inspection field.	The Inspection record that is associated with the piece of equipment for which inspections will occur (i.e., the Inspection record from which you generated the Represented Inspections).
Degradation Mech- anism	The value in the Degradation Mech- anism field.	The Inspection record that is associated with the piece of equipment for which inspections will occur (i.e., the Inspection record from which you generated the Represented Inspections).

If the Represented Inspection was generated from an Inspection record whose family caption includes the word *Checklist*, no Inspection Headline value will be copied from the source Inspection record.

## About Inspection Task and Recommendation Records

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 TM. 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.

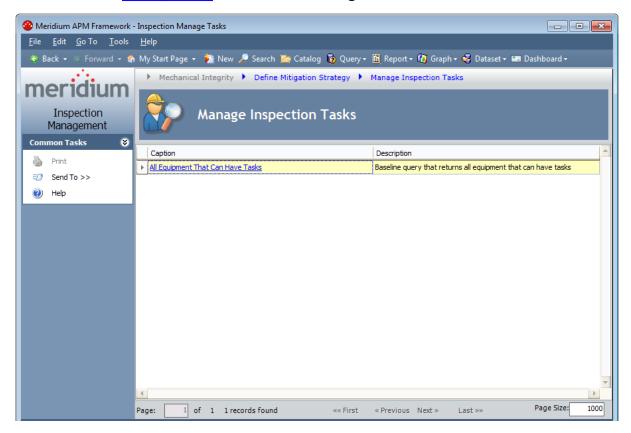
This documentation does not assume which method you are going to use but explains how to create Inspection Task records and how to create Inspection Recommendation records.

## Creating an Inspection Task Record

#### To create an Inspection Task record:

1. On the <u>Inspection Management Start Page</u>, click the **Manage Tasks** link.

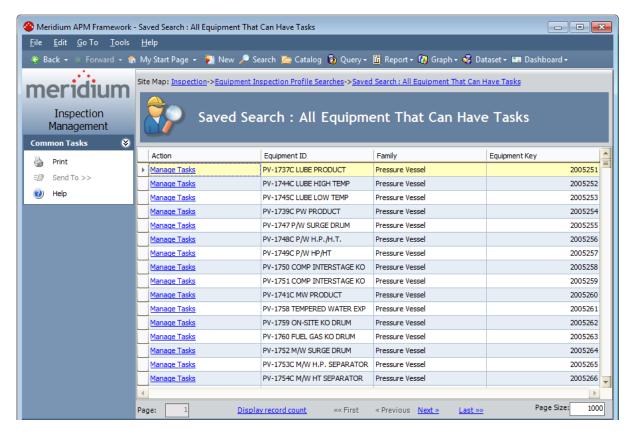
The **Inspection Manage Tasks** page appears, displaying a list of all queries and searches in the **Task Queries** folder in the Catalog.



2. Click the **All Equipment That Can Have Tasks** link.

The **Saved Search: All Equipment That Can Have Tasks** page appears, displaying all records that can be linked to an Inspection Task record.

**Note:** In the Meridium APM baseline database, this page displays in the page title the catalog item *caption* for the query with which it is associated. This documentation assumes that you have not modified this query caption.



3. In the row containing the equipment or location for which you want to create a new Inspection Task record, click the **Manage Tasks** link.

If the Equipment or Functional Location record is already linked to a Task record, the **Task List** page appears, displaying all existing Task records that are linked to the selected Equipment or Functional Location record.

-or-

If the Equipment or Functional Location record is not linked to any Task records, a message appears, asking if you want to continue to the **Task List** page, which will display a list of *all* Task records.

4. Click the **Yes** button.

The **Task List** appears, displaying *all* existing Task records.

You can use the **Task List** page to create a new Inspection Task record for the selected equipment or location.

## Creating an Inspection Recommendation Record

#### To create an Inspection Recommendation record:

- 1. Open the Inspection record for which you want to create a recommendation.
- 2. In the record hierarchy, right-click the Inspection Recommendation family, and select **Create a new Inspection Recommendation to link to [root record]**, where **[root record]** is the name of the record you opened from the search results.

-or-

If you are viewing the **Inspection Finding Checklist** page, in the row representing the finding that is prompting you to recommend further action, click the button.

The **new Inspection Recommendation** window appears.

- 3. Complete the fields as desired.
- 4. Click OK.

The Inspection Recommendation record is saved. In addition, if the root Inspection record is linked to an Equipment record, the Asset ID field is populated with the ID of that Equipment record. If the root Inspection record is linked to a Functional Location record, the Functional Location ID field is populated with the ID of the Functional Location record. Note that these values are also visible on the Inspection datasheet in the **Asset ID** and **Functional Location ID** cells.

# Values Mapped from Checklist Finding Records to Inspection Recommendation Records

If you create an Inspection Recommendation record from the Inspection Finding Checklist page, the following fields in the Inspection Recommendation record are populated automatically with values in the Checklist Finding record from which it was created:

- Recommendation Headline: Populated with a concatenation of the following values:
  - The label of the section containing the Checklist Finding record.
  - The label of the row containing the Checklist Finding record.

For example, suppose an Inspection Recommendation record was created from the Checklist Finding record represented by the row in the following image.



You can see that the section label is *General*, and the row label is *Corrosion*.

Using this example, the value in the Recommendation Headline field in the Inspection Recommendation record would be *General Corrosion*, as shown in the following image.



• **Recommendation Description:** Populated with the value in the Finding Summary field in the Checklist Finding record.

### Locking an Inspection

After you complete an Inspection record and want to flag it for approval, you should lock it so that others cannot modify it. Locking the Inspection record ensures that the information that you supplied does not get 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:

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

#### To lock an Inspection record:

- 1. Open the Inspection record that you want to lock.
- 2. Select the **Inspection Lock** check box.

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

All fields *except* for the following become disabled:

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

In addition, the record hierarchy shortcut menu options that allow you to link new or existing Recommendation records to the Inspection record are disabled.

After the Inspection record is locked, you can flag it for approval.

## Flagging an Inspection for Approval

When an Inspection record is ready to be approved, you should flag it for approval. Doing so will make the record appear on the **Review and Approve Inspections** page.

#### To flag an Inspection for approval:

- 1. Open the Inspection record that you want to flag for approval.
- 2. If one is not already selected, select a reviewer in the **Reviewers Name** list.
- 3. In the Inspection Document Status field, select Pending Approval.
- 4. On the Common Tasks menu, click the Save link.

### Approving an Inspection

After an Inspection record has been set to Pending Approval, you can review and approve it, indicating that you accept the findings and are satisfied with the information provided by the inspector.

#### To approve inspection results:

1. On the Inspection Start Page, click the Review and Approve Documents link.

The **Review and Approve Inspection Documents** page appears.

This page displays a list of all queries and searches in the <u>Review Queries</u> folder in the Catalog. Each row represents a different query you can run to return Inspection records that need to be reviewed. For each Inspection family, you can select a query that returns:

- Records that contain a specific value in the *Inspection Document Status* field and the *Reviewers Name* field.
- Records that contain a specific value in the *Inspection Document Status* field and are assigned to the user who is currently logged in to Meridium APM.
- Records that contain *any* value in the *Inspection Document Status* field and are assigned to the user who is currently logged in to Meridium APM.
- 2. To run a query, in the row containing the query that you want to run, click the hyperlinked query caption.
- 3. If you selected a query that returns only records with specific values in the Inspection Document Status field and the Reviewers Name field, a prompt appears. The prompt may contain a field for the reviewer's name and document status or just the document status.
- 4. In the prompt, select the values that correspond to the type of Inspection records that you want to review.
  - The **Review and Approve Inspections** page appears, displaying a list of all Inspection records that meet the criteria that you selected on the previous page.
- 5. If you want to approve the inspection without reviewing any findings or recommendations, in the row containing the Inspection record that you want to approve:
  - a. In the **Inspection Document Status** list, select **Approved**.
  - b. Type any desired comments in the **Reviewers Comments** field.
  - c. Select the **Final Inspection Lock** check box, which disables all fields except the **Final Inspection Lock** field.

-or-

If you want to review any findings or recommendation associated with the inspection before approving the inspection:

a. In the row containing the inspection whose findings and recommendations you want to review, click the **Open Inspection** link.

The Inspection record appears in the Record Manager.

- b. Use the tree to expand any findings and recommendations.
- c. When you are satisfied with the inspection, including any associated findings and recommendations, in the **Inspection Document Status** list, select **Approved**.
- d. Select the **Final Inspection Lock** check box, which disables all fields except the **Final Inspection Lock** field.

**Note:** You can also modify the status of the Inspection Recommendation, if desired (e.g., change the value in the Status field to Approved).

6. Save the Inspection record.

At this point, if the Inspection record was created based on the information in a Task record, you might want to update that Task record so it contains an appropriate Last Date and Next Date. You can do so by <a href="mailto:executing the strategy rule Ml\_InspectionTasksUpdate">executing the strategy rule Ml\_InspectionTasksUpdate</a>.

## **Publishing an Inspection**

You can publish inspections using the Inspection datasheet for any of the following Inspection families:

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

#### To publish an Inspection record:

- 1. Open the Inspection record that you want to publish.
- 2. Select the **Published** check box.
- 3. On the **Common Tasks** menu, click the **Save** link.

## **Viewing Published Inspections**

#### To view published inspections:

- On the <u>Inspection Management Start Page</u>, click the <u>Published Documents</u> link.
   The <u>Published Inspection Documents</u> page appears.
- 2. In the row containing the record that you want to view, click the **Load Inspection** link.

The Inspection record appears in the Record Manager.

## **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 upon supporting queries that gather information from the Inspection record and records to which it is linked. The results are displayed on the **Report Viewer** page.

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 Inspec- tion	MI_ INSPBUN- D	Bundle Inspec- tion Report	<ul> <li>Asset Corrosion Analysis Report</li> <li>Finding Report</li> <li>Inspection Recommendation Report</li> <li>Inspection Team Member Report</li> <li>Reference Document Report</li> </ul>	<ul> <li>Bundle Inspection</li> <li>Asset Corrosion Analysis</li> <li>Findings</li> <li>Pressure Test Sub Inspections</li> <li>Recommendations</li> <li>Inspection Team Members</li> <li>Reference Documents</li> </ul>

Inspection subfamily	Query Behind Main Report	Main Report(s)	Contributing Reports	Sections Included in Main Report
Check- lists	Checklist Report Query	Checklist Inspec- tion Report	<ul> <li>Asset Corrosion Analysis Report</li> <li>Bundle Sub Inspection Report</li> <li>Checklist Finding Report</li> <li>Finding Report</li> <li>Inspection Recommendation Report</li> <li>Inspection Team Member Report</li> <li>Pressure Test Sub Inspection Report</li> <li>Reference Document Report</li> </ul>	<ul> <li>Asset Corrosion Analysis</li> <li>Bundle Sub- Inspections</li> <li>Checklist Find- ings</li> <li>Findings</li> <li>Recom- mendations</li> <li>Inspection Team Members</li> <li>Pressure Test Sub Inspections</li> <li>Reference Docu- ments</li> </ul>
Check- lists	Checklist Report Query	Blank Checklist Inspec- tion Report	Checklist Find- ing Report	Checklist Find- ings

Inspection subfamily	Query Behind Main Report	Main Report(s)	Contributing Reports	Sections Included in Main Report
Full Inspec- tion	MI_ INSPFULL	Full Inspec- tion Report	<ul> <li>Asset Corrosion Analysis Report</li> <li>Bundle Sub Inspection Report</li> <li>Finding Report</li> <li>Inspection Recommendation Report</li> <li>Inspection Team Member Report</li> <li>Pressure Test Sub Inspection Report</li> <li>Reference Document Report</li> </ul>	<ul> <li>Full Inspection</li> <li>Asset Corrosion Analysis</li> <li>Findings</li> <li>Recom- mendations</li> <li>Pressure Test Sub Inspections</li> <li>Bundle Sub- Inspections</li> <li>Inspection Team Members</li> <li>Reference Documents</li> </ul>
General Inspec- tion	MI_INSP_ GEN	General Inspec- tion Report	<ul> <li>Asset Corrosion Analysis Report</li> <li>Finding Report</li> <li>Inspection Recommendation Report</li> <li>Press Test Sub Inspection Report</li> <li>Inspection Team Member Report</li> <li>Reference Document Report</li> </ul>	<ul> <li>General Inspection</li> <li>Asset Corrosion Analysis</li> <li>Findings</li> <li>Recommendations</li> <li>Pressure Test Sub Inspections</li> <li>Bundle SubInspections</li> <li>Inspection Team Members</li> <li>Reference Documents</li> </ul>

Inspection subfamily	Query Behind Main Report	Main Report(s)	Contributing Reports	Sections Included in Main Report
Pressure Test Inspec- tion	MI_ INSPPTST	Pressure Test Inspec- tion Report	<ul> <li>Asset Corrosion Analysis Report</li> <li>Finding Report</li> <li>Inspection Recom- mendation Report</li> <li>Inspection Team Member Report</li> <li>Reference Document Report</li> </ul>	<ul> <li>Pressure Test Inspection</li> <li>Asset Corrosion Analysis</li> <li>Findings</li> <li>Recommendations</li> <li>Inspection Team Members</li> <li>Reference Documents</li> </ul>

## **About Running Inspection Reports**

You can run inspection reports from of the following locations:

- From the Inspection Reports page.
  - -or-
- From the Record Manager.
  - -or-
- From the Inspection Finding Checklist page.

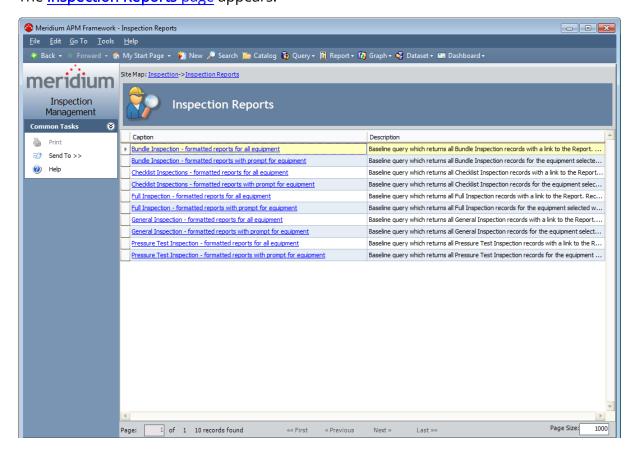
The location that you choose will depend upon your workflow and the type of inspection report you want to view.

Note: When you run a report from the Inspection Finding Checklist page, you can generate a report for the Inspection record for which you accessed the page *or* generate a blank report for the Checklists family to which the Inspection record belongs.

## Accessing the Inspection Reports Page

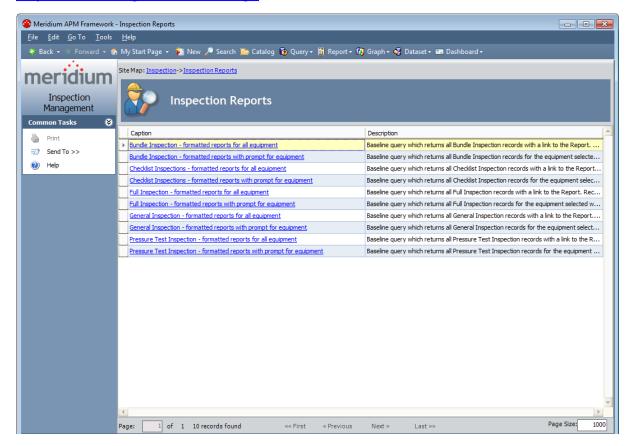
#### To access the Inspection Reports page:

On the <u>Inspection Management Start Page</u>, click the <u>Inspection Reports</u> link.
 The <u>Inspection Reports</u> page appears.



## Aspects of the Inspection Reports Page

The **Inspection Reports** page appears when you click the **Inspection Reports** link on the **Inspection Management Start Page**.



The **Inspection Reports** page contains the **Inspection Reports** grid that displays one row for each query that is stored in the Catalog folder \Public\Meridium\Modules\Inspection\Manage Report Queries. The **Inspection Reports** grid contains the following columns:

- Caption: Displays the hyperlinked query caption.
- **Description:** Displays the query description.

You can click any hyperlinked caption to run the associated query. If you click the hyperlinked caption for a *baseline* query, you will be directed to another page from which you can run the desired report.

By default, for each Inspection subfamily, the grid displays two queries:

• One query that returns a list of *all* Inspection records in that family, regardless of the record to which they are linked. After you run this query, from the list of Inspection records that appears, you can run the report for the desired Inspection record.

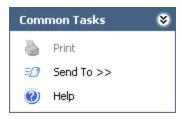
• One query that returns a list of all Inspection records in that family, where the Inspection records are linked to a *specific* record that you specify. After you run this query, you will need to specify the desired record. Then, from the list of Inspection records that are linked to that record, you can run the report for the desired Inspection record.

For example, for the Full Inspection family, the grid displays the following queries:

- One query that returns a list of all Full Inspection records that exist in the database. From this list, you can run the report for the desired Full Inspection record.
- One query that returns a list of all Full Inspection records that are linked to a specific Equipment or Functional Location record. After you run this query, you will need to select the desired Equipment or Functional Location record. Then, from the list of Full Inspection records that are returned, you can run the report for the desired Full Inspection record.

The **Inspection Reports** page also contains one task menu: **Common Tasks**.

### Common Tasks Menu



The **Common Tasks** menu on the **Inspection Reports** page contains the following links:

- **Print:** This button is always disabled on the **Inspection Reports** page.
- **Send To:** Displays a submenu with options that let you provide a link to the current page on your desktop (create shortcut), in an email message, or on a Home Page.
- Help: Displays the context-sensitive Help topic for the Inspection Reports page.

# Running Inspection Reports From the Inspection Reports Page

#### To run an inspection report from the Inspection Reports page:

1. In the **Inspection Reports** grid on the **Inspection Reports** page, in the row containing the query that you want to run, click the hyperlinked query caption.

A new page appears, displaying a list of Inspection records whose associated report you can run.

• If you selected a query from the **Inspection Reports** page that returns Inspection records that are linked to a specific Equipment or Functional Location record, prompts appear for you to specify the desired Equipment or Functional Location record. In this case, proceed to step 2 of these instructions.

-or-

- If you selected a query from the **Inspection Reports** page that returns all Inspection records belonging to a certain family, prompts do not appear. In this case, proceed to step 4 of these instructions.
- 2. If you want to run a report that is associated with an Inspection record that is linked to a Functional Location record, in the **Location ID** text box, type the value that is stored in the Functional Location ID field in the desired Functional Location record.

-or

If you want to run a report that is associated with an Inspection record that is linked to an Equipment record, in the **or Asset ID** text box, type the value that is stored in the Asset ID field in the desired Equipment record.

3. Click the **Run Query** button.

The results appear below the query prompts, displaying a list of all Inspection records that are linked to the Equipment or Functional Location record that you specified in the prompt.

4. In the row representing the inspection whose report you want to run, click the **View Report** link.

The report appears on the **Report Viewer** page.

# Running Inspection Reports From the Record Manager

The following instructions assume that you want to run one of the following inspection reports:

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

Although you can run a *Checklist Inspection* report via the **Select Report to Print** dialog box in the Record Manager, this documentation assumes you will run Checklist Inspection reports from the Inspection Finding Checklist page or from the Inspection Reports page.

#### To run an inspection report from the Record Manager:

- 1. In Record Manager, open the Inspection record whose report you want to run.
- 2. On the **Associated Pages** menu, click **Inspection**, and then on the submenu, click **View Printable Report**.

**Note:** The report is accessible only if it has been associated with the corresponding family via the Configuration Manager.

The report appears on the **Report Viewer** page.

# Running Inspection Reports From the Inspection Finding Checklist Page

These instructions provide details about running *Checklist Inspection* reports. To run other types of inspection reports (e.g., Full Inspection), see the instructions on running reports from the Inspection Reports page or from the Record Manager.

Checklist Inspection reports are configured in the baseline Meridium APM database for each of the following families:

- API 510 External Checklist
- API 510 Internal Checklist
- API 510 Internal Exchanger Checklist
- API 570 External Checklist
- API 653 External Checklist
- API 653 Internal Checklist
- External PRD Checklist

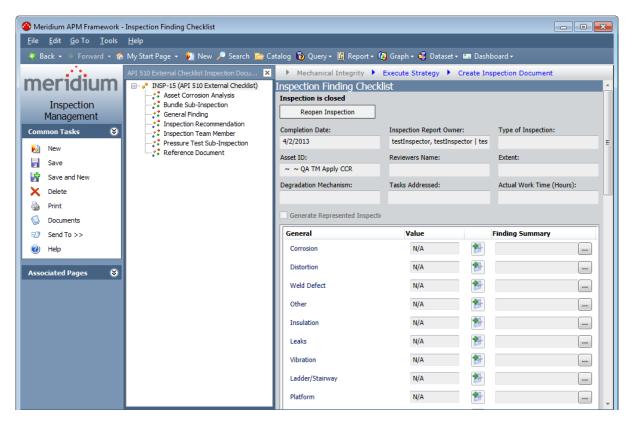
In addition to running reports for existing Checklists records, you can also generate *blank* Checklist Inspection reports to print and distribute to the appropriate resources so they can record their findings on the printed report. The following instructions may be used to generate a blank Checklist Inspection report *or* a Checklist Inspection report for an existing Checklists record.

#### To run a report from the Inspection Finding Checklist page:

- 1. On the Inspection Finding Checklist page, open:
  - The Inspection record whose report you want to run.

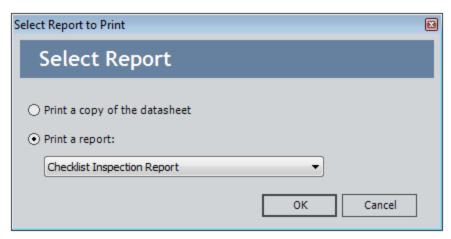
-or-

 An Inspection record belonging to the Checklists sub-family for which you want to generate a blank report.



2. On the **Common Tasks** menu, click the **Print** link.

The **Select Report to Print** dialog box appears. The **Print a report** option is selected by default.



- 3. In the **Print a report** list:
  - Accept the default selection, Checklist Inspection Report, if you want to run a report for an existing Checklists record.

-or-

- Select the value *Blank Checklist Inspection Report* if you want to generate a blank report for the Checklists family to which the current Inspection record (i.e., the Inspection record displayed as the root node in the explorer) belongs.
- 4. Click OK.
- 5. The report appears on the **Report Viewer** page. From this page, you can print the report to distribute it or to keep it as a record.

## **About Interpreting the Inspection Reports**

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

Checklists

**Note:** The Checklist Inspection report is configured for each Checklists sub-family (e.g., API 510 External Checklist).

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

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.

hote: Documentation for the Asset Corrosion Analysis section is not provided.

#### **Bundle Inspection Section**

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.

_				
Bund	II O II	nen	octi	On
				•

Inspection Reference INSP-4

Functional Location ID 016-E-E3104B CRUDE-HVY. ATMOS. GAS OIL

Asset ID HE-1609 CRUDE-HVY. ATMOS. GAS OIL

Inspection Start Date 04/10/2006 Inspection Finish Date 04/13/2006

Inspection Headline Bundle Inspection HE1609

Reason For Inspection REQUEST

Type of Inspection API570-VISUAL-EXTERNAL

Signatures

Inspection Report Owner Herndon, Super Secured Reviewer Name testInspSuper, testInspS

Inspection Summary This is a large text test for inspection reports. Note: data for the reports and sub

reports comes from the inspection datasheets for observations, recommendations,

and reference documents.

**Reviewer Comments** This is a large text test for inspection reports. Note: data for the reports and sub

reports comes from the inspection datasheets for observations, recommendations,

and reference documents.

#### **Bundle Inspection Details**

Total Number of Tubes in Bundle 150
Tubes Plugged at Inspection Start 6
Tubes (Previously Plugged) Replaced 0
Tubes Replaced Not Previously Plugge 0
Total Number of Tubes Replaced 0
Tubes Plugged at Inspection End 6
Percentage Heat Transfer Area Loss 4.00

Bundle Inspection Summary

This is a large text test for inspection reports. Note: data for the reports and sub reports comes from the inspection datasheets for

observations, recommendations, and reference documents.

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
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 Inspections Section**

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-0123
Total Number of Tubes in Bundle	150.00
Tubes Plugged at Inspection Start	6.00
Tubes (Previously Plugged) Replaced	0.00
Tubes Replaced Not Previously Plugged	0.00
Total Number of Tubes Replaced	5.00
Tubes Plugged At Inspection End	6.00
Percentage Heat Transfer Area Loss	4.00
Bundle Inspection Summary	No issues found.

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

Report item	Bundle Sub-inspection field	
Bundle Inspection Sum- mary	Inspection Summary	
Bundle Tag	Asset ID	
Percentage Heat Transfer	Percentage Heat Transfer Area	
Area Loss	Loss	
Total Number of Tubes in	Total Number of Tubes in	
Bundle	Bundle	
Total Number of Tubes	Total Number of Tubes	
Replaced	Plugged at Inspection End	
Tubes (Previously	Tubes (Plugged At Start)	
Plugged) Replaced	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 Pre- viously Plugged	Tubes (Not Previously Plugged) Replaced

#### **Checklist Findings Section**

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

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

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

Checklist Findings			
Category	Name	Value	Finding Summary
General	Corrosion	Yes	Found corrosion on the exterior. Created a Recommendation record.
	Distortion	Yes	Found distortion on the exterior. Created a Recommendation record.
	Weld Defect	N/A	
	Other	N/A	
	Insulation	Yes	
	Leaks	N/A	
	Vibration	N/A	
	Ladder/Stairway	N/A	
	Platform	N/A	
	Guy Wires	N/A	
	Electrical Ground	Yes	
	Coating/Painting	N/A	
	Exp Joint or Bellows	N/A	
	Gauge/Sight Glass	N/A	
Connections	Other	N/A	
	Small Branches	N/A	
	Nozzles	N/A	
	Manways	N/A	
	Reinforcing Pads	N/A	
	Bolting	N/A	
	Flanges	N/A	
	Leak Clamps	N/A	
Supports	Other	N/A	
	Foundation	N/A	
	Anchor Bolts	N/A	
	Saddle/Skirt	N/A	

# **Findings Section**

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 <u>Inspection record</u>. An example of the **Findings** section is shown in the following image.

Findings	
Profile Item	Insulation
Location Details	Insulation for Water Heater.
Headline	Insulation needs to be inspected.
Summary	Equipment is in good working order. No issues found.
Туре	OBSERVATION
Deterioration Mode	NONE
Deterioration Mechanism	NONE
Predictable	N
Predicted	N
Action Taken Code	NONE
Action Taken Description	No Action Taken.

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

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 Section**

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-5
Functional Location ID	19-0001-04 Sour Water Overhead Line
Asset ID	19-00400 SOUR WATER
Inspection Start Date	01/22/2007
Inspection Finish Date	01/22/2007
Signatures	
Inspection Report Owner	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

## **General Inspection Section**

The **GeneralInspection** 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 **GeneralInspection** section is shown in the following image.

General Inspection			
Inspection Reference	INSP-3		
Functional Location ID	016-E-E3104A CRUDE-HVY. ATM	IOS. GAS OIL	
Asset ID	HE-1608 CRUDE-HVY. ATMOS. 0	GAS OIL	
Inspection Start Date	02/01/2006		
Inspection Finish Date	02/03/2006		
Inspection Headline	General Inspection HE1608		
Reason For Inspection	OPERATING PERFORMANCE		
Type of Inspection	EXTERNAL VISUAL		
Signatures			
Inspection Report Owner	testInspector, testInspector	Reviewer Name	Herndon, Super Secured
Inspection Summary	No external observations found to relate to performance		
Reviewer Comments	agree document state changed to Approved		

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

#### General Inspection Section

Report item	General Inspection field
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

## **Inspection Team Members Section**

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 <u>Inspection record</u>. An example of the **Inspection Team Members** section is shown in the following image.

Inspection Team Members			
Full Name Smith, Jane	Applicable Certification NBIC	Certification ID 1234567890	Expiration Date
Smith, Joe	NBIC	1234567890	
Smith, John	NBIC	1234567890	

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

Report item	Inspection Team Member field
Applicable Certification	Applicable Certification
Certification ID	Certification ID
Certification Expiry Date	Certification Expiry Date
Full Name	Full Name

## **Pressure Test Inspection Section**

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-8	
Functional Location ID	016-E-E3104B CRUDE-HVY. ATMOS. GAS OIL	
Asset ID	HE-1609 CRUDE-HVY. ATMOS. GAS OIL	
Inspection Start Date	02/05/2009	
Inspection Finish Date	02/05/2009	
Inspection Headline	TEST inspection for HE-1609	
Reason For Inspection	REQUEST	
Type of Inspection	API510-PRESSURE-TEST	
Signatures		
Inspection Report Owner	Reviewer Name	

Pressure Test Inspection Details			
	Shell Side	Tube Side	
Test Media	WATER	STEAM	
Test Pressure	2	2	
Test Duration	3	4	
Test Media Temp.	3	4	
# of Gauges Used	2	3	
Witnessed By	Bailey, Jane	Bailey, Jane	
SRV Set Pressure	23	23	
Test Comments	This is a large text test for inspection	This is a large text test for inspection	

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)

Report item	Pressure Test 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 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)
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 <u>Inspection record</u>. An example of the **Pressure Test Sub Inspections** section is shown in the following image.

Pressure Test Sub Inspections			
	Shell Side	Tube Side	
Test Media	WATER	WATER	
Test Pressure	5.00	5.00	
Test Duration	20.00	20.00	
Test Media Temp.	4.50	4.50	
# of Gauges Used	2.00	2.00	
Witnessed By	Administrator, Meridium	Administrator, Meridium	
SRV Set Pressure	3.00	3.00	
Test Comments	No issues with pressure test.	No issues with pressure test.	

The following table lists the items that are included in the **Pressure Test Sub Inspection** 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)
Test Duration	Test Duration (Tube)
Test Media	Test Media (Shell)
Test Media	Test Media (Tube)

Report item	Pressure Test Sub-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)
Witnessed By	Witnessed By (Shell)
Witnessed By	Witnessed By (Tube)

#### **Recommendations Section**

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 <u>Inspection record</u>. An example of the **Recommendations** section is shown in the following image.

Recommendations		
Recommendation ID	REC-242	
Headline	test	
Description	This is an inspection recommendation test	
Basis	2	
Target Completion Date	2/6/2009 12:00:00AM	
Author Name	Herndon, Super Secured	

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 Section

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 <u>Inspection record</u>. An example of the **Reference Documents** section is shown in the following image.

Reference Documents		
Reference Document ID Inspection Guide.pdf	<b>Description</b> Inspection Guide for Water Heater Inspection	Document Path 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

# Inspection Management Associated Pages

The following table lists the Associated Pages that are configured by default for the following baseline Inspection families:

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

These links are available only when *one* record is selected.

Note: To see the underlying URL for each Associated Page, you can use the URL Manager application.

Caption	Description
View Print- able	Launches the Report Viewer, which displays the Inspection record data in a preformatted report.
Report	This Associated Page appears on the <b>Inspection</b> submenu.
View Asset Inspection History	Displays the <b>Inspection History Summary Query</b> page, which displays all Inspection records that are linked to the same Equipment record to which the current Inspection record is linked.
	This Associated Page appears on the <b>Inspection</b> submenu.
View Func- tion Inspec- tion	Displays the <b>Inspection History Summary Query</b> page, which displays all Inspection records that are linked to the same Functional Location record to which the current Inspection record is linked.
History	This Associated Page appears on the <b>Inspection</b> submenu.
Manage	Displays the Inspection Profile record for the selected Equipment record.
Profiles	This Associated Page appears on the <b>Inspection</b> submenu.
Corrosion Analysis	Displays the <b>Corrosion Analysis</b> page in Thickness Monitoring, which displays any existing corrosion history for the current Equipment or Functional Location record.
	The Meridium APM system assumes that either Equipment records or Functional Location records have been set up to have analyses. If both Equipment and Functional Location records have been configured to have analyses, this link will still work, but other parts of the application may produce unexpected results.
	This Associated Page appears on the <b>Inspection</b> submenu.

Caption	Description
Manage Tasks	Displays the <b>Task List</b> page, which displays a list of all the Task records that are linked to the Equipment or Functional Location record to which the Inspection record is linked.
	This Associated Page should be used only by customers whose Inspection records are linked to either an Equipment record or a Functional Location record. It should not be used by customers whose Inspection records are linked to <i>both</i> an Equipment record and a Functional Location record.
	This Associated Page appears on the <b>Inspection</b> submenu.
Manage Location Tasks	Displays the <b>Task List</b> page, which displays a list of all the Task records that are linked to the Functional Location record to which the Inspection Event record is linked.
	This Associated Page appears on the <b>Inspection</b> submenu.
Manage Equipment Tasks	Displays the <b>Task List</b> page, which displays a list of all the Task records that are linked to the Equipment record to which the Inspection record is linked.
	This Associated Page should be used only by customers whose Inspection records are linked to <i>both</i> an Equipment record and a Functional Location record.
	This Associated Page appears on the <b>Inspection</b> submenu.
Open Inspection	Loads the Inspection record in its configured explorer if one has been set up for the Inspection family.
Explorer	This Associated Page appears on the <b>Inspection</b> submenu.
Open Work Pack	Opens the Work Pack record to which the Inspection Event record is linked.
	This Associated Page appears on the <b>Inspection</b> submenu.

#### **Public Folders**

Inspection Management looks for files in specific places in the Meridium APM Catalog to display information, including lists of saved queries and searches. For Inspection Management to work properly, you must store files in these specific locations. The following table provides a list of these Public folders, information about the files they contain by default, and details on how these files are used by Inspection Management. This list is intended to serve as a quick reference to details that are provided elsewhere in this documentation.

Note: All of the Public folders listed in the table exist by default. Any item in a Public folder is also available in the Baseline folder. Throughout this documentation, however, we refer to items in the Public folder.

This folder:	Stores these files:	Which are used to:
\\Public\Meridi- um\Modules\Inspection\Conditional Alert Queries	Queries and searches that retrieve Inspection Conditional Alerts.	Generate the list that appears on the Inspection Alerts page.
\\Public\Meridi- um\Modules\Inspection\Config Queries	Application configuration queries, including: Asset Query, Base Summary Query, Inspection History Summary Query, and Published Documents Query.	Set up required application con- figurations.
\\Public\Meridi- um\Modules\Inspection\Document Queries	Queries and searches that retrieve Inspection records.	Generate the list that appears on the Inspection Manage Documents page.

This folder:	Stores these files:	Which are used to:
\\Public\Meridi- um\Modules\Inspection\Explorers	Configured explorers.	Control the display of Inspection Documents in the Record Manager and on the Inspection Finding Checklist page.
\\Public\Meridi- um\Modules\Inspection\Manage Report Queries	Queries and searches that retrieve Inspection reports.	Generate the list that appears on the Inspec- tion Manage Reports page.
\\Public\Meridi- um\Modules\Inspection\Profile Queries	Queries and searches used to retrieve Inspection Profile records.	Generate the list that appears on the Inspec- tion Manage Profiles page.
\\Public\Meridi- um\Modules\Inspection\Report Queries	Underlying support queries.	Produce reports.

This folder:	Stores these files:	Which are used to:
\\Public\Meridi- um\Modules\Inspection\Reports	Reports that provide various information related to inspections. This Catalog folder contains the following reports:	Display inspection reports in the Report Viewer.
	<ul> <li>Asset Cor- rosion Ana- lysis Report</li> </ul>	
	<ul> <li>Blank Check- list Finding Report</li> </ul>	
	<ul> <li>Blank Check- list Inspection Report</li> </ul>	
	Bundle Inspection Report	
	Bundle Sub     Inspection     Report	
	<ul> <li>Checklist Find- ing Report</li> </ul>	
	<ul> <li>Checklist Inspection Report</li> </ul>	
	<ul> <li>Finding Report</li> </ul>	
	<ul> <li>Full Inspection Report</li> </ul>	
	<ul> <li>General Inspection Report</li> </ul>	
	<ul> <li>Inspection         Recom-             mendation             Report     </li> </ul>	
	<ul> <li>Inspection         Team Member         Report     </li> </ul>	

This folder:	Stores these files:	Which are used to:
	<ul> <li>Pressure Test Inspection Report</li> </ul>	
	<ul> <li>Pressure Test         Sub Inspection         Report     </li> </ul>	
	<ul> <li>Reference         Document         Report     </li> </ul>	
	<ul> <li>Workpack Inspection Findings Sum- mary Report</li> </ul>	
	<ul> <li>Workpack         Inspection         Scope Sum-         mary Report     </li> </ul>	
\\Public\Meridi- um\Modules\Inspection\Resource Queries	Queries and searches used to retrieve Human Resources involved in the inspection process.	Generate the list that appears on the Inspec- tion Manage Resources page.
\\Public\Meridi- um\Modules\Inspection\Review Queries	Queries and searches used to retrieve Inspection Event records for review.	Generate the list that appears on the Review and Approve Inspection Documents page.

This folder:	Stores these files:	Which are used to:
\\Public\Meridium\Modules\Inspection\SSRS	This folder contains reports that were used in a previous release.	This Catalog folder and its contents are not used by the Meridium APM product.
\\Public\Meridium\Modules\Inspection\Task Queries	Queries and searches used to retrieve Equipment or Functional Location records that can be linked to Inspection Task records.	Generate the list that appears on the <b>Inspec-</b> <b>tion Manage</b> <b>Tasks</b> page.

#### **Personal Folders**

In addition to Public folders, Inspection Management can also use queries and searches stored in Personal folders. The queries and searches must be stored in the exact folder structure expected by Inspection Management. For details, refer to the following table. When you follow the Inspection Management workflow, personal queries and searches will be displayed along with public queries and searches.

The Personal folders do not exist by default and must be created manually if you want to use them to store queries and searches that are used by Inspection Management. Items in Personal folders will appear only to the user of the folder in which they are stored, regardless of the permissions defined for the user who is logged in.

The following table provides a list of these Personal folders, information about the files they should contain, and details on how these files are used by Inspection Management.

This folder:	Should store these files:	Which are used to:
\\Personal\Inspection\Document Queries	Queries and searches used to retrieve Inspection records that are of interest to the current user (e.g., Inspections assigned to the current user).	Generate the list that appears on the Inspection Manage Documents page.
\\Personal\Inspection\Profile Queries	Queries and searches used to retrieve Inspection Profiles	Generate the list that appears on the Inspection Manage Profiles page.

# About the Baseline Inspection Queries

The Inspection Management interface is configured to display results of queries that Meridium APM provides as part of the baseline Inspection Management content. The instructions in this documentation assume that you are using the baseline queries and that you have not modified them. If you modify these queries, the instructions will not apply to your implementation.

# Conditional Alert Queries Folder

The query listed in the following table is provided by default in the Catalog folder \Public\Meridium\Modules\Inspection\Conditional Alert Queries. In this table, the value displayed in the **Query**column refers to the query*name*. The baseline query caption is the same as the query name.

Query	Behavior and Usage
All Inspection Alerts	Returns all Conditional Alert records where the value in the Alert Source field is <i>Inspection</i> . This query contains an <b>Open Alert Definition</b> link, which opens the selected Conditional Alerts record in the Record Manager.
	The results of this query are displayed on the <b>Inspection Alerts</b> page.

# **Config Queries Folder**

The queries listed in the following table are provided by default in the Catalog folder \Public\Meridium\Modules\Inspection\Config Queries. In this table, the values listed in the **Query** column refer to the query *names*. The baseline query captions are the same as the query names.

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. The results of this query are not visible when you follow the Inspection Management workflow; this query exists simply to support a workflow facilitated by the Inspection History Summary Query.
Inspection His- tory 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. The results of this query are displayed on the Inspection History Summary Query page.
Published Docu- ments	Returns a list of all Inspection records whose <a href="Published field is set to true">Published field is set to true</a> . This query contains a Load Inspection hyperlink that lets you open Inspection records in the Record Manager. The results of this query are displayed on the Published Inspection Documents page when it is accessed via the Inspection Management Start Page or a link on a Home Page.
Published Docu- ments 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. The results of this query are displayed on the <b>Published Inspection Documents</b> page when it is accessed from the navigation bar that is displayed on various pages throughout Mechanical Integrity modules.

Query	Behavior and Usage
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. The results of this query are not visible when you follow the Inspection workflow; 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
	Pressure Inspections Pending Approval for Current User
	Pressure Test Inspections for Review for Current User -     Choose State

# **Document Queries Folder**

The queries listed in the following table are provided in the Catalog folder \Public\Meridium\Modules\Inspection\Document Queries. In this table, the values listed in the **Query** column refer to the query *names*. The baseline query captions are the same as the query names.

Note: These queries are accessible from the Inspection Manage Documents page.

Query	Behavior and Usage
All Equipment That Can Have API 510 External Checklist Inspections	Returns all records that are linked to an API 510 External Checklist Inspection record. This query contains an <b>Existing Documents</b> link, which displays on the <b>Inspection History Summary Query</b> page a list of existing API 510 External Checklist Inspection records that are linked to the record indicated by the Equipment ID in the query.
All Equipment That Can Have API 510 Internal Checklist Inspections	Returns all records that are linked to an API 510 Internal Checklist Inspection record. This query contains an <b>Existing Documents</b> link, which displays on the <b>Inspection History Summary Query</b> page a list of existing API 510 Internal Checklist Inspection records that are linked to the record indicated by the Equipment ID in the query.
All Equipment That Can Have API 510 Internal Exchanger Checklist Inspec- tions	Returns all records that are linked to an API 510 Internal Checklist Inspection record. This query contains an <b>Existing Documents</b> link, which displays on the <b>Inspection History Summary Query</b> page a list of existing API 510 Internal Exchanger Checklist Inspection records that are linked to the record indicated by the Equipment ID in the query.
All Equipment That Can Have API 570 External Checklist Inspections	Returns all records that are linked to an API 570 External Checklist Inspection record. This query contains an <b>Existing Documents</b> link, which displays on the <b>Inspection History Summary Query</b> page a list of existing API 570 External Checklist Inspection records that are linked to the record indicated by the Equipment ID in the query.
All Equipment That Can Have API 653 External Checklist Inspections	Returns all records that are linked to an API 653 External Checklist Inspection record. This query contains an <b>Existing Documents</b> link, which displays on the <b>Inspection History Summary Query</b> page a list of existing API 653 External Checklist Inspection records that are linked to the record indicated by the Equipment ID in the query.

Query	Behavior and Usage
All Equipment That Can Have API 653 Internal Checklist Inspections	Returns all records that are linked to an API 653 Internal Checklist Inspection record. This query contains an <b>Existing Documents</b> link, which displays on the <b>Inspection History Summary Query</b> page a list of existing API 653 Internal Checklist Inspection records that are linked to the record indicated by the Equipment ID in the query.
All Equipment That Can Have Bundle Inspections	Returns all records that are linked to a Bundle Inspection record. This query contains a <b>Create New Bundle Inspection Document</b> link, which opens in the Record Manager a new Bundle Inspection record that is linked to the record indicated by the Equipment ID column in the query. The query also contains an <b>Existing Documents</b> link, which displays on the <b>Inspection History Summary Query</b> page a list of existing Bundle Inspection records that are linked to the record indicated by the Equipment ID in the query.
All Equipment That Can Have External PRD Checklist Inspections	Returns all records that are linked to an External PRD Checklist Inspection record. This query contains an Existing Documents link, which displays on the Inspection History Summary Query page a list of existing External PRD Checklist Inspection records that are linked to the record indicated by the Equipment ID in the query.
All Equipment That Can Have Full Inspections	Returns all records that are linked to a Full Inspection record. This query contains a <b>Create New Full Inspection Document</b> link, which opens in the Record Manager a new Full Inspection record that is linked to the record indicated by the Equipment ID column in the query. The query also contains an <b>Existing Documents</b> link, which displays on the <b>Inspection History Summary Query</b> page a list of existing Full Inspection records that are linked to the record indicated by the Equipment ID in the query.
All Equipment That Can Have General Inspections	Returns all records that are linked to a General Inspection record. This query contains a <b>Create New General Inspection Document</b> link, which opens in the Record Manager a new General Inspection record that is linked to the record indicated by the Equipment ID column in the query. The query also contains an <b>Existing Documents</b> link, which displays on the <b>Inspection History Summary Query</b> page a list of existing General Inspection records that are linked to the record indicated by the Equipment ID in the query.

Query	Behavior and Usage
All Equipment That Can Have Inspec- tions	Returns all records that are linked to an Inspection record. This query contains a <b>New Documents</b> link, which displays the <b>Select Family</b> dialog box, where you can select the family of the new Inspection record you want to create. After selecting a family, the Record Manager displays a new record that is linked to the record indicated by the Equipment ID column in the query. The query also contains an <b>Existing Documents</b> link, which displays on the <b>Inspection History Summary Query</b> page a list of existing Inspection records that are linked to the record indicated by the Equipment ID in the query.
All Equipment That Can Have Pressure Test Inspections	Returns all records that are linked to a Pressure Test Inspection record. This query contains a <b>Create New Pressure Test Document</b> link, which opens in the Record Manager a new Pressure Test Inspection record that is linked to the record indicated by the Equipment ID column in the query. The query also contains an <b>Existing Documents</b> link, which displays on the <b>Inspection History Summary Query</b> page a list of existing Pressure Test Inspection records that are linked to the record indicated by the Equipment ID in the query.
All Inspection Records	Returns all Inspection records. This query contains a <b>Load inspection</b> link, which opens in Record Manager a new General Inspection record that is linked to the record indicated by the Inspection Reference in the query.
All Inspection Records For Selec- ted Equipment	Prompts you for the Location ID and Asset ID, and then returns all Inspection Records that are linked to the record that meets the specified criteria.

# Manage Report Queries Folder

The queries listed in the following table are provided in the Catalog folder \Public\Meridium\Modules\Inspection\Manage Report Queries. In this table, the values listed in the **Query** column refer to the query *names*. The baseline query captions are the same as the query names.

1 Note: These queries are available from the Inspection Reports page.

Query	Behavior and Usage	
Bundle Inspec- tion - Formatted Reports for All Equipment	Returns all Bundle Inspection records. This query contains a <b>View Report</b> link, which opens in the Report Viewer the Inspection Document indicated by the Inspection Reference in the query.	
Bundle Inspec- tion - Formatted Reports with Prompt for Equip- ment	Prompts you for a Location ID and Asset ID so you can specify the equipment or location for which you want to view a Bundle Inspection report.	
Checklist Inspections - Formatted Reports for All Equipment	Returns all Checklists records. This query contains a <b>View Report</b> link, which opens in the Report Viewer the Inspection Document indicated by the Inspection Reference in the query.	
Checklist Inspections - Formatted Reports with Prompt for Equipment	Prompts you for a Location ID and Asset ID so you can specify the equipment or location for which you want to view a Checklist Inspection Report.	
Full Inspection - Formatted Reports for All Equipment	Returns all Full Inspection records. This query contains a <b>View Report</b> link, which opens in the Report Viewer the Inspection Document indicated by the Inspection Reference in the query.	
Full Inspection - Formatted Reports with Prompt for Equip- ment	Prompts you for a Location ID and Asset ID so you can specify the equipment or location for which you want to view a Full Inspection report.	
General Inspec- tion - Formatted Reports for All Equipment	Returns all General Inspection records. This query contains a <b>View Report</b> link, which opens in the Report Viewer the Inspection Document indicated by the Inspection Reference in the query.	

Query	Behavior and Usage	
General Inspec- tion Reports - For- matted Reports with Prompt for Equipment	Prompts you for a Location ID and Asset ID so you can specify the equipment or location for which you want to view a General Inspection report.	
Pressure Test Inspection - For- matted Reports for All Equipment	Returns all Pressure Test Inspection records. This query contains a <b>View Report</b> link, which opens in the Report Viewer the Inspection Document indicated by the Inspection Reference in the query.	
Pressure Test Inspection - For- matted Reports with Prompt for Equipment	Prompts you for a Location ID and Asset ID so you can specify the equipment or location for which you want to view a Pressure Test Inspection report.	

# **Profile Queries Folder**

The query listed in the following table is provided by default in the Catalog folder \Public\Meridium\Modules\Inspection\Profile Queries. In this table, the value displayed in the **Query**column refers to the query*name*. The baseline query caption is the same as the query name.

Query	Behavior and Usage	
All Equipment That Can Have An Inspec- tion Profiles	Returns all Equipment records in your database. This query contains a <b>Manage Profiles</b> link, which opens on the <b>Manage Equipment Profile</b> page the Inspection Profile records that are linked to the record associated with the item indicated by the <b>Equipment ID</b> in the query.	
	The results of the All Equipment That Can Have An Inspection Profiles query are available on the Saved Search: All Equipment that can have an Inspection Profiles page.	

### **Report Queries Folder**

The queries listed in the following table are provided by default in the Catalog folder \Public\Meridium\Modules\Inspection\Report Queries. In this table, the values listed in the **Query**column refer to the query*names*. The baseline query captions are the same as the query names.

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 <b>Asset Corrosion Analysis</b> section of each <u>main report</u> .	
MI Reference Docu- ment	Generates information in the <b>Reference Documents</b> section of each main report.	
MI_FIND_CHECK	Generates information in the <b>Checklist Findings</b> section of a Checklist Inspection report.	
MI_FIND_GEN	Generates information in the <b>Findings</b> section of each main report.	
MI_INSP_GEN	Generates the report for a General Inspection Document.	
MI_INSPBSUB	Generates information in the <b>Bundle Sub Inspections</b> 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 <b>Pressure Test Sub Inspections</b> 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 <b>Recommendations</b> section of each main report.	
MI_TEAMINSP	Generates the information in the <b>Inspection Team Members</b> section of each main report.	

### Resource Queries Folder

The queries listed in the following table exist by default in the Catalog folder \Public\Meridium\Modules\Inspection\Resource Queries. Each query in the this folder includes one or more URLs, which provide specific functionality when the query is run. The following table lists the baseline queries, the functionality of the associated URLs, and the behavior of the associated hyperlinks. In this table, the values listed in the Query column refer to the query names. The baseline query captions are the same as the query names.

li Note: You can access these queries from the Inspection Manage Resources page.

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:		
	<ul> <li>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.</li> </ul>		
	<ul> <li>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.</li> </ul>		
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:		
	<ul> <li>Last Name: Displays the Human Resource Record in the master/detail datasheet. The detail grid lets you view and create <u>Personnel Certification</u> records that are linked to the Human Resource record.</li> </ul>		
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:		
	<ul> <li>Last Name: Displays the Human Resource Record in the master/detail datasheet. The detail grid lets you view and create <u>Resource Role</u> records that are linked to the Human Resource record.</li> </ul>		

#### **Review Queries Folder**

The queries listed in the following table are provided in the Catalog folder \Public\Meridium\Modules\Inspection\Review Queries. In this table, the values listed in the **Query** column refer to the query *names*. The baseline query captions are the same as the query names.

Note: These queries are available on the **Review and Approve Inspection Documents** page.

Query	Behavior and Usage
Bundle Inspections for Review - Choose State and Reviewer	After prompting you to select a reviewer and state, returns a list of all Bundle Inspection records with the selected state and reviewer.
Bundle Inspections for Review for Current User - Choose State	After prompting you to select a state, returns a list of all Bundle Inspection records for the currently logged-in user with the selected state.
Bundle Inspections Pending Approval for Current User	Returns a list of all Bundle Inspection records pending approval for the currently logged-in user.
Full Inspections for Review - Choose State and Reviewer	After prompting you for a state and reviewer, returns a list of all Full Inspection records with the selected state and reviewer.
Full Inspections for Review for Current User - Choose State	After prompting you for a state, returns a list of all Full Inspection records for the currently logged-in user with the selected state.
Full Inspections Pend- ing Approval for Cur- rent User	Returns a list of all Full Inspection records pending approval for the currently logged-in user.
General Inspections for Review - Choose State and Review	After prompting you for a state and reviewer, returns a list of all General Inspection records with the selected state and reviewer.
General Inspections for Review for Current User - Choose State	After prompting you for a state, returns a list of all General Inspection records for the currently logged-in user with the selected state.
General Inspections Pending Approval for Current User	Returns a list of all General Inspection records pending approval for the currently logged-in user.

Query	Behavior and Usage
Pressure Test Inspec- tions for Review - Choose State and Reviewer	After prompting you for a state and reviewer, returns a list of all Pressure Test Inspection records with the selected state and reviewer.
Pressure Test Inspections for Review for Current User - Choose State	After prompting you for a state, returns a list of all Pressure Test Inspection records for the currently logged-in user with the selected state.
Pressure Test Inspections Pending Approval for Current User	Returns a list of all Pressure Test Inspection records pending approval for the currently logged-in user.

# Task Queries Folder

The query listed in the following table is provided in the Catalog folder \Public\Meridium\Modules\Inspection\Task Queries. In this table, the value listed in the **Query**column refers to the query name. The baseline query caption is the same as the query name.

Query	Behavior and Usage	
All Equipment That Can Have Tasks	Returns all records that can be linked to a Task record through the Has Tasks relationship. This query contains a <b>Manage Tasks</b> link, which opens on the <b>Task List</b> page a list of all Task records that are linked to the record associated with the item indicated by the Equipment ID in the query.  This query is available on the <b>Inspection Manage Tasks</b> page.	

#### Inspection

Inspection records store information about inspections that you perform on equipment and locations. The following table provides an alphabetical list and description of the fields that exist in the Inspection family. The information in the table reflects the baseline state and behavior of these fields. This list is not comprehensive.

Note: You can find information about fields unique to the <u>Bundle Sub-Inspection</u> and <u>PRD Pop Test Checklist</u> families in additional topics in this section of the documentation.

Field	Data Type	Description	Behavior and Usage
Actual Work Time	Number	The number of hours it took to complete the inspection.	This field appears on data- sheets configured for Inspection families whose caption contains the word Checklist and on SAP Integ- ration datasheets con- figured for the following families:  Bundle Inspection Full Inspection General Inspection Pressure Test Inspec- tion

Field	Data Type	Description	Behavior and Usage
Asset ID	Character	The Record ID of the Equipment record to which the Inspection record is linked.	This field is populated with the Record ID of the Equipment record with which the Inspection record is associated.  • If you selected an Equipment record on the Equipment screen in the Event Builder when you created the Inspection record, this field will be populated with the Record ID of that Equipment record.  • If you selected a Functional Location record on the Equipment screen in the Event Builder when you created the Inspection record, this field will be populated with the Record ID of the Equipment record that is linked to that Functional Location record.
Asset ID Link	Character	A hyperlink to the Equipment record to which the Inspection record is linked.	When you click this hyper- link, the Equipment record will be opened in Record Manager.

Field	Data Type	Description	Behavior and Usage
Commencement Date	Date	The date on which the inspection started.	By default, this value is set to the date on which the Inspection record is cre- ated. You can modify this date to reflect the actual start date, as needed.
			This field is available only on the datasheets that are defined for the families whose caption does <i>not</i> contain the word <i>Checklist</i> .
			If you modify the value in the Completion Date field in a record belonging to a family whose caption contains the word <i>Checklist</i> , the value in the Commencement Date field will be updated automatically to match the value in the Completion Date field. In other words, the commencement date and completion date are always the same.

Field	Data Type	Description	Behavior and Usage
Completion Date	Date	The date on which the inspection was completed.	By default, this value is set to the date on which the Inspection record is created. You can modify this date to reflect the actual completion date, as needed.
			If the value in the Inspection Task Complete field is set to <i>True</i> , when the Inspection record is saved, the value in the Completion Date field will be used to populate the Last Date field in the Task records whose Record IDs appear in the Tasks Addressed field.
			When the value in the Completion Date field is changed in a record belonging to a family whose caption contains the word Checklist, the value in the Commencement Date field will be updated automatically to match the value in the Completion Date field. In other words, the commencement date and completion date are always the same.

Field	Data Type	Description	Behavior and Usage
Degradation Mechanism	Character	The degradation mechanism that the inspection is meant to prevent.	The Degradation Mechanism field contains a list of values, where that list is populated differently depending upon the value that is stored in the Tasks Addressed field, and in some cases, the subfamily to which the Inspection record belongs.
			Regardless of the Inspection subfamily to which the Inspection record belongs, when the value in the Tasks Addressed field identifies a Task record that is linked to a Recommendation record that is linked to an RBI Degradation Mechanisms record, the Degradation Mechanism list displays a list of RBI Degradation Mechanisms records that are included in the RBI Analysis containing that RBI Recommendation record. The Degradation Mechanism list contains the values in the Degradation Mechanism field in those RBI Degradation Mechanism field in those RBI Degradation Mechanisms records.
			Additionally, the Degradation Mechanism field is populated by default using the RBI Degradation Mechanisms record that is linked to the associated Recommendation record.  If the value in the Tasks Addressed field is empty or

Field	Data Type	Description	Behavior and Usage
			contains a value that identifies a Task record that is not linked to a Recommendation record, the Inspection record subfamily is used to determine the System Code Table that will be used to supply values to the Degradation Mechanism list.
			If the record belongs to any Inspection subfamily except the PRD Pop Test Checklist subfamily, the Degradation Mechanism field displays a list of values that are stored in the System Code Table MI_DEGRADATION_MECHANISM_TYPES (Degradation Mechanism Types).
			If the record belongs to the PRD Pop Test Checklist subfamily, the Degradation Mechanism field displays a list of values that are stored in the System Code Table MI_PDM_FILTER (MI RBI, Potential Degradation Filter).
			In this case, the Degradation Mechanism field is not populated automatically.
			The value that you select in this field is used in RBI

Field	Data Type	Description	Behavior and Usage
			when you assign Inspection records to RBI Degradation Mechanism Evaluation records.
Equipment Oper- ating State	Character	The state of the equipment that is being inspected.	This field displays a list of the IDs and Descriptions of the System Codes that are stored in the MI_EQUIP_OP_STATE (MI Inspection, Equipment Operating State) System Code Table.
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.
			Specifically, 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.
			For example, if you selected <i>CUI</i> in the Type of Inspection field, the <b>Extent</b> list would display the values that are stored in the Inspection Extent field in all Inspection Strategy records whose Inspection Task Type field contains the value <i>CUI</i> .

Field	Data Type	Description	Behavior and Usage
Final Inspection Lock	Logical	Indicates whether or not the Inspec- tion record has reached a final state.	Typically, the person who is reviewing the Inspection Document (i.e., the person whose name appears in the Reviewers Name field) will set this field to <i>True</i> when the review is complete.
Functional Loca- tion ID	Character	The Record ID of the Functional Loca- tion record to which the Inspection record is linked.	This field is populated with the Record ID of the Functional Location record with which the Inspection record is associated.
			<ul> <li>If you selected a Functional Location record on the Equipment screen in the Event Builder when you created the Inspection record, this field will be populated with the Record ID of that Functional Location record.</li> <li>If you selected an Equipment record on the Equipment screen in the Event Builder when you created the Inspection record, this field will be populated with the Record ID of the Functional Location record to which that Equipment record is linked.</li> </ul>
Functional Loca- tion ID Link	Character	A hyperlink to the Functional Location record to which the Inspection record is linked.	When you click this hyper- link, the Functional Loca- tion record will be opened in Record Manager.

Field	Data Type	Description	Behavior and Usage
Generate Represented Inspections	Logical	Indicates whether or not Inspection records will be created automatically for equipment that is associated with Inspection Groups that you create using the Risk Based Inspection (RBI) module.	When the value in this field is set to <i>True</i> , <i>Represented Inspections</i> may be created.  This field is enabled only when the Inspection record is associated with an Equipment record that is also associated with an Inspection Group <i>and</i> an Inspection Task record was created from an RBI Recommendation record that was created from that Inspection Group.  This field is not available on datasheets that are delivered for the External PRD Checklist and PRD Pop Test Checklist subfamilies and will not appear on the Inspection Finding Checklist page when you open an Inspection record belonging to one of these subfamilies.

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 upon 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 pop- ulated with the value that exists in the Inspection Con- fidence field in the Inspec- tion Strategy record whose:
			<ul> <li>Inspection Task Type field contains the value that you selec- ted in the Type of Inspection field.</li> </ul>
			<ul> <li>Inspection Extent field contains the value that you selected in the Extent field.</li> </ul>
			For example, if you selected <i>CUI</i> in the Type of Inspection field and <i>RT or Strip 25% of the Locations by Category</i> in the Extent field, the Inspection Confidence field would display the value that is stored in the Inspection Confidence field in the Inspection Strategy record whose Inspection Task Type and Inspection Extent fields contain those values.
			This field is not available on the baseline Inspection datasheets.

Field	Data Type	Description	Behavior and Usage
			The value that you select in this field is used in RBI when you assign Inspection records to RBI Degradation Mechanism Evaluation records.
Inspection Docu- ment Status	Character	The status of the Inspection Document.	This field displays a list of the IDs and Descriptions of the System Codes that are stored in the MI_STATUS (Status Codes - CORE) Sys- tem Code table.
			When an Inspection record is created, the value is set to <i>Draft (DRAFT)</i> by default. You can change it to <i>Pending Approval</i> when you are ready for the reviewer to review it. Likewise, the reviewer can change it to <i>Approved (APPROVED)</i> after they have reviewed it.
Inspection Head- line	Character	A short description of the inspection.	This field does not contain a value by default. You can type a value in this field manually.

Field	Data Type	Description	Behavior and Usage
Inspection Lock	Logical	Indicates whether or not 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.	After you lock and Inspection record, you cannot unlock it.  When an Inspection record is locked, all fields except for the following fields will be disabled:  Inspection Document Status Inspection Lock Reviewers Name Reviewers Comments Final Inspection Lock Published  After the Inspection record is locked, you can flag it for approval using the Inspection Document Status field. In addition, the record hierarchy shortcut menu options that allow you to link new or existing Recommendation records to the Inspection Event record are disabled.  You can lock an Inspection Report Owner field contains the first and last name associated with your Security User account.
Inspection Refer- ence	Character	A value used to identify the Inspection record.	This value is generated auto- matically by the Meridium APM System.

Field	Data Type	Description	Behavior and Usage
Inspection Report Owner	Character	The first and last name of the Meridium APM Security User who performed the inspection.	This field contains a list of Security Users who have been assigned the Inspector role. When you create the Inspection record, you will need to select the name of the Meridium APM Security User who performed the inspection.
Inspection Sum- mary	Text	A summary of the inspection.	This field does not contain a value by default. You can type in this field manually.

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Logical	Indicates whether or not the Inspection record is closed and the associated Task records have been updated. When this field is set to <i>True</i> , the Inspection record is closed.	This field appears on data- sheets configured for Inspection families whose caption does not contain the word Checklist (e.g., General Inspection). For Inspection families whose caption does contain the word Checklist, the value in this field is modified using a button on the Inspection Finding Checklist page, which is labeled Save & Close Inspection or Reopen Inspection depending upon the value that is populated in this field.
		When you close an Inspection record:
		<ul> <li>The value in the Completion Date field will be used to populate the Last Date field in the Task record whose Record ID appears in the Tasks Addressed field.</li> </ul>
		<ul> <li>If your database has been configured cor- rectly, a Task Exe- cution record will be created automatically and linked to the Inspection and Inspec- tion Task records whose Record IDs appear in the Tasks Addressed field. The value in the Date Executed field in the Task Execution record</li> </ul>
		or not the Inspection record is closed and the associated Task records have been updated. When this field is set to <i>True</i> , the Inspection record is

Field	Data Type	Description	Behavior and Usage
			matically to the date on which the Inspec- tion record was closed.
			Additionally, when you close an Inspection record via the <b>Inspection Finding Checklist</b> page:
			<ul> <li>The fields that are displayed in the Inspection Finding Checklist workspace become disabled.</li> </ul>
			<ul> <li>The Inspection Lock field in the Inspection record is set auto- matically to <i>True</i>.</li> </ul>
			In order to close an Inspection record via the Inspection Finding Checklist page, the Inspection Report Owner field must contain a value and that value must match the first and last name associated with your Security User account.
Is a Represented Inspection	Logical	Indicates whether or not the Inspection record is associated with a piece of equipment whose inspection requirements are satisfied by the physical inspection of another piece of equipment based on Inspection Group data.	This field is available <i>only</i> in the General Inspection family (a subfamily of the Inspection family). When the value in this field is set to <i>True</i> , the Inspection record is considered a <i>Represented Inspection</i> (i.e., its inspection requirements are satisfied by the physical inspection of <i>another</i> piece of equipment).

Field	Data Type	Description	Behavior and Usage
Published	Logical	Indicates whether or not the Inspection Document is published. When this field is set to <i>True</i> , the Inspection Document is considered published.	When an Inspection Document has been published, it can be accessed from the Published Inspection Documents page.
Reason for Inspection	Character	Indicates why the inspection was performed.	This field displays a list of the IDs and Descriptions of the System Codes that are stored in the MI_EVENT_ REASON (CORE, Reason for Event) System Code Table.
Represented Inspections Generated	Logical	Indicates whether or not additional Inspection records have been created automatically for equipment that is associated with Represented RBI Components based on Inspection Group data.	When the value in this field is set to <i>True</i> , the Inspection record is associated with a Representative RBI Component for which <u>Represented Inspections</u> exist for the related Equipment records.
Reviewers Com- ments	Text	The reviewer's comments about the Inspection Document.	This field does not contain a value by default. You can type a value in this field if desired.
Reviewers Name	Character	The first and last name of the Meridium APM Security User that is responsible for reviewing the Inspection Document.	This field contains a list of Security Users who have been assigned the Inspection Supervisor role. When you create the Inspection record, you should specify in this field the Security User who will be responsible for reviewing the Inspection record.

Field	Data Type	Description	Behavior and Usage
Scope	Text	The recommended scope for this type of inspection.	This field displays a value based upon 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.
			Specifically, the Scope field displays the value that exists in the Recommended Inspection Scope field in all Inspection Strategy records whose:
			<ul> <li>Inspection Task Type field contains the value that you selec- ted in the Type of Inspection field.</li> </ul>
			<ul> <li>Inspection Extent field contains the value that you selected in the Extent field.</li> </ul>
			For example, if you selected <i>CUI</i> in the Type of Inspection field and <i>RT or Strip 25% of the Locations by Category</i> in the Extent field, the Scope field would display the value that is stored in the Recommended Inspection Scope field in the Inspection Strategy record whose Inspection Task Type and Inspection Extent fields contain those values.

Field	Data Type	Description	Behavior and Usage
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 <u>create an Inspection record</u> using the <b>Event</b> Builder, on the <b>Task</b> (s) <b>Selection</b> screen.
			<ul> <li>When you <u>open an</u> <u>existing Inspection</u> <u>record</u>:</li> </ul>
			<ul> <li>Defined for a family whose caption includes the word Checklist, on the Inspection Finding Checklist page, in the Tasks Addressed list.</li> </ul>
			<ul> <li>Defined for a family whose caption does not include the word Checklist, in Record Manager, in the Tasks</li></ul>

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 that are 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 upon the type of Inspection record that you are viewing. For Inspection records belonging to:
			<ul> <li>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).</li> </ul>
			<ul> <li>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 with a value         in the System Code         Table MI_PRD_         INSPECTION_TYPE_         FILTER (PRD Inspection Type Filter).</li> </ul>

### **Bundle Sub-Inspection**

Bundle Sub-Inspection records store information about inspections that you perform on tube bundle equipment. The following table provides an alphabetical list and description of the fields that exist in the Bundle Sub-Inspection family. The information in the table reflects the baseline state and behavior of these fields.

Field	Data Type	Description	Behavior and Usage
Action This Inspection	Character	The action that was per- formed on the tube bundle dur- ing the inspection.	This field displays a list of the IDs and Descriptions of the System Codes that are stored in the MI_BUNDLE_ACTION (Inspection; Inspection/Maintenance Actions taken on an exchanger bundle) System Code Table. The value <i>No Action (NO ACTION)</i> is selected in the list by default.
Asset ID	Character	The Record ID of the Equipment record to which the Bundle Sub-Inspection record is linked.	The Bundle Sub-Inspection datasheet caption for this field is <i>Bundle Tag</i> .
Bundle Type	Character	The type of the tube bundle equipment.	This field is populated with a list of the IDs and Descriptions of the Sys- tem Codes that are stored in the MI_ BUNDLE_TYPE (Inspection; Bundle Types) System Code Table.
Bundle Inspec- tion 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.

Field	Data Type	Description	Behavior and Usage
Percentage Heat Transfer Area Loss	Number	The per- centage of the area of the tube bundle that will exper- ience 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

Field	Data Type	Description	Behavior and Usage
Total Number Of Tubes In Bundle	Number	The number of tubes in the tube bundle.	This value is used to calculate the value in the Percentage Heat Transfer Area Loss field. This field contains the value 0 (zero) by default.
			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:
			<ul> <li>Tubes Plugged At Inspection Start</li> </ul>
			<ul> <li>Tubes (Plugged At Start) Replaced</li> </ul>
			<ul> <li>Tubes Plugged During This Inspection</li> </ul>
			<ul> <li>Tubes (Not Previously Plugged) Replaced</li> </ul>
			<ul> <li>Total Number of Tubes Replaced at Inspection End</li> </ul>
			The value in this field must be greater than or equal to the:
			<ul> <li>Value in the Tubes Plugged At Inspection Start field.</li> </ul>
			<ul> <li>Value in the Tubes Plugged During This Inspection field.</li> </ul>
			<ul> <li>Sum of the values in the Tubes Plugged At Inspection Start and Tubes Plugged During This Inspection fields.</li> </ul>

Field	Data Type	Description	Behavior and Usage		
Total Number of Tubes	Number	The number of tubes in	of tubes in	of tubes in	This field is populated based upon the following values:
Plugged At Inspection End		the tube bundle that were	<ul> <li>Tubes Plugged At Inspection Start</li> </ul>		
		plugged at the end of	<ul> <li>Tubes Plugged During Inspection</li> </ul>		
		the inspec- tion.	<ul> <li>Tubes (Plugged At Start) Replaced</li> </ul>		
		fie	Depending upon which of these fields contain values, this field is populated as follows:		
			<ul> <li>If only the Tubes Plugged At Inspection Start field contains a value, the Total Number of Tubes Plugged At Inspection End field is populated with that value.</li> </ul>		
			<ul> <li>If the Tubes Plugged At Inspection Start and Tubes Plugged During Inspection fields contain values, the Total Number of Tubes Plugged At Inspection End field is populated with the sum of these values.</li> </ul>		
			If all three fields contain values, the Total Number of Tubes Plugged At Inspection End field is populated with the sum of the values in the Tubes Plugged At Inspection Start and Tubes Plugged During Inspection minus the value in the Tubes (Plugged At Start) Replaced field.		
			This field is disabled when the Action This Inspection field contains a value.		

Field	Data Type	Description	Behavior and Usage
Total Number of Tubes Replaced at Inspection End	Number	The total number of tubes in the tube bundle that have been replaced at the end of a given inspection.	This field contains the value 0 (zero) by default.  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 value0(zero).

Field	Data Type	Description	Behavior and Usage
Tubes Plugged At Inspection Start	Number	The number of tubes in the tube bundle that were plugged before the inspection started.	This field contains the value 0 (zero) by default.  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.
Tubes (Plugged At Start) Replaced	Number	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 <i>only</i> when the value in the Action This Inspection field is <i>Partial Retube (PARTIAL RETUBE)</i> . This value must be <i>less than</i> or equal to the value in the Tubes Plugged At Inspection Start field. This field contains the value <i>0</i> (zero) by default.
Tubes Plugged During This Inspection	Number	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). This field contains the value 0 (zero) by default.  The value in this field must be less thanor 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 (Not Pre- viously Plugged) Replaced	Number	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 <i>Partial Retube (PARTIAL RETUBE)</i> . This field contains the value 0 (zero) by default.

#### PRD Pop Test Checklist

PRD Pop Test Checklist records store information about the external functional inspections that you perform on pressure relief devices (PRDs). The following table provides an alphabetical list of the fields that are unique to this type of Inspection record. *All* of the fields listed in this table appear on the datasheet that is delivered for the PRD Pop Test Checklist family. For information about fields that are common to all Inspection records, see the Inspection family field description topic.

Field	Data Type	Description	Behavior and Usage
As Found Pop Pres- sure	Number	The pressure at which the PRD opens at the time of the inspection.	This field accepts non-negative, numeric values <i>only</i> (e.g., 10).
As Left Pop Pres- sure	Number	The pressure at which the PRD opens after maintenance has been performed on the PRD (e.g., cleaning).	This field accepts non-negative, numeric values <i>only</i> (e.g., 10).
Design Set Pressure	Number	The pressure at which the PRD was designed to open.	This field accepts non-negative, numeric values <i>only</i> (e.g., 10).
Leak Cat- egory	Character	The type of leak that is associated with the PRD.	On the datasheet, this field appears as list that contains the following values:
			• Minor
			• Moderate
			Stuck Open
			This list is populated with the descriptions of the System Codes that are stored in the MI_INSPECTION_LEAK_CATEGORY (Inspection Leak Category) System Code Table.
			This field is enabled and can retain a value <i>only</i> when the Leak Test Results field contains the value <i>Leak</i> .

Field	Data Type	Description	Behavior and Usage
Leak Test Results	Character	acter Indicates whether or not there was a leak detected on the PRD	On the datasheet, this field appears as a list that contains the following values:
		during the inspection.	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.
Over Pressure Test Results	Character	Indicates whether or not the PRD passed the pressure test that you performed dur- ing the inspection.	On 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.

## **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.	You can use this field to record any additional information about the action that is not stored in another field in the General Finding record.
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	radation Degradation chanism Mechanism associated	Degradation Mechanism associated with the Inspec- tion Method	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.
		Item.	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 Sum- mary	Text	A summary of the findings of the inspection.	You can use this field to record 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 the inspection.	This field does not contain a value by default. You can type a value in this field if desired.
Inspection Method Item	Character	The Inspection Method that corresponds with the Inspec- tion Profile for which findings are being recor- ded.	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 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
Predictable	Character	Indicates whether or not past events could have pre- dicted the find- ings 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 Com- ponent			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.
		Item.	If the Inspection Profile record that corresponds with the selection in the Inspection Profile Item field does not contain a value in the RBI Component field, this field does not contain a value.
			This field is always disabled.
Type	Character	The type of inspection findings for which you are creating a General Finding record.	This field displays a list of the IDs of the System Codes that are stored in the MI_FINDING_TYPE (MI Inspection, Provides categories for an inspection finding) System Code Table.

#### **Checklist Finding**

Checklist Finding records store information about the results of an inspection at the sub-component level. These records are used on the <u>Inspection Finding Checklist page</u>, which appears when you create or open an Inspection record belonging to an Inspection family whose caption contains the word *Checklist*.

The following table provides an alphabetical list and description of the fields that exist in the Checklist Finding family. The information in the table reflects the baseline state and behavior of these fields.

Field	Data Type	Description	Behavior and Usage
Category	Character	The category into which the subcomponent can be grouped (e.g., Linings).	On the Inspection Finding Checklist page, each section corresponds to a category and is labeled with the description of a System Code that belongs to one of the following System Code Tables:
			<ul> <li>MI_API_510_INTERNAL_         CHECKLIST_FINDING_         SECTIONS (API 510 Internal Checklist Finding Section)</li> </ul>
			<ul> <li>MI_API_510_INTERNAL_ EXCHANGER_CHECKLIST_ FINDING_SE (API 510 Internal Exchanger Checklist Finding Section)</li> </ul>
			<ul> <li>MI_API_570_EXTERNAL_         CHECKLIST_FINDING_         SECTIONS (API 570 External Checklist Finding Section)</li> </ul>
			<ul> <li>MI_API_653_EXTERNAL_         CHECKLIST_FINDING_         SECTIONS (API 653 External Checklist Finding Section)</li> </ul>
			<ul> <li>MI_API_653_INTERNAL_         CHECKLIST_FINDING_         SECTIONS (API 653 Internal         Checklist Finding Section)</li> </ul>
			<ul> <li>MI_EXTERNAL_PRD_         CHECKLIST_FINDING_         SECTIONS (External PRD Checklist Finding Section)</li> </ul>
			<ul> <li>MI_PRD_PT_CHECKLIST_ FINDING_SECTIONS (PRD Pop Test Checklist Finding Sections)</li> </ul>
			The specific sections that are displayed on the page are based upon the family to which the Inspection record belongs.

#### **Checklist Finding**

Field	Data Type	Description	Behavior and Usage
			For example, if the Inspection record belongs to the API 510 Internal Checklist family, the sections that are displayed are labeled with the descriptions of the System Codes that belong to the MI_API_510_INTERNAL_CHECKLIST_FINDING_SECTIONS (API 510 Internal Checklist Finding Section) System Code Table.

Field	Data Type	Description	Behavior and Usage
Name	Character	A short description of the item you were inspecting or the condition for which you were looking (e.g., Anchor Bolts, Leaks).	On the Inspection Finding Checklist page, in each finding section, the first column displays a subset of values that are stored in the MI_CHECKLIST_FINDING_ITEMS (Checklist Finding Items) System Code Table. The specific values that are displayed in each finding section are based upon the family to which the Inspection record belongs, the System Codes that belong to the corresponding System Code Table, and the System Codes reference.
			For example, suppose you are viewing an Inspection record belonging to the API 510 Internal Checklist family. This family corresponds to the MI_API_510_INTERNAL_CHECKLIST_FINDING_SECTIONS (API 510 Internal Checklist Finding Section) System Code Table, which contains various System Codes, such as Head. Each of the System Codes belonging to this System Code Table references another System Code, such as Blistering.
			Using this example, on the Inspection Finding Checklist page, you would see the <i>Head</i> section, which would contain a row with the value <i>Blistering</i> in the first column.
Value	Character	The specific finding for the inspected item or condition (e.g., Yes).	On the Inspection Finding Checklist page, in each finding section, the Finding Value column displays a list of values that are stored in the MI_CHECKLIST_FINDING_TYPES (Checklist Finding Types) System Code Table.

#### **Work Pack**

Work Pack records 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. The information in the table reflects the baseline state and behavior of these fields.

Field	Data Type	Description	Behavior and Usage
Work Pack Description	Character	A description of the Work Pack record	This is a required field. You must enter a value in this field before you can save a Work Pack record.
Work Pack ID	Character	The Record ID of the Work Pack record	This is a required field. You must enter a value in this field before you can save a Work Pack record.
Preparation Details	Text	Preparation information about the inspection work associated with the Work Pack record	You should enter any preparation details about the inspections in this field.  For example, if a unit needs to be shut down for an inspection associated with a Work Pack record, you might type the value <i>Unit A shut down required</i> in this field.

### Time Based Inspection Interval

Time Based Inspection Interval records store information about the inspection intervals that you define when you create <u>time-based inspection settings</u>. The following table provides an alphabetical list and description of the fields that exist for the Time Based Inspection Interval family. The information in the table reflects the baseline state and behavior of these fields. All fields in the family appear on the Time Based Inspection Interval datasheet by default.

Field	Data Type	Description	Behavior and Usage
Description	Text	Details about the inspection interval.	This field is populated with the value that you type in the <b>Description</b> cell on the <b>Time-Based Inspection Settings</b> page when you create or modify time-based inspection settings.
Interval	Number	The interval by which the associated piece of equipment should be inspected, in months.	This field is populated with the value that you type in the Interval (Months) cell on the Time-Based Inspection Settings page when you create or modify time-based inspection settings.
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 (i.e., the task type for which an inspection interval is defined on the Time-Based Inspection Settings page).

#### Time Based Inspection Setting

Time Based Inspection Setting records store information about the Equipment record, Functional Location record, and/or Criticality Calculator RBI Components family that is associated with the <a href="mailto:time-based inspection settings">time-based inspection settings</a> that you have defined. The following table provides an alphabetical list and description of the fields that exist for the Time Based Inspection Setting family. The information in the table reflects the baseline state and behavior of these fields. All fields in the family appear on the Time Based Inspection Setting datasheet by default.

Field	Data Type	Description	Behavior and Usage
Component Family	Character	The caption of the Criticality Calculator RBI Components family that is associated with the Time Based Inspection Setting record.	This field is populated with the value defined in the Component Family cell on the Time-Based Inspection Settings page when you create or modify time-based inspection settings.
Equipment ID	Number	The Record ID of the Equipment record that is associated with the Time Based Inspection Setting record.	This field is populated with the value defined in the Equipment ID cell on the Time-Based Inspection Settings page when you create or modify time-based inspection settings.
Unit	Number	The Record ID of the Functional Location record that is associated with the Time Based Inspection Setting record.	This field is populated with the value defined in the Unit cell on the Time-Based Inspection Settings page when you create or modify time-based inspection settings.

### **Inspection Profile**

Inspection Profile records 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. All fields in the Inspection Profile family, with the exception of those noted in the table, appear on the Inspection Profile datasheet (displayed on the Inspection Profile tab on the Inspection Profile page), by default.

Field	Data Type	Description	Behavior and Usage
Item Category	Character	The type of sub-component (e.g., pipes) that exists on the piece of equipment needing inspection.	On the datasheet, 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 sub- component.	This field is populated automatically based upon the value in the Item Category field. You can modify the value in the Item ID field using the datasheet.
Predecessor Entity Key	Number	The Entity Key of the Equipment record to which the Inspection Profile record is linked.	By default, this field is not displayed on the datasheet and is populated automatically when you create a new Inspection Profile record.

Field	Data Type	Description	Behavior and Usage
RBI Component	Character	The Record ID of the Criticality Calculator RBI Components record that is asso- ciated with the Inspec- tion Profile record.	On the datasheet, this field appears as a list that contains the Record IDs of all Criticality Calculator RBI Components records that are linked to the associated Equipment record. This field is null, by default.
			This field is enabled only when the Risk Based Inspection license is act- ive.
RBI Component Family	Character	The Criticality Calculator RBI Components subfamily that is associated with the Inspection Profile record.	On the datasheet, this field appears as a list that contains the captions of all Criticality Calculator RBI Components subfamilies that exist in the baseline Meridium 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	Number	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 sub-component 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, with the exception of those noted in the table, appear on the Inspection Method data-sheet (displayed on the Inspection Method tab on the Inspection Profile page), 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.	On the datasheet, this field appears as a list that contains the System Code IDs and Descriptions in the MI_INSPECTION_ METHOD_CATEGORY (Inspection Method Category) System Code Table. The Method Configuration setting determines how this field will be populated. You can modify the value in this field using the datasheet.
Description	Character	A description of the Inspection Method.	You can specify a value for this field using the datasheet.
ID	Character	The ID of the inspection method.	This field is populated automatically based upon the value in the Category field. You can modify the value in the ID field using the datasheet.

Field	Data Type	Description	Behavior and Usage
Predecessor Asset Entity Key	Number	The Entity Key of the Equipment record that is linked to the Inspection Profile record to which the Inspection Method record is linked.	By default, this field does <i>not</i> appear on the datasheet and is populated automatically when you create an Inspection Method record.
Predecessor Pro- file Entity Key	Number	The Entity Key of the Inspection Profile record to which the Inspection Method record is linked.	By default, this field does <i>not</i> appear on the datasheet and is populated automatically when you create an Inspection Method record.
RBI Degradation Mechanism	Character	The Potential Degradation Mechanisms record that is associated with the Inspection Method record.	On the datasheet, 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
			Method record is linked.

# System Code Tables Used by Inspection Management

The following table provides a list of the System Code Tables that are used by Inspection Management.

Table ID	Table Description	Function
INSM	Inspection Interval Types	Used to populate the <b>Desired Interval Basis</b> list in Inspection Task records.
INST	Inspection Status Code	Unknown
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 Check- list Finding Section	Used to display <u>sections and rows</u> on the <b>Inspection Finding Check-list</b> page.
MI_API_510_ INTERNAL_ CHECKLIST_ FINDING_SECTIONS	API 510 Internal Check- list Finding Section	Used to display <u>sections and rows</u> on the <b>Inspection Finding Check-list</b> page.
MI_API_510_ INTERNAL_ EXCHANGER_ CHECKLIST_ FINDING_SE	API 510 Internal Exchanger Checklist Finding Section	Used to display <u>sections and rows</u> on the <b>Inspection Finding Check-list</b> page.
MI_API_570_ EXTERNAL_ CHECKLIST_ FINDING_SECTIONS	API 570 External Check- list Finding Section	Used to display <u>sections and rows</u> on the <b>Inspection Finding Check-list</b> page.
MI_API_653_ EXTERNAL_ CHECKLIST_ FINDING_SECTIONS	API 653 External Check- list Finding Section	Used to display <u>sections and rows</u> on the <b>Inspection Finding Check-list</b> page.

Table ID	Table Description	Function
MI_API_653_ INTERNAL_ CHECKLIST_ FINDING_SECTIONS	API 653 Internal Check- list Finding Section	Used to display <u>sections and rows</u> on the <b>Inspection Finding Check-list</b> page.
MI_BUNDLE_ACTION	Inspection; Inspection / Maintenance Actions taken on a exchanger bundle	Used to populate the <b>Action This</b> Inspection list in Bundle Sub- Inspection records.
MI_BUNDLE_TYPE	Inspection; Bundle Types	Used to populate the <b>Bundle Type</b> list in Bundle Sub-Inspection records.
MI_BUSINESS_ IMPACT	CORE, Impact to com- pany's production car- rying out equipment work	Used to populate the <b>Business</b> Impact list in Inspection Recommendation records.
MI_CHECKLIST_ FINDING_ITEMS	Checklist Finding Items	Used to display values in the first column on the Inspection Finding Checklist page.
MI_CHECKLIST_ FINDING_TYPES	Checklist Finding Types	Used to populate the Finding Value lists on the Inspection Finding Checklist page.
MI_COMPLIANCE_ STANDARD	CORE, Compliance Standard	Used to populate the <b>Cer</b> - <b>tification Type</b> list in Personnel Certification records. Note that only the System Codes that con- tain the reference INSPECTION_ PERS_CERTS appear in the Cer- tification Type list.
MI_CORE_ REFERENCES	CORE, Used to limit values by common components	Used to populate the <b>Status</b> list in Inspection Recommendation records.
MI_DAMAGE_ MECHANISM	Inspection, Damage Mechanisms	Used to populate the <b>Damage Mechanism</b> list in General Finding records.
MI_DAMAGE_MODE	Inspection, Damage Mode	Used to populate the <b>Damage Mode</b> list in General Finding records.

Table ID	Table Description	Function
MI_DEGRADATION_ MECHANISM_TYPES	Degradation Mech- anism Types	Used to populated the <b>Degrad- ation Mechanism</b> list in Inspection records.
MI_EQUIP_OP_STATE	MI Inspection, Equip- ment Operating State	Used to populate the <b>Equipment Operating State</b> 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 <b>Reason for Inspection</b> 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.
		<ul> <li>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.</li> </ul>
MI_EXTERNAL_PRD_ CHECKLIST_ FINDING_SECTIONS	External PRD Checklist Finding Section	Used to display <u>sections and rows</u> on the <b>Inspection Finding Check-list</b> page.
MI_FINDING_TYPE	MI Inspection, Provides categories for an inspection finding	Used to populate the <b>Type</b> list in General Finding records.

Table ID	Table Description	Function
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_INSPECTION_ METHOD_CATEGORY	MI_INSPECTION_ METHOD_CATEGORY	Used to populate the <b>Category</b> list in Inspection Method records.
MI_INSPECTION_ METHOD_ REFERENCE	MI Inspection, Stores system codes that rep- resent Inspection Meth- ods	Unknown
MI_INSPECTION_ PROFILE_CATEGORY	Inspection, Profile Category	Used to populate the <b>Item Category</b> list in Inspection Profile records.
MI_INSPECTION_ PROFILE_REFERENCE	MI Inspection, Stores the equipment family ID's in order to limit the Profile Categories shown for a piece of equipment. Built during implementation when equipment model known	Unknown
MI_INSPECTION_ REFERENCES	MI Inspection, Inspection Reference Codes - Inspection - Used to limit values in System Code Tables to values used in the inspection solution	Unknown
MI_INSPECTION_ STRATEGY	MI Inspection Strategy	Unknown

Table ID	Table Description	Function
MI_PDM_FILTER	MI RBI, Potential Degradation Filter	Used to populate the <b>Degrad- ation Mechanism</b> list in Inspec- tion records belonging to the PRD Pop Test Checklist subfamily.
MI_PRD_ INSPECTION_TYPE_ FILTER	PRD Inspection Type Filter	Used to populate the <b>Type of Inspection</b> list in PRD Pop Test Checklist records.
MI_PRD_PT_ CHECKLIST_ FINDING_SECTIONS	PRD Pop Test Checklist Finding Sections	Used to display <u>sections and rows</u> on the <b>Inspection Finding Check-list</b> page.
MI_PRIORITY	CORE, baseline priority types	Used to populate the <b>Recom- mendation Priority</b> list in Inspection Recommendation records.
MI_ RECOMMENDATION_ TYPE	CORE, Recom- mendation Type	Used to populate the <b>Recom- mendation Type</b> list in Inspection Recommendation records.
		Note that the Recommendation Type field is not included on the baseline Inspection Recom- mendation datasheet.
MI_RESOURCE_ROLE	List of user roles	Used to populate the <b>Role</b> 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 ta	Used to populate the list in the <b>Reference</b> list in Task Types records.
MI_TEST_MEDIA	Fluids used for testing	Used to populate the <b>Test Media</b> list in Pressure Test Sub-Inspec- tion records.
MI_YES_NO	MI Core, Yes-No	Used to populate the <b>Predictable</b> list in General Finding records.

# **URL Paths for Inspection Management**

The following table lists and describes the paths for the Inspection Management module. Note that to construct a valid URL, you must prepend **meridium://** to the path. In some cases, you must define parameters following the path.

Feature	URL Path	Description
Inspection Start Page	Inspection	Displays the <b>Inspection Start Page</b> . This path does not accept parameters.
Inspection Admin- istration Page	Inspection/Administration	Displays the <b>Inspection Administration</b> page. This path accepts <u>parameters</u> .
Inspection Alerts Page	Inspection/Alerts	Executes the All Inspection Alerts query and displays the results on the Inspection Alerts page. This path does not accept parameters.
Event Builder	Inspection/Builder	Displays the Event Builder, where you can create a new Inspection record. This path accepts the same parameters as the Event Builder URL. Note that when you use the Inspection/Builder path, the list of families on the Event screen is limited to only Inspection families that are related to the selected Equipment or Functional Location record.
Inspection Finding Checklist Page	Inspection/ChecklistFinding	Serves as the root address for accessing the Inspection Finding Checklist page. This path requires parameters.
Inspection Configuration Page	Inspection/Configuration	Displays the <b>Inspection Configuration</b> page, where you can configure administrative settings for Inspection. This path does not accept parameters.

Feature	URL Path	Description
Search Page	Inspection/Finder	Displays the <b>Search</b> page. This path accepts the same parameters as search URLs.
Inspection Scope	Inspection/InspectionScoping	Displays the Inspection Scope Builder, where you can select the Task record, Equipment record, Inspec- tion Profile records, and Inspection Method records that are included in the Inspection Scope that you want to define. This path accepts parameters.
Manage Work Packs Page	Inspection/ManageWorkPacks	Displays the Manage Work Packs page, where you can select the Work Pack record that you want to open. This path does not accept parameters.
Work Pack Page	Inspection/EditWorkPack	Serves as the path for URLs that provide access to specific Work Pack records. This path requires parameters.
Inspection Man- agement	Inspection/Manage	Serves as the path for URLs that provide access to managing Inspection components. This path requires parameters.
Inspection Task Records	Inspection/ProposedTasks	Serves as the path for URLs that provide access to managing Inspection Task records. This path requires parameters.

Feature	URL Path	Description
Published Inspection Documents Page	Inspection/Published	Runs the Published Documents query and displays the results on the Published Inspection Documents page. Note that while this URL does not require that you define parameters, if the Published Documents query contains one or more prompts, you can pass in values for the prompts via this URL.
Inspection Queries	Inspection/Query	Runs the specified query and displays the results in Inspection Management. This path requires para- meters.
Inspection Reports	Inspection/Report	Serves as the path for URLs that provide access to Inspection reports. This path requires parameters.
Human Resource Records	Inspection/Resources	Serves as the path for URLs that provide access to Inspection resources. This path requires parameters.
Review and Approve Inspec- tion Documents Page	Inspection/Review	Displays the Review and Approve Inspection Documents page, where you can access Inspection records that are ready to be reviewed and approved.
Inspection Manage Documents Page	Inspection/Search	Displays the <b>Inspection Manage Documents</b> page, where you can manage Inspection Documents.
Inspection History Summary Query Page	Inspection/Summary	Runs the Inspection History Summary query and displays the results on the Inspection History Summary Query page.

Feature	URL Path	Description
TM Analysis Page	Inspection/ThicknessAnalysis	Serves as the path for accessing the <b>TM Analysis</b> page for a specified Equipment or Functional Location record. This path requires parameters.

## Parameters for the Manage Inspection URL

The path **meridium://Inspection/Manage** serves as the starting point for constructing a URL that will create a new Inspection Document, display the inspection history, or provide access to Inspection Profiles. The following table lists and describes the parameters that are accepted by the path. Note that a link constructed from the path with *no* parameters will be nonfunctional.

Parameter Name	Description	Accepted Value (s)	Notes
EquipmentKey	Specifies the Equip- ment or Functional Location record whose inspections you want to manage.	The Entity Key of the desired Equipment or Functional Loca- tion record.	This parameter is required.
InspectionFamilyKey	Specifies the family of the type of Inspec- tion record that you want to cre- ate.	The Family Key of the desired family.	When Mode- e=CreateDocument, you can optionally use this parameter to create a specific type of Inspec- tion record. If you do not specify the Inspec- tionFamilyKey parameter when using the CreateDocument value, you will be prompted to select a valid Inspection Event family before pro- ceeding to create the Inspection record.
InspectionKey	Specifies the Inspec- tion record that you want to view.	The Entity Key of the desired Inspection record.	None

Parameter Name	Description	Accepted Value (s)	Notes
Mode	Specifies the type of operation which should occur.	CreateDocuments EditDocuments Profiles	CreateDocument: Generates a new Inspection record that is linked to the record with the Entity Key that is specified by the EquipmentKey parameter.  EditDocuments: Passes the specified EquipmentKey to the Summary Query configured on the Inspection Configuration page and displays the results of the Summary Query for the specified Equipment or Functional Location record on the Inspection History Summary Query page.  Profiles: Displays the Manage Equipment Profiles page, where you can manage the Inspection Profile of the Equipment record with the Entity Key that is specified by the EquipmentKey parameter.

#### **Examples of the Manage Inspection URL**

 meridium://Inspection/Manage?EquipmentKey=1234567&Mode=CreateDocument

Creates a new Inspection record that is linked to the Equipment record with the Entity Key 1234567.

• meridium://Inspection/Manage?EquipmentKey=1234567&Mode=CreateDocument &InspectionFamilyKey=12345

Creates a new Inspection record in the family with the Family Key 12345. The Inspection record will be linked to the Equipment record with the Entity Key 1234567.

- meridium://Inspection/Manage?EquipmentKey=1234567&Mode=EditDocuments
   Allows you to edit an Inspection record that is linked to the Equipment record with the Entity Key 1234567.
- meridium://Inspection/Manage?EquipmentKey=1234567&Mode=Profiles
   Displays the Inspection Profile for the Equipment record with the Entity Key 1234567.
- meridium://Inspection/Manage?InspectionKey=1234567
   Displays the Inspection record with the Entity Key 1234567.

# Parameters for the Inspection Administration Page URL

There is one root URL associated with the **Inspection Administration** page: **meridium://Inspection/Administration**. A link constructed from the path alone will display the **Inspection Administration** page. The following table lists the parameter accepted by the path.

Parameter Name	Description	Accepted Value(s)	Notes
View	Specifies that the Time-Based Inspection Settings page should be displayed.	TimeBased	None

# Examples of the Inspection Administration Page URL

meridium://Inspection/Administration?View=TimeBased
 Displays the Time-Based Inspection Settings page.

# Parameters for the Inspection Finding Checklist Page URL

There is one root URL associated with the **Inspection Finding Checklist** page: **meridium://Inspection/ChecklistFinding**. The following table lists and describes the parameters that are accepted by the path. Note that a link constructed from the path with *no* parameters will be nonfunctional.

Parameter Name	Description	Accepted Value(s)	Notes
ChecklistFamilyEntityKey	Specifies the Entity Key of the Inspection record that you want to view on the Inspection Finding Checklist page.	The Entity Key of the desired Inspection record.	This para- meter is required.
ExplorerPath	Specifies the Catalog path to the configured explorer that is defined for the family of the Inspection record that you want to view on the Inspection Finding Checklist page.	The Catalog path to the desired con- figured explorer.	None

# Examples of the Inspection Finding Checklist Page URL

- meridium://Inspection/ChecklistFinding?ChecklistFamilyEntityKey=123456
   Displays on the Inspection Finding Checklist page the Inspection record with the Entity Key 123456.
- meridium://Inspection/ChecklistFinding?ChecklistFamilyEntityKey=123456& ExplorerPath=Public\Meridium\Modules\Inspection\Explorers\Inspection Explorer

Displays on the **Inspection Finding Checklist** page the Inspection record with the Entity Key 123456. The contents of the record hierarchy are controlled by the configured explorer with the name *Inspection Explorer*.

# Parameters for the Inspection Scope URL

There is one root URL associated with an Inspection Scope: meridium://Inspection/InspectionScoping. A link constructed from the path alone will open the Inspection Scope Builder, where you can select the Task record, Equipment record, Inspection Profile records, and Inspection Method records that are included in the Inspection Scope that you want to define. The following table lists and describes the parameters that are accepted by the path.

Parameter Name	Description	Accepted Value(s)	Notes
EquipmentKey	Specifies the Equip- ment record that you want to include in the Inspection Scope.	The Entity Key of the desired Equipment record.	None
TaskEntityKey	Specifies the Task record that you want to include in the Inspection Scope.	The Entity Key of the desired Task record.	If you use the TaskEntityKey para- meter, you must also use the EquipmentKey parameter.

#### **Examples of the Inspection Scope URL**

• meridium://Inspection/InspectionScoping

Displays the Welcome screen of the **Inspection Scope Builder**. You can use the **Inspection Scope Builder** to select the Equipment record, Task record, Inspection Profile records, and Inspection Method records that you want to include in the Inspection Scope.

meridium://Inspection/InspectionScoping?EquipmentKey=1234567

Displays the **Select New or Existing Task** screen of the **Inspection Scope Builder**, where you can select the Task record that you want to include in the Inspection Scope. The Equpiment record with the Entity Key 1234567 will be included in the Inspection Scope automatically.

 meridium://Inspection/InspectionScoping?EquipmentKey=1234567&TaskEntityKeyy=7654321

Displays the **Inspection Scope** page, where you can define the Inspection Scope that includes the Equipment record with the Entity Key 1234567 and the Task record that includes the Entity Key 7654321.

## Manage Work Packs Page URL

There is one root URL associated with the **Manage Work Packs** page: **meridium://Inspection/ManageWorkPacks**. A link constructed from the path alone will open the **Manage Work Packs**page, where you can select the Work Pack record that you want to open. This URL does not accept any parameters.

## Inspection Work Pack Page URL

There is one root URL associated with the **Inspection Work Pack** page: **meridium://Inspection/EditWorkPack**. This URL requires the parameter **WorkPackKey**, which specifies the Entity Key of the Work Pack record that you want to view. A link constructed from the path alone will be nonfunctional.

## Parameters for the Proposed Tasks URL

The path meridium://Inspection/ProposedTasks serves as the starting point for constructing a URL that will access Inspection Task records. The following table lists and describes the parameters that are accepted by the path. Note that a link constructed from the path with NO parameters will be nonfunctional.

Parameter Name	Description	Accepted Value(s)	Notes
EquipmentKey	Specifies the Equipment or Functional Location record that is linked to the Task records that you want to manage.	The Entity Key of the desired Equipment or Func- tional Loca- tion record.	Use this parameter if you want to view all the Task records that are linked to a specific Equipment or Functional Location record.

Parameter Name	Description	Accepted Value(s)	Notes
EquipmentTasks	Specifies that you want to view the Task records that are linked to the <i>Equipment</i> record to which the specified Inspection record is linked.	TRUE	This parameter must be used in conjunction with the InpsectionKey parameter.  You should use this parameter if the specified Inspection record is linked to both an Equipment record and a Functional Location record.
			If the specified Inspection record is linked to either an Equipment record or a Functional Location but not both, you can omit this parameter. This parameter also accepts the value False, but specifying False has the same effect as omitting

Parameter Name	Description	Accepted Value(s)	Notes
LocationTasks	Specifies that you want to view the Task records that are linked to the Functional Location record to which the specified Inspection record is linked.	TRUE	This parameter must be used in conjunction with the InpsectionKey parameter.  You should use this parameter if the specified Inspection record is linked to both an Equipment record and a Functional Location record.  If the specified Inspection record is linked to either an Equipment record or a Functional Location but not both, you can omit this parameter.  This parameter also accepts the value False, but specifying False has the same effect as omitting the parameter.
ExecuteAllStrategies	Specifies whether all strategy rules should be executed for the equipment or location before redirecting to the <b>Task List</b> page.	TRUE	If you omit this para- meter, strategy rules will not be executed.
InspectionKey	Specifies the Inspection record whose associated Task records you want to manage.	The Entity Key of the desired Inspection record.	None

#### **Examples of the Proposed Tasks URL**

- meridium://Inspection/ProposedTasks?EquipmentKey=1234567
  - Opens the **Task List** page, displaying the Task records that are linked to the Equipment record with the Entity Key 1234567.
- meridium://Inspection/ProposedTasks?InspectionKey=1234567
  - Opens the **Task List** page, displaying Task records that are linked to the Equipment records that are linked to the Inspection record with the Entity Key 1234567.
- meridium://Inspection/ProposedTasks?InspectionKey=1234567&EquipmentTasks=TRUE
  - Opens the **Task List** page, displaying Task records that are linked to the *Equipment* record that is linked to the Inspection record with the Entity Key 1234567.
- meridium://Inspection/ProposedTasks?InspectionKey=1234567&LocationTasks=TRUE
  - Opens the **Task List** page, displaying Task records that are linked to the *Functional Location* record that is linked to the Inspection record with the Entity Key 1234567.
- meridium://Inspection/ProposedTasks?InspectionKey=1234567&ExecuteAllStrategies=TRUE
- If the Inspection record with the Entity Key 1234567 is linked to an Equipment or Functional Location record that is linked to one or more Task records, executes all strategy rules associated with the Equipment or Functional Location record and then displays the associated Task records on the Task List page.
- If the Inspection record with the Entity Key 1234567 is not linked to an Equipment or Functional Location record that is linked to one or more Task records, displays a message indicating that Tasks cannot be accessed because none are associated with the associated Equipment or Functional Location record.
- meridium://Inspection/ProposedTasks?EquipmentKey=1234567&ExecuteAllStrategies=TRUE
- If the Equipment record with the Entity Key 1234567 is linked to one or more Task records, executes all strategy rules associated with the Equipment record and then displays the associated Task records on the **Task List** page.
- If the Equipment record with the Entity Key 1234567 is not linked to one or more Task records, executes all strategy rules associated with the Equipment record and then displays *all* Task records in the database on the **Task List** page.

## Parameters for the Inspection Query URL

A link constructed from the address **meridium://Inspection/Query** will run the query specified by the **Path** parameter and display the results in Inspection Management.

Parameter Name	Description	Accepted Value(s)	Notes
Path	Specifies the query that you want to run.	The Catalog path and file name of the desired query.	This para- meter is required.

Note: In addition to the Path parameter, you can include any prompt IDs and values as parameters for the specified query.

# Examples of the Inspection Query URL

 meridium://Inspection/Query?Pathh=Public\Meridium\Modules\Inspection\InspectionQuery

Runs the query InspectionQuery, which is stored in the Catalog folder \\Public\Meridium\Modules\Inspection.

## Parameters for the Inspection Search URL

The path meridium://Inspection/Search lets you construct links that will display a list of queries that you can run. In most cases, the queries will come from the public Inspection folder or from a user's personal Inspection folder. The following table lists and describes the parameters that are accepted by this path.

Para- meter Name	Descrip- tion	Accepted Value(s)	Notes
Mode	Specifies the list of queries that you want to display.	EditDocuments	If Mode=EditDocuments, the link will display the Inspection Manage Documents page, where you will see a list of queries that exist in the Catalog folder \\Public\Meridium\Modules\Inspection Management\Document Queries and in the current user's personal \\Inspection\Document Queries folder.
Mode	Specifies the list of queries that you want to display.	Profiles	If Mode=Profiles, the link will display the Inspection Manage Profiles page, where you will see a list of queries that exist in the Catalog folder \\Public\Meridium\Modules\Inspection Management\Profile Queries and in the current user's personal \\Inspection\Profile Queries folder.
Mode	Specifies the list of queries that you want to display.	ReviewDocu- ments	If Mode=ReviewDocuments, the link will display the Inspection Manage Documents page, where you will see a list of queries that exist in the Catalog folder \Public\Meridium\Modules\Inspection Management\Document Queries and in the current user's personal \\Inspection\Document Queries folder.

Para- meter Name	Descrip- tion	Accepted Value(s)	Notes
Mode	Specifies the list of queries that you want to display.	Resources	If Mode=Resources, the link will display the Inspection Manage Resources page, where you will see a list of queries that exist in the Catalog folder \\Public\Meridium\Modules\Inspection Management\Resource Queries and in the current user's personal \\Inspection\Resource Queries folder.
Mode	Specifies the list of queries that you want to display.	Tasks	If Mode=Tasks, the link will display the Inspection Manage Tasks page, where you will see a list of queries that exist in the Catalog folder \Public\Meridium\Modules\Inspection Management\Task Queries and in the current user's personal Inspection\Task Queries folder.
Mode	Specifies the list of queries that you want to display.	Reports	If Mode=Reports, the link will display the Inspection Reports page, where you will see a list of queries that exist in the Catalog folder \\Public\Meridium\Modules\Inspection Management\Reports.

#### **Examples of the Inspection Search URL**

• meridium://Inspection/Search?Mode=EditDocuments

Displays the **Inspection Manage Documents** page, which displays searches and queries that exist in the Catalog folder \Public\Meridium\Modules\Inspection Management\Document Queries and the current user's personal \Inspection\Document Queries folder.

meridium://Inspection/Search?Mode=Profiles

Displays the **Inspection Manage Profiles** page, which displays searches and queries that exist in the Catalog folder \Public\Meridium\Modules\Inspection Management\Profile Queries and the current user's personal \Inspection\Profile Queries folder.

• meridium://Inspection/Search?Mode=ReviewDocuments

Displays the **Inspection Manage Documents** page, which displays searches and queries that exist in the Catalog folder \Public\Meridium\Modules\Inspection Management\Document Queries and the current user's personal \Inspection\Document Queries folder.

meridium://Inspection/Search?Mode=Resources

Displays the InspectionManage Resource page, which displays searches and queries that exist in the Catalog folder \Public\Meridium\Modules\Inspection Management\Resource Queries and the current user's personal \Inspection\Resource Queries folder.

meridium://Inspection/Search?Mode=Tasks

Displays the InspectionManage Tasks page, which displays searches and queries that exist in the Catalog folder \Public\Meridium\Modules\Inspection Management\Task Queries and the current user's personal \Inspection\Task Queries folder.

meridium://Inspection/Search?Mode=Reports

Displays the **InspectionManage Reports** page, which displays searches and queries that exist in the Catalog folder \Public\Meridium\Modules\Inspection Management\Reports.

## Parameters for the Inspection Reports URL

The URL for accessing Inspection reports is **meridium://Inspection/Report**. This path accepts one parameter that lets you specify the Inspection Event record for which you want to open a report.

Parameter Name	Description	Accepted Value(s)
InspectionKey	Specifies the Inspection record for which you want to open an Inspection report. The Meridium APM sytem will open the <i>default</i> report for the Inspection family of the specified entity, as defined in the Configuration Manager application.	The Entity Key of the desired Inspection record.

# **Examples of the Inspection Reports URL**

• meridium://Inspection/Report?InspectionKey=12233454

Opens the default Inspection report for the Inspection record with the Entity Key 12233454.

## Parameters for the Inspection Resources URL

The URL for accessing Inspection resources, **meridium://Inspection/Resources**, accepts parameters that let you specify additional information regarding the Human Resource records that you want to access. We list and describe these parameters in the following table.

Parameter Name	Description	Accepted Value(s)	Notes
EntityKey	Specifies the Human Resource records that you want to access.	The Entity Key of the desired Human Resource record.	The specified Human Resource record will appear, and the Human Resource with Role Details datasheet or the Human Resource with Cert Details datasheet will be displayed, depending on the Mode parameter.
Mode	Specifies the data- sheet that you want to view.	Roles Certifications	<ul> <li>Roles: Causes Meridium APM to load the Human Resource with Role Details datasheet.</li> <li>Certifications: Causes Meridium APM to load the Human Resource with Cert Details datasheet.</li> </ul>

#### **Examples of the Inspection Resources URL**

- meridium://Inspection/Resources?Mode=Roles&EntityKey=12345
   Opens the Human Resource record with the Entity Key 12345. The Human Resource with Role Details datasheet is displayed.
- meridium://inspection/Resources?Mode=Certifications&EntityKey=12345
   Opens the Human Resource record with the Entity Key 12345. The Human Resource with Cert Details datasheet is displayed.

#### Parameters for the Inspection Review URL

A link constructed from the address **meridium://Inspection/Review** will run the query specified by the Path parameter and display the results on the **Review and Approve Inspection Documents** page in Inspection Management. The specified query must return records from only one Inspection family. It can be in Formatted or Unformatted mode.

Parameter Name	Description	Accepted Value (s)	Notes
Path	Specifies the query whose results will be displayed on the <b>Review and Approve Inspection Documents</b> page.	The Catalog path and file name of the desired query.	This para- meter is required.

Note: In addition to the Path parameter, you can include any prompt IDs and values as parameters for the specified query.

## Examples of the Inspection Review URL

meridium://Inspection/Review?Path=Public\folder1\folder2\Full Inspections
 Displays the results of the Full Inspections query, which is stored in the Catalog folder \\Public\folder1\folder2.

#### Parameters for the Inspection Summary URL

The URL for creating a URL to access the Inspection Summary Query, **meridium://Inspection/Summary**, will run the Inspection History Summary Query, which is stored in the Catalog folder \\Public\Meridium\Modules\Inspection\Config Queries. The path accepts one parameter, which lets you pass an Entity Key to the query.

Parameter Name	Description	Accepted Value(s)
EquipmentKey	Specifies the Equipment or Functional Location record whose linked Inspection records you want to view.	The Entity Key of the desired Equipment or Functional Location record.

Note: In addition to the EquipmentKey parameter, you can include any prompt IDs and values as parameters for the specified query.

## **Examples of the Inspection Summary URL**

• meridium://Inspection/Summary?EquipmentKey=12345

Executes the configured Inspection History Summary Query and returns the list of Inspection records that are linked to the Equipment record with the Entity Key 12345.

# Parameters for the Inspection Thickness Analysis URL

The path of the Inspection Thickness Analysis URL, **meridi-um://Inspection/ThicknessAnalysis**, accepts an Entity Key and then opens the **TM Analysis** page for the record that has been specified. Note that a URL constructed from this path with NO parameters will not be functional.

Parameter Name	Description	Accepted Value(s)	Notes
AssetKey	Specifies the equipment for which you want to access the <b>TM Analysis</b> page.	The Entity Key of the desired Equipment record.	If you specify the AssetKey para- meter, you do not need to specify the ServiceKey parameter.
ServiceKey	Specifies the location for which you want to access the <b>TM Analysis</b> page.	The Entity Key of the desired Functional Location record.	If you specify the ServiceKey parameter, you do not need to specify the AssetKey parameter. If both parameters are specified, The Meridium APM sytem will use the AssetKey.

#### **Examples of the Inspection Thickness Analysis URL**

- meridium://Inspection/ThicknessAnalysis?AssetKey=12345
   Opens the TM Analysis page for the Equipment record with the Entity Key 12345.
- meridium://Inspection/ThicknessAnalysis?AssetKey=12345&ServiceKey=123445455
  - Opens the TM Analysis page for the Equipment record with the Entity Key 12345.
- meridium://Inspection/ThicknessAnalysis?ServiceKey=123456567
   Opens the TM Analysis page for the Functional Location record with the Entity Key 1234567.

## **Inspection Document**

The collection of information stored in any Inspection record and each record that is linked to that record, which are best viewed together using the configured explorer that is defined for the Inspection family.

## **Inspection Interval**

The interval of time at which a particular inspection should occur on a given piece of equipment. You can define inspection intervals for each type of inspection that you will perform. This value is stored in a Time Based Inspection Interval record that you can create using the <u>Time-Based Inspection Settings</u> page.

## Time-Based Inspection Settings

Defines the inspection intervals that will be used for particular pieces of equipment. Time-based inspection settings are the combination of a Time Based Inspection Setting record and its associated Time Based Inspection Interval records, both of which you can create using the Time-Based Inspection Settings page.

#### Unit

A Functional Location record that represents a unit in the location hierarchy. In these records, the Is a Unit? field is set to *True*.