



Action Management



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Chapter 1

Overview

Topics:

- [Overview of the Action Management Module](#)
- [Access the Action Management Page](#)
- [The Recommended Actions Pane](#)
- [Recommendation Actions Workflow](#)

Overview of the Action Management Module

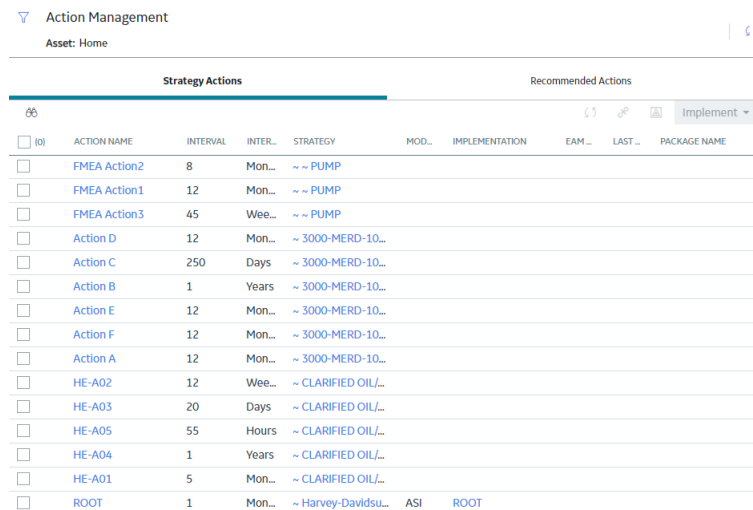
Action Management is a tool that allows you to define and to record the method by which change can be implemented to correct conditions, intent, or behaviors through Strategy Actions and Recommended Actions.

Note: Throughout this documentation, we use the term Recommendations to refer generically to any record that belongs to the Recommendations family or any of its subfamilies. When it is necessary to distinguish between Recommendation records that belong to different families, we use the specific family names.

Access the Action Management Page


Procedure

In the module navigation menu, select **Strategy > Action Management**. The **Action Management** page appears.




The screenshot shows the 'Action Management' page with a navigation menu at the top left and a refresh icon at the top right. Below the navigation is a table with two tabs: 'Strategy Actions' (selected) and 'Recommended Actions'. The table has columns for 'ACTION NAME', 'INTERVAL', 'INTER...', 'STRATEGY', 'MOD...', 'IMPLEMENTATION', 'EAM...', 'LAST...', and 'PACKAGE NAME'. The table contains 14 rows of data, including actions like 'FMEA Action2', 'Action D', 'Action C', 'Action B', 'Action E', 'Action F', 'Action A', 'HE-A02', 'HE-A03', 'HE-A05', 'HE-A04', 'HE-A01', and 'ROOT'.

	ACTION NAME	INTERVAL	INTER...	STRATEGY	MOD...	IMPLEMENTATION	EAM...	LAST...	PACKAGE NAME
<input type="checkbox"/>	FMEA Action2	8	Mon...	~ ~ PUMP					
<input type="checkbox"/>	FMEA Action1	12	Mon...	~ ~ PUMP					
<input type="checkbox"/>	FMEA Action3	45	Wee...	~ ~ PUMP					
<input type="checkbox"/>	Action D	12	Mon...	~ 3000-MERD-10...					
<input type="checkbox"/>	Action C	250	Days	~ 3000-MERD-10...					
<input type="checkbox"/>	Action B	1	Years	~ 3000-MERD-10...					
<input type="checkbox"/>	Action E	12	Mon...	~ 3000-MERD-10...					
<input type="checkbox"/>	Action F	12	Mon...	~ 3000-MERD-10...					
<input type="checkbox"/>	Action A	12	Mon...	~ 3000-MERD-10...					
<input type="checkbox"/>	HE-A02	12	Wee...	~ CLARIFIED OIL/...					
<input type="checkbox"/>	HE-A03	20	Days	~ CLARIFIED OIL/...					
<input type="checkbox"/>	HE-A05	55	Hours	~ CLARIFIED OIL/...					
<input type="checkbox"/>	HE-A04	1	Years	~ CLARIFIED OIL/...					
<input type="checkbox"/>	HE-A01	5	Mon...	~ CLARIFIED OIL/...					
<input type="checkbox"/>	ROOT	1	Mon...	~ Harvey-Davidsu...	ASI	ROOT			

Note: The **Action Management Overview** page is not updated automatically when you return to the previously opened tab. You can select  to update the page.

The Recommended Actions Pane

About This Task

In an analysis, when you select , the **Recommended Actions** pane expands. The **Recommended Actions** pane displays all of the recommendations in the selected analysis.



Bearing issues UP0000000001050000 Updated by: ASHHAR MUHAMMAD On Monday, November 04, 2019	Completed
Increased Flow Rate UP0000000001050000 Updated by: Adam Luff On Monday, October 22, 2018	Proposed
Flow rate decrease due to high casing pressure UP0000000001050000 Updated by: Adam Luff On Thursday, October 11, 2018	Proposed
Technician Required to visit Bearing UP0000000001050000 Updated by: Samiksha Rustagi On Thursday, October 04, 2018	Proposed
Local Bearing Problem UP0000000001050000 Updated by: Samiksha Rustagi On Thursday, October 04, 2018	Proposed

You can select the following buttons to use Recommended Action functionality:

- : Displays a [search](#) text box.
- : Displays [filtering](#) information.
- : Collapses the **Recommended Actions** pane.

Note: Next to the Recommended Action ID, you can select one or more check boxes to apply the selected functionality to multiple recommendations.

<input checked="" type="checkbox"/> Frequent stop on pump - Do nothing PMP-8281 ACID BLOWDOWN PUMP Updated by: Jane Smith On Tuesday, May 23, 2017	Pending
------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------

The Recommended Action ID provides an at-a-glance view of the:

- Name of the Recommended Action.
- Asset ID.
- Current state configuration.
- Last person who updated the Recommended Action.

Tip: For a more detailed view of the Recommended Actions in the pane, select to expand the pane to full screen. To make the pane return to its original size, select again.

Recommendation Actions Workflow

The [Recommended Actions](#) in GE Digital APM can be used as a tool to manage all the Recommendation records created for an analysis. Recommendations are classified as either Strategic Recommendations (Strategy Actions) or Performance Recommendations. The **Recommended Actions** pane provides a common set of functions that is used by both Strategy Actions and Recommended Actions.

Important: The following set of procedures is not comprehensive. Some modules document their own Recommended Actions-specific functionality.

Using the **Recommended Actions** pane, you can perform the following functions:

1. [Search Recommended Actions](#)
2. [Filter a Recommended Actions](#)
3. [Modify Recommended Actions State Assignments](#)
4. [Supersede Recommended Actions](#)
5. Consolidate Recommended Actions
6. Promote Pending Recommended Actions to ASM
7. [Unlink Recommended Actions from an Analysis](#)
8. [Unlink Linked Recommendation Records](#)
9. [Delete a Recommended Actions](#)

Chapter 2

Workflow

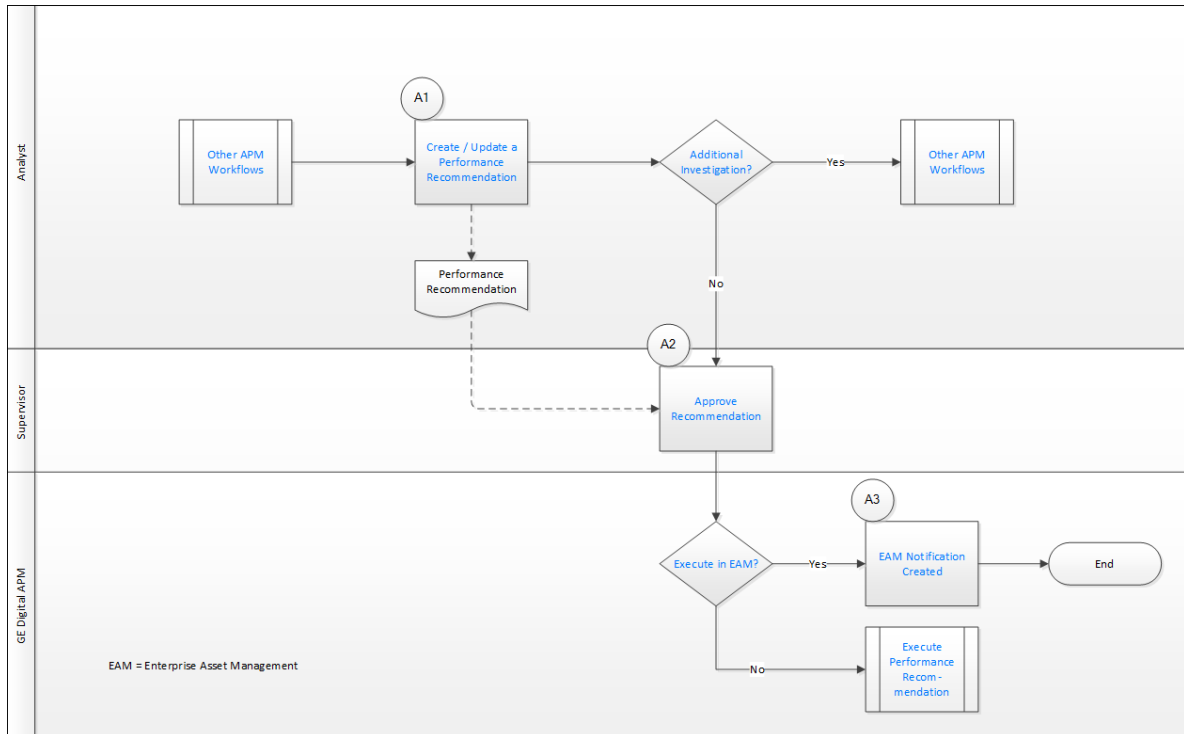
Topics:

- [Action Management: Manage Recommended Actions Workflow](#)
- [Action Management: Execute Recommended Action Workflow](#)

Action Management: Manage Recommended Actions Workflow

Recommended Actions are created, assigned, and approved in the Manage Recommended Action workflow. Recommended Actions requiring execution are managed using the Execute Recommended Actions workflow.

In the following workflow diagram, the blue text in a shape indicates that a corresponding description has been provided in the sections that follow the diagram. For more information, refer to the topic Interpreting the Workflow Diagrams.



1. [Create/Update Recommended Action](#) on page 6
2. [Other Workflows](#) on page 7
3. [Additional Investigation?](#) on page 7
4. [Other Workflows](#) on page 7
5. [Approve Recommendation](#) on page 7
6. [Execute in EAM?](#) on page 7
7. [EAM Notification Created](#) on page 7
8. [Execute Recommended Action](#) on page 8

Related Information

Create/Update Recommended Action

Persona: Analyst

Create or update a Recommended Action based on opportunities or needs identified in other analysis processes. The Recommended Action is associated with an Asset (Functional Location/Equipment) by the user or by association with the initiating object.

Additional Investigation?

Persona: Analyst

If a Recommended Action is assigned for further investigation, it is carried over to other work processes. If not, then the recommendation is assigned for approval.

Approve Recommendation

Persona: Supervisor

Approve the Recommended Action for execution.

Execute in EAM?

Persona: GE Digital APM

If a Recommended Action is marked to raise an EAM Notification, then an EAM Notification is created. If not, then the Recommended Action awaits execution by the assigned person.

Other Workflows

Persona: Analyst

Recommended Actions are requests for corrective action or additional investigation. Recommended Actions are raised from within other GE Digital APM modules, including Core Analysis, Asset Health Manager, Metrics and Scorecards, Root Cause Analysis, Policy Execution, Process Hazards Analysis (PHA), and Reliability Analysis. If additional investigation is needed, it will be conducted in other GE Digital APM Modules, including Core Analysis, Asset Health Manager, Root Cause Analysis, Process Hazards Analysis (PHA), and Reliability Analysis.

EAM Notification Created

Persona: GE Digital APM

If a Recommended Action is to be executed as an EAM System Work Order, an appropriate work item request in the corporate EAM System is triggered by GE Digital APM.

Execute Recommended Action

Persona: GE Digital APM

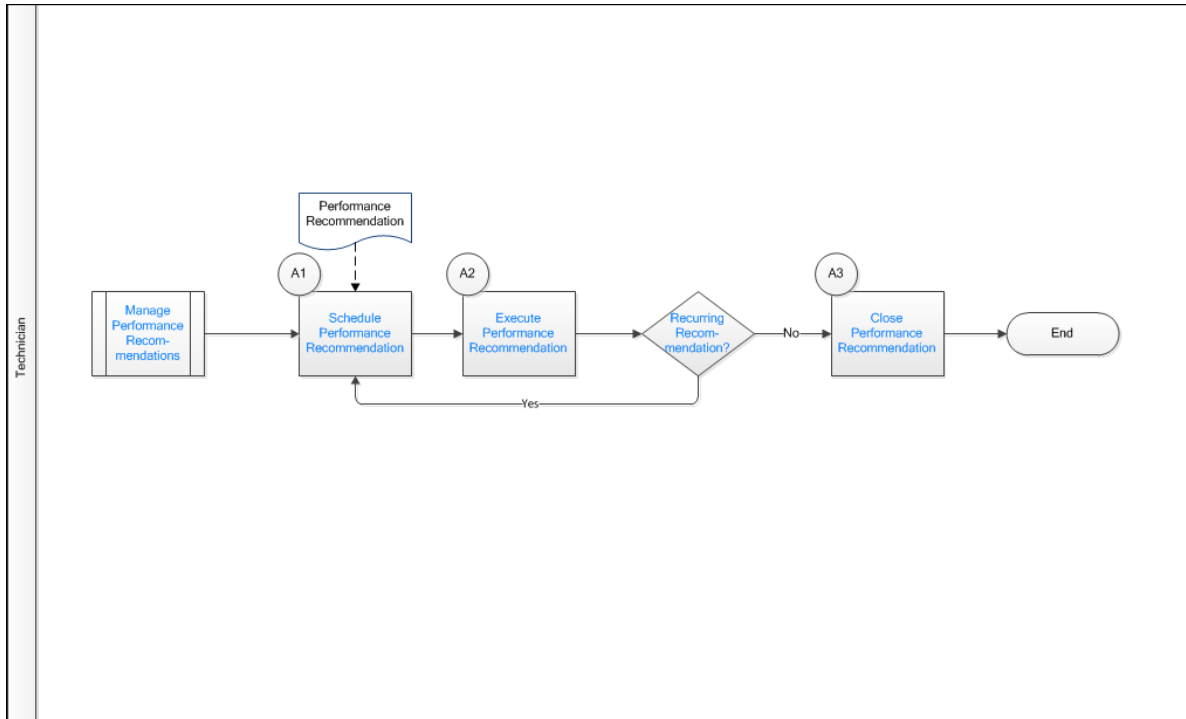
The assigned person should execute the Recommended Action.

Go to the [Execute Recommendations workflow](#).

Action Management: Execute Recommended Action Workflow

Recommended Actions are created, assigned, and approved in the Manage Recommended Action workflow. Recommended Actions requiring execution are managed using the Execute Recommended Actions workflow.

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



1. [Action Management: Manage Recommended Actions Workflow](#) on page 6
2. [Schedule Recommended Action](#) on page 8
3. [Execute Recommended Action](#) on page 8
4. [Recurring Recommendation?](#) on page 8
5. [Close Recommended Action](#) on page 8

Related Information

Schedule Recommended Action

Persona: Technician

Place the Recommended Action that is ready for execution in a Scheduled state.

Execute Recommended Action

Persona: GE Digital APM

The assigned person should execute the Recommended Action.

Go to the [Execute Recommendations workflow](#).

Recurring Recommendation?

Persona: Technician

If a Recommended Action is recurring, then the Recommended Action is rescheduled for its next execution. If not, then the Recommended Action can be closed.

Close Recommended Action

Persona: Technician

Close the Recommended Action.

Chapter 3

Strategy Actions

Topics:

- [About Strategy Actions](#)
- [Access the Strategy Actions Section](#)
- [Search Strategy Actions](#)
- [Strategy Actions Features](#)

About Strategy Actions

The **Strategy Actions** tab within Action Management is designed to provide the ability to manage the implementation of all Actions that have been approved as part of an Asset Strategy across the enterprise. The features and functions within Strategy Actions are identical to the **Implement Actions** workspace with the Asset Strategy Management (ASM) module, however the operations can be performed for Actions from multiple Asset Strategies thus providing bulk implementation and management capabilities.

Access the Strategy Actions Section

Procedure

1. Access the [Action Management](#) page.
2. In the **Action Management** page, select **Strategy Actions**.

The **Strategy Actions** section appears.

	ACTION NAME	INTERVAL	INTER.	STRATEGY	MOD.	IMPLEMENTATION	EAM...	LAST...	PACKAGE NAME
<input type="checkbox"/>	FMEA Action2	8	Mon...	~ ~ PUMP					
<input type="checkbox"/>	FMEA Action1	12	Mon...	~ ~ PUMP					
<input type="checkbox"/>	FMEA Action3	45	Wee...	~ ~ PUMP					
<input type="checkbox"/>	Action D	12	Mon...	~ 3000-MERD-10...					
<input type="checkbox"/>	Action C	250	Days	~ 3000-MERD-10...					
<input type="checkbox"/>	Action B	1	Years	~ 3000-MERD-10...					
<input type="checkbox"/>	Action E	12	Mon...	~ 3000-MERD-10...					
<input type="checkbox"/>	Action F	12	Mon...	~ 3000-MERD-10...					
<input type="checkbox"/>	Action A	12	Mon...	~ 3000-MERD-10...					
<input type="checkbox"/>	HE-A02	12	Wee...	~ CLARIFIED OIL/...					
<input type="checkbox"/>	HE-A03	20	Days	~ CLARIFIED OIL/...					
<input type="checkbox"/>	HE-A05	55	Hours	~ CLARIFIED OIL/...					
<input type="checkbox"/>	HE-A04	1	Years	~ CLARIFIED OIL/...					
<input type="checkbox"/>	HE-A01	5	Mon...	~ CLARIFIED OIL/...					
<input type="checkbox"/>	ROOT	1	Mon...	~ Harvey-Davidsu...	ASI	ROOT			

Search Strategy Actions

Procedure

1. Access the [Strategy Actions](#) section.
2. In the **Strategy Actions** section, select .

In the grid, filter boxes appear.

Strategy Actions					Recommended Actions				
<input type="checkbox"/>	ACTION NAME	INTERVAL	INTERVAL...	STRATEGY	MODULE	IMPLEMENTATIO...	EAM WO...	LAST ...	PACKAGE NAME
	Filter		Filter	Filter	Filter	Filter	Filter	Filter	Filter
<input type="checkbox"/>	FMEA Action2	8	Months	~ ~ PUMP					
<input type="checkbox"/>	FMEA Action1	12	Months	~ ~ PUMP					
<input type="checkbox"/>	FMEA Action3	45	Weeks	~ ~ PUMP					
<input type="checkbox"/>	Action D	12	Months	~ 3000-MERD...					
<input type="checkbox"/>	Action C	250	Days	~ 3000-MERD...					
<input type="checkbox"/>	Action B	1	Years	~ 3000-MERD...					
<input type="checkbox"/>	Action E	12	Months	~ 3000-MERD...					

3. In the filter box for any column, enter the search information.

Your results appear.

Strategy Actions Features

About This Task

The Strategy Actions section contains features to implement actions. To view a complete list of these features and workflows, see [Implement Actions](#).

Chapter 4

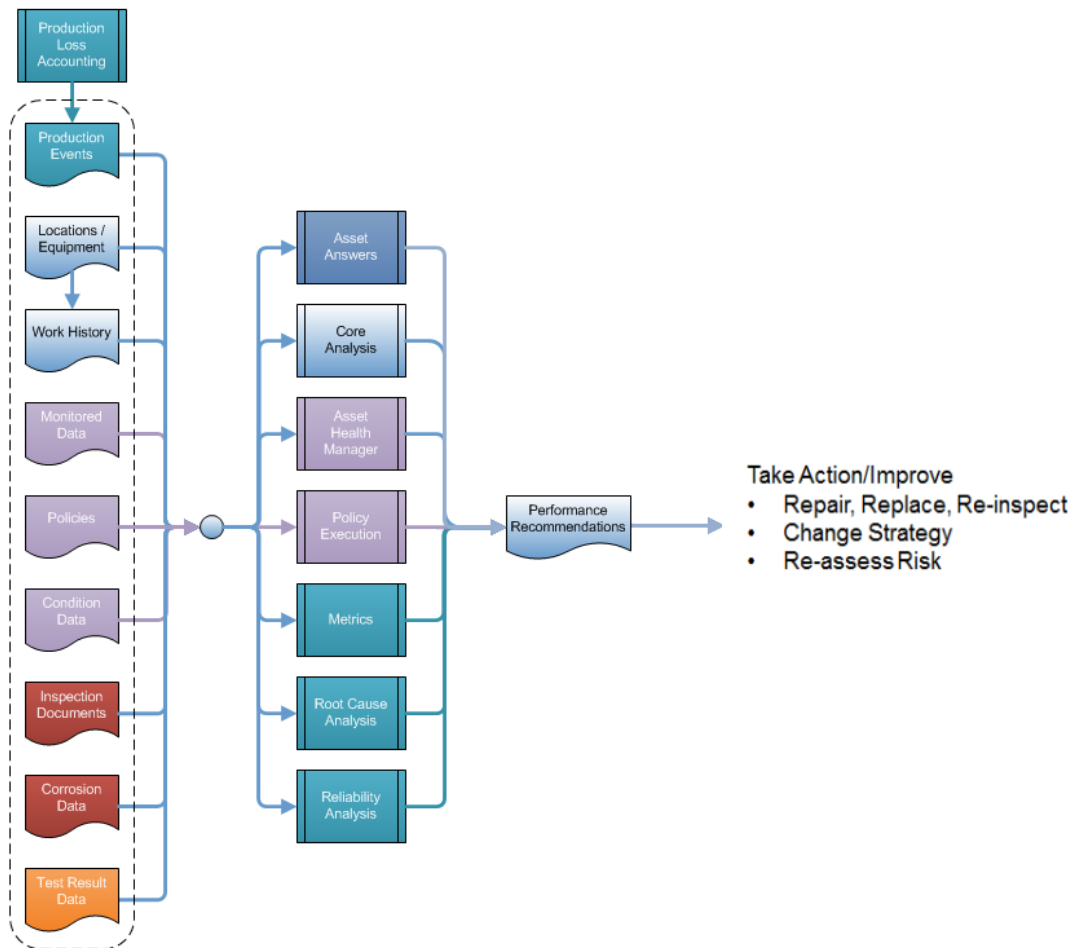
Recommended Actions

Topics:

- [About Recommended Actions](#)
- [Search Recommended Actions](#)
- [Filter Recommended Actions](#)
- [Create a Recommended Action](#)
- [Modify a Recommended Action](#)
- [Modify Linked Recommended Actions](#)
- [View Recommended Actions in Bulk Data Form](#)
- [Supersede Recommended Actions](#)
- [Unlink Recommended Actions](#)
- [Delete Recommended Actions](#)


About Recommended Actions

Recommended Actions are generated from multiple sources across the application. They can be created as an outcome of a performance analysis or from executing other workflows or activities and they are generally used to execute one-time, corrective actions for improvement. Recommended Actions are not sent to ASM as a part of a larger strategy and they may or may not be linked to an asset. Recommended Actions have a workflow that is focused on approval, execution, and tracking of improvement.



Search Recommended Actions

Procedure

1. Access the **Recommended Actions** section.
2. In the **Recommended Actions** section, select . In the grid, filter boxes appear.

Action Management

Asset: Home

Strategy Actions			Recommended Actions	
STATE	RECOMMENDATION ID	HEADLINE	TYPE	
Filter	Filter	Filter	Filter	
<input type="checkbox"/>	Proposed	REC-10588	Implement strategy for asset	General Recommendation
<input type="checkbox"/>	Proposed	REC-10587	Implement strategy for asset	General Recommendation
<input type="checkbox"/>	Proposed	REC-10586	Implement strategy for asset	General Recommendation
<input type="checkbox"/>	Proposed	REC-10585	Implement strategy for asset	General Recommendation
<input type="checkbox"/>	Proposed	REC-10582	Implement strategy for asset	General Recommendation

- In the filter box for any column, enter the search information. Your results appear.

Filter Recommended Actions

Procedure

- Access the **Recommended Actions** section.
- Select . The **Recommendation Filters** window appears.

Recommendation Filters ✕

States

Approved
 Completed
 Pending Approval
 Proposed

Canceled
 In Progress
 Pending Review
 Rejected

Types

AMS Asset Recommendation
 General Recommendation
 Operator Rounds Recommendation
 Policy Recommendation
 Reliability Recommendation

Calibration Recommendation
 Inspection Recommendation
 Operator Rounds Recommendation In Error
 RCA Recommendation

Cancel

Apply


- Select the criteria that you want to use to filter the Recommended Actions, and then select **Apply**. The **Recommended Actions** section will load with the specified Recommendations.


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Create a Recommended Action

Procedure

1. Access the **Recommendation Actions** section.
2. Select  .
A recommendation datasheet appears.


Datasheet ID: 

 Site: Roanoke, VA  


General Information | Alert

Recommendation ID

Recommendation Headline


Target Completion Date
 

Recommendation Description

Functional Location ID
 


Technical Number

Asset ID

3. As needed, enter values in the [available fields](#).
4. Select  .
A message appears, confirming that the Recommended Action has been updated.
5. Select **Close**.
Your Recommended Action has been created and saved.

Modify a Recommended Action

Procedure


1. Access the [Recommended Actions](#) section.
2. Select the link for the Recommended Action that you want to modify.
A recommendation data sheet appears.
3. As needed, modify the available fields, and then select .
4. Select **Close** to save your changes and return to the **Recommended Actions** section.

Modify Linked Recommended Actions

Before You Begin

This documentation assumes you already have Recommended Actions that are already Consolidated or Superseded, and are ready to view on the **Recommended Actions** page.

Procedure

1. Access the [Recommended Actions](#) section.
2. Next to the specific Recommended Action that you want to view, select the check box.
The Recommendation is highlighted.
3. Select  .
The **Linked Recommendations** window appears.

Next Steps


- [Modify a Recommended Action](#)
- [Unlink a Recommended Action](#)

View Recommended Actions in Bulk Data Form

Before You Begin

This documentation assumes that you already have multiple Recommended Actions ready to view.

Procedure

1. Access the [Recommended Actions](#) section.
2. Next to each Recommended Action that you want to view, select the check boxes.
Note: The Recommended Actions selected must be in the same family to be viewed together.
3. Select  .
In a new page, the **Bulk Data Form** appears displaying the selected Recommended Actions.

Supersede Recommended Actions


Before You Begin

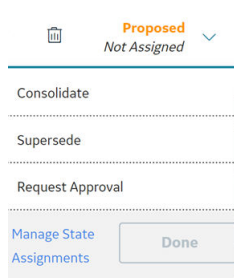
Note: This documentation assumes that you are working with Recommended Actions with subfamilies that include Supersede.

Procedure

1. Access the [Recommendation Actions](#) section.
2. Next to each Recommended Action that will be involved in the Supersede operation, select the check box.

Note: The Recommended Actions must be in the same family and same state.

3. In the page, select .
The state control menu appears.




4. Select **Supersede**, and then **Done**.
The **Supersede Recommendations** window appears, showing the Recommended Actions that will be superseded.
5. Select **Supersede**.
A message appears, confirming that the Recommended Actions have been superseded.

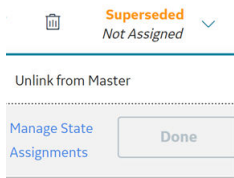
Unlink Recommended Actions

Before You Begin

These steps assume that you are working with Recommended Actions that have previously been Consolidated or Superseded.

Procedure


1. Access the [Recommendation Actions](#) page.
2. Next to each Recommended Action that will be involved in the unlinking operation, select the check box.
3. In the page, select .
The state control menu appears.



4. Select **Unlink from Master**, and then select **Done**.
A message appears, confirming that the Recommended Action has been unlinked.

Delete Recommended Actions

Procedure

1. Access the **Recommendation Actions** section.
2. Next to each Recommended Action that you want to delete, select the check box.
The Recommended Actions are highlighted.
3. Select .
A message appears, asking if you want to delete the selection.
4. Select **OK**.
A message appears, confirming that the selection has been deleted.

Chapter 5

Deployment

Topics:

- [Deploy Recommended Actions for the First Time](#)
- [Upgrade or Update Recommended Actions to V4.4.0.0.0](#)
- [Recommended Actions Security Groups](#)

Deploy Recommended Actions for the First Time

Before You Begin

The following table outlines the steps that you must complete to deploy and configure this module for the first time. These instructions assume that you have completed the steps for deploying the basic system architecture.

These tasks may be completed by multiple people in your organization. GE Digital recommends, however, that the tasks be completed in the order in which they are listed.

If you are deploying this module in APM Now, before you begin completing these tasks, review the system requirements for this module to identify the supported features for this module in APM Now. Unless noted, all deployment tasks in the following table are applicable for the deployment of this module in APM Now.

Results

Step	Task	Notes
1	Assign Security Users to one or more of the Recommended Actions Security Groups and Roles .	This step is required.
2	Review the Recommended Actions data model to determine which relationship definitions you will need to modify to include your custom equipment and location families. Via Configuration Manager, modify the relationship definitions as needed.	This step is required only if you store equipment and location information in families other than the baseline Equipment and Functional Location families.

Upgrade or Update Recommended Actions to V4.4.0.0.0

Before You Begin

The following table outlines the steps that you must complete to deploy and configure this module for the first time. These instructions assume that you have completed the steps for deploying the basic system architecture.

These tasks may be completed by multiple people in your organization. GE Digital recommends, however, that the tasks be completed in the order in which they are listed.

If you are deploying this module in APM Now, before you begin completing these tasks, review the system requirements for this module to identify the supported features for this module in APM Now. Unless noted, all deployment tasks in the following table are applicable for the deployment of this module in APM Now.

Procedure

- Upgrade from any version V4.3.0.0.0 through V4.3.1.0.4

This module will be updated to V4.4.0.0.0 automatically when you update the components in the basic GE Digital APM system architecture. No additional steps are required.

- Upgrade from any version V4.2.0.0 through V4.2.0.9.4

This module will be updated to V4.4.0.0.0 automatically when you update the components in the basic GE Digital APM system architecture. No additional steps are required.

- Upgrade from any version V4.1.0.0 through V4.1.7.4.0

This module will be updated to V4.4.0.0.0 automatically when you update the components in the basic GE Digital APM system architecture. No additional steps are required.

- Upgrade from any version V4.0.0.0 through V4.0.1.0

This module will be updated to V4.4.0.0.0 automatically when you update the components in the basic GE Digital APM system architecture. No additional steps are required.

- Upgrade from any version V3.6.1.0.0 through V3.6.1.7.4

This module will be updated to V4.4.0.0.0 automatically when you update the components in the basic GE Digital APM system architecture. No additional steps are required.

- Upgrade from any version V3.6.0.0.0 through V3.6.0.12.9

This module will be updated to V4.4.0.0.0 automatically when you update the components in the basic GE Digital APM system architecture. No additional steps are required.

- Upgrade from any version V3.5.1 through V3.5.1.12.3

This module will be updated to V4.4.0.0.0 automatically when you update the components in the basic GE Digital APM system architecture. No additional steps are required.

- Upgrade from any version V3.5.0 SP1 LP through V3.5.0.1.10.1

This module will be updated to V4.4.0.0.0 automatically when you update the components in the basic GE Digital APM system architecture. No additional steps are required.

- Upgrade from any version V3.5.0 through V3.5.0.7.1

This module will be updated to V4.4.0.0.0 automatically when you update the components in the basic GE Digital APM system architecture. No additional steps are required.

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

This module will be updated to V4.4.0.0.0 automatically when you update the components in the basic GE Digital APM system architecture. No additional steps are required.

Recommended Actions Security Groups

The following table lists the baseline Security Groups available for users within this module, as well as the baseline Roles to which those Security Groups are assigned.

Important: Assigning a Security User to a Role grants that user the privileges associated with all of the Security Groups that are assigned to that Role. To avoid granting a Security User unintended privileges, before assigning a Security User to a Role, be sure to review all of the privileges associated with the Security Groups assigned to that Role. Also, be aware that additional Roles, as well as Security Groups assigned to existing Roles, can be added via Security Manager.

The baseline family-level privileges that exist for these Security Groups are summarized in the following table.

Security Group	Roles
MI Recommendation Management User	MI Foundation Admin MI Foundation Power MI Foundation User

Family	MI Recommendation Management User
Entity Families	
Action	View
Equipment	View
Hazards Analysis Consequence	View
Instrumented Function	View
Protective Instrument Loop	View
RCA Analysis	View
RCA Team Member	View
RCM FMEA Analysis	View
Recommendation	View, Update, Insert, Delete
SIS Proof Test	View
SIS Proof Test Template	View
Relationship Families	
Has Asset Strategy	View, Update, Insert, Delete
Has Associated Recommendation	View, Update, Insert, Delete
Has Consolidated Recommendations	View, Update, Insert, Delete
Has Driving Recommendation	View, Update, Insert, Delete
Has Recommendations	View, Update, Insert, Delete
Has RCM FMEA Recommendation	View, Update, Insert, Delete
Has Strategy	View, Update, Insert, Delete
Has Superseded Recommendations	View, Update, Insert, Delete
Is RCM FMEA Asset	View, Update, Insert, Delete
Production Event Has RCA Analysis	View
RCA Analysis Relationships	View

Family	MI Recommendation Management User
Entity Families	
Action	View
Equipment	View
Hazards Analysis Consequence	View
Instrumented Function	View
Protective Instrument Loop	View
RCA Analysis	View
RCA Team Member	View
RCM FMEA Analysis	View
Recommendation	View, Update, Insert, Delete
SIS Proof Test	View
SIS Proof Test Template	View
Relationship Families	
Has Asset Strategy	View, Update, Insert, Delete
Has Associated Recommendation	View, Update, Insert, Delete
Has Consolidated Recommendations	View, Update, Insert, Delete
Has Driving Recommendation	View, Update, Insert, Delete
Has Recommendations	View, Update, Insert, Delete
Has RCM FMEA Recommendation	View, Update, Insert, Delete
Has Strategy	View, Update, Insert, Delete
Has Superseded Recommendations	View, Update, Insert, Delete
Is RCM FMEA Asset	View, Update, Insert, Delete
Production Event Has RCA Analysis	View
RCA Analysis Relationships	View

Chapter 6

Reference


Topics:

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

General Reference

About State Management in Approved Action Management

Action Management employs standard State Configuration functionality to facilitate basic Action Management operations and record state transitions.

In Action Management the  menu displays a list of operations that are available for one or more currently selected records. The list of available operations will vary, depending upon the current state of the selected record and the states to which the record can transition from its current state, according to the State Configuration that exists for the entity family.

About Action States and Operations

The menu will display any operation that is valid for current state of the selected record, including any baseline operations and any custom operations.

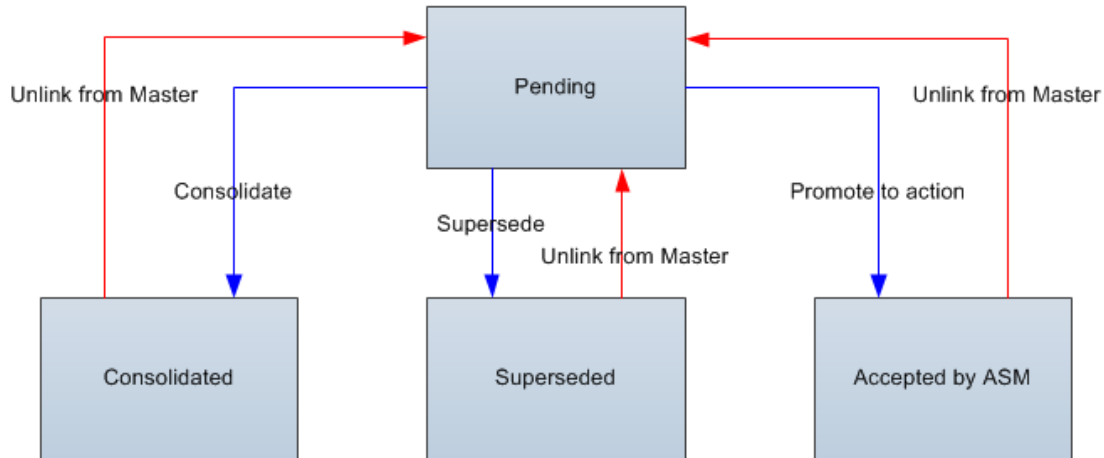
Note: Throughout this documentation, we provide details on performing baseline operations for Recommendation families using their baseline State Configurations. If you have customized the State Configurations for the Recommendation families, additional options may be available to you.

The following diagram shows the states and operations that exist in the baseline State Configuration for the following families:

- AMS Asset Recommendation
- Calibration
- Inspection
- General Recommendation
- Operator Rounds Recommendation
- Policy Recommendation
- RCA Recommendation
- Reliability Recommendation

You can use this diagram to determine which operations will appear on the recommendation menu when you select a record in the grid on the **Action Management** page. The menu will display any operation to which the current record can be transitioned from its current state.

Note: A blue arrow represents an operation that creates a link between records. A red arrow represents an operation that unlinks records.



About Asset Queries in Action Management

To identify the Equipment or Functional Location record that will be used to complete an operation, the GE Digital APM system runs the following queries, which are stored in the Catalog at `\\Public\Meridium\Modules\Core\Queries`:

- **Equipment Asset Query:** After providing a prompt for an Entity Key, the Equipment Asset Query returns the record with the provided Entity Key. In the baseline GE Digital APM database, the query returns records in the Equipment family.
- **Location Asset Query:** After providing a prompt for an Entity Key, the Location Asset Query returns the record with the provided Entity Key. In the baseline GE Digital APM database, the query returns records in the Functional Location family.

You will need to modify the baseline queries only if your Recommendation records are linked to records in a family other than the Equipment family or the Functional Location family. When you modify the queries, remember that they must contain the Entity Key field from the source family whose records you want to return. A prompt must exist on the Entity Key field, but the prompt can be a simple prompt with no valid values.

When These Queries are Run

The Equipment Asset Query and Location Asset Query are not meant to be run on their own. Instead, the GE Digital APM system runs these queries when you promote a Recommendation record to an Action record.

When these queries are run, the GE Digital APM system supplies the prompt with the Entity Keys of the predecessor records that are linked to the selected Recommendation record using the following workflow:

- The GE Digital APM system first runs the Equipment Asset Query. If any of the predecessor Entity Keys identify a record that belongs to the source family of the Equipment Asset Query, the Asset Strategy record will be linked to the record that is returned by the query.
- If none of the predecessor Entity Keys identify a record that belongs to the source family of the Equipment Asset Query, the GE Digital APM system runs the Location Asset Query. If any of the Entity Keys identify a record that belongs to the source family of this query, the Asset Strategy record will be linked to the record that is returned by this query.
- If none of the predecessor Entity Keys identify a record that belongs to the source family of the Location Asset Query, the Recommendation record will be promoted to an Action record, but the Asset Strategy will not be linked to an Equipment or Functional Location record.

The Equipment Asset Query always runs first. If it returns a record, that record is assumed to be the correct predecessor record, and the Location Asset Query is not run. This means that if a Recommendation record is linked to an Equipment record and a Functional Location record, the Equipment record will always be assumed to be the correct predecessor record.

Both the queries should query the family at the highest level necessary to include all equipment or location subfamilies. This means that if all your customer defined equipment and location families are structured in a hierarchy under a single parent family, such as Asset, you should modify only the Equipment Asset Query to include this parent family. In this case, the Location Asset Query will never be run because all customer-defined equipment and location records will be returned by the Equipment Asset Query.

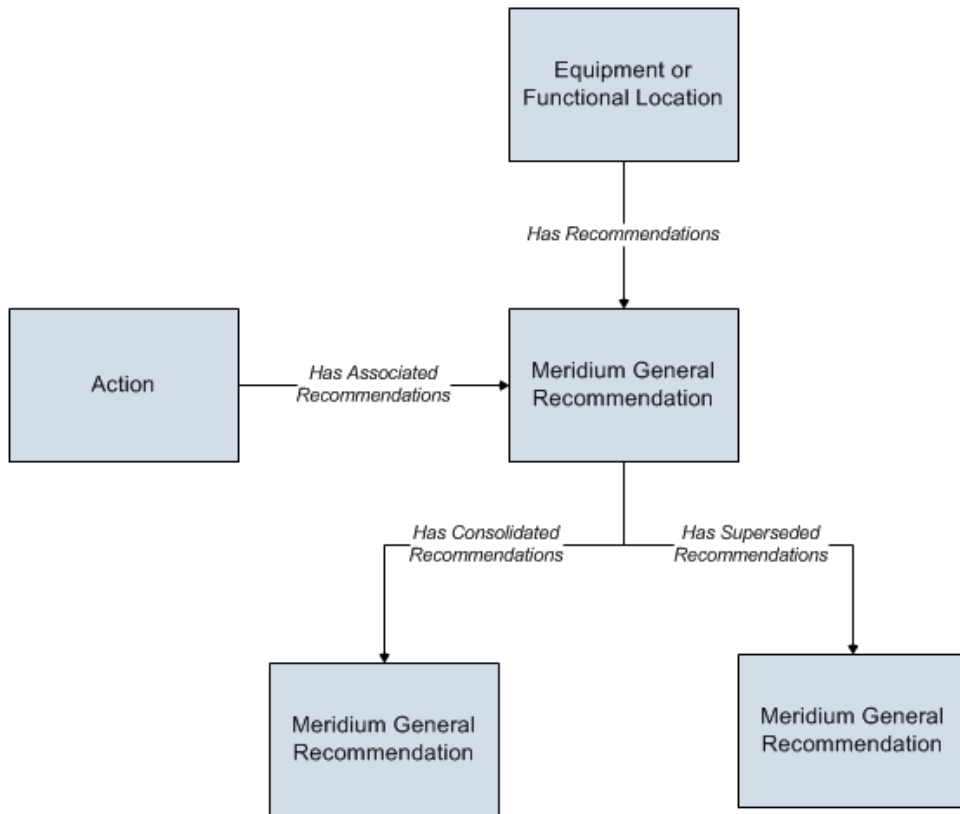
Example: Asset Query

Suppose a Recommendation record is linked to the Equipment record HX-112 and the RBI Criticality Analysis record Analysis 101. If you promote the Recommendation record to an Action record, the GE Digital APM system will:

- Identify the Entity Key of the Equipment record HX-112 and the RBI Criticality Analysis record Analysis 101.
- Supply these Entity Keys to the prompt in the Equipment Asset Query.
- Identify the record that is returned by the query. Because the source family is the Equipment family, the Equipment record HX-112 will be returned by the query.
- Link the new Asset Strategy record to the Equipment record HX-112.

Recommended Actions Data Model

The following diagram illustrates the families that are provided to support Recommended Actions. The shaded boxes represent entity families, and the arrows represent relationship families. You can determine the direction of each relationship definition from the direction of the arrowhead: the box from which the arrow originates is the predecessor in that relationship definition, and the box to which the arrowhead points is the successor in that relationship definition.



Note: In this image, only the General Recommendation family is shown. Other Recommendation families (such as Inspection Recommendation) also participate in relationship definitions for these relationships, but those families are described in more detail in the documentation for the modules that use those families.

Action Management System Code Tables


The following table lists the System Code Tables that are used by Action Management.

Table ID	Table Description	Function
ENTY KEY	CORE	A unique value for any record in the database.
MI BUSINESS IMPACT	CORE, Impact to company's production carrying out equipment work	Used to populate the Business Impact list in Recommendation records.
MI PRIORITY	CORE, baseline priority types	Used to populate the Recommendation Priority list in recommendation records.
MI RECOMMENDATION TYPE	CORE, Recommendation Type	Used to populate the Recommendation Type list in Recommendation records. Note: The Recommendation Type field is not included on any baseline Recommendation datasheets.

Table ID	Table Description	Function
MI STATUS	Status Codes - CORE	Used to populate the Status list in Recommendation records.
M002	Equipment Operational Status	Used to populate the Required Equipment Status list in Recommendation records.

Action Management State Configuration

Action Management employs standard State Configuration functionality to facilitate basic Action Management operations and record state transitions.

In Action Management, the  button opens a menu that displays a list of operations that are available for one or more currently selected records. The list of available operations will vary, depending upon the current state of the selected record and the states to which the record can transition from its current state, according to the State Configuration that exists for the entity family.

About Action States and Operations

The menu will display any operation that is valid for current state of the selected record, including any baseline operations and any custom operations.

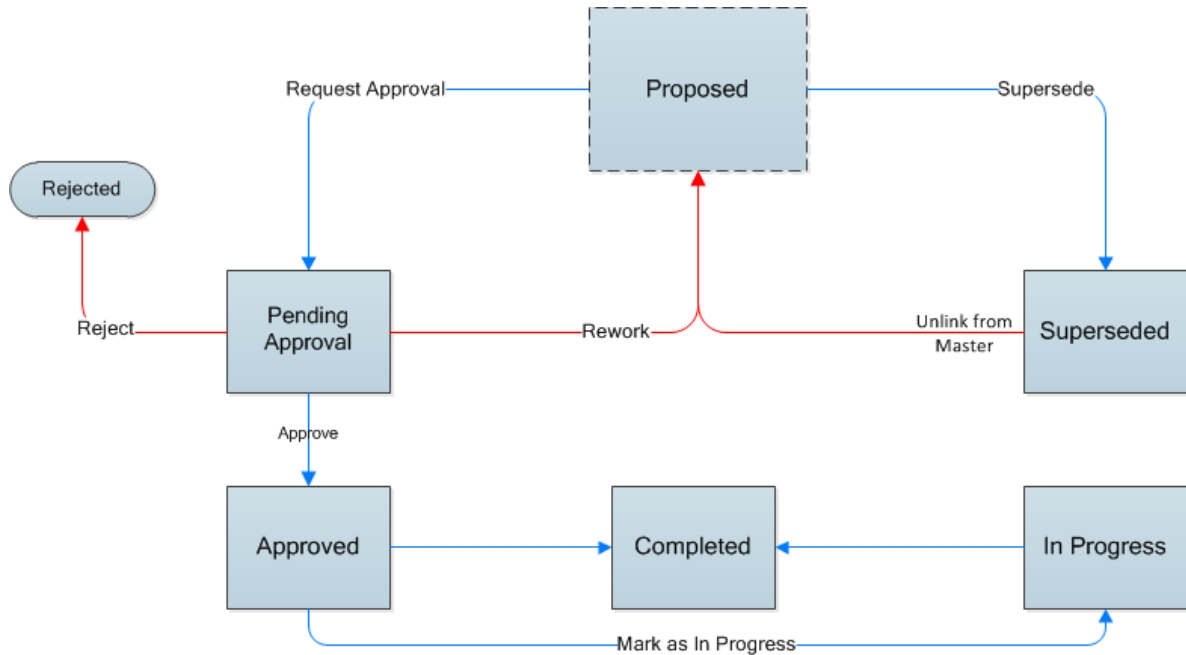
Note: Throughout this documentation, we provide details on performing baseline operations for Recommendation families using their baseline State Configurations. If you have customized the State Configurations for the Recommendation families, additional options may be available to you.

The following diagram shows the states and operations that exist in the baseline State Configuration for the following families:

- AMS Asset Recommendation
- Calibration
- Inspection
- General Recommendation
- Operator Rounds Recommendation
- Policy Recommendation
- RCA Recommendation
- Reliability Recommendation

You can use this diagram to determine which operations will appear on the Recommended Action menu when you select a record in the grid on the **Action Management** page. The Recommendation menu will display any operation to which the current record can be transitioned from its current state.

Note: A blue arrow represents an operation that creates a link between records. A red arrow represents an operation that unlinks records.



Family Field Descriptions

Recommendation Family Field Descriptions

The following table provides a list and description of some of the fields that exist in General Recommendation records and are available on the baseline General Recommendation datasheet. Most of these fields also exist in other Recommendation families and on their baseline datasheets. Regardless of the record in which you see the fields, they behave similarly to the descriptions in the table.

The following table defines how these fields behave when you create a Recommendation record from scratch using the **+** button in either the **Recommended Action** pane or the Action Management module in GE Digital APM, assuming that you have not customized the behavior of the fields. In some modules that use Recommendation records, the behavior of these fields is customized to fit the needs of that module.

Some baseline Recommendation datasheets contain alert fields, which are sometimes separated into their own Alert tab. The Behavior and Usage field will specify if the field is an alert field.

If you create a Recommendation record using a module-specific workflow, there can be changes in the behavior and the number of fields from how they are described in the table. You can find details on those changes in that module's documentation.

The table lists datasheet captions, not field captions.

Field	Data Type	Description	Behavior and Usage
Alert Assignee When Due?	Boolean	Indicates whether or not you want to send an email message to the person who is responsible for implementing the Recommendation (the user that appears in the Assigned To field).	This is an alert field. To send an email to the responsible person, place a check in this box. If not, leave the box blank.
Asset ID	Character	The Record ID of the Equipment record to which the Recommendation record is linked.	This value is unique.
Assigned to Name	Character	The name that the Recommendation is assigned to.	In the database, values in this field are stored in the following format: <Last Name>, <First Name> ~ <User Name> For example, a name stored in the database would be Smith, Jane ~ jsmith.
Associated Reference	Character	Stores the Reference ID of the event or any other entity that originated the Recommendation.	This field is populated automatically by system.
Create Work Request?	Boolean	Specifies whether or not a work request should be created in an external EAM system when this record is saved (e.g., using functionality provided with the SAP Interfaces, Oracle EBS eAM Interfaces, and Maximo Interfaces).	N/A
Days Before Due Date to be Notified	Numeric	Specifies how many days before the Target Completion Date that the email message will be sent. This field is required when the Alert Assignee When Due check box is selected.	This is an alert field. This field is only required if the Alert Assignee When Due box is selected.
Final Approver Name	Character	Full Name of person who approves the Recommendation.	In the database, values in this field are stored in the following format: <Last Name>, <First Name> ~ <User Name> For example, a name stored in the database would be Smith, Jane ~ jsmith.
Frequency of Alert After Due Date	Character	Specifies how often email messages will be sent after the completion date has passed. You can choose any of the following options: Never , Daily , Weekly , Monthly , or Yearly .	This is an alert field. This field is only required if there is a value in the Days Before Due Date to be Notified box has a value in it.

Field	Data Type	Description	Behavior and Usage
Functional Location ID	Character	The Record ID of the Functional Location record to which the Recommendation record is linked. -or- The Record ID of the Functional Location record that is linked to the Equipment record that appears in the Asset ID field.	N/A
Recommendation Description	Text	A short description of the Recommended Action.	N/A
Recommendation Headline	Character	A short description of the Recommended Action. If you select the Alert Assignee When Due check box, the text that you type in the Recommendation Headline field will become the subject of the email.	This field is required.
Recommendation ID	Character	A value that identifies the Recommendation record.	This field is required.
Recommendation Priority	Character	The priority of the Recommended Action. On the datasheet, this field contains a list of System Codes that exist in the MI_PRIORITY System Code Table. You can choose from the following baseline values: <ul style="list-style-type: none"> High (HIGH) Medium (MEDIUM) Low (LOW) 	Enter the value from the picklist that best represents the priority of this Recommended Action.
Reevaluate?	Boolean	Indicates whether or not you want to send an email message suggesting a reevaluation of the Recommended Action.	This is an alert field. A selection is required for this field.
Reevaluation Alert Body Text	Text	The text that will be included in the re-evaluation email message.	This is an alert field. This field is required when the Reevaluate check box is selected.
Reevaluation Date	Date	The date that a reevaluation email message will be sent.	This is an alert field. This field is required when the Reevaluate check box is selected.
Reevaluation Notification List	Character	The users to whom the re-evaluation email message will be sent.	This field is required when the Reevaluate check box is selected.
Related Alert	Character	The invariant alert ID for the alert related to the Recommended Action.	This field is read-only. If the field contains a value, it will contain a hyperlink to access the alert record in a new tab.

Field	Data Type	Description	Behavior and Usage
Related Case	Character	The invariant case ID for the case related to the Recommended Action.	This field is read-only. If the field contains a value, it will contain a hyperlink to access the case record in a new tab.
Reviewer Name	Character	The name of the person responsible for reviewing the Recommended Action.	In the database, values in this field are stored in the following format: <Last Name>, <First Name> ~ <User Name> For example, a name stored in the database would be Smith, Jane ~ jsmith.
Status	Character	Records the status of the Recommendation as selected by the user.	This field indicates the status of the Recommended Action.
Technical Number	Numeric	The identification number provided by SAP or another Computerized Maintenance Management System (CMMS)	This field is imported into the system.
Target Completion Date	Date	The date by which the Recommendation should be completed.	This field is required.
Work Request Reference	Character	The ID of the external work request that was created from this Recommendation record (e.g., using functionality provided with the SAP Interfaces, Oracle EBS eAM Interfaces, and Maximo Interfaces). This field is disabled and populated automatically after the SAP Notification or Oracle EBS eAM Work Request is created.	N/A

Catalog Items

Queries Folder

The Catalog folder \\Public\Meridium\Modules\Recommendation Manager\Queries contains the following items.

Query Name	Behavior and Usage
All Performance Recommendations	Returns all Recommended Actions that are considered Performance Recommendations.
Available Recommendations	Returns all of the Recommended Actions assigned to all pieces of equipment in your company. Displays a summary of all available family field information for each Recommended Action was returned.
Task by Asset	Returns all of the Recommended Actions linked to a specific asset. Note: You must manually enter the Asset key containing the Tasks that you want to view.