Meridium APM Asset Strategy Management

3.6.1.3.0

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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 (https://www.meridium.com/documentation/WebHelp/WebHelpMaster.htm).

Note: If you do not have access to the Meridium APM Documentation Website, contact Meridium Global Support Services.

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Overview of Asset Strategy Management

The Meridium APM Asset Strategy Management (ASM) module lets you create a *strategy*, which is a set of actions that represent a plan to optimize equipment and location performance to achieve business benefits.

Using ASM, you can create the following types of strategies:

- **Asset Strategy:** The combination of Actions and Risks that are associated with a piece of equipment or location.
- **System Strategy:** A collection of Asset Strategies.
- **Unit Strategy:** A collection of System Strategies.

In other words, ASM allows you to create Asset Strategies to define ways in which equipment and locations can fail and the actions that you want to perform to prevent those failures and reduce their consequences. After your database contains multiple Asset Strategies, you can bundle those Asset Strategies into a System Strategy. Likewise, after your database contains multiple System Strategies, you can bundle those System Strategies into a Unit Strategy. A Unit Strategy, therefore, represents a global plan for multiple pieces of equipment and locations.

Because strategies are built as a hierarchy, where Asset Strategies roll up to System Strategies and System Strategies roll up to Unit Strategies, before you can build a System Strategy or a Unit Strategy, you will need to build an Asset Strategy.

ASM System Requirements

The *ASM and ASI* license is required to take advantage of ASM. 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 ASM module.

When the ASM module is active, the Asset Strategy Implementation (ASI) module is also activate. To use the ASM and ASI integration to its full advantage, you will need to perform some configuration tasks specifically for the ASI module. This module may require additional hardware or software.

Overview of the ASM Data Structure

ASM helps you create a strategy through a cycle of proposing changes that result in a plan that maintains a piece of equipment or location while posing the least possible risk and incurring the least possible cost. Because it might take months of research and discussion for a team to decide upon the proposed changes to an existing strategy, companies need a way to track proposed strategy changes separately from the current strategy. This tracking method allows management to review the cost difference and risk difference between the proposed changes and the current implementation.

ASM facilitates the creation of multiple records to help you store information about a suggested strategy separately from information about the current strategy. The first step to creating any strategy is to create an Asset Strategy record. When you first save an Asset Strategy record, Meridium APM creates the following records, which are linked automatically to the Asset Strategy record:

- Proposed Strategy
- Active Strategy

These records serve as containers to identify the strategy using information such as the strategy ID and description. The records will be linked automatically to other records as you expand the strategy by adding Action records and Risk records and assessing the risk.

Ultimately, the Proposed Strategy record and the records to which it is linked represent the strategy that you propose the company implement. The Active Strategy record and the records to which it is linked represent the strategy that the company is currently implementing.

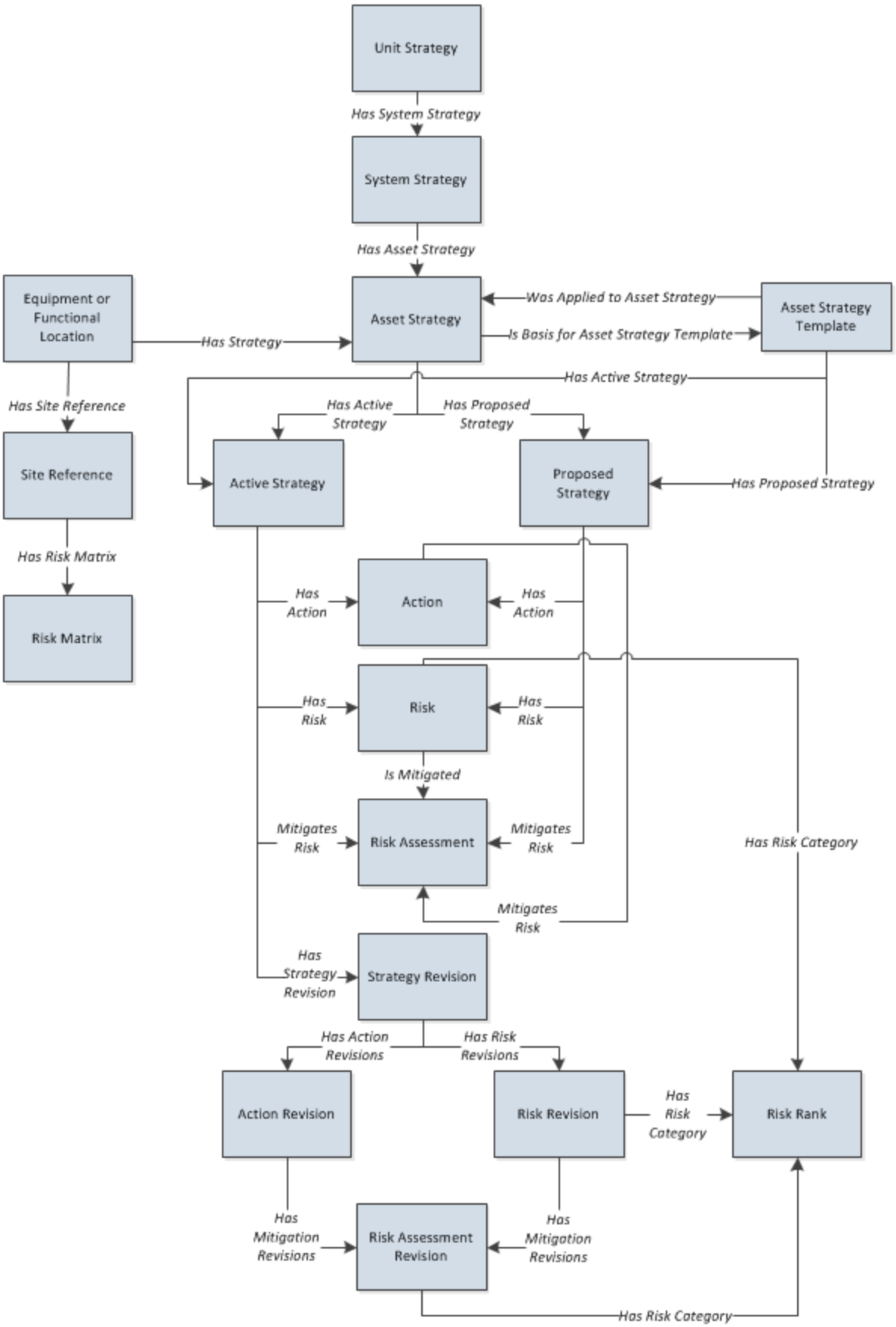
When you modify an Asset Strategy that is in the Active state, causing its state to change to Modified, Meridium APM captures your changes in the *Proposed* Strategy record and other records to which it is linked. When you later activate the strategy, the Meridium APM system copies the information from the Proposed Strategy record (and appropriate linked records) to the *Active* Strategy record (and appropriate linked records).

The Proposed Strategy record and its linked records are then identical to the Active Strategy record and its linked records until additional changes are made, which causes the cycle to continue.

ASM families can also participate in additional relationships with families in the Asset Criticality Analysis (ACA) data model, if an Asset Criticality Analysis System record is promoted from ACA to ASM.

Illustration of the ASM Data Model

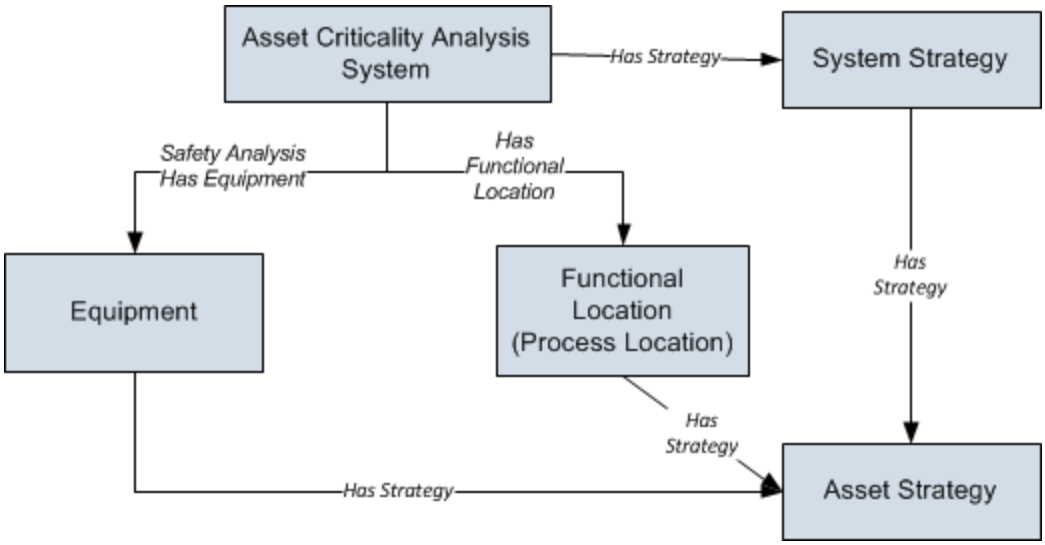
The following diagram illustrates how families are related to one another within the ASM data model. In the following image, boxes represent entity families, and arrows represent relationship families that are configured in the baseline database.


Unit Strategy
Has System Strategy
System Strategy
Has Asset Strategy
Equipment or Functional Location
Has Strategy
Asset Strategy
Was Applied to Asset Strategy
Is Basis for Asset Strategy Template
Asset Strategy Template
Has Active Strategy
Has Site Reference
Has Active Strategy
Has Proposed Strategy
Site Reference
Active Strategy
Proposed Strategy
Has Proposed Strategy
Has Risk Matrix
Has Action
Action
Has Action
Risk Matrix
Has Risk
Risk
Has Risk
Is Mitigated
Mitigates Risk
Risk Assessment
Mitigates Risk
Has Risk Category
Mitigates Risk
Has Strategy Revision
Strategy Revision
Has Action Revisions
Has Risk Revisions
Action Revision
Risk Revision
Has Risk Category
Risk Rank
Has Mitigation Revisions
Risk Assessment Revision
Has Mitigation Revisions
Has Risk Category

Notice that several revision families exist in the ASM data model. Records are created in these families automatically when you modify certain information about an Asset Strategy.

Illustration of the ASM Data Model Integrated with Asset Criticality Analysis

A System Strategy can be created automatically when an Asset Criticality Analysis System record is promoted from Asset Criticality Analysis (ACA) to ASM. The following illustration shows how the families in the ASM data model are related to the families in the ACA data model. In this illustration, the boxes represent entity families, and the arrows represent relationship families. You can determine the cardinality of a relationship by the direction of the arrow (i.e., the family to which the arrow points is the successor family).



About Revision Families in the ASM Data Model

The following revision families exist in the ASM data model:

- Strategy Revision
- Action Revision
- Risk Revision
- Risk Assessment Revision

Records are created in these families when you modify certain information about an Asset Strategy. The following table explains when these records are created.

This action:	...Creates this record:
Activating an Asset Strategy for the first time	Strategy Revision Action Revision Risk Revision
Activating an Asset Strategy after modifying an Action record	Action Revision
Activating an Asset Strategy after modifying a Risk record	Risk Revision
Activating an Asset Strategy after modifying a Risk Assessment record that is linked to an Action record[1]	Risk Assessment Revision
Activating a System Strategy if the underlying Asset Strategies have never been activated	Strategy Revision Action Revision Risk Revision

If you activate an Asset Strategy after modifying a Risk Assessment record that is linked to a *Risk* record, a Risk Assessment Revision is not created. The Risk Revision record that is created as a result of the change is updated to contain the new risk rank, so a Risk Assessment Revision record is not needed.

Asset Strategies

An *Asset Strategy* is the combination of actions and risks that are associated with a piece of equipment or location. An Asset Strategy consists of:

- Multiple Risk records, which represent ways in which the piece of equipment or location can fail.
- Multiple Action records, which represent the physical actions that you want to perform to maintain the piece of equipment or location.
- Multiple Risk Assessment records, which represent the Risk Rank associated with a failure.

The first step in building an Asset Strategy is to create an *Asset Strategy record*. You can then further define the Asset Strategy by adding Risks and Actions. After your database contains one or more Asset Strategies, you can build System Strategies. Then, you can build Unit Strategies.

When reviewing the ASM data model, you will notice that each Asset Strategy record is linked directly to:

- One *Active Strategy* record.

  -and-

- One *Proposed Strategy* record.

The *Active Strategy* record and the records to which it is linked represent the strategy that you are currently using to maintain the piece of equipment or location. Likewise, the *Proposed Strategy* record and the records to which it is linked represent the strategy that you want to start using to maintain the piece of equipment or location.

In other words, for each Asset Strategy, there is always one Active Strategy and one Proposed Strategy.

System Strategies

A *System Strategy* is a collection of Asset Strategies. The first step in building a System Strategy is to create a *System Strategy record*. You can then further define the System Strategy by adding one or more Asset Strategies. Then, you can build Unit Strategies.

Unit Strategies

A *Unit Strategy* is a collection of System Strategies. The first step in building a Unit Strategy is to create a *Unit Strategy record*. You can then further define the Unit Strategy by adding one or more System Strategies.

Active Strategies and Proposed Strategies

Note: The information in this topic also applies to Asset Strategy Templates but is limited to Asset Strategies to simplify the discussion.

When reviewing the ASM data model, you will notice that each Asset Strategy record is linked directly to:

- One *Active Strategy* record.

  -and-

- One *Proposed Strategy* record.

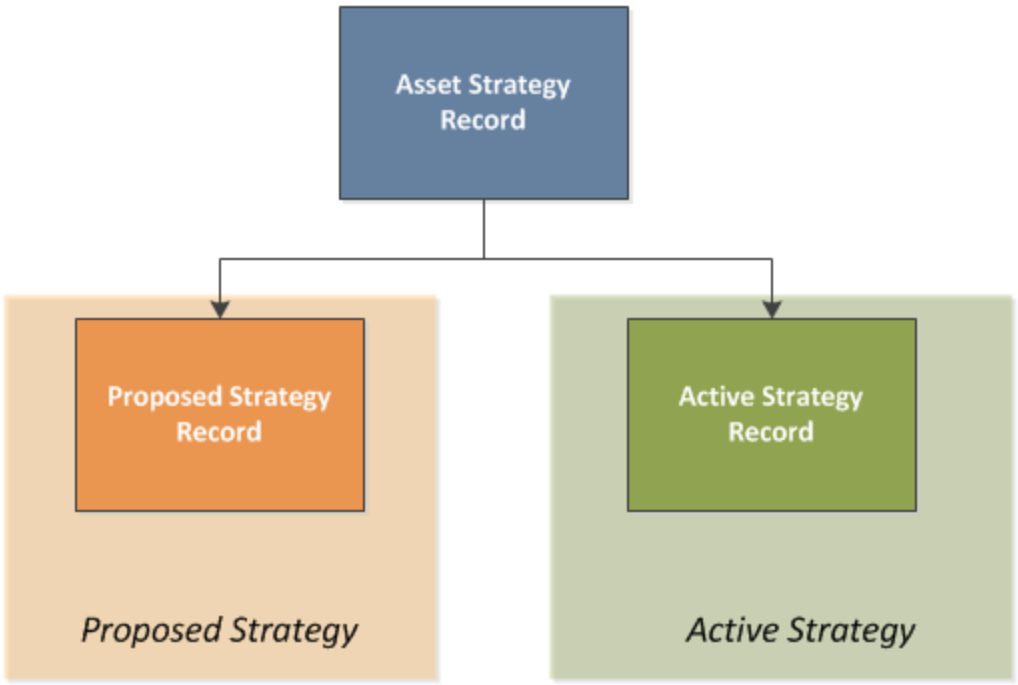
The *Active Strategy* record and the records to which it is linked represent the strategy that you are currently using to maintain the piece of equipment or location. Likewise, the *Proposed Strategy* record and the records to which it is linked represent the strategy that you want to start using to maintain the piece of equipment or location.

In other words, for each Asset Strategy, there is always one Active Strategy and one Proposed Strategy. Throughout this documentation, we refer to the following types of Asset Strategies:

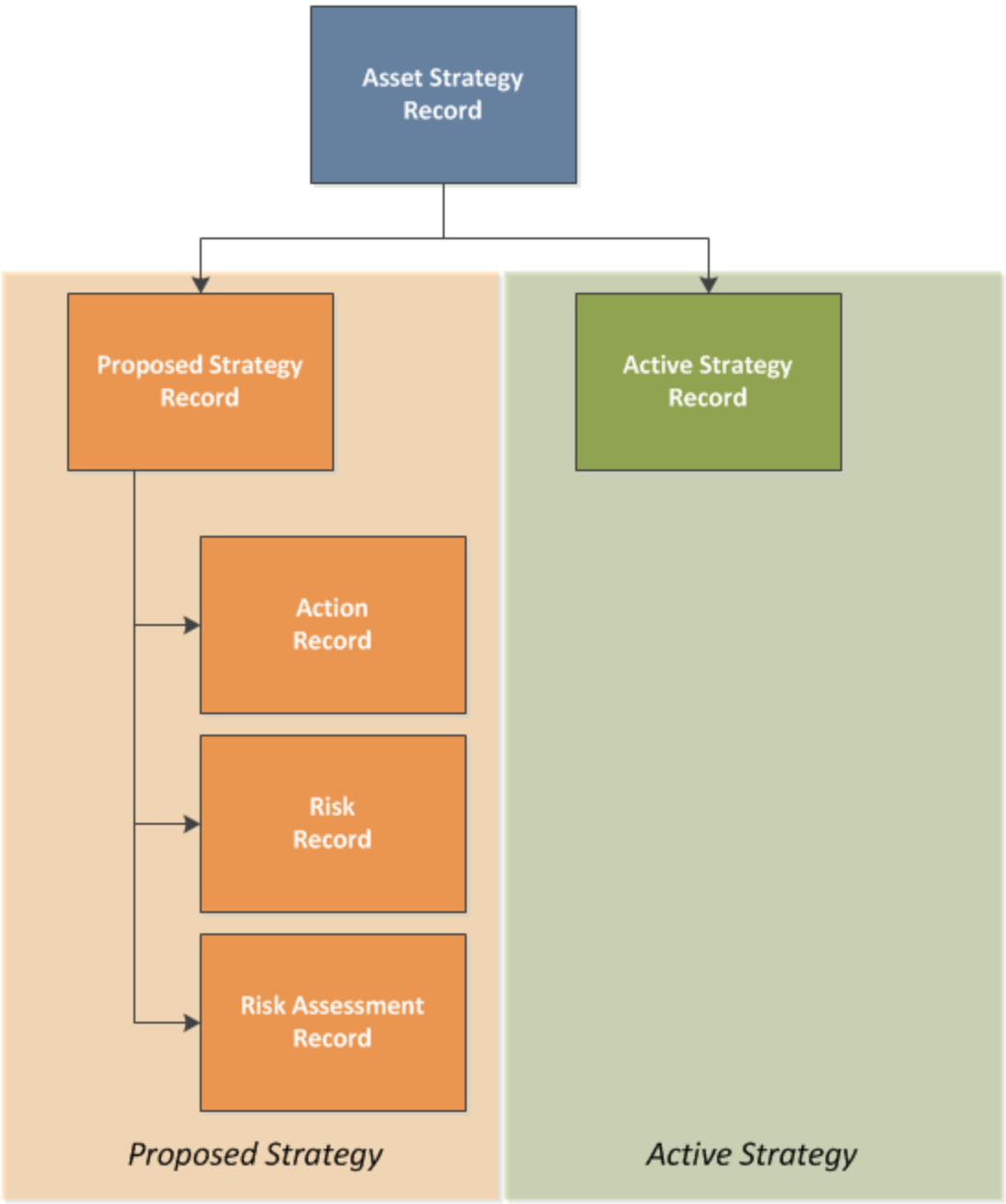
- **Active Strategy:** Represents the strategy that you are currently using to maintain the piece of equipment or location.
- **Proposed Strategy:** Represents the strategy that you want to start using to maintain the piece of equipment or location.

When you create an Asset Strategy, the Active Strategy and the Proposed Strategy are created automatically and are identical. As you make changes to the Asset Strategy by adding Risks and Actions and assessing the risk, those changes are stored in the *Proposed* Strategy. When you activate the Proposed Strategy, the contents of the Proposed Strategy are copied to the Active Strategy. And once again, the Active Strategy and Proposed strategy are identical.

Consider the following image, which illustrates the Proposed Strategy and Active Strategy that are created when you create an Asset Strategy.

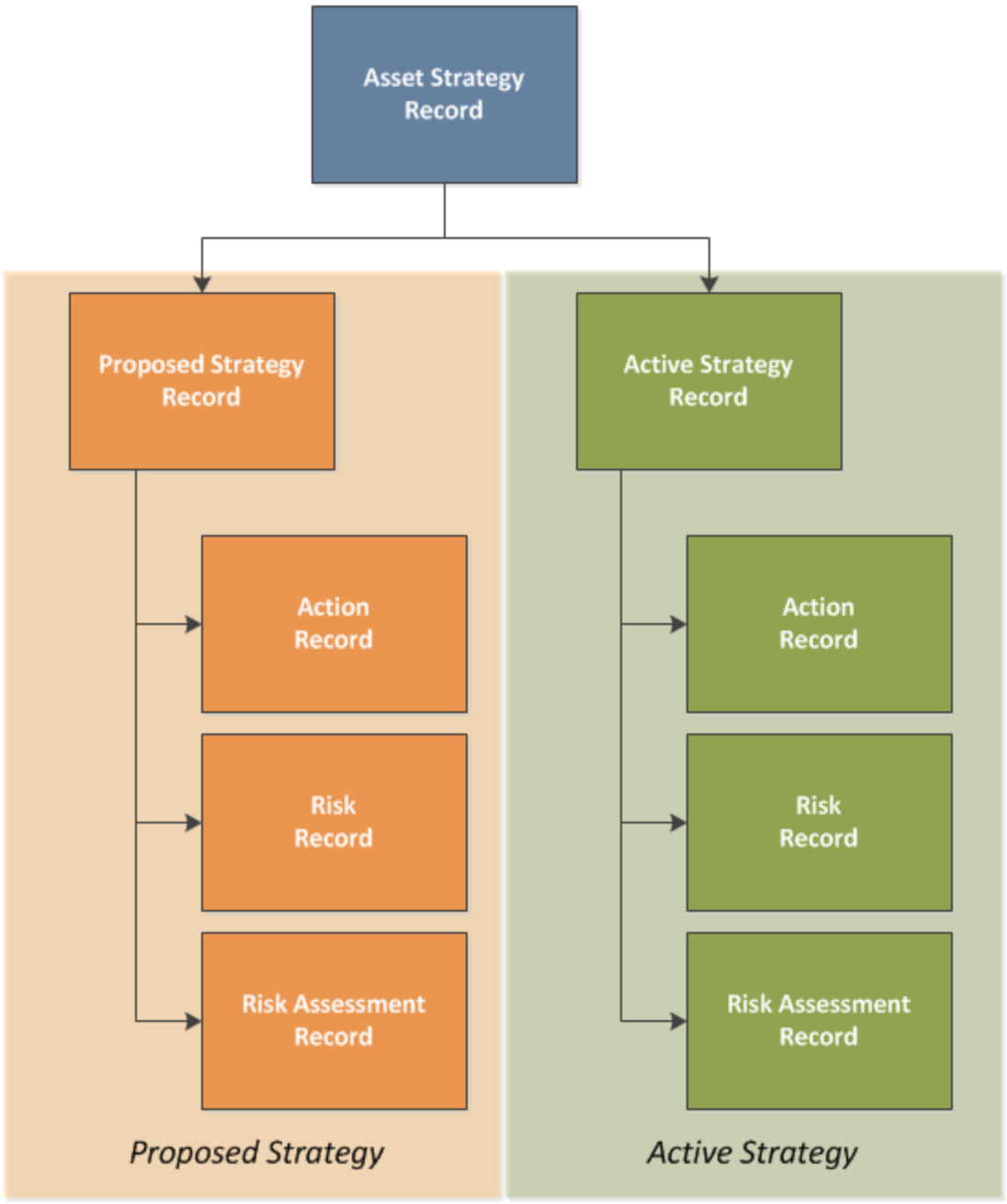


Now, consider the following image, which illustrates what happens to the Proposed Strategy when you add an Action, Risk, and Risk Assessment to the Asset Strategy.

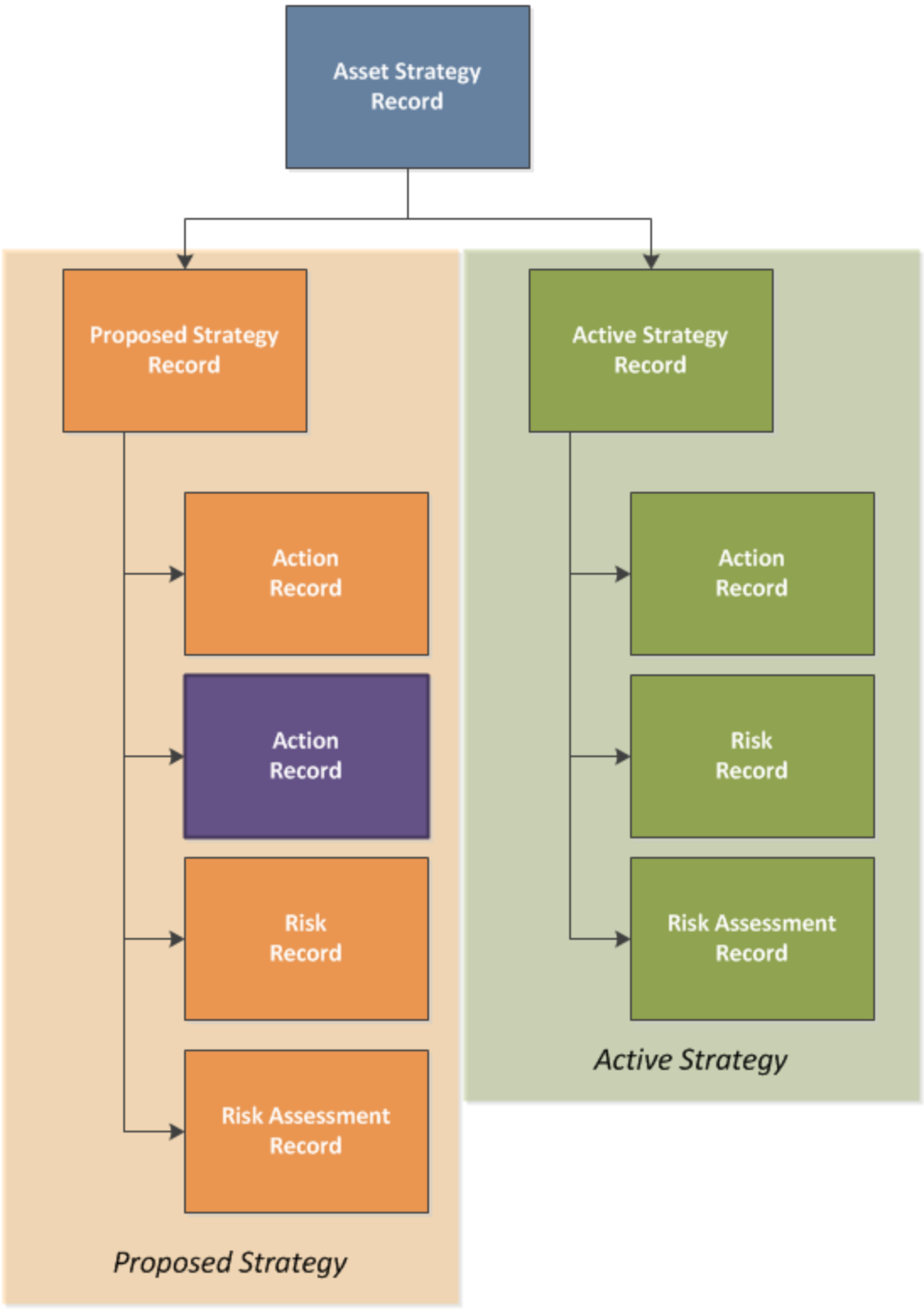


You can see from this image that only the Proposed Strategy is affected. The Active Strategy remains unchanged.

Finally, consider the following image, which illustrates what happens when you activate the Proposed Strategy.



You can see from this image that the Proposed Strategy and the Active Strategy are now identical again. The process would begin again if you were to modify the Asset Strategy in some way. For example, if you were to add a new Action, the following image illustrates how the Proposed Strategy would be updated, where the new Action is colored purple.


Asset Strategy Record
Proposed Strategy Record
Action Record
Action Record
Risk Record
Risk Assessment Record
Proposed Strategy
Active Strategy Record
Action Record
Risk Record
Risk Assessment Record
Active Strategy

Asset Strategy Templates

An *Asset Strategy Template* represents an Asset Strategy that you plan to reuse by applying it to additional Asset Strategies. The process of creating an Asset Strategy Template from scratch is almost identical to the process of creating an Asset Strategy. Additionally, you can create an Asset Strategy Template via the following methods:

- From an existing Asset Strategy.
- From an existing RCM FMEA Analysis.

When working with Asset Strategy Templates, you can add Action records and Risk records and manage Risk Assessments.

Risks

A *Risk* identifies a way in which the piece of equipment or location can fail and the consequence of the failure. This consequence is presented as a risk rank value, which is determined from the values that you select in the Risk Assessment interface that appears when you create a Risk. After you have created an Asset Strategy record, you can begin adding Risks to the Asset Strategy.

The values you specify in a Risk are stored in a *Risk record*. Throughout this documentation, unless it is necessary to refer to the record itself, however, we use the term *Risk*.

Actions

An *Action* identifies the physical ways in which you maintain a piece of equipment or location. For example, an Action might indicate that you want to perform a visual inspection of a piece of equipment. After you have created an Asset Strategy record, you can begin adding Actions to the Asset Strategy.

The values you specify in an Action are stored in an *Action record*. Throughout this documentation, however, unless it is necessary to refer to the record itself, we use the term *Action*.

About State Configuration in ASM

ASM leverages State Configuration Roles, which you can assign to Security Users to manage who can transition strategies from one state to another.

In the baseline Meridium APM database, *no* State Configuration Roles are assigned to any state in the Asset Strategy State Configuration or the Asset Strategy Template State Configuration. An administrative user can assign State Configuration Roles to these states, if desired.

Throughout ASM, some options will be disabled based upon whether the current user is assigned to the State Configuration Role that is required to perform that action. In other words, if an action will change the state of the strategy (e.g., adding an Action record) and the current user does not have permission to change the state, all options that would cause the state to change will be disabled. For example, consider the following scenario:

- An administrative user has specified that only members of the *Asset Strategy Modifier* State Configuration Role can transition an Active Strategy to the Modified state.
- Only members of the *ASM Analyst* Security Group are assigned to the *Asset Strategy Modifier* State Configuration Role.
- A user is logged in to Meridium APM as a member of only the ASM Reviewer Security Group.

In this case, when the *ASM Reviewer* opens on the **Asset Strategy Actions** page an Asset Strategy in the Pending Review state, the following options will be disabled on that page:

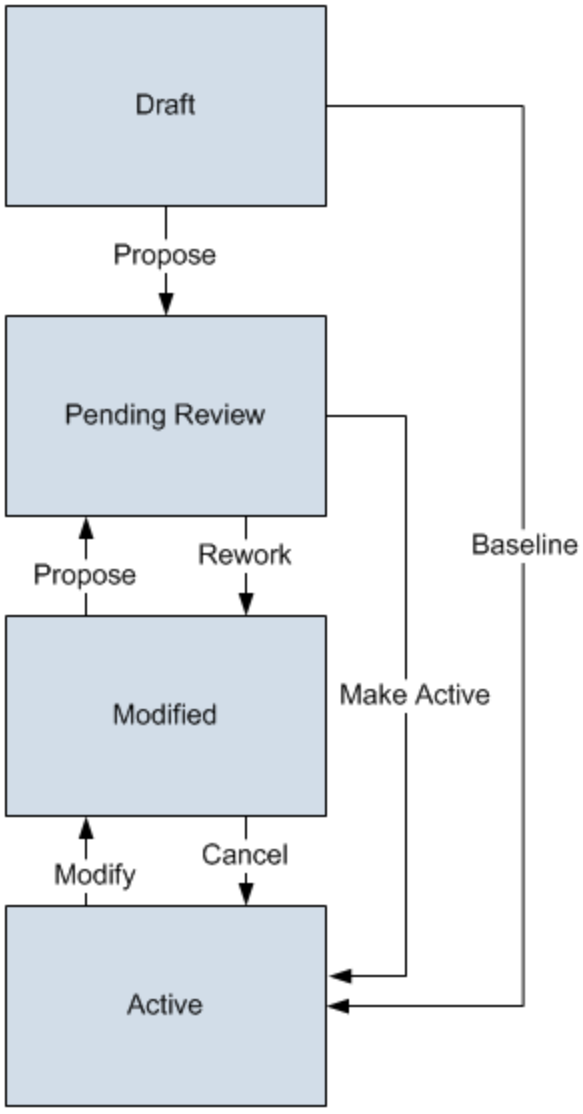
- The **Add Action** button.
- The **Remove Action** button.
- The **Undo Action** button.
- The **Assign New Risk** button.
- The **Assign Existing Risk** button.
- The Action datasheet.
- The Risk Assessment datasheet.

If NO State Configuration Roles are specified for State Configuration, as in the baseline database, all options will be available to all users, and state changes will not be restricted. To take full advantage of the features in ASM, we recommend that you assign members of the ASM Security Groups to a corresponding State Configuration Role.

Asset Strategy State Configuration

The following diagram shows the states and operations that exist in the baseline State Configuration for the Asset Strategy family. You can use this diagram to determine which operations will appear on the **Operations** menu when you are viewing an Asset Strategy. The **Operations** menu will display any operation to which the current Asset Strategy record can be transitioned from its current state.

States and Operations



Initial State

The Draft state is the initial state of all new Asset Strategy records.

Datasheet Configuration

By default, states and operations will appear on the datasheet when you are viewing an Asset Strategy record in the Record Manager.

Reserved States and Operations

By default, all states and operations displayed in the preceding diagram are reserved. This means that you cannot remove or modify any of these states or operation. You can, however, add your own states and operations to the State Configuration.

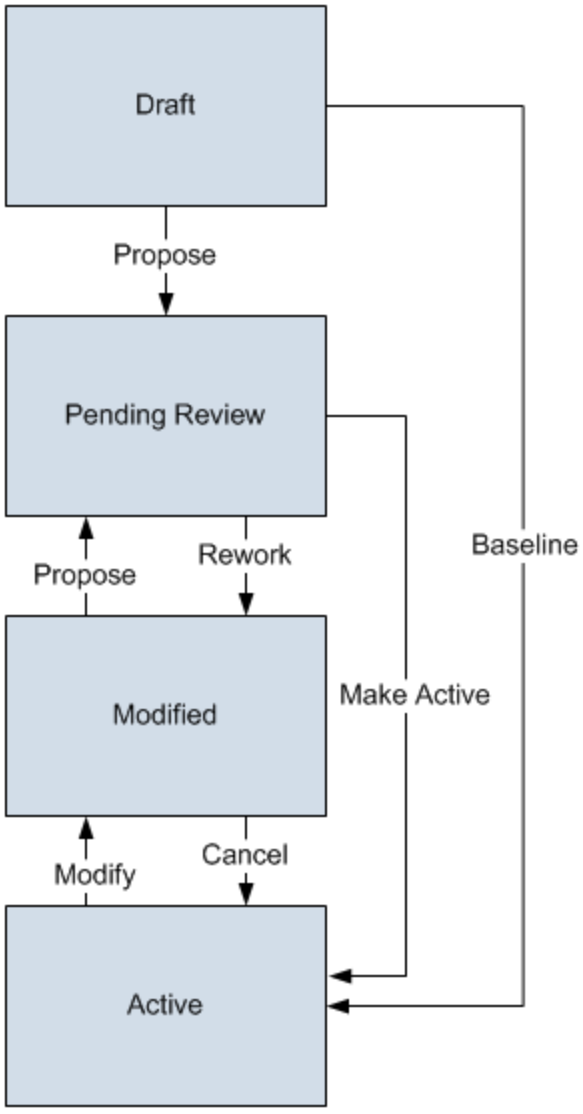
State Configuration Roles

By default, NO State Configuration Roles are assigned to any state in the Asset Strategy State Configuration. If desired, you can assign State Configuration Roles to any state.

Asset Strategy Template State Configuration

The following diagram shows the states and operations that exist in the baseline State Configuration for the Asset Strategy family. You can use this diagram to determine which operations will appear on the **Operations** menu when you are viewing an Asset Strategy. The **Operations** menu will display any operation to which the current Asset Strategy record can be transitioned from its current state.

States and Operations



Initial State

The Draft state is the initial state of all new Asset Strategy Template records.

Datasheet Configuration

By default, states and operations will appear on the datasheet when you are viewing an Asset Strategy Template record in the Record Manager or the Bulk Data Form.

Reserved States and Operations

By default, all states and operations displayed in the preceding diagram are reserved. This means that you cannot remove or modify any of these states or operation. You can, however, add your own states and operations to the State Configuration.

State Configuration Roles

By default, NO State Configuration Roles are assigned to any state in the Asset Strategy State Configuration. If desired, you can assign State Configuration Roles to any state.

About the Cancel Operation

The *Cancel* operation is available on the **Operations** menu for Asset Strategies that are in the *Modified* state. When you use the *Cancel* operation, the Meridium APM system will:

- Change the state from *Modified* to *Active.*

  -AND-

- Revert ALL the changes that were made to the strategy since the last time it was activated.

In other words, all your changes are discarded, and the Asset Strategy is restored to the state in which it existed prior to making your changes.

For example, suppose you added multiple Actions and Risks to an Asset Strategy and modified multiple values in existing Actions, and now you realize that those changes belong to a different Asset Strategy. In this case, you can use the *Cancel* operation to automatically undo the changes from the Asset Strategy and restore it to the way it was before you made the changes.

Managing Records for ASM Families

To ensure data integrity, records that make up strategies in ASM should be created and managed using only the tools provided in the Asset Strategy Management module. Therefore, the Meridium APM system prevents you from creating or modifying records in certain families via the Record Manager and Bulk Data Form.

The following table lists the families that can be managed only within ASM and the page in ASM to which you will be directed via the link above the **Datasheet** list when you are viewing a record in one of these families via the Record Manager.

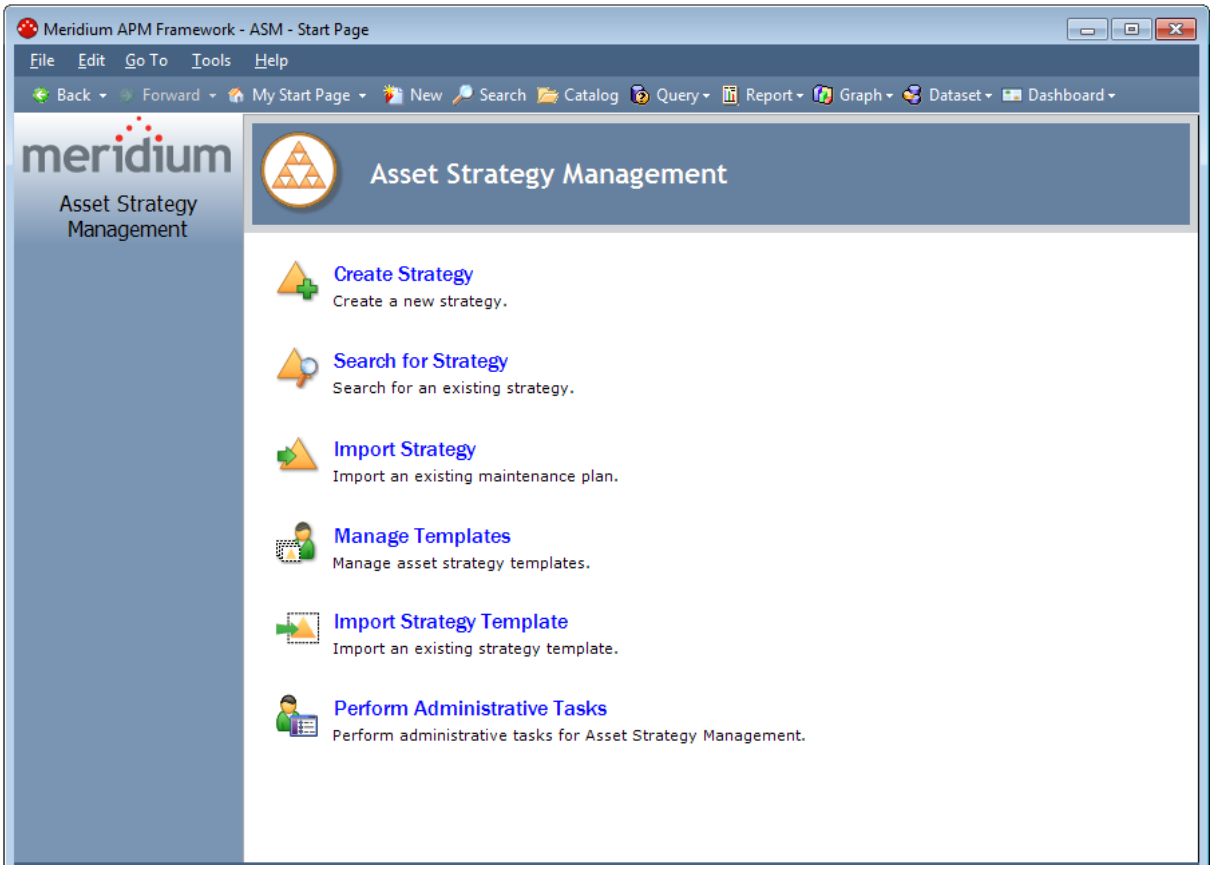
Family	Page in ASM
Asset Strategy	Strategy Overview
Active Strategy	Strategy Overview
Proposed Strategy	Strategy Overview
Asset Strategy Template	Strategy Overview
System Strategy	System Overview
Unit Strategy	Unit Overview
Action	Actions
Risk	Risks
Strategy Revision	Revision History
Action Revision	Revision History
Risk Revision	Revision History
Risk Assessment Revision	Revision History

Accessing the ASM - Start Page

To access the ASM - Start Page:

- On the Meridium APM Framework main menu, click **Go To**, point to **Asset Strategy**, and then click **Asset Strategy Management**.

  The ASM - Start Page appears.



Aspects of the ASM - Start Page

The **ASM - Start Page** serves as the starting point for the tasks that you can perform in Meridium APM Asset Strategy Management. You can access each task via a link on this page. Note that the links on this page do not suggest a recommended workflow but rather allow you to access certain features that you will need to use as part of managing strategies.

The following links are available:

- **Create Strategy:** Displays the **Strategy Type** dialog box, where you can select the type of strategy you want to create: Asset Strategy, System Strategy, or Unit Strategy. Note that if you do not have Insert privileges to the Asset Strategy family, Meridium APM will display a message after you click the link, indicating that your security privileges are insufficient.
- **Search for Strategy:** Displays a strategy search page, where you can search for an existing Asset Strategy, System Strategy, or Unit Strategy. Note that the search page that you last viewed will be displayed when you click the **Search for Strategy** link. For example, if you last viewed the **ASM -Asset Strategy Search** page, this page will appear when you click the **Search for Strategy** link the next time.

  If you do not have View privileges to the Asset Strategy family, a message appears after you click the link, indicating that your security privileges are insufficient.
- **Import Strategy:** Displays the **Open** window, where you can:
  - Select a Microsoft Excel file to import to create a new Asset Strategy.

    -OR-
  - Select an existing Task record to use as the basis for creating or updating an Asset Strategy.

  Note that if you do not have Insert privileges to the Asset Strategy family, a message appears after you click the link, indicating that your security privileges are insufficient.
- **Manage Templates:** Displays the **ASM - Asset Strategy Template Search** page, where you can search for an existing Asset Strategy Template record or create a new one. Note that if you do not have View privileges to the Asset Strategy family, a message appears after you click the link, indicating that your security privileges are insufficient.
- **Import Strategy Template:** Displays the **Open** window, where you can select a Microsoft Excel file to import to create a new Asset Strategy Template.
- **Perform Administrative Tasks:** Displays the **ASM - Administration** page, where you can define the queries that you want to use for searching for strategies. Note that only Super Users and members of the MI ASM Administrator Security Group can see this link.

First-Time Deployment Workflow

Deploying and configuring ASM 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 ASM 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 ASM functionality.

The person responsible for completing each task may 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	If you are using families outside of the baseline Equipment and Functional Location families, review the ASM data module 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 step is necessary only if you are using families outside the baseline Equipment and Functional Location families to store equipment and location data.
2	Assign Security Users to one or more of the ASM Security Groups via the Configuration Manager application.	Required	None
3	Define sites to associate with strategies via the Meridium APM Framework application.	Optional	None
4	Specify query preferences for the search queries in ASM via the Meridium APM Framework application.	Optional	The ASM module is configured to use the baseline queries by default. You need to perform this task only if you want to use custom queries.
5	Import and export Asset Strategies via the Meridium APM Framework application.	Optional	None

Upgrade or Update Asset Strategy Management to 3.6.1.3.0

The following tables list the steps that are required to upgrade and configure ASM for 3.6.1.3.0. These steps assume that you have completed the steps for upgrading the basic Meridium APM system architecture.

Update from any version V3.6.1.0.0 through V3.6.1.2.0

This module will be updated to 3.6.1.3.0 automatically when you update the components in the basic Meridium APM system architecture. No additional steps are required.

Upgrade from any version V3.6.0.0.0 through V3.6.0.12.6

ASM will be upgraded to 3.6.1.3.0 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 V3.5.1.12.0

ASM will be upgraded to 3.6.1.3.0 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 V3.5.0.1.9.0

Step	Task	Required/Optional
1	Move to the *Asset Strategy* family any custom rules that are defined for the following families and configured to be executed during the Asset Strategy activation process: • Action • Risk • Risk Assessment • Risk Rank • Action Revision • Risk Revision • Risk Assessment Revision • Strategy Revision	Required

Step	Task	Required/Optional
2	Move to the *Asset Strategy Template* family any custom rules that are defined for the following families and configured to be executed when a new Asset Strategy Template is saved after being created from an existing Asset Strategy Template or Asset Strategy: • Action • Risk • Risk Assessment • Risk Rank • Has Risk Category	Required
3	Move to the *Asset Strategy* or *Asset Strategy Template* family (as appropriate) any custom rules that are defined for *any other family* and are configured to be executed when an Asset Strategy or Asset Strategy Template is deleted.	Required

Upgrade from any version V3.5.0 through V3.5.0.0.7.1

Step	Task	Required/Optional
1	Move to the Asset Strategy family any custom rules that are defined for the following families and configured to be executed during the activation process: • Action • Risk • Risk Assessment • Risk Rank • Action Revision • Risk Revision • Risk Assessment Revision • Strategy Revision	Required

Upgrade from any version V3.4.5 through V3.4.5.0.1.4

Step	Task	Required/Optional
1	Move to the Asset Strategy family any custom rules that are defined for the following families and configured to be executed during the activation process: • Action • Risk • Risk Assessment • Risk Rank • Action Revision • Risk Revision • Risk Assessment Revision • Strategy Revision	Required

ASM Security Groups

The following table contains a list of the family-level permissions that are provided for each of the baseline ASM Security Groups.

Family	MI ASM Analyst	MI ASM Administrator	MI ASM Reviewer	MI ASM Viewer
Action	Insert, View, Update, and Delete	View	Insert, View, Update, and Delete	View
Action Mapping	View	None	None	None
Active Strategy	Insert, View, Update, and Delete	View	Insert, View, Update, and Delete	View
Analysis Link	View	View	View	View
Asset Criticality Analysis	View	View	View	View
Asset Criticality Analysis Has System	View	View	View	View
Asset Criticality Analysis System	View	View	View	View
Asset Strategy	Insert, View, Update, and Delete	View	View and Update	View
Calibration Task	View	None	View	None
Checkpoint Task	Insert, View and Update	Insert, View and Update	Insert, View and Update	Insert, View and Update
Consequence	View	Insert, View, Update, and Delete	View	View
Distribution	Insert, View, Update, and Delete	View	View	View
Execution Mapping	View	None	None	None
Growth Model	View	View	View	View

Family	MI ASM Analyst	MI ASM Administrator	MI ASM Reviewer	MI ASM Viewer
Has Action Driver	Insert, View, Update, and Delete	None	None	None
Has Action Mapping	View	None	None	None
Has Action Revisions	Insert, View, Update, and Delete	View	Insert, View, Update, and Delete	View
Has Actions	Insert, View, Update, and Delete	View	Insert, View, Update, and Delete	View
Has Active Strategy	Insert, View, Update, and Delete	View	Insert, View, Update, and Delete	View
Has Asset Strategy	Insert, View, Update, and Delete	View	View	View
Has Associated Recommendation	Insert, View, Update, and Delete	View	View	View
Has Associated Strategy	Insert, View, Update, and Delete	View	View	View
Has Checkpoint	View	None	None	None
Has Child Hierarchy Item	View	Insert, View, Update, and Delete	View	View
Has Child Work Management Item	View	None	None	None
Has Driving Recommendation	Insert, View, Update, and Delete	View	View and Delete	View
Has Execution Mapping	View	None	None	None

Family	MI ASM Analyst	MI ASM Administrator	MI ASM Reviewer	MI ASM Viewer
Has Functional Location	View		View	
Has Global Events	Insert, View, Update, and Delete	View	View	View
Has Health Indicators	Insert, View, Update, and Delete	View	View	View
Has Measurement Location Group	Insert, View, Update, and Delete	None	None	None
Has Mitigated TTF Distribution	Insert, View, Update, and Delete	View	View	View
Has Mitigation Revisions	Insert, View, Update, and Delete	View	Insert, View, Update, and Delete	View
Has Planned Resource Usages	Insert, View, Update, and Delete	View	View	View
Has Proposed Strategy	Insert, View, Update, and Delete	View	Insert, View, Update, and Delete	View
Has Readings	View	View	View	View
Has Recommendations	Insert, View, Update, and Delete	None	None	
Has Reference Values	View	Insert, View, Update, and Delete	View	View
Has Resource Usages	Insert, View, Update, and Delete	View	View	View

Family	MI ASM Analyst	MI ASM Administrator	MI ASM Reviewer	MI ASM Viewer
Has Risk	Insert, View, Update, and Delete	View	Insert, View, Update, and Delete	View
Has Risk Assessments	Insert, View, Update, and Delete	View	View	View
Has Risk Category	Insert, View, Update, and Delete	Insert, View, Update, and Delete	Insert, View, Update, and Delete	View
Has Risk Matrix	View	None	None	None
Has Risk Revisions	Insert, View, Update, and Delete	View	Insert, View, Update, and Delete	View
Has Root System	Insert, View, Update, and Delete	View	View	View
Has Scenarios	Insert, View, Update, and Delete	View	View	View
Has Site Reference	View	None	None	
Has Strategy	Insert, View, Update, and Delete	View	View	View
Has Strategy Revision	Insert, View, Update, and Delete	View	Insert, View, Update, and Delete	View
Has System Actions	Insert, View, Update, and Delete	View	View	View
Has System Elements	Insert, View, Update, and Delete	View	View	View
Has System Optimization	Insert, View, Update, and Delete	View	View	View

Family	MI ASM Analyst	MI ASM Administrator	MI ASM Reviewer	MI ASM Viewer
Has System Resources	Insert, View, Update, and Delete	View	View	View
Has System Results	Insert, View, Update, and Delete	View	View	View
Has System Risks	Insert, View, Update, and Delete	View	View	View
Has System Strategy	Insert, View, Update, and Delete	View	View	View
Has TTF Distribution	Insert, View, Update, and Delete	View	View	View
Has TTR Distribution	Insert, View, Update, and Delete	View	View	View
Has Unplanned Resource Usages	Insert, View, Update, and Delete	View	View	View
Has Work Management Item	Insert, View and Update	None	None	None
Has Work Management Item Definition Configuration	View	None	None	None
Health Indicator	Insert, View, Update, and Delete	None	View and Update	View and Update
Health Indicator Has Mapping	Insert, View, Update, and Delete	View	View	View
Health Indicator Has Source	Insert, View, Update, and Delete	View	View	View

Family	MI ASM Analyst	MI ASM Administrator	MI ASM Reviewer	MI ASM Viewer
Health Indicator Mapping	View	Insert, View, Update, and Delete	View	View
Hierarchy Item Child Definition	View	Insert, View, Update, and Delete	View	View
Hierarchy Item Definition	View	Insert, View, Update, and Delete	View	View
Implementation Package	View and Insert	None	None	None
Implementation Role	View	View	View	View
Implements Action	Insert, View and Update	None	None	None
Implements Strategy	View and Insert	None	None	None
Implements Secondary Strategy	View	None	None	None
Inspection Task	View	None	View	View
Is Based on RBI Degradation Mechanism	None	None	View and Delete	None
Is Based on RCM FMEA Failure Effect	Insert, View, Update, and Delete	None	None	None
Is Basis for Asset Strategy Template	Insert, View, Update, and Delete	View	View and Update	View
Is Mitigated	Insert, View, Update, and Delete	View	Insert, View, Update, and Delete	View
KPI	View	View	View	View

Family	MI ASM Analyst	MI ASM Administrator	MI ASM Reviewer	MI ASM Viewer
KPI Measurement	View	View	View	View
Master Template Has Asset Strategy	Insert, View, Update, and Delete	View	View and Update	View
Measurement Location	View	View	View	View
Measurement Location Group	Insert, View and Update	None	None	None
Measurement Location Template	View	View	View	View
Mitigates Risk	Insert, View, Update, and Delete	View	Insert, View, Update, and Delete	View
Operator Rounds Allowable Values	View	View	View	View
Probability	View	Insert, View, Update, and Delete	View	View
Proposed Strategy	Insert, View, Update, and Delete	View	View and Update	View
Protection Level	View	View	View	View
RBI Degradation Mechanisms	View and Update	None	None	None
RBI Recommendation	View and Update	None	None	None
RCM FMEA Asset	Insert, View, Update, and Delete	View	View	View
Reading	View	View	View	View
Reliability Distribution	View	View	View	View
Reliability Growth	View	View	View	View

Family	MI ASM Analyst	MI ASM Administrator	MI ASM Reviewer	MI ASM Viewer
Risk Assessment	Insert, View, Update, and Delete	View	Insert, View, Update, and Delete	View
Risk Category	View	Insert, View, Update, and Delete	View	View
Risk Matrix	View	Insert, View, Update, and Delete	View	View
Risk Rank	Insert, View, Update, and Delete	View	Insert, View, Update, and Delete	View
Risk Threshold	View	Insert, View, Update, and Delete	View	View
Safety Analysis Has Equipment	View		View	
Site Reference	View	View	View	View
System Action	Insert, View, Update, and Delete	View	View	View
System Action Mapping	View	Insert, View, Update, and Delete	View	View
System Action Optimization	Insert, View, Update, and Delete	View	View	View
System Action Result	Insert, View, Update, and Delete	View	View	View
System Analysis	Insert, View, Update, and Delete	View	View	View

Family	MI ASM Analyst	MI ASM Administrator	MI ASM Reviewer	MI ASM Viewer
System Element	Insert, View, Update, and Delete	View	View	View
System Element Result	Insert, View, Update, and Delete	View	View	View
System Global Event	Insert, View, Update, and Delete	View	View	View
System Resource	Insert, View, Update, and Delete	View	View	View
System Resource Result	Insert, View, Update, and Delete	View	View	View
System Resource Usage	Insert, View, Update, and Delete	View	View	View
System Risk Assessment	Insert, View, Update, and Delete	View	View	View
System Scenario	Insert, View, Update, and Delete	View	View	View
System Sensor	Insert, View, Update, and Delete	View	View	View
System Strategy	Insert, View, Update, and Delete	View	View and Update	View
Unit Strategy	Insert, View, Update, and Delete	View	View and Update	View
Was Applied to Asset Strategy	Insert, View, Update, and Delete	View	View and Update	View

Family	MI ASM Analyst	MI ASM Administrator	MI ASM Reviewer	MI ASM Viewer
Was Promoted to ASM Element	View	None	View	View
Work Management Item Child Definition	View	None	None	None
Work Management Item Definition	View	None	None	None
Work Management Item Definition Configuration	View	None	None	None

Associating a Strategy with a Specific Site

Some companies that use the Meridium APM software have facilities at multiple sites, or locations, around the world. Each site contains unique locations and equipment.

If desired, you can define these sites and associate equipment and locations with the site to which they belong. When you create an Asset Strategy record and link it to an Equipment or Functional Location record, the Site Reference field will be populated automatically with the Record ID of the Site Reference record to which the Equipment or Functional Location record is linked. To help streamline the strategy-building process, the Meridium APM system will allow you to add multiple Asset Strategies to System Strategies only if *all* the underlying equipment and locations belong to the same site. Likewise, you can add multiple System Strategies to a Unit Strategy only if all underlying equipment and locations belong to the same site.

You can also associate risk matrices with specific sites. If a piece of equipment or location is associated with a site and you build an Asset Strategy for that equipment or location, when you define risks for the strategy, rather than seeing the default risk matrix, you will see the risk matrix that is associated with that site.

Accessing the ASM - Administration Page

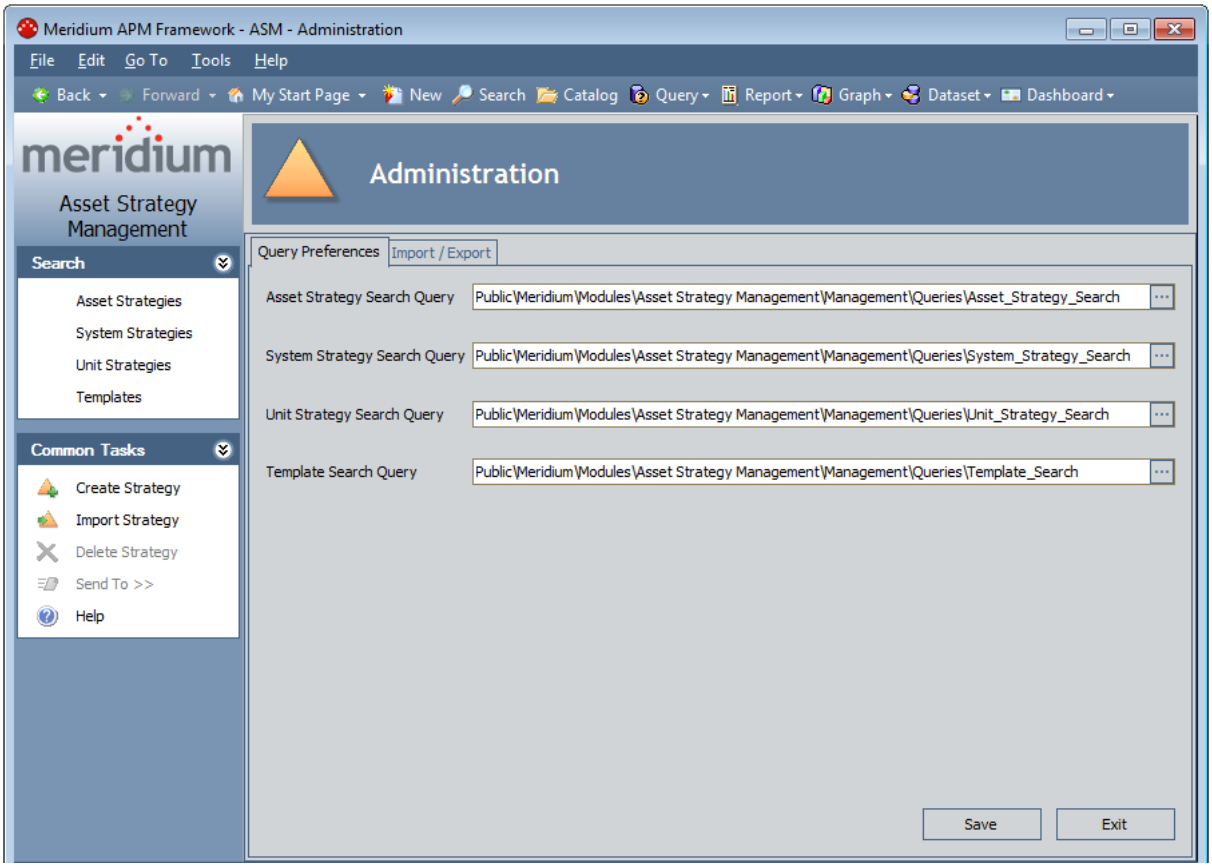
To access the ASM - Administration page:

1. On the Meridium APM Framework main menu, click **Go To**, point to **Asset Strategy**, and then click **Asset Strategy Management**.

   The **ASM - Start Page** appears.

2. Click the **PerformAdministrative Tasks** link.

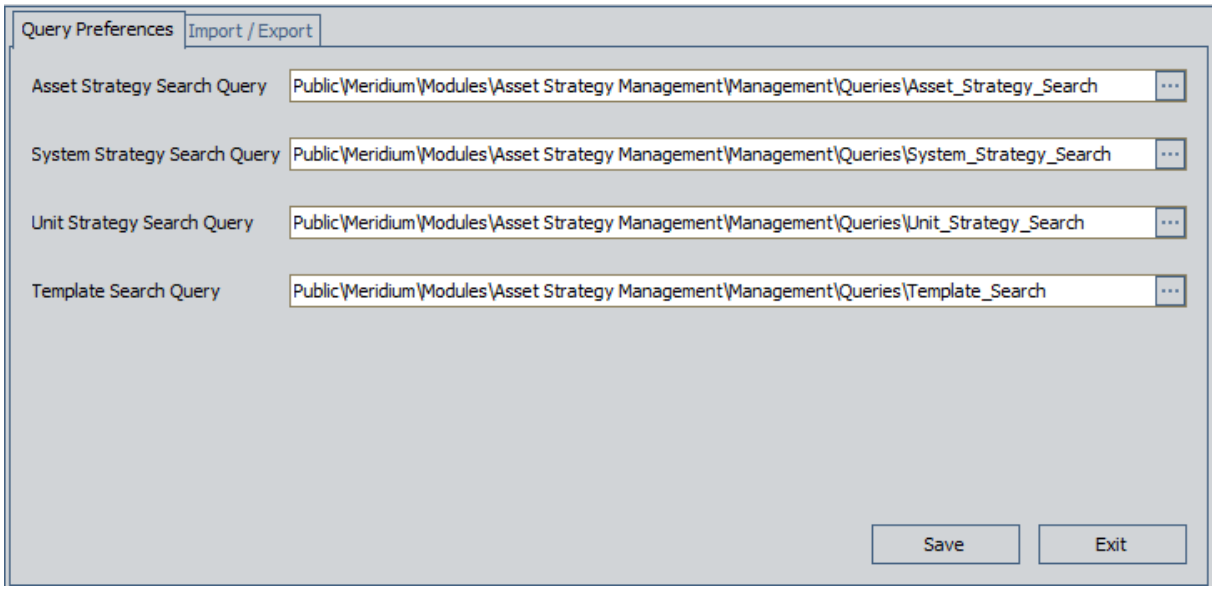
   The ASM - Administration page appears.



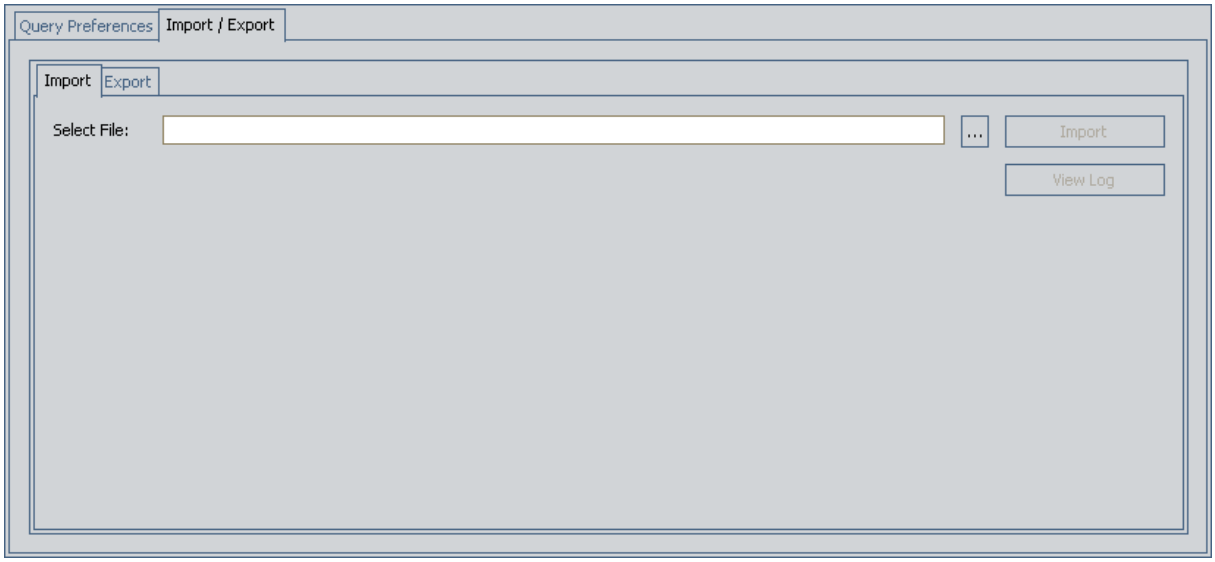
Aspects of the ASM - Administration Page

The **ASM - Administration** page is divided into the following tabs:

- **Query Preferences:** Provides options that you can use to specify the queries that you want to use to search for strategies.



- **Import / Export:** Provides options that you can use to import and export strategies across databases.



The **ASM - Administration** page contains the following task menus: Search Tasks and Common Tasks.

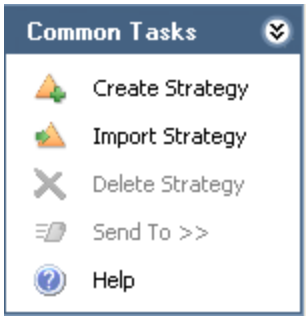
Note: In addition to these task menus, the **Template Tasks** menu also appears. All links on this menu, however, are disabled.

Search Menu

The **Search** menu on the **ASM - Administration** page contains the following links:

- **Asset Strategies:** Displays the ASM - Asset Strategy Search page, where you can search for an existing Asset Strategy.
- **System Strategies:** Displays the ASM - System Strategy Search page, where you can search for an existing System Strategy.
- **Unit Strategies:** Displays the ASM - Unit Strategy Search page, where you can search for an existing Unit Strategy.
- **Templates:** Displays the ASM - Asset Strategy Template Search page, where you can search for an existing Asset Strategy Template.

Common Tasks Menu



The **Common Tasks** menu on the **ASM - Administration** page contains the following links:

- **Create Strategy:** Displays the **ASM - Asset Strategy Definition** page, where you can create a new Asset Strategy record.
- **Import Strategy:** Displays the **Open** dialog box, where you can select an Excel file to use for creating a new Asset Strategy.
- **Delete Strategy:** This link is always disabled.
- **Send To:** Displays a submenu with options that let you
- **Help:** Displays the context-sensitive Help topic for the **ASM - Administration** page.

About Specifying Search Queries

When you click the **Search for Strategy** link on the **ASM - Start Page**, one of the following search pages appear, where you can search for existing strategies. The page that you viewed last will be displayed by default.

- **Asset Strategy Search**
- **System Strategy Search**
- **Unit Strategy Search**
- **Asset Strategy Template Search**

Each of these pages displays the results of a query that is stored in the Meridium APM Catalog. Note that throughout this documentation, we refer generally to these queries as *strategy search queries*.

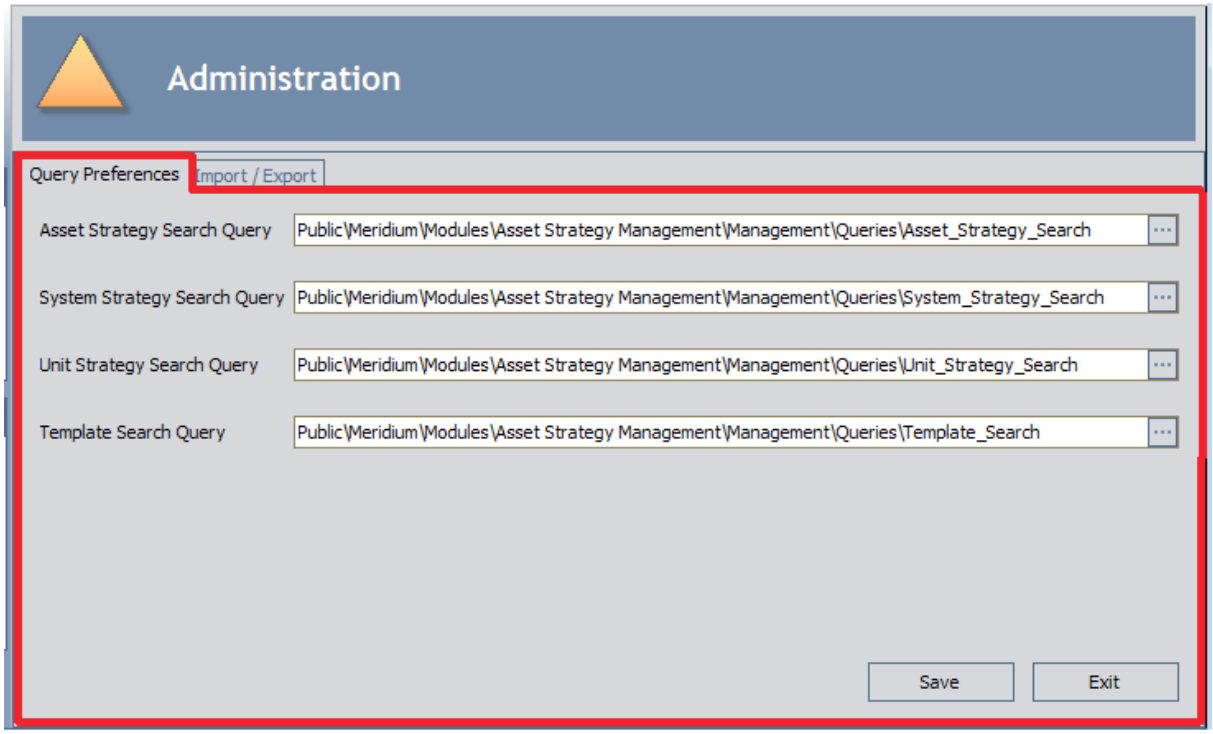
As an administrative user, if you want any of the search pages to return the results of a different query, you will need to create the query, save it to the Meridium APM Catalog, and then use the options on the **Query Preferences** tab on the **ASM - Administration** page to specify the query that you want to use.

By default, the search pages are configured to return the results of the following strategy search queries, and the Catalog path to these queries appears by default on the **Query Preferences** tab on the **ASM - Administration** page.

This Query	...Stored in This Catalog Folder	...Is Used on This Page
Asset_Strategy_Search	\Public\Meridium\Modules\Asset Strategy Management\Management\Queries\Asset_Strategy_Search	Asset Strategy Search
System_Strategy_Search	\\Public\Meridium\Modules\Asset Strategy Management\Management\Queries\System_Strategy_Search	System Strategy Search
Unit_Strategy_Search	\\Public\Meridium\Modules\Asset Strategy Management\Management\Queries\Unit_Strategy_Search	Unit Strategy Search
Template_Search	\\Public\Meridium\Modules\Asset Strategy Management\Management\Queries\Template_Search	Asset Strategy Template Search

Query Preferences Tab

The **Query Preferences** tab appears on the **ASM - Administration** page, as shown in the following image. A red outline has been added to the image to highlight the **Query Preferences**tab.



The **Query Preferences**tab contains the following text boxes:

- **Asset Strategy Search Query:** Identifies the Asset Strategy Search query that will be used to search for Asset Strategies on the Asset Strategy Search page.
- **System Strategy Search Query:** Identifies the System Strategy Search query that will be used to search for System Strategies on the System Strategy Search page.
- **Unit Strategy Search Query:** Identifies the Unit Strategy Search query that will be used to search for Unit Strategies on the Unit Strategy Search page.
- **Template Search Query:** Identifies the Template Search query that will be used to search for Asset Strategy Templates on theAsset Strategy Template Search page.

If desired, you can change the selections that Meridium APM provides by default. Each text box contains an ... button, which you can click to display the **Query Finder** dialog box, where you can browse to the query that you want to use for each option. You can also type the desired query path directly in the appropriate text box.

The following buttons are available at the bottom of the **Query Preferences** tab:

- **Save:** Saves any changes that you have made on the **Query Preferences** tab.
- **Exit:** If you have not made changes on the **Query Preferences** tab, the **ASM - Start**

page appears. If you have made changes on the **Query Preferences** tab, a prompt appears, asking if you want to save the changes. If you click the **Yes** button, the changes are saved, and then the **ASM - Start** page appears. If you click the **No** button, the changes are not saved, and then the**ASM - Start** page appears.

Specifying a Strategy Search Query

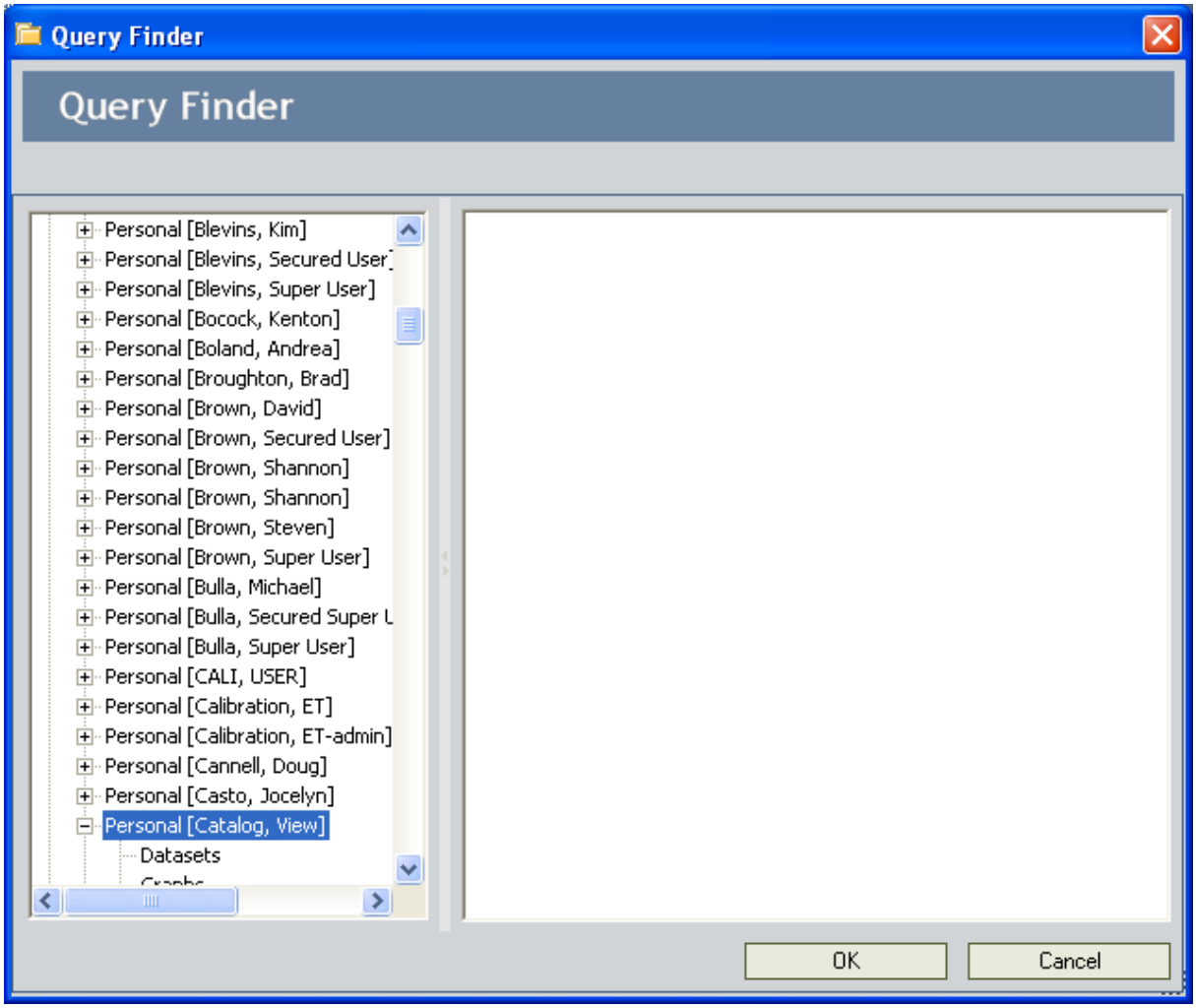
The following instructions assume that:

- The query you want to specify has been saved to the Meridium APM Catalog.
- You have View permissions to the Catalog folder that contains the desired query.

To specify a strategy search query:

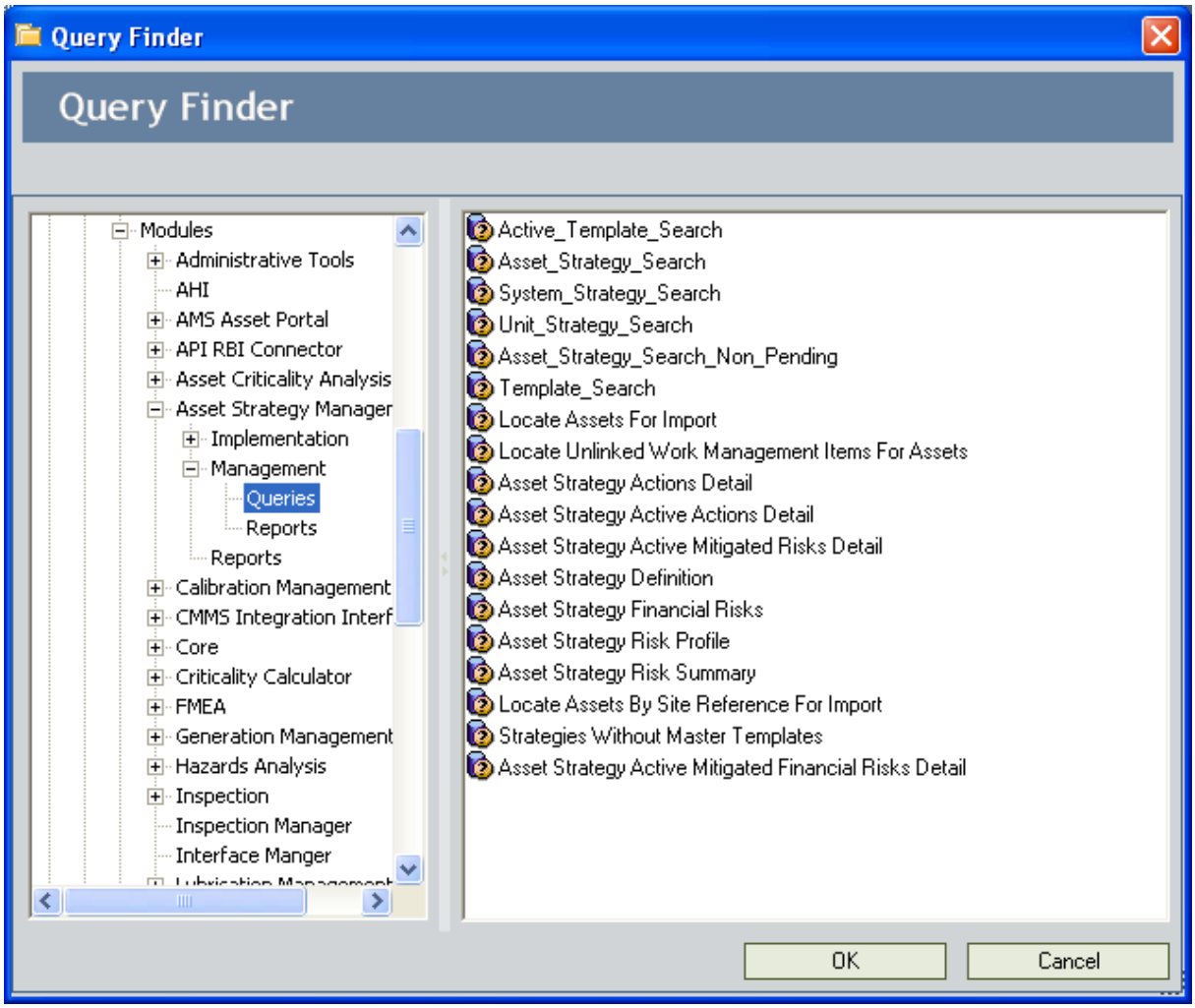
1. On the ASM - Administration page, on the Query Preferences tab, click the ... button in the text box associated with the strategy search query that you want to specify. For example, if you want to specify the Asset Strategy search query, click the ... button in the **Asset Strategy Search Query** text box.

   The **Query Finder** window appears. The hierarchy in the left pane represents the Meridium APM Catalog folder structure. By default, your personal folder is automatically selected in the hierarchy.



2. In the hierarchy on the left, navigate to and select the folder containing the query that you want to use as the strategy search query.

   The items that exist in the selected folder are displayed in the pane on the right.



3. In the pane on the right, select the query that you want to use as the strategy search query.

4. Click **OK**.

   The selected text box is populated with the path to the query that you selected. For example, the following image shows the **Asset Strategy Search Query** text box, populated with the path to the *Asset_Strategy_Search* query.

5. At the bottom of the page, click the **Save** button.

   The selected query will now be used to return results on the corresponding strategy search page.

About Importing and Exporting Strategies

The **ASM - Administration** page provides a feature that lets you import an XML file containing Asset Strategies that originated in one Meridium APM database to create new Asset Strategies in another Meridium APM database. This feature also lets you export Asset Strategies to XML files, which can then be imported into other Meridium APM databases. Throughout this documentation, this feature is referred to as the *import/export feature*.

This feature is useful for transferring Asset Strategies between databases. For example, if you develop Asset Strategies in a test database and then want to import them into a production database, this feature will allow you to do so. The advantage of using this feature over other import features is that this one is configured specifically to use XML files to create the records and links that make up Asset Strategies.

Keep in mind that when we use the term *Asset Strategy*, we are referring to the Asset Strategy record and all the records that are linked to that record, with the exception of the Equipment or Functional Location record. For more details on the records that make up the Asset Strategy, refer to the ASM data model image.

The import/export feature is available on the **Import/Export** tab on the **ASM - Administration** page. To access this page, you must be logged in as a Super User or a member of the ASM Administrator Security Group.

About the XML File

The import/export feature utilizes XML files to:

- Store Asset Strategy data that you export.
- Create new Asset Strategies, using the data that you import.

Before you can import Asset Strategy data, you will need to create an XML file by exporting the Asset Strategies using the import/export feature. When you export Asset Strategies, the following files are created in the file location that you specify:

- The **<Export File Name> files**folder, where **<Export File Name>** is the file name that you specify before exporting the Asset Strategies. Within this folder, multiple XML files are created, where each file represents a single Asset Strategy that you exported. These files are named according to the Entity Key of the Asset Strategy record.
- A single XML file that represents ALL the Asset Strategies that you exported. When you import these Asset Strategies later, *this is the file that you will select to import*.

Note: The XML files are automatically encrypted. While you can open this file, you will not be able to modify its content.

For example,if you export six Asset Strategies and name the file *Asset Strategies_Exported*, the Meridium APM system will create the following files, as shown in Figure 1:

- *Asset Strategies_Exported.xml* file, which is the one that you would select to import the Asset Strategies into a different database.
- *Asset Strategies_Exported files* folder.
- Six XML files (shown in Figure 2).

Figure 1

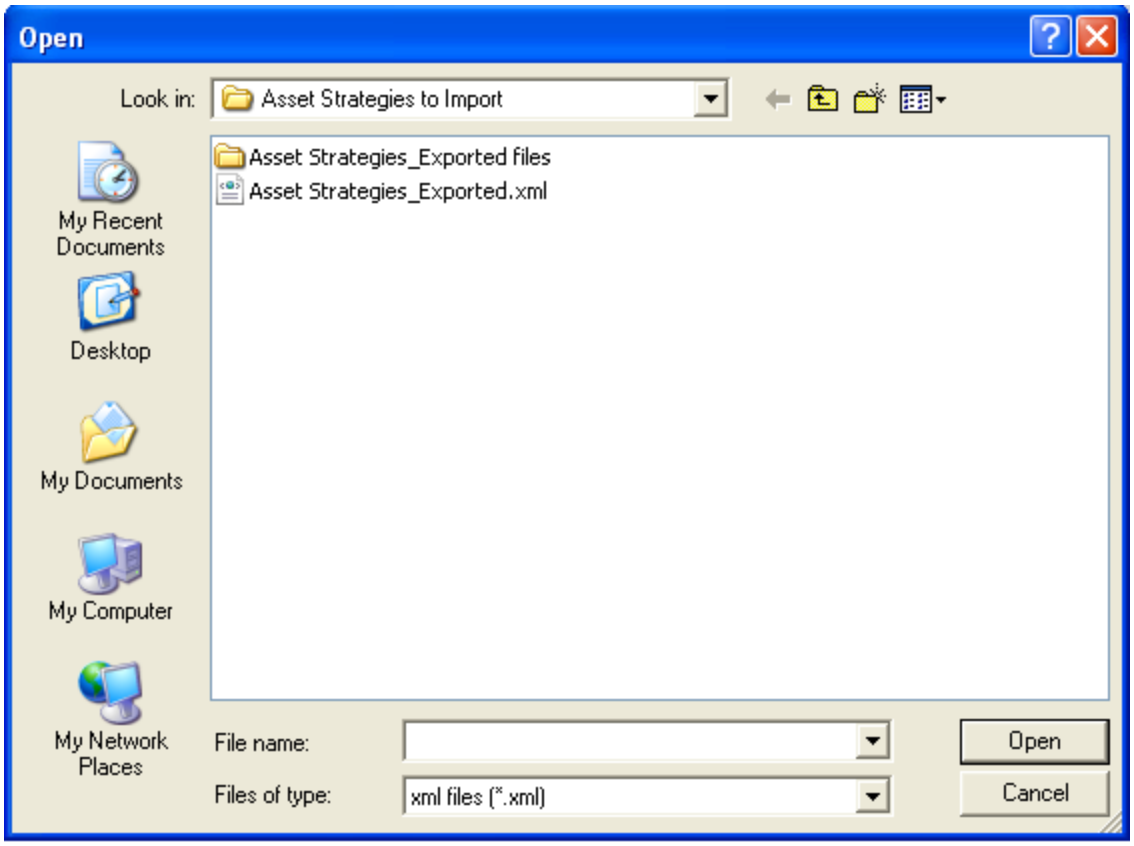
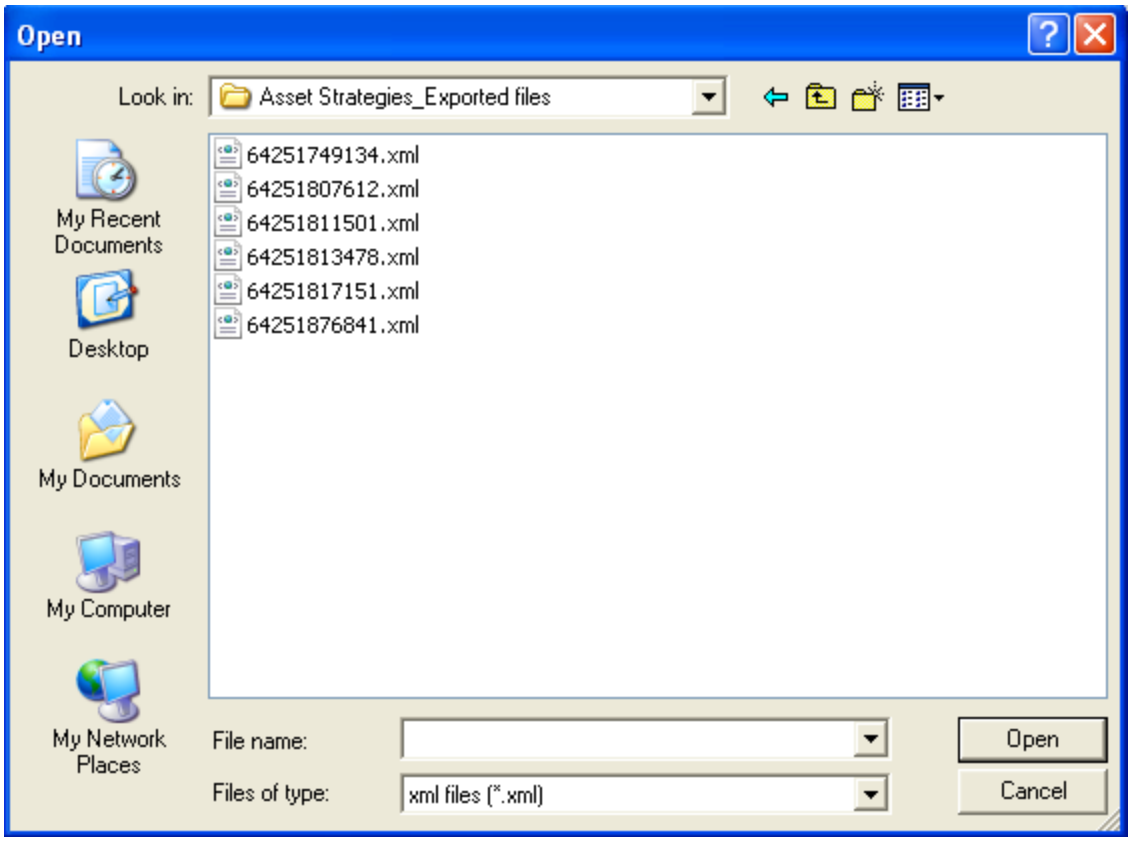
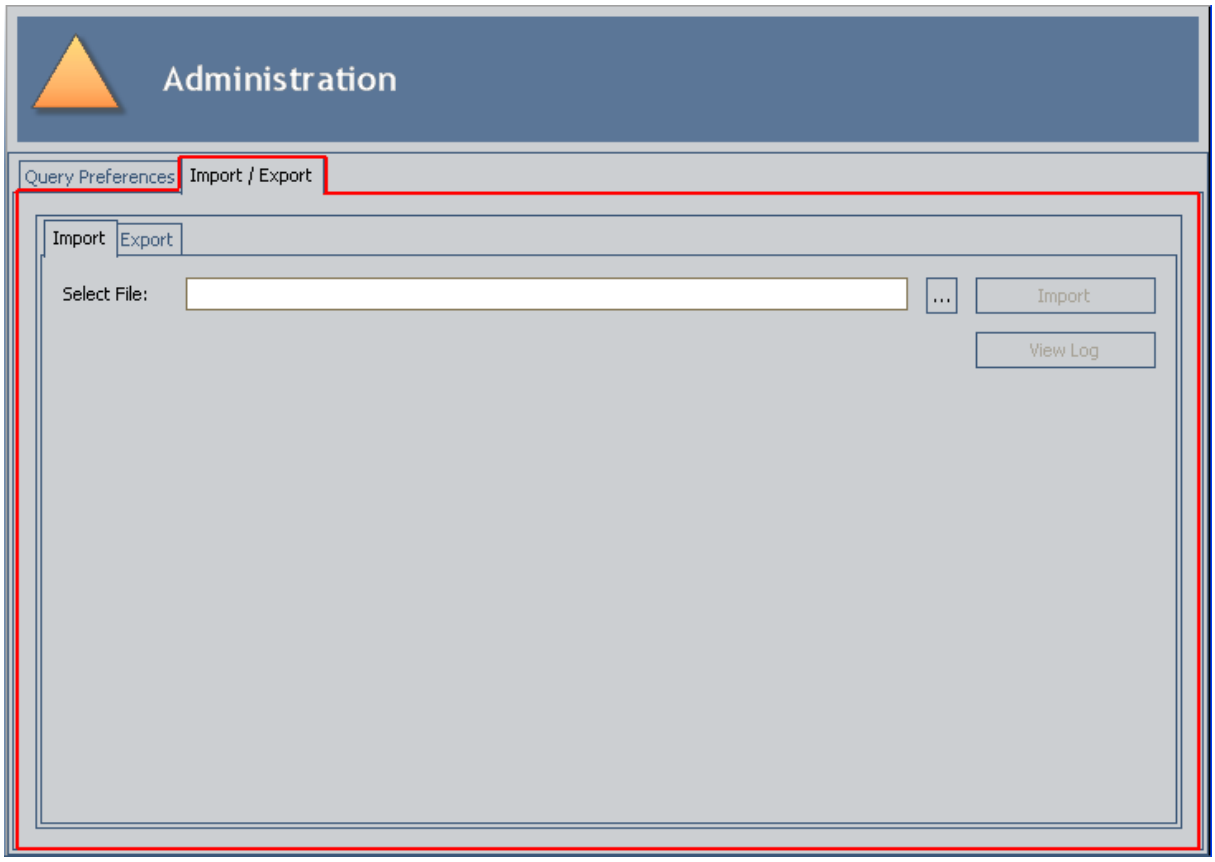

Open
Look in:
Asset Strategies to Import
Asset Strategies_Exported files
Asset Strategies_Exported.xml
My Recent Documents
Desktop
My Documents
My Computer
My Network Places
File name:
Files of type:
xml files (*.xml)
Open
Cancel

Figure 2


Open
Look in:
Asset Strategies_Exported files
64251749134.xml
64251807612.xml
64251811501.xml
64251813478.xml
64251817151.xml
64251876841.xml
My Recent Documents
Desktop
My Documents
My Computer
My Network Places
File name:
Files of type:
xml files (*.xml)
Open
Cancel

The Import/Export Tab

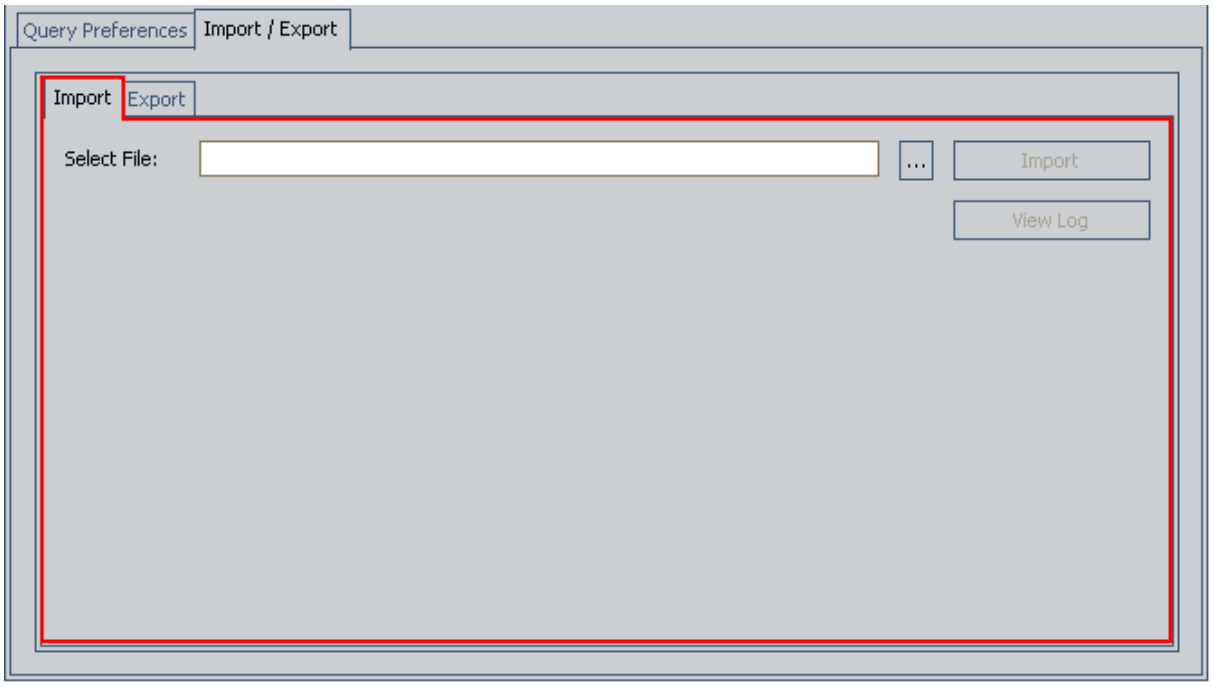
The **Import / Export** tab appears on the **ASM - Administration** page, as shown in the following image. A red outline has been added to the image to highlight the **Import / Export** tab.



The **Import / Export** tab on the **ASM - Administration** page is divided into two tabs:

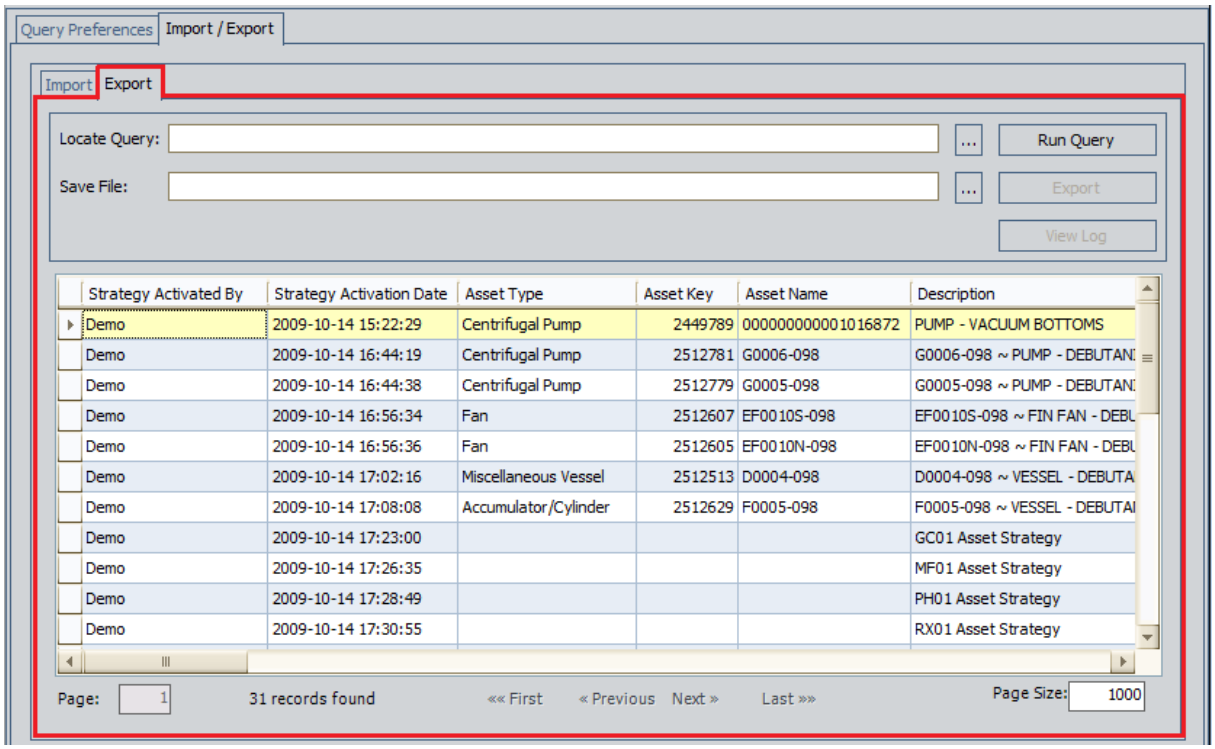
- **Import:** Contains the **Select File** box, where you can specify the folder path to the XML file that you want to import. You can specify the folder path by clicking the ... button and navigating to the file. To the right of the **Select File** box, the following buttons appear:
  - **Import:** Starts the import process. This button is disabled until a value appears in the **Import** text box.
  - **View Log:** Displays the **Asset Strategy Import Log** window, which displays the results of the last import process. The **View Log** button is enabled only after an import operation has been executed.

  The following image shows the **Import** tab on the **Import / Export** tab. A red outline has been added to the image to highlight the **Import** tab.



- **Export:** Displays the results of a query that exists in the code, which returns the list of Asset Strategies in the current database. You can use these results to select the Asset Strategies that you want to export. If you want to see different results, you can specify a different export query. Above the results, the following items appear:
  - **Locate Query box:** Lets you specify the Catalog path to the export query whose results you want to view in the results grid at the bottom of the page. You can specify the Catalog path by clicking the ... button and navigating to the file.
  - **Run Query button:** Runs the export query that is specified in the **Locate Query** box or the default query (if a query has not been specified in the **Locate Query** text box), and then displays the results at the bottom of the page.
  - **Save File box:** Lets you specify the XML file to which you want to save the exported strategies. You can specify the XML file by clicking the ... button and navigating to the file.
  - **Export button:** Starts the export process. The **Export** button is disabled until a value appears in the **Save File** box.
  - **View Log button:** Displays the Asset Strategy Export Log window, which displays the results of the last export process. The View Log button is enabled only after an export operation has been executed.

  The following image shows the **Export** tab on the **Import / Export** tab. A red outline has been added to the image to highlight the **Export** tab.

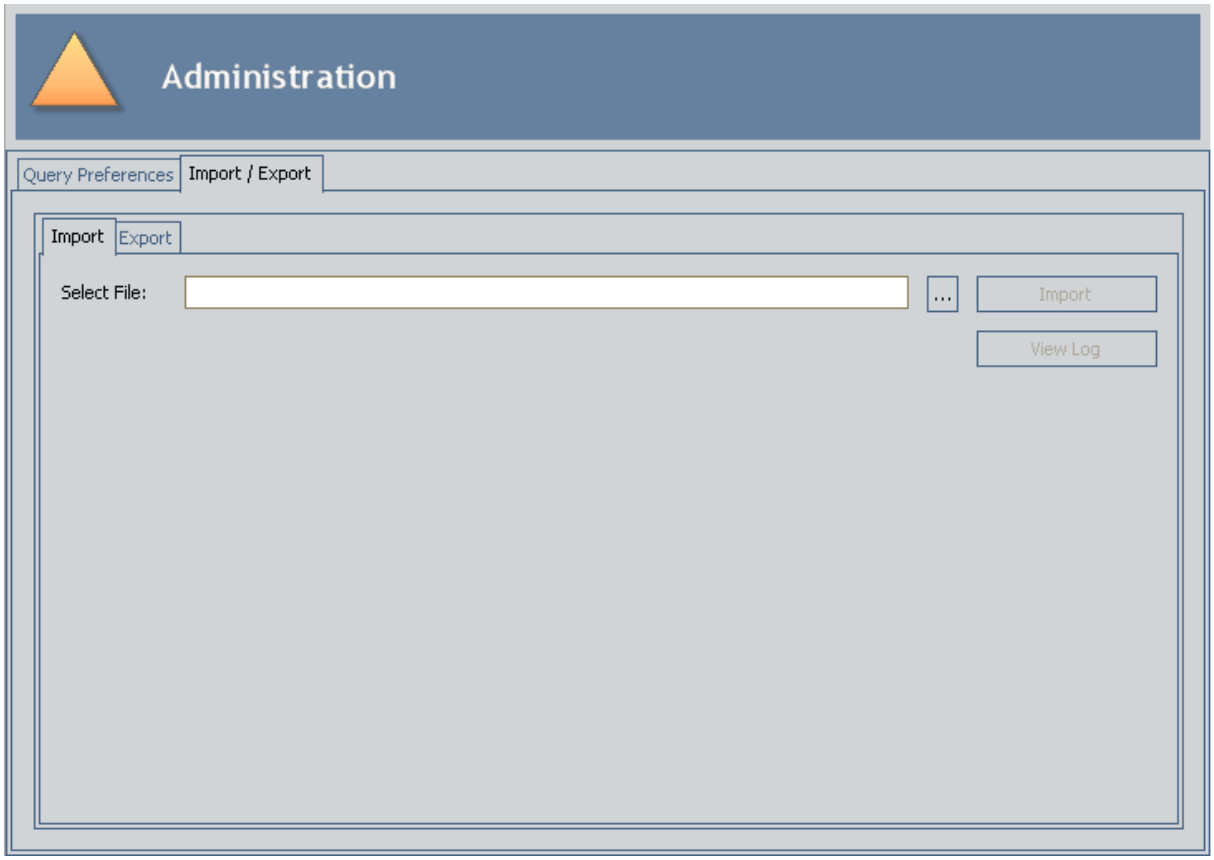

Query Preferences
Import / Export
Import
Export
Locate Query:
Save File:
Run Query
Export
View Log
Strategy Activated By
Strategy Activation Date
Asset Type
Asset Key
Asset Name
Description
Demo 2009-10-14 15:22:29 Centrifugal Pump 2449789 000000000001016872 PUMP - VACUUM BOTTOMS
Demo 2009-10-14 16:44:19 Centrifugal Pump 2512781 G0006-098 G0006-098 ~ PUMP - DEBUTAN
Demo 2009-10-14 16:44:38 Centrifugal Pump 2512779 G0005-098 G0005-098 ~ PUMP - DEBUTAN
Demo 2009-10-14 16:56:34 Fan 2512607 EF0010S-098 EF0010S-098 ~ FIN FAN - DEBU
Demo 2009-10-14 16:56:36 Fan 2512605 EF0010N-098 EF0010N-098 ~ FIN FAN - DEBU
Demo 2009-10-14 17:02:16 Miscellaneous Vessel 2512513 D0004-098 D0004-098 ~ VESSEL - DEBUTA
Demo 2009-10-14 17:08:08 Accumulator/Cylinder 2512629 F0005-098 F0005-098 ~ VESSEL - DEBUTA
Demo 2009-10-14 17:23:00 GC01 Asset Strategy
Demo 2009-10-14 17:26:35 MF01 Asset Strategy
Demo 2009-10-14 17:28:49 PH01 Asset Strategy
Demo 2009-10-14 17:30:55 RX01 Asset Strategy
Page: 1
31 records found
«« First
« Previous
Next »
Last »»
Page Size: 1000

Performing the Export Procedure

To export Asset Strategies:

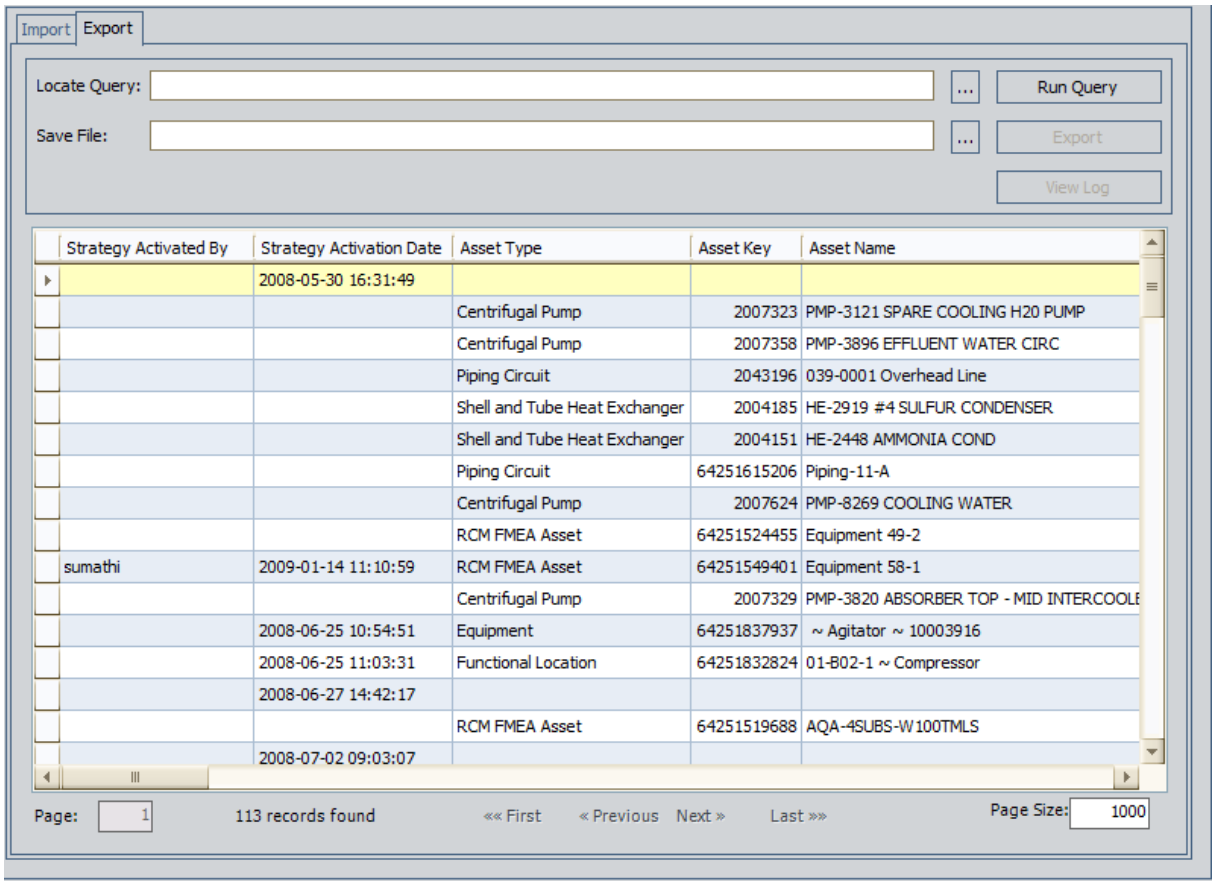
1. On the **ASM - Administration** page, click the **Import/Export** tab.

   The **Import/Export** tab appears.



2. On the **Import/Export** tab, click the **Export** tab.

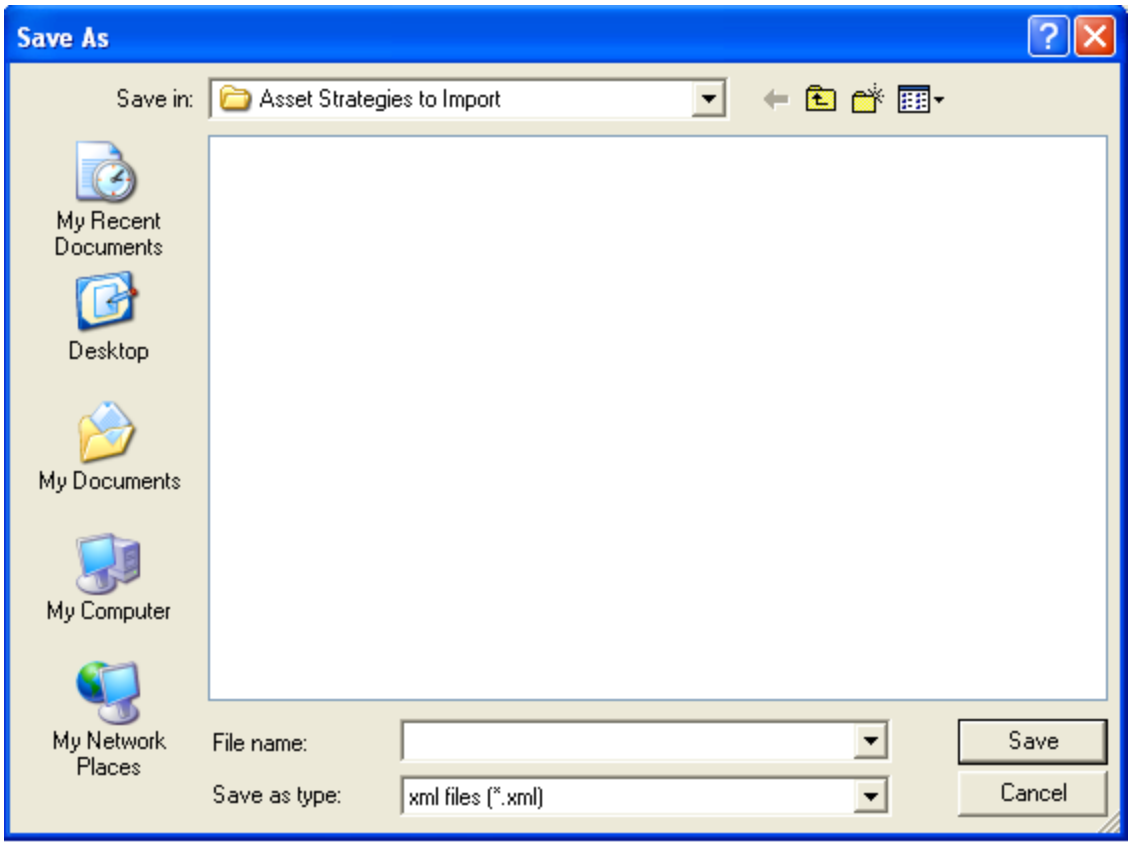
   The **Export** tab appears.



The **Export** tab displays the results the query that exists in the code. If you want to view different results, you can specify a different query. These instructions assume that you are viewing the desired results.

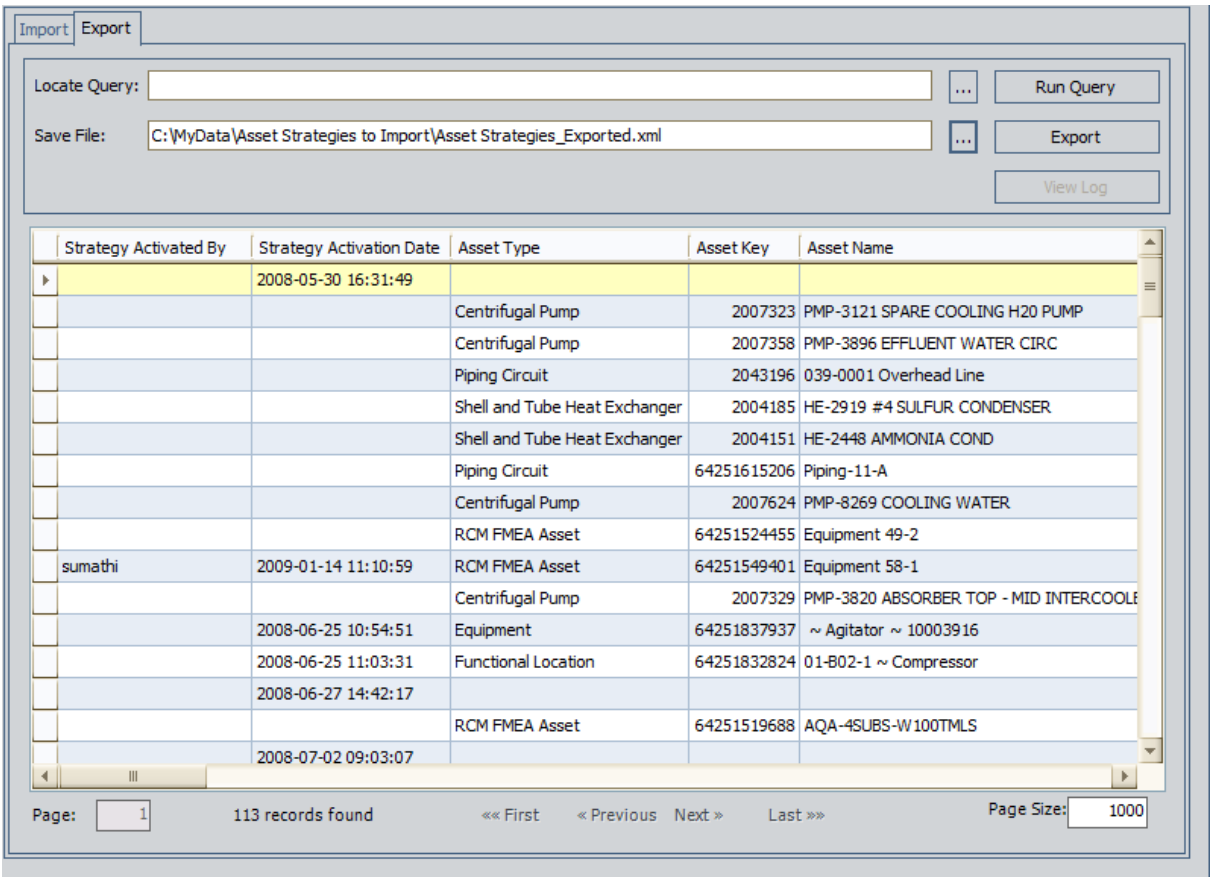
3. To the right of the **Save File** box, click the ... button.

   The **Save As** window appears.



4. Navigate to the location where you want to save the exported files, and in the **File Name** text box, type a name for the XML file.
5. Click the **Save** button.

   The **Save As** window closes, and the file path that you specified appears in the **Save File** box.

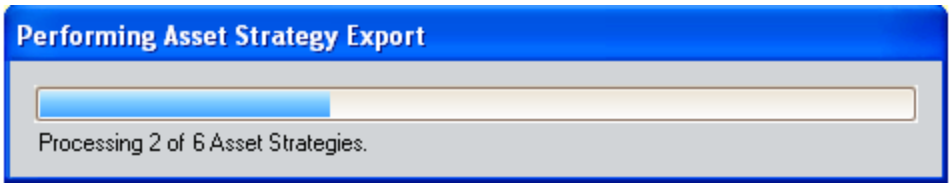


6. In the query results, select the rows containing the Asset Strategies that you want to export.

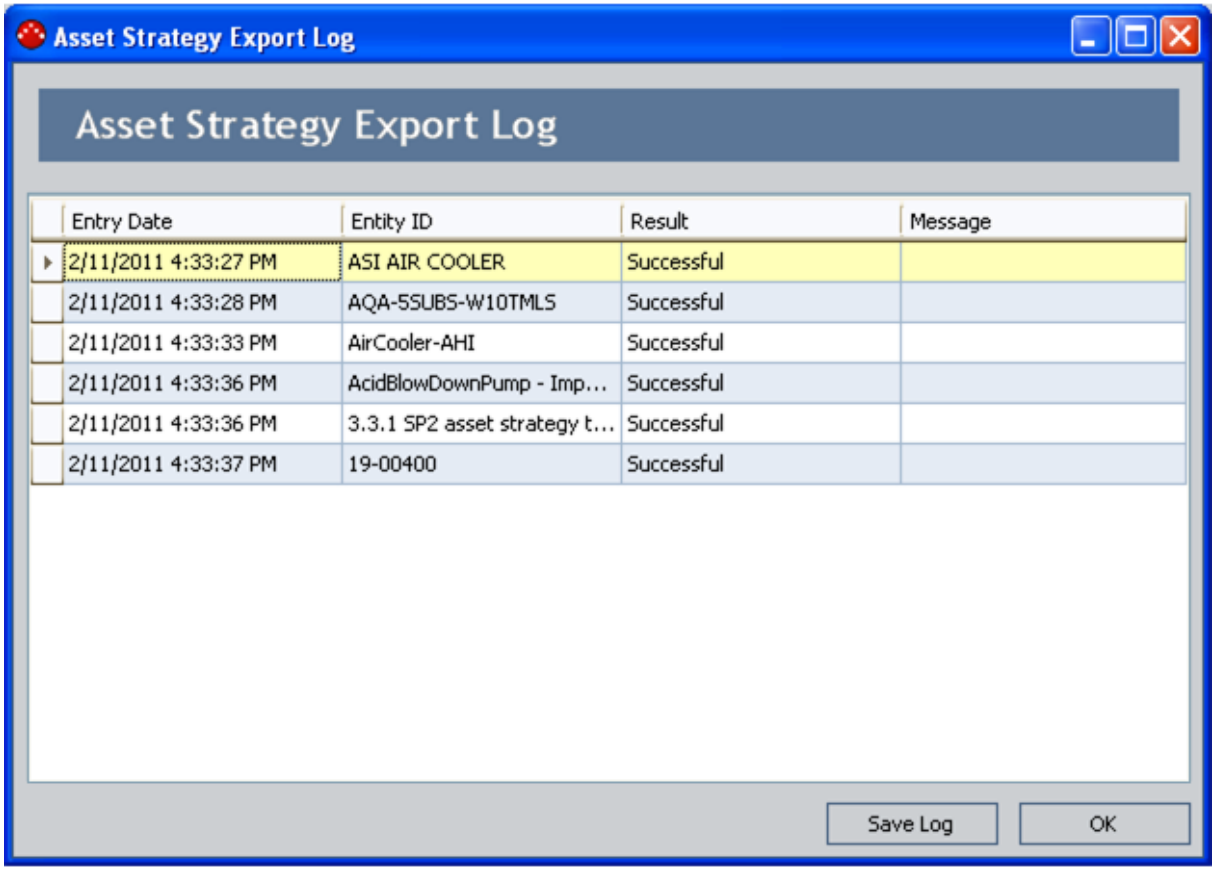
   Hint: You can select multiple rows by pressing and holding the Ctrl key.

7. Click the **Export** button.

   The export process begins, and the **Performing Asset Strategy Export** dialog box appears, displaying the progress of the export process.



   When the export is finished, the Asset Strategy Export Log window appears, displaying the results of the export procedure.



At this point, you can review the results of the export process. If desired, you can save the results by clicking the **Save Log** button and navigating to the location where you want to save the file.

8. When you are finished reviewing the results of the export procedure, click **OK**.

   The **Composite Entity Export Log** window closes, revealing the **Export** tab.

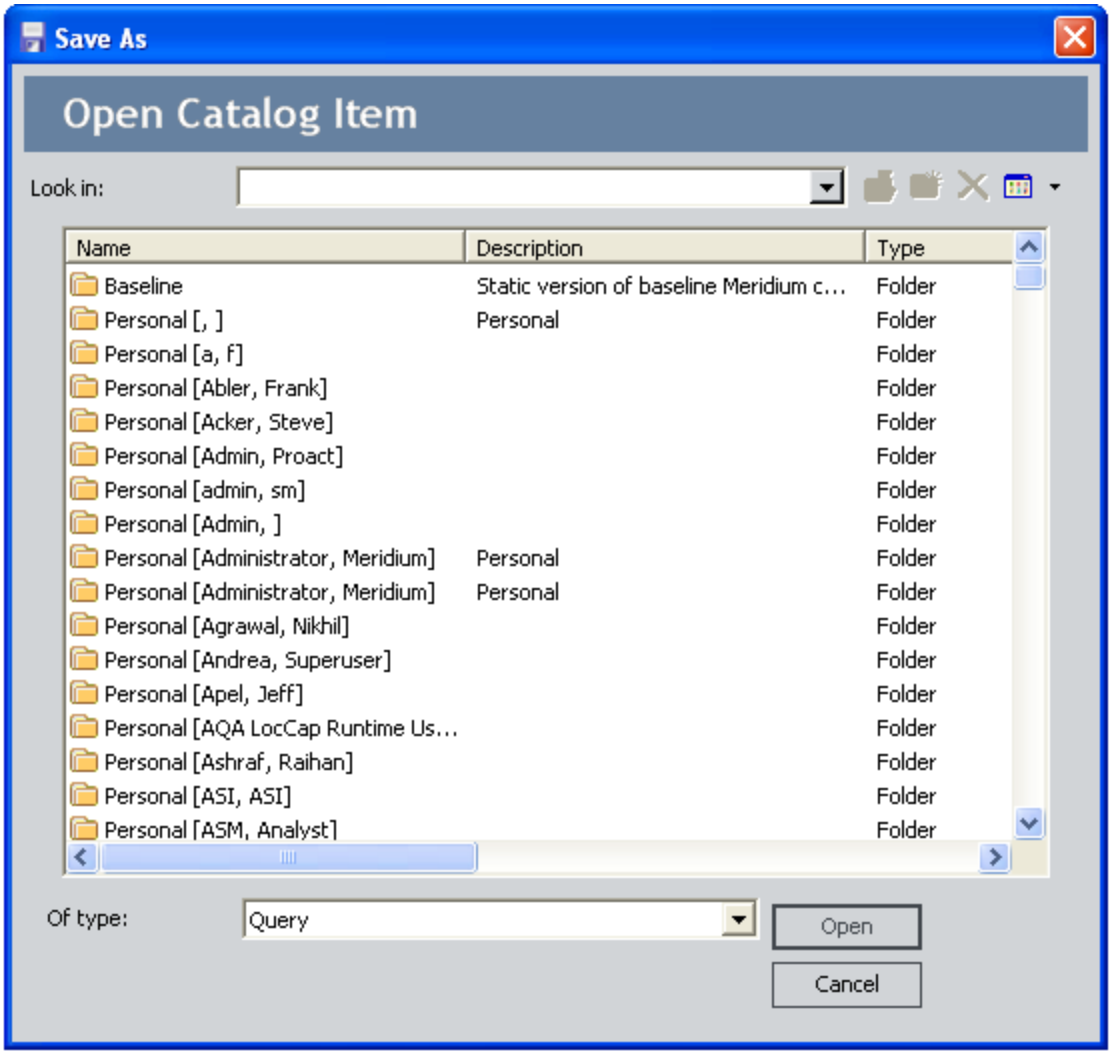
Specifying a Different Export Query

If desired, you can change the query whose results are displayed on the **Export** tab. The following instructions assume that you have saved the desired query to the Catalog and that the query is configured to return records in the Asset Strategy family.

To specify a different export query:

1. On the **Export** tab, in the **Locate Query** box, click the ... button.

   The **Open Catalog Item** window appears.



2. Navigate to the desired query, and then click the **Open** button.

   The Meridium APM system checks the query to see if it is configured to return records in the Asset Strategy family:

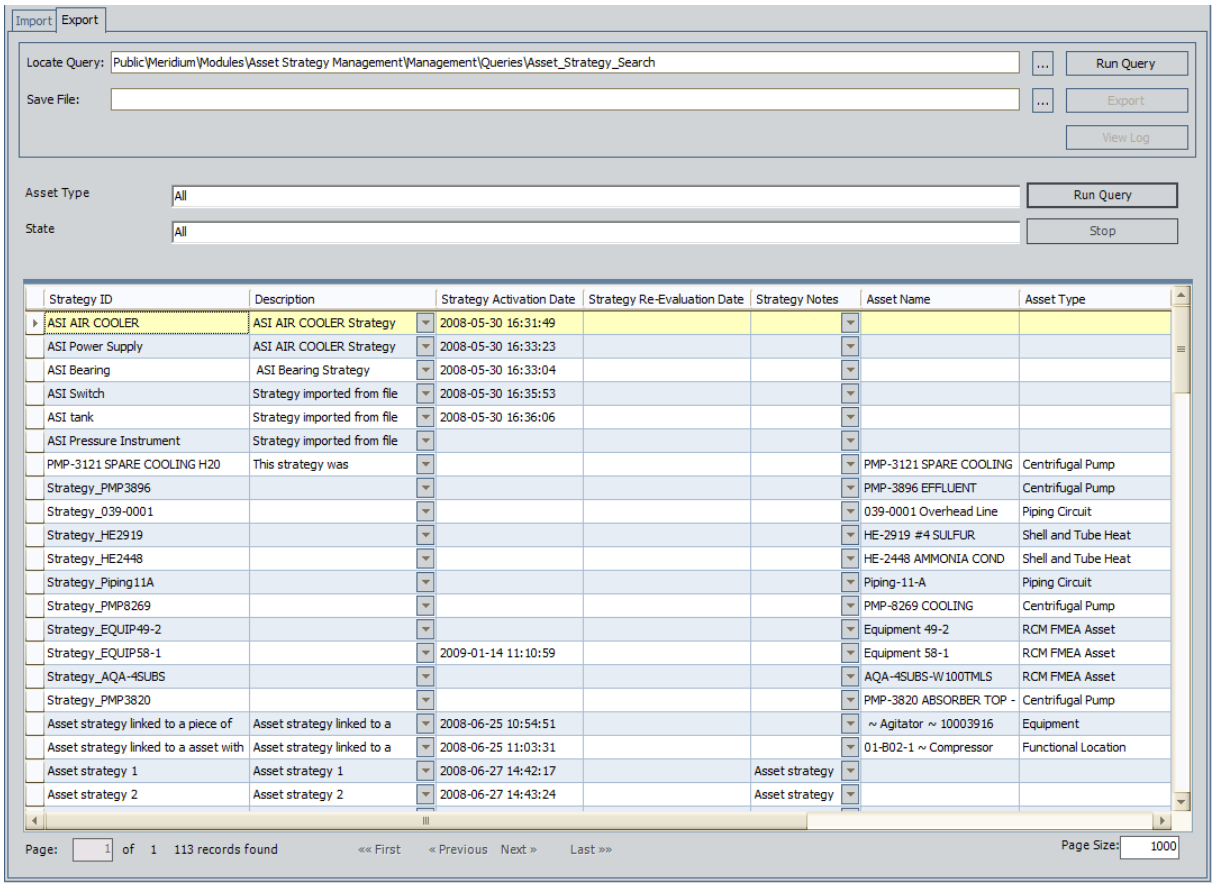
- If the query is not configured to return records in the Asset Strategy family, a

message appears, indicating that the query is invalid. You will need to select a query that is configured accordingly or use the default query.

- If the query is configured to return records in the Asset Strategy family, the Catalog path to the specified query appears in the **Locate Query** box. For example, the following image shows the **Locate Query** box, populated with the Catalog path to the *Asset_Strategy_Search* query.

3. Click the **Run Query** button.

   The results of the specified query appear in the grid. For example, the following image shows the results of the *Asset_Strategy_Search* query. Note that in this example, the query contains a prompt.



About Importing Asset Strategies From Different Databases

Unlike the **Import Strategy** option that is available from the **ASM - Start** page and lets you create Asset Strategies by importing data from a Microsoft Excel spreadsheet or from SAP, you can use the import/export feature on the **ASM - Administration** page to import Asset Strategies that originated in a different Meridium APM database and are stored in an XML file.

When you import Asset Strategies from an XML file, the Meridium APM system uses the values that make up the Asset Strategy in the *source* database to create NEW records that make up the Asset Strategy in the *target* database. The new Asset Strategy will be an exact copy of the Asset Strategy as it exists in the source database.

Additionally, the import procedure does not *update* existing Asset Strategies and related records in the target database. It creates a copy of the imported Asset Strategy in the target database. In other words, if you import an Asset Strategy that already exists in the target database, your database will contain two of the same Asset Strategies. For this reason, we recommend that you not import an Asset Strategy that already exists in the target database.

This feature assumes that the Site Reference and Risk Matrix records that are associated with the Asset Strategies from the source database also exist in the target database with the same Name and configuration. If these records do not exist in the target database, that Asset Strategy will not be imported, and the import log will contain these details.

Note the following information about imported Asset Strategies:

- While the state of the source Asset Strategy is retained, the value in the Date State Entered field will be set to the date on which the Asset Strategy is *imported*. In other words, it will match the date on which the state was changed in the *target* database, not the date on which the state was changed in the *source* database.
- The *link* between the Asset Strategy record and the Equipment or Functional Location record is not created in the target database. After you import an Asset Strategy, you will need to link the Asset Strategy record to the desired Equipment or Functional Location record in the target database. You can do so manually using ASM, or you can use an update query based on the Asset Name specified in the Asset Strategy record.

What Happens If the Imported Strategy Already Exists in the Target Database?

The import procedure only creates new Asset Strategies. It does not update existing ones. Therefore, if you import an Asset Strategy that already exists in the target database, the existing Asset Strategy will not be overwritten or updated with information from the Asset Strategy that you imported. Instead, a NEW Asset Strategy will be created. In other words, you would see more than one Asset Strategy with the same name. To prevent duplicate Asset Strategies from appearing in the database, we recommend that you import only the Asset Strategies that do not already exist in the target database.

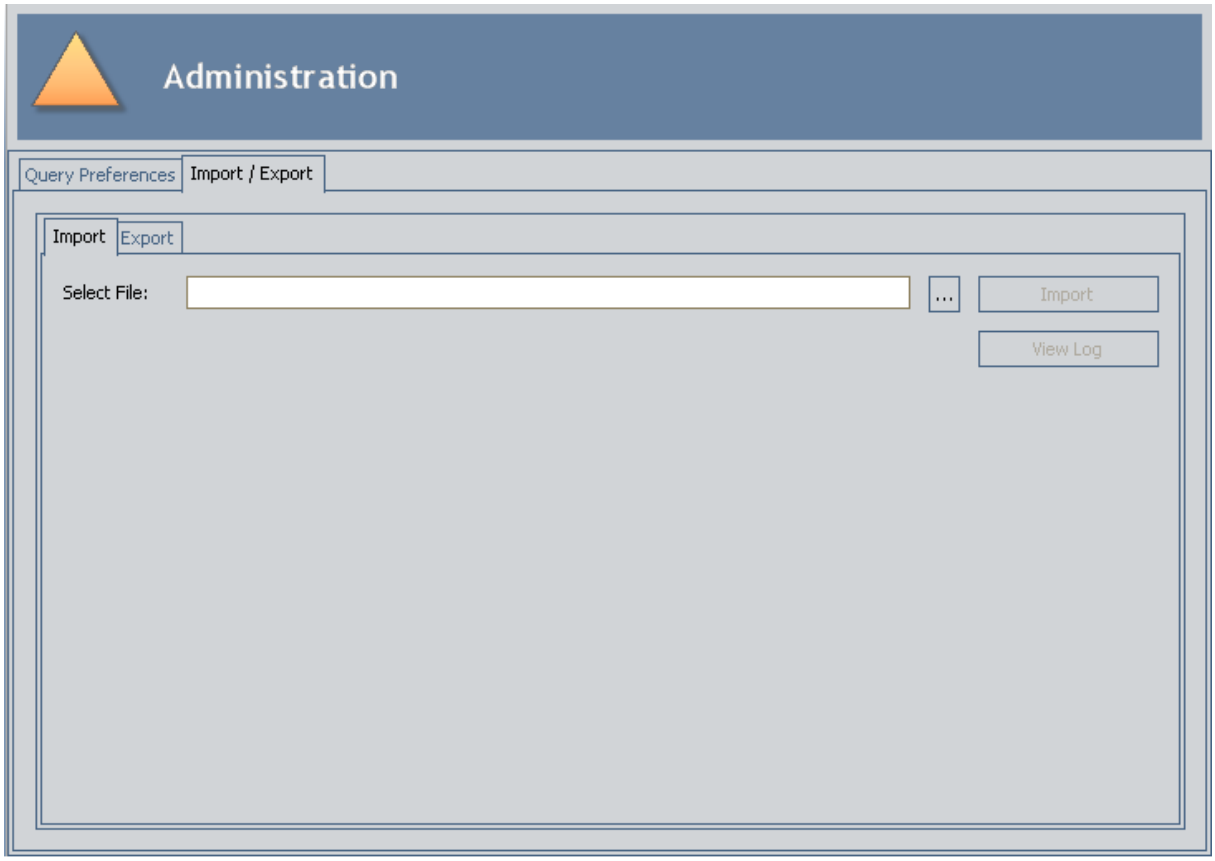
If duplicate Asset Strategies do appear in your database after you import them, you can determine which Asset Strategy existed previously and which one was imported by comparing the values in the **Date State Entered** column on the **ASM - Asset Strategy Search** page. For the imported Asset Strategy, t value in this column will match the date on which the Asset Strategy was *imported*.

Performing the Import Procedure

To import an Asset Strategy that was created in a different database:

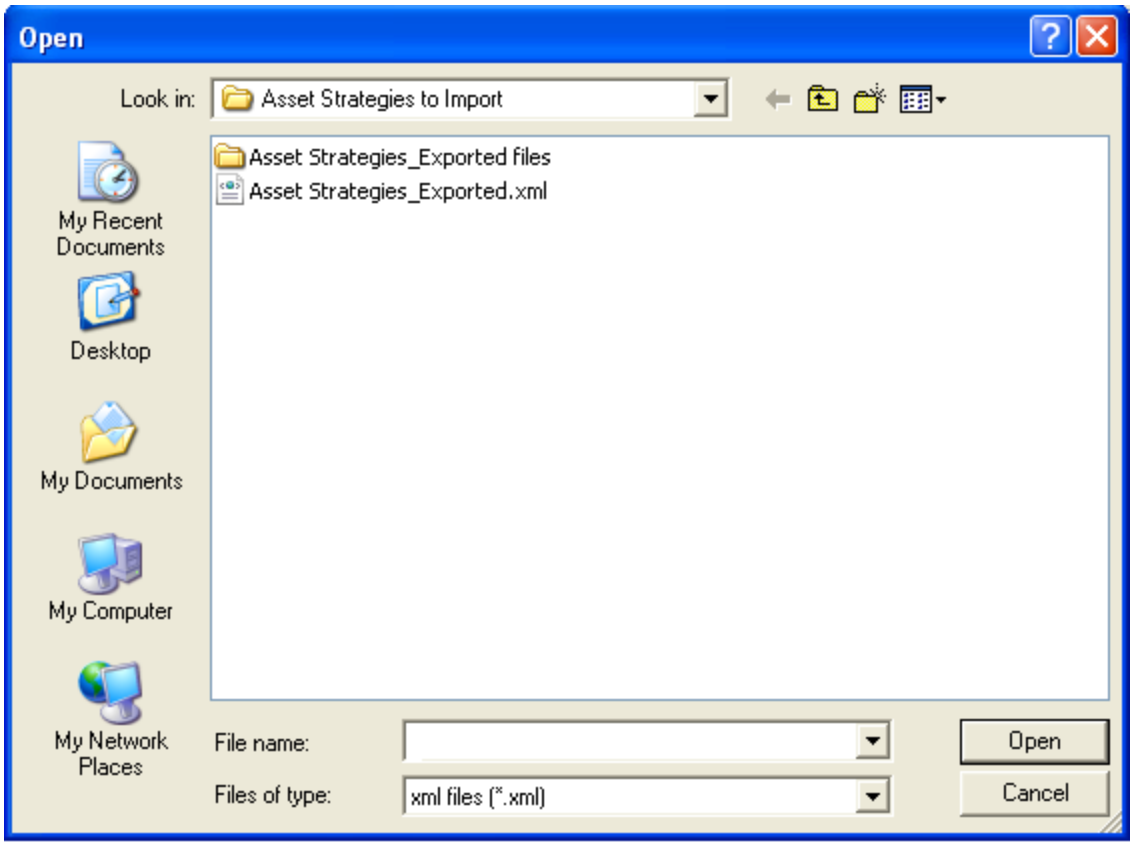
1. On the **ASM - Administration** page, click the **Import/Export** tab.

   The **Import/Export** tab appears, and the **Import** tab is displayed by default.



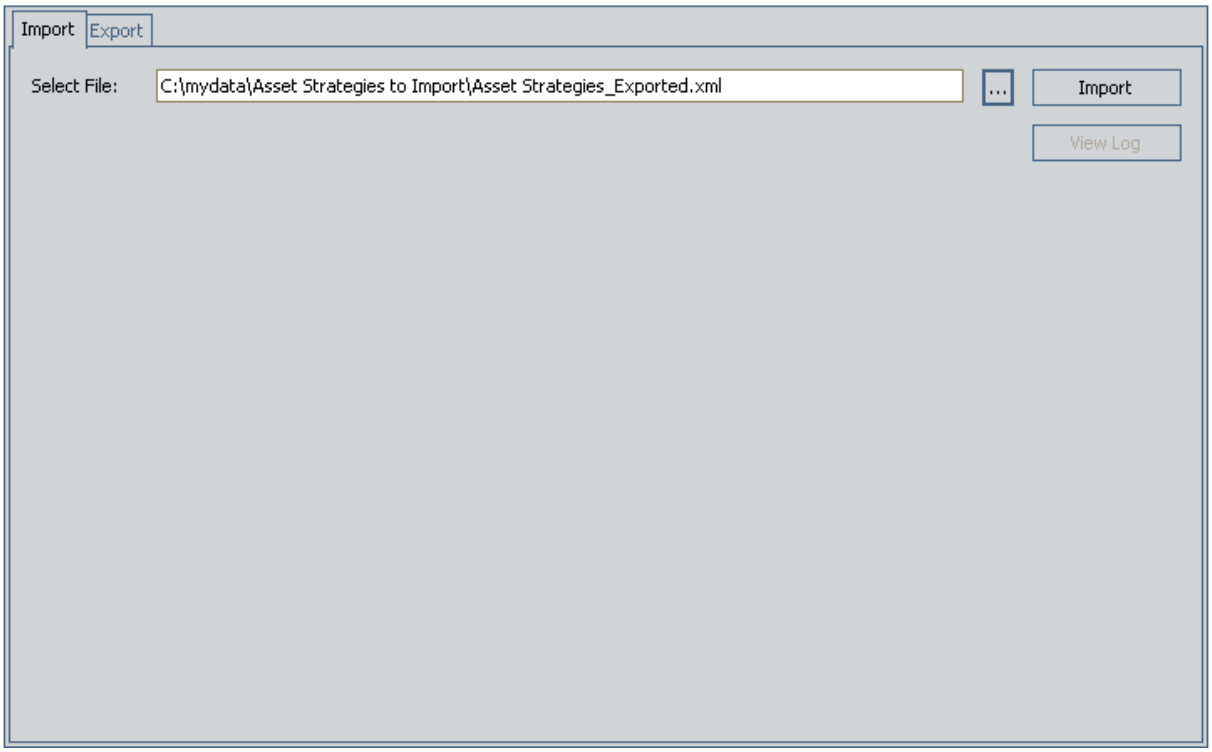
2. On the **Import** tab, to the right of the **Select File** box, click the ... button.

   The **Open** window appears.



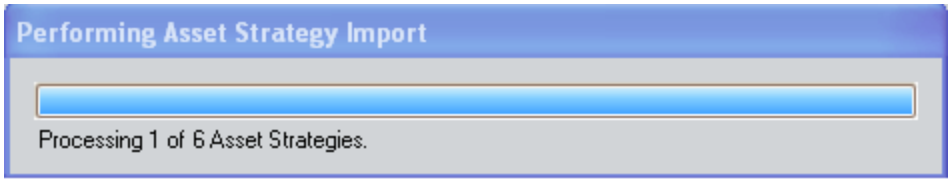
3. Navigate to the XML file containing the Asset Strategies that you want to import, and then click the **Open** button.

   The **Open** window closes, and the file path to the file that you selected appears in the **Select File** box.

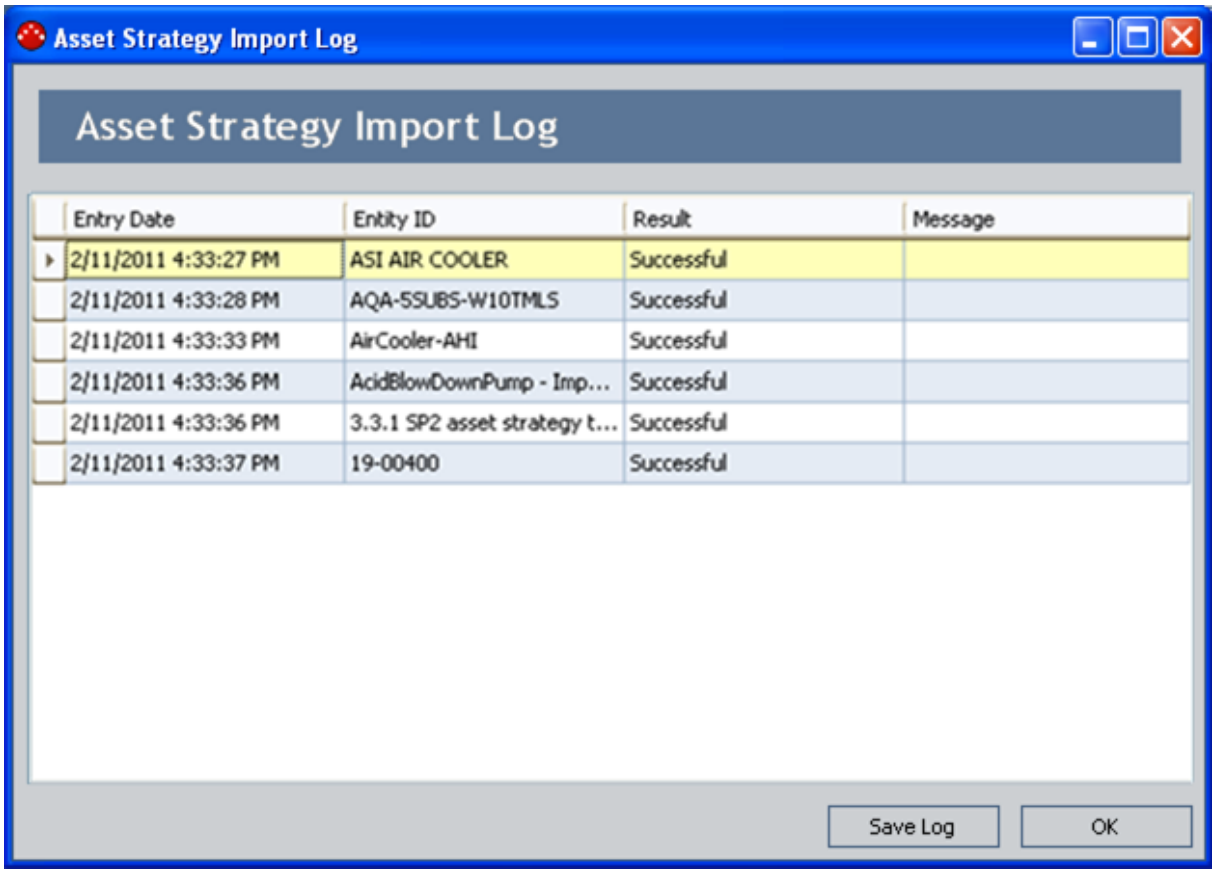


4. Click the **Import** button.

   The **Performing Asset Strategy Import** dialog box appears, displaying the progress of the import process.



   When the import process is finished, the Asset Strategy Import Log window appears, displaying the results of the import procedure.



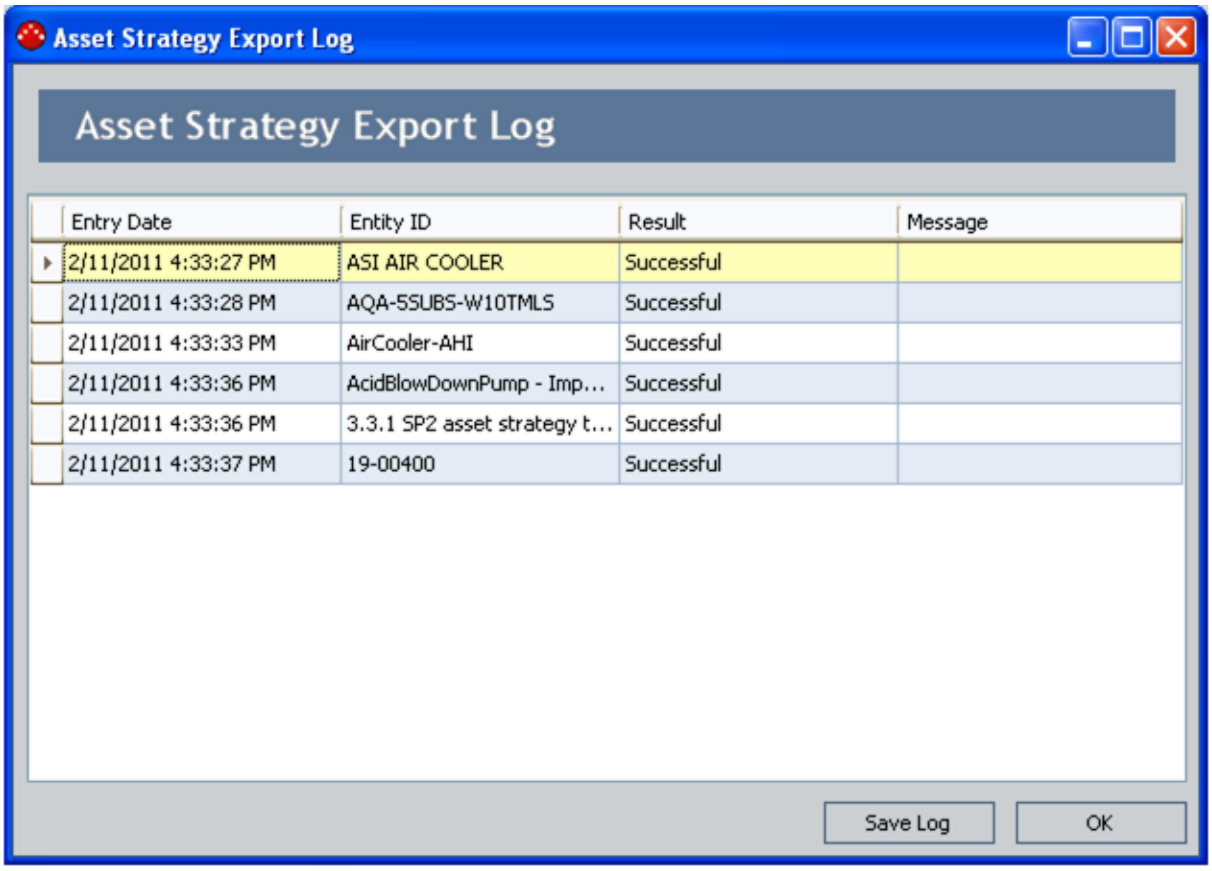
At this point, you can review the results of the import procedure. If desired, you can save the results by clicking the **Save Log** button and navigating to the location where you want to save the file.

5. When you are finished reviewing the results of the import procedure, click **OK**.

   The **Composite Entity Export Log** window closes, revealing the **Import** tab.

About the Asset Strategy <Import/Export> Log Window

The **Asset Strategy <Import/Export> Log** window displays the results of the most recent import or export procedure that was executed, where **<Import/Export>** corresponds to either the import or export procedure, respectively. The following image shows the **Asset Strategy Export Log** window.



After you complete an import or export procedure, this window appears automatically. Additionally, you can access this window using the **View Log** button on either the **Import** or **Export** tabs that appear on the **Import/Export** tab.

You can use this window to view the results of the import or export procedure that was *last executed*. This window does not store results for other past import or export procedures. You can, however, save the results of an import or export procedure via the **Save Log** button on the **Asset Strategy <Import/Export> Log** window.

The **Asset Strategy <Import/Export>** window contains a grid, where each row displays the following information for a single Asset Strategy that was imported or exported:

- **Entry Date:** The date and time on which the import or export process was executed.

- **Entity ID:** The Entity ID of the Asset Strategy that you imported or exported.
- **Result:** A textual indication of whether the import or export was successful or if errors occurred during the process. If the process was successful, this cell contains the value *Successful*. If errors occurred during the process, this cell contains the value *Error*, and a corresponding message appears in the **Message** cell in that row.
- **Message:** An error message that indicates why the import o export process failed.

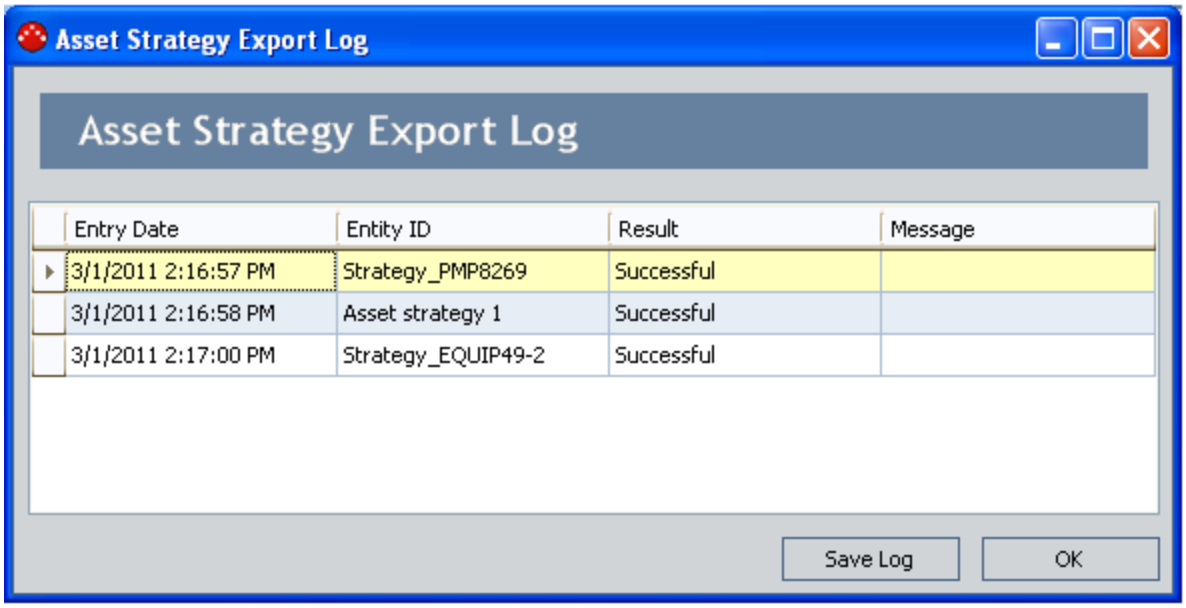
Below the grid, the following buttons appear:

- **Save Log:** Displays the Save As window, where you can specify the location where you want to save the log results. When you save log results, it is saved as a TXT file.
- **OK:** Closes the **Asset Strategy <Import/Export> Log** window.

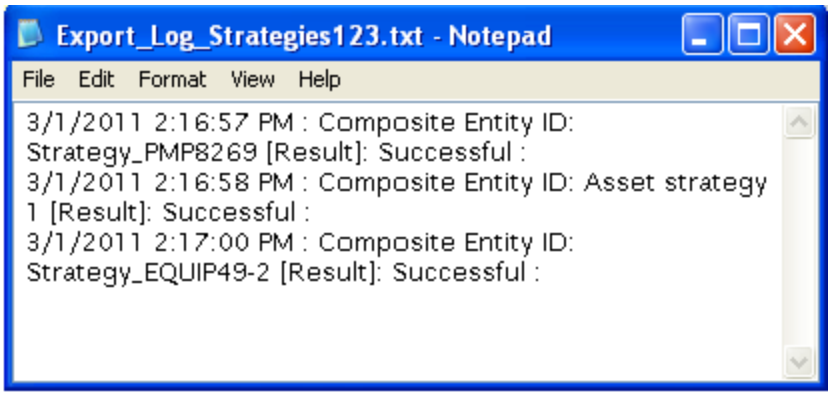
Saving the Import/Export Log Results

The following instructions provide details on saving the results of an import or export procedure. When you save the log results, you are saving the information that is displayed in the grid on the **Asset Strategy <Import/Export> Log** window to a TXT file.

For example, the following image shows the **Asset Strategy Export Log** window, after an export procedure was completed successfully.



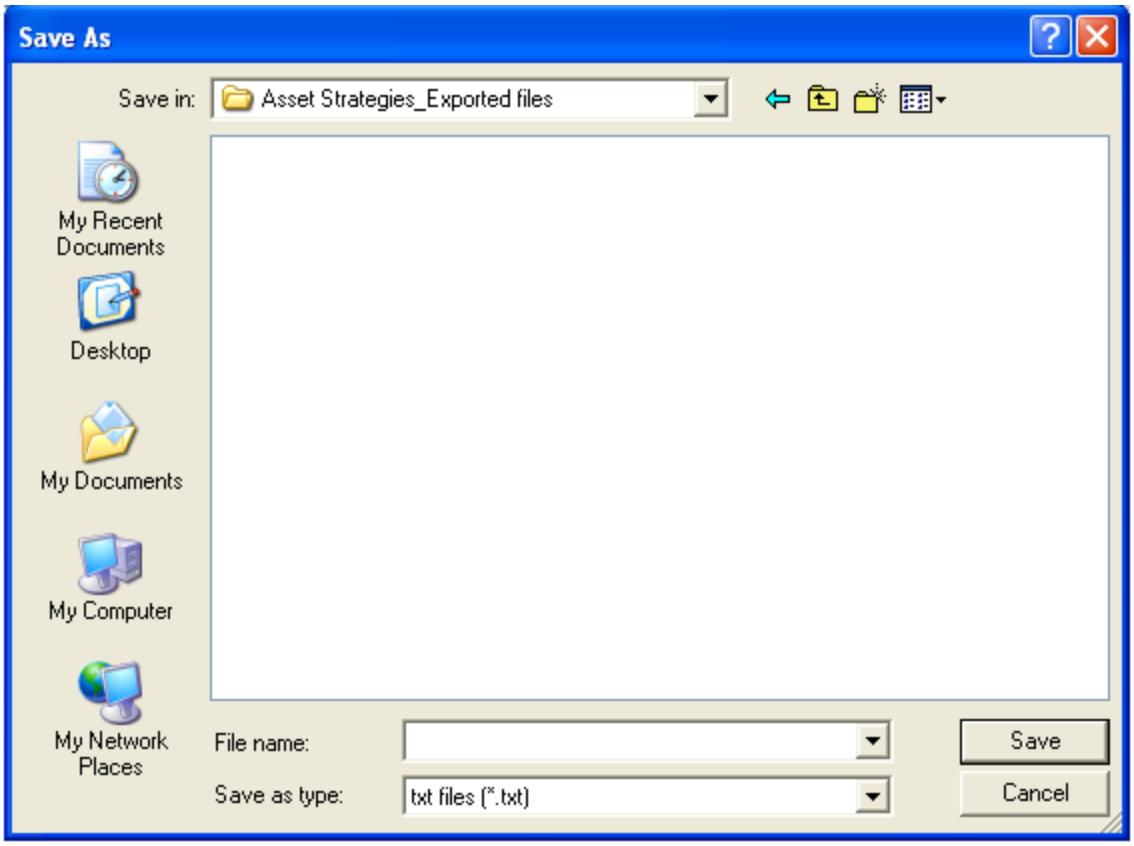
If you were to save these results, the TXT file that is created would look like the following image.



To save the import/export log:

1. On the Asset Strategy <Import/Export> Log window, below the grid, click the **Save Log** button.

   The **Save As** window appears.



2. Navigate to the location where you want to save the log file, and in the **File name** text box, type a name for the file.
3. Click the **Save** button.

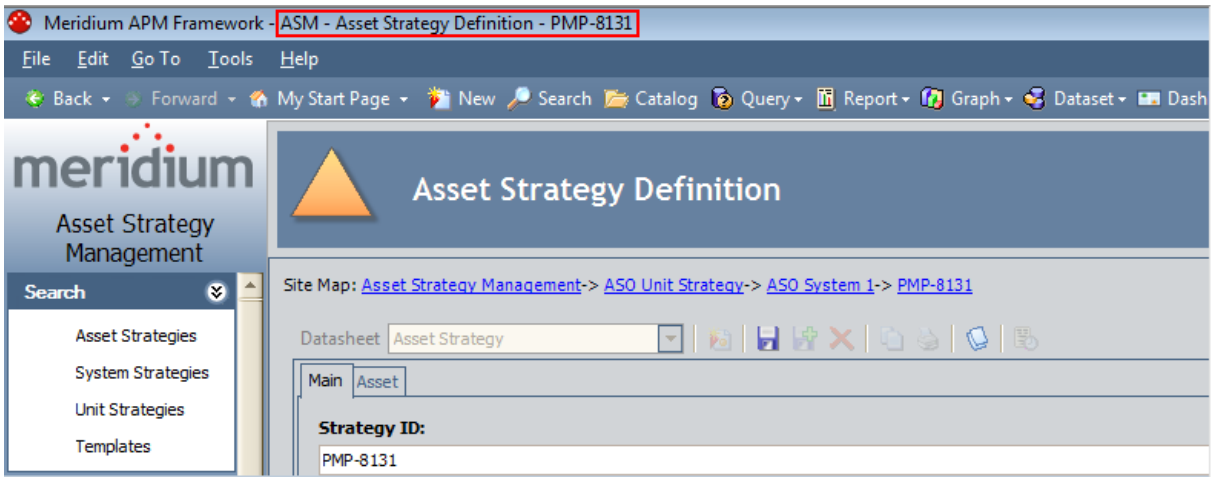
   The file is saved to the specified location.

About the Page Labels

Throughout ASM, except for the **ASM - Administration** page, all page labels contain the following components, separated by a dash:

- The text *ASM*.
- A brief description of the page you are currently viewing, such as *Asset Strategy Definition*.
- The ID of the strategy that you are viewing (stored in the Strategy ID field).

For example, consider the following image, where the page label has been outlined in red.



From this image, you can see from the page label that the Strategy ID is *PMP-8131*.

Throughout this documentation, in most cases, when we refer to pages, the text *ASM* and the Strategy ID component are omitted from the labels to make the documentation easier to read. So, instead of this:

ASM - Asset Strategy Definition - <Strategy ID> page

...you will see this:

Asset Strategy Definition page

In cases where omitting the text *ASM* or *<Strategy ID>* from the page label could cause confusion in the documentation (e.g., **ASM - Start Page**), it is included.

Interpreting the Site Map

The Site Map in ASM functions differently than the Site Map in other modules. In other modules, the Site Map allows you navigate from the current page to a previously accessed page within the same module. In ASM, the Site Map allows you to navigate between *strategies*. You can click any link in the Site Map to access the associated strategy.

Site Map Displayed for Asset Strategies

If you are viewing an *Asset Strategy*, the Site Map that appears on all pages contains the following text:

Asset Strategy Management -> Unit Strategy ID -> System Strategy ID -> Asset Strategy ID

...where:

- **Unit Strategy ID** is the ID of the Unit Strategy that contains the Asset Strategy.
- **System Strategy ID** is the ID of the System Strategy that contains the Asset Strategy.
- **Asset Strategy ID** is the ID of the Asset Strategy.

If the Asset Strategy is not linked to a System Strategy, in place of the text *System Strategy ID*, you will see the text *No System Defined*. In addition, if the Asset Strategy is included in a System Strategy that is not included in a Unit Strategy, in place of the text *Unit Strategy ID*, you will see the text *No Unit Assigned*.

Site Map Displayed for System Strategies

If you are viewing a *System Strategy*, the Site Map that appears on all pages contains the following text:

Asset Strategy Management -> Unit Strategy ID -> System Strategy ID

...where:

- **Unit Strategy ID** is the ID of the Unit Strategy that contains the System Strategy.
- **System Strategy ID** is the ID of the System Strategy.

If the System Strategy is not included in a Unit Strategy, in place of the text *Unit Strategy ID*, you will see the text *No Unit Assigned*.

Site Map Displayed for Unit Strategies

If you are viewing a *Unit Strategy*, the Site Map that appears on all pages contains the following text:

Asset Strategy Management -> Unit Strategy ID

Where **Unit Strategy ID** is the ID of the Unit Strategy.

Example

Consider the following Site Map:

From this Site Map, you can see that:

- Asset Strategy *PMP-4543* is currently displayed.
- Asset Strategy PMP-4543 is included in System Strategy *FCC-OVH*.
- System Strategy FCC-OVH is included in Unit Strategy *FCC*.

Aspects of the Asset Strategy Search Page

The **Asset Strategy Search** page is divided into the following areas:

- Asset Strategy Search workspace**:** The area that allows you to search for an Asset Strategy.
- **Task menus:** Menus that provide specific functionality. The following task menus are available: Search and Common Tasks.

Asset Strategy Search Workspace

The **Asset Strategy Search** workspace lets you run the Asset Strategy Search query to view a list of existing Asset Strategy records that meet your query criteria.

The baseline Asset Strategy Search query, Asset_Strategy_Search, is stored in the Meridium APM Catalog in the following folder: \\Public\Meridium\Modules\Asset Strategy Management\Management\Queries. If you want the **Asset Strategy Search** workspace to return results of a different query, an administrative user will need to create the query and configure the **Asset Strategy Search** page to use it.

The baseline Asset_Strategy_Search query contains two prompts: Asset Type and State. These prompts appear at the top of the page as drop-down lists that contain various options.

- The **Asset Type** list contains the following options:
  - **All:** Causes the query to return all Asset Strategy records. This is the default selection.
  - **<Family Caption>**, where <**Family Caption>** is the caption of any family that is related to the Asset Strategy family through the Has Strategy relationship. The option that you select will cause the query to return all Asset Strategy records that are linked to a record in the family with the selected family caption.
- The **State** list contains the following options:
  - **All:** Causes the query to return all Asset Strategy records regardless of their state. This is the default selection.
  - **<State Name>**, where <**State Name>** is the name of any state that has been configured in the State Configuration for the Asset Strategy family. The option that you select will cause the query to return all Asset Strategy records with the selected state.

Each time you access the **Asset Strategy Search** workspace, the values that appear by default in the prompts will be used to filter the list. After you select different criteria, you can click the **Run Query** button to run the Asset Strategy Search query and display the results in a grid at the bottom of the page. The default Asset Strategy Search query is configured to display the following columns of information:

- Strategy ID
- Description
- Strategy Activation Date
- Strategy Evaluation Date
- Strategy Notes
- Asset Name
- Asset Type
- State

Hint: If desired, you can customize the column display or filter the results. Note, however, that you cannot apply a filter to a date column.

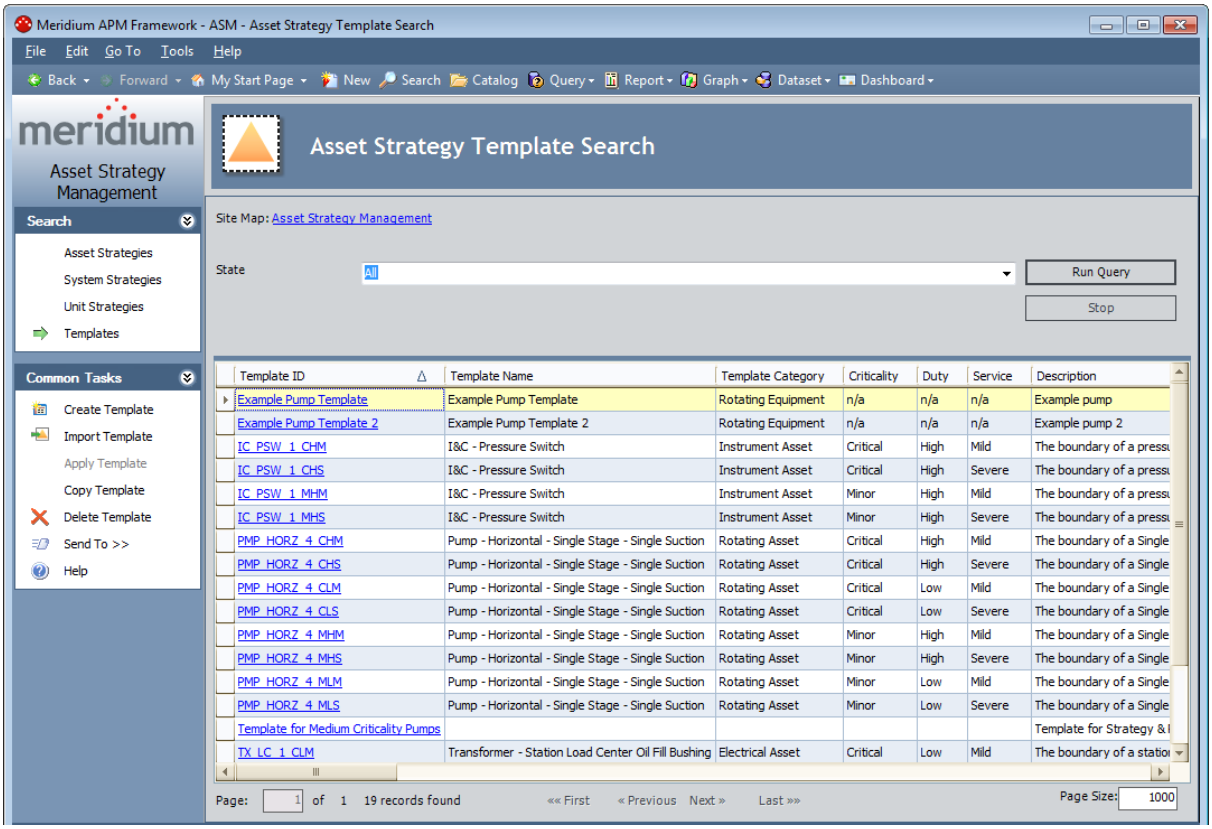
You can click any hyperlinked strategy ID to view the **Asset Strategy Overview** page.

Accessing the Asset Strategy Template Search Page

To access the Asset Strategy Template Search page:

- On the **ASM - Start Page**, click the **Manage Templates** link.

  The Asset Strategy Template Search page appears.



Aspects of the Asset Strategy Template Search Page

The **Asset Strategy Template Search** page is divided into the following areas:

- Asset Strategy Template Search workspace**:** The area that allows you to search for an Asset Strategy Template.
- **Task menus:** Menus that provide specific functionality. The following task menus are available: Search and Common Tasks.

Asset Strategy Template Search Workspace

The **Asset Strategy Template Search** workspace lets you run the Asset Strategy Template Search query to view a list of existing Asset Strategy Template records that meet your query criteria.

The baseline Asset Strategy Template Search query, Template_Search, is stored in the Meridium APM Catalog in the following folder: \\Public\Meridium\Modules\Asset Strategy Management\Management\Queries.

The baseline Template_Search query contains one prompt: *State*. The prompt appears at the top of the page as a drop-down list that contains the following options.

- **All:** Causes the query to return all Asset Strategy Template records, regardless of their state. This is the default selection.
- **[State Name]**, where **[State Name]** is the name of any state that has been configured in the State Configuration for the Asset Strategy Template family. The option that you select will cause the query to return all Asset Strategy Template records with the selected state.

Each time you access the **Asset Strategy Template Search** workspace, the value that appears by default in the prompt will be used to filter the list. After you select different criteria, you can click the **Run Query** button to run the Asset Strategy Template Search query and display the results in a grid at the bottom of the page. The default Asset Strategy Template Search query is configured to display the following columns of information:

- Template ID
- Description
- Template Activation Date
- Template Evaluation Date
- Template Notes
- Asset Name
- Asset Family
- State
- Date State Entered
- State Owner
- User ID
- Last Updated

Hint: If desired, you can customize the column display.

You can click any hyperlinked template ID to view the **Asset Strategy Template Overview** page.

Aspects of the System Strategy Search Page

The **System Strategy Search** page is divided into the following areas:

- System Strategy Search workspace**:** The area that allows you to search for a System Strategy.
- **Task menus:** Menus that provide specific functionality. The following task menus are available: Search and Common Tasks.

System Strategy Search Workspace

The **System Strategy Search** workspace lets you run the System Strategy Search query to view a list of all existing System Strategy records that meet your query criteria.

The baseline System Strategy Search query, System_Strategy_Search, is stored in the Meridium APM Catalog in the following folder: \\Public\Meridium\Modules\Asset Strategy Management\Management\Queries. If you want the **System Strategy Search** workspace to display results of a different query, an administrative user will need to create the query and configure the **System Strategy Search** page to use it.

The default System Strategy Search query is configured to display the following columns of information: ID and Description.

Hint: If desired, you can customize the column display or filter the results. Note, however, that you cannot apply a filter to a date column.

You can click any hyperlinked strategy ID to view the **System Strategy Overview** page.

Aspects of the Unit Strategy Search Page

The **Unit Strategy Search** page is divided into the following areas:

- Unit Strategy Search workspace: The area that allows you to search for a Unit Strategy.
- **Task menus:** Menus that provide specific functionality. The following task menus are available: Search and Common Tasks.

Unit Strategy Search Workspace

The **Unit Strategy Search** workspace lets you run the Unit Strategy Search query to view a list of all existing Unit Strategy records that meet your query criteria.

The baseline Unit Strategy Search query, Unit_Strategy_Search, is stored in the Meridium APM Catalog in the following folder: \\Public\Meridium\Modules\Asset Strategy Management\Management\Queries. If you want the **Unit Strategy Search** workspace to display results of a different query, an administrative user will need to create the query and configure the **Unit Strategy Search** page to use it.

The default Unit Strategy Search query is configured to display the following columns of information: ID and Description.

Hint: If desired, you can customize the column display or filter the results. Note, however, that you cannot apply a filter to a date column.

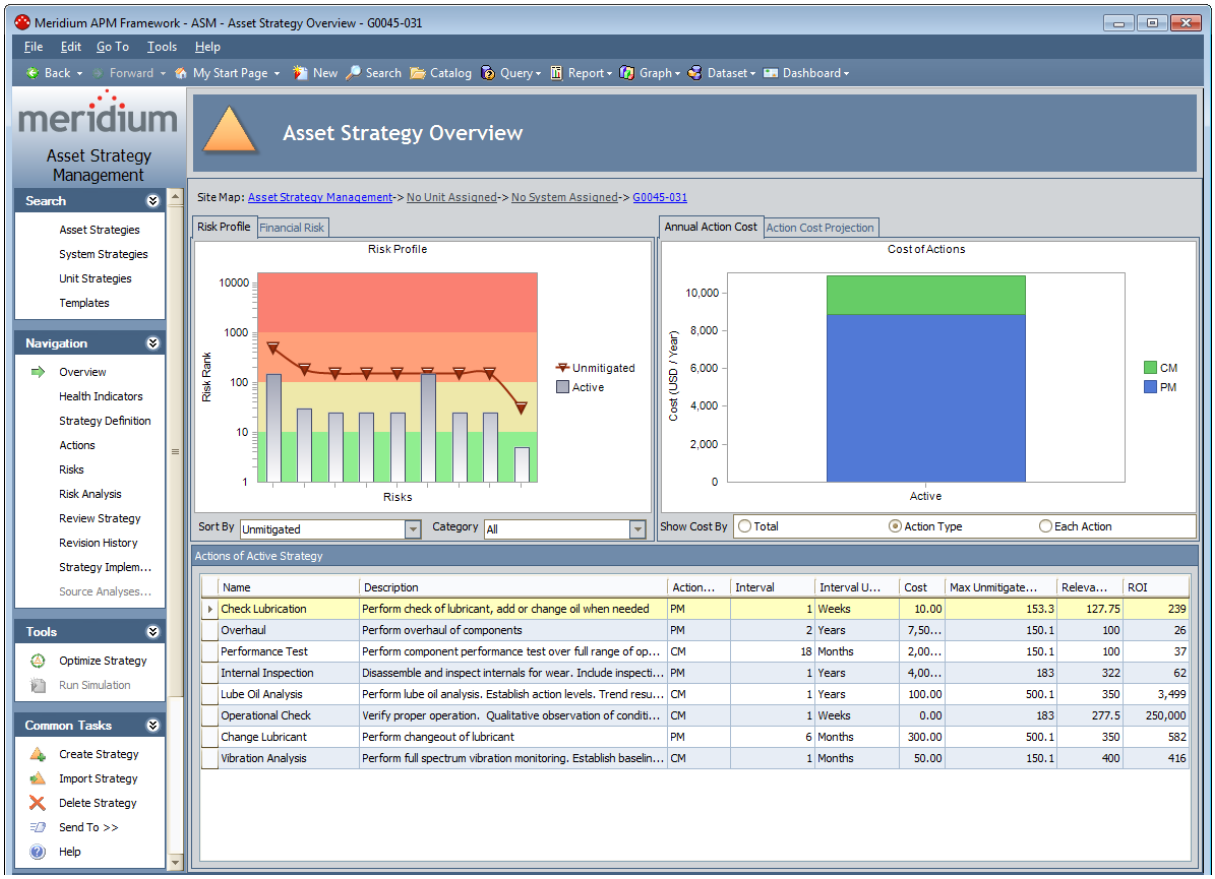
You can click any hyperlinked strategy ID to view the **Unit Strategy Overview** page.

Accessing the Asset Strategy Overview

To access the Asset Strategy overview:

- Search for and open the Asset Strategy whose overview you want to view.

  The **Asset Strategy Overview** page appears.



About the Asset Strategy Overview

The Asset Strategy overview contains the following items:

- The Risk Profile graph.
- The Financial Risk Exposure graph.
- The Cost of Actions graph.
- The Cost Projection graph.
- A grid containing a list of the Actions that belong to the Active Strategy.

The Asset Strategy overview is displayed on the **Asset Strategy Overview** page.

Accessing the Asset Strategy Template Overview

To access the Asset Strategy Template overview:

- Search for and open the Asset Strategy Template whose overview you want to view.

  The **Asset Strategy Template Overview** page appears.

  -OR-

- If you are currently working with the Asset Strategy Template whose overview you want to view, on the **Navigation** menu, click the **Overview** link.

  The **Asset Strategy Template Overview** page appears.

About the Asset Strategy Template Overview

The Asset Strategy Template overview contains the following items:

- The Risk Profile graph.
- The Financial Risk Exposure graph.
- The Cost of Actions graph.
- The Cost Projection graph.
- A grid containing a list of the Actions that belong to the Asset Strategy Template record.

Note: For the purposes of this documentation, the items in the preceding list are explained in terms of an *Asset Strategy*. The information provided for these items applies also to *Asset Strategy Templates*.

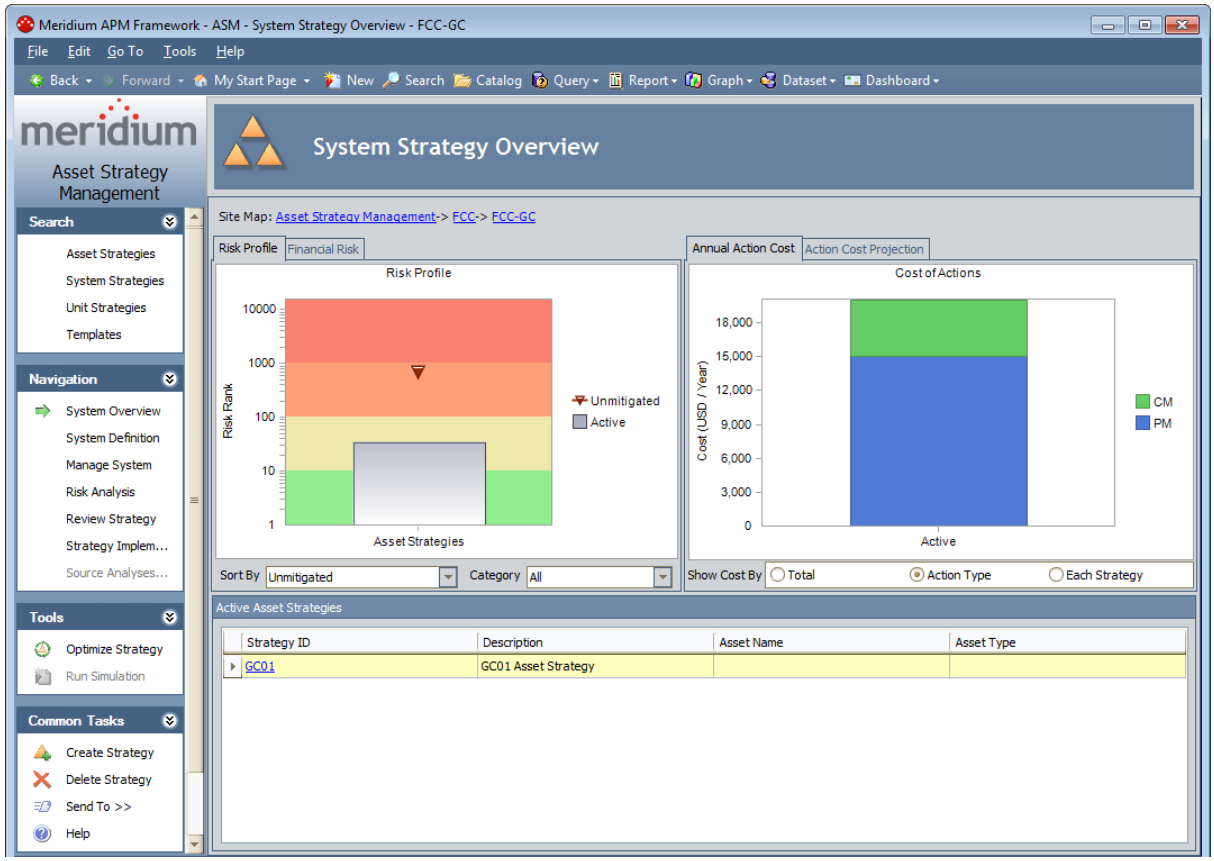
The Asset Strategy Template overview is displayed on the **Asset Strategy Template Overview** page.

Accessing the System Strategy Overview

To access the overview of a System Strategy:

- Search for and open the System Strategy whose overview you want to view.

  The **System Strategy Overview** page appears.



About the System Strategy Overview

The System Strategy overview contains the following items:

- The Risk Profile graph.
- The Financial Risk Exposure graph.
- The Cost of Actions graph.
- The Cost Projection graph.
- A grid containing a list of the *non-Draft* Asset Strategies that are included in the System Strategy.

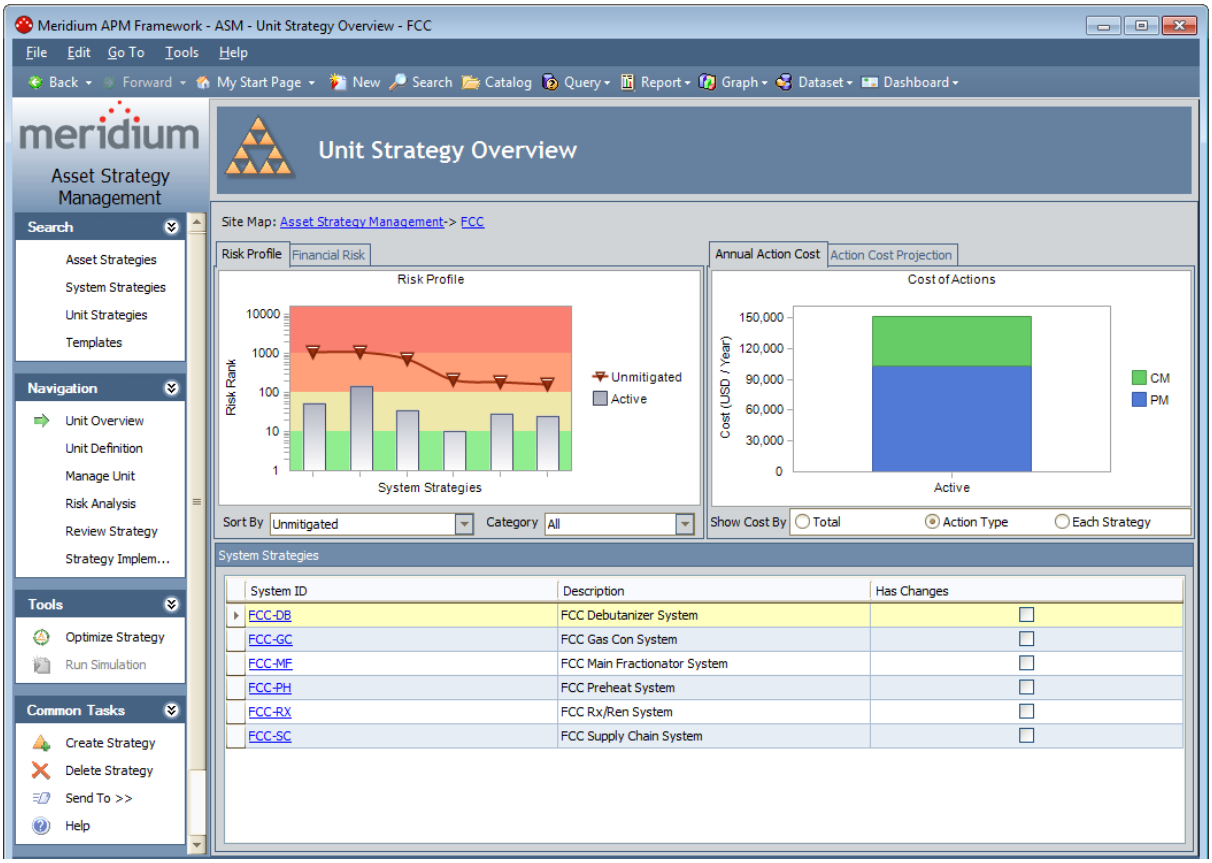
The System Strategy overview is displayed on the **System Strategy Overview** page.

Accessing the Unit Strategy Overview

To access the overview of a Unit Strategy:

- Search for and open the Unit Strategy whose overview you want to view.

  The **Unit Strategy Overview** page appears.



About the Unit Strategy Overview

The Unit Strategy overview contains the following items:

- The Risk Profile graph.
- The Financial Risk Exposure graph.
- The Cost of Actions graph.
- The Cost Projection graph.
- A grid containing a list of the *Active* System Strategies that are included in the Unit Strategy.

The Unit Strategy overview is displayed on the **Unit Strategy Overview** page.

Accessing the Asset Strategy Definition Page

These instructions explain how to access the **Asset Strategy Definition** page from the **ASM - Start Page**. You can also access this page from any other page in ASM by clicking the **Strategy Definition** link on the **Navigation** menu while you are viewing an Asset Strategy.

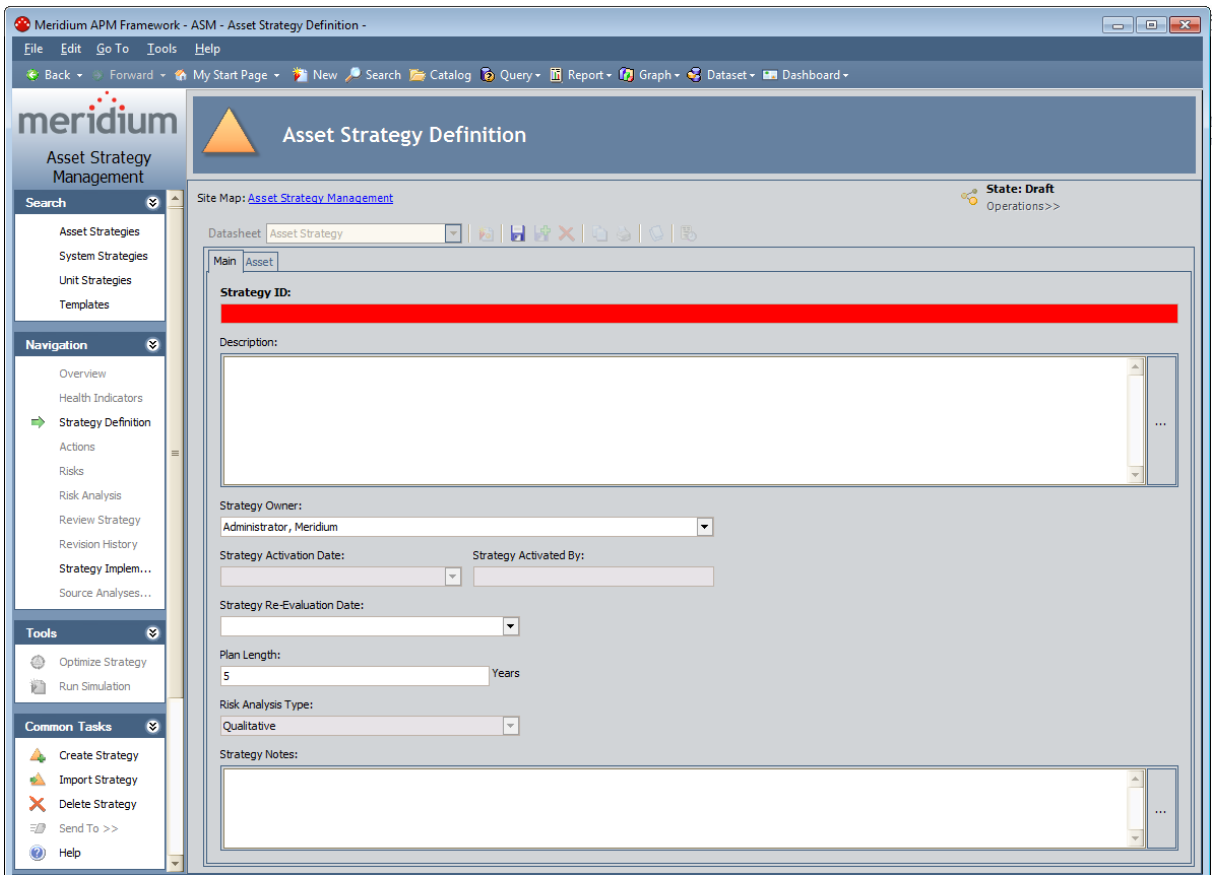
To access the Asset Strategy Definition page from the start page:

1. On the ASM - Start Page, click the **Create Strategy** link.

   The **Strategy Type** dialog box appears.

2. If it is not already selected, click **Asset Strategy**, and then click **OK**.

   The Asset Strategy Definition page appears.



Aspects of the Asset Strategy Definition Page

The **Asset Strategy Definition** page is divided into the following areas:

- Asset Strategy Definition workspace**:** The area that allows you to define properties for an Asset Strategy.
- **Task menus:** Menus that provide specific functionality. The following task menus are available: Search, Navigation, Tools, Common Tasks, Template Tasks, and Associated Pages.

Asset Strategy Definition Workspace

The **Asset Strategy Definition** workspace displays the Asset Strategy datasheet, where you can specify properties of the Asset Strategy.

The Asset Strategy datasheet is divided into the following sections, which appear as tabs:

- Main
- Asset

The **Main** tab displays the following fields:

- **Strategy ID:** The ID of the Asset Strategy.
- **Description:** A description of the Asset Strategy.
- **Strategy Owner:** The user who created Asset Strategy record. The value in this field is set by default to the name of the Security User who created the Asset Strategy record. The value can be modified if desired. If you want to select another owner, you can select a Security User from the list. The list is populated with all active Security Users that belong to the MI ASM Analyst Security Group.

  Note: You can delete an Asset Strategy only if you are the Security User in the Strategy Owner field.

- **Strategy Activation Date:** The date that the Asset Strategy state was set to Active for the *first* time. This field is disabled, and the field is populated automatically after the Asset Strategy state changes to Active for the first time.
- **Strategy Activated By:** The user ID of the Security User who *first* set the Asset Strategy state to Active.
- **Strategy Re-Evaluation Date:** The date on which you want to reevaluate the Asset Strategy.
- **Plan Length:** The number of years for which you want to calculate costs. This value will be used to determine the number of datapoints (bars) on the Cost Projection graph.
- **Risk Analysis Type:** A value that indicates whether the strategy results (shown in the graphs) are based on an ASO Analysis or not. The field will contain one of the following values:
  - **Simulation:** The strategy results are based on an ASO Analysis.
  - **Qualitative:** The strategy results are not based on an ASO Analysis. If the strategy has never been used to create an ASO Analysis, the Risk Analysis Type field contains the value *Qualitative* and is disabled.

  Note the following about the Risk Analysis Type field:
  - If the Asset Strategy has never been used to create an ASO Analysis and is not included in an ASO Analysis, the value will be set to *Qualitative*, and the field will be disabled. The value will be changed automatically to *Simulation* if you create an ASO Analysis from the Asset Strategy or include the Asset

Strategy in an ASO Analysis by creating an analysis from a System Strategy or Unit Strategy that includes the Asset Strategy.

- If the Asset Strategy was used to *create* an ASO Analysis, the value will be set to *Simulation*, and the field will be enabled. If desired, you can change the value to *Qualitative* to update the strategy results so that they are no longer based on the ASO Analysis. If you change the value to *Qualitative*, the ASO Analysis will not be deleted or unlinked from the Asset Strategy.
- If the Asset Strategy is included in an ASO Analysis but was not used to create the analysis, the value will be set to *Simulation*, and the field will be disabled. The value will be changed automatically to *Qualitative* only if the Risk Analysis Type in the System Strategy or Unit Strategy that includes the Asset Strategy is set to *Qualitative*.

- **Strategy Notes:** Any additional information you want to provide about the Asset Strategy.

The **Asset** tab displays the following fields:

- **Asset Name:** The Equipment Technical Number of the Equipment record or the Functional Location ID of the Functional Location record to which the Asset Strategy record is linked. This text box contains a ... button, which you can click to search for the Equipment or Functional Location record that you want to link to the Asset Strategy record. This button is enabled only if the Asset Strategy is in the Draft or Modified state.
- **Asset Type:** The Taxonomy Type Description of the selected Equipment or Functional Location record. This field is populated automatically after you use the ... button in the **Asset Name** text box to select an Equipment or Functional Location record.
- **Site Reference:** The Record ID of the Site Reference record that is linked to the selected Equipment or Functional Location record. This field is populated automatically after you use the ... button in the **Asset Name** text box to select an Equipment or Functional Location record. It is disabled after you save the Asset Strategy record.

Next to the disabled **Datasheet** list, the datasheet toolbar appears. On the toolbar, the following options are enabled:

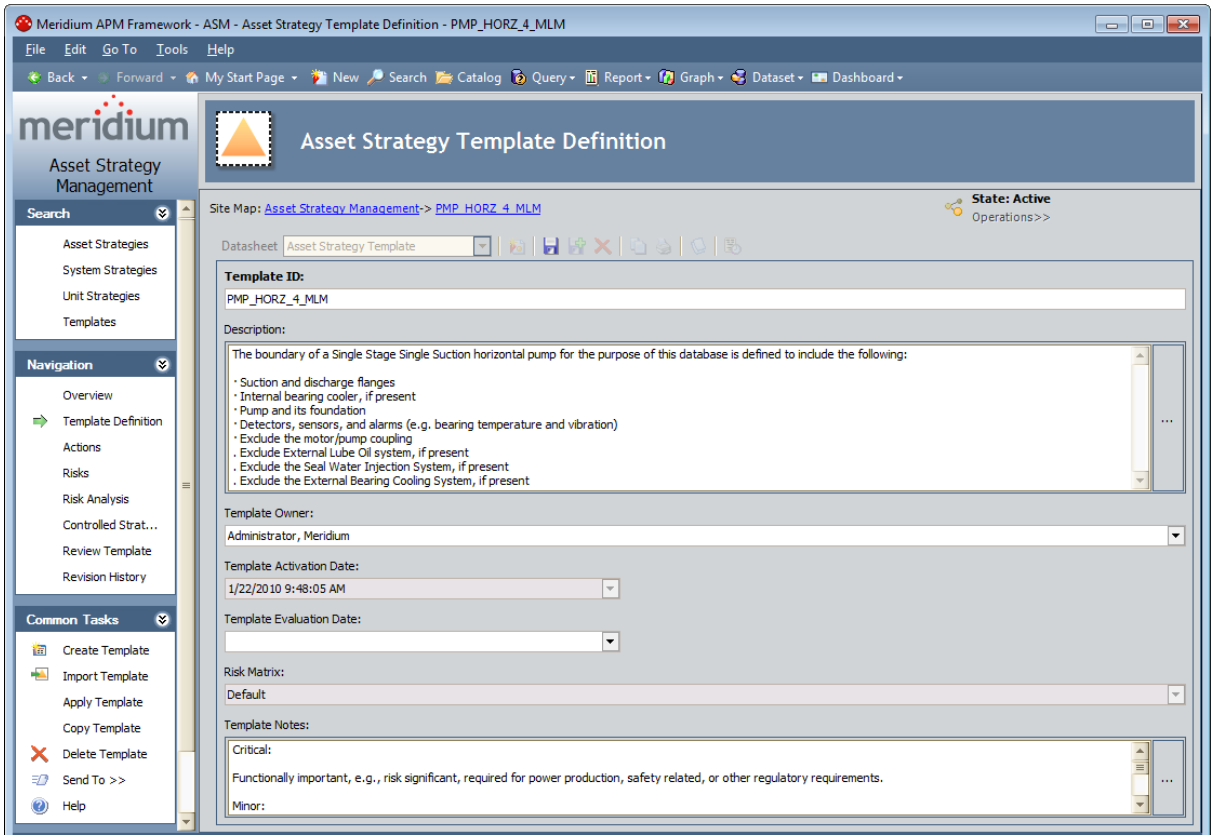
- : Saves the current Asset Strategy record.
- : Displays the **Reference Documents** window, where you can manage the Reference Document records that are linked to the current Asset Strategy record.
- : Displays the **State Assignments** dialog box, where you can manage the Security Users that are assigned to the states that are defined for the Asset Strategy family.

About Accessing the Asset Strategy Template Definition Page

You can access the **Asset Strategy Template Definition** page when using any of the following workflows:

- When you are creating a new Asset Strategy Template either from scratch.
- When you are creating a new Asset Strategy Template from an existing Asset Strategy.
- When you are creating a new Asset Strategy Template from an existing Asset Strategy Template.
- When you are opening the datasheet for an existing Asset Strategy Template.

The following image shows the **Asset Strategy Template Definition** page as it appears when you view the datasheet for an existing Asset Strategy Template.



Aspects of the Asset Strategy Template Definition Page

The **Asset Strategy Template Definition** page is divided into the following areas:

- **Asset Strategy Template Definition workspace:** The area that allows you to define properties of the Asset Strategy Template.
- **Task menus:** Menus that provide specific functionality. The following task menus are available: **Search**, **Navigation**, **Common Tasks**, and **Associated Pages**.

The Asset Strategy Template Definition Workspace

The **Asset Strategy Template Definition** workspace displays the Asset Strategy Template datasheet, where you can specify properties of the Asset Strategy Template.

The Asset Strategy Template datasheet contains the following fields:

- **Template ID:** The ID of the Asset Strategy Template.
- **Description:** A description of the Asset Strategy Template.
- **Template Owner:** The user who created the Asset Strategy Template record. The value in this field is set by default to the name of the Security User who created the Asset Strategy Template record. The value can be modified if desired. If you want to select another owner, you can select a Security User from the list. The list is populated with all active Security Users that belong to the MI ASM Analyst Security Group.

  Note: You can delete an Asset Strategy Template only if you are the Security User in the Strategy Owner field.
- **Template Activation Date:** The date that the Asset Strategy Template state was set to Active for the *first* time. This field is disabled, and the field is populated automatically after the Asset Strategy Template state changes to Active for the first time.
- **Template Evaluation Date:** The date on which you want to reevaluate the Asset Strategy Template.
- **Risk Matrix:** A list that contains the Record IDs of the Risk Matrix records that exist in the database. This field is disabled after the Asset Strategy Template record is saved.
- **Template Notes:** Any additional information you want to provide about the Asset Strategy Template.

To the right of the disabled **Datasheet** list, the datasheet toolbar appears. On the toolbar, the following options are enabled:

- : Saves the current Asset Strategy Template record.
- : Displays the **State Assignments** dialog box, where you can manage the Security Users that are assigned to the states that are defined for the Asset Strategy Template family.

Accessing the System Strategy Definition Page

These instructions explain how to access the **System Strategy Definition** page from the **ASM - Start Page**. You can also access this page from any other page in ASM by clicking the **System Definition** link on the **Navigation** menu while you are viewing a System Strategy.

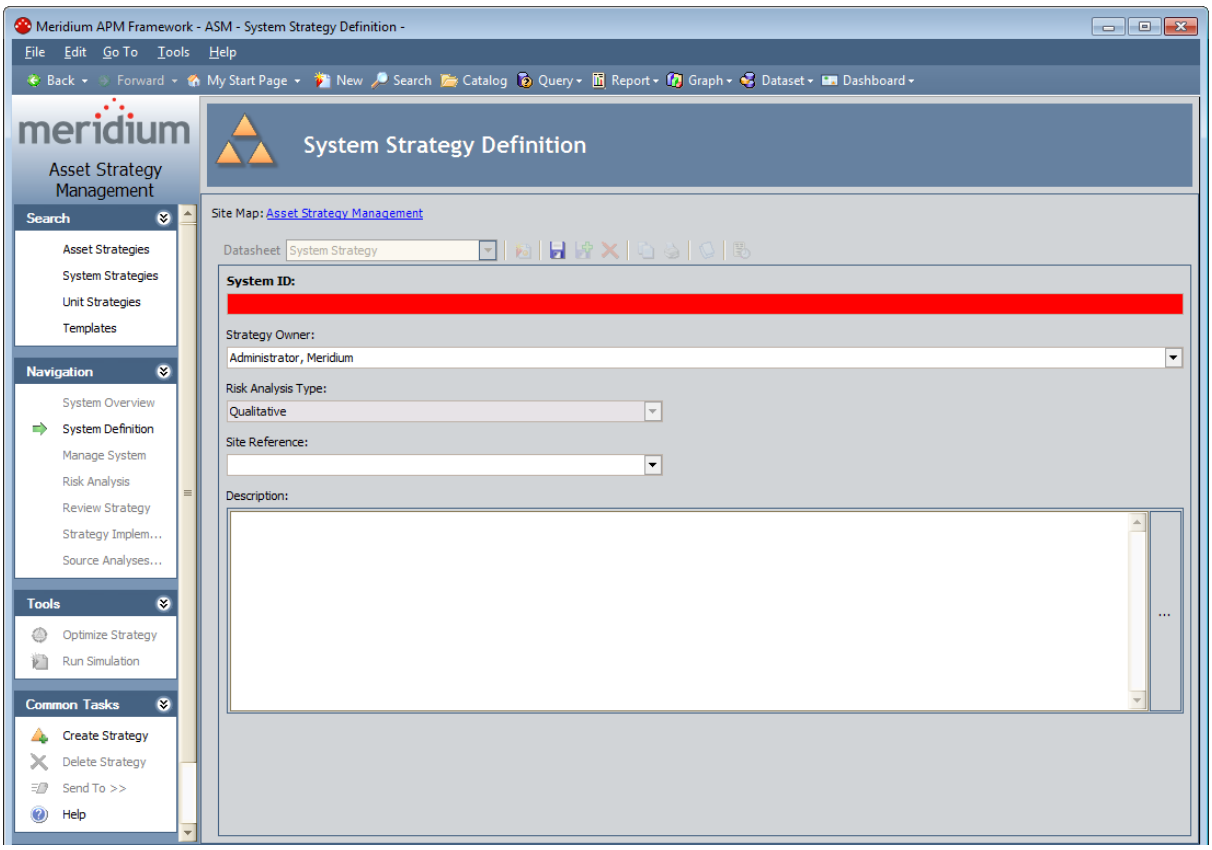
To access the System Strategy Definition page from the start page:

1. On the **ASM - Start Page**, click the **Create Strategy** link.

   The **Strategy Type** dialog box appears.

2. If it is not already selected, click **System Strategy**, and click **OK**.

   The System Strategy Definition page appears.



Aspects of the System Strategy Definition Page

The **System Strategy Definition** page is divided into the following areas:

- System Strategy Definition workspace: The area that allows you to define properties for a System Strategy.
- **Task menus:** Menus that provide specific functionality. The following task menus are available: Search, Navigation, Tools, Common Tasks, and Associated Pages.

System Strategy Definition Workspace

The **System Strategy Definition** workspace displays the System Strategy datasheet, where you can specify properties of the System Strategy. The System Strategy datasheet contains the following fields:

- **System ID:** The ID of the System Strategy.
- **Strategy Owner:** The name of the Security User who created the System Strategy record. The value in this field is set by default to the name of the Security User who created the Asset Strategy record. The value can be modified if desired. Note that you can delete a System Strategy only if you are the Security User in the Strategy Owner field.
- **Risk Analysis Type:** A value that indicates whether the strategy results (shown in the graphs) are based on an ASO Analysis or not. The field will contain one of the following values:
  - **Simulation:** The strategy results are based on an ASO Analysis.
  - **Qualitative:** The strategy results are not based on an ASO Analysis.

  Note the following about the Risk Analysis Type field:
  - If the System Strategy has never been used to create an ASO Analysis and is not included in an ASO Analysis, the value will be set to *Qualitative*, and the field will be disabled. The value will be changed automatically to *Simulation* if you create an ASO Analysis from the System Strategy or include the System Strategy in an ASO Analysis by creating an analysis from a Unit Strategy that includes the System Strategy.
  - If the System Strategy was used to *create* an ASO Analysis, the value will be set to *Simulation*, and the field will be enabled. If desired, you can change the value to *Qualitative* to update the strategy results so that they are no longer based on the ASO Analysis. If you change the value to *Qualitative*, the ASO Analysis will not be deleted or unlinked from the System Strategy.
  - If the System Strategy is included in an ASO Analysis but was not used to create the analysis, the value will be set to *Simulation*, and the field will be disabled. The value will be changed automatically to *Qualitative* only if the Risk Analysis Type in the Unit Strategy that includes the System Strategy is set to *Qualitative*.
- **Site Reference:** The Record ID of the Site Reference record to which all underlying Equipment or Functional Location records are linked. You can select a value from the list, which displays the Record ID of all Site Reference records in the database. If you do so, you will be able to link this System Strategy record only to Asset Strategy records that are linked to Equipment or Functional Location records that are linked to the *same* Site Reference record.

  If you do not select a value in the list, when you link an Asset Strategy record to the System Strategy record, this field will be populated automatically with the name of the Site Reference record that is linked to the underlying Equipment or Functional Location record. If the underlying Equipment or Functional Location

record is not linked to a Site Reference record, the Meridium APM system will continue this process with every additional Asset Strategy record that you link to the System Strategy record.

After a Site Reference record is located and the field is populated automatically, it is also disabled. From that point on, you will be able to link this System Strategy record only to Asset Strategy records that are linked to Equipment or Functional Location records that are linked to the *same* Site Reference record.

- **Description:** A description of the System Strategy.

Next to the disabled Datasheet list, the datasheet toolbar appears. On the toolbar, the following option is enabled:

- : Saves the current System Strategy record.
- : Displays the **Reference Documents** window, where you can manage the Reference Document records that are linked to the current System Strategy record.

Accessing the Unit Strategy Definition Page

These instructions explain how to access the **Unit Strategy Definition** page from the **ASM - Start Page**. You can also access this page from any other page in ASM by clicking the **Unit Definition** link on the **Navigation** menu while you are viewing a Unit Strategy.

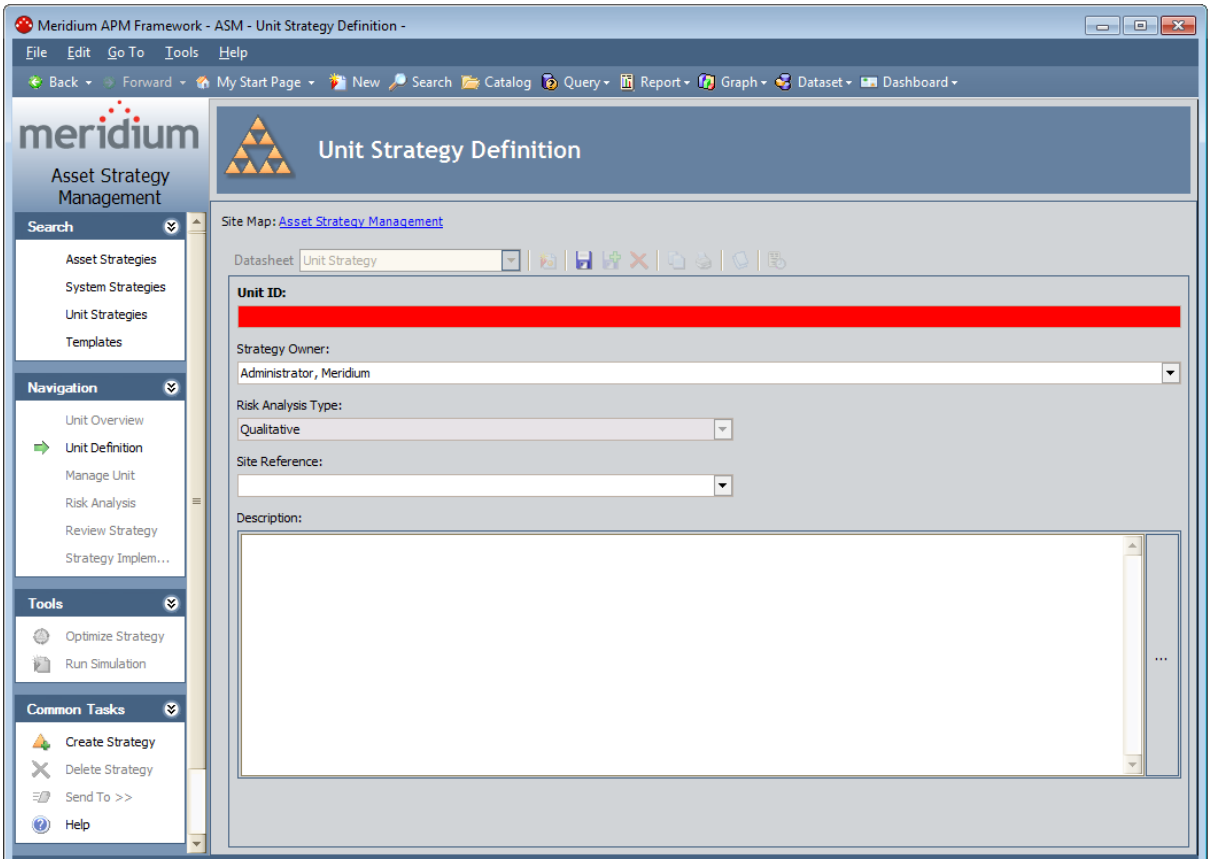
To access the Unit Strategy Definition page from the start page:

1. On the **ASM - Start Page**, click the **Create Strategy** link.

   The **Strategy Type** dialog box appears.

2. If it is not already selected, click **UnitStrategy**, and click **OK**.

   The Unit Strategy Definition page appears.



Aspects of the Unit Strategy Definition Page

The **Unit Strategy Definition** page is divided into the following areas:

- Unit Strategy Definition workspace**:** The area that allows you to define properties for a Unit Strategy.
- **Task menus:** Menus that provide specific functionality. The following task menus are available: Search, Navigation, Tools, Common Tasks, and Associated Pages.

Unit Strategy Definition Workspace

The **Unit Strategy Definition** workspace displays the Unit Strategy datasheet, where you can specify properties of the Unit Strategy. The Unit Strategy datasheet contains the following fields:

- **Unit ID:** The ID of the Unit Strategy.
- **Strategy Owner:** The name of the Security User who created the Unit Strategy record. The value in this field is set by default to the name of the Security User who created the Asset Strategy record. The value can be modified if desired. Note that you can delete a Unit Strategy only if you are the Security User in the Strategy Owner field.
- **Risk Analysis Type:** A value that indicates whether the strategy results (shown in the graphs) are based on an ASO Analysis or not. The field will contain one of the following values:
  - **Simulation:** The strategy results are based on an ASO Analysis.
  - **Qualitative:** The strategy results are not based on an ASO Analysis.

  Note the following about the Risk Analysis Type field:
  - If the Unit Strategy has never been used to create an ASO Analysis, the value will be set to *Qualitative*, and the field will be disabled. The value will be changed automatically to *Simulation* if you create an ASO Analysis from the Unit Strategy.
  - If the Unit Strategy was used to *create* an ASO Analysis, the value will be set to *Simulation*, and the field will be enabled. If desired, you can change the value to *Qualitative* to update the strategy results so that they are no longer based on the ASO Analysis. If you change the value to *Qualitative*, the ASO Analysis will not be deleted or unlinked from the Unit Strategy.
- **Site Reference:** The Record ID of the Site Reference record to which all underlying Equipment or Functional Location records are linked. You can select a value from the list, which displays the Record ID of all Site Reference records in the database. If you do so, you will be able to link this Asset Strategy record only to System Strategy records whose underlying Equipment or Functional Location records are linked to the *same* Site Reference record.

  If you do not select a value in the list, when you link a System Strategy record to the Unit Strategy record, this field will be populated automatically with the name of the Site Reference record that is linked to the underlying Equipment or Functional Location record. If the underlying Equipment or Functional Location record is not linked to a Site Reference record, the Meridium APM system will continue this process with every additional System Strategy record that you link to the Unit Strategy record.

  After a Site Reference record is located and the field is populated automatically, it is also disabled. From that point on, you will be able to link this Unit Strategy record only to System Strategy records whose underlying Equipment or Functional Location records are linked to the *same* Site Reference record.

- **Description:** A description of the Unit Strategy.

Next to the disabled Datasheet list, the datasheet toolbar appears. On the toolbar, the following option is enabled:

- : Saves the current Unit Strategy record.
- : Displays the **Reference Documents** window, where you can

Accessing the Asset Strategy Actions Page

To access the Asset Strategy Actions page:

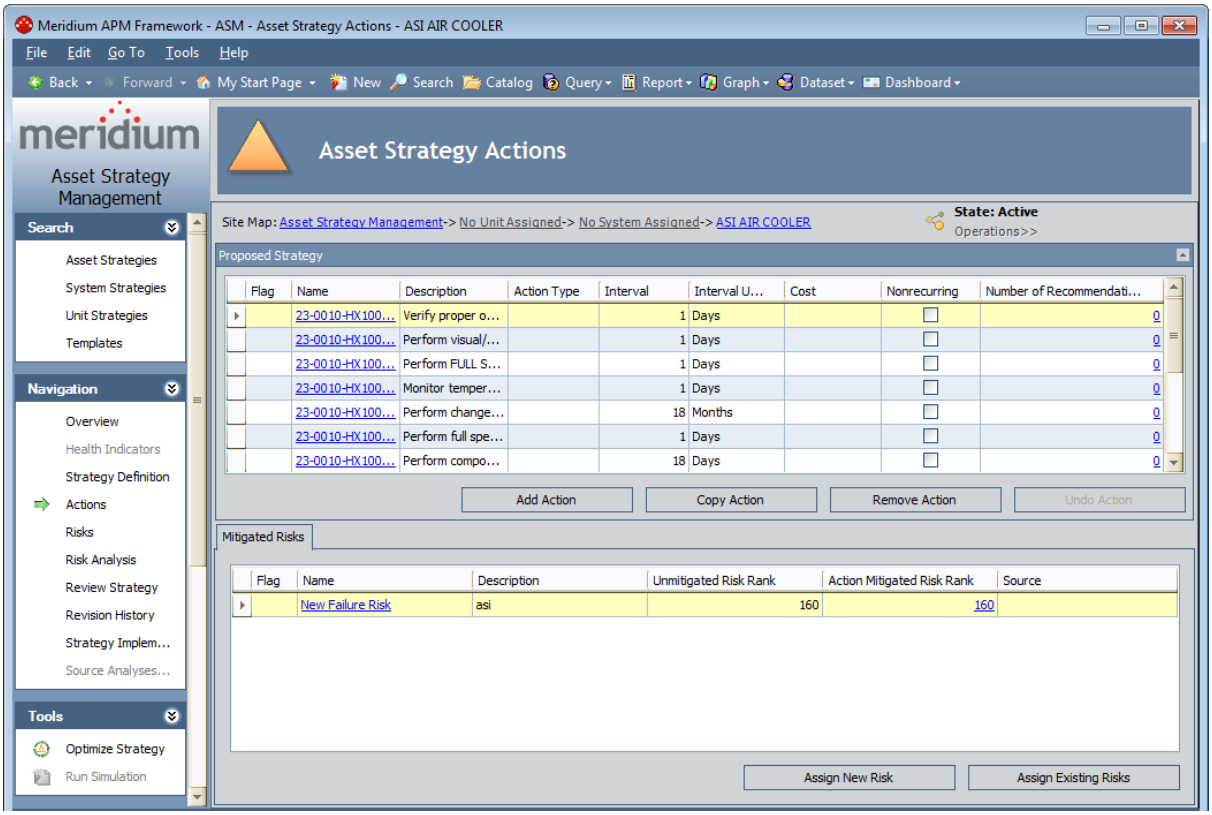
1. Search for and open an Asset Strategy.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Actions** link.

   The Asset Strategy Actions page appears.

   A list of Actions that are included in the Asset Strategy is displayed in the **Proposed Strategy** section.



Overview of the Asset Strategy Actions Page

The **Asset Strategy Actions** page is divided into the following items:

- Proposed Strategy section: Contains a grid, which displays a list of Actions that are included in the Asset Strategy.
- Mitigated Risks tab: Contains a grid, which displays a list of Risks that are associated with the Action that is selected in the Proposed Strategy section.
- Health Indicators tab: Contains a grid, which displays a list of Health Indicator records that are linked to the Action record represented by the Action that is selected in the Proposed Strategy section.

Proposed Strategy Section

The **Proposed Strategy** section contains a grid, which displays a list of Actions that are included in the Asset Strategy. Each row in the grid represents one Action.

By default, the grid contains the following columns:

- **Flag:** An icon indicating the status of the Action.
  - If the Asset Strategy state is anything *other than* Active or Draft and the Action has not been modified since it was created, the **Flag** column will contain the icon.
  - If the Asset Strategy state is anything *other than* Active or Draft and the Action has been modified, the **Flag** column will contain the icon.
  - If the Asset Strategy state is anything *other than* Active or Draft and the Action has been removed from the Asset Strategy (and therefore the Action record has been unlinked from the Asset Strategy record), the **Flag** column will contain the icon.
- **Name:** The name of the action. This column contains a hyperlink that you can click to access the Action datasheet, where you can modify the Action.
- **Description:** A description of the action.
- **Action Type:** The type of action.
- **Interval:** The interval by which the action should be completed.
- **Interval Units:** The units associated with the interval.
- **Cost:** The cost of performing the action.
- **Nonrecurring:** A check box indicating whether or not the action should be repeated on a recurring basis.
- **Number of Recommendations:** The number of source Recommendations that were promoted to create this Action. This column contains a hyperlink that you can click to access the **Manage Recommendations to Action Links** page for the current Asset Strategy.

Below the grid, the following buttons are available:

- **Add Action:** Displays the **New Action** window, where you can create a new Action. This button is always enabled.
- **Copy Action:** Creates a copy of the selected Action, where the Record ID of the new Action record is *Copy of <Action Name> n*, where *<Action Name>* is the value in the Name field in the source Action record and *n* is a numeric value indicating the order in which the copy was created, relative to other copies of the same source Action record. The new Action will contain the same values as the source Action, with the exception of the following fields:
  - Action ID
  - Global ID

- Max Unmitigated Risk
- ROI
- Relevance
- Status

This button is disabled if you are logged in as a member of the ASM Viewer Security Group. You can copy only one Action record at a time. If you select multiple Actions, the **Copy Action** button will be disabled.

- **Remove Action:** Causes Meridium APM to delete the Action the next time the Asset Strategy state is set to Active. This button is enabled only if the Asset Strategy state is Active. You can select multiple Actions to remove them at one time.
- **Undo Action:** Reverses the last action that you performed on the Action. For example, if you created the Action, the **Undo Action** button will remove the Action from the grid. If you last clicked the **Remove Action** button, the **Undo Action** button will undo this step, causing the Action to appear in the grid without the icon. You can select multiple Actions to reverse the last action that you performed on them. This button is enabled only if the Asset Strategy state is Draft or Modified.

Note that if you want to collapse the **Proposed Strategy** section, you can click the button in the **Proposed Strategy** section header. To expand the section again, you can click the button.

Mitigated Risks Section

The **Mitigated Risks** tab contains a grid, which displays a list of Risk that are associated with the Action that is selected in the **Proposed Strategy** section. Each row in the grid represents one Risk.

By default, the grid contains the following columns:

- **Flag:** An icon indicating the status of the Risk Assessment record that is linked to the Risk record.
  - If the Asset Strategy state is Modified or Pending Review and the Risk Assessment record has not been modified since it was created, the **Flag** column will contain the icon.
  - If the Asset Strategy state is Modified or Pending Review and the Risk Assessment record has been modified, the **Flag** column will not contain an icon.
  - If the Asset Strategy state is Modified or Pending Review and the Risk Assessment record has been removed from the Asset Strategy (and therefore unlinked from the Asset Strategy record), the **Flag** column will contain the icon.
- **Name:** The name of the risk.
- **Description:** A description of the risk.
- **Unmitigated Risk Rank:** The calculated risk rank in the Risk record.
- **Action Mitigated Risk Rank:** The calculated risk rank in the Risk Assessment record that is linked to the Risk record. This column contains a hyperlink that you can click to access the risk matrix, where you can modify the mitigated risk value on any tab.
- **Strategy Mitigated Risk Rank:** The sum of the smallest risk rank values across ALL risk categories (represented by tabs on the risk matrix) defined for ALL actions that mitigate the risk.

Below the grid, the following buttons are available:

- **Assign New Risk:** Displays the **Create Risk Wizard**, where you can create a new Risk that is associated with the Action. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Assign Existing Risks:** Displays the **Assign Risks** window, where you can select existing Risks to associate with the Action. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.

Health Indicators Tab

The **Health Indicators** tab contains a grid, which displays a list of Health Indicator records that are linked to the Action record that is selected in the **Proposed Strategy** section. Each row in the grid represents one Health Indicator record.

By default, the grid contains the following columns:

- **Name:** The hyperlinked name of the Health Indicator record. You can click the hyperlink to display the details of the source record (if the Health Indicator is linked to a source record) or the Health Indicator datasheet (if the Health Indicator record is not linked to a source record).
- **Description:** A description of the Health Indicator.

Below the grid, the following buttons are available:

- **Add Indicator:** Displays the **Create New Health Indicator** dialog box, where you can create a new Health Indicator record to link to the selected Action record.
- **Delete Indicator:** After asking for confirmation, deletes the selected Health Indicator record.

Accessing the Asset Strategy Template Actions Page

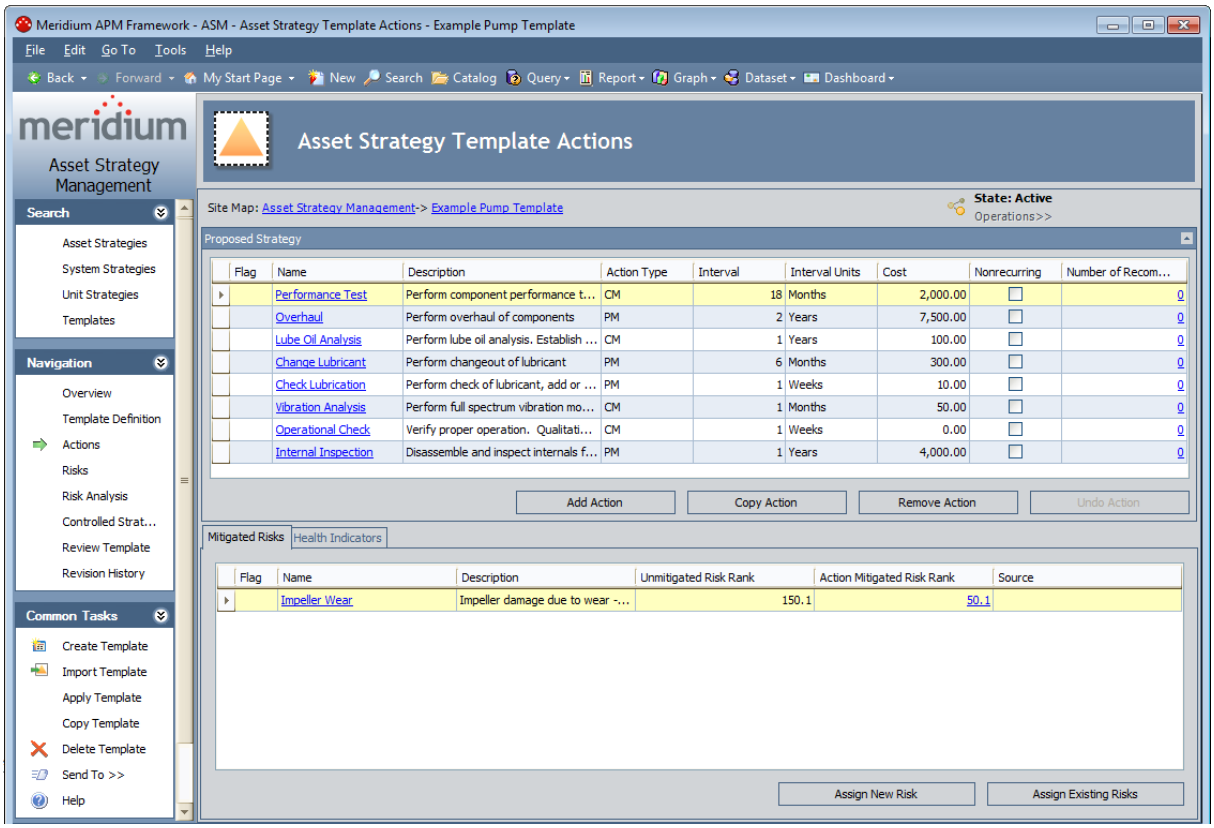
To access the Asset Strategy Template Actions page:

1. Search for and open the desired Asset Strategy Template.

   The **Asset Strategy Template Overview** page appears.

2. On the **Navigation** menu, click the **Actions** link.

   The **Asset Strategy Template Actions** page appears.



A list of the Actions that belong to the Asset Strategy Template is displayed in the **Proposed Strategy** section.

Overview of the Asset Strategy Template Actions Page

The Asset Strategy Template Actions page is divided into the following items:

- Proposed Strategy section: Contains a grid, which displays a list of Actions that belong to the Asset Strategy Template.
- Mitigated Risks tab: Contains a gird, which displays a list of Risks that are associated with the Action that is selected in the **Proposed Strategy** section.
- Health Indicators tab: Contains a grid, which displays a list of Health Indicator records that are linked to the Action record that is selected in the **Proposed Strategy** section.

Proposed Strategy Section

The **Proposed Strategy** section contains a grid, which displays a list of Actions that are linked to the Asset Strategy Template record. Each row in the grid represents one Action.

By default, the grid contains the following columns:

- **Flag:** An icon indicating the status of the Action.
  - If the Asset Strategy Template state is anything *other than* Active or Draft and the Action has not been modified since it was created, the **Flag** column will contain the icon.
  - If the Asset Strategy Template state is anything *other than* Active or Draft and the Action has been modified, the **Flag** column will contain the icon.
  - If the Asset Strategy Template state is anything *other than* Active or Draft and the Action has been removed from the Asset Strategy Template (and therefore the Action record has been unlinked from the Asset Strategy Template record), the **Flag** column will contain the icon.
- **Name:** The name of the action. This column contains a hyperlink that you can click to access the Action datasheet, where you can modify the Action.
- **Description:** A description of the action.
- **Action Type:** The type of action.
- **Interval:** The interval by which the action should be completed.
- **Interval Units:** The units associated with the interval.
- **Cost:** The cost of performing the action.
- **Nonrecurring:** A check box indicating whether or not the action should be repeated on a recurring basis.
- **Number of Recommendations:** The number of source Recommendations that were promoted to create this Action. This column contains a hyperlink that you can click to access the **Manage Recommendations to Action Links** page.

Below the grid, the following buttons are available:

- **Add Action:** Displays the **New Action** window, where you can create a new Action. This button is always enabled.
- **Remove Action:** Causes the Meridium APM system to delete the Action the next time the Asset Strategy Template state is set to Active. This button is enabled only if the Asset Strategy Template state is Active.
- **Undo Action:** Reverses the last action that you performed on the Action. For example, if you created the Action, the **Undo Action** button will remove the Action from the grid. If you last clicked the **Remove Action** button, the **Undo Action** button will undo this step, causing the Action to appear in the grid without the icon. This button is enabled only if the Asset Strategy Template state is Draft or Modified.

Note: The instructions for performing the actions described above are explained in the context of an *Asset Strategy*. These instructions can also be used to perform these actions in the context of an *Asset Strategy Template*.

If you want to collapse the **Proposed Strategy** section, you can click the up arrow in the **Proposed Strategy** section header. To expand the section again, you can click the down arrow.

Mitigated Risks Section

The **Mitigated Risks** tab contains a grid, which displays a list of Risks that are associated with the Action that is selected in the **Proposed Strategy** section. Each row in the grid represents one Risk.

By default, the grid contains the following columns:

- **Flag:** An icon indicating the status of the Risk Assessment record that is linked to the Risk record.
  - If the Asset Strategy Template state is Modified or Pending Review and the Risk Assessment record has not been modified since it was created, the **Flag** column will contain the icon.
  - If the Asset Strategy Template state is Modified or Pending Review and the Risk Assessment record has been modified, the **Flag** column will not contain an icon.
  - If the Asset Strategy Template state is Modified or Pending Review and the Risk Assessment record has been removed from the Asset Strategy Template (and therefore unlinked from the Asset Strategy record), the **Flag** column will contain the icon.
- **Name:** The name of the risk.
- **Description:** A description of the risk.
- **Unmitigated Risk Rank:** The calculated risk rank in the Risk record.
- **Action Mitigated Risk Rank:** The calculated risk rank in the Risk Assessment record that is linked to the Risk record. This column contains a hyperlink that you can click to access the risk matrix, where you can modify the mitigated risk value on any tab.
- **Strategy Mitigated Risk Rank:** The sum of the smallest risk rank values across ALL risk categories (represented by tabs on the risk matrix) defined for ALL Actions that are associated with the Risk.

Below the grid, the following buttons are available:

- **Assign New Risk:** Displays the **Create Risk Wizard**, where you can create a new Risk that is associated with the Action. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Assign Existing Risks:** Displays the **Assign Risks** window, where you can select existing Risks to associate with the Action. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.

Note: The instructions for performing the actions described above are explained in the context of an *Asset Strategy*. These instructions can also be used to perform these actions in the context of an *Asset Strategy Template*.

Health Indicators Tab

The **Health Indicators** tab contains a grid, which displays a list of Health Indicator records that are linked to the Action record that is selected in the **Proposed Strategy** section. Each row in the grid represents one Health Indicator record.

By default, the grid contains the following columns:

- **Name:** The hyperlinked name of the Health Indicator record. You can click the hyperlink to view the Health Indicator datasheet.
- **Description:** A description of the Health Indicator.

Below the grid, the following buttons are available:

- **Add Indicator:** Displays the **Create New Health Indicator** dialog box, where you can create a new Health Indicator record to link to the selected Action record.
- **Delete Indicator:** After asking for confirmation, deletes the selected Health Indicator record.

Note: The instructions for performing the actions described above are explained in the context of an *Asset Strategy*. These instructions can also be used to perform these actions in the context of an *Asset Strategy Template*.

Accessing the Asset Strategy Risks Page

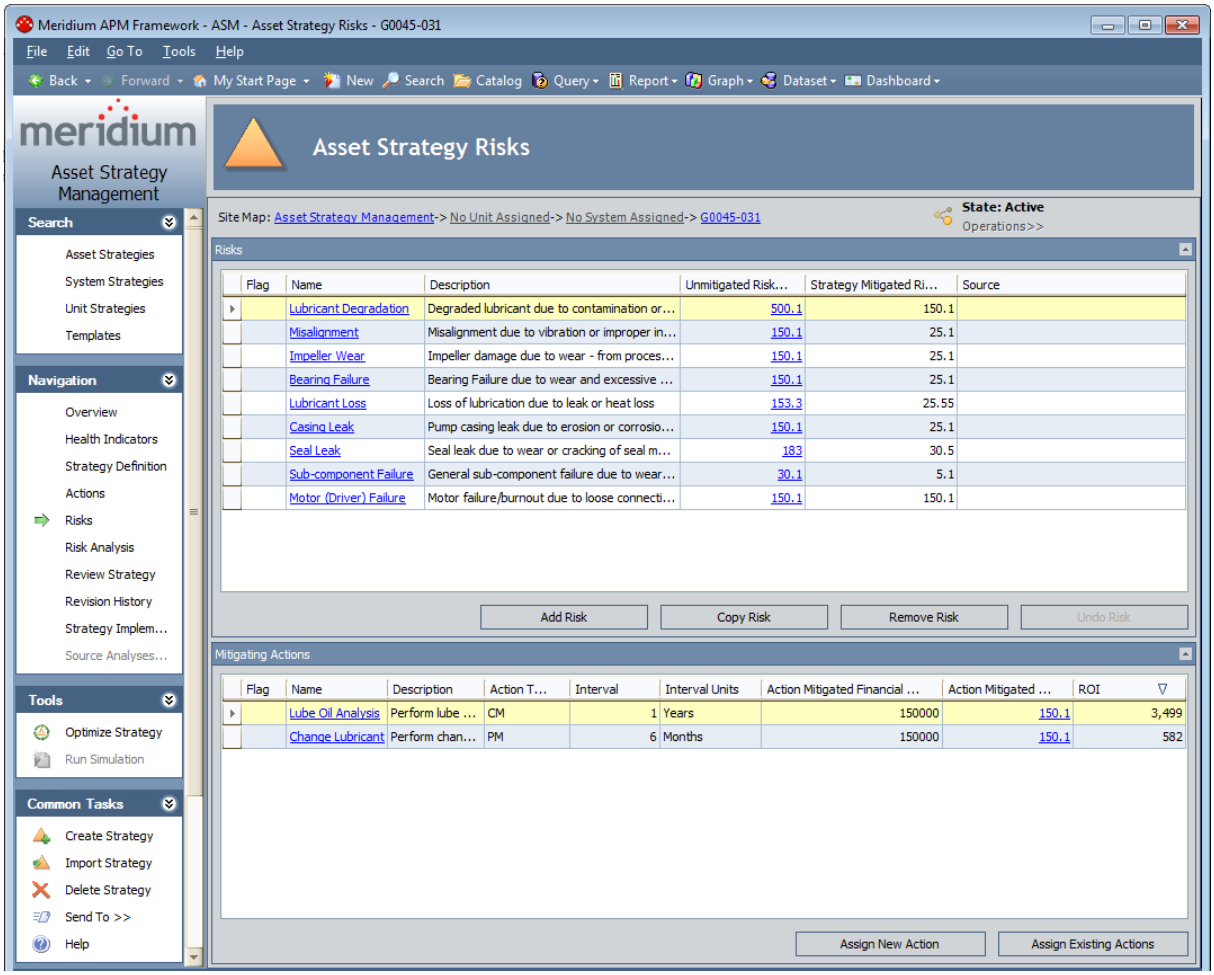
To access the Asset Strategy Risks page:

1. Search for and open an Asset Strategy.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Risks** link.

   The **Asset Strategy Risks** page appears.



A list of Risks that are included in the Asset Strategy is displayed in the **Risks** section.

Overview of the Asset Strategy Risks Page

The **Asset Strategy Risks** page is divided into the following sections:

- **Risks**: Contains a grid, which displays a list of Risks that are included in the Asset Strategy.
- **Mitigating Actions**: Contains a grid, which displays a list of Actions that are associated with the Risk that is selected in the **Risks** section.

Risks Section

The **Risks** section contains a grid, which displays a list of Risks that are included in the Asset Strategy. Each row in the grid represents one Risk.

By default, the grid contains the following columns:

- **Flag:** An icon indicating the status of the Risk.
  - If the Asset Strategy state is Modified or Pending Review and the Risk has not been modified since it was created, the **Flag** column will contain the icon.
  - If the Asset Strategy state is Modified or Pending Review and the Risk has been modified, the **Flag** column will contain the icon.
  - If the Asset Strategy state is Modified or Pending Review and the Risk has been removed from the Asset Strategy (and therefore the Risk record has been unlinked from the Asset Strategy record), the **Flag** column will contain the icon.
- **Name:** A short name describing the risk. This column contains a hyperlink that you can click to access the Risk datasheet, where you can modify the Risk record.
- **Description:** A description of the risk.
- **Unmitigated Risk Rank:** The calculated risk rank for the risk. This column contains a hyperlink that you can click to access the risk matrix, where you can modify the unmitigated risk value on any tab.
- **Strategy Mitigated Risk Rank:** The sum of the smallest risk rank values across ALL risk categories (represented by tabs on the risk matrix) defined for ALL actions that mitigate the risk.
- **Source:** A hyperlink that indicates the source of the Risk.

Below the grid, the following buttons are available:

- **Add Risk:** Displays the **Create Risk Wizard**, where you can create a new Risk. This button is disabled if you are logged in as a member of the ASM Viewer Security Group. Otherwise, this button is always enabled.
- **Copy Risk:** Creates a copy of the selected Risk, where the Record ID of the new Risk record is *Copy of <Risk Name> n*, where *<Risk Name>* is the value in the Name field in the source Risk record and *n* is a numeric value indicating the order in which the copy was created, relative to other copies of the same source Risk record. The new Risk will contain the same values as the source Risk. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Remove Risk:** Causes Meridium APM to delete the Risk the next time the Asset Strategy state is set to Active. You can select multiple Risks to delete them all at the same time. This button is enabled only if the Asset Strategy state is Active. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Undo Risk:** Reverses the last action that you performed on the Risk. For example,

if you created the Risk, the **Undo Risk** button will remove the Risk from the grid. If you last clicked the **Remove Risk** button, the **Undo Risk** button will undo this action, causing the Risk to appear in the grid without the icon. You can select multiple Risks to reverse the last action that you performed on them. This button is enabled only if the Asset Strategy state is Draft or Modified. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.

Note that if you want to collapse the **Risks** section, you can click the button in the **Risks** section header. To expand the section again, you can click the button.

Mitigating Actions Section

The **Mitigating Actions** section contains a grid, which displays a list of Actions that are associated with the Risk that is selected in the **Risks** section. Each row in the grid represents one Action.

By default, the grid contains the following columns:

- **Flag:** An icon indicating the status of the Action.
  - If the Asset Strategy state is Modified or Pending Review and the Action has not been modified since it was created, the **Flag** column will contain the icon.
  - If the Asset Strategy state is Modified or Pending Review and the Action has been modified, the **Flag** column will contain the icon.
  - If the Asset Strategy state is anything Modified or Pending Review and the Action has been removed from the Asset Strategy (and therefore the Action record has been unlinked from the Asset Strategy record), the **Flag** column will contain the icon.
- **Name:** A short name describing the action.
- **Description:** A description of the action.
- **Action Type:** The type of action.
- **Interval:** The interval by which the action should be completed.
- **Interval Units:** The units associated with the interval.
- **Action Mitigated Financial Risk Rank:** The value on the **Financial** tab of the risk matrix when it is accessed from the Action.
- **Action Mitigated Risk Rank:** The calculated risk rank for the action. This column contains a hyperlink that you can click to access the risk matrix, where you can modify the mitigated risk value on any tab.
- **ROI:** The return on investment for the Action.

Below the grid, the following buttons are available:

- **Assign New Action:** Displays the **New Action** window, where you can create a new Action that is associated with the Risk. Note that a warning message will appear if you try to assign an Action to a Risk that is flagged for deletion. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Assign Existing Actions:** Displays the **Assign Actions** window, where you can select the existing Actions to associate with the Risk. Note that a warning message will appear if you try to assign an Action to a Risk that is flagged for deletion. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.

Note that if you want to collapse the **Mitigating Actions** section, you can click the button in the **Mitigating Actions** section header. To expand the section again, you can click the button.

Accessing the ASM - Asset Strategy Template Risks Page

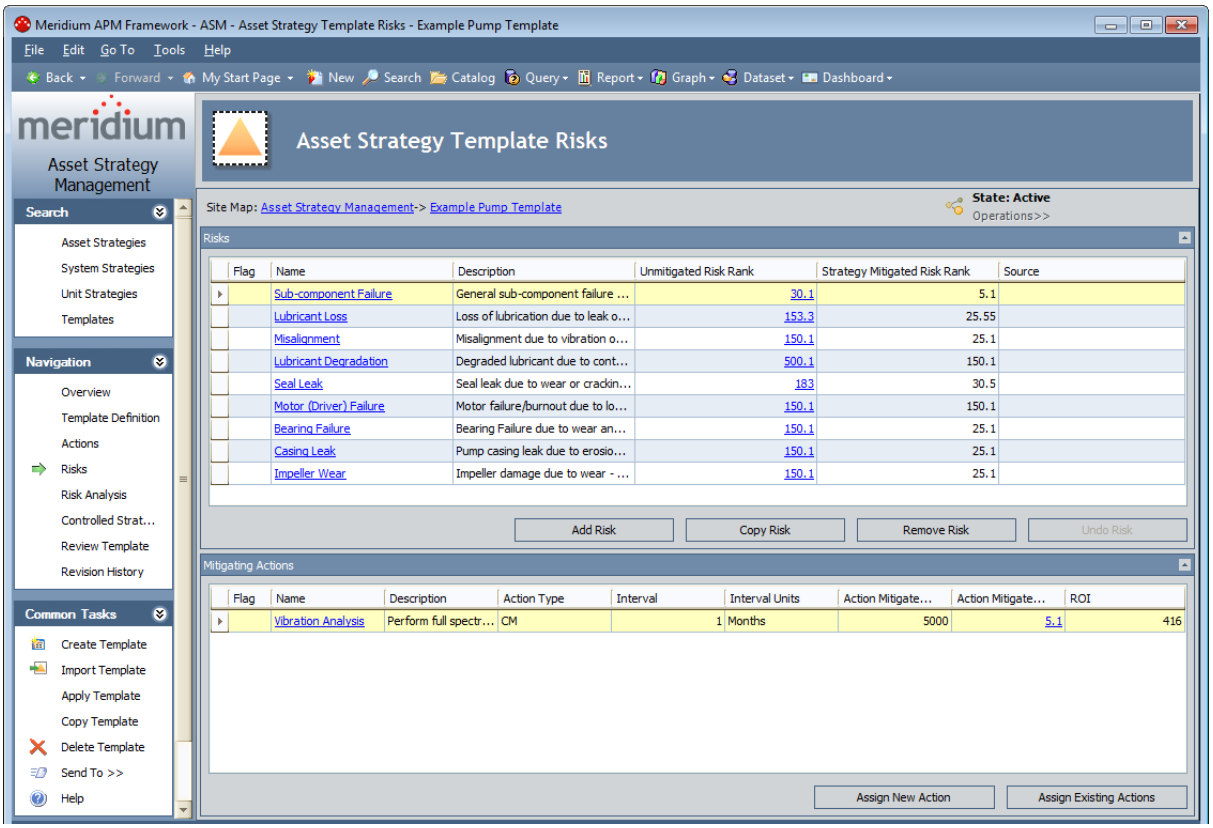
To access the Asset Strategy Template Risks page:

1. Search for and open the desired Asset Strategy Template.

   The **Asset Strategy Template Overview** page appears,.

2. On the **Navigation** menu, click the **Risks** link.

   The **Asset Strategy Template Risks** page appears.



A list of the Risks that belong to the Asset Strategy Template is displayed in the **Risks** section.

Overview of the Asset Strategy Template Risks Page

The Asset Strategy Template Risks page is divided into the following sections:

- **Risks:** Contains a grid, which displays a list of Risks that belong to the Asset Strategy Template.
- **Mitigating Actions:** Contains a grid, which displays a list of Actions that are associated with the Risk that is selected in the Risks section.

Risks Section

The **Risks** section contains a grid, which displays a list of Risks that belong to the Asset Strategy Template. Each row in the grid represents one Risk.

By default, the grid contains the following columns:

- **Flag:** An icon indicating the status of the Risk.
  - If the Asset Strategy Template state is Modified or Pending Review and the Risk has not been modified since it was created, the **Flag** column will contain the icon.
  - If the Asset Strategy Template state is Modified or Pending Review and the Risk has been modified, the **Flag** column will contain the icon.
  - If the Asset Strategy Template state is Modified or Pending Review and the Risk has been removed from the Asset Strategy Template (and therefore the Risk record has been unlinked from the Asset Strategy Template record), the **Flag** column will contain the icon.
- **Name:** The name of the risk. This column contains a hyperlink that you can click to access the Risk datasheet, where you can modify the Risk.
- **Description:** A description of the risk.
- **Unmitigated Risk Rank:** The calculated risk rank for the risk. This column contains a hyperlink that you can click to access the risk matrix, where you can modify the unmitigated risk value on any tab.
- **Strategy Mitigated Risk Rank:** The sum of the smallest risk rank values across ALL risk categories (represented by tabs on the risk matrix) defined for ALL Actions that are associated with the Risk.
- **Source:** A hyperlink that indicates the source of the Risk.

Below the grid, the following buttons are available:

- **Add Risk:** Displays the **Create Risk Wizard**, where you can create a new Risk. This button is always enabled. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Copy Risk:** Creates a copy of the selected Risk, where the Record ID of the new Risk record is *Copy of <Risk Name> n*, where *<Risk Name>* is the value in the Name field in the source Risk record and *n* is a numeric value indicating the order in which the copy was created, relative to other copies of the same source Risk record. The new Risk will contain the same values as the source Risk. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Remove Risk:** Causes Meridium APM to delete the Risk the next time the Asset Strategy Template state is set to Active. This button is enabled only if the Asset Strategy Template state is Active. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Undo Risk:** Reverses the last action that you performed on the Risk. For example,

if you created the Risk, the **Undo Risk** button will remove the Risk from the grid. If you last clicked the **Remove Risk** button, the **Undo Risk** button will undo this action, causing the Risk to appear in the grid without the icon. This button is enabled only if the Asset Strategy Template state is Draft or Modified. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.

Note that if you want to collapse the **Risks** section, you can click the up arrow in the **Risks** section header. To expand the section again, you can click the down arrow.

Note: The instructions for performing the actions described above are explained in the context of an *Asset Strategy*. These instructions can also be used to perform these actions in the context of an *Asset Strategy Template*.

Mitigating Actions Section

The **Mitigating Actions** section contains a grid, which displays a list of Actions that are associated with the Risk that is selected in the **Risks** section. Each row in the grid represents one Action.

By default, the grid contains the following columns:

- **Flag:** An icon indicating the status of the Action.
  - If the Asset Strategy Template state is Modified or Pending Review and the Action has not been modified since it was created, the **Flag** column will contain the icon.
  - If the Asset Strategy Template state is Modified or Pending Review and the Action has been modified, the **Flag** column will contain the icon.
  - If the Asset Strategy Template state is anything Modified or Pending Review and the Action has been removed from the Asset Strategy Template (and therefore the Action record has been unlinked from the Asset Strategy Template record), the **Flag** column will contain the icon.
- **Name:** The name of the action.
- **Description:** A description of the action.
- **Action Type:** The type of action.
- **Interval:** The interval by which the action should be completed.
- **Interval Units:** The units associated with the interval.
- **Action Mitigated Financial Risk Rank:** The value on the **Financial** tab of the risk matrix when it is accessed from the Action record.
- **Action Mitigated Risk Rank:** The calculated risk rank for the action. This column contains a hyperlink that you can click to access the risk matrix, where you can modify the mitigated risk value on any tab.

Below the grid, the following buttons are available:

- **Assign New Action:** Displays the **New Action** window, where you can create a new Action that is associated with the Risk. Note that a warning message will appear if you try to assign an Action to a Risk that is flagged for deletion. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Assign Existing Actions:** Displays the **Assign Actions** window, where you can select the existing Actions to associate with the Risk. Note that a warning message will appear if you try to assign an Action to a Risk that is flagged for deletion. This button is disabled if you are logged in as a member of the ASM Viewer Security Group.

Note that if you want to collapse the **Mitigating Actions** section, you can click the up arrow in the **Mitigating Actions** section header. To expand the section again, you can click the down arrow.

Note: The instructions for performing the actions described above are explained in the context of an *Asset Strategy*. These instructions can also be used to perform these actions in the context of an *Asset Strategy Template*.

About Managing a System Strategy

From the **System Strategy Management** page, you can view the Asset Strategies that belong to the System Strategy, and:

- Add new Asset Strategies to the System Strategy.
- Add existing Asset Strategies to the System Strategy.
- Remove an Asset Strategy from the System Strategy.

Accessing the System Strategy Management Page

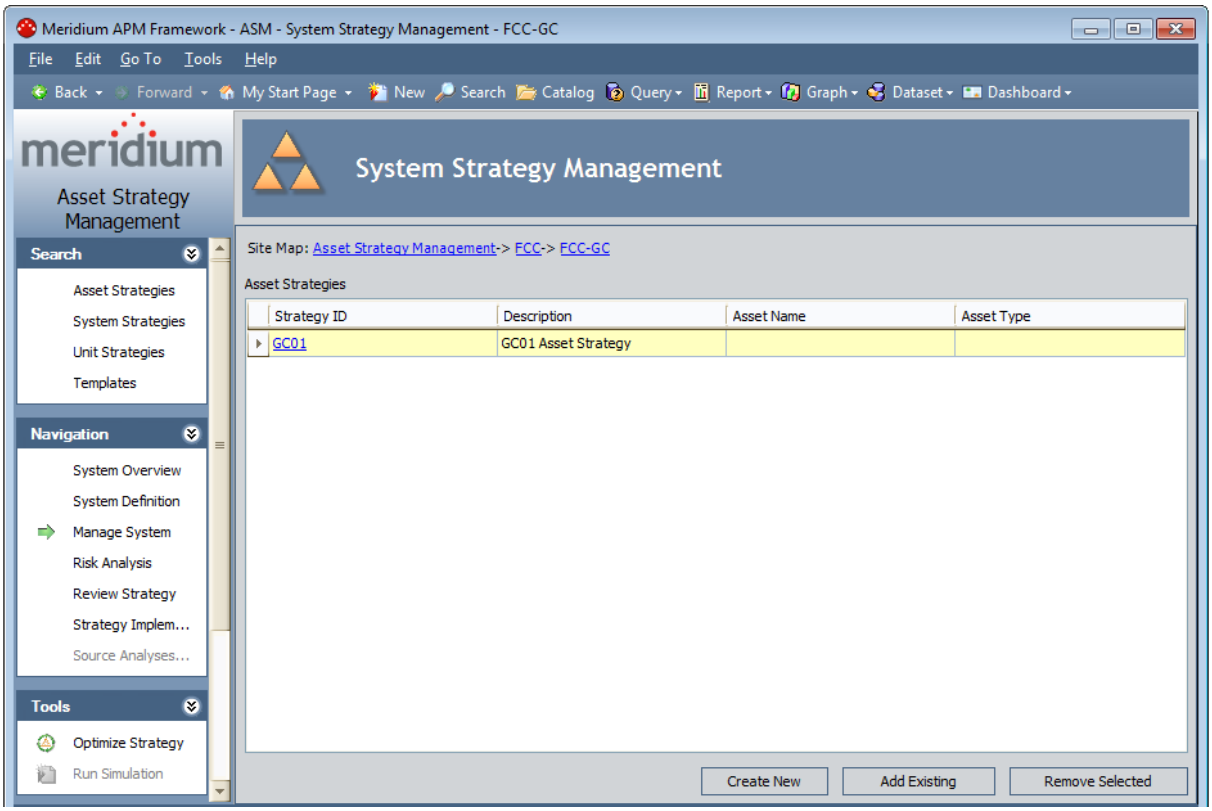
To access the System Strategy Management page:

1. Search for and open the System Strategy that you want to manage.

   The **System Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Manage System** link.

   The **System Strategy Management** page appears.



Aspects of the System Strategy Management Page

The **System Strategy Management** page contains the **Asset Strategies** grid, which displays the list of Asset Strategies that make up the System Strategy. Each row in the grid represents one Asset Strategy. For each Asset Strategy in the grid, the following information is displayed by default:

- **Strategy ID:** The value stored in the Strategy ID field in the corresponding Asset Strategy record. This value appears as a hyperlink, which you can click to view the Asset Strategy on the **Asset Strategy Overview** page.
- **Description:** The value stored in the Description field in the corresponding Asset Strategy record.
- **Asset Name:** The value stored in the Asset Name field in the corresponding Asset Strategy record.
- **Asset Type:** The value stored in the Asset Type field in the corresponding Asset Strategy record.

Below the grid, the following buttons appear:

- **Create New:** Displays a new Asset Strategy record on the **Asset Strategy Definition** page.
- **Add Existing:** Displays the **Find Items** window, where you can search for an existing Asset Strategy to add to the Unit Strategy.
- **Remove Selected:** After displaying a confirmation message, removes the selected Asset Strategy from the Unit Strategy.

About Managing a Unit Strategy

From the **Unit Strategy Management** page, you can view the System Strategy records that belong to the Unit Strategy, and:

- Add new System Strategies to the Unit Strategy.
- Add existing System Strategies to the Unit Strategy.
- Remove System Strategies from the Unit Strategy.

Accessing the Unit Strategy Management Page

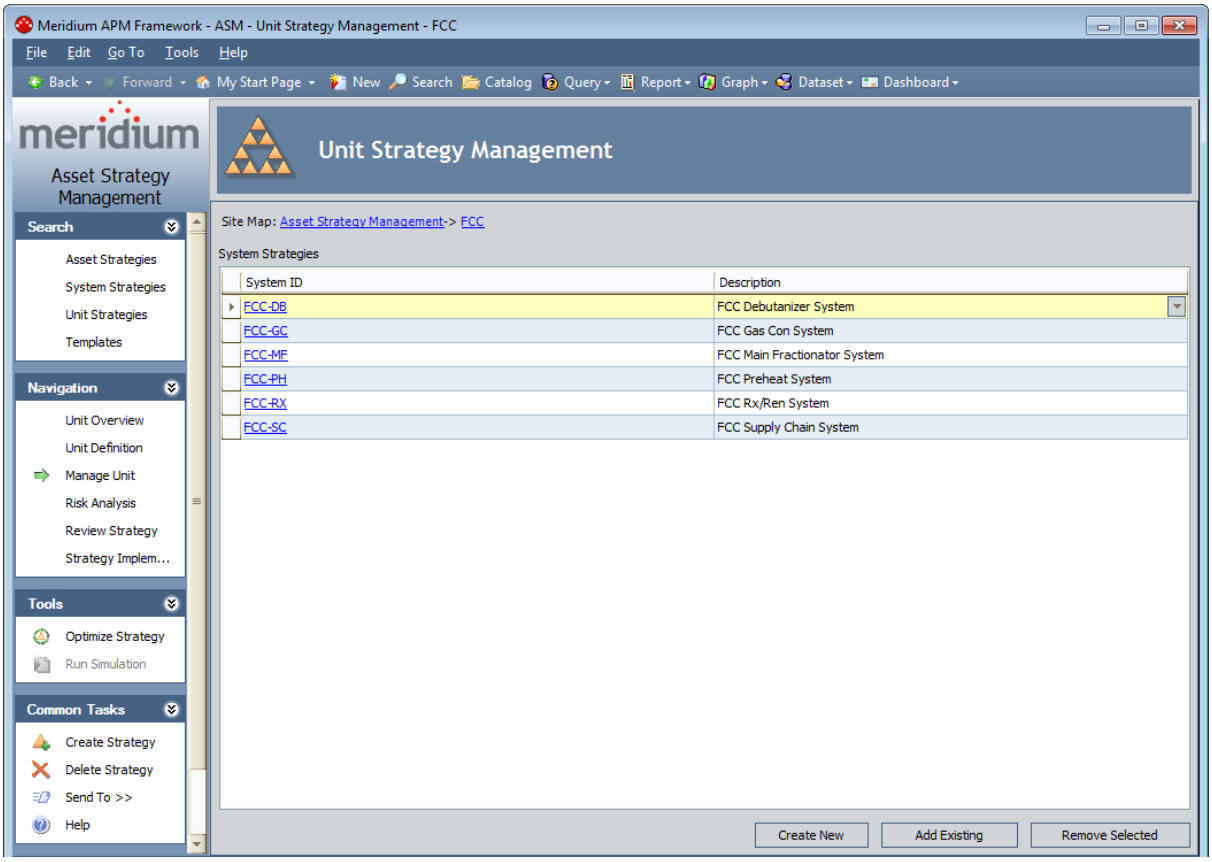
To access the Unit Strategy Management page:

1. Search for and open the Unit Strategy that you want to manage.

   The **Unit Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Manage Unit** link.

   The **Unit Strategy Management** page appears.



Aspects of the Unit Strategy Management Page

The **Unit Strategy Management** page contains the **System Strategies** grid, which displays the list of System Strategies that make up the Unit Strategy. Each row in the grid represents one System Strategy. For each System Strategy in the grid, the following information is displayed by default:

- **System ID:** The value stored in the System ID field in the corresponding System Strategy record. This value appears as a hyperlink, which you can click to view the **System Overview** page for the corresponding System Strategy.
- **Description:** The values is stored in the Description field in the corresponding System Strategy record.

Below the grid, the following buttons appear:

- **Create New:** Displays a new System Strategy record on the **System Strategy Definition** page.
- **Add Existing:** Displays the **Find Items** window, where you can search for an existing System Strategy to add to the Unit Strategy.
- **Remove Selected:** After displaying a confirmation message, removes the selected System Strategy from the Unit Strategy.

Accessing the Asset Strategy Risk Analysis

To access the Asset Strategy risk analysis:

1. Search for and open the Asset Strategy whose risk analysis you want to view.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Risk Analysis** link.

   The **Asset Strategy Risk Analysis** page appears.

About the Asset Strategy Risk Analysis

The Asset Strategy risk analysis contains the following items:

- Actions section: Contains a grid containing a list of the Actions that are included in the Proposed Strategy.
- **Risk and Cost Summary pane:** Contains the following graphs:
  - The Risk Profile graph.
  - The Financial Risk Exposure graph.
  - The Cost of Actions graph.
  - The Cost Projection graph.

  Note that if you want to collapse the **Risk and Cost Summary** pane, you can click the button in the **Risk and Cost Summary** pane header. To expand the pane again, you can click the button.

The Asset Strategy risk analysis is displayed on the **Asset Strategy Risk Analysis** page.

Actions Section

The **Asset Strategy Risk Analysis** page contains the **Actions** section. The **Actions** section contains a grid that lists the Actions that are included in the Proposed Strategy.

Each row in the grid represents an Action. You can click a hyperlink in the **Name** column to see the Action datasheet for the Action represented by that row. Note, however, that you cannot modify the Action from this page.

In addition, you can:

- Clear the **Selected Actions** check box in any row. Doing so causes the graphs below the grid to change, reflecting the potential impact to the Asset Strategy if you were to decide not to perform that action.
- Click the **Basis for Revision** button to enter text explaining why you have decided to modify the Asset Strategy.
- Click the **Show Changes** button to see a list of changes that have been made to any Action that appears in the list. The list will reflect changes between the Action that is included in the Active Strategy and the Action that is included in the Proposed Strategy. If no changes have been made to the Action since the Asset Strategy was last activated, the **Show Changes** button will be disabled.

  Note that you will typically want to review the changes if you are responsible for reviewing changes waiting for approval.

Accessing the Asset Strategy Template Risk Analysis

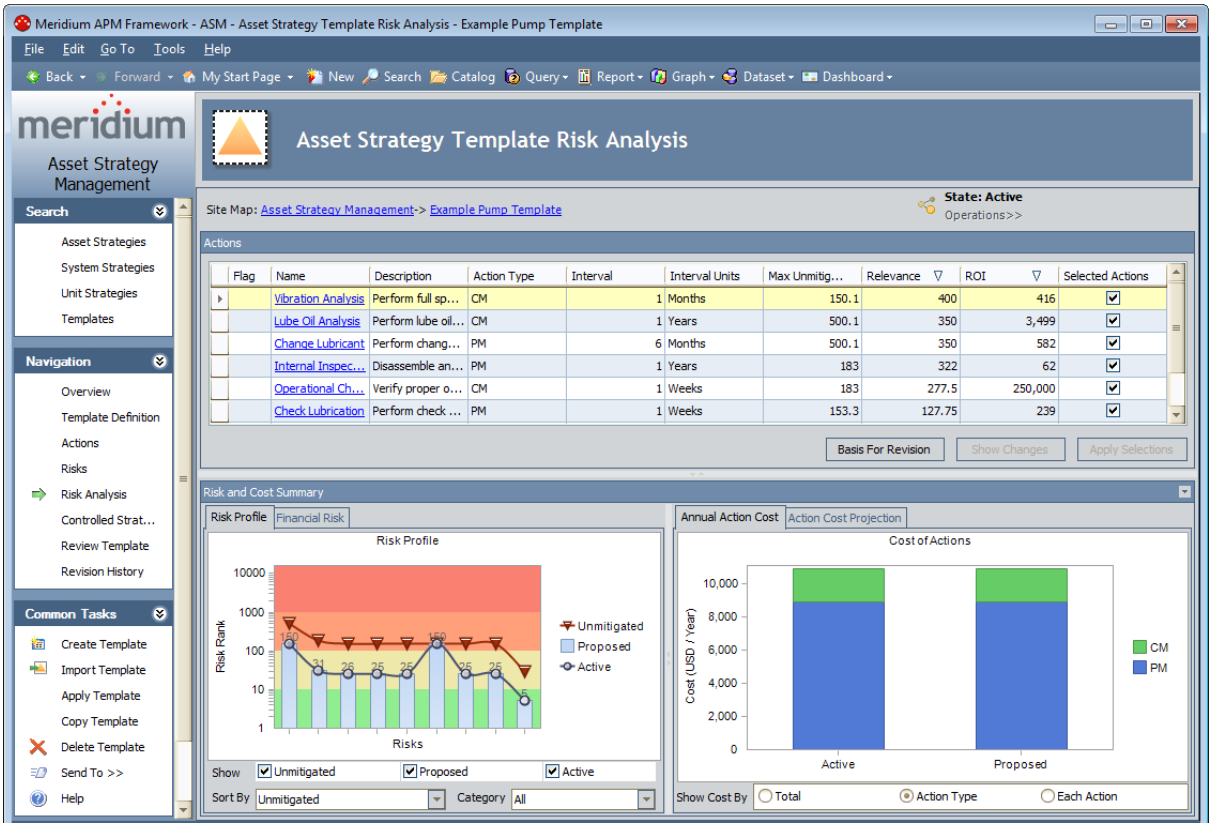
To access the Asset Strategy Template risk analysis:

1. Search for an open the Asset Strategy Template whose risk analysis you want to view.

   The **Asset Strategy Template Overview** page appears.

2. On the **Navigation** menu, click the **Risk Analysis** link.

   The Asset Strategy Template Risk Analysis page appears.



About the Asset Strategy Template Risk Analysis

The Asset Strategy Template risk analysis appears on the Asset Strategy Template Risk Analysis page and contains the following items:

- Actions section: Contains a grid that contains a list of the Actions that belong to the Proposed Asset Strategy Template record.
- **Risk and Cost Summary pane:** Contains the following graphs:
  - The Risk Profile graph.
  - The Financial Risk Exposure graph.
  - The Cost of Actions graph.
  - The Cost Projection graph.

  Note that if you want to collapse the **Risk and Cost Summary** pane, you can click the button in the **Risk and Cost Summary** pane header. To expand the pane again, you can click the button.

Note: For the purposes of this documentation, the items in the preceding list are explained in terms of an *Asset Strategy*. The information provided for these items applies also to *Asset Strategy Templates*.

Actions Section

The **Asset Strategy Template Risks** page contains the **Actions** section. The **Actions** section contains a grid that lists the Actions that are belong to the Proposed Strategy.

Each row in the grid represents an Action. You can click a hyperlink in the **Name** column to see the Action datasheet for the Action represented by that row. Note, however, that you cannot modify the Action from this page.

This section contains the following options:

- **Selected Actions check box:** Specifies whether or not you want the action to be performed as part of the Asset Strategy. Clearing the **Actions** check box indicates that you do not want that action to be performed. Selecting the **Actions** check box indicates that you want that action to be performed. When you modify this check box, the graphs below the grid will change, reflecting the potential impact to the Asset Strategy Template.
- **Basis for Revision button:** Displays the **Basis For Revision** text box, where you can enter text explaining why you have decided to modify the Asset Strategy Template.
- **Show Changes button:** Displays a list of changes that have been made to any Action that appears in the list. The list will reflect changes between the Action that is belongs to the Active Strategy Template and the Action that belongs to the Proposed Strategy Template. If no changes have been made to the Action since the Asset Strategy Template was last activated, the **Show Changes** button will be disable. You will typically want to review the changes if you are responsible for reviewing changes waiting for approval.

Note: For the purposes of this documentation, the items in the preceding list are explained in terms of an *Asset Strategy*. The information provided for these items applies also to *Asset Strategy Templates*.

Accessing the System Strategy Risk Analysis

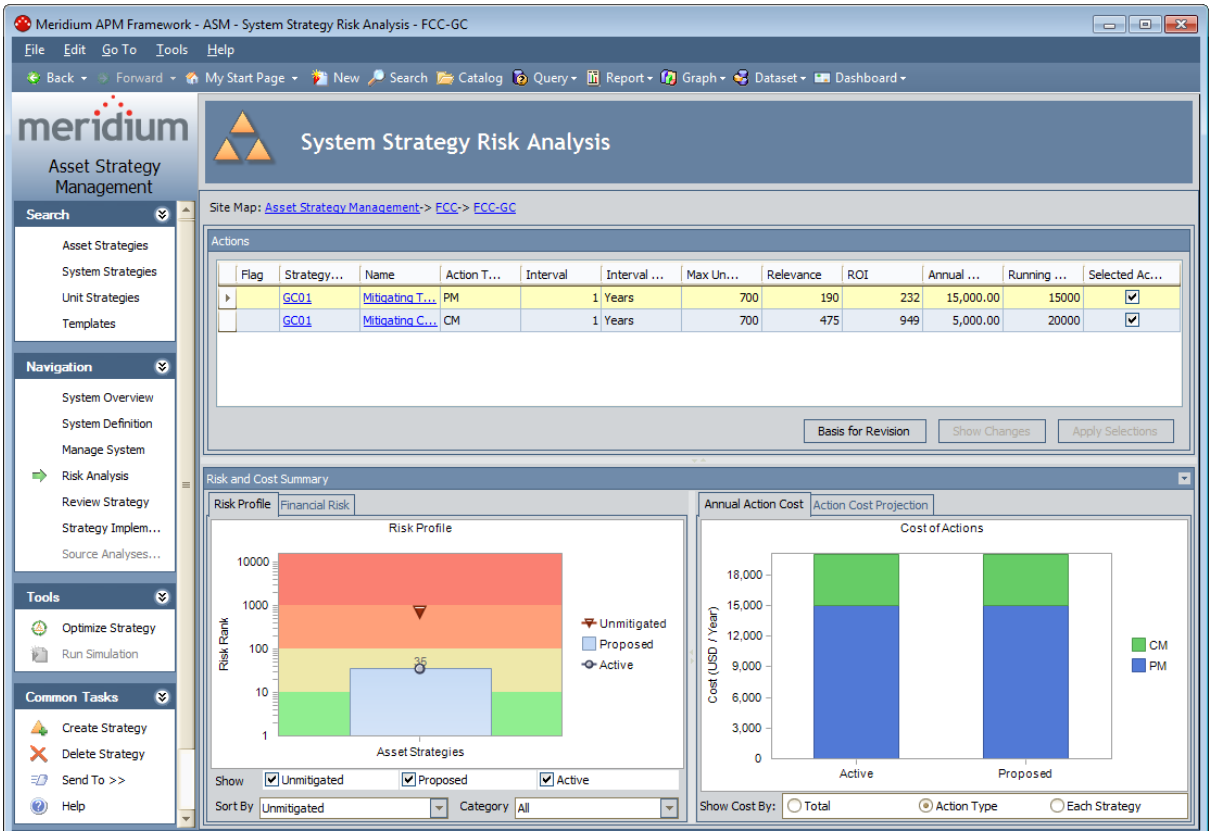
To access the System Strategy risk analysis:

1. Search for and open the System Strategy whose risk analysis you want to view.

   The **System Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Risk Analysis** link.

   The System Strategy Risk Analysis page appears.



About the System Strategy Risk Analysis

The System Strategy risk analysis contains the following items:

- Actions section: Contains a grid containing a list of the Actions that belong to the underlying Proposed Strategies.
- **Risk and Cost Summary pane:** Contains the following graphs:
  - The Risk Profile graph.
  - The Financial Risk Exposure graph.
  - The Cost of Actions graph.
  - The Cost Projection graph.

  Note that if you want to collapse the **Risk and Cost Summary** pane, you can click the button in the **Risk and Cost Summary** pane header. To expand the pane again, you can click the button.

The System Strategy risk analysis is displayed on the System Strategy Risk Analysis page.

Actions Section

The **System Strategy Risk Analysis** page contains the **Actions** section. The **Actions** section contains a grid that lists the Actions that belong to the underlying Proposed Strategies.

Each row in the grid represents an Action. The following columns contain a hyperlinks:

- **Name:** Displays the Action datasheet for the Action represented by that row.
- **Strategy ID:** Displays the **Asset Strategy Risk Analysis** page for the Asset Strategy that contains that Action.

In addition, you can:

- Clear the **Selected Actions** check box in any row. Doing so causes the graphs below the grid to change, reflecting the potential impact to the System Strategy if you were to decide not to perform that action.
- Click the **Basis for Revision** button to enter text explaining why you have decided to modify the System Strategy. Note that entering a basis for revision on a System Strategy will override the basis for revision on all underlying Asset Strategies.
- Click the **Show Changes** button to see a list of changes that have been made to any Action that appears in the list. The list will reflect changes between the Action that belongs to the underlying Proposed Strategy and the Action that belongs to the underlying Active Strategy. If no changes have been made to the Action since the underlying Asset Strategy was last activated, the **Show Changes** button will be disabled.

The **Running Total** column contains a value representing the total yearly cost of performing the action represented by that row and all actions in all rows above it.

Accessing the Unit Strategy Risk Analysis

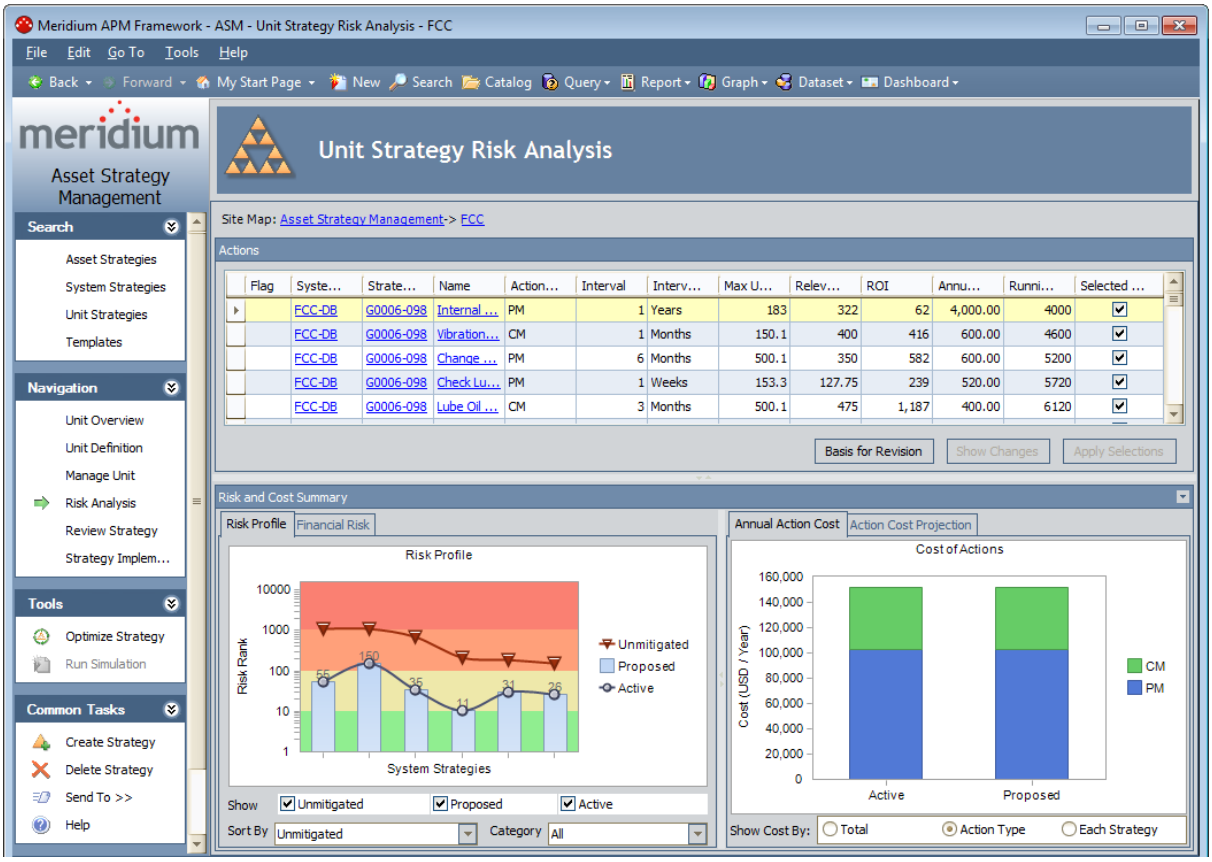
To access the Unit Strategy risk analysis:

1. Search for and open the Unit Strategy whose risk analysis you want to view.

   The **Unit Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Risk Analysis** link.

   The Unit Strategy Risk Analysis page appears.



About the Unit Strategy Risk Analysis

The Unit Strategy risk analysis contains the following items:

- **Actions section:** Contains a grid containing a list of the Actions that belong to the underlying Proposed Strategies.
- **Risk and Cost Summary pane:** Contains the following graphs:\
  - The Risk Profile graph.
  - The Financial Risk Exposure graph.
  - The Cost of Actions graph.
  - The Cost Projection graph.

  Note that if you want to collapse the **Risk and Cost Summary** pane, you can click the button in the **Risk and Cost Summary** pane header. To expand the pane again, you can click the button.

The Unit Strategy risk analysis is displayed on the **Unit Strategy Risk Analysis** page.

Actions Section

The **Unit Strategy Risk Analysis** page contains the **Actions** section. The **Actions** section contains a grid that lists the Actions that belong to the underlying Proposed Strategies.

Each row in the grid represents an Action. The following columns contain a hyperlinks:

- **System ID:** Displays the **System Strategy Risk Analysis** page for the System Strategy that contains the Asset Strategy that contains that Action.
- **Strategy ID:** Displays the **Asset Strategy Risk Analysis** page for the Asset Strategy that contains that Action.
- **Name:** Displays the Action datasheet for the Action represented by that row.

In addition, you can:

- Clear the **Selected Actions** check box in any row. Doing so causes the graphs below the grid to change, reflecting the potential impact to the Unit Strategy if you were to decide not to perform that action.
- Click the **Basis for Revision** button to enter text explaining why you have decided to modify the Unit Strategy.
- Click the **Show Changes** button to see a list of changes that have been made to any Action that appears in the list. The list will reflect changes between the Action that belongs to the underlying Proposed Strategy and the Action that belongs to the underlying Active Strategy. If no changes have been made to the Action since the underlying Asset Strategy was last activated, the **Show Changes** button will be disabled.

The **Running Total** column contains a value representing the total yearly cost of performing the action represented by that row and all actions in all rows above it.

Accessing the Review Asset Strategy Page

To access the Review Asset Strategy page:

1. Search for and open the Asset Strategy that you want to review.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Review Strategy** link.

   The **Review Asset Strategy** page appears.

Accessing the Review Asset Strategy Template Page

To access the Review Asset Strategy Template page:

1. Search for and open the Asset Strategy Template that you want to review.

   The **Asset Strategy Template Overview** page appears.

2. On the **Navigation** menu, click the **Review Strategy** link.

   The **Review Asset Strategy Template -**page appears.

Accessing the Review System Strategy Page

To access the Review System Strategy page:

1. Search for and open the System Strategy that you want to review.

   The **System Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Review Strategy** link.

   The **Review System Strategy** page appears.

Accessing the Review Unit Strategy Page

To access the Review Unit Strategy page:

1. Search for and open the Unit Strategy that you want to review.

   The **Unit Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Review Strategy** link.

   The **Review Unit Strategy** page appears.

Search Menu

The **Search** menu appears one every page in ASM and contains links that you can use to navigate to the search pages associated with the link labels. For example, the **Unit Strategies** link displays the **Unit Strategy Search** page, where you can search for an existing Unit Strategy.

When you are viewing a search page (e.g., **Unit Strategy Search**), a green arrow appears to the left of the link that is associated with the current page, indicating the page that you are viewing. For example, the following image shows the **Search** menu as it appears on the **Unit Strategy Search** page.

The **Search** menu contains the following links:

- **Asset Strategies:** Displays the Asset Strategy Search page, where you can search for an existing Asset Strategy.
- **System Strategies:** Displays the System Strategy Search page, where you can search for an existing System Strategy.
- **Unit Strategies:** Displays theUnit Strategy Search page, where you can search for an existing Unit Strategy.
- **Templates:** Displays the Asset Strategy Template Search page, where you can search for an existing Asset Strategy Template.

Navigation Menu

The **Navigation** menu appears throughout ASM and provides access to features that are available in the ASM module. When you are viewing an Asset Strategy-specific page in ASM, the **Navigation** menu offers quick access to other features within the context of the Asset Strategy that you are currently viewing. Likewise, if you are viewing a System Strategy-specific page, the **Navigation** menu offers quick access to other features within the context of the System Strategy. The same is true for Unit Strategy-specific pages.

For example, if you access the **Unit Strategy Overview** page, you can click the **Unit Definition** link on the **Navigation** menu to view the **Unit Strategy Definition** page for that same strategy.

Note: The link for the page that you are currently viewing will always be labeled with a green arrow.

The following table lists the links that are available on the **Navigation** menu and the behavior of the link, depending on the type of strategy you are viewing when you click the link.

Hint: The Site Map can help you determine the type of strategy that you are currently viewing.

Link	Behavior if clicked while viewing an Asset Strategy	Behavior if clicked while viewing a System Strategy	Behavior if clicked while viewing a Unit Strategy
Overview	Displays the Asset Strategy Overview page.	Displays the System Strategy Overview page. When you are viewing a System Strategy, this link is labeled ***System Overview***.	Displays the Unit Strategy Overview page. When you are viewing a Unit Strategy, the link is labeled ***Unit Overview***.

Link	Behavior if clicked while viewing an Asset Strategy	Behavior if clicked while viewing a System Strategy	Behavior if clicked while viewing a Unit Strategy
Health Indicators	Displays the Asset Health Manager - <Strategy ID> page. This link is enabled only if the Asset Strategy record is linked to an Equipment or Functional Location record and the Asset Health Manager module is active.	This link does not appear on the **Navigation** menu when you are viewing a System Strategy.	This link does not appear on the **Navigation** menu when you are viewing a Unit Strategy.
Strategy Definition[3]	Displays the Asset Strategy Definition page.	Displays the System Strategy Definition page. When you are viewing a System Strategy, this link is labeled ***System Definition***.	Displays the Unit Strategy Definition page. When you are viewing a Unit Strategy, the link is labeled ***Unit Definition***.
Actions	Displays the Asset Strategy Actions page.	This link does not appear on the **Navigation** menu when you are viewing a System Strategy.	This link does not appear on the **Navigation** menu when you are viewing a Unit Strategy.
Risks	Displays the Asset Strategy Risks page.	This link does not appear on the **Navigation** menu when you are viewing a System Strategy.	This link does not appear on the **Navigation** menu when you are viewing a Unit Strategy.
Risk Analysis	Displays the Asset Strategy Risk Analysis page.	Displays the System Strategy Risk Analysis page.	Displays the Unit Strategy Risk Analysis page.

Link	Behavior if clicked while viewing an Asset Strategy	Behavior if clicked while viewing a System Strategy	Behavior if clicked while viewing a Unit Strategy
Review Strategy	Displays the **Review Asset Strategy** page.	Displays the **Review System Strategy** page.	Displays the **Review Unit Strategy** page.
Revision History	Displays the **Asset Strategy Revision History** page.	This link does not appear on the **Navigation** menu when you are viewing a System Strategy.	This link does not appear on the **Navigation** menu when you are viewing a Unit Strategy.
Strategy Implementation	• If the Asset Strategy record is not yet linked to an Implementation Package record, displays a message asking if you want to link the Asset Strategy record to a new Implementation Package record, where you can click the **Yes** button to display the **Implementation Package Creation** page. • If the Asset Strategy record is linked to an Implementation Package record, displays the **Packaging <Package ID>** page, where <Package ID> is the ID of the Implementation Package record to which the Asset Strategy record is linked.	Displays the **Implementation Package List** page, which displays a list of Implementation Package records that are linked to any Asset Strategy record that is linked to the System Strategy record.	Displays the **Implementation Package List** page, which displays a list of Implementation Package records that are linked to any underlying Asset Strategy record.

Link	Behavior if clicked while viewing an Asset Strategy	Behavior if clicked while viewing a System Strategy	Behavior if clicked while viewing a Unit Strategy
Manage System	This link does not appear on the **Navigation** menu when you are viewing an Asset Strategy.	Displays the System Strategy Management page.	This link does not appear on the **Navigation** menu when you are viewing a Unit Strategy.
Manage Unit	This link does not appear on the **Navigation** menu when you are viewing an Asset Strategy.	This link does not appear on the **Navigation** menu you are viewing a System Strategy.	Displays the Unit Strategy Management page.
Source Analyses	Displays a submenu of options that let you navigate to the RCM, FMEA, SIS Management, RBI, or ACA analysis or view the Recommendation records from which the Asset Strategy was created. If the Asset Strategy was not created from an analysis or from Recommendation records, this link is disabled.	Displays a submenu with an option that lets you view the ACA Analysis from which the System Strategy was created. If the current System Strategy was not created from an ACA Analysis, this link is disabled.	This link is disabled when you are viewing a Unit Strategy.

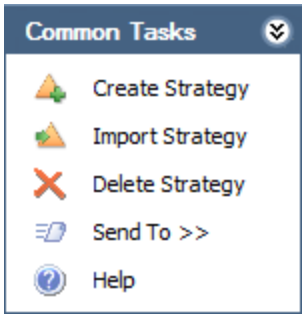
Tools Menu

The **Tools** menu appears one every page in ASM and contains links that you can use to create an ASO Analysis from a strategy or run a simulation for an existing ASO Analysis.

The **Tools** menu contains the following links:

- **Optimize Strategy:** Displays different items, depending upon several factors, which are described in the following list.
  - If you are creating an ASO Analysis from the strategy, the **Validate Strategy** window appears, which displays Actions and Risks that are missing values that are needed to run a simulation.
  - If you are opening an existing ASO Analysis containing one or more Scenarios whose Actions and Risks do not contain the necessary values to run a simulation, the **Validate Strategy** window appears, which displays Actions and Risks that are missing values that are needed to run a simulation.
  - If you are opening an existing ASO Analysis containing Scenarios whose Actions and Risks *do* contain the necessary values to run a simulation, if you are currently viewing an *Asset Strategy*, the ASO Analysis appears on one of the following pages:
    - If the ASO Analysis *has* been saved with simulation results, the **Asset Strategy Optimization Summary** page appears.
    - If the ASO Analysis has not been saved with simulation results, the **Asset Strategy Optimization Analysis Definition** page appears.
  - If you are opening an existing ASO Analysis containing Scenarios whose Actions and Risks *do* contain the necessary values to run a simulation, if you are currently viewing a *System Strategy or Unit Strategy*, one of the following items appears:
    - If you *have* already defined which pieces of equipment and locations cause a shutdown, the **Asset Strategy Optimization Summary** page appears.
    - If you have not already defined which pieces of equipment and locations cause a shutdown, the **Asset Strategy Optimization Builder** appears, displaying the **Welcome** screen. You will need to use the builder to define which pieces of equipment and locations cause a shutdown.
- **Run Simulation:** Runs the simulation and refreshes the current page to display the updated results. Note that if the **Enable Event Log** check box is selected on the **Asset Strategy Optimization Analysis Definition** page, the **Browse For Folder** dialog box appears, where you can choose where you want to save the Event Log before running the simulation. If you are viewing an existing Asset Strategy in which changes have not been made since the last time the simulation was run, however, a message will appear, indicating that the simulation does not need to be run.

Common Tasks Menu

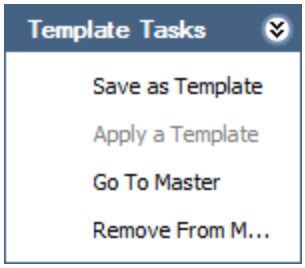


The **Common Tasks** menu that appears throughout ASM (except for when you are working with Asset Strategy Templates) contains the following links:

- **Create Strategy:** Displays the **ASM - Asset Strategy Definition** page, where you can create a new Asset Strategy record.
- **Import Strategy:** Displays the **Open** dialog box, where you can select an Excel file to use for creating a new Asset Strategy.

  Note: The **Import Strategy** link is available only if you viewing an Asset Strategy. It is not available if you are viewing a System Strategy or Unit Strategy.
- **Delete Strategy:** After asking for confirmation, deletes the selected Asset Strategy, including the Asset Strategy record and all records to which it is linked, either directly or indirectly.
- **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.

Template Tasks Menu



The **Template Tasks** appears throughout ASM when you are working with an Asset Strategy and contains the following links:

- **Save as Template:** Displays the **Asset Strategy Template Definition** page, where you can define the Asset Strategy Template that you want to create from the Asset Strategy that you are currently viewing. This link is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Apply a Template:** Displays the **Apply Template Builder**, which you can use to apply an Asset Strategy Template to the Asset Strategy that you are currently viewing. This link is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Go To Master:** Displays the Asset Strategy Template page that corresponds to the Asset Strategy page that you are currently viewing. For example, if you are viewing the **Asset Strategy Definition** page, when you click this link, the**Asset Strategy Template Definition** page appears. If you are viewing an Asset Strategy page that has no corresponding page for Asset Strategy Templates, the**Asset Strategy Template Overview** page will appear by default. This link is enabled only if you are viewing an Asset Strategy to which an Asset Strategy Template has been applied as a Master Template.
- **Remove From Master:** Displays a confirmation message, asking if you are sure that you want to remove the Asset Strategy from the Master Template, and then removes the Asset Strategy from the Master Template. This link is enabled only if you are viewing an Asset Strategy to which an Asset Strategy Template has been applied as a Master Template.

Note: The **Template Tasks** menu does not appear when you are working with Asset Strategy *Templates*.

Associated Pages Menu

The following table explains the links are displayed on the **Associated Pages** menu throughout ASM. If a page is not listed in the table, the **Associated Pages** menu is not available on that page.

This page	...Displays links that are defined for this family
Asset Strategy Definition	Asset Strategy
Asset Strategy Overview	Asset Strategy
Asset Strategy Actions	The **Associated Pages** menu appears but does not display any links.
Asset Strategy Risks	The **Associated Pages** menu appears but does not display any links.
Asset Strategy Risk Analysis	Asset Strategy
Review Asset Strategy	Asset Strategy
Asset Strategy Revision History	Asset Strategy
System Strategy Definition	System Strategy
System Strategy Overview	System Strategy
System Strategy Management	System Strategy
System Strategy Risk Analysis	System Strategy
Review System Strategy	System Strategy
Unit Strategy Definition	Unit Strategy
Unit Strategy Overview	Unit Strategy
Unit Strategy Management	Unit Strategy
Unit Strategy Risk Analysis	Unit Strategy
Review Unit Strategy	Unit Strategy
Asset Strategy Template Definition	Asset Strategy Template
Asset Strategy Template Overview	Asset Strategy Template
Asset Strategy Template Actions	The **Associated Pages** menu appears but does not display any links.

This page	...Displays links that are defined for this family
Asset Strategy Template Risks	The **Associated Pages** menu appears but does not display any links.
Asset Strategy Template Risk Analysis	Asset Strategy Template
Review Asset Strategy Template	Asset Strategy Template
Asset Strategy Template Revision History	Asset Strategy Template

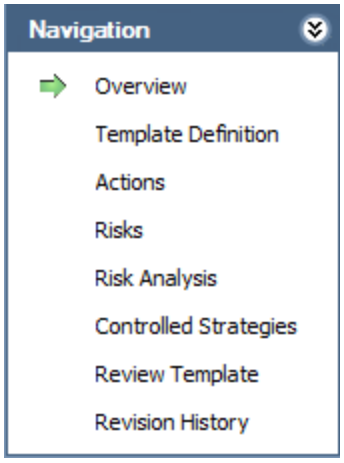
Available Task Menus for Asset Strategy Templates

When you are working with Asset Strategy Templates in ASM, the following task menus are available:

- Search
- Navigation
- Common Tasks
- Associated Pages

The options that are available on these menus may vary, depending on the content that you are currently viewing.

Navigation Menu

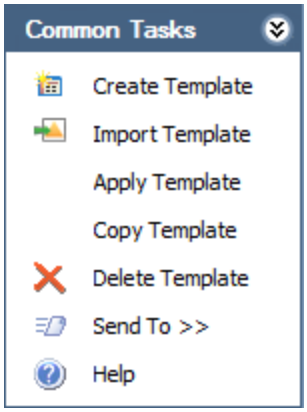


The **Navigation** menu appears throughout ASM when you are working with Asset Strategy Templates and contains the following links:

- **Overview:** Displays the **Asset Strategy Template Overview** page. This link is enabled only after the Asset Strategy Template record is saved.
- **Template Definition:** Displays the **Asset Strategy Template Definition** page.
- **Actions:** Displays the **Asset Strategy Template Actions** page. This link is enabled only after the Asset Strategy Template record is saved.
- **Risks:** Displays the **Asset Strategy Template Risks** page. This link is enabled only after the Asset Strategy Template record is saved.
- **Risk Analysis:** Displays the **Asset Strategy Template Risk Analysis** page. This link is enabled only after the Asset Strategy Template record is saved.
- **Controlled Strategies:** Displays the **Master Template Management** page. This link is enabled only after the Asset Strategy Template record is saved.
- **Review Template:** Displays the **Review Asset Strategy Template** page.This link is enabled only after the Asset Strategy Template record is saved.
- **Revision History:** Displays the **Asset Strategy Template Revision History** page. This link is enabled only after the Asset Strategy Template record is saved.

When you navigate to a page using the links on the **Navigation** menu, a green arrow appears to the left of the link to indicate the page that you are currently viewing. For example, when you are viewing the **Asset Strategy Template Risk Analysis** page, a green arrow appears to the left of the **Risk Analysis** link, indicating that you are currently working with an Asset Strategy Template Risk Analysis.

Common Tasks Menu



The **Common Tasks** menu appears throughout ASM when you are working with Asset Strategy Templates and contains the following links:

- **Create Template:** Displays a blank Asset Strategy Template record on the **Asset Strategy Template Definition** page. This link is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Import Template:** Displays the **Open** dialog box, where you can navigate to the Microsoft Excel file that you want to import, and then import the file. This link is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Apply Template:** Displays the **Apply Template Builder**, which you can use to apply an Asset Strategy Template to an Asset Strategy. This link is always disabled on the **Asset Strategy Template Search** page. This link is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Copy Template:** Creates a copy of the template with which you are currently working and displays it on the **ASM - Asset Strategy Template Definition** page. This link is enabled only if you have *create* privileges on the Asset Strategy Template family. This link is disabled, however, if you are logged in as a member of the ASM Viewer Security Group.
- **Delete Template:** Deletes the selected Asset Strategy Template record and all records (Action, Proposed Strategy, Active Strategy, etc.) to which it is linked. This link is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **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 help topic for the page that you are currently viewing.

ASM Workflow

The following workflow represents the basic steps that you might use to create Asset Strategies, System Strategies, and a Unit Strategy, assuming that your database does not yet contain any of these items. After you have completed this workflow, you will probably find that you need to repeat certain steps at various times depending on your company's specific needs, changing conditions, and your role within the organization.

In general, you will need to perform the following tasks to create Asset Strategies that roll up to System Strategies and System Strategies that roll up to a Unit Strategy:

1. Create an Asset Strategy record.
2. Link the Asset Strategy record to an Equipment or Functional Location record that is already stored in your database.
3. Add Risks to the Asset Strategy that you created in step 1. Risks represent ways in which a piece of equipment or location can fail and the consequences of the failures.
4. Add Actions to the Asset Strategy that you created in step 1. Actions represent actions that prevent the defined failures or reduce the severity of the consequences.
5. Propose the Asset Strategy. As a proposed strategy, the strategy will be available for review by other users.
6. Review the Asset Strategy. As a user who is responsible for reviewing the Asset Strategy, you will need to accept the proposed strategy or send it back to the creator for additional work.
7. Modify the Asset Strategy. If the strategy was sent back for additional work, make any desired changes to the strategy. Otherwise, proceed to step 8.
8. Repeat steps 5 through 7 for each equipment or location for which you want to create a strategy.
9. Create a System Strategy record.
10. Link Asset Strategy records to the System Strategy record.
11. Review the System Strategy. As a user who is responsible for reviewing the Asset Strategy, you will need to evaluate the strategy and activate it, which will also activate all associated Asset Strategies.
12. Create a Unit Strategy record.
13. Link System Strategy records to the Unit Strategy record.

After you have created Asset Strategies, System Strategies, and Unit Strategies, you can search for and open an existing strategy to make any changes.

About Creating Asset Strategies

Using ASM, you can create Asset Strategies:

- From scratch.
- By using an Asset Strategy Template, which copies data from an existing Asset Strategy Template into a new Asset Strategy.
- By importing data from an Excel file.
- By transferring data from existing Task records.
- By transferring data from existing Measurement Location records.
- By promoting an ACA System to ASM.
- By promoting existing Recommendation records to ASM.
- By importing them from a different database.

Creating an Asset Strategy from Scratch

To create an Asset Strategy from scratch:

1. Create an Asset Strategy record.
2. Link the Asset Strategy record to an Equipment or Functional Location record that is already stored in your database.
3. Add Risks to the Asset Strategy that you created in step 1. Risks represent ways in which a piece of equipment or location can fail and the consequences of the failures.
4. Add Actions to the Asset Strategy that you created in step 1. Actions represent actions that prevent the defined failures or reduce the severity of the consequences.

Creating an Asset Strategy Record

To create an Asset Strategy record:

1. Access the **ASM - Asset Strategy Definition** page.
2. Enter values in the fields on the **Main** tab.
3. If desired, use the **Asset** tab to link the Asset Strategy record to an Equipment or Functional Location record.
4. If you want to link the Asset Strategy record to a Reference Document record, on the datasheet toolbar, click the button, and use the **Reference Documents** windowto select the desired file.
5. On the toolbar, click the button.

   The Asset Strategy record is saved. If you linked the Asset Strategy record to an Equipment or Functional Location record that is linked to a Site Reference record, the Record ID of the Site Reference record is displayed in the **Site Reference** cell.

About Importing Asset Strategies from Microsoft Excel

If desired, you can create an Asset Strategy from a Microsoft Excel file. When you do so, the Meridium APM system will create:

- One Asset Strategy record.
- One Active Strategy record that is linked to the Asset Strategy record.
- One Proposed Strategy record that is linked to the Asset Strategy record.
- Multiple Action records, which are linked to the Proposed Strategy record.
- Multiple Risk records, which are linked to the Proposed Strategy record.
- Multiple Risk Assessment records, which are linked to the Risk records that are created.
- Multiple Risk Rank records, which are linked to the Risk Assessment records that are created.

During the import process, you can map values in the Microsoft Excel file to fields in the Meridium APM records that will be created. To make sure that the mappings work correctly, the Microsoft Excel file must meet the minimum requirements listed in the following table.

Requirement	Example Used Throughout This Documentation	Notes
The Microsoft Excel file must contain a worksheet that lists the equipment and locations for which you are creating Asset Strategies. There are no restrictions on the tab name.	Assets worksheet	Always required
The Assets worksheet must contain a column whose values you will map to the Strategy ID field in the Asset Strategy records.	Strategy ID column	Always required
The Assets worksheet must contain a column that contains IDs of valid Equipment and Functional Location records in Meridium APM. Each Asset Strategy record that is created will be linked to one of these Equipment or Functional records after the import procedure has been completed.	Asset ID column	Always required
The Excel file must contain a worksheet that lists the Actions that you want to include in the Asset Strategies. There are no restrictions on the tab name.	Actions worksheet	Always required

Requirement	Example Used Throughout This Documentation	Notes
The Actions worksheet must contain a column whose values you will map to the Action ID field in the Action records.	Action ID column	Always required
The Actions worksheet must contain a column that contains IDs of valid Equipment and Functional Location records in Meridium APM. Each ID must exist in at least one row on the Assets worksheet.	Asset ID column	Always required
The Microsoft Excel file must contain a worksheet that lists the Risks that you want to include the Asset Strategies. There are no restrictions on the tab name.	Risk worksheet	Required only if you want the Asset Strategies to contain Risks.
The Risks worksheet must contain a column that contains IDs of valid Equipment and Functional Location records in Meridium APM. Each ID must exist in at least one row on the Assets worksheet.	Asset ID column	Required only if you want the Asset Strategies to contain Risks.
The Microsoft Excel file must contain a worksheet that lists the Risk Assessment and Risk Rank values that will be associated with the Risks. There are no restrictions on the tab name.	Mitigations worksheet	Required only if you want the Asset Strategies to contain Risks.

Requirement	Example Used Throughout This Documentation	Notes
The Mitigations worksheet must contain a column that contains values that exist in at least one row on the Actions worksheet.	Action ID column	Required only if you want the Asset Strategies to contain Risks.
The Mitigations worksheet must contain a column that contains values that exists in at least one row on the Risks worksheet.	Risk ID column	Required only if you want the Asset Strategies to contain Risks.
The Asset worksheet must contain a column that stores the name of the EAM system in which the technical objects exist.	EAM column	Required only if you are using multiple EAM systems.

Note that if you want to map a value to the Action Type field in an Action record, the Microsoft Excel file must contain a value that mimics an Action Type as it is *stored* in the Meridium APM database, not as it is *displayed* on the Action datasheet. Use the following table to determine the Action Types that can be mapped from the Microsoft Excel file to Action records.

Value in Microsoft Excel File	Value that Will Appear on the Action Datasheet
PM	Time-Based Maintenance (Preventive) (PM)
CM	Condition-Based Maintenance (Predictive) (CM)
DSN	Redesign (DSN)
PROC	Procedure (PROC)
TRN	Training (TRN)

Performing the Import Procedure

The following instructions assume that a Microsoft Excel file that meets the minimum requirements has been saved to a location that is accessible from your workstation.

Note: You must be a Super User or a member of the MI ASM Analyst Security Group to perform the following steps.

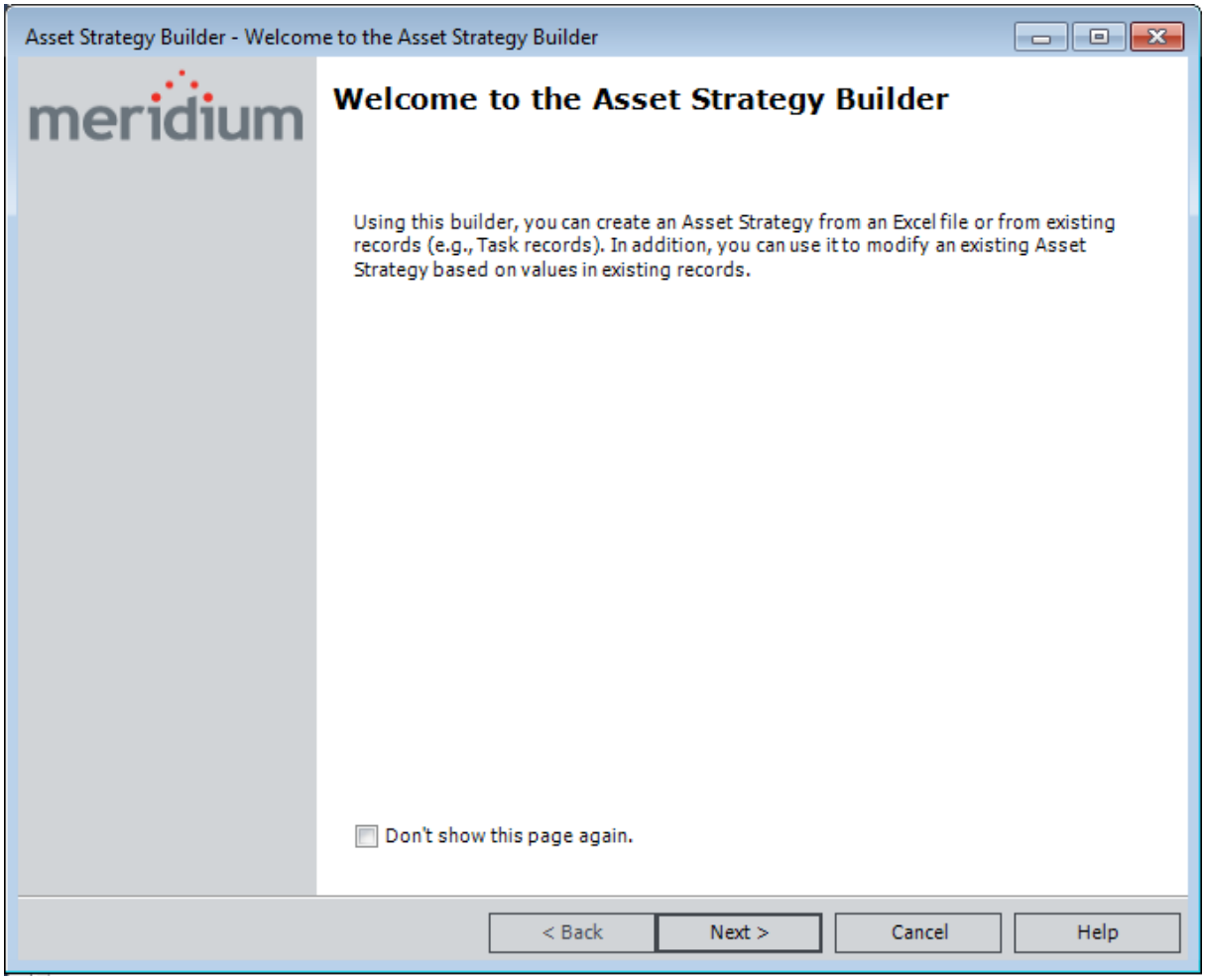
To import an Asset Strategy:

1. On the **ASM - Start Page**, click the **Import Strategy** link.

   -OR-

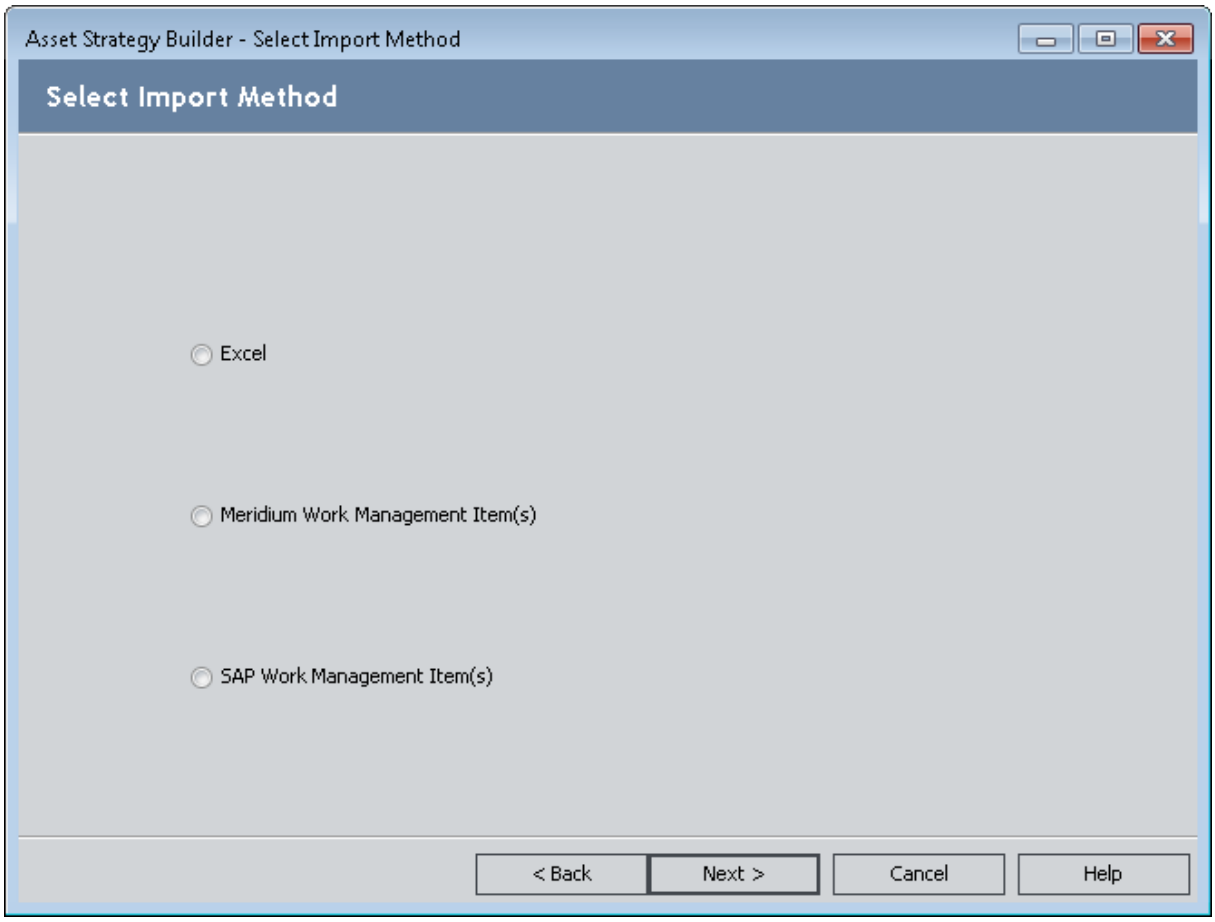
   On any **Common Tasks** menu in ASM, click the **Import Strategy** link.

   The **Asset Strategy Builder** appears, displaying the Welcome screen.



2. Click the **Next** button.

   The **Select Import Method** screen appears.

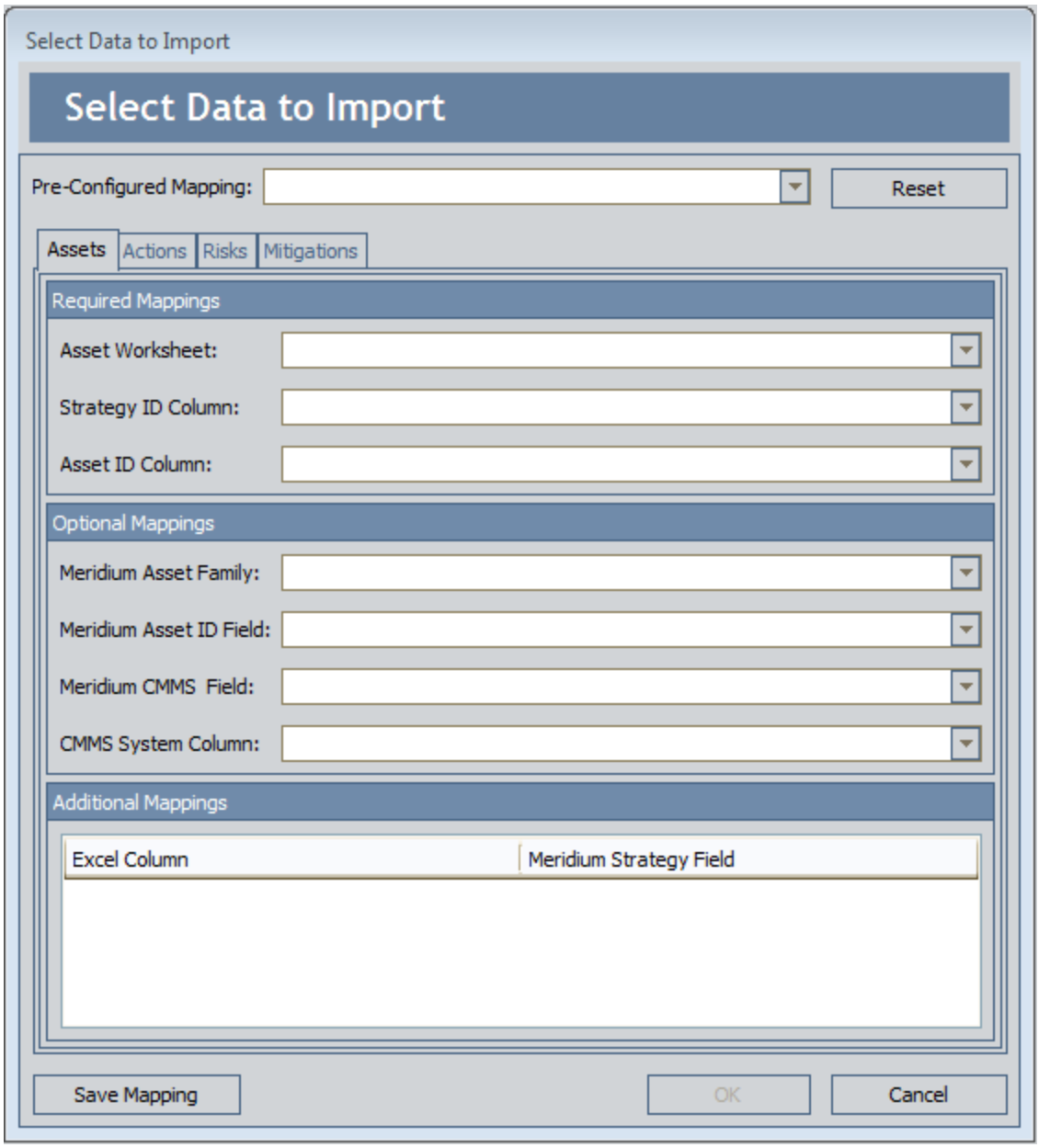


3. Select the **Excel** option, and then click the **Next** button.

   The **Open** dialog box appears.

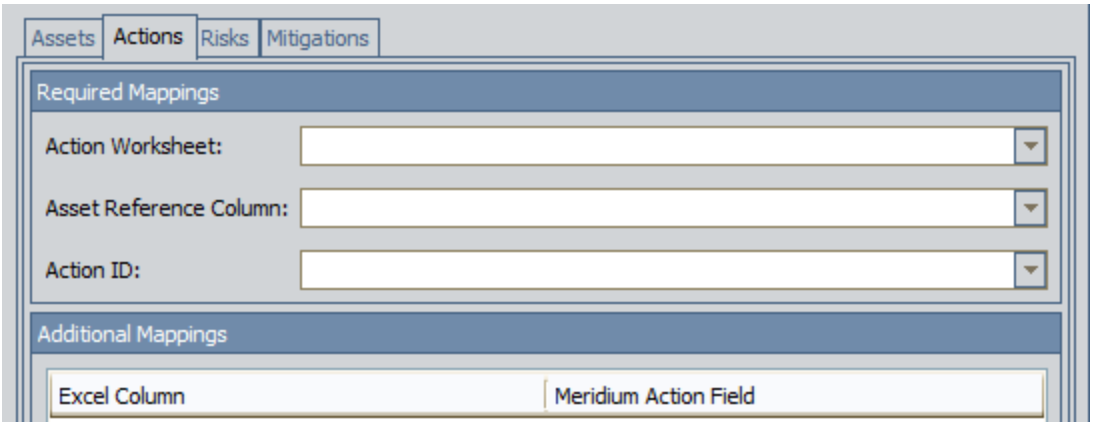
4. Navigate to the location containing the Microsoft Excel file that you want to use for importing an Asset Strategy, select the file, and then click the **Open** button.

   The **Select Data to Import** window appears, displaying the **Assets** tab by default.



5. In the **Required Mappings** section, in the **Asset Worksheet** list, select the Assets worksheet that is configured in the Microsoft Excel file. This is the spreadsheet that contains a column whose value you will map to the Strategy ID field in the Asset Strategy record.
6. In the **Strategy ID Column** list, select the column whose value you want to map to the Strategy ID field in the Asset Strategy record.
7. In the **Asset ID Column** list, select the column whose value contains an ID of a valid Equipment or Functional Location record in the database.

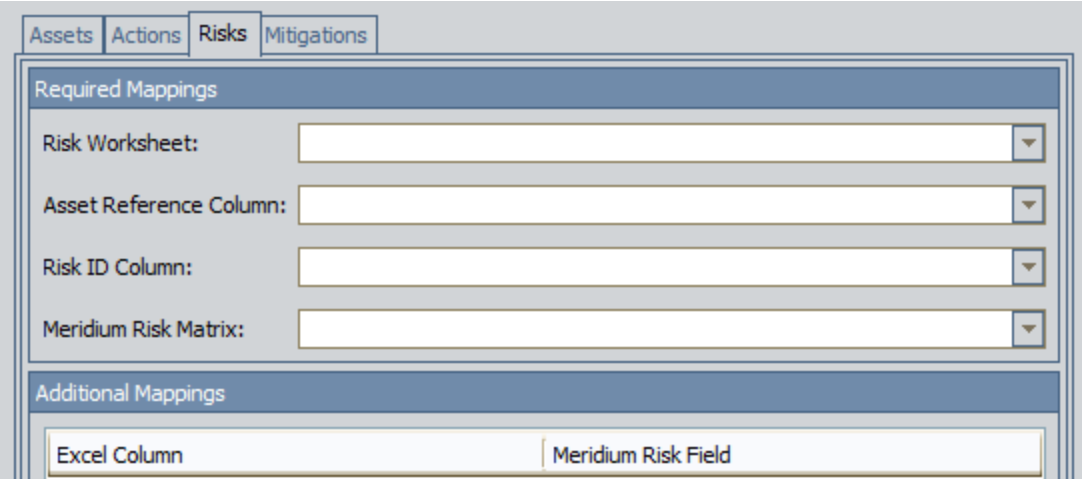
8. If you want the Asset Strategy record to be linked to an existing Equipment or Functional Location record:
    a. In the **Optional Mappings** section, in the **Meridium Asset Family** list, select the desired family: *Equipment* or *Functional Location*.
    b. In the **Optional Mappings** section, in the **Meridium Asset ID Field** list, select the ID field of the desired Equipment or Functional Location record. Meridium APM will use the value that you selected in the **Asset ID Column** list to determine the Microsoft Excel file column that contains the ID of the Equipment or Functional Location record to which you want to link the Asset Strategy record.
9. To populate other fields in the Asset Strategy record, in the **Additional Mappings** section, to the right of each **Excel Column** cell, select a value in the **Meridium Strategy Field** column that represents a field that you want to populate from that Microsoft Excel file column. For example, if the Microsoft Excel file contains the column *Notes*, to the right of the **Notes** cell, you would probably want to select *Strategy Notes*.
10. Click the **Actions** tab.



11. In the **Action Worksheet** list, select the Actions worksheet that is configured in the Microsoft Excel file. This is the worksheet that contains a column whose value you will map to the Action ID field in the Action record.
12. In the **Asset Reference Column** list, select the column whose value contains an ID of a valid Equipment or Functional Location record in the database.
13. In the **Action ID** list, select the column whose value you want to map to the Action ID field on the Action datasheet.
14. To populate other fields in the Action records, in the **Additional Mappings** section, to the right of each **Excel Column** cell, select a value in the **Meridium Action Field** column that represents a field that you want to populate from that Microsoft Excel file column. For example, if the Microsoft Excel file contains the column *Type*, to the right of the **Type** cell, you would probably want to select *Action Type*.

Note: At this point, you could click **OK** to create an Asset Strategy that does not contain Risks. The remaining instructions, however, assume that you want to import Risks from the Microsoft Excel file to the Asset Strategy.

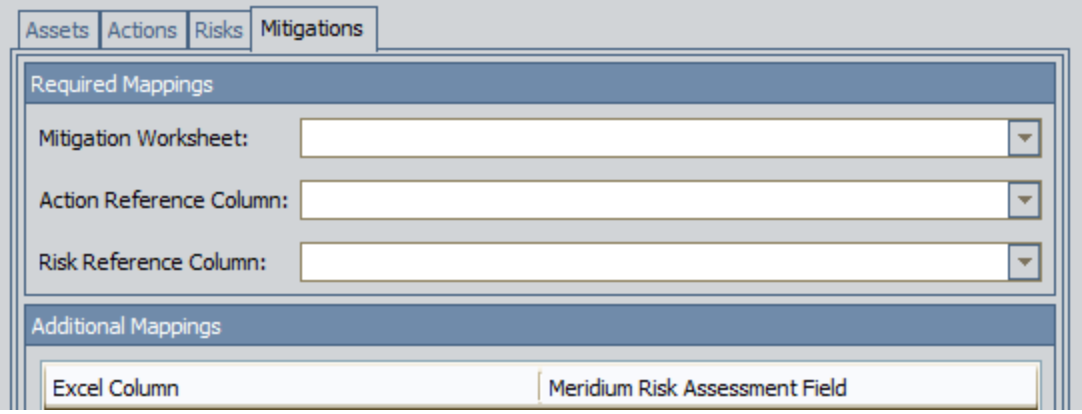
15. Click the **Risks** tab.



16. In the **Risk Worksheet** list, select the Risks worksheet that is configured in the Microsoft Excel file. This is the worksheet that contains a column whose value you will map to the Risk ID field in the Risk record.
17. In the **Asset Reference Column** list, select the column whose value contains an ID of a valid Equipment or Functional Location record in the database.
18. In the **Risk ID Column** list, select the column whose value you will map to the Risk ID field in the Risk record.
19. In the **Meridium Risk Matrix** list, select the Risk Matrix that you want the Asset Strategy to use.
20. To populate other fields in the Risk records, in the **Additional Mappings** section, to the right of each **Excel Column** cell, select a value in the **Meridium Risk Field** column that represents a field that you want to populate from that Microsoft Excel file column.

Note: If the Risk Matrix that you selected in the previous step does not contain a **Financial** tab, the **Meridium Risk Field** lists will not display any financial fields.

21. Click the **Mitigations** tab.



22. In the **Mitigation Worksheet** list, select the Mitigations worksheet that is configured in the Microsoft Excel file.
23. In the **Action Reference Column** list, select the column that contains the ID of an Action, as it appears on the Actions worksheet.
24. In the **Risk Reference Column** list, select the column that contains the ID of a Risk, as it appears on the Risks worksheet.
25. To populate other fields in the Risk Assessment records, in the **Additional Mappings** section, to the right of each **Excel Column** cell, select a value in the **Meridium Risk Assessment Field** column that represents a field that you want to populate from that Microsoft Excel file column.
26. Click **OK**.

    The **Import Existing Strategy** page appears, displaying the results of the import procedure. Each row represents an Asset Strategy that was created successfully, unless otherwise specified. In some cases, an Asset Strategy may not have been imported. If so, a message will appear in the **Info**column, indicating the reason that strategy was skipped.

    The **Strategy** column contains a hyperlink, which you can click to access the **Asset Strategy Actions** page.

    Note: When you navigate away from the **Import Existing Strategy** page, you will be prompted to save the results to a file. If you want to save the result to a text file, click the **Yes** button, and provide a name for the file. If you do not want to save the results, click the **No** button to proceed with viewing the Asset Strategy.

Saving a Mapping

To save a mapping from a Microsoft Excel file to an Asset Strategy:

1. After you have accessed the **Select Data to Import** dialog box and configured the mappings that you want to save, click the **Save Mapping** button.

   The **Save Mapping** window appears.

2. In the **Mapping Name** text box, type a new name for the mapping.

3. Click **OK**.

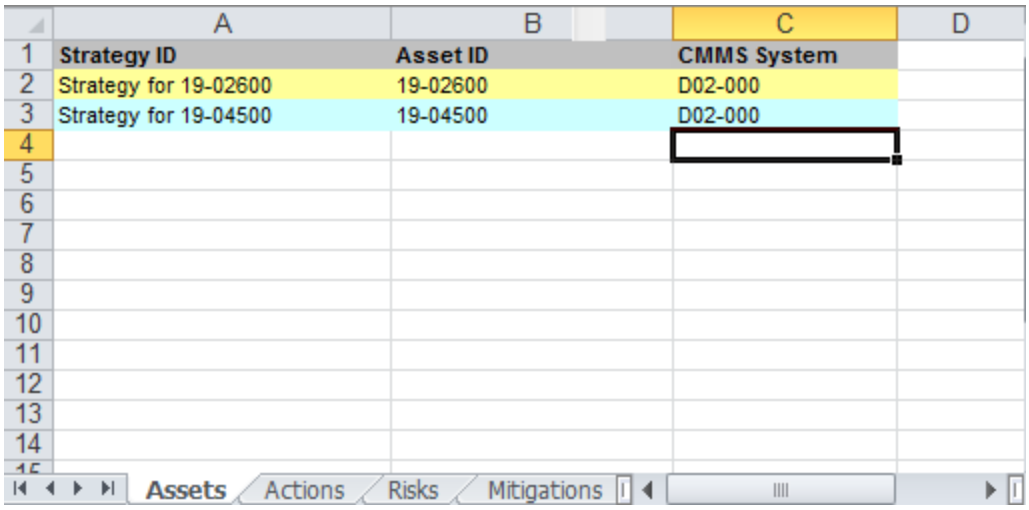
   The mapping is saved, and the **Save Mapping** window closes. The **Pre-Configured Mapping** list above the **Assets** tab is populated with the mapping name. Other users that access the **Select Data to Import** window will now be able to select this mapping and use it to create a new Asset Strategy.

Microsoft Excel File Structure

Consider the following example, which explains how to create two Asset Strategies, where one Asset Strategy contains three Action records, and the other Asset Strategy contains two Action records.

Assets Worksheet

The Microsoft Excel file contains the Assets worksheet, as shown in the following image.



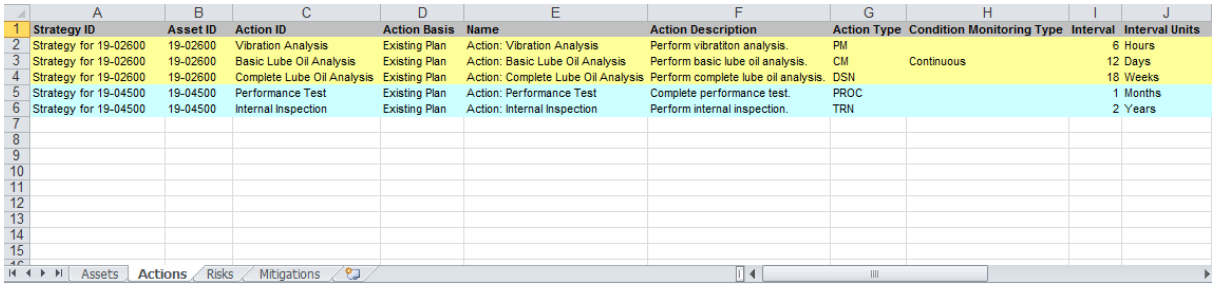
	A	B	C	D
1	**Strategy ID**	**Asset ID**	**CMMS System**	
2	Strategy for 19-02600	19-02600	D02-000	
3	Strategy for 19-04500	19-04500	D02-000	
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				

Assets | Actions | Risks | Mitigations

From this worksheet, you can see that two Asset IDs are listed: *19-02600* and *19-04500*. Because an Asset Strategy record can be linked to only one Equipment or Functional Location record, when you use this Microsoft Excel file to create Asset Strategies, *two* Asset Strategy records will be created. One of these records will be linked to the record with the ID 19-02600, and the other Asset Strategy record will be linked to the record with the ID 19-04500.

Actions Worksheet

The Microsoft Excel file also contains the Actions worksheet, as shown in the following image. (The tab is displayed in the following two separate images to make the columns easier to see.)



	A	B	C	D	E	F	G	H	I	J
1	**Strategy ID**	**Asset ID**	**Action ID**	**Action Basis**	**Name**	**Action Description**	**Action Type**	**Condition Monitoring Type**	**Interval**	**Interval Units**
2	Strategy for 19-02600	19-02600	Vibration Analysis	Existing Plan	Action: Vibration Analysis	Perform vibratiton analysis.	PM		6	Hours
3	Strategy for 19-02600	19-02600	Basic Lube Oil Analysis	Existing Plan	Action: Basic Lube Oil Analysis	Perform basic lube oil analysis.	CM	Continuous	12	Days
4	Strategy for 19-02600	19-02600	Complete Lube Oil Analysis	Existing Plan	Action: Complete Lube Oil Analysis	Perform complete lube oil analysis.	DSN		18	Weeks
5	Strategy for 19-04500	19-04500	Performance Test	Existing Plan	Action: Performance Test	Complete performance test.	PROC		1	Months
6	Strategy for 19-04500	19-04500	Internal Inspection	Existing Plan	Action: Internal Inspection	Perform internal inspection.	TRN		2	Years
7										
8										
9										
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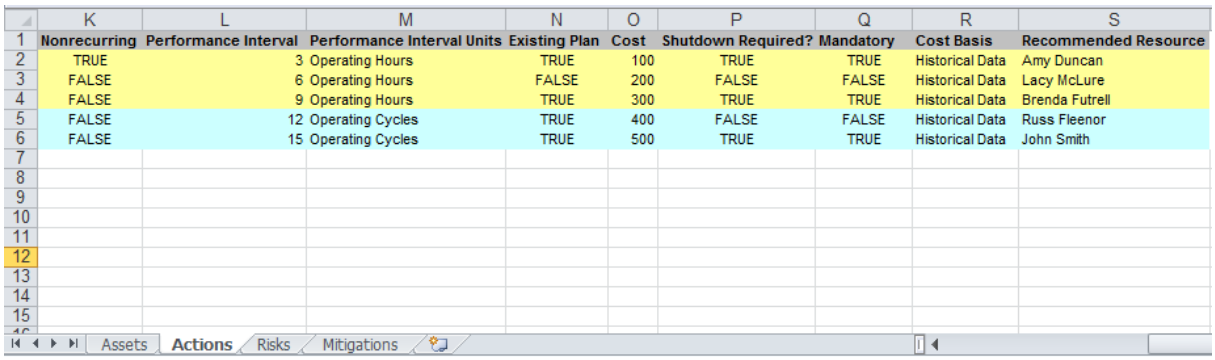
11										
12										
13										
14										
15										

Assets | Actions | Risks | Mitigations



	K	L	M	N	O	P	Q	R	S
1	Nonrecurring	Performance Interval	Performance Interval Units	Existing Plan	Cost	Shutdown Required?	Mandatory	Cost Basis	Recommended Resource
2	TRUE	3	Operating Hours	TRUE	100	TRUE	TRUE	Historical Data	Amy Duncan
3	FALSE	6	Operating Hours	FALSE	200	FALSE	FALSE	Historical Data	Lacy McLure
4	FALSE	9	Operating Hours	TRUE	300	TRUE	TRUE	Historical Data	Brenda Futrell
5	FALSE	12	Operating Cycles	TRUE	400	FALSE	FALSE	Historical Data	Russ Fleenor
6	FALSE	15	Operating Cycles	TRUE	500	TRUE	TRUE	Historical Data	John Smith

Assets | Actions | Risks | Mitigations

In the Microsoft Excel file, the three yellow rows represent actions for equipment 19-02600, and the two blue rows represent actions for equipment 19-04500. The ID that is associated with each action is displayed in the **Asset ID** column.

In other words, for equipment 19-02600, the following actions should be performed:

- Vibration Analysis
- Basic Lube Oil Analysis
- Complete Lube Oil Analysis

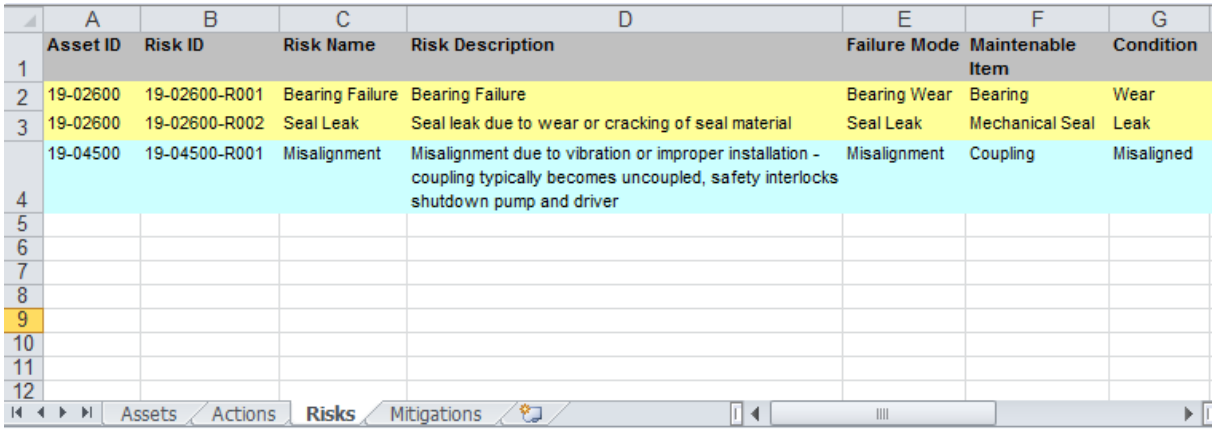
Likewise, for equipment 19-04500, the following actions should be performed:

- Performance Test
- Internal Inspection

Each action will be used to create a single Action when the import procedure is performed.

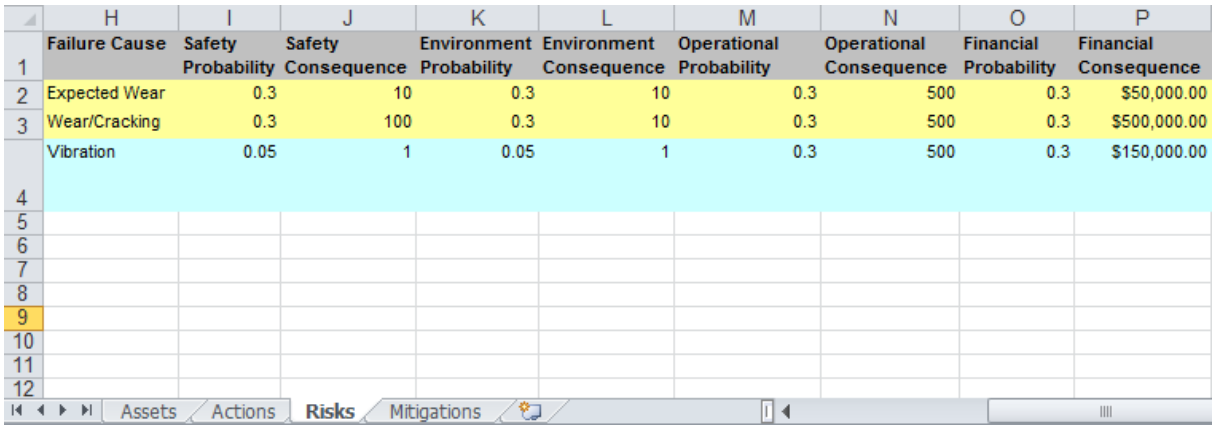
Risks Worksheet

The Microsoft Excel file also contains the Risks worksheet, as shown in the following image. (The tab is displayed in the following two separate images to make the columns easier to see.)



	A	B	C	D	E	F	G
1	Asset ID	Risk ID	Risk Name	Risk Description	Failure Mode	Maintenable Item	Condition
2	19-02600	19-02600-R001	Bearing Failure	Bearing Failure	Bearing Wear	Bearing	Wear
3	19-02600	19-02600-R002	Seal Leak	Seal leak due to wear or cracking of seal material	Seal Leak	Mechanical Seal	Leak
4	19-04500	19-04500-R001	Misalignment	Misalignment due to vibration or improper installation - coupling typically becomes uncoupled, safety interlocks shutdown pump and driver	Misalignment	Coupling	Misaligned

Assets | Actions | Risks | Mitigations



	H	I	J	K	L	M	N	O	P
1	Failure Cause	Safety Probability	Safety Consequence	Environment Probability	Environment Consequence	Operational Probability	Operational Consequence	Financial Probability	Financial Consequence
2	Expected Wear	0.3	10	0.3	10	0.3	500	0.3	$50,000.00
3	Wear/Cracking	0.3	100	0.3	10	0.3	500	0.3	$500,000.00
4	Vibration	0.05	1	0.05	1	0.3	500	0.3	$150,000.00
5									
6									
7									
8									
9									
10									
11									
12									

Assets | Actions | **Risks** | Mitigations

In the Microsoft Excel file, the two yellow rows represent risks for equipment 19-02600, and the blue row represents the risk for equipment 19-04500. The asset ID that is associated with each risk is displayed in the **Asset ID** column.

In other words, for equipment 19-02600, the following risks exist:

- Bearing Failure
- Seal Leak

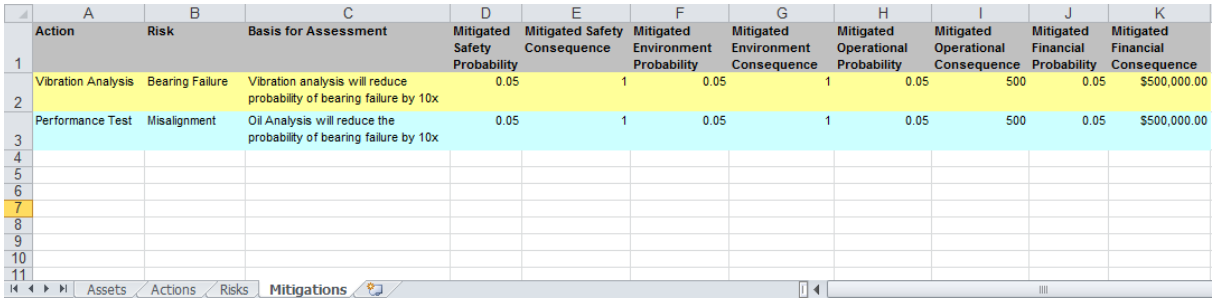
Likewise, for equipment 19-04500, the following risk exists:

- Misalignment

Each risk will be used to create a single Risk when the import procedure is performed.

Mitigations Worksheet

Finally, the Microsoft Excel file contains the Mitigations worksheet, as shown in the following image.



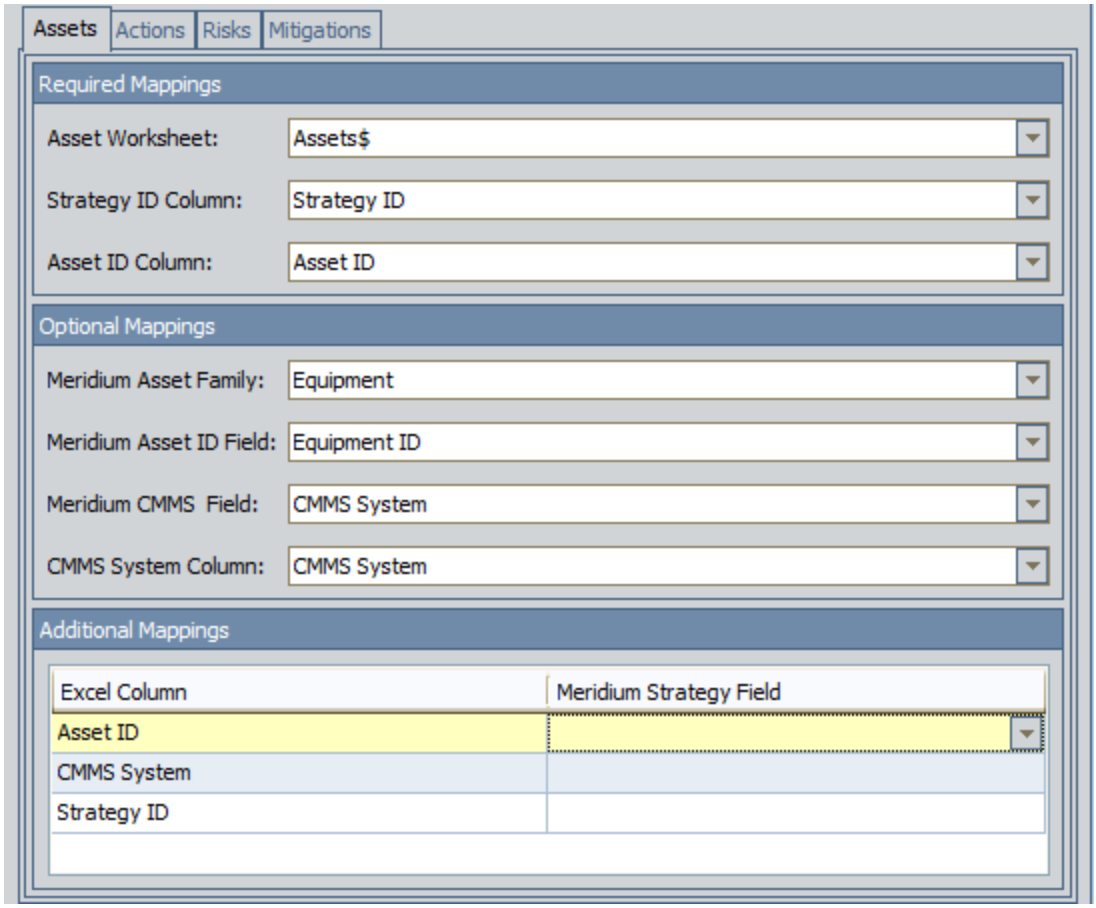
	A	B	C	D	E	F	G	H	I	J	K
1	Action	Risk	Basis for Assessment	Mitigated Safety Probability	Mitigated Safety Consequence	Mitigated Environment Probability	Mitigated Environment Consequence	Mitigated Operational Probability	Mitigated Operational Consequence	Mitigated Financial Probability	Mitigated Financial Consequence
2	Vibration Analysis	Bearing Failure	Vibration analysis will reduce probability of bearing failure by 10x	0.05	1	0.05	1	0.05	500	0.05	$500,000.00
3	Performance Test	Misalignment	Oil Analysis will reduce the probability of bearing failure by 10x	0.05	1	0.05	1	0.05	500	0.05	$500,000.00
4											
5											
6											
7											
8											
9											
10											
11											

Assets | Actions | Risks | **Mitigations**

In the Microsoft Excel file, the yellow row indicates that the action *Vibration Analysis* mitigates the risk *Bearing Failure*. Likewise, the blue row indicates that the action *Performance Test* mitigates the risk *Misalignment*.

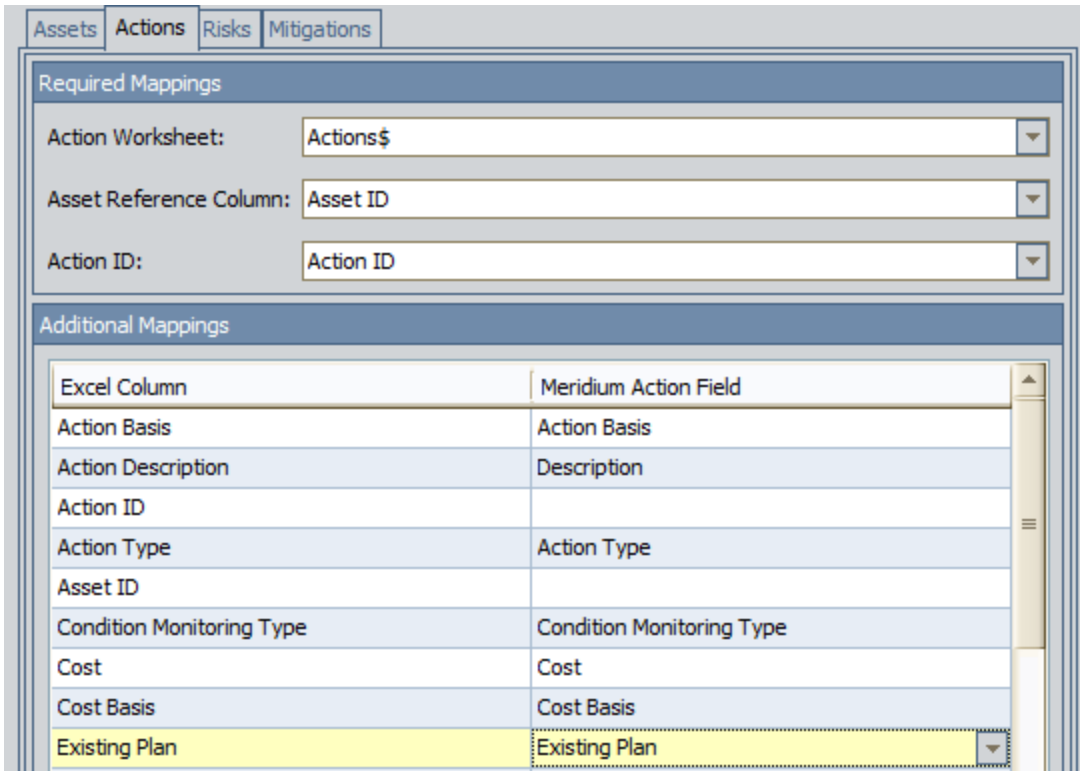
Mappings

Based on the example Microsoft Excel file structure, when performing the import procedure, you could specify the mappings from the *Assets* worksheet of the Microsoft Excel file, as shown in the following image.

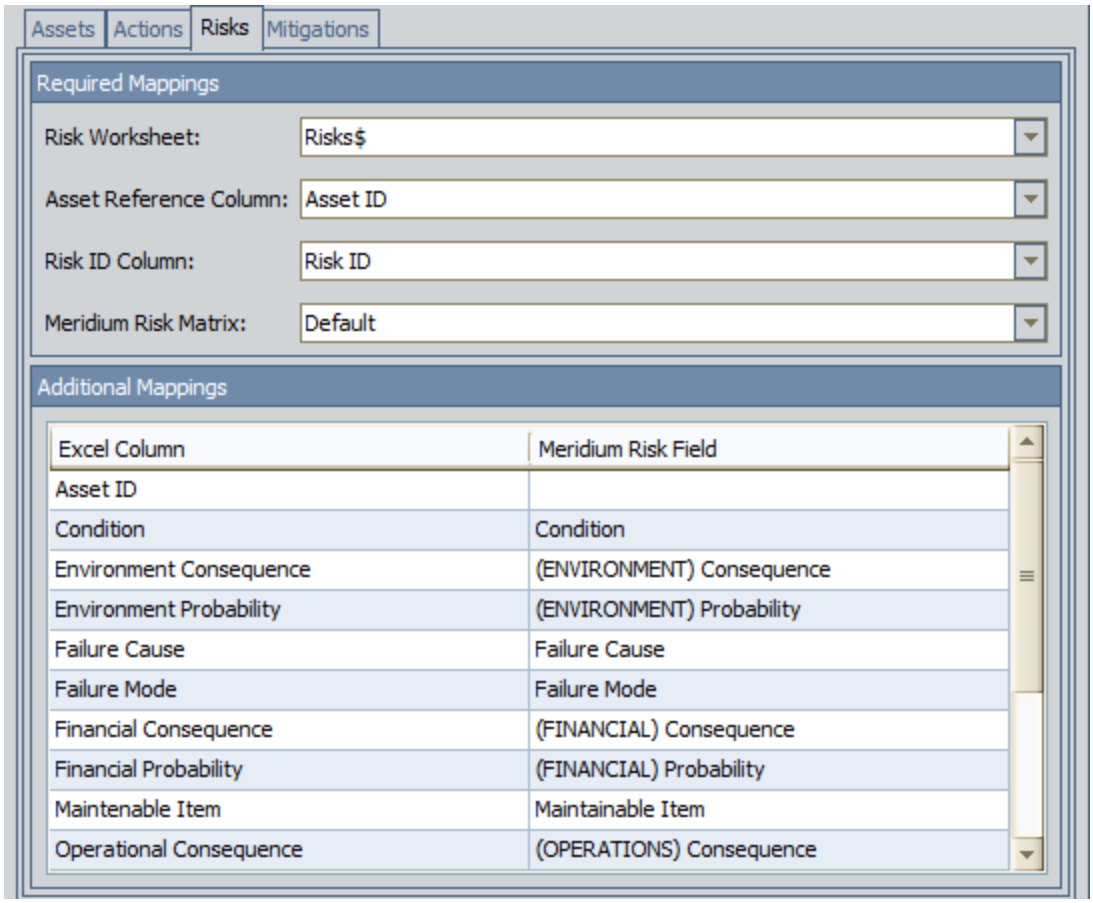


Note that in the **Additional Mappings** section, the Asset ID and Strategy ID are not mapped from the Microsoft Excel file to the Asset Strategy record. In this example, these fields have already been mapped using the **Required Mappings** section of this dialog box. If additional columns were available in the Assets worksheet of the Microsoft Excel file, they would also be listed in the **Additional Mappings** section, and you might consider mapping them to a field in the Asset Strategy record (e.g., Strategy Notes).

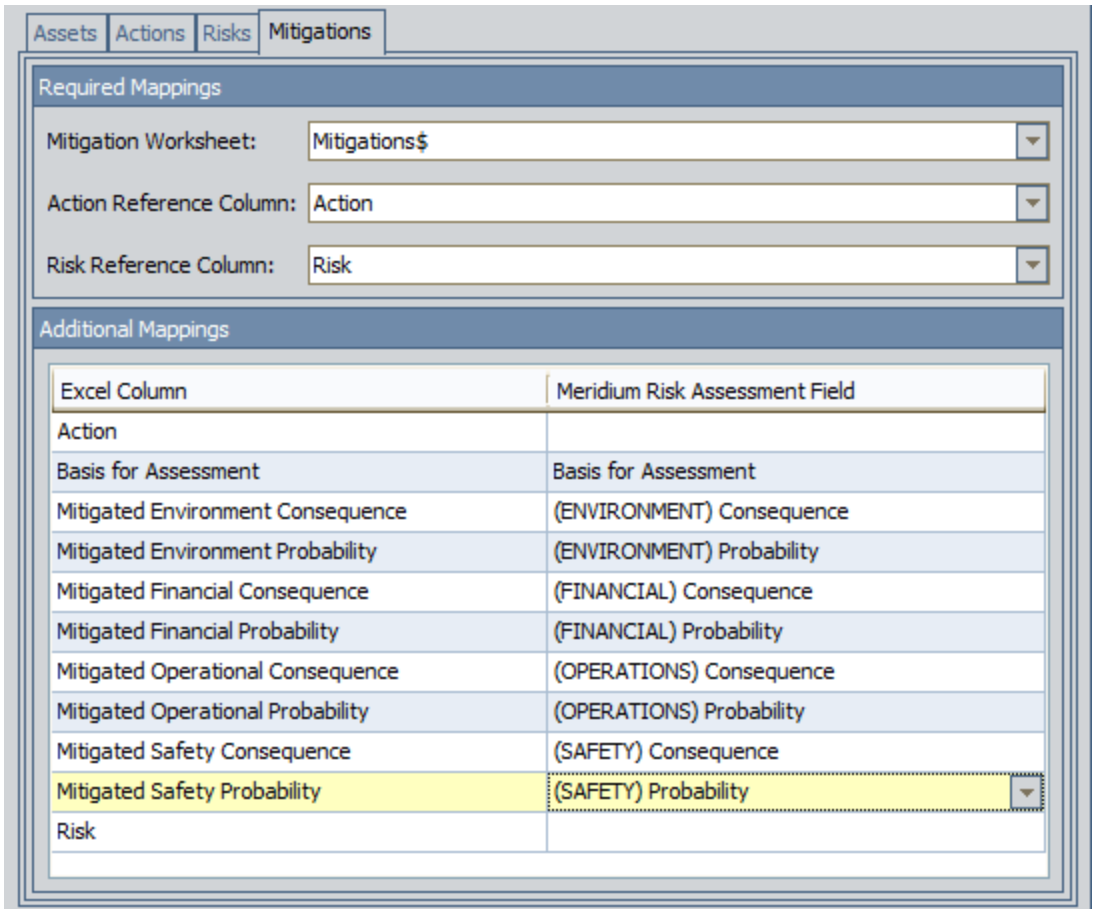
Likewise, you could specify the mappings from the *Actions* worksheet of the Microsoft Excel file, as shown in the following image.



You could specify the mappings from the *Risks* worksheet of the Microsoft Excel file, as shown in the following image.



Finally, you could specify the mappings from the *Mitigations* tab of the Microsoft Excel file, as shown in the following image.

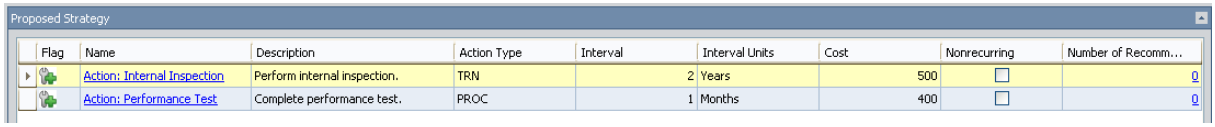

Assets
Actions
Risks
Mitigations
Required Mappings
Mitigation Worksheet:
Mitigations$
Action Reference Column:
Action
Risk Reference Column:
Risk
Additional Mappings
Excel Column
Meridium Risk Assessment Field
Action
Basis for Assessment
Basis for Assessment
Mitigated Environment Consequence
(ENVIRONMENT) Consequence
Mitigated Environment Probability
(ENVIRONMENT) Probability
Mitigated Financial Consequence
(FINANCIAL) Consequence
Mitigated Financial Probability
(FINANCIAL) Probability
Mitigated Operational Consequence
(OPERATIONS) Consequence
Mitigated Operational Probability
(OPERATIONS) Probability
Mitigated Safety Consequence
(SAFETY) Consequence
Mitigated Safety Probability
(SAFETY) Probability
Risk

Result

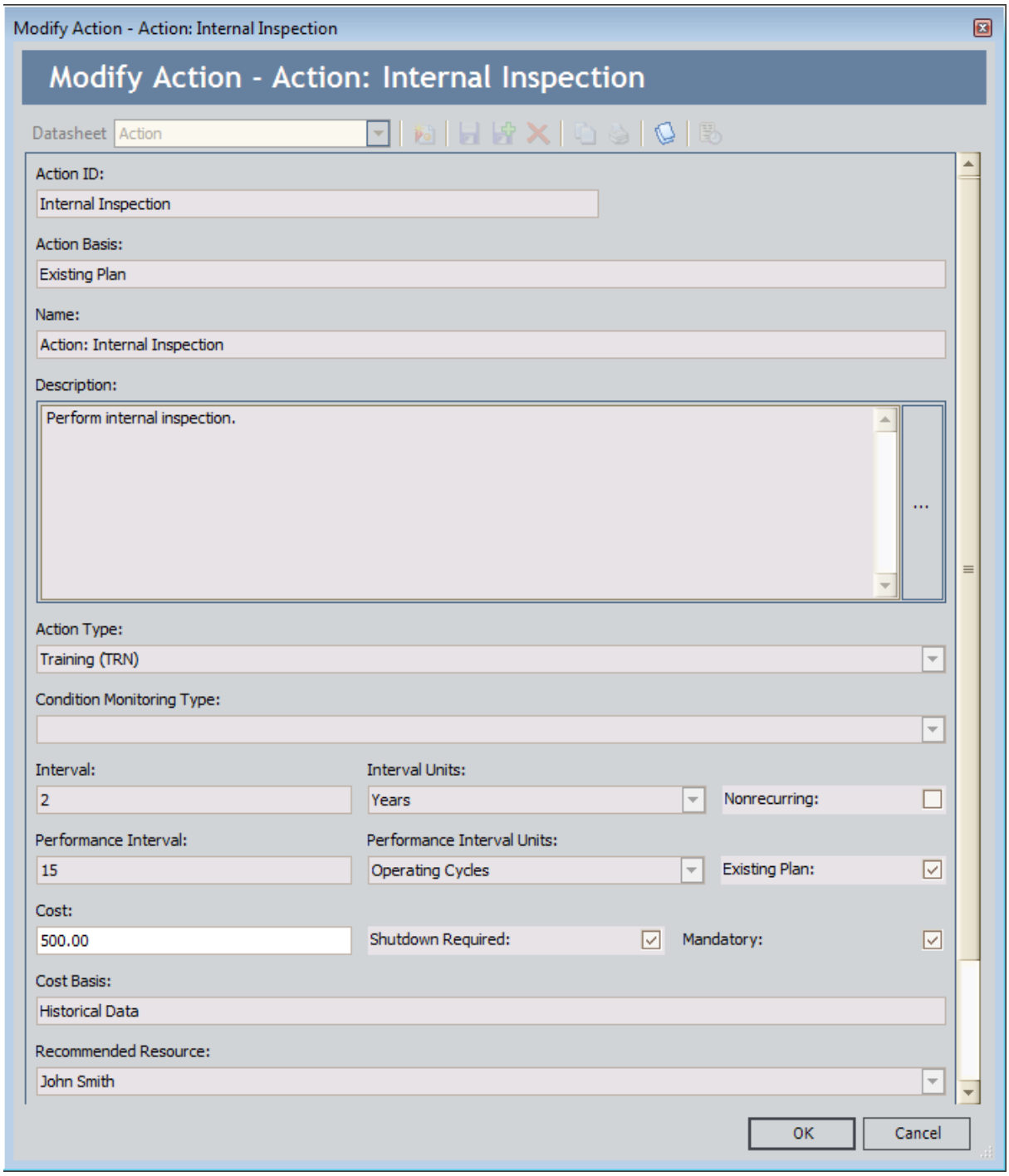
Using the example Microsoft Excel file structure and mappings, when the import procedure is complete, two Asset Strategies would be created, as shown in the following image.

Strategy for 19-02600	Strategy for 19-02600
Strategy for 19-04500	Strategy for 19-04500

The Asset Strategy *Strategy for 19-04500* would be linked to the Action records shown in the following image.

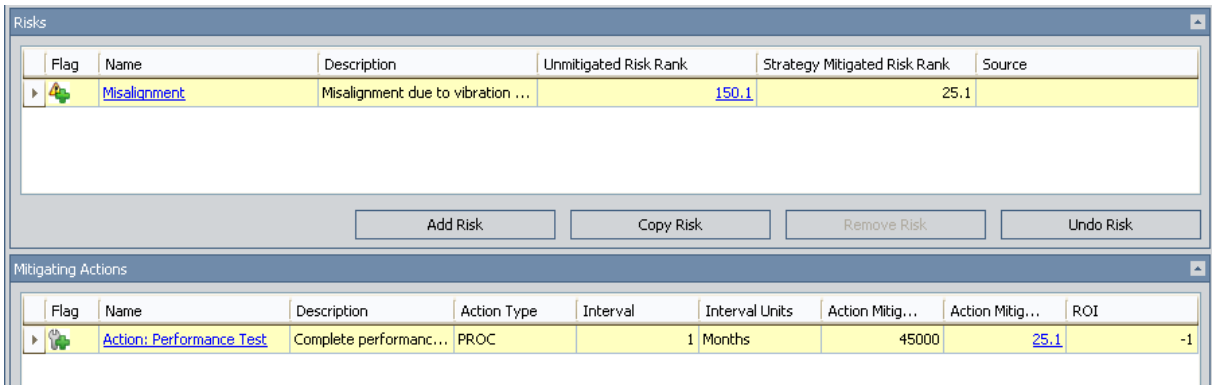


The fields in *Action: Internal Inspection* would be populated as shown in the following image.

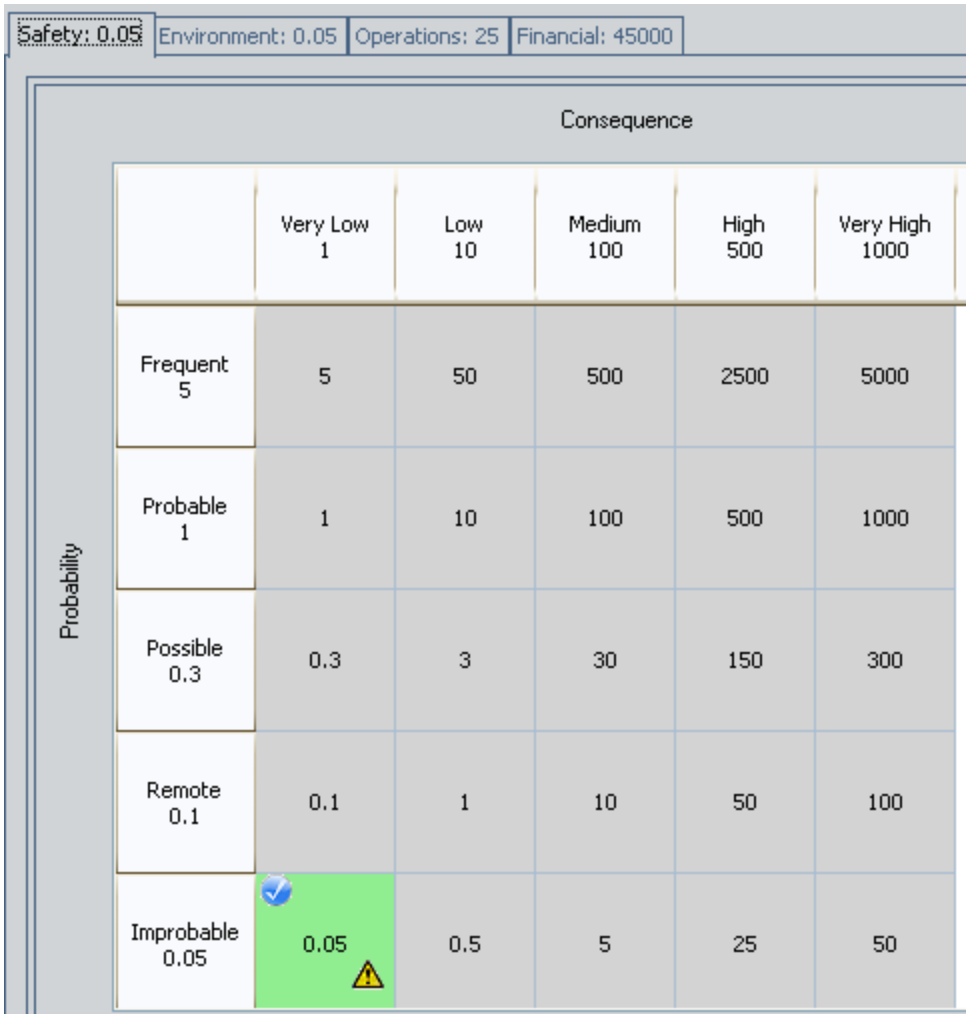


Because the **Mandatory** column in the Microsoft Excel file contained the value *TRUE*, the **Mandatory** check box is selected, which causes most of the remaining fields to be disabled.

The Asset Strategy would also contain the Risk record *Misalignment*, which would be associated with the Action *Action: Performance Test*, as shown in the following image.



The mitigated Risk Rank for the Safety category would be *0.05*, which appears at the intersection of the Probability *0.05* and the Consequence *1*, as shown in the following image.



If you remember from the Mitigations worksheet in the Microsoft Excel file, for the Performance Test, the Mitigated Safety Probability value is *0.05*, and the Mitigated Safety Consequence is *1*. These values are highlighted in the following image.

Action	Risk	Basis for Assessment	Mitigated Safety Probability	Mitigated Safety Consequence
Vibration Analysis	Bearing Failure	Vibration analysis will reduce probability of bearing failure by 10x	0.05	1
Performance Test	Misalignment	Oil Analysis will reduce the probability of bearing failure by 10x	0.05	1

About Importing Asset Strategies from SAP

If you use SAP to track information about your current strategies, you might want to transfer that data from your SAP system to your Meridium APM system. Doing so will allow you to track those strategies in the Meridium APM system using ASM and other Meridium APM modules.

If desired, you can create an Asset Strategy from data in SAP using the **Asset Strategy Builder**. When you do so, for each Equipment or Functional Location record that you select in the **Asset Strategy Builder**, the Meridium APM system will create:

- One Asset Strategy record.
- One Active Strategy record that is linked to the Asset Strategy record.
- One Proposed Strategy record that is linked to the Asset Strategy record.
- Multiple Action records, which are linked to the Proposed Strategy record. Each Action record represents a separate item from SAP.
- One Implementation Package record, which is linked to the Asset Strategy record.
- Multiple work item records, where each one represents an SAP item that you imported. Each work item record will be included in the Implementation Package that is created automatically.

Using the **Asset Strategy Builder**, you can import SAP data using several different scenarios.

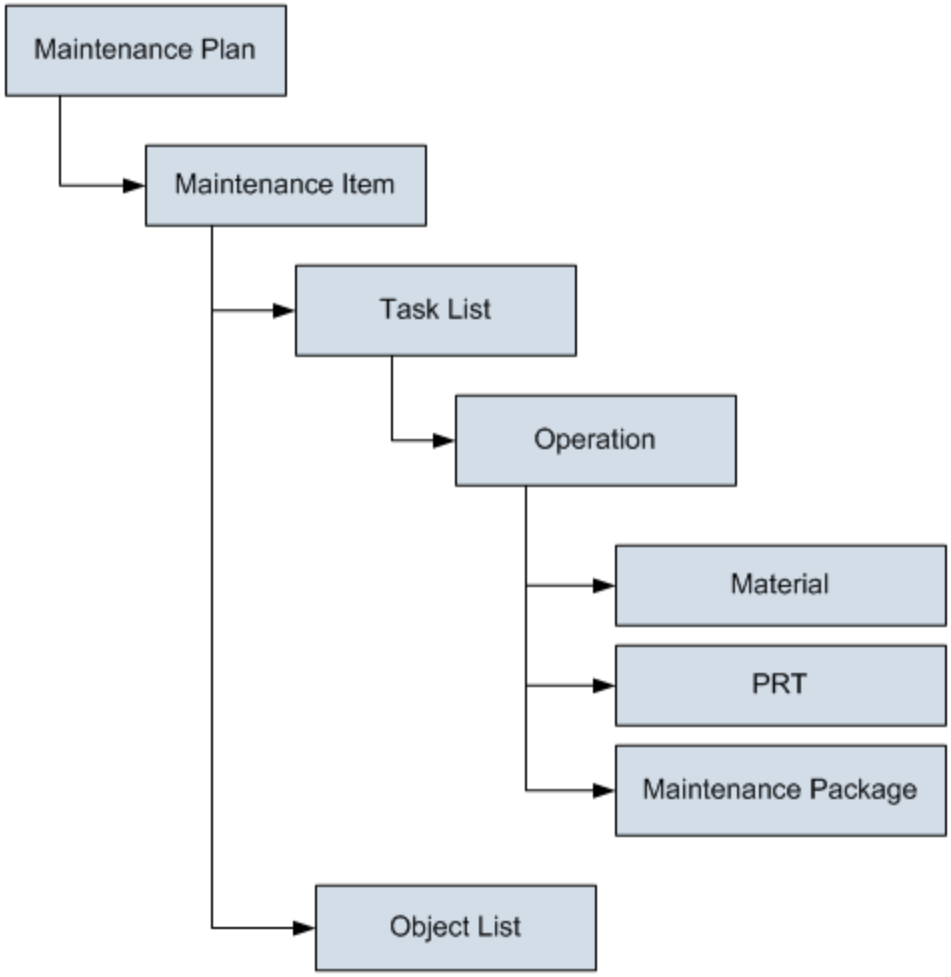
Workflow for Importing Asset Strategies from SAP

Importing Asset Strategies from SAP is just one step in a larger workflow that involves multiple modules and features. The following table identifies the workflow in which we suggest that you import Asset Strategies from SAP.

Step	Location/Feature	Task
1	SAP Interfaces	Extract Equipment and Functional Locations from SAP.
2	ASM	Create Asset Strategies from existing SAP plans for those pieces of equipment and locations.
3	ASM	Perform a risk assessment, including modifying or removing Actions that were created from SAP, creating new Actions, and defining risk.
4	ASI	Create the appropriate work items to reflect the changes that you made to the Asset Strategy, and then transfer the changes back to SAP.
5	ASM	If additional SAP plans are created for the same SAP Equipment or Functional Locations (e.g., new Notifications are created), import those new items into the existing Asset Strategies for those Equipment and Functional Location records.

Import Scenarios

The structure of data in SAP is shown in the following diagram.



In addition, SAP uses Notifications, which are not part of this data hierarchy.

Assuming that your SAP system contains *at least* one of each item in the preceding image and a Notification, you could use the **Asset Strategy Builder** in the following ways:

- **Import Maintenance Plans and all items below them.** If you choose this option, in the **Asset Strategy Builder**, you will be prompted to select which items will be used to create Actions. You can choose to:
  - Create Actions from the associated Maintenance Items.
  - Create Actions from the associated Operations.

  In either case, one Action will be created for each Maintenance Item or Operation that you import. In addition, one work item record will be created for each SAP

item that you import. For example, if you import only one Maintenance Plan, only one Maintenance Plan record will be created.

The appropriate links will also be created between the work item records that are created automatically. For example, if you import a Maintenance Plan that has two Maintenance Items, one Maintenance Plan record and two Maintenance Item records will be created, and the Maintenance Item records will be linked to the Maintenance Plan record through the Has Maintenance Item relationship.

- **Import Maintenance Items and all items below them.** If you choose this option, in the **Asset Strategy Builder**, you will be prompted to select which items will be used to create Actions. You can choose to:
  - Create Actions from the selected Maintenance Item.
  - Create Actions from the associated Operations.

  In either case, one Action will be created for each Maintenance Item or Operation that you import. In addition, one work item record will be created for each SAP item that you import. For example, if you import only one Maintenance Item, one Maintenance Item record will be created.

  The appropriate links will also be created between the work item records that are created automatically. For example, if you import a Maintenance Item that has two Object Lists, one Maintenance Item record and two Object List Item records will be created, and the Object List Item records will be linked to the Maintenance Item record through the Has Object List Item relationship.
- **Import Task Lists and all items below them.** If you choose this option, one Action will be created for each Operation that you import. In addition, one work item record will be created for each SAP item that you import. For example, if you import only one Task List, one Task List record will be created.

  The appropriate links will also be created between the work item records that are created automatically. For example, if you import a Task List that has two Materials, one Task List record and two Material records will be created, and the Material records will be linked to the Task List record through the Has Materials relationship.
- **Import Notifications.** If you choose this option, one Action will be created for each Notification that you import. In addition, one Notification record will be created for each SAP Notification that you import.

Conditions Required to Create Asset Strategies from SAP

To import data from SAP to create Asset Strategies, the following pre-requisites must be met:

- The ASI for SAP license must be active.
- At least one Site Reference record must exist in your database.
- The Site Reference record must be linked to at least one Equipment or Functional Location record that represents the Equipment or Functional Location whose items you want to import from SAP. If you followed the suggested workflow and extracted Equipment and Functional Locations from SAP using the SAP Interfaces, records in the Equipment and Functional Location families were created automatically and linked automatically to the appropriate Site Reference record.
- The Equipment and Functional Location families must be related to the Asset Strategy family through the Has Strategy relationship.
- If you are importing items associated with SAP Functional Locations, the Locate Assets by Site Reference for Import query must be configured to return Site Reference records that are linked to Functional Location records.

What Happens to Asset Strategies that are Created from SAP Items?

After you create a new Asset Strategy from SAP items:

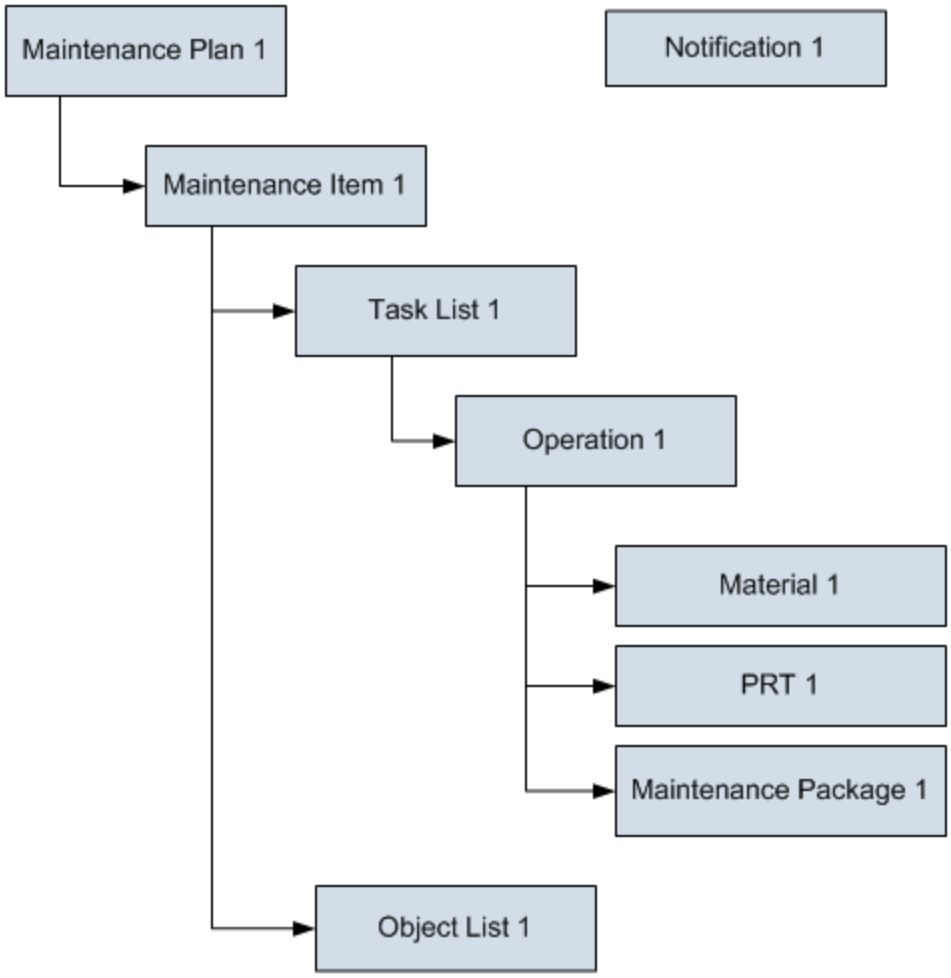
- The Asset Strategy will be set to the Active state.
- The following fields in the Asset Strategy record will be populated automatically:
  - Strategy ID

  Note: The Strategy ID field will be populated with the value in the Equipment Technical Number field of the Equipment record or the Functional Location ID field of the Functional Location record.

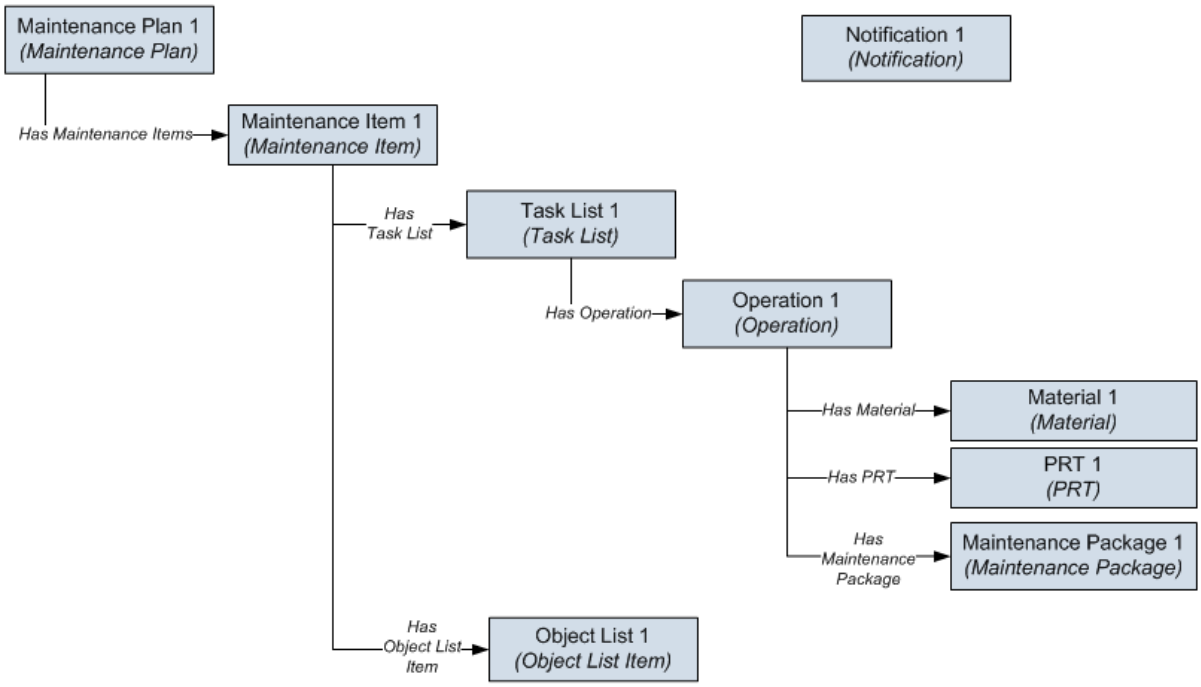
  - Description

  Note: The Description will be *Strategy imported from existing Work Management Items on [Current Date and Time]*, where *[Current Date and Time]* is the date and time on which the Asset Strategy record was created.

  - Strategy Owner
  - Strategy Activation Date
  - Strategy Activated By
  - Plan Length
  - Asset Name
  - Asset Type
  - Site Reference
- A new work item record will be created for each SAP item that you imported. For example, suppose you import the following items.



Using this example, the following work item records and links would be created.



- A new Action will be created from each Maintenance Item, Operation, Task List, or Notification that you imported. The data in each Action is copied from the corresponding work item record using the rules referenced in the Action Mapping record to which the source work item record is linked.
- No Risks will be created. You will need to assign Risks to each Action manually.
- The Asset Strategy record will be linked to an Implementation Package record. The Implementation Package record will be set to the Implemented state and linked to the work item records that were created from the imported SAP items. When you perform the import procedure, you can choose whether the Implementation Package will be a primary or secondary Implementation Package.

If you update an existing Asset Strategy with new SAP items for the same SAP Equipment or Functional Location for which the Asset Strategy exists:

- The Asset Strategy will be set automatically to the Active state.
- A new work item record will be created for each SAP item that you imported.
- A new Action will be created from each new Maintenance Item, Operation, Task List, or Notification that you imported. The data in each Action is copied from the corresponding work item record using the rules referenced in the Action Mapping record to which the source work item record is linked.
- No Risks will be created. You will need to assign Risks to each Action manually.
- The Asset Strategy record will be linked to an Implementation Package record. The Implementation Package record will be set to the Implemented state and linked to the work item records that were created from the newly imported SAP items. When you perform the import procedure, you can choose whether the Implementation Package will be a primary or secondary Implementation Package.

Configuring the Locate Assets by Site Reference for Import Query

The Locate Assets by Site Reference for Import query, which is located in the Catalog folder \\Public\Meridium\Modules\Asset Strategy Management\Management\Queries, is intended to display either Equipment or Functional Location records that are linked to Site Reference records. When you choose to import SAP items to create Asset Strategies, the query results are displayed on the **Select SAP Object(s)** screen of the **Asset Strategy Builder**.

By default, the query returns records in the *Equipment* family. If your Site Reference records are linked to Functional Location records, however, you will need to modify the query to return records in the Functional Location family.

To configure the Locate Assets by Site Reference for Import query:

1. In the Catalog, navigate to the folder **\\Public\Meridium\Modules\Asset Strategy Management\Management\Queries**.
2. Open the **Locate Assets by Site Reference for Import** query.
3. On the **Query Tasks** menu, click the **Design View** link.

   The query design appears, displaying the Equipment, Has Site Reference, and Site Reference families as the sources.
4. Remove the Equipment family.

   Note: Removing the Equipment family will remove the Has Site Reference family automatically.
5. Add the Functional Location and Has Site Reference families.
6. Add any fields that will help you identify the Functional Location records when the results are displayed in the **Asset Strategy Builder**.
7. On the **Common Tasks** menu, click the **Save Query** link.

   The query is saved.

Performing the Import Procedure

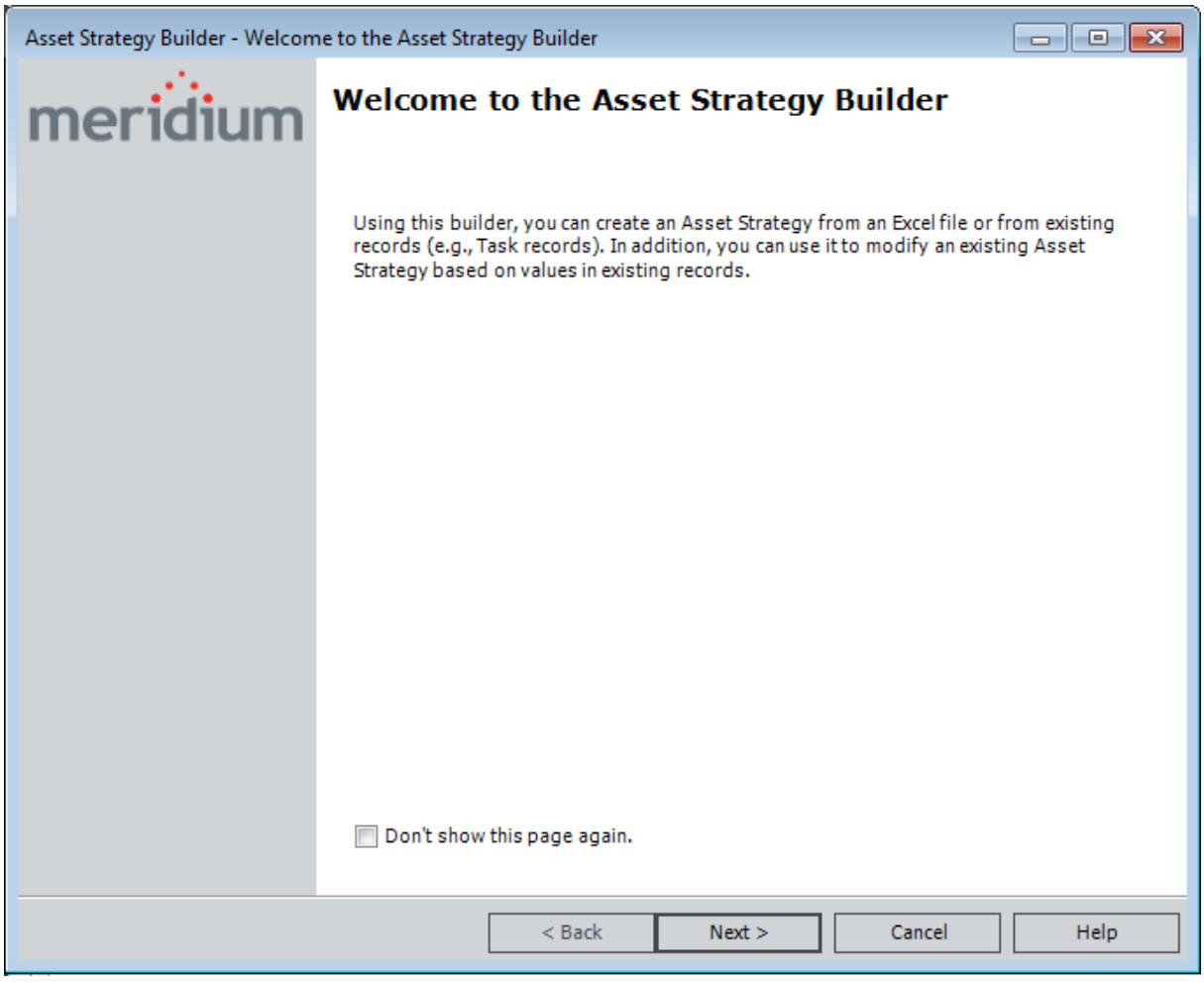
To import an Asset Strategy from SAP:

1. On the **ASM - Start Page**, click the **Import Strategy** link.

   -OR-

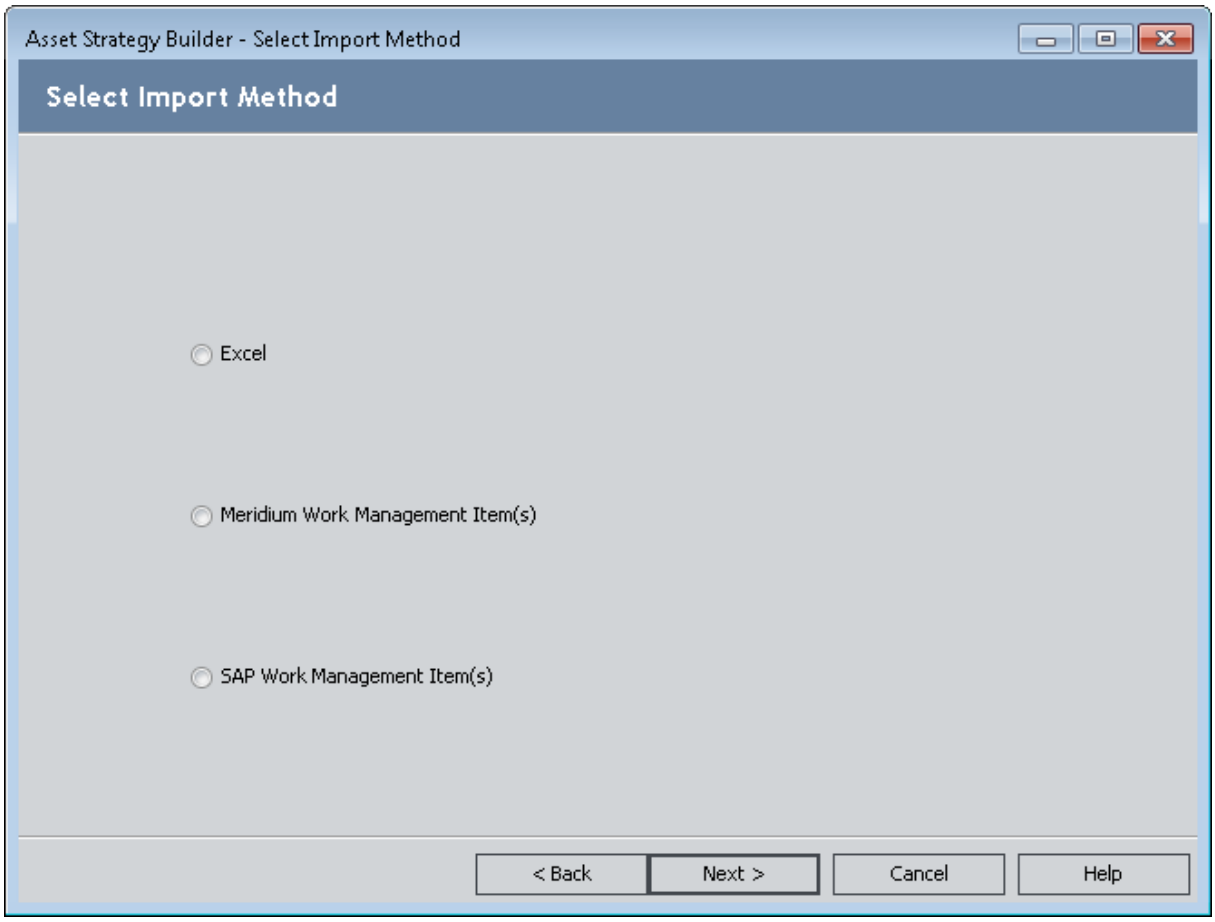
   On any **Common Tasks** menu in ASM, click the **Import Strategy** link.

   The **Asset Strategy Builder** appears, displaying the Welcome screen.



2. Click the **Next** button.

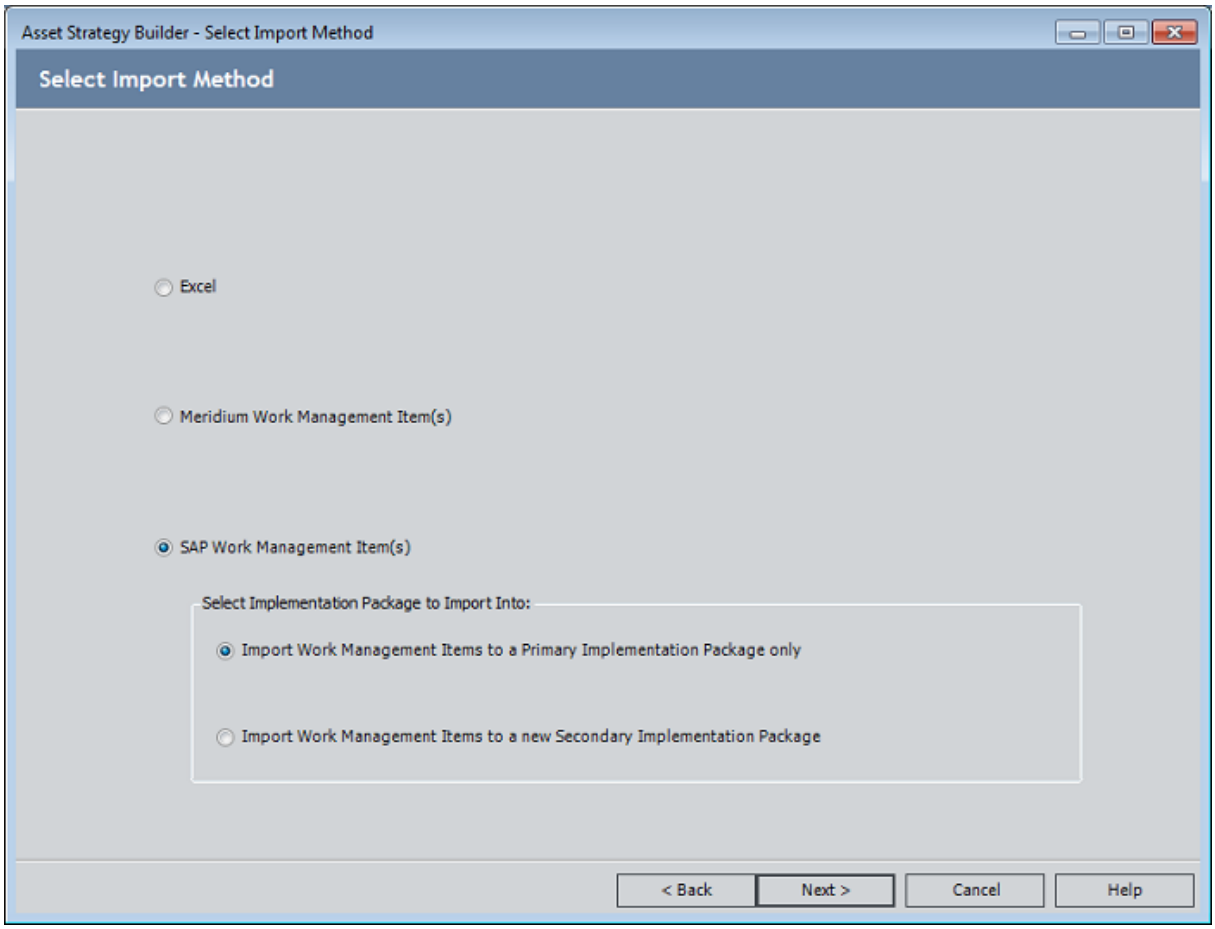
   The **Select Import Method** screen appears.



3. Select the **SAP Work Management Item(s)** option.

Note: The **SAP Work Management Item(s)** option appears only if the ASI for SAP license is active.

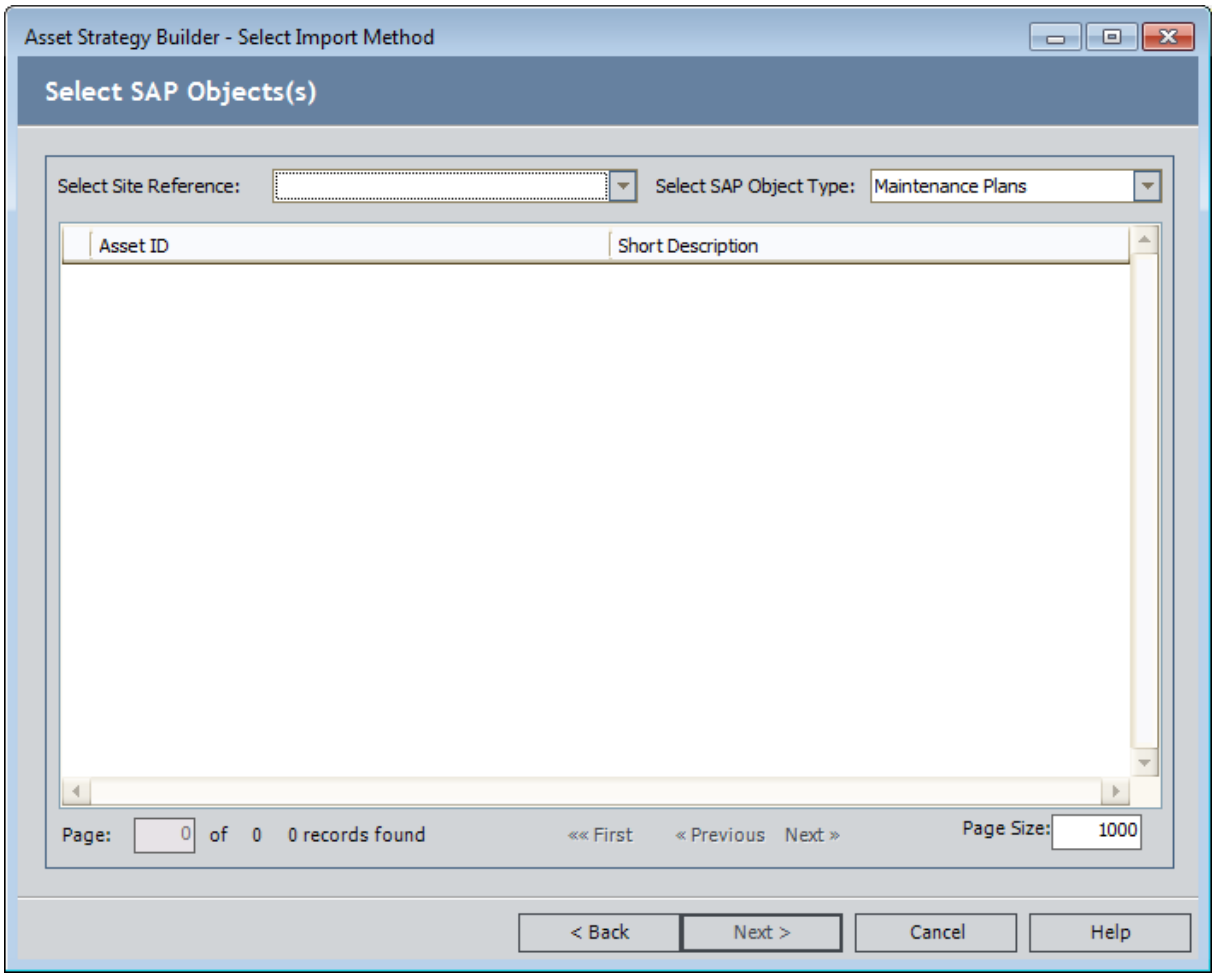
The **Select Implementation Package to Import Into** section appears, which you can use to select whether to import the Work Management Item(s) into your Asset Strategy as a *Primary* or a *Secondary* Implementation Package.



e

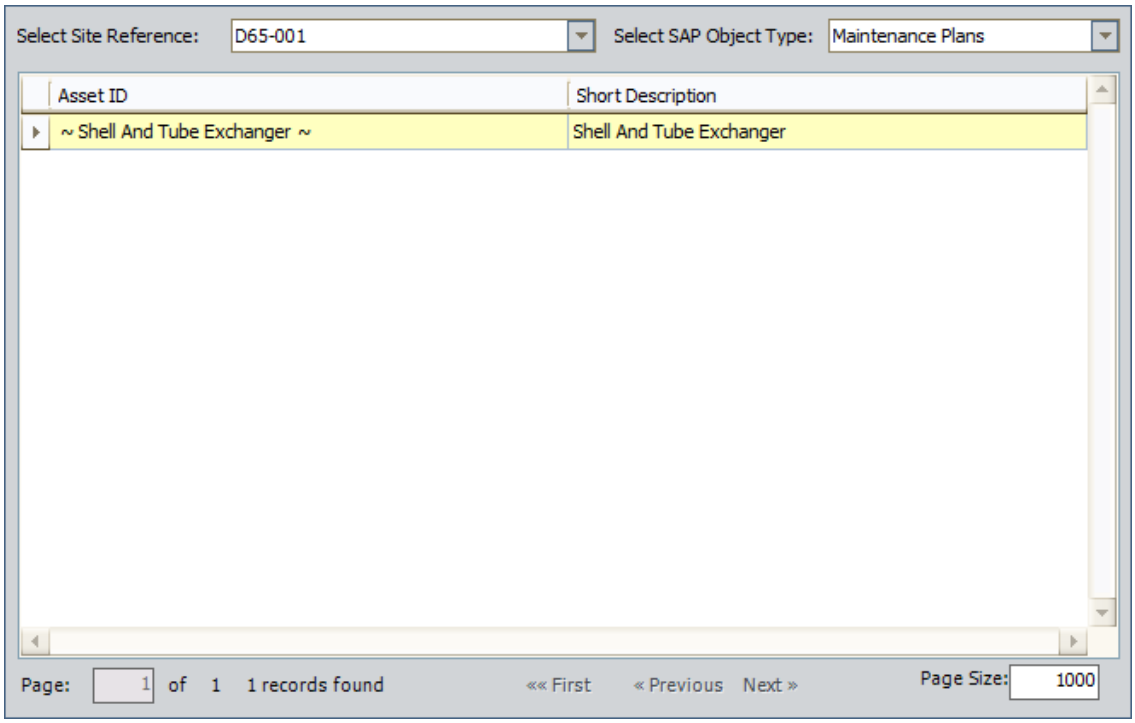
4. Click the **Next** button.

   The **Select SAP Object(s)** screen appears.



5. In the **Select Site Reference** list, select the Site Reference record that is linked to the Equipment or Functional Location records representing the SAP Equipment or Functional Locations whose items you want to import.

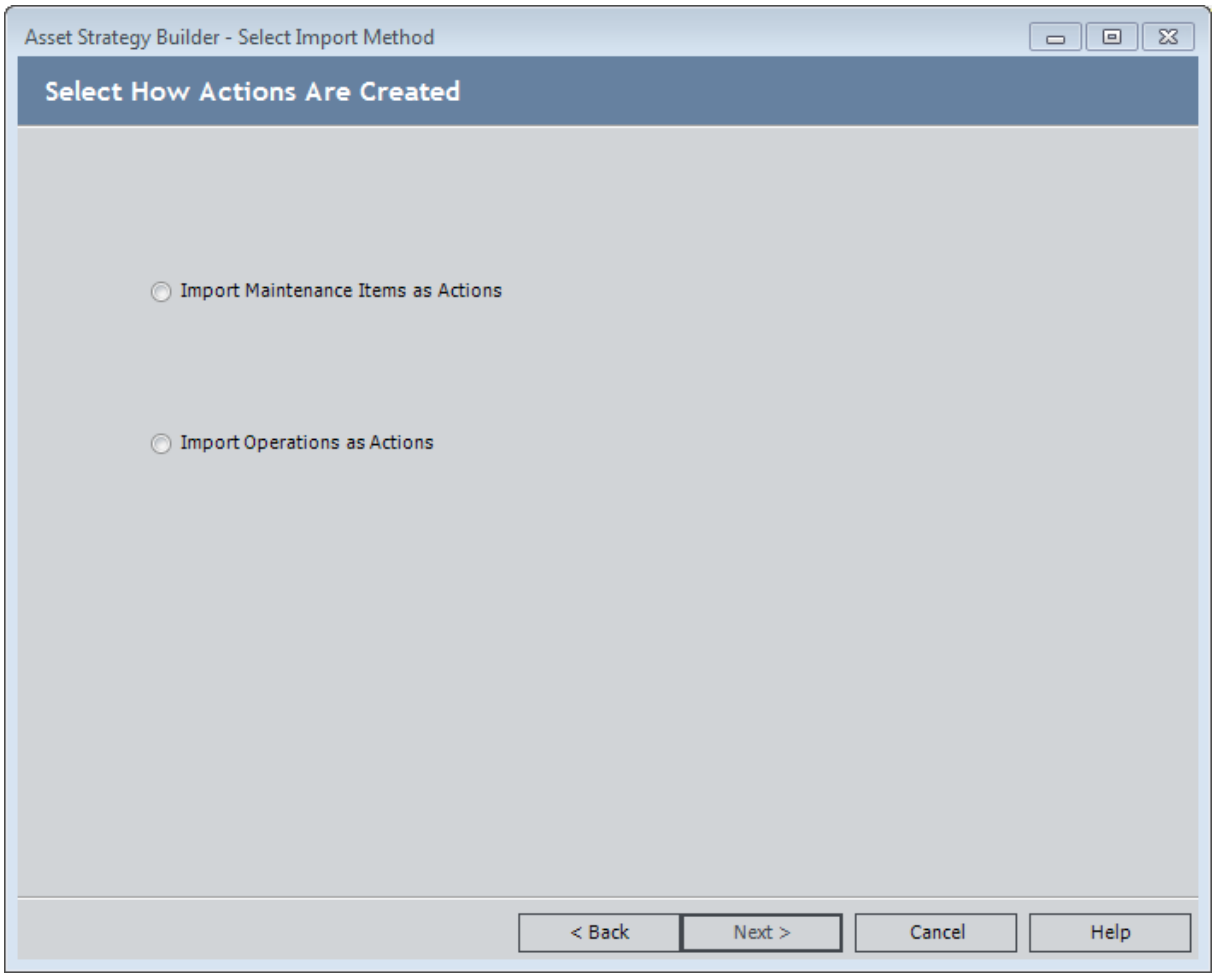
   The list below the **Select Site Reference** list is updated to display the Equipment records or the Functional Location records that are linked to the selected Site Reference record.



Note: The grid displays either the Equipment records or the Functional Location records that are linked to the selected Site Reference record. It does not display both the Equipment and Functional Location records that are linked to the selected Site Reference record. Whether you see Equipment records or Functional Location records depends on how the Locate Assets by Site Reference for Import query has been configured.

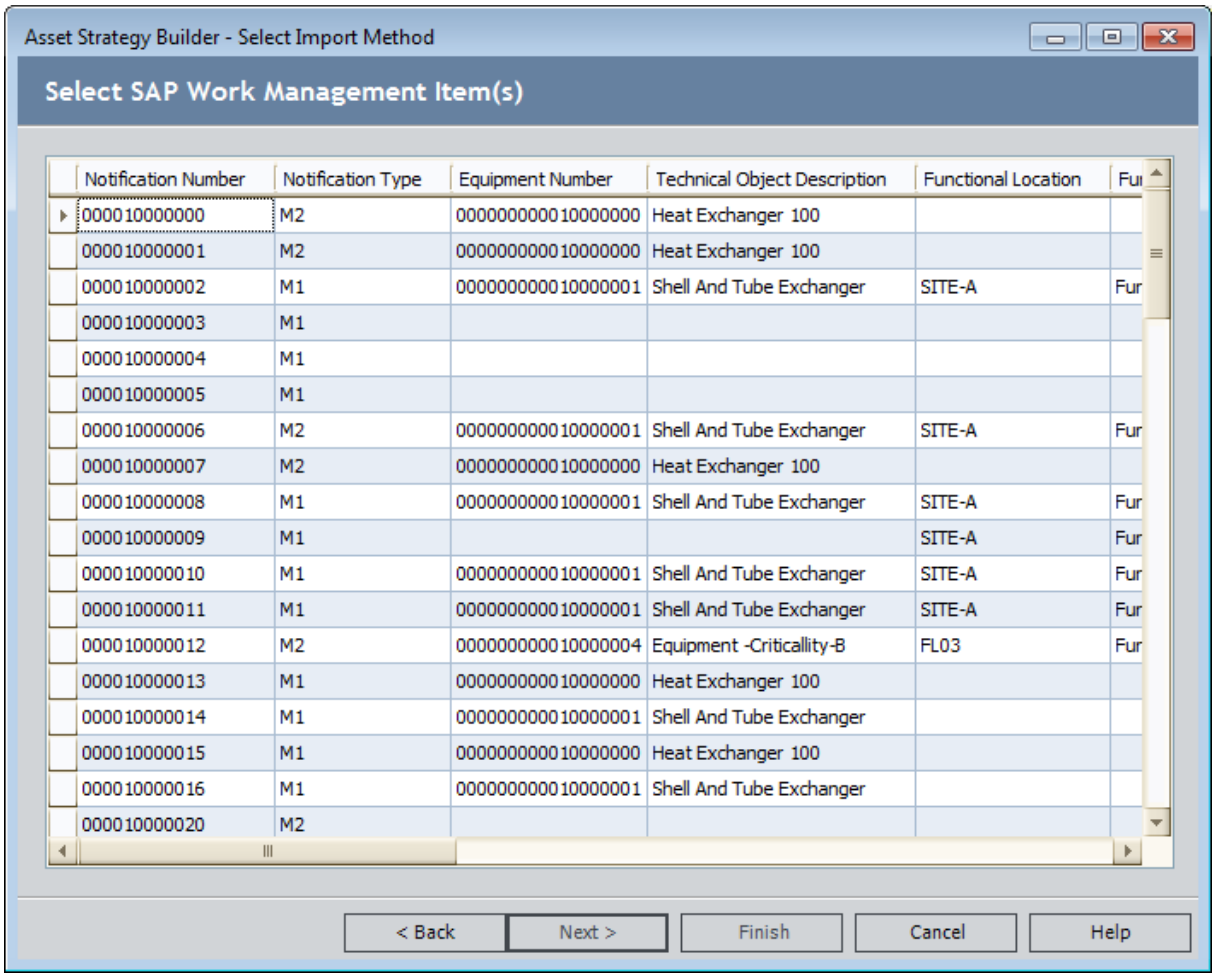
6. In the **Select SAP Object Type** list, select the items that you want to import from SAP. You can select one of the following options:
   - Maintenance Plans
   - Maintenance Items
   - Task Lists
   - Notifications
7. In the grid, select the rows containing the Equipment or Functional Location records representing the SAP Equipment or Functional Locations whose items you want to import.
8. Click the **Next** button.

   If you selected **Maintenance Plans** or **Maintenance Items** in the **Select SAP Object Type** list, the **Select How Actions Are Created** screen appears. In this case, proceed with the next step of these instructions.



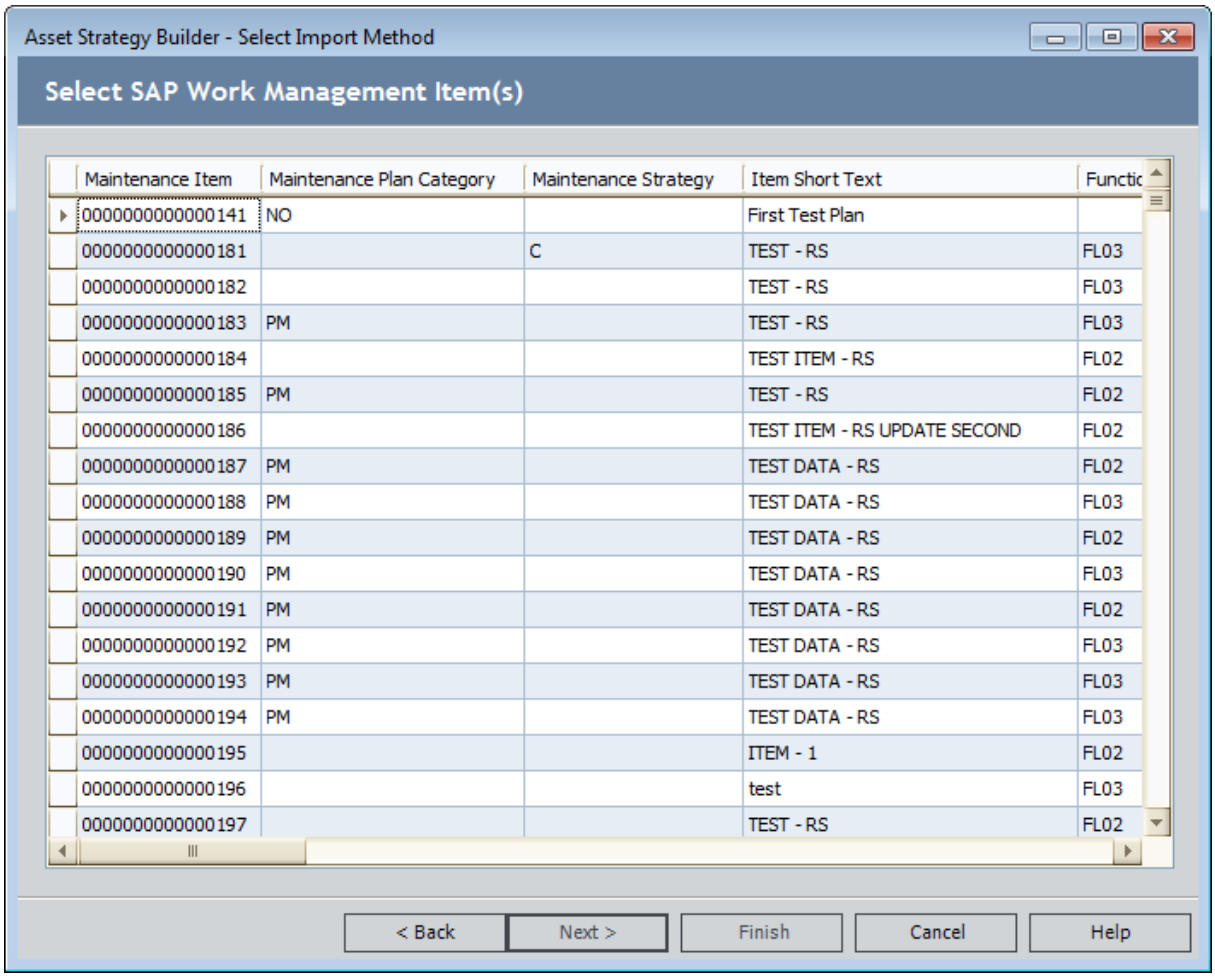
-OR-

If you selected **Task Lists** or **Notifications** in the **Select SAP Object Type** list, the **Select SAP Work Management Item(s)** screen appears. In this case, proceed to step 11 of these instructions.



9. On the **Select How Actions Are Created** screen, select one of the following options:
   - **Import Maintenance Items as Actions:** An Action will be created for each Maintenance Item that is imported.
   - **Import Operations as Actions:** An Action will be created for each Operation that is imported.
10. Click the **Next** button.

    The **Select SAP Work Management Item(s)** screen appears.



11. On the **Select SAP Work Management Item(s)** screen, in the grid, select the rows containing the SAP items that you want to import. The list displays only SAP items of the type that you selected in the **Select SAP Object Type** list on the **Select SAP Object(s)** screen. The list is also filtered to display only those items for the Equipment or Functional Locations that you selected in the grid on the **Select SAP Object(s)** screen.

    For example, if you selected *Maintenance Plan* in the **Select SAP Object Type** list and *Equipment 101* in the grid, the **Select SAP Work Management Item(s)** screen would display only Maintenance Plans for Equipment 101.

12. Click the **Finish** button.

    The **Import Existing Strategy** page appears, displaying the results of the import procedure. The **Strategy** column contains a hyperlink, which you can click to access the **Asset Strategy Actions** page for the new Asset Strategy.

    Note: When you navigate away from the **Import Existing Strategy** page, you will be prompted to save the results to a file. If you want to save the result to a text

file, click the **Yes** button, and provide a name for the file. If you do not want to save the results, click the **No** button to proceed with viewing the Asset Strategy.

About Creating or Updating Asset Strategies from Task Records

If desired, you can create an Asset Strategy from existing Task records. When you do so, Meridium APM will create:

- One Asset Strategy record.
- One Active Strategy record that is linked to the Asset Strategy record.
- One Proposed Strategy record that is linked to the Asset Strategy record.
- Multiple Action records, which are linked to the Proposed Strategy record. Each Action record represents a separate Task record.
- One Implementation Package record, which is linked to the Asset Strategy record.

Before you can create an Asset Strategy from Task records, several conditions must be met.

If you create an Asset Strategy from a Task record and later modify values in the Task record, the corresponding Action record in the Asset Strategy will be updated. If the Asset Strategy was set to the Active state, it will be set to the Modified state when the Action record is updated.

Conditions Required to Create Asset Strategies from Tasks

Before you can create an Asset Strategy from Task records, the following conditions must be met:

- The Task records must be linked to Equipment or Functional Location records.
- The Related Record ID field in the Task records must contain the Record ID of the Equipment or Functional Location record that is linked to the Task record.
- The Equipment and Functional Location must be related to the Asset Strategy family through the Has Strategy relationship.
- In Asset Strategy Implementation (ASI), in the Work Management Item Definition record that represents the Task records that will be used to create the Asset Strategy, the **Allow Link Existing** check box must be selected. For example, if you want to create an Asset Strategy from Inspection Task records, the **Allow Link Existing** check box in the Inspection Task Work Management Item Definition record must be selected.
- The Locate Assets for Import query must be configured to return records in the appropriate family: Equipment or Functional Location.

What Happens to Asset Strategies that are Created from Task Records?

After you create a new Asset Strategy from existing Task records:

- The Asset Strategy will be set to the Active state.
- The following fields on the Asset Strategy record will be populated automatically:
  - Strategy ID

  Note: The Strategy ID field will be populated with the value in the Equipment Technical Number field of the Equipment record or the Functional Location ID field of the Functional Location record.

  - Description

  Note: The Description will be *Strategy imported from existing Work Management Items on [Current Date and Time]*, where *[Current Date and Time]* is the date and time on which the Asset Strategy record was created.

  - Strategy Owner
  - Strategy Activation Date
  - Strategy Activated By
  - Plan Length
  - Asset Name
  - Asset Type
- A new Action is created from each Task record that you selected in the **Asset Strategy Builder**. The data in each Action is copied from the source Task record using the rules referenced in the Action Mapping record that is linked to the Work Management Item Definition record whose Family ID field contains the value *Inspection Task* (if the Asset Strategy is created from an Inspection Task record) or *Calibration Task* (if the Asset Strategy is created from a Calibration Task record).

  Note: If the Rejectable field in the Task record is set to *True*, the Mandatory field will be set to *False* in the Action record.
- No Risks are created. You will need to assign Risks to each Action manually.
- The Asset Strategy record will be linked to an Implementation Package record. The Implementation Package record will be set to the Implemented state. In addition, the Implementation Package record will be linked to the work item record (e.g., Inspection Task) that was used to create the Asset Strategy. When you perform the import procedure, you can choose whether the Implementation Package will be a primary or secondary Implementation Package.

About Creating Asset Strategies from Existing Measurement Location Records

If desired, you can create an Asset Strategy from existing Measurement Location records. When you do so, Meridium APM will create:

- One Asset Strategy record.
- One Active Strategy record that is linked to the Asset Strategy record.
- One Proposed Strategy record that is linked to the Asset Strategy record.
- Multiple Action records, which are linked to the Proposed Strategy record. Each Action record represents a Measurement Location record that you selected during the import process.
- Multiple Measurement Location Group records, where each Measurement Location Group record is linked to a separate Measurement Location record that you selected during the import process. For example, if you select three Measurement Location records, three Measurement Location Group records will be created during the import process. Each of those Measurement Location Group records will be linked to a single Measurement Location record.
- Multiple Health Indicator records, which are linked to the Action records. Each Health Indicator record is linked to a Measurement Location record that you selected during the import process.
- One Implementation Package record, which is linked to the Asset Strategy record.

Before you can create an Asset Strategy from Measurement Location records, several conditions must be met.

Conditions Required to Create Asset Strategies from Measurement Location Records

Before you can create an Asset Strategy from Measurement Location records, the following conditions must be met:

- The Measurement Location records must be linked to Equipment or Functional Location records.
- The Equipment and Functional Location families must be related to the Asset Strategy family through the Has Strategy relationship.
- In Asset Strategy Implementation (ASI), in the Work Management Item Definition record that represents Measurement Location Group records and Measurement Location records, the **Allow Link Existing** check box must be selected.
- The Locate Assets for Import query must be configured to return records in the appropriate family: Equipment or Functional Location.

What Happens to Asset Strategies that are Created from Measurement Location Records?

After you create a new Asset Strategy from existing Measurement Location records:

- The Asset Strategy will be set to the Active state.
- The following fields on the Asset Strategy record will be populated automatically:
  - Strategy ID

  Note: The Strategy ID field will be populated with the value in the Equipment Technical Number field of the Equipment record or the Functional Location ID field of the Functional Location record.

  - Description

  Note: The Description will be *Strategy imported from existing Work Management Items on [Current Date and Time]*, where *[Current Date and Time]* is the date and time on which the Asset Strategy record was created.

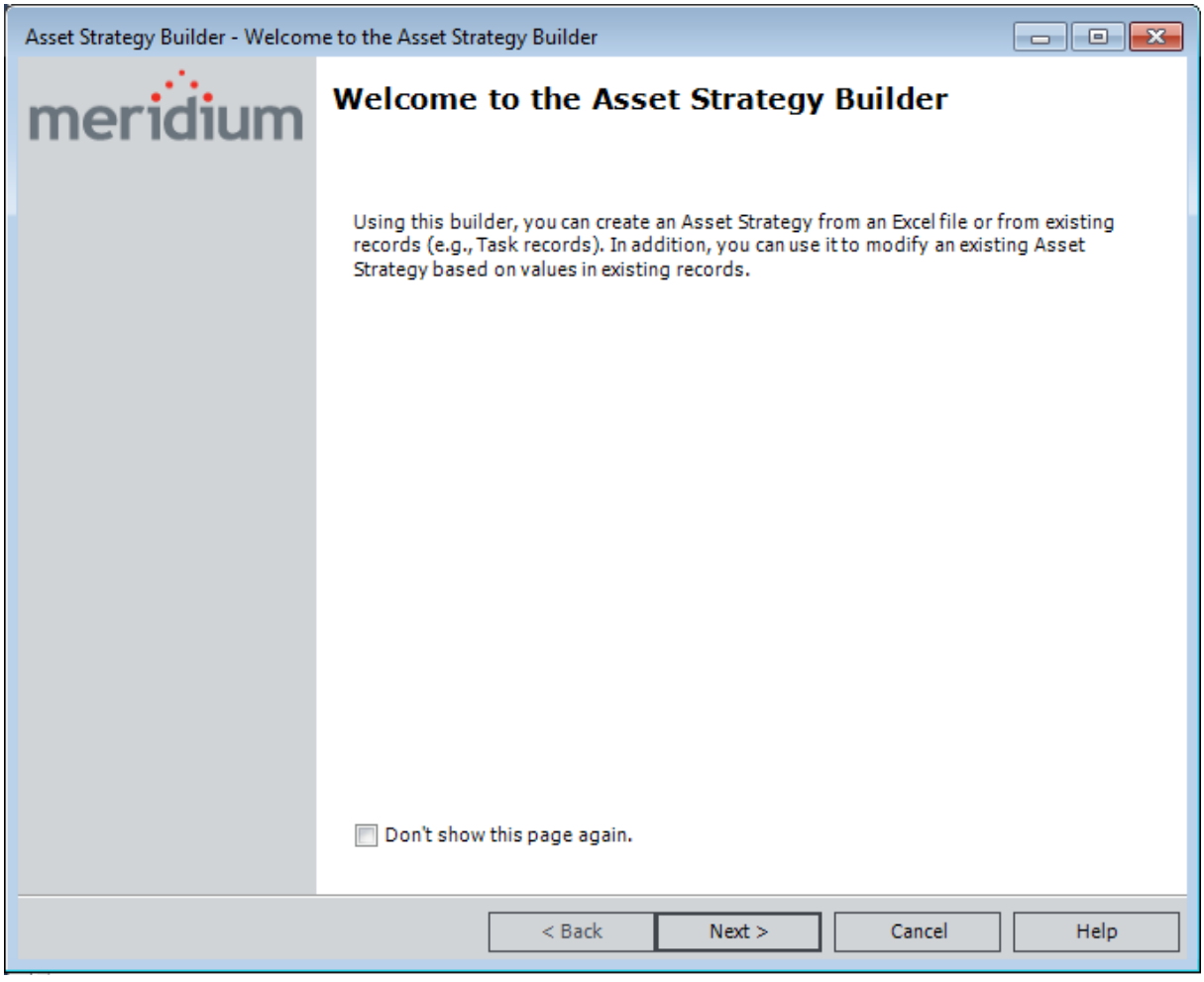
  - Strategy Owner
  - Strategy Activation Date
  - Strategy Activated By
  - Plan Length
  - Asset Name
  - Asset Type
- A new Action is created from each Measurement Location record that you selected in the **Asset Strategy Builder**. The data in each Action is copied from the source Measurement Location record using the rules referenced in the Action Mapping record that is linked to the Work Management Item Definition record with the value *Measurement Location Group* in the Family ID field.
- A new Health Indicator record is created from each Measurement Location record that you selected in the **Asset Strategy Builder**. Each Health Indicator record is linked to the corresponding Action record that was created during the import process.
- No Risks are created. You will need to assign Risks to each Action manually.
- The Asset Strategy record will be linked to an Implementation Package record. The Implementation Package record will be set to the Implemented state. In addition, the Implementation Package record will be linked to Measurement Location Group records. The number of Measurement Location Group records to which it is linked mimics the number of Measurement Location records that were selected in the **Asset Strategy Builder**. Each Measurement Location Group record will also be linked to a Measurement Location record that was selected during the import process.

Creating an Asset Strategy from Task or Measurement Location Records

To create an Asset Strategy from existing Task or Measurement Location records:

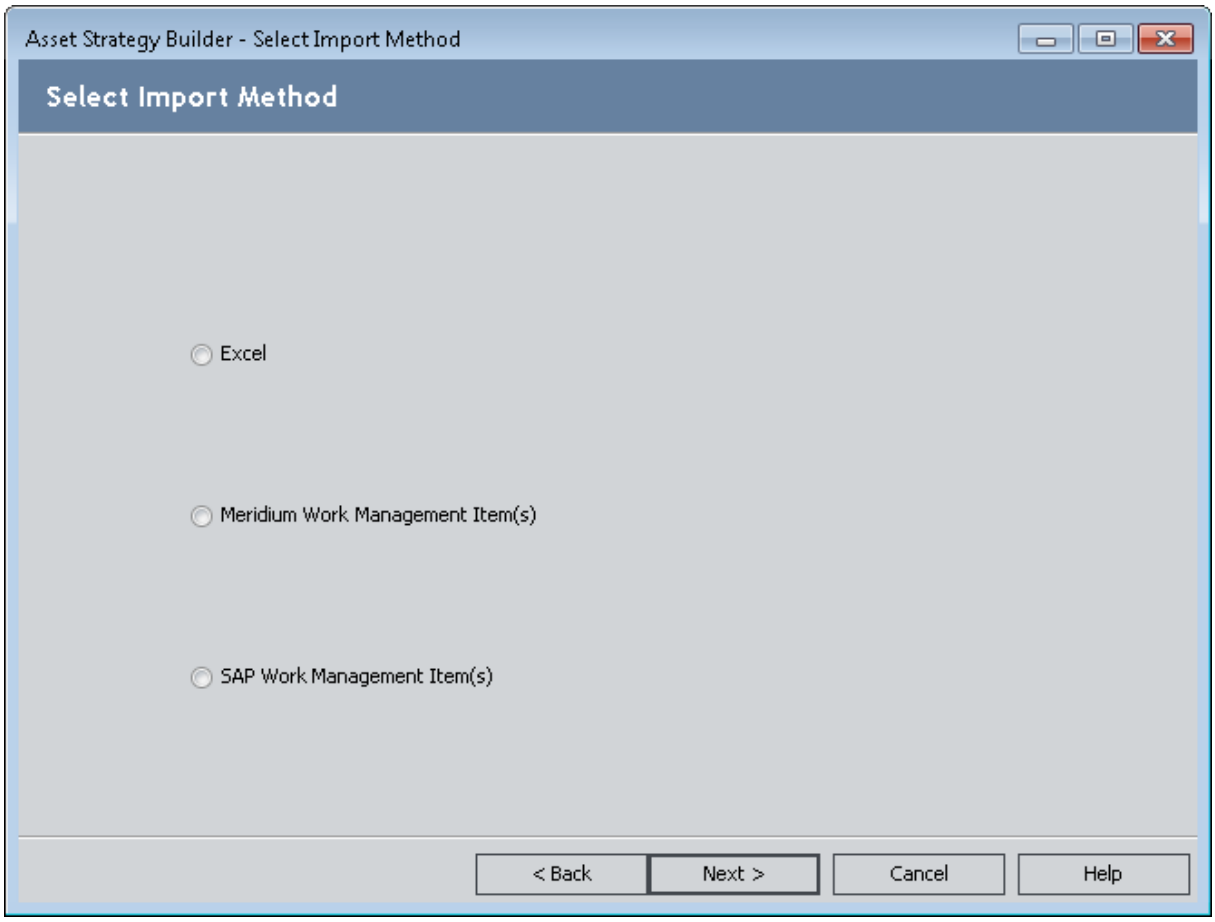
1. On the ASM - Start Page, click the **Import Strategy** link.

   The **Asset Strategy Builder** appears, displaying the Welcome screen.



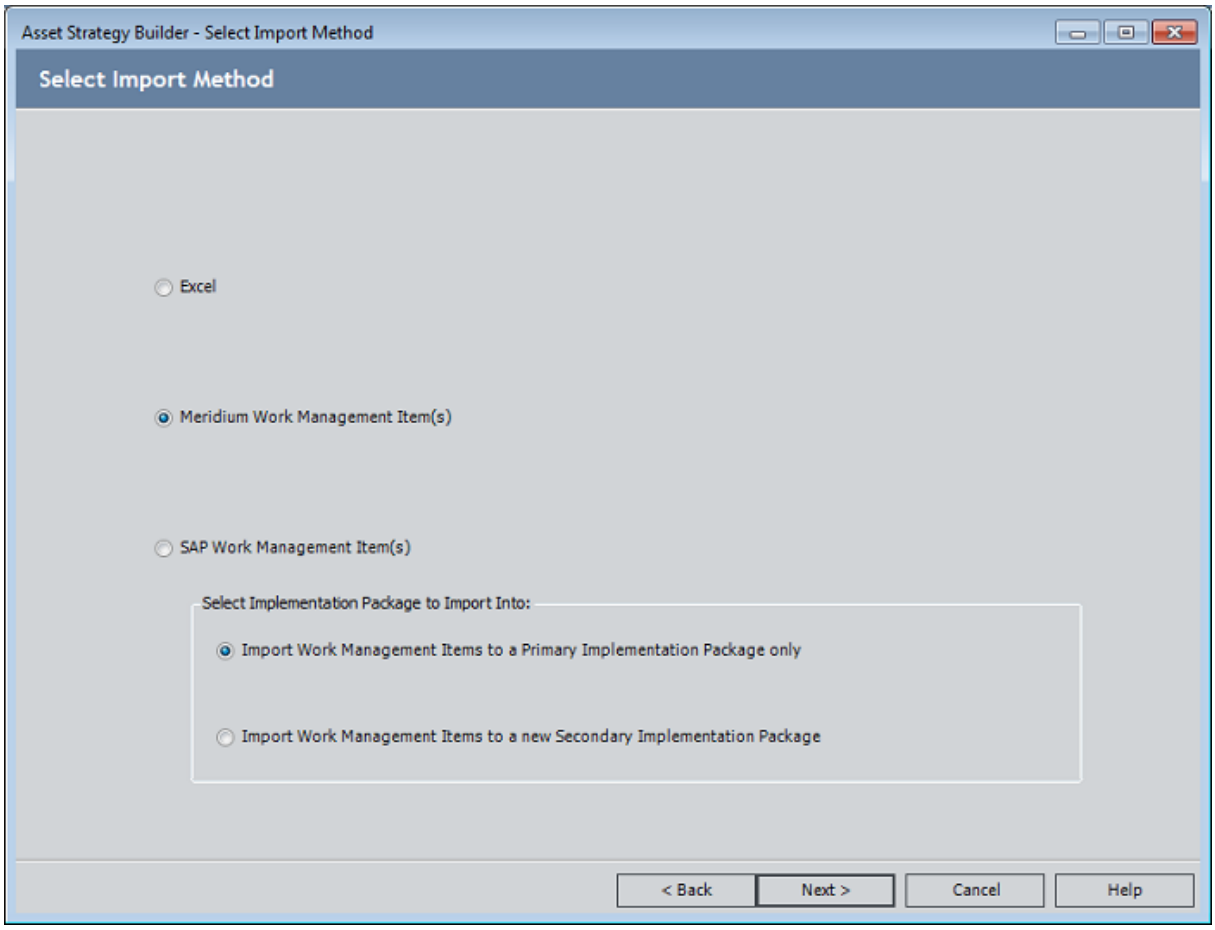
2. Click the **Next** button.

   The **Select Import Method** screen appears.



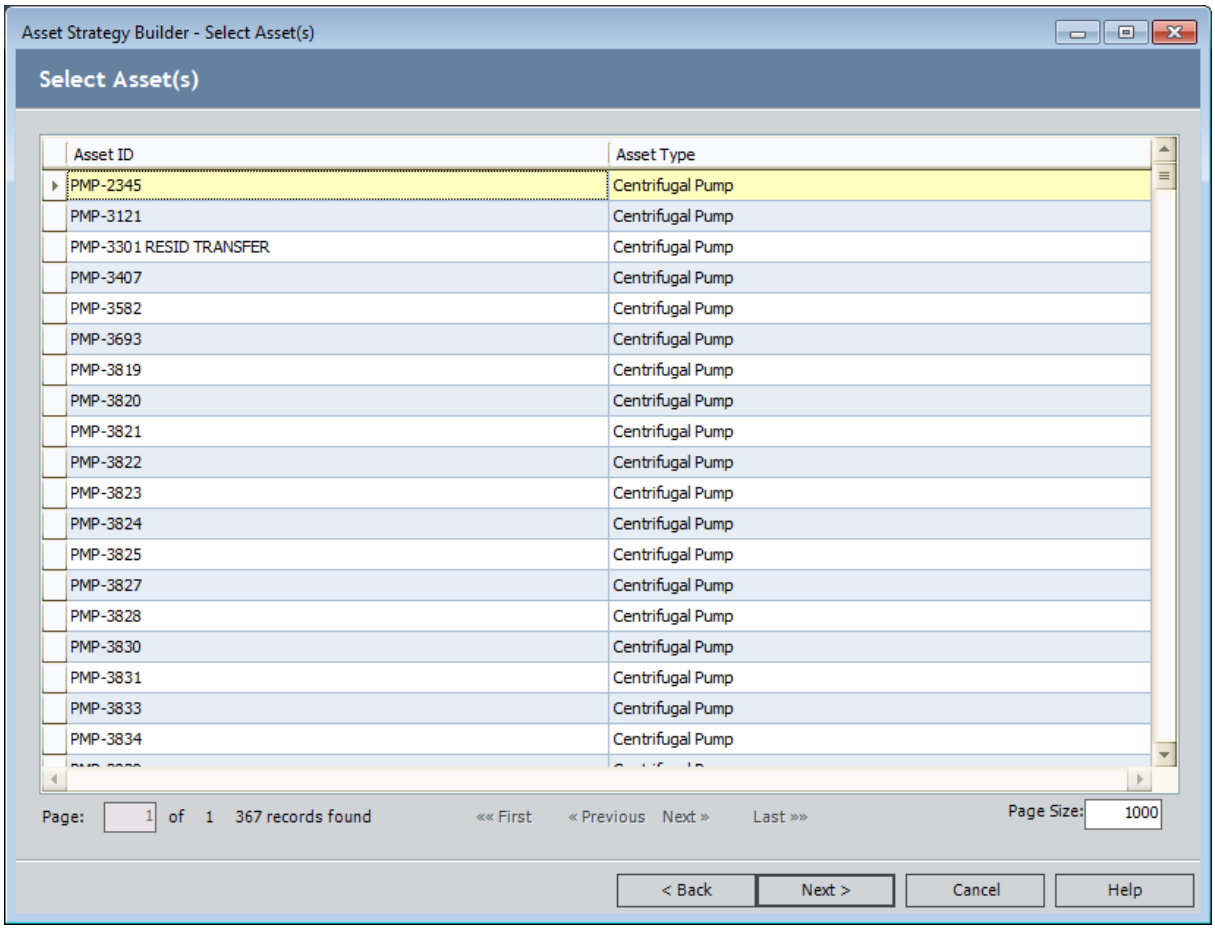
3. Select the **Meridium Work Management Item(s)** option.

   The **Select Implementation Package to Import Into** section appears, which you can use to select whether to import the Work Management Item(s) into your Asset Strategy as a *Primary* or a *Secondary* Implementation Package.



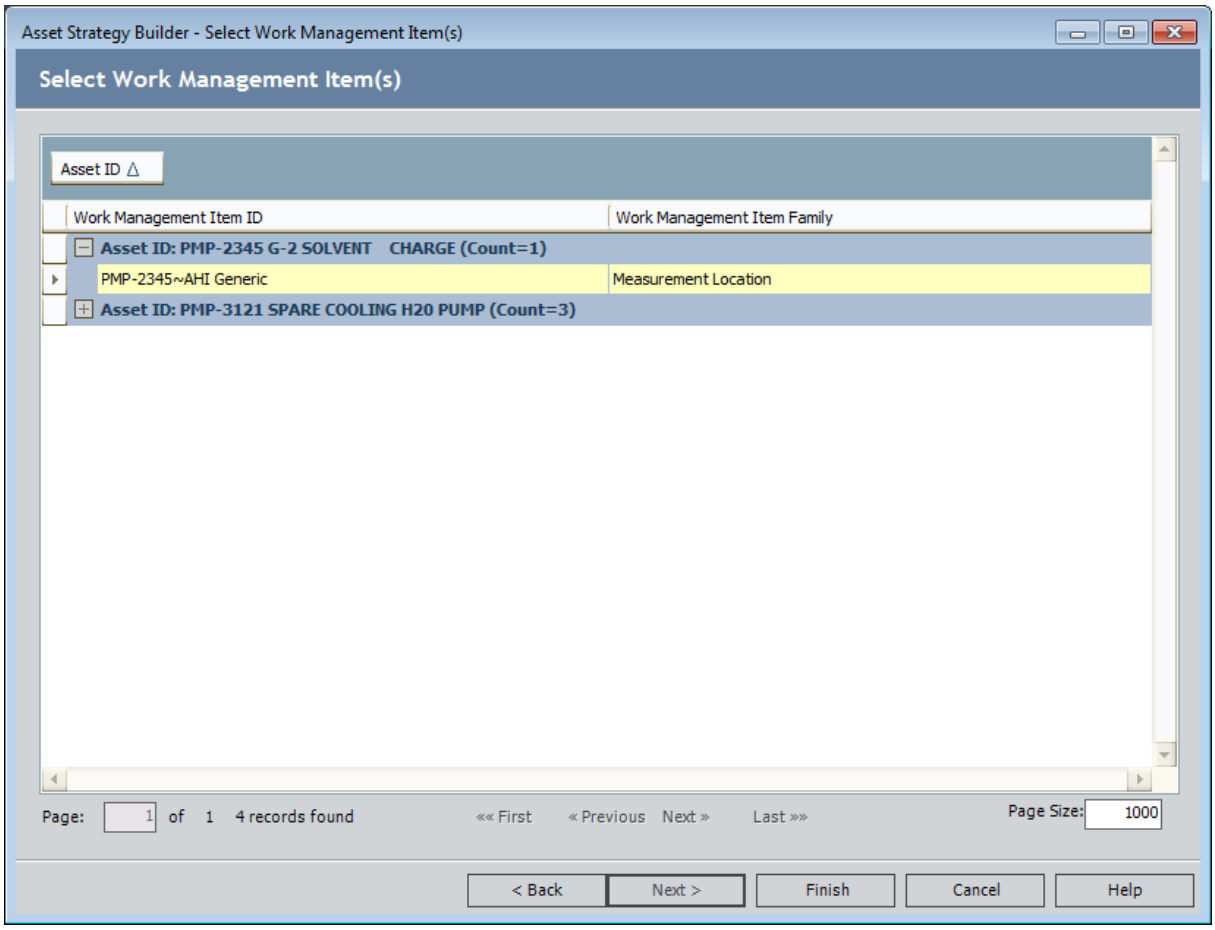
4. Click the **Next** button.

   The **Select Asset(s)** screen appears.



5. Select the rows containing the Equipment or Functional Location records that are linked to the Task and Measurement Location records that you want to use for creating a new Asset Strategy.
6. Click the **Next** button.

   The **Select Work Management Item(s)** screen appears, displaying a list of all Task and Measurement Location records that are not already linked to an Action record through the Has Action Driver relationship.



7. Select the rows containing the Task or Measurement Location records that you want to use for creating a new Asset Strategy.
8. Click the **Finish** button.

   The **Import Existing Strategy** page appears, displaying the results of the import procedure. Each row represents an Asset Strategy that was created successfully. The **Strategy** column contains a hyperlink, which you can click to access the **Asset Strategy Overview** page for the new Asset Strategy.

> **Note:** When you navigate away from the **Import Existing Strategy** page, you will be prompted to save the results to a file. If you want to save the result to a Text file, click the **Yes** button, and provide a name for the file. If you do not want to save the results, click the **No** button to proceed with viewing the Asset Strategy.

Configuring the Locate Assets for Import Query

The Locate Assets for Import query, which is located in the Catalog folder \\Public\Meridium\Modules\Asset Strategy Management\Management\Queries, is used when you create Asset Strategies from Task or Measurement Location records. By default, the query returns records in the *Equipment* family. If the Task and Measurement Location records are linked to Functional Location records, however, you will need to modify the query to return records in the Functional Location family.

To configure the Locate Assets for Import query so that you can create Asset Strategies from Task and Measurement Location records:

1. In the Catalog, navigate to **\\Public\Meridium\Modules\Asset Strategy Management\Management\Queries**.
2. Open the **Locate Assets for Import** query.
3. On the **Query Tasks** menu, click the **Design View** link.

   The query design appears, displaying the Equipment family as the source.
4. Remove the Equipment family.
5. Add the Functional Location family as a source.
6. Add any fields that will help you identify the Functional Location records when the results are displayed in the **Asset Strategy Builder**, which appears when you click the **Import Strategy** link on the **ASM - Start Page**.
7. On the **Common Tasks** menu, click the **Save Query** link.

   The query is saved.

About Asset Strategies that are Created by Promoting Recommendation Records

After you promote a Recommendation record ASM, an Asset Strategy will be created, and the Action record that is created from the Recommendation record is populated automatically with values in the Recommendation record.

In addition to the Action record being created, the following records are also created:

- One Asset Strategy record.
- One Active Strategy record.
- One Proposed Strategy record.

If the Recommendation record was created as part of an RCM or FMEA Analysis, additional records are also created.

Creating an Asset Strategy by Promoting a Recommendation Record

To create an Asset Strategy by promoting a Recommendation record:

1. On the **Recommendation Management** page, locate the row containing the Recommendation record(s) that you want to promote to Action record(s).
2. Promote the Recommendation record to an Action. You can:
   - Promote a Recommendation record that is linked to an Equipment or Functional Location record.

   -OR-

   - Promote a Recommendation record that is not linked to an Equipment or Functional Location record.

   The Recommendation record is promoted to a new Action.

About Asset Strategies that are Created by Promoting RCM FMEA Recommendation Records

When you promote an *RCM FMEA Recommendation* record to ASM, the Meridium APM system will create an Asset Strategy and automatically populate fields in the Action record with values from the RCM FMEA Recommendation record.

More specifically, in addition to the Action record being created, the following records are also created:

- One Asset Strategy record.
- One Active Strategy record.
- One Proposed Strategy record.
- One Risk record, which is linked to the RCM FMEA Failure Effect record to which the RCM FMEA Recommendation record is linked. Certain fields in the Risk record will be populated automatically with values in the RCM FMEA Failure Effect record. Other fields in the Risk record will be populated automatically with values in the RCM FMEA Failure Mode record to which the RCM FMEA Failure Effect record is linked.

  Note: If a Reference Document record is linked to the RCM FMEA Failure Effect record to which the RCM FMEA Recommendation record is linked, the Reference Document record will also be linked to the Risk record that is created and linked to the RCM FMEA Failure Effect record automatically.

- One Risk Assessment record, which is linked to the Proposed Strategy record, the Action record, and the Risk record that are linked to the Proposed Strategy record. Certain fields in the Risk Assessment record will be populated automatically with values in the RCM FMEA Recommendation record that you promoted. Other fields in the Risk Assessment record will be populated automatically with values in the RCM FMEA Failure Effect record to which the RCM FMEA Recommendation record is linked.
- Multiple Risk Rank records, which are linked to the Risk record, the Risk Assessment record, and the Action record. Each Risk Rank records stores a value that you specified in the Risk Assessment interface when you defined risk values for the RCM FMEA Failure Effect record that is linked to the RCM FMEA Recommendation record that you promoted to the Action record.

  For example, if you selected the value *100* on the **Environment** tab when defining the risk value for the RCM FMEA Failure Effect record, the value in the Consequence field in the Environment Risk Rank record will be *100*.

If you are creating an Asset Strategy by promoting an RCM FMEA Analysis, each of the scenarios described above will occur for *each* Recommendation record that is linked to the RCM FMEA Analysis.

Note: The Meridium APM system uses the Site Reference record that is associated with the RCM FMEA Analysis to transfer risk assessment information from RCM FMEA to ASM.

About Creating Asset Strategies by Promoting RCM FMEA Analyses

When you create an Asset Strategy by promoting an RCM FMEA Analysis, the process is similar to creating an Asset Strategy by promoting an RCM FMEA Recommendation record. However, when you promote an Analysis, you are promoting at the level of the RCM FMEA Asset. In this case, you promote ALL of the Recommendation records that are linked to that Analysis.

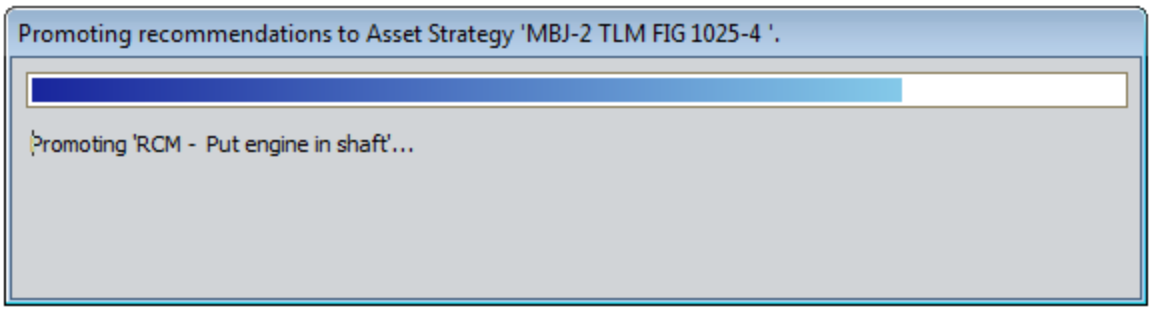
Creating an Asset Strategy by Promoting an RCM FMEA Analysis

To create an Asset Strategy by promoting an RCM FMEA Analysis:

1. For the RCM FMEA Analysis you want to promote, access the **Recommendation Management** page via RCM or FMEA.
2. On the **Asset Tasks** menu, click the **Promote to Strategy** link.

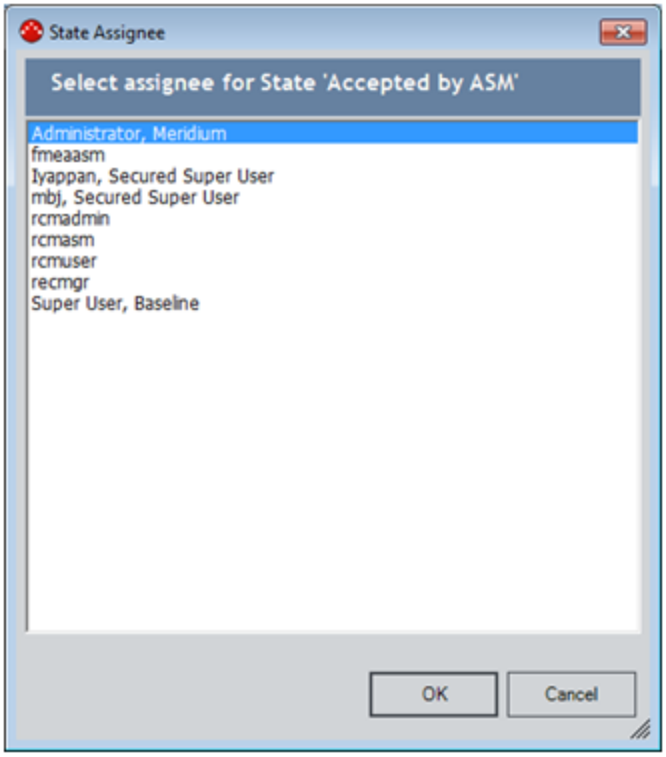
   Note: If you do not have any RCM FMEA Asset records associated with the RCM FMEA Analysis, or if you have both physical and "virtual" pieces of equipment or locations associated with the RCM FMEA Analysis, this link will be disabled.

3. If the State Configuration for the *Accepted by ASM* state is defined in a way that does not require a Security User to be assigned, or if the State Configuration for the *Accepted by ASM*state already has a Security User assigned, a progress bar appears, as shown in the following image. In this case, skip Step 4 of these instructions.

   - or -

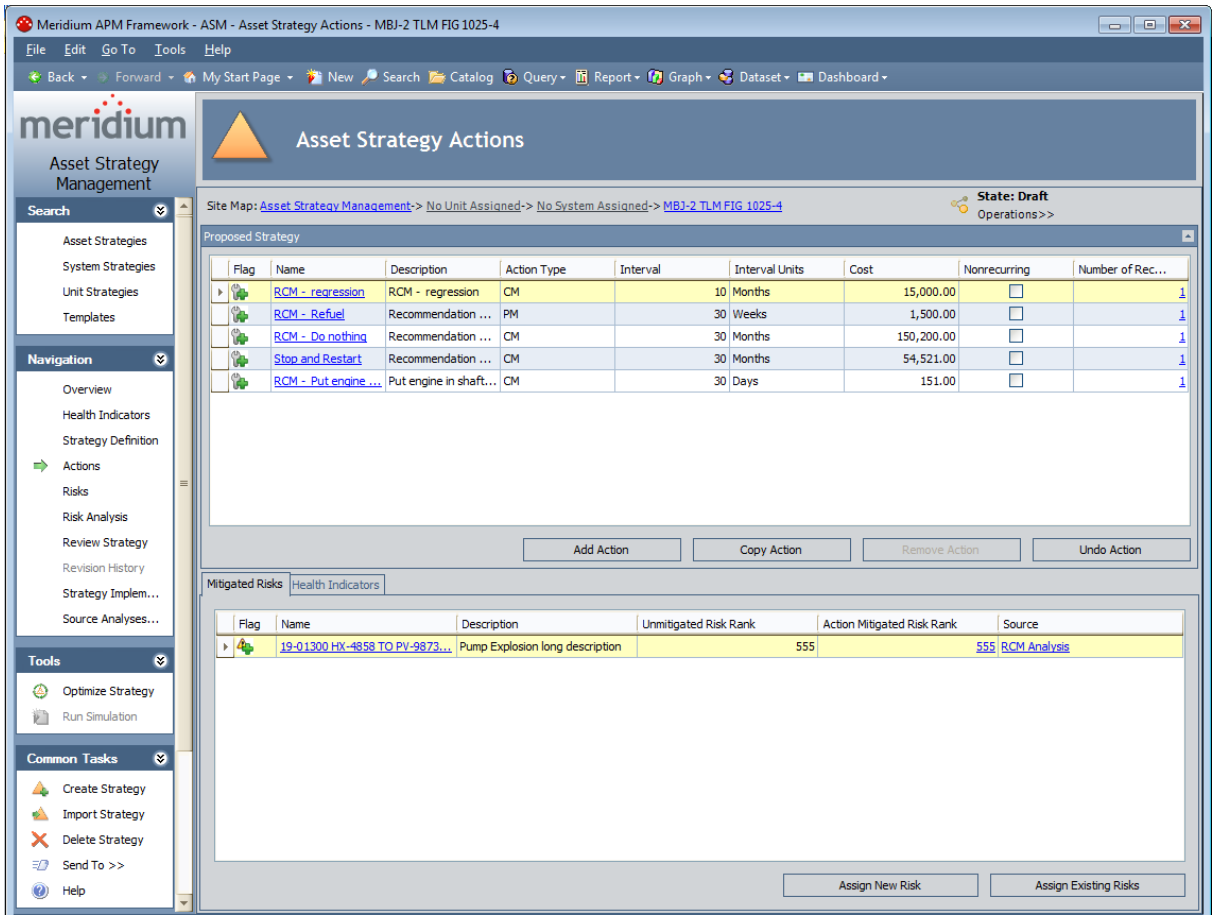
   If the State Configuration for the *Accepted by ASM* state is defined in a way that requires a Security User to be assigned, but a Security User is not currently assigned, the **State Assignee** dialog box appears, as shown in the following image. In this case, proceed to the next step in these instructions.



4. On the **State Assignee** dialog box, select the Security User that you want to assign to the *Accepted by ASM* state, and click **OK**.

   The progress bar shown above appears.

   The new Asset Strategy records appear on the **Asset Strategy Actions** page.


Meridium APM Framework - ASM - Asset Strategy Actions - MBJ-2 TLM FIG 1025-4
File Edit Go To Tools Help
Back Forward My Start Page New Search Catalog Query Report Graph Dataset Dashboard
meridium
Asset Strategy Management
Asset Strategy Actions
Search
Asset Strategies
System Strategies
Unit Strategies
Templates
Navigation
Overview
Health Indicators
Strategy Definition
Actions
Risks
Risk Analysis
Review Strategy
Revision History
Strategy Implem...
Source Analyses...
Tools
Optimize Strategy
Run Simulation
Common Tasks
Create Strategy
Import Strategy
Delete Strategy
Send To >>
Help
Site Map: Asset Strategy Management-> No Unit Assigned-> No System Assigned-> MBJ-2 TLM FIG 1025-4
State: Draft
Operations>>
Proposed Strategy
Flag Name Description Action Type Interval Interval Units Cost Nonrecurring Number of Rec...
RCM - regression RCM - regression CM 10 Months 15,000.00 1
RCM - Refuel Recommendation ... PM 30 Weeks 1,500.00 1
RCM - Do nothing Recommendation ... CM 30 Months 150,200.00 1
Stop and Restart Recommendation ... CM 30 Months 54,521.00 1
RCM - Put engine ... Put engine in shaft... CM 30 Days 151.00 1
Add Action
Copy Action
Remove Action
Undo Action
Mitigated Risks
Health Indicators
Flag Name Description Unmitigated Risk Rank Action Mitigated Risk Rank Source
19-01300 HX-4858 TO PV-9873... Pump Explosion long description 555 555 RCM Analysis
Assign New Risk
Assign Existing Risks

Values Mapped from RCM FMEA Failure Effect Fields to Risk Fields

When you promote a Recommendation record to an Action to create a new Asset Strategy, if the Recommendation record is linked to an RCM FMEA Failure Effect record, along with a new Action record, a new Risk record is also created. Several values in the RCM FMEA Failure Effect record are used to populate fields in the Risk record. The following table describes these field mappings.

RCM FMEA Failure Effect Field	Risk Field	Notes
Driving Risk	Driving Risk	None
Driving Risk Category	Driving Risk Category	None
Effect Name	Name	The Name field in the Risk record is populated with a concatenation of the value in the Failure Mode Name field in the RCM FMEA Failure Mode and the Effect Name field in the RCM FMEA Failure Effect record to which it is linked. For example, if the Failure Mode Name is *Failure Mode 1* and the Effect Name is *Failure Effect 1*, the Name in the Risk record will be *Failure Mode 1 - Failure Effect 1*.
Unmitigated Risk	Risk Rank	None
Unmitigated Financial Risk	Financial Risk	None
Effect Long Description	Description	The Description field in the Risk record is populated with a concatenation of the value in the Failure Mode Long Description field in the RCM FMEA Failure Mode record and the Effect Long Description - Modified field in the RCM FMEA Failure Effect record to which it is linked. For example, if the Failure Mode Long Description is *Failure Mode Long Description* and the Failure Effect Long Description is *Failure Effect Long Description*, the Description in the Risk record will be *Failure Mode Long Description - Failure Effect Long Description*.

In an RCM FMEA Failure Effect record, if you modify a value that was used to populate a Risk record, the updated value will be reflected in the Risk record.

However, in a Risk record, if you change a value that was mapped from an RCM FMEA Failure Effect field, the updated value is not reflected in the RCM FMEA Failure Effect field. For example, if you change the value in the Risk Rank field in the Risk record, the value is not transferred automatically to the Unmitigated Risk field in the RCM FMEA Failure Effect record.

Values Mapped from RCM FMEA Failure Effect Fields to Risk Assessment Fields

When you promote a Recommendation record to an Action to create a new Asset Strategy, if the Recommendation record is linked to an RCM FMEA Failure Effect record, along with a new Risk record, a new Risk Assessment record is also created. Several values in the RCM FMEA Failure Effect record are used to populate fields in the Risk Assessment record. The following table describes these field mappings.

RCM FMEA Failure Effect Field	Risk Assessment Field	Notes
Driving Risk	Driving Risk	None
Driving Risk Category	Driving Risk Category	None
Effect Name	Name	The Name field in the Risk Assessment record is populated with a concatenation of the value in the Failure Mode Name field in the RCM FMEA Failure Mode and the Effect Name field in the RCM FMEA Failure Effect record to which it is linked. For example, if the Failure Mode Name is *Failure Mode 1* and the Effect Name is *Failure Effect 1*, the Name in the Risk Assessment record will be *Failure Mode 1 - Failure Effect 1*.
Unmitigated Risk	Risk Rank	None
Unmitigated Financial Risk	Financial Risk	None

In an RCM FMEA Failure Effect record, if you modify a value that was used to populate a Risk Assessment record, the updated value will be reflected in the Risk Assessment record.

However, in a Risk Assessment record, if you change a value that was mapped from an RCM FMEA Failure Effect field, the updated value is not reflected in the RCM FMEA Failure Effect field. For example, if you change the value in the Name field in the Risk Assessment record, the value is not transferred automatically to the Effect Name field in the RCM FMEA Failure Effect record.

Values Mapped from RCM FMEA Failure Mode Fields to Risk Fields

When you promote a Recommendation record to an Action to create a new Asset Strategy, a new Risk record is also created. Several values in the associated RCM FMEA Failure Mode record (the RCM FMEA Failure Mode record that is linked to the RCM FMEA Failure Effect record to which the RCM FMEA Recommendation record is linked) are used to populate fields in the Risk record. The following table describes these field mappings.

RCM FMEA Failure Mode Field	Risk Field
PF Interval	PF Interval
PF Interval Units	PF Interval Units

In an RCM FMEA Failure Mode record, if you modify a value that was used to populate a Risk record, the updated value will be reflected in the Risk.

However, in a Risk record, if you change a value that was mapped from an RCM FMEA Failure Mode field, the updated value is not reflected in the RCM FMEA Failure Mode field. For example, if you change the value in the PF Interval field in the Risk record, the value is not transferred automatically to the PF Interval field in the RCM FMEA Failure Mode record.

Values Mapped from RCM FMEA Recommendation Fields to Risk Assessment Fields

When you promote a Recommendation record to an Action to create a new Asset Strategy, if the Recommendation record is linked to an RCM FMEA Failure Effect record, along with a new Action record, a new Risk Assessment record is also created. Several values in the RCM FMEA Recommendation record are used to populate fields in the Risk Assessment record. The following table describes these field mappings.

RCM FMEA Recommendation Field	Risk Assessment Field	Notes
None	Name	The Name field in the Risk Assessment record is populated with a concatenation of the value in the Failure Mode Name field in the associated RCM FMEA Failure Mode and the Effect Name field in the RCM FMEA Failure Effect record to which it is linked. For example, if the Failure Mode Name is *Failure Mode 1* and the Effect Name is *Failure Effect 1*, the Name in the Risk record will be *Failure Mode 1 - Failure Effect 1*.
Mitigated Risk	Risk Rank	None
Mitigated Financial Risk	Financial Risk	None

In an RCM FMEA Recommendation record, if you modify a value that was used to populate a Risk Assessment record, the updated value will be reflected in the Risk Assessment record.

However, in a Risk Assessment record, if you change a value that was mapped from an RCM FMEA Recommendation field, the updated value is not reflected in the RCM FMEA Recommendation field. For example, if you change the value in the Risk Rank field in the Risk Assessment record, the value is not transferred automatically to the Mitigated Risk field in the RCM FMEA Recommendation record.

Values Mapped from RCM FMEA Recommendation Fields to Action Fields

When you promote an RCM FMEA Recommendation record to an Action to create a new Asset Strategy, values in the Recommendation record are used to populate fields in the Action record. The following table describes these mappings.

RCM FMEA Recommendation Field	Action Field
Recommendation Headline	Name
Recommendation Description	Description
None. The Action Basis field is populated automatically with the value *RCM/FMEA Recommendation.*	Action Basis[1]
Action Type	Action Type
Interval	Interval
Interval Units	Interval Units
Estimated Cost	Cost
Asset Shutdown Required?	Shutdown Required
Estimated Cost Basis	Cost Basis
Nonrecurring	Nonrecurring
Performance Interval	Performance Interval
Performance Interval Units	Performance Interval Units
Recommended Resource	Recommended Resource
Target Completion Date	Target Com-pletion Date

In the RCM FMEA Recommendation record, if you update the value in the fields listed in this table, the updated value will be reflected in the Action record in ASM.

Creating a System Strategy Record

The following instructions provide details on manually creating a System Strategy record. You can also create a System Strategy record by promoting an ACA System to ASM.

To create a System Strategy record:

1. Access the **System Strategy Definition** page.
2. Complete the fields as desired.
3. On the toolbar, click the button.

   The System Strategy record is saved.

Creating a Unit Strategy Record

To create a Unit Strategy record:

1. Access the **Unit Strategy Definition** page.
2. Complete the fields as desired.
3. On the toolbar, click the button.

   The Unit Strategy record is saved.

About Opening Strategies

Meridium APM provides the following pages to allow you to open existing strategies:

- Asset Strategy Search: Lets you search for and open existing Asset Strategies.
- System Strategy Search: Lets you search for and open existing System Strategies.
- Unit Strategy Search: Lets you search for and open existing Unit Strategies.

Opening an Existing Strategy

To open an existing strategy:

1. On the **ASM - Start Page**, click the **Search for Strategy** link.

   -OR-

   On any page within Asset Strategy Management, on the **Search** menu, click the link corresponding to the type of strategy that you want to find (i.e., to search for an Asset Strategy, click the **Asset Strategies** link).

   The strategy search page appears.

- If you clicked the **Asset Strategies** link on the **Search** menu, the Asset Strategy Search page appears.
- If you clicked the **System Strategies** link on the **Search** menu, the System Strategy Search page appears.
- If you clicked the **Unit Strategies** link on the **Search** menu, the Unit Strategy Search page appears.

2. Use the search workspace to open the desired strategy.

- If you are viewing the **Asset Strategy Search** page, use the Asset Strategy Search workspace to open the desired Asset Strategy.
- If you are viewing the **System Strategy Search** page, use the System Strategy Search workspace to open the desired System Strategy.
- If you are viewing the **Unit Strategy Search** page, use the Unit Strategy Search workspace to open the desired Unit Strategy.

Linking an Asset Strategy Record to an Equipment or Functional Location Record

The following instructions provide details on linking an Asset Strategy record to an Equipment or Functional Location record. When you do so, if the Equipment or Functional Location record is already linked to Risk Assessment records from the Asset Criticality Analysis (ACA) module, those risk ranks will be used in ASM as the unmitigated risk assessment by default.

To link an Asset Strategy record to an Equipment or Functional Location record:

1. On the **Asset Strategy Definition** page, click the **Asset** tab.
2. In the **Asset Name** text box, click the button.

   The **Find Items** window appears.
3. In the **Search In** list, select the family of the record to which you want to link the Asset Strategy record: *Equipment* or *Functional Location*.
4. If desired, in the **Look For** text box, type a keyword to limit your results to records containing that word within the Record ID. If you specify a keyword, your results will contain records that match your family criteria and contain the keyword that you specified. A keyword can contain any number of characters, any alphanumeric value, and any special character.
5. Click the **Find Now** button.

   Meridium APM performs the search, and the results appear in the search results section of the window.
6. Select the row containing the Equipment or Functional Location record to which you want to link the Asset Strategy record, and click the **Open** button.

   The **Asset Strategy Definition** page returns to focus, and the **Asset Name** text box and **Asset Type** text box are populated with values stored in the associated Equipment or Functional Location record.

   If you linked the Asset Strategy record to an Equipment record:

   - The Asset Name text box is populated automatically with the value stored in the Equipment Technical Number field in the Equipment record.

   Note: If the Equipment Technical Number field is empty in the associated Equipment record, the **Asset Name** text box will be populated instead with the Record ID of the selected record.

   - The **Asset Type** text box is populated automatically with the value stored in the Taxonomy Type Description field in the Equipment record.

   If you linked the Asset Strategy record to a Functional Location record:

- The **Asset Name** text box is populated automatically with the value stored in the Functional Location field in the Functional Location record.

Note: If the **Functional Location** field is empty in the associated Functional Location record, the **Asset Name** text box will be populated instead with the **Record ID** of the selected record.

- The **Asset Type** text box is populated automatically with the value stored in the Taxonomy Type Description field in the Functional Location record.

In addition, if the Equipment or Functional Location record is linked to a Site Reference record, the **Site Reference** text box is populated with the name of that Site Reference record.

7. On the toolbar, click the button.

   The Asset Strategy record is saved and linked to the selected Equipment or Functional Location record.

Creating Risks from Scratch

To create a Risk from scratch:

1. Search for and open the Asset Strategy to which you want to add a Risk.

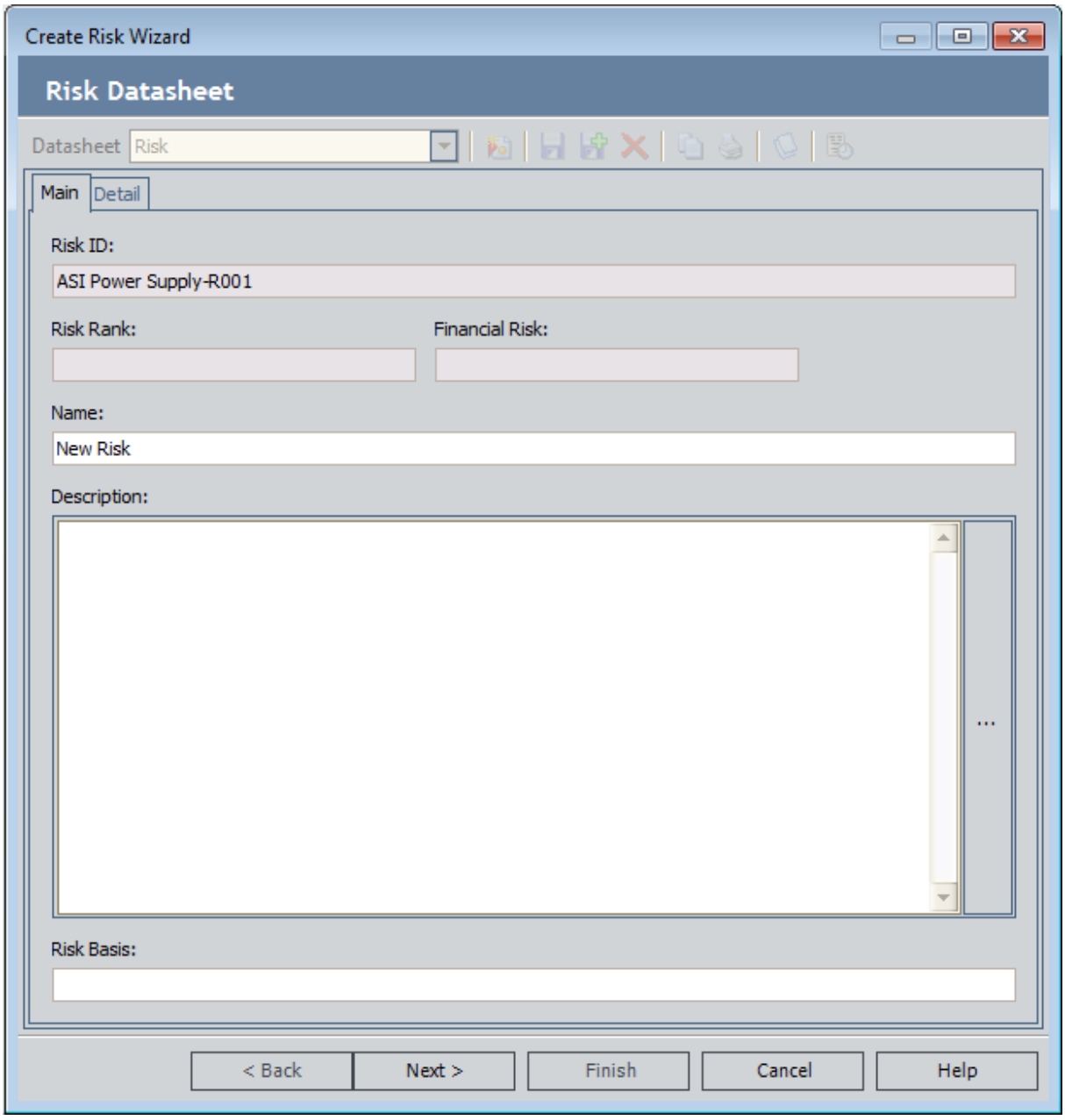
   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Risks** link.

   The **Asset Strategy Risks** page appears.

3. In the **Risks** section, click the **Add Risk** button.

   The **Create Risk Wizard** appears, displaying the **Risk Datasheet** screen.



4. On the **Main** tab:
    a. In the **Name** text box, type a name for the risk.
    b. In the **Description** text box, type a description of the risk.

Note that the Risk ID, Risk Rank, and Financial Risk fields are disabled.

- The Risk ID is set automatically to *<Asset Strategy ID> -R00n*, where *<Asset Strategy ID>* is the ID of the Asset Strategy, and *n* is a three-digit numeric value indicating the number of Risks that are already included in the Asset Strategy.

Note that if you are creating Risk 1 through 9, the three-digit number begins with 00. For example, if you are adding the first Risk to Pump 101 Asset Strategy, the Risk ID would be *Pump 101 Asset Strategy-R001*.

If you are creating Risk 10 through 99, the three-digit number begins with 0. For example, if you are adding the 15th Risk to Pump 101 Asset Strategy, the Risk ID would be *Pump 101 Asset Strategy-R015*.

- After you save the Risk, in the Risk record, the Risk Rank and Financial Risk fields will be populated automatically based upon the information that you supply on the Risk Assessment interface using the remaining steps.

5. Click the **Detail** tab, and complete the fields as desired.
6. Click the **Next** button.

   The **Risks Definition** screen appears, displaying the Risk Matrix feature of the Risk Assessment interface. Note that if the Asset Strategy record is linked to an Equipment or Functional Location record that is linked to a Site Reference record that is *also* linked to a Risk Matrix record, the Risk Matrix that you see is generated using that Risk Matrix record (and the records to which it is linked).

7. Select the desired values on the Risk Matrix.

   Note: If any tab represents a risk category that does not apply to the risk that you are assessing, you can select the **Not Applicable** check box on that tab. When you do so, the tab will be disabled, and the tab label will be updated to contain the text *N/A*.

8. If you want to link the Risk record to a Reference Document record, on the datasheet toolbar, click the button, and use the **Reference Documents** window to select the desired file.
9. When you are finished making selections, click the **Finish** button.

   The Risk appears in the **Risks** section.

Creating Risks by Copying Existing Risks

To create a Risk by copying an existing Risk:

1. Search for and open the Asset Strategy that includes the Risk that you want to use to create a new Risk.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Risks** link.

   The **Asset Strategy Risks** page appears.

3. In the **Risks** section, select the row containing the Risk that you want to use to create a new Risk.

4. Click the **Copy Risk** button.

   A new Risk appears in the grid with the Name *Copy of <Risk Name> n*, where *<Risk Name>* is the value in the Name field in the source Risk record and *n* is a numeric value indicating the order in which the copy was created, relative to other copies of the same source Risk record. The new Risk contains the same values as the source Risk.

Deleting Risks

If desired, you can remove a Risk from an Asset Strategy after its state has been set to Active. Removing a Risk deletes the Risk record from the database. Keep in mind that you can remove multiple Risks at one time.

Note: If you delete a Risk, you will still be able to view a history of changes that were made to that Risk before it was removed. These changes are stored in Risk Revision records, which are created automatically when the Asset Strategy state is set to Active. While removing a Risk from an Asset Strategy will delete the Risk record, the Risk Revision records will not be deleted.

Note that to completely delete a Risk, the Risk must be flagged for removal, and the Asset Strategy must be set to Active. The following instructions explain how to flag the Risk for removal and set the Asset Strategy to Active. In a realistic scenario, the same Security User will probably not perform both of these tasks. These tasks are presented together in the following instructions to provide a view of the entire process of deleting a Risk.

To delete a Risk:

1. Search for and open an *Active* Strategy whose Risk you want to delete.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Risks** link.

   The **Asset Strategy Risks** page appears.

3. In the grid in the **Risks** section, select the row containing the Risk that you want to delete.

4. Click the **Remove Risk** button.

   In the grid in the **Risks** section, in the row containing the selected Risk, the icon in the **Flag** column changes to . In addition, the Asset Strategy state changes to Modified.

5. Above the **Risks** section, click the **Operations** link, and then click **Propose** on the submenu that appears.

6. As a Security User with permissions to set an Asset Strategy to Active, above the **Risks** section, click the **Operations** link, and then click **Make Active**.

   A message appears, asking if you are sure you want to make the proposed changes active.

7. Click the **Yes** button.

   A message appears, indicating that the proposed changes are now active.

8. Click **OK**.

The Asset Strategy state changes to Active, the Risk is removed from the grid, and the Risk record is deleted from the database.

Undoing a Change to a Risk

If desired, you can reverse changes that you made to a Risk.

- If the Asset Strategy record has never been set to Active, selecting to undo changes to the Risk will delete the Risk.
- If the Asset Strategy record has been set to Active, selecting to undo changes to the Risk will reverse all changes that you have made to the Risk since the last Asset Strategy activation date.

Note that if you have modified an Action record in any way and you have not yet activated the Asset Strategy, undoing a Risk will also undo the changes to the associated Action.

You can undo changes to a Risk only if the Asset Strategy state is Draft or Modified. Keep in mind that you can select multiple Risks to undo the changes that you made to the records.

To undo a change to a Risk:

1. In the **Risks** section, click the **Undo Risk** button.

   A message appears, asking if you are sure you want to revert the Risk back to its original version (the version that existed before you made any changes).

2. Click the **Yes** button.

   Any changes that you made the Risk are reversed.

Modifying a Risk's Unmitigated Risk Rank

To modify the unmitigated risk rank of a Risk:

1. Search for and open an Asset Strategy containing the Risk whose unmitigated risk rank you want to modify.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Risks** link.

   The **Asset Strategy Risks** page appears.

3. In the grid in the **Risks** section, in the **Unmitigated Risk Rank** cell in the row containing the Risk with the unmitigated risk rank that you want to modify, click the hyperlink.

   The **Unmitigated Risk Assessment** window appears, displaying the Risk Matrix feature of the Risk Assessment interface. Note that:

   - The **Risk Of** cell is populated with the value in the **Name** cell on the Risk datasheet.
   - If the Asset Strategy record is linked to an Equipment or Functional Location record that is linked to a Site Reference record that is *also* linked to a Risk Matrix record, the Risk Matrix that you see is generated using that Risk Matrix record (and the records to which it is linked).

4. Select the desired values on the Risk Matrix.

   Note: If any tab represents a risk category that does not apply to the risk that you are assessing, you can select the **Not Applicable** check box on that tab. When you do so, the tab will be disabled, and the tab label will be updated to contain the text *N/A*.

5. When you are finished making selections, click the **Save** button.

   The updated unmitigated risk rank appears in the grid in the **Risks** section.

Associating a New Action with a Risk

To associate a new Action with a Risk:

1. Search for and open the Asset Strategy that contains a Risk that you want to associate with a new Action (an Action that does not exist yet).

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Risks** link.

   The **Asset Strategy Risks** page appears.

3. In the **Mitigating Actions** section, click the **Assign New Action** button.

   The **New Action** window appears, displaying the Action datasheet of a new Action record.

4. Complete the fields as desired, and click **OK**.

   The new Action appears in the grid in the **Mitigating Actions** section.

Associating Existing Actions with a Risk

To associate existing Actions with a Risk:

1. Search for and open the Asset Strategy that contains a Risk record that you want to associate with existing Action.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Risks** link.

   The **Asset Strategy Risks** page appears.

3. In the **Mitigating Actions** section, click the **Assign Existing Actions** button.

   The **Assign Actions** window appears. The **Risk Name** cell is populated with the name of the associated Risk.

4. In the **Actions** section, in the rows containing the Actions that you want to associate with the Risk that is specified in the **Risk Name** cell, select the **Selected** check box.

5. Click **OK**.

   The selected Actions appear in the grid in the **Mitigating Actions** section.

Modifying an Action's Mitigated Risk Rank

When you associate an Action with a Risk, the mitigated risk rank of that Action is set by default to the unmitigated risk rank of the associated Risk. To indicate the risk that the asset failure would present if you were to perform the mitigating action on the piece of equipment or location, you will need to modify the mitigated risk rank.

To modify the mitigated risk rank for an Action that is associated with a Risk:

1. Search for and open an Asset Strategy that contains an Action record whose unmitigated risk rank you want to modify.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Risks** link.

   The **Asset Strategy Risks** page appears.

3. In the grid in the **Mitigating Actions** section, in the **Action Mitigated Risk Rank** cell in the row containing the Action with the mitigated risk rank that you want to modify, click the hyperlink.

   The **Risk Mitigation Assessment** window appears, displaying the Risk Matrix feature of the Risk Assessment interface. Note that:

- The **Risk Of** cell is populated with the value in the **Name** cell on the associated Risk datasheet.
- The **Mitigated By** cell contains the value in the Name field in the Action record.
- If the Asset Strategy record is linked to an Equipment or Functional Location record that is linked to a Site Reference record that is *also* linked to a Risk Matrix record, the Risk Matrix that you see is generated using that Risk Matrix record (and the records to which it is linked).

4. Select the desired values on the Risk Matrix.

   Note: The **Not Applicable** check box is disabled when you are assessing the mitigated risk of an Action. The **Not Applicable** check box selection will be inherited from the associated Risk record's risk assessment.

5. When you are finished making selections, click the **Save** button.

   The updated mitigated risk rank appears in the grid in the **Mitigating Actions** section.

Creating Actions from Scratch

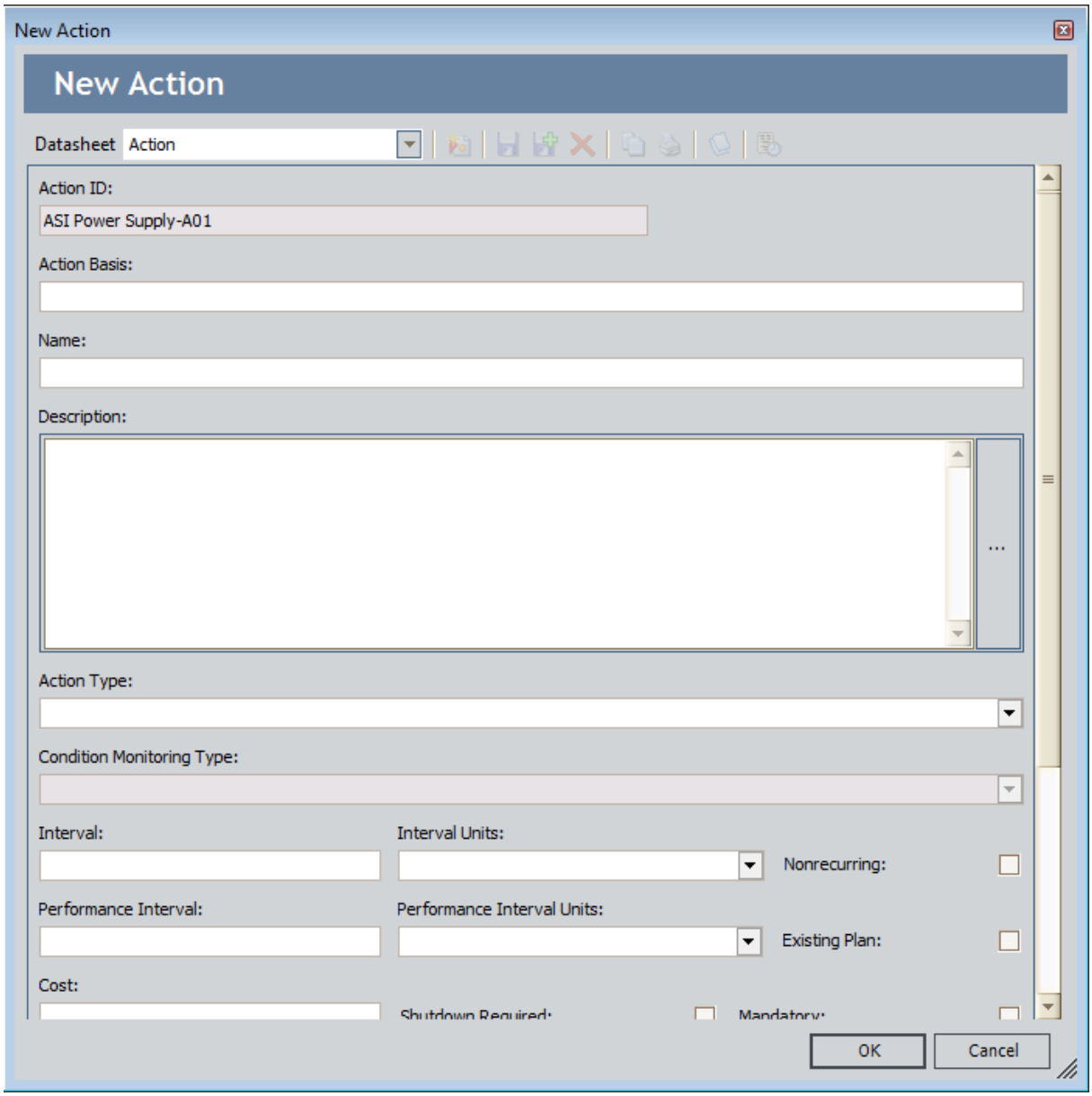
To create an Action from scratch:

1. Search for and open the Asset Strategy to which you want to add an Action.

   The **Asset Strategy Overview** page appears.
2. On the **Navigation** menu, click the **Actions** link.

   The **Asset Strategy Actions** page appears.
3. In the **Proposed Strategy** section, click the **Add Action** button.

   The **New Action** window appears, displaying the Action datasheet.



4. Complete the fields as desired.

   Note that the Action ID is set automatically to *<Asset Strategy ID> -An*, where *<Asset Strategy ID>* is the ID of the Asset Strategy, and *n* is a two-digit numeric value indicating the number of Actions that are already included in the Asset Strategy.

   Note that if you are creating Action 1 through 9, the two-digit number begins with 0. For example, if you are adding the first Action to Pump 101 Asset Strategy, the Action ID would be *Pump 101 Asset Strategy-A01*. If, however, you are adding the tenth Action, the Action ID would be *Pump 101 Asset Strategy-A10*.

5. If this Action represents an action that you want to perform only once instead of on a recurring basis, select the **Nonrecurring** check box. The Annual Cost graph and the Cost Projection graphs will include or exclude the Action based on the recurrence pattern.

   Note: The values in the Performance Interval field and the Performance Interval Units field are not used in any calculations in ASM. You can use them as reference values, but Meridium APM does not execute any logic based on the values. All calculations that require an interval are based on the values in the Interval field and the Interval Units field.

6. If this Action represents an action that is required, select the **Mandatory** check box. Doing so will disable all remaining fields except for the Cost field and the Mandatory field itself. This means that you can change the mandatory status at any time by clearing the **Mandatory** check box, which will re-enable the remaining fields.
7. If you want to designate the type of work that this action represents, in the **Implementation Role** list, select the desired Implementation Role. The list displays the Role Name of all Implementation Role records that exist in the database. Note that if you select an Implementation Role, only Security Users that are assigned to that Implementation Role will be able to create work item records from the corresponding Action Revision record in ASI.
8. If you want to link the Action record to a Reference Document record, on the datasheet toolbar, click the button, and use the **Reference Documents** window to select the desired file.
9. When you are finished completing the fields, click **OK**.

   The Action appears in the grid in the **Proposed Strategy** section.

Creating Actions by Copying Existing Actions

To create an Action by copying an existing Action:

1. Access the **Asset Strategy Actions** page for the Asset Strategy containing the Action that you want to use to create a new Action.
2. In the **Proposed Strategy** grid, select the row containing the Action that you want to use to create a new Action.
3. Click the **Copy Action** button.

   A new Action appears in the grid with the Name *Copy of <Action Name> n*, where *<Action Name>* is the value in the Name field in the source Action record, and *n* is a numeric value indicating the order in which the copy was created, relative to other copies of the same source Action record. The new Action contains the same values as the source Action, with the exception of the following fields:

   - Action ID
   - Global ID
   - Max Unmitigated Risk
   - ROI
   - Relevance
   - Status

Creating Actions from Recommendation Records

These instructions assume that both of the following conditions have been met:

- Your database contains an Asset Strategy record that is linked to an Equipment or Functional Location record.
- The Recommendation record that you want to use for creating an Action is linked to the same Equipment or Functional Location record.

To create an Action from an existing Recommendation record:

1. Using Recommendation Management:
    a. Create or find the Recommendation record that you want to use for creating an Action.
    b. Promote the Recommendation to an Action.
2. The Manage Recommendations to Action Links - <Strategy ID> page appears, where **<Strategy ID>** is the ID of the Asset Strategy record that is linked to the Equipment or Functional Location record to which the Recommendation record is linked.
3. In the **Recommendation** section, select the row containing the Recommendation record that you want to use for creating an Action.
4. On the **Recommendation Tasks** menu, click the **Create New Action** link.

    The Recommendation record is removed from the **Recommendations** section. A new Action appears is in the **Actions** section, and the Name of the Action is the same as the Recommendation ID of the Recommendation record. The state of the Recommendation record also changes to *Accepted by ASM*.

Modifying Actions

Note: You cannot modify an Action if the **Mandatory** check box is selected.

To modify an Action:

1. Search for and open an Asset Strategy that contains the Action that you want to modify.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Actions** link.

   The **Asset Strategy Actions** page appears.

3. In the grid in the **Proposed Strategy** section, click the hyperlinked name of the Action that you want to modify.

   The **Modify Action - <Action Name>** dialog box appears, where **<Action Name>** is the name of the selected Action.

4. Modify the values as desired.

5. Click **OK**.

   The changes are saved.

Deleting Actions

If desired, you can remove an Action from an Asset Strategy after its state has been set to Active. Removing an Action from an Asset Strategy deletes the Action record from the database. Keep in mind that you can delete multiple Actions at one time.

Note: If you delete an Action, you will still be able to view a history of changes that were made to that Action before it was removed. These changes are stored in Action Revision records, which are created automatically when the Asset Strategy state is set to Active. While removing an Action from an Asset Strategy will delete the Action record, the Action Revision records will not be deleted.

Note that to completely delete an Action, the Action must be flagged for removal, and the Asset Strategy must be set to Active. The following instructions explain how to flag the Action for removal and set the Asset Strategy to Active. In a realistic scenario, the same Security User will probably not perform both of these tasks. These tasks are presented together in the following instructions to provide a view of the entire process of deleting an Action.

Note: You cannot delete an Action if the **Mandatory** check box is selected.

To delete an Action:

1. Search for and open an *Active* Strategy whose Action you want to delete.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Actions** link.

   The **Asset Strategy Actions** page appears.

3. In the grid in the **Proposed Strategy** section, select the row containing the Action that you want to delete.

4. Click the **Remove Action** button.

   In the grid in the **Proposed Strategy** section, in the row containing the selected Action, the icon in the **Flag** column changes to . In addition, the Asset Strategy state changes to Modified.

5. Above the **Proposed Strategy** section, click the **Operations** link, and then click **Propose** on the submenu that appears.

6. As a Security User with permissions to set an Asset Strategy to Active, above the **Proposed Strategy** section, click the **Operations** link, and then click **Make Active**.

   A message appears, asking if you are sure you want to make the proposed changes active.

7. Click the **Yes** button.

   A message appears, indicating that the proposed changes are now active.

8. Click **OK**.

   The Asset Strategy state changes to Active, the Action is removed from the grid, and the Action record is deleted from the database.

Undoing a Change to an Action

If desired, you can reverse changes that you made to an Action.

- If the Asset Strategy record has never been set to Active, selecting to undo changes to the Action will delete the Action record.
- If the Asset Strategy record has been set to Active, selecting to undo changes to the Action will reverse all changes that you have made to the Action since the last Asset Strategy activation date.

Note that you can undo changes to an Action only if the Asset Strategy state is Draft or Modified. Keep in mind that you can select multiple Actions to undo the changes you made to the records.

Note: You cannot undo a change to an Action if the **Mandatory** check box is selected.

To undo a change to an Action:

1. In the **Proposed Strategy** section, click the **Undo Action** button.

   A message appears, asking if you are sure you want to revert the Action back to its original version (the version that existed before you made any changes).

2. Click the **Yes** button.

   Any changes that you made the Action are reversed.

Modifying an Action's Mitigated Risk Rank

When you associate a Risk with an Action, the mitigated risk rank of that Action is set by default to the unmitigated risk rank of the associated Risk. To indicate the risk that the asset failure would present if you were to perform the mitigating action on the piece of equipment or location, you will need to modify the mitigated risk rank.

To modify the mitigated risk rank of an Action:

1. Search for and open an Asset Strategy that contains an Action record whose mitigated risk rank you want to modify.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Actions** link.

   The **Asset Strategy Actions** page appears.

3. In the grid in the **Proposed Strategy** section, select the row containing the Action whose risk rank you want to modify.

4. In the grid in the **MitigatedRisks** section, select the row representing the Risk that is mitigated by the Action that is selected in the **Proposed Strategy** section.

5. In the selected row in the **Mitigated Risks** section, in the **Action Mitigated Risk Rank** cell, click the hyperlink.

   The **Risk Mitigation Assessment** window appears, displaying the Risk Matrix feature of the Risk Assessment interface. Note that:

- The **Risk Of** cell is populated with the value in the **Name** cell on the associated Risk datasheet.
- The **Mitigated By** cell contains the value in the Name field in the Action record.
- If the Asset Strategy record is linked to an Equipment or Functional Location record that is linked to a Site Reference record that is *also* linked to a Risk Matrix record, the Risk Matrix that you see is generated using that Risk Matrix record (and the records to which it is linked).

6. Select the desired values on the Risk Matrix.

   Note: The **Not Applicable** check box is disabled when you are assessing the mitigated risk of an Action. The **Not Applicable** check box selection will be inherited from the associated Risk record's risk assessment.

7. When you are finished making selections, click the **Save** button.

   The mitigated risk rank appears in the grid in the **Mitigated Risks** section.

Associating a New Risk with an Action

To associate a new Risk with an Action:

1. Search for and open the Asset Strategy that contains an Action that you want to associate with a new Risk (a Risk that does not exist yet).

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Actions** link.

   The **Asset Strategy Actions** page appears.

3. Below the **Mitigated Risks** tab, click the **Assign New Risk** button.

   The **Create Risk Wizard** appears, displaying the Risk datasheet of a new Risk record.

4. On the **Main** tab:

   a. In the **Name** text box, type a name for the risk.

   b. In the **Description** text box, type a description of the risk.

5. Click the **Detail** tab, and complete the fields as desired.

6. Click the **Next** button.

   The **Risks Definition** screen appears, displaying the Risk Matrix feature of the Risk Assessment interface.

7. Select the desired values on the Risk Matrix.

   Note: If any tab represents a risk category that does not apply to the risk that you are assessing, you can select the **Not Applicable** check box on that tab. When you do so, the tab will be disabled, and the tab label will be updated to contain the text *N/A*.

8. When you are finished making selections, click the **Finish** button.

   The new Risk appears in the grid on the **Mitigated Risks** tab.

Associating Existing Risks with an Action

To associate existing Risks with an Action:

1. Search for and open the Asset Strategy that contains the Action that you want to associate with existing Risk.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Actions** link.

   The **Asset Strategy Actions** page appears.

3. Below the **Mitigated Risks** tab, click the **Assign Existing Risks** button.

   The **Assign Risks** window appears. The **Action Name** cell is populated with the name of the associated Action.

4. In the **Risks** section, in the rows containing the Risks that you want to associate with the Action that is specified in the **Action Name** cell, select the **Selected** check box.

5. Click **OK**.

   The selected Risks appear in the grid in the **Mitigated Risks** section.

Excluding Actions

When you are viewing the Risk Analysis for an Asset Strategy, you can see a list of Actions that are included in the Proposed Strategy. You can also use the graphs to interpret the effects of performing those actions.

If desired, via the Risk Analysis, you can exclude certain Actions from the Asset Strategy. Using the graphs, you can see the impact of excluding those Actions. Based upon the data in the graphs, you can decide if you want to mark the Actions for deletion.

You cannot, however, exclude Actions that were promoted to ASM from certain modules (e.g., from an RCM Recommendation record). If you try to exclude an Action that was created in a different module, a message will appear, indicating that you cannot exclude that Action from the analysis.

Note: You can exclude an Action only if its **Mandatory** check box is cleared.

To exclude Actions via the Asset Strategy Risk Analysis:

1. On the Asset Strategy Risk Analysis page, in the grid in the **Actions** section, select the row containing the Action that you want to exclude.
2. In the selected row, clear the **Selected Action** check box.

   The graphs are updated to reflect the change.
3. If you are satisfied with the results in the graphs and you want to delete the Action, below the **Actions** section, click the **Apply Selections** button.

   Note: The **Apply Selections** button is enabled only if the strategy is Active.

   A message appears, indicating that the Actions that you excluded will be deleted, asking if you are sure that you want to continue.
4. Click the **Yes** button.

   If the Asset Strategy has not been activated since the selected Action was created or last updated, the Action is removed from the grid, and the Action record is deleted from the database.

   -OR-

   If the Asset Strategy was activated after the Action was created or last updated, the Actions are flagged for deletion but not removed from the grid.

Linking an Action Record to a New Health Indicator Record

Note: You can link an Action record to a Health Indicator record only if the Asset Strategy record is linked to an Equipment or Functional Location record.

To link an Action record to a new Health Indicator record:

1. Search for and open the Asset Strategy record that is linked to the Action record that you want to link to a new Health Indicator record.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Actions** link.

   The **Asset Strategy Actions** page appears.

3. Click the **Health Indicators** tab.

4. In the grid in the Proposed Strategy section, select the row containing the Action record that you want to link to a new Health Indicator record.

5. Below the grid on the **Health Indicators** tab, click the **Add Indicator** button.

   The **Create New Health Indicator** dialog box appears.

6. To create a Health Indicator record based on an existing source record (e.g., Measurement Location record), which will link the Health Indicator record to the source record, accept the default selection.

   -OR-

   To create a Health Indicator record that is not based on an existing source record, select the **Create a Health Indicator without a data source** option.

7. Click **OK**.

   If you accepted the default selection, the **Health Indicator Builder** appears, displaying the Welcome screen.

   -OR-

   If you selected the **Create a Health Indicator without a data source** option, the **(new Health Indicator)** window appears.

8. If the **Health Indicator Builder** appears, proceed through the builder, and click the **Finish** button when you are ready.

   -OR-

   If the **(new Health Indicator)** window appears:

a. In the **Name** cell, type a name for the health indicator.

b. In the **Description** cell, type a description of the health indicator. If you use the corresponding Action Revision record to build a Measurement Location Group record in ASI, the description that you type will be used to populate the Description field in the Measurement Location record that will be created when you build the Measurement Location Group record.

c. In the **ML Type** list, select the type of the Measurement Location record that you want to create from this Health Indicator record: **Character** or **Numeric**. If you use the corresponding Action Revision record to build a Measurement Location Group record in ASI, the description that you type will be used to populate the ML Type field in the Measurement Location record that will be created when you build the Measurement Location Group record.

d. Click the **Config** tab.

e. If you selected **Character** in the **ML Type** list on the **Main** tab, in the **Allowable Values** list, select the values that are appropriate for this type of health indicator. If you use the corresponding Action Revision record to build a Measurement Location Group record in ASI, the values that you select will be used to populate the Allowable Values field in the Measurement Location record that will be created when you build the Measurement Location Group record.

> **Note:** The Allowable Values list contains all values that exist in the Value field Operator Rounds Allowable Values records whose Category field contains the value AHI Generic. By default, Meridium APM provides a certain set of Operator Rounds Allowable Values records with the value AHI Generic in the Category field. If other Operator Rounds Allowable Values records have been created with this value, the value in their Value field will also appear in this list.

f. In the remaining fields on the **Config** tab, type or select the values that represent alert conditions for this health indicator. If you use the corresponding Action Revision record to build a Measurement Location Group record in ASI, the values that you type will be used to populate the fields on the limit fields (on the Limit Values tab of the Measurement Location datasheet) in the Measurement Location record that will be created when you build the Measurement Location Group record.

g. Click **OK**.

The new Health Indicator record is created and displayed in the grid on the **Health Indicators** tab. The Health Indicator record is linked to the selected Action record, the Asset Strategy record, and the Equipment or Functional Location record that is linked to the Asset Strategy record.

Deleting a Health Indicator Record

To delete a Health Indicator record:

1. Search for and open the Asset Strategy record that is linked to the Action record that is linked to the Health Indicator record that you want to delete.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Actions** link.

   The **Asset Strategy Actions** page appears.

3. Click the **Health Indicators** tab.

4. In the grid in the **Proposed Strategy** section, select the row containing the Action record that is linked to the Health Indicator record that you want to delete.

5. Below the grid on the **Health Indicators** tab, select the row containing the Health Indicator record.

6. Click the **Delete Indicator** button.

   A message appears, asking if you are sure that you want to delete the Health Indicator record.

7. Click the **Yes** button.

   The Health Indicator record is deleted and removed from the grid.

Viewing the Details of a Health Indicator Record's Source Record

To view the details of a Health Indicator record's source record:

1. Search for and open the Asset Strategy record that is linked to the Health Indicator record whose details you want to view.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Actions** link.

   The **Asset Strategy Actions** page appears.

3. Click the **Health Indicators** tab.

4. In the row containing the Health Indicator record whose details you want to view, click the hyperlink.

   The **Health Indicator Details** window appears. This window displays the same information that you would see on the **Details** tab if you were viewing the **Asset Health Manager** page.

   Note: If the Health Indicator record is based on a source for which no readings exist (e.g., the Health Indicator record is linked to a Measurement Location record that is not linked to any Reading records), only the **Source** tab will be available on the **Health Indicator Details** window. The **Trend** tab will not be available.

Viewing the Datasheet for a Health Indicator Record Without a Source Record

To view the datasheet for a Health Indicator record that is not linked to a source record:

1. Search for and open the Asset Strategy record that is linked to the Health Indicator record whose datasheet you want to view.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Actions** link.

   The **Asset Strategy Actions** page appears.

3. Click the **Health Indicators** tab.

4. In the row containing the Health Indicator record whose datasheet you want to view, click the hyperlink.

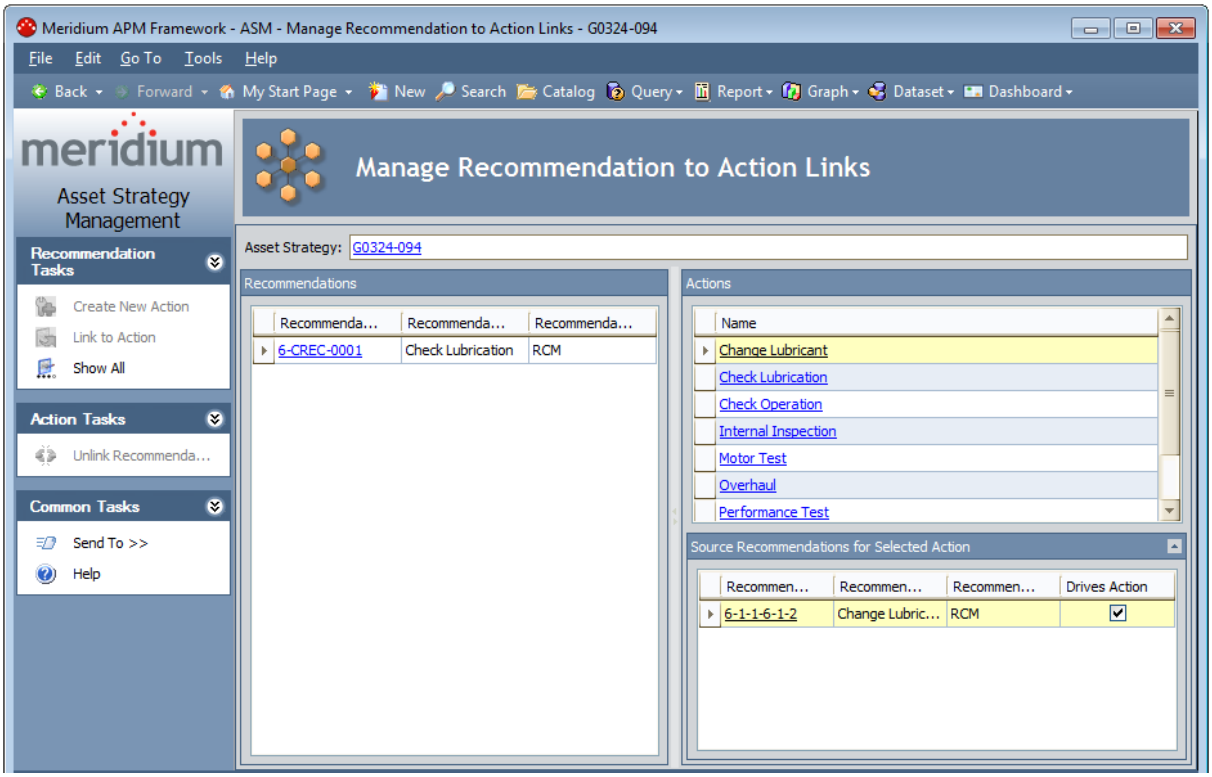
   The **Modify Health Indicator - <Name>** window appears, where **<Name>** is the name of the Health Indicator record.

Viewing a List of Recommendation Records that Were Used to Create an Action

To view a list of the Recommendation records that were used to create an Action:

1. In the appropriate Asset Strategy, access the list of Actions that were created from a Recommendation record.
2. In the grid in the **Proposed Strategy** section, in the row containing the Action whose associated Recommendation record(s) you want to view, click the hyperlink in the **Number of Recommendations** cell.

   The Manage Recommendation to Action Links page appears. You can view the Recommendation records that were used to create this Action in the **Source Recommendation for Selected Action** section.



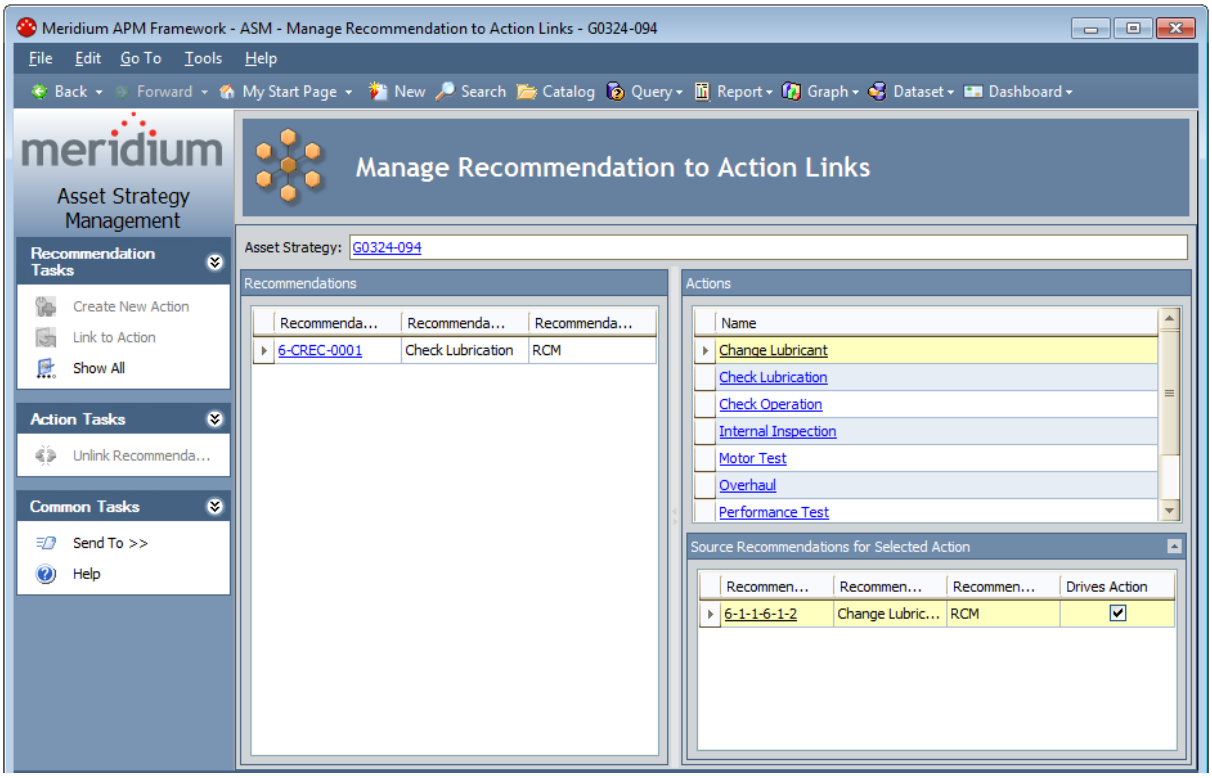
Accessing the Manage Recommendations to Action Links Page

The **Manage Recommendations to Action Links**pagelets you manage the links that exist between Recommendation records and Action records.

You can access the **Manage Recommendations to Action Links** page when you...

- View the list of Recommendation records that were used to create an Action.
- Create an Action from an existing Recommendation record.

The following image shows the **Manage Recommendations to Actions Links** page.



Aspects of the Manage Recommendation to Action Links Page

The **Manage Recommendations to Action Links** page contains the following sections:

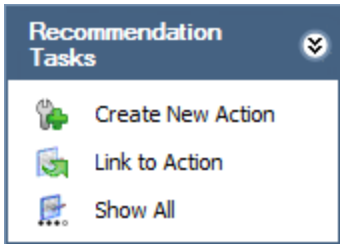
- **Recommendations:** Displays a list of Recommendation records that are linked to the Equipment or Functional Location record that is associated with the Asset Strategy from which you accessed the page. For example, if accessed the page from the PMP-1001 Asset Strategy (assuming that the root Asset Strategy record is linked to record PMP-1001), the Recommendations section will display a list of Recommendation records that are linked to record PMP-1001.
- **Actions:** Displays a list of Actions that are included in the Proposed Strategy from which you accessed the page.
- **Source Recommendations for Selected Action:** Displays a list of Recommendation records that were used to create the Action that is selected in the **Actions** section.

The **Manage Recommendations to Action Links** page also contains the following task menus:**Recommendation Tasks**, **Action Tasks**, and **Common Tasks**.

From this page, you can:

- Unlink an Action record from a Recommendation record.
- Link a newly created Recommendation record to an existing Action record.
- Create a new Action from an existing Recommendation record.
- Indicate that a Recommendation drives an Action.

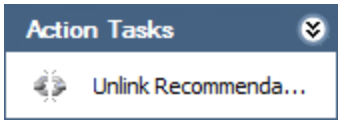
Recommendation Tasks Menu



The **Recommendation Tasks** menu on the **Manage Recommendations to Action Links** page contains the following links:

- **Create New Action:** Creates a new Action from the Recommendation record that is selected in the **Recommendations** section. Note that if you select multiple Recommendation records and click **Create New Action**, one new Action will be created for each Recommendation record. This link is disabled if the strategy to which the Action belongs is controlled by a Master Template. This link is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Link to Action:** Links the Recommendation record that is selected in the **Recommendations** section to the Action record that is selected in the **Actions** section. This link is disabled if the strategy to which the Action belongs is controlled by a Master Template. This link is disabled if you are logged in as a member of the ASM Viewer Security Group.
- **Show All:** Refreshes the list of Recommendation records to display all Recommendation records that are linked to the Equipment or Functional Location record. You might want to use this link to be sure that you are seeing any Recommendation records that were recently written.

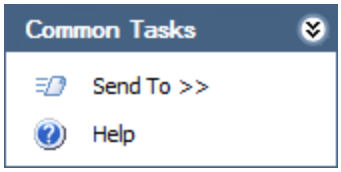
Action Tasks



The **Action Tasks** menu on the **Manage Recommendations to Action Links** page contains the following link:

- **Unlink Recommendations:** Unlinks the Recommendation records that are selected in the **Source Recommendations for Selected Action** section from the Action record to which they are linked. Note that this link is disabled if...
  - No Recommendation records are displayed in the **Source Recommendations for Selected Action** section.
  - The strategy to which the Action belongs is controlled by a Master Template.
  - The selected Recommendation record is a driving Recommendation record.

Common Tasks



The **Common Tasks** menu on the **Manage Recommendations to Action Links** 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 help topic for the current page.

Unlinking an Action Record from a Recommendation Record

When a Recommendation is promoted to an Action, the Recommendation record is linked to the Action record. If desired, you can unlink the two records.

To unlink an Action record from a Recommendation record:

1. In the appropriate Asset Strategy, access the list of Actions.
2. In the grid in the **Proposed Strategy** section, in the row containing the Action record that you want to unlink from a Recommendation record(s), click the hyperlink in the **# of Recommendations** cell.

   The **Manage Recommendation to Action Links** page appears. You can view the Recommendation records that are currently linked to this Action record in the **Source Recommendation for Selected Action** section.
3. In the **Source Recommendations for Selected Action** section, select the row containing the Recommendation record that you want to unlink from the Action record.
4. On the **Action Tasks** menu, click the **Unlink Recommendations** link.

   The Recommendation record is unlinked from the Action record, and the Recommendation record appears in the **Recommendations** section on this page.

Linking a Newly Created Recommendation Record to an Existing Action Record

In some cases, after an Action is created from one or more Recommendation records, additional Recommendation records may be created that you want to link to the Action record.

To link a newly created Recommendation record to an existing Action record:

1. In the appropriate Asset Strategy, access the list of Actions.
2. In the grid in the **Proposed Strategy** section, in the row containing the Action record that you want to link to a new Recommendation record, click the hyperlink in the **# of Recommendations** cell.

   The **Manage Recommendation to Action Links** page appears. You can view the Recommendation records that are currently linked to this Action record in the **Source Recommendation for Selected Action** section.
3. On the **Recommendation Tasks** menu, click the **Show All** link.

   Any Recommendation records that are not currently linked to the Action record but that are linked to the same Equipment or Functional Location record are displayed in the **Recommendations** section.
4. In the grid in the **Recommendations** section, select the row containing the Recommendation record that you want to link to the existing Action record.
5. On the **Recommendation Tasks** menu, click the **Link to Action** link.

   The Recommendation record is removed from the **Recommendations** section and inserted into the **Source Recommendations for Selected Action** section, and the Name of the Action is the same as the Recommendation ID of the Recommendation record. The state of the Recommendation record also changes to *Accepted by ASM*.

Creating a New Action from an Existing Recommendation Record

To create a new Action from an existing Recommendation record:

1. Access the list of Recommendation records that are linked to an existing Action record.

   The **Manage Recommendation to Action Links** page appears.

2. In the **Recommendations** section, select the row containing the Recommendation record that you want to use to create a new Action.

3. On the **Recommendations Tasks** menu, click the **Create New Action** link.

   The new Action appears in the list in the **Actions** section, and the Recommendation record appears in the **Source Recommendations for Selected Action** section.

Indicating that a Recommendation Drives an Action

To indicate that a Recommendation record drives an Action:

1. On the **Manage Recommendations to Action Links** page:
   - Link a newly created Recommendation record to an existing Action record.

   -or-

   - Create a new Action from an existing Recommendation record.
2. After the Recommendation record appears in the **Source Recommendations for Selected Action** section, in that section, in the row containing the driving Recommendation record, select the **Drives Action** check box.

   A message appears, asking if you want to update the Action with information in the Recommendation record any time that the mapped values in the Recommendation record changes.
3. Click the **Yes** button.

   The Recommendation record is set as the driving Recommendation for the selected Action.

Indicating that a Recommendation No Longer Drives an Action

To indicate that a Recommendation record no longer drives an Action:

1. On the **Manage Recommendations to Action Links** page, in the **Source Recommendations for Selected Action** section, select the row containing the driving Recommendation record.
2. Clear the **Drives Action** check box.

   An informational message appears, indicating that the Recommendation record can now be deleted since it no longer drives the Action.
3. Click **OK**.

   The Recommendation record is removed as the driving Recommendation record for the selected Action.

Interpreting the Strategy Mitigated Risk Rank

The *Strategy Mitigated Risk Rank* is the sum of the smallest risk rank values across *all* risk categories (represented by tabs on the risk matrix) defined for *all* Actions that are associated with the Risk.

The Strategy Mitigated Risk Rank appears in the following places:

- **Risks** section of the **Asset Strategy Risks** page.
- **Mitigated Risks** section of the **Asset Strategy Actions** page.

The Strategy Mitigated Risk Rank is calculated as:

Strategy Mitigated Risk Rank = MSR + MER + MOR + MFR

...where:

MSR = Minimum Safety Risk from All Mitigating Actions

MER = Minimum Environment Risk from All Mitigating Actions

MOR = Minimum Operations Risk from All Mitigating Actions

MFR = Minimum Financial Risk from All Mitigating Actions

To find the minimum risk for all actions, Meridium APM looks at the risk value for each category and takes the minimum value across all Action.

For example, assuming that you are using the baseline risk matrix, suppose Action 1 and Action 2 mitigate Risk A, and the risk values for these Actions are as shown in the following table, where the minimum risk value for the two Actions is shown in bold.

Action	Safety Risk	Environmental Risk	Operational Risk	Financial Risk
Action 1	**100**	**200**	300	400
Action 2	150	250	**90**	**120**

Using this example, the Strategy Mitigated Risk Rank will be calculated as:

Strategy Mitigated Risk Rank = MSR + MER + MOR + MFR

Strategy Mitigated Risk Rank = 100 + 200 + 90 + 120

Strategy Mitigated Risk Rank = 510

Specifying the Reason for Changing the Asset Strategy

If you modify an Asset Strategy, you can specify a reason for the modifications. This provides the person responsible for reviewing the changes some insight into the rationale behind the decisions.

To specify the reason for changing the Asset Strategy:

1. On the **Asset Strategy Risk Analysis** page, below the grid in the **Actions** section, click the **Basis for Revision** button.

   The **Basis for Revision** dialog box appears.

2. In the text area in the **Basis for Revision** dialog box, type the reason for the changes that you have made to the Asset Strategy.

3. Click **OK**.

   The text is saved. When a user reviews changes waiting for approval, the text that you typed will be available to help them determine whether or not to activate the changes.

Proposing an Asset Strategy

After you have created a Draft Asset Strategy that includes Actions and Risks that you think represent a valid and manageable plan for a piece of equipment or location, you will need to propose the Asset Strategy, which will set it to a Pending Review state. A Security User who is responsible for reviewing the Asset Strategy will then be able to accept it, making it Active, or send it back for additional work.

Note that when an Asset Strategy is set to the Pending Review state, the Plan Length field, which is visible on the **Asset Strategy Definition** page, is disabled.

To propose an Asset Strategy:

1. Search for and open the Asset Strategy that you want to propose. To propose an Asset Strategy, it will need to be in a state of Draft or Modified.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Risk Analysis** link.

   The **Asset Strategy Risk Analysis** page appears.

   > **Note:** You can propose an Asset Strategy from other pages, such as the **Asset Strategy Actions** page, but these instructions assume that want to review the risk analysis before proposing the Asset Strategy.

3. Above the **Actions** section, click the **Operations** link, and then click **Propose** on the submenu.

   A message appears, asking if you are sure you want to propose the Asset Strategy.

4. Click the **Yes** button.

   The Asset Strategy state changes to Pending Review. When the Asset Strategy is in a Pending Review state, you cannot modify an Action, Risk, or the Risk Rank associated with an Action or a Risk.

About Reviewing Recent Changes Awaiting Approval

You can review recent changes that have been made to an Asset Strategy to determine whether or not you want to:

- Approve the changes and activate the Asset Strategy.

  -OR-

- Send the Asset Strategy back for revision.

You can perform this review process from the **Review Asset Strategy** page.

You can use this page to review the following items:

- A detailed view of any changes that have been made between an Action that is included in the Active Strategy and the corresponding Action that is included in the Proposed Strategy.
- The reason that changes were made to the Asset Strategy.
- The Risk Profile graph.
- The Financial Risk Exposure graph.
- The Cost of Actions graph.

If desired, you can also print the Asset Strategy Approval Report for this Asset Strategy before approving the changes by activating the Asset Strategy or sending it back for rework.

Viewing a List of Changes Made to an Action

Note that you can view a list of changes that were made to an Action from the **Review Asset Strategy** page or from the **Asset Strategy Risk Analysis** page.

This documentation assumes that you want to review the changes before you activate a modified Asset Strategy, which we assume that you will do from the **Review Asset Strategy** page.

To view a list of changes that were made to an Action:

1. On the **Review Asset Strategy** page, click the **Details** tab.

   A grid appears, displaying a list of Actions that are included in the Proposed Strategy.

2. In the grid, select the row containing the Action whose changes you want to view.
3. Below the grid, click the **Show Changes** button.

   Note: The **Show Changes** button is disabled if you select an Action that has been added or deleted from the strategy and the changes have not yet been made active. In other words, if you select an Action whose icon contains a gear symbol or a minus symbol, the **Show Changes** button is disabled.

   The **Changes** window appears, displaying a list of differences that exist between the selected Action and the corresponding Action that is included in the Proposed Strategy.

Viewing the Basis for Revision

When a user makes a change to an Asset Strategy, they can specify a reason for the change from the **Asset Strategy Risk Analysis** page. If a user made changes to an Asset Strategy, specified the reason for the changes, and then proposed the Asset Strategy, you can review the reason before you activate the Asset Strategy.

Note: If an Asset Strategy is part of a System Strategy or Unit Strategy, if it is modified at either of those levels, the basis for revision can be entered from the risk analysis of the System Strategy or Unit Strategy.

To review the basis for revision:

- On the **Review Asset Strategy** page, click the **Basis for Revision** tab.

  Text appears, indicating the reason that the Asset Strategy was last modified.

Undoing ALL Changes Made to An Asset Strategy

If desired, you can undo ALL the changes that have been made to an Asset Strategy in the *Modified*state since it was last activated. When you do so, the Meridium APM system will:

- Change the state from *Modified* to *Active.*

  -AND-

- Revert ALL the changes that were made to the strategy since the last time it was activated.

In other words, all your changes are discarded, and the Asset Strategy is restored to the state in which it existed prior to making your changes.

The following instructions provide details on undoing all the changes that were made to an Asset Strategy. These instructions assume that you are viewing a page in ASM where the **Operations** menu is available and that the Asset Strategy is in the *Modified* state.

Note: The **Cancel** option is not available on the **Operations** menu when you are working with an Asset Strategy that was created from an RBI Analysis.

To undo all the changes made to an Asset Strategy:

1. Click the **Operations** link.

   A submenu appears, displaying the options **Cancel** and **Propose**.

2. Click **Cancel**.

   The Meridium APM system reverts all the changes that were made to the Asset Strategy since it was last activated, and the state of the Asset Strategy is changed to *Active*.

About Restoring Asset Strategy Revisions to Use in the Current Asset Strategy

If desired, you can restore a previous Asset Strategy Revision and use its contents in the current Asset Strategy. For example, if you activate an Asset Strategy after removing several Actions and Risks and adding different Actions and Risks but later you realize that this was a mistake, you can restore the content of the previous Asset Strategy (before you made your changes) and apply it to the current Asset Strategy. You can do so using the **Restore** option that appears on the shortcut menu when you right-click an Asset Strategy Revision in the **Revisions** pane on the **Asset Strategy Revision History** page.

Note: The **Restore** option is not available when you are working with an Asset Strategy that was created from an RBI Analysis.

When you restore an Asset Strategy Revision, the Meridium APM system will:

- Discard any changes that were made to the current Asset Strategy since it was last activated.
- Restore the values stored in the records that make up the *current* Asset Strategy with those that exist in the *same* records that existed in the *Asset Strategy Revision*. In other words, the records that exist in both the current Asset Strategy and the Asset Strategy Revision will be restored using the values stored in the Asset Strategy Revision records.
- Restore the Action, Risk, and Risk Assessment records that existed in the desired *Asset Strategy Revision* but do not exist in the *current* Asset Strategy. In other words, records that are not part of the current Asset Strategy will be restored using the values stored in the Asset Strategy Revision records.
- Change the state of the Asset Strategy to *Modified*.

Additionally, when you try to restore an Asset Strategy Revision, the Meridium APM system will prompt you to specify whether you want to remove or keep the Action, Risk, and Risk Assessment records that exist in the *current* Asset Strategy but do not exist in the *Asset Strategy Revision*. In other words, you can choose to keep the records that were created after the selected Asset Strategy Revision was created or to remove them from the current Asset Strategy. You *cannot* remove records from an Asset Strategy, however, if it contains one or more of the following record types:

- Mandatory Actions
- Actions or Risks that originate from other modules

In this case, the option to remove records from the current Asset Strategy will be disabled.

Like any other changes that you make to an Asset Strategy, after you restore an Asset Strategy Revision and *activate* the Asset Strategy, a new Asset Strategy Revision will be created for the Asset Strategy. When you restore an Asset Strategy Revision, you are not

removing any Asset Strategy Revisions that existed between the current Asset Strategy and the restored Asset Strategy Revision.

The Meridium APM system prevents you from restoring an Asset Strategy Revision if any of the following conditions are met:

- The Asset Strategy is in the *Pending Review* state.
- The Asset Strategy is currently a controlled strategy.
- The user who is currently logged in does not have the necessary permissions to change the current state of the Asset Strategy.

Consider another example in which you apply the wrong Asset Strategy Template to an Asset Strategy as a master and then activate that Asset Strategy. In this case, you would want to restore the Asset Strategy Revision that was created before the Asset Strategy Template was applied to the Asset Strategy. Because the Asset Strategy is currently linked to a Master Asset Strategy Template record, however, you will need to remove the link between the controlled strategy and its master before you can restore the desired Asset Strategy Revision.

Hint: If you make changes to the Asset Strategy by mistake and you have not activated the Asset Strategy after making those changes, you can use the **Cancel** operation to undo them.

Restoring Asset Strategy Revisions

The following instructions provide details on restoring an Asset Strategy Revision and using it in the current Asset Strategy. These instructions assume that:

- The Asset Strategy is in a state other than *Pending Review*.
- The Asset Strategy is not currently a controlled strategy.
- The user who is currently logged in has the necessary permissions to change the current state of the Asset Strategy.

To restore an Asset Strategy Revision:

1. Access the **Asset Strategy Revision History** page for the Asset Strategy whose Asset Strategy Revision you want to restore.
2. In the **Revisions** pane, right-click the Asset Strategy Revision that you want to restore.

   The shortcut menu appears and contains the option **Restore**.
3. Click the **Restore** link.

   The **Restore Revision Options** dialog box appears, asking you to specify what the Meridium APM system should do with the items that exist in the current Asset Strategy but not in the selected Asset Strategy Revision.

   You can choose from the following options:

   - **Mark these items for removal**.

   Note: Keep in mind that this option may be disabled if the Asset Strategy contains mandatory Actions or Action or Risk records that were created in a different module and promoted to ASM.

   - **Keep these items in the Asset Strategy**.
4. Select the desired option.
5. Click **OK**.

   The Meridium APM system:

- Discards any changes that were made to the current Asset Strategy since it was last activated.
- Replaces the values stored in the records that make up the current Asset Strategy with those that exist in the same records that existed in the selected Asset Strategy Revision.
- Restores Action, Risk, and Risk Assessment records that existed in the selected *Asset Strategy Revision* but do not exist in the *current* Asset Strategy.
- Removes or keeps the items that exist in the current Asset Strategy but not in the

selected Asset Strategy Revision, based upon your selection on the **Restore Revision Options** dialog box.

- Changes the state of the Asset Strategy to *Modified*.

Activating an Asset Strategy

When you set an Asset Strategy state to Active, you indicate that you approve of the plan and agree with the Actions and Risks. You can set the state to Active if it is currently Draft or Pending Review.

Note that when an Asset Strategy is set to the Active state, the Plan Length field, which is visible on the **Asset Strategy Definition** page, is disabled.

To set an Asset Strategy state to Active from the Draft state:

1. Search for and open the Asset Strategy that you want to activate.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Review Strategy** link.

   The **Review Asset Strategy** page appears.

   Note: You can activate an Asset Strategy from other pages, such as the **Asset Strategy Actions** page, but these instructions assume that want to do so from the **Review Asset Strategy** page.

3. Above the area that displays the **Basis for Revision** tab, click the **Operations** link, and then click **Baseline** on the submenu.

   A message appears, asking if you are sure you want to activate the Asset Strategy even though it has not yet been reviewed.

4. Click the **Yes** button.

   A message appears, indicating that the Asset Strategy is now Active. In the current workspace, you can see that the Asset Strategy state is now Active.

To set an Asset Strategy state to Active from the Pending Review state:

1. Search for and open the Asset Strategy that you want to activate.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Review Strategy** link.

   The **Review Asset Strategy** page appears.

   Note: You can activate an Asset Strategy from other pages, such as the **Asset Strategy Actions** page, but these instructions assume that want to do so from the **Review Asset Strategy** page.

3. Above the area that displays the **Basis for Revision** tab, click the **Operations** link, and then click **Make Active** on the submenu.

   A message appears, asking if you are sure you want to activate the Asset Strategy.

4. Click the Yes button.

   A message appears, indicating that the Asset Strategy state is now Active. In the current workspace, you can see that the Asset Strategy state is now Active.

Send an Asset Strategy Back for Rework

If you are reviewing an Asset Strategy that is set to the Pending Approval state and you do not approve of any part of it, you can send it back for rework.

To send an Asset Strategy back for rework:

1. Search for and open the Asset Strategy that you want to send back for rework.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Review Strategy** link.

   The **Review Asset Strategy** page appears.

   > **Note:** You can activate an Asset Strategy from other pages, such as the **Asset Strategy Actions** page, but these instructions assume that want to do so from the **Review Asset Strategy** page.

3. Above the area that displays the **Basis for Revision** tab, click the **Operations** link, and then click **Rework** on the submenu.

   A message appears, asking if you are sure you want to perform the operation.

4. Click the **Yes** button.

   The **Basis for Rework** dialog box appears.

5. In the **Basis for Rework**, type any comments explaining why the Asset Strategy cannot be activated without additional work.

6. Click **OK**.

   The Asset Strategy state is set to Modified. The comments that you typed in the **Basis for Rework** dialog box will be available on the **Review Strategy** tab on the **Review Asset Strategy** page. The next time that you are ready to review the Asset Strategy, you can use these comments as a reminder about why the Asset Strategy was not ready to be activated the last time.

Accessing the Revision History

To access the ASM - Asset Strategy Revision History - <Strategy ID> page:

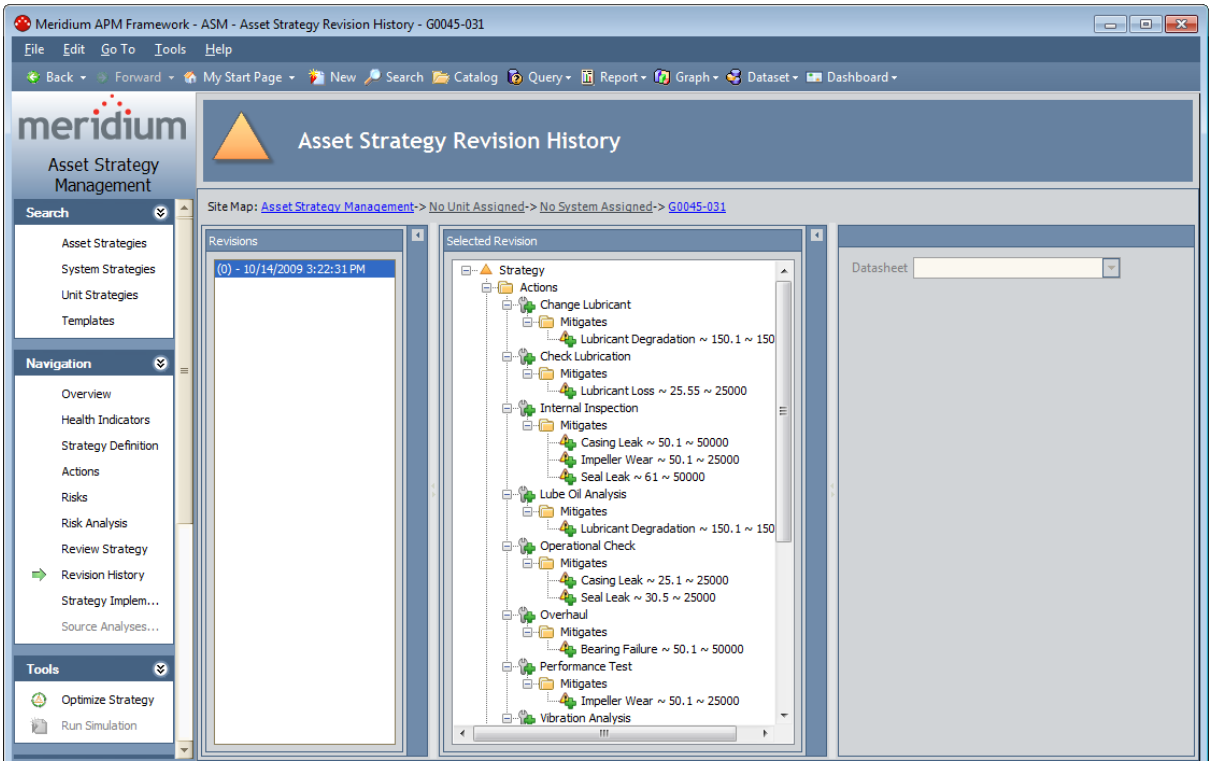
1. Search for and open the Asset Strategy whose revision history you want to review.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Revision History** link.

   Note: This link is enabled only if the Asset Strategy has been activated at least once.

   The Asset Strategy Revision History page appears.



About the Revision History

The revision history for an Asset Strategy lets you view the Asset Strategy that was initially created and all changes that have been made to the Asset Strategy since then.

From the **Asset Strategy Revision History** page, for the initial Asset Strategy and each Asset Strategy revision, you can view the following information:

- Information in the Strategy Revision record.
- Information in each Action Revision record.
- Information in each Risk Assessment Revision record.
- Information in each Risk Revision record.

Overview of the Asset Strategy Revision History Page

The **Asset Strategy Revision History** page is divided into the following panes:

- **Revisions:** Displays a list of all revisions that have been made to the Asset Strategy.
- **Selected Revision:** Displays the details of the revision that is selected in the **Revisions** pane.
- **Datasheet:** Displays the datasheet associated with the record that is selected in the **Selected Revision** pane.

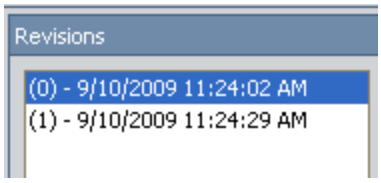
Revisions Pane

The **Revisions** pane of the **Asset Strategy Revision History** page contains a list of all Strategy Revision records that are linked to the Active Strategy record that is linked to the currently displayed Asset Strategy record.

Each item in the list represents the Asset Strategy as it existed when its state was set to Active.

Note: When an Asset Strategy record's state is set to Active, a Strategy Revision record is created automatically and linked to the Active Strategy record that is linked to that Asset Strategy record.

In the following image, the list in the **Revisions** pane contains two items.



The first item in the list contains a zero (0) in parentheses. This item represents the Asset Strategy as it existed when it was activated for the *first* time. The date and time represents the date and time that the Asset Strategy state was set to Active for the first time.

The second item in the list contains a one (1) in parentheses. This item represents the Asset Strategy as it existed when it was activated for the second time. The date and time represents the date and time that the Asset Strategy state was set to Active for the second time.

Each subsequent item in the list contains a number in parentheses, which is one digit higher than the number in the previous item in the list. For each item, you can see the date and time that the Asset Strategy was set to Active.

You can select an item in the list and see the details of the associated Asset Strategy in the **Selected Revision** pane.

The **Revisions** pane contains a shortcut menu that contains one option, **Restore**, which lets you restore the selected Asset Strategy Revision and use it in the current Asset Strategy.

To collapse the **Revision** pane, you can click the button that appears between the **Revision** pane and the **Selected Revision** pane.

Selected Revision Pane

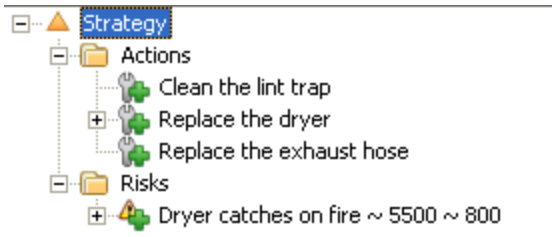
The **Selected Revision** pane on the **Asset Strategy Revision History** page displays details about the Asset Strategy that is associated with the item that is selected in the **Revisions** pane.

The **Selected Revision** pane displays the Strategy Revision record at the root level of the tree.

Note: When an Asset Strategy record's state is set to *Active*, a Strategy Revision record is created automatically and linked to the Active Strategy record that is linked to that Asset Strategy record.

Below the Strategy Revision record, you will see the Action Revision records and Risk Revision records that are linked to the Strategy Revision record. The Action Revision records are grouped under the **Actions** folder, and the Risk Revision records are grouped under the **Risks** folder.

For example, in the following image, you can see that the Strategy Revision record is linked to three Action Revision records and one Risk Revision record.

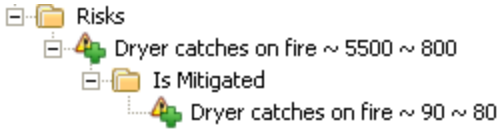


Below each Action Revision record, you can see the Risk Assessment Revision records to which it is linked. This Risk Assessment Revision records appears below the **Mitigates** folder.

For example, in the following image, you can see that the Action Revision record *Replace the dryer* is linked to the Risk Assessment Revision record *Dryer catches on fire ~ 90~ 80*.

Below each Risk Revision record, you can see the Risk Assessment Revision record to which it is linked. The Risk Assessment Revision record appears below the **Is Mitigated** folder.

For example, in the following image, you can see that the Risk Revision record *Dryer catches on fire ~ 5500~ 800* is linked to the Risk Assessment Revision record *Dryer catches on fire ~ 90~ 80*.



An icon appears next to each Action Revision, Risk Revision, and Risk Assessment Revision record. The icon indicates the action that you performed on that record. For a Strategy Revision record with a zero (0) in the title, all icons will have a plus sign (e.g.,). For any subsequent Strategy Revision record, any record that you modified will have a gear symbol (e.g.,), and any record that you deleted will have an X symbol (e.g.,).

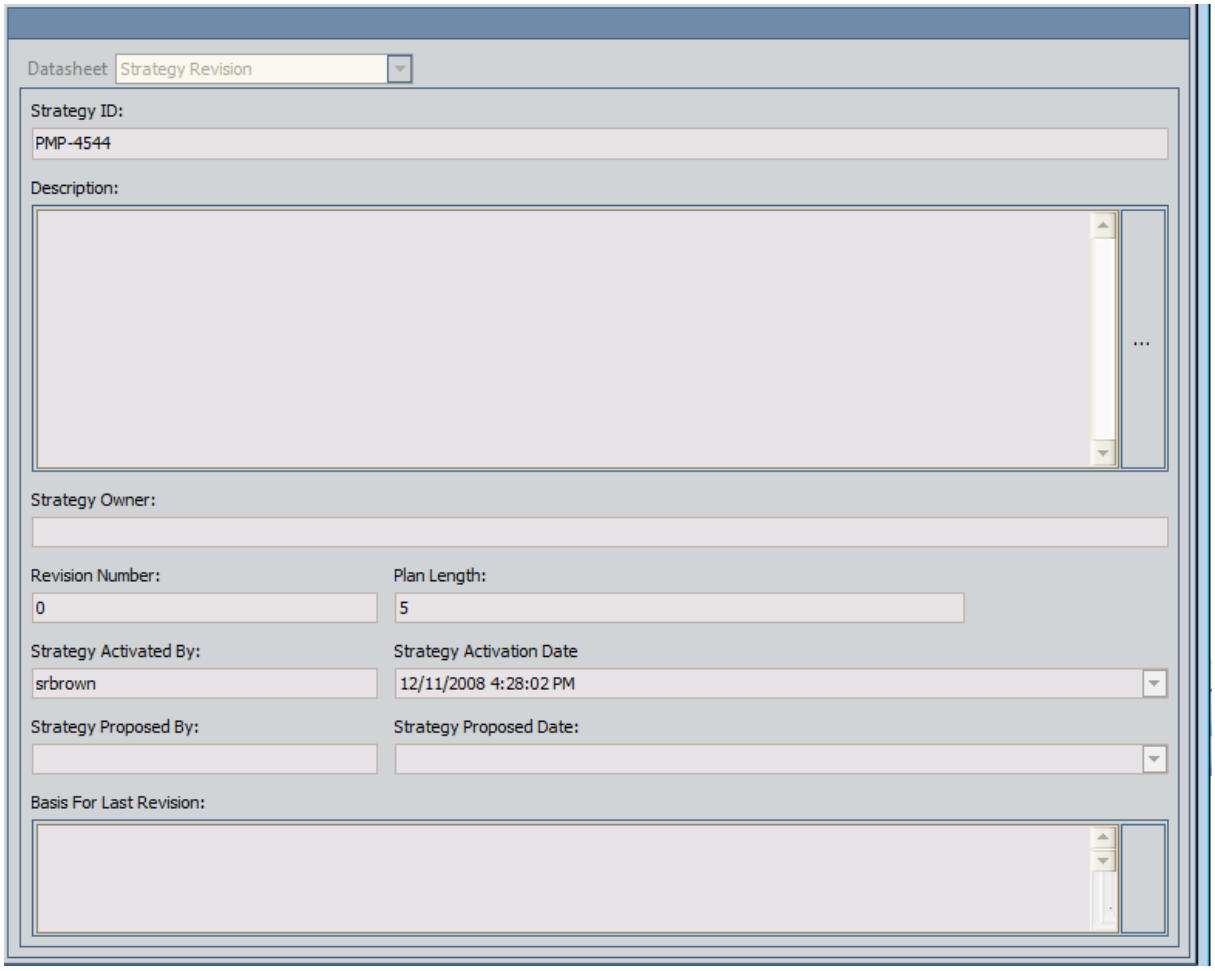
Note that in some cases, the value in the Strategy Mitigated Risk Rank field changes but the associated Risk record does not change. In this case, the **Selected Revision** pane will display the associated Risk Revision record with the symbol.

The **Selected Revisions**pane contains a shortcut menu that contains one option,**Show Changes**, which appears only if the selected item was modified (which you can identify from the gear symbol). You can click the **Show Changes** link to see a list of the changes that were made to that item.

To collapse the **Selected Revision** section, you can click the button that appears between the **SelectedRevision** pane and the datasheet pane.

Datasheet Pane

The datasheet pane of the **Asset Strategy Revision History** page displays details about the record that is selected in the Selected Revision pane.



Note: To view the full datasheet, you can collapse the **Revisions** pane and the **Selected Revisions** pane by clicking the button to the right of either pane.

Note that all fields on the datasheet are disabled.

Viewing a List of Changes that Were Made to an Item in the Selected Revision Section

To view a list of changes that were made to an item in the Selected Revision section:

1. Access the revision history for the Asset Strategy whose changes you want to view.
2. In the tree in the **Selected Revision** section, right-click an item with gear icon (e.g.,).

   A shortcut menu appears, containing the option **Show Changes**.
3. Click the **Show Changes** link.

   The **Changes** window appears, displaying a list of changes that were made to the selected item.

About the Risk Profile Graph

The Risk Profile graph is available on the following pages:

- Asset Strategy Overview
- Asset Strategy Risk Analysis
- Review Asset Strategy

It is also available on the following pages:

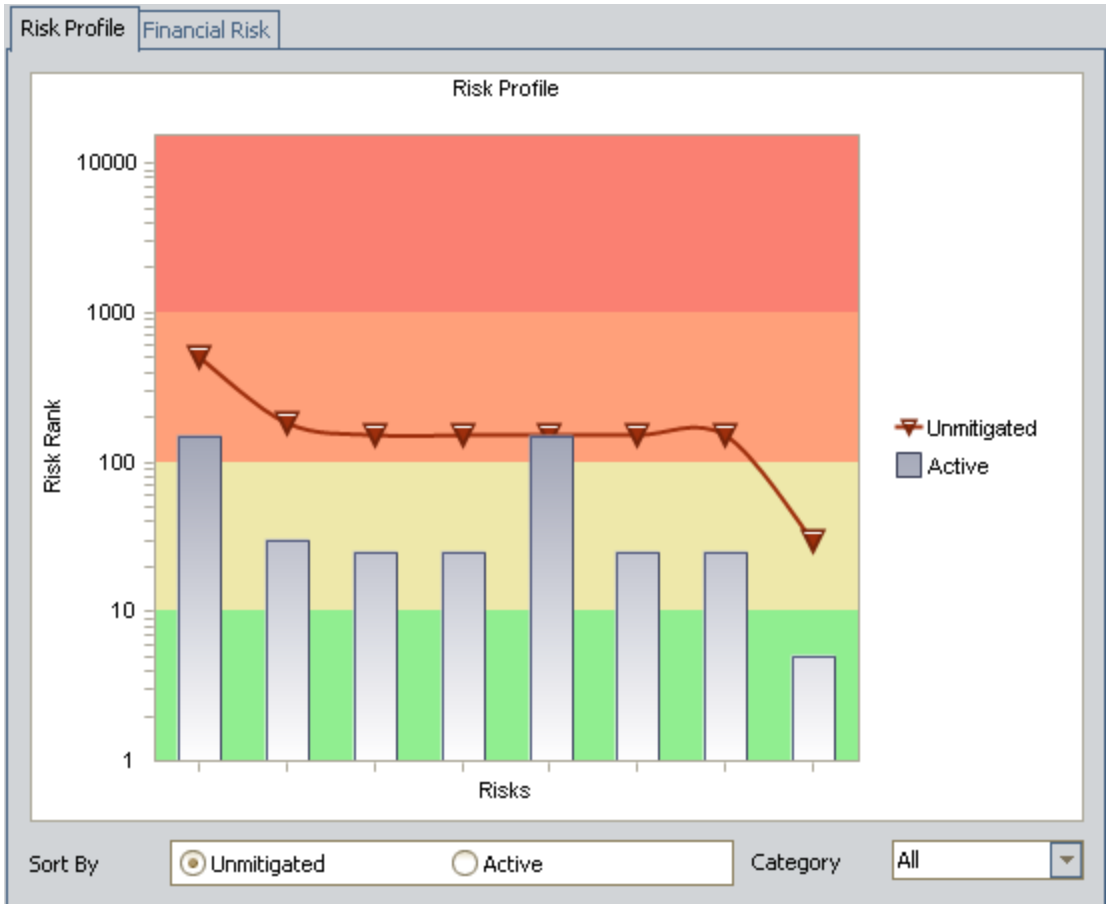
- Asset Strategy Template Overview
- Asset Strategy Template Risk Analysis
- Review Asset Strategy Template

The Risk Profile graph that is displayed on the **Asset Strategy Overview** page and the **Asset Strategy Template Overview**page represents data in the Active Strategy only. The Risk Profile graph that is displayed on the other pages, however, represents data in the Active and the Proposed Strategy.

Interpreting the Risk Profile Graph in the Overview

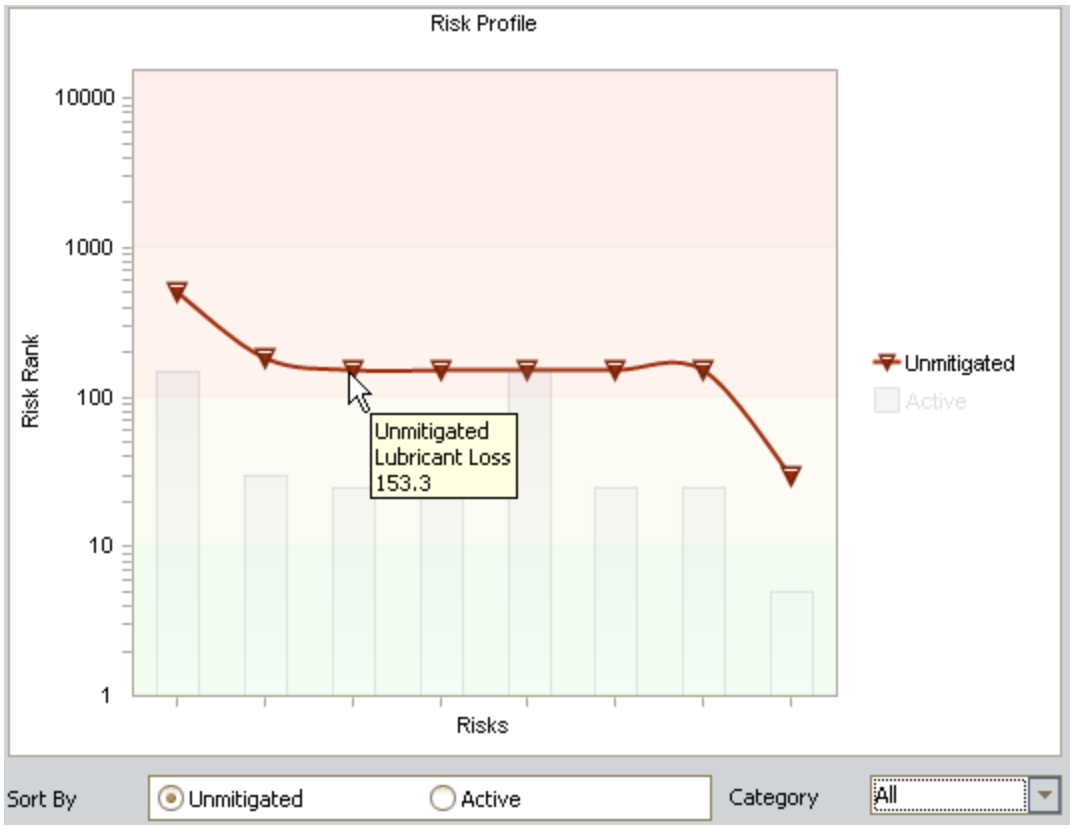
The Risk Profile graph that appears on the Asset Strategy Overview page represents data in the Active Strategy only.

The following image shows an example of the Risk Profile graph in the Asset Strategy overview.

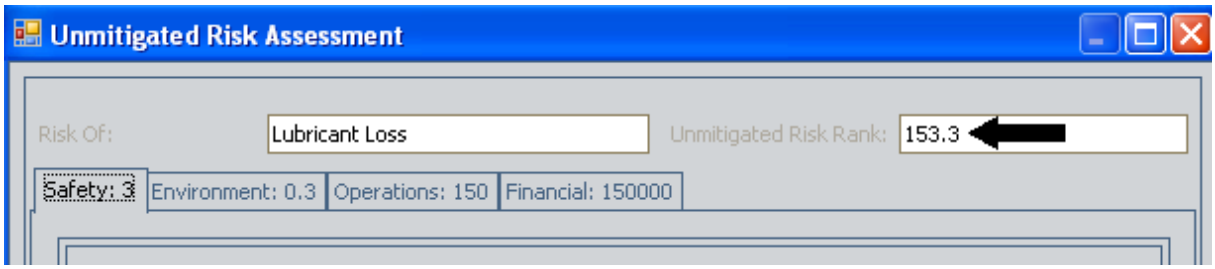


The Risk Profile graph displays a profile of the risk rank values for each Risk included in the *Active* Strategy. From the example graph in the preceding image, you can determine from the eight datapoints on the Unmitigated line that the Active Strategy contains eight Risks. By default, the graph contains a line that represents the unmitigated risk rank of each Risk. The gray bars represent the Strategy Mitigated Risk Rank for each Risk in the Active Strategy.

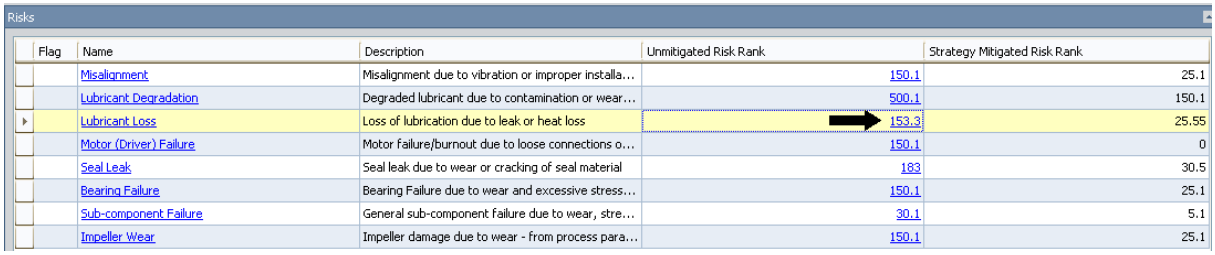
If desired, you can use the values in the **Category** list to filter the graph to display the risk rank associated with a specific risk category (excluding Financial risk categories) for each Risk. For example, consider the following graph, which shows the total unmitigated risk, 153.3, for the Risk *Lubricant Loss* across all risk categories.



You would also see this value if you opened the **Unmitigated Risk Assessment** window for this Risk.

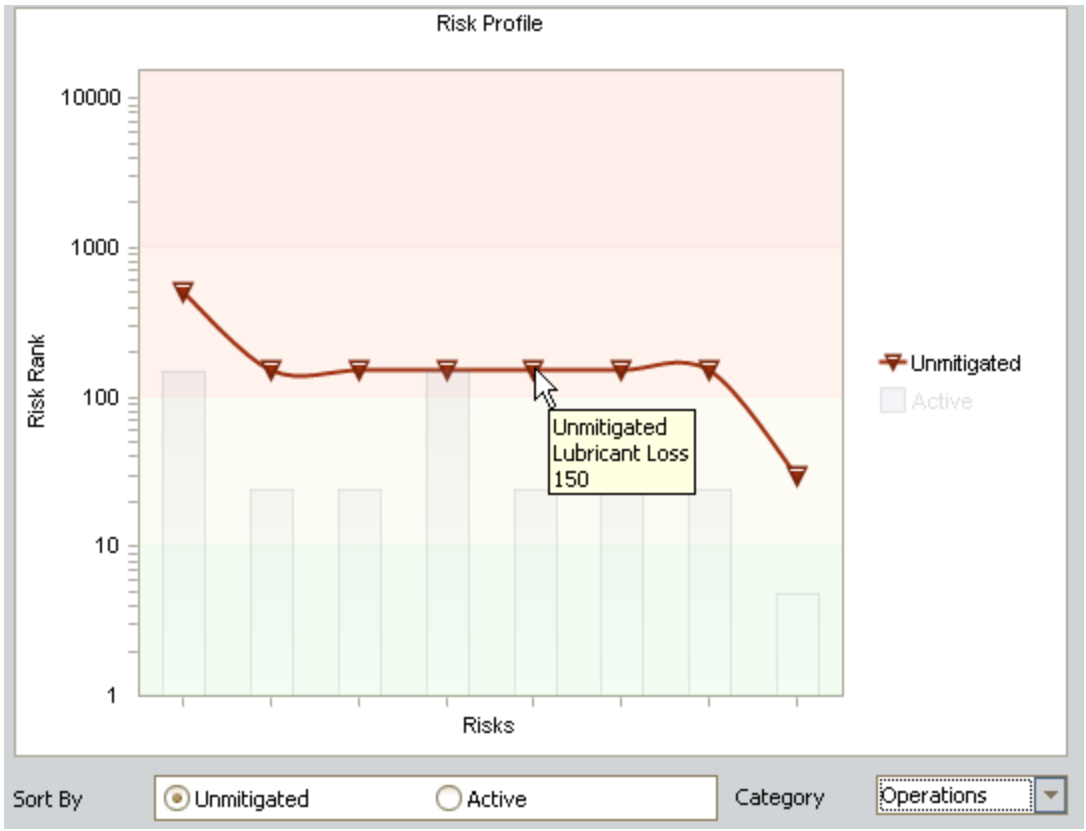


In addition, you would see this value in the **Unmitigated Risk Rank** column in the **Risks** section on the **Asset Strategy Risks** page.

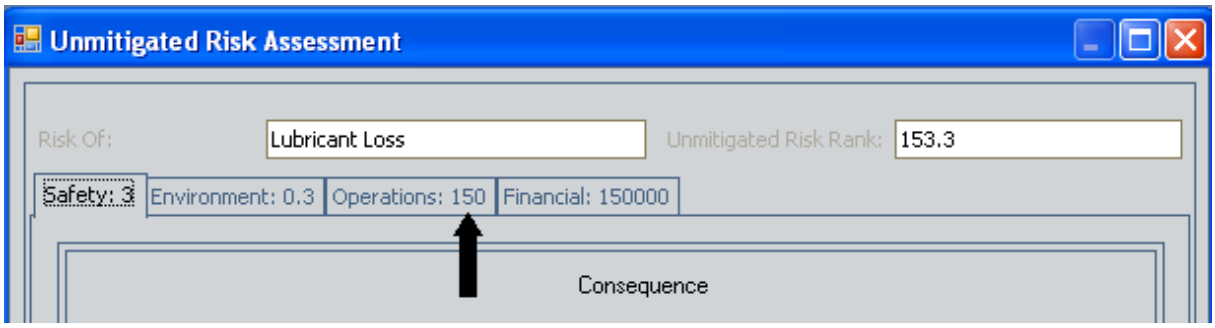


Flag	Name	Description	Unmitigated Risk Rank	Strategy Mitigated Risk Rank
	Misalignment	Misalignment due to vibration or improper installa...	150.1	25.1
	Lubricant Degradation	Degraded lubricant due to contamination or wear...	500.1	150.1
	Lubricant Loss	Loss of lubrication due to leak or heat loss	153.3	25.55
	Motor (Driver) Failure	Motor failure/burnout due to loose connections o...	150.1	0
	Seal Leak	Seal leak due to wear or cracking of seal material	183	30.5
	Bearing Failure	Bearing Failure due to wear and excessive stress...	150.1	25.1
	Sub-component Failure	General sub-component failure due to wear, stre...	30.1	5.1
	Impeller Wear	Impeller damage due to wear - from process para...	150.1	25.1

If you filter the Risk Profile graph to display only risk values associated with the *Operations* risk category, it would look like the graph shown in the following image.

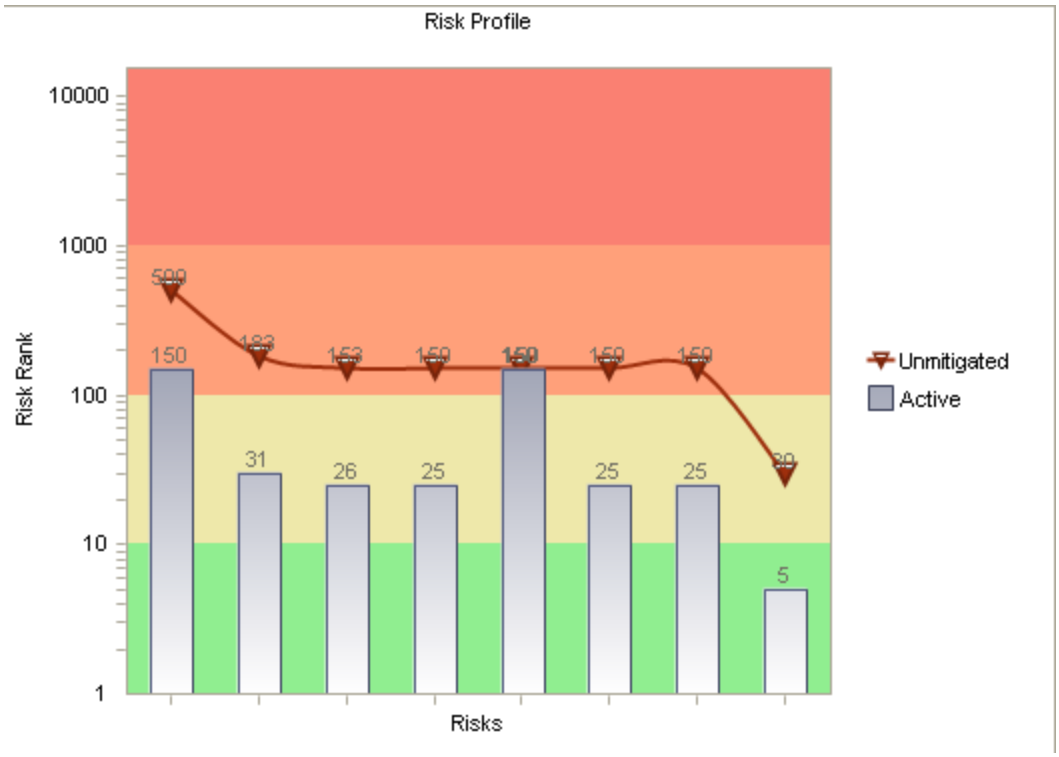


In this image, you can see that the Operations risk of Lubricant Loss is *150*. You could also see this value if you opened the **Unmitigated Risk Assessment** window for this Risk, as shown in the following image.



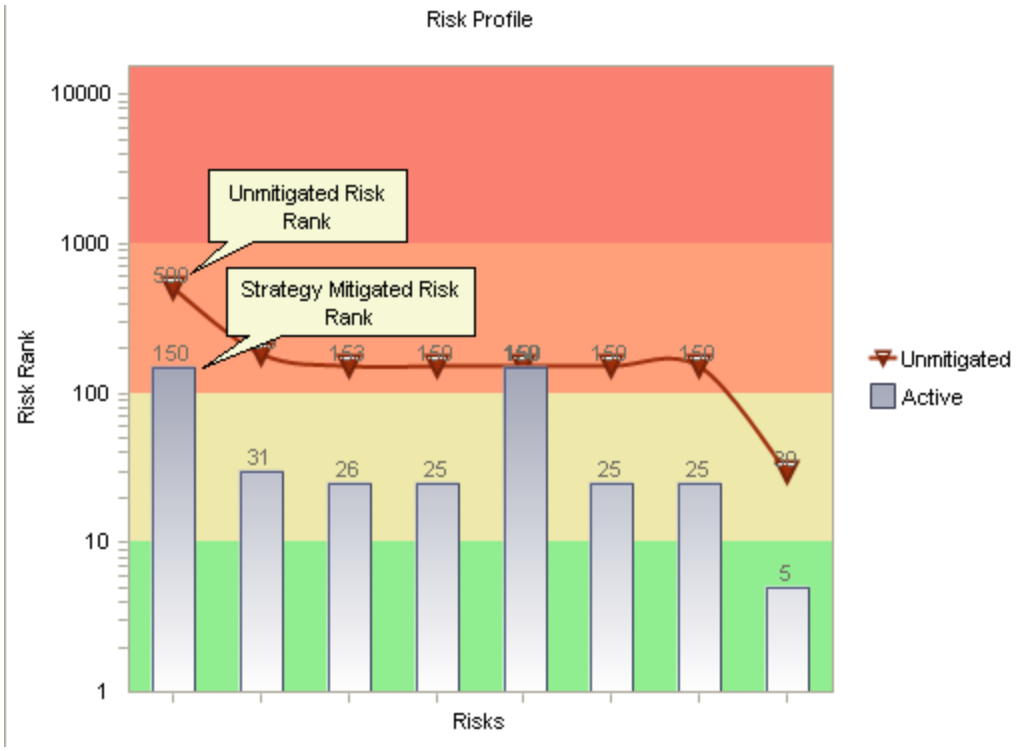
Note: If you filter the graph to show risk rank values for a specific risk category, the graph will most likely be resorted from left to right. In other words, the Risks will appear in different places on the x-axis after the filtering is applied.

If you right-click the line and the bars, you can choose to show the datapoint values on the graph to determine the exact risk rank values. The following image shows the example graph with labeled datapoint values.



From this graph, you can see that the unmitigated risk rank for the first Risk is 500, and the Strategy Mitigated Risk Rank is 150.

Note: The callouts in the following graph have been added to the documentation to make the graph easier to interpret. These callouts are not available in the graph in the ASM product.



If you were to view the **Asset Strategy Risks** page, you would see these same values for this Risk. The unmitigated risk rank is displayed in the **Unmitigated Risk Rank** column in the grid in the **Risks** section. The Strategy Mitigated Risk Rank is displayed in the **Strategy Mitigated Risk Rank** column in the same grid.

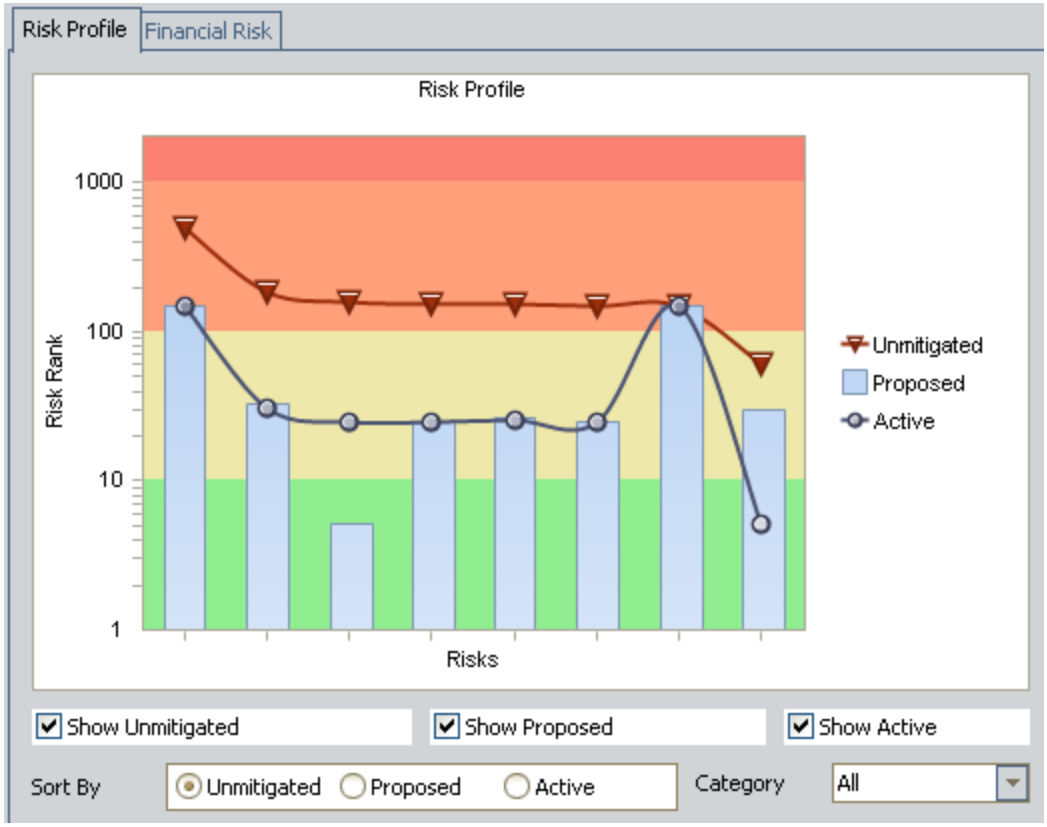
By default, the unmitigated risk rank values are plotted from highest to lowest on the graph from left to right. In other words, the line always slopes down to the right in the default view of the graph. If desired, you can sort the graph from left to right by the Strategy Mitigated Risk Rank values. To do so, below the x-axis, select the **Active** option.

Interpreting the Risk Profile Graph in the Risk Analysis and on the Review Page

The Risk Profile graph that appears on the Asset Strategy Risk Analysis page and the Review Asset Strategy page represents data in the Active Strategy and in the Proposed Strategy.

Note: The Risk Profile graph does not display Risk records that have been removed from the Proposed Strategy.

The following image shows an example of the Risk Profile graph in the Asset Strategy risk analysis.



The Risk Profile graph displays:

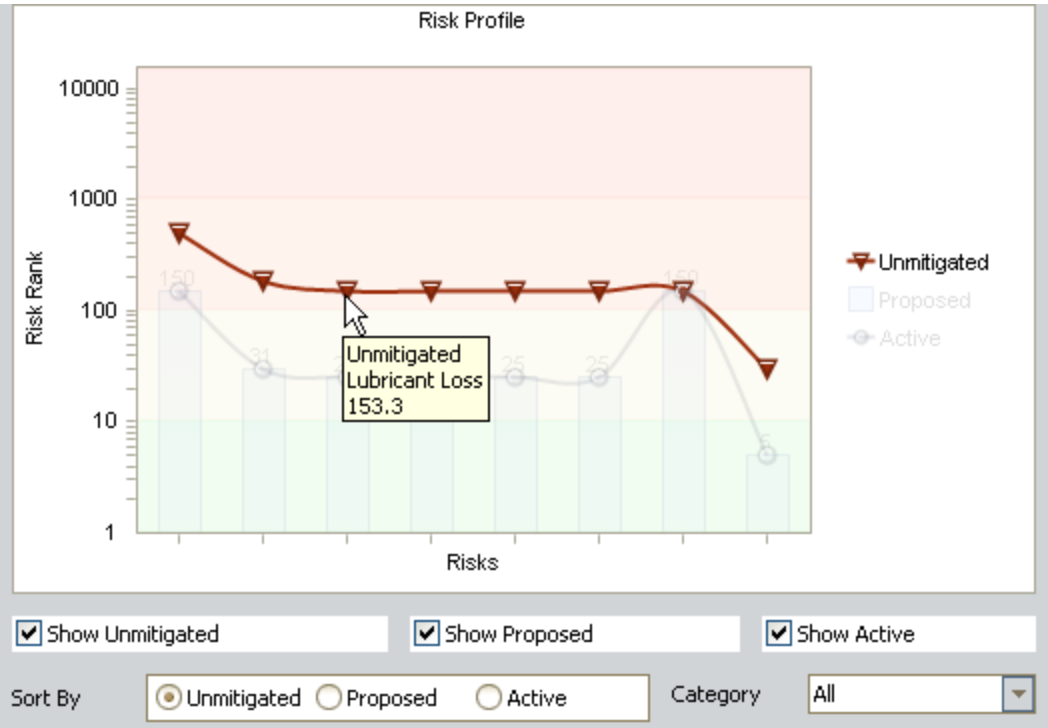
- The Strategy Mitigated Risk Rank value for each Risk that belongs to the Active Strategy. These values are displayed on the line with the circles.
- The projected, or proposed, Strategy Mitigated Risk Rank value for each Risk that belongs to the Proposed Strategy. These values are displayed on the vertical bars. As you make changes to the Asset Strategy, changing its state to Modified, those changes are reflected in the bars on the graph.

- The unmitigated risk rank value for each Risk that belongs to the Active Strategy. These values are displayed on the line with the triangles.

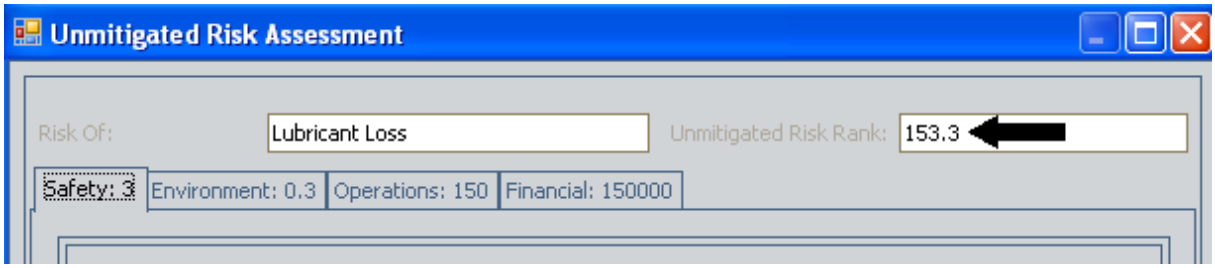
From the example graph in the preceding image, you can determine from the eight data-points on each line that the Proposed Strategy contains eight Risks.

Note: If a Proposed Strategy contains more Risks than the corresponding Active Strategy, the additional Risks are displayed on the Risk Profile Graph. For any additional Risk, the unmitigated risk rank and the active risk rank will be the same until the strategy is activated.

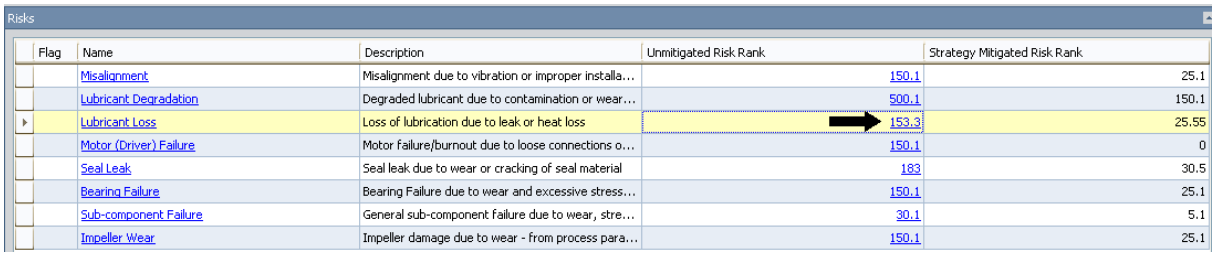
If desired, you can use the values in the **Category** list to filter the graph to display the risk rank associated with a specific risk category (excluding Financial risk categories) for each Risk. For example, consider the following graph, which shows the total unmitigated risk, 153.3, for the Risk *Lubricant Loss* across all risk categories.



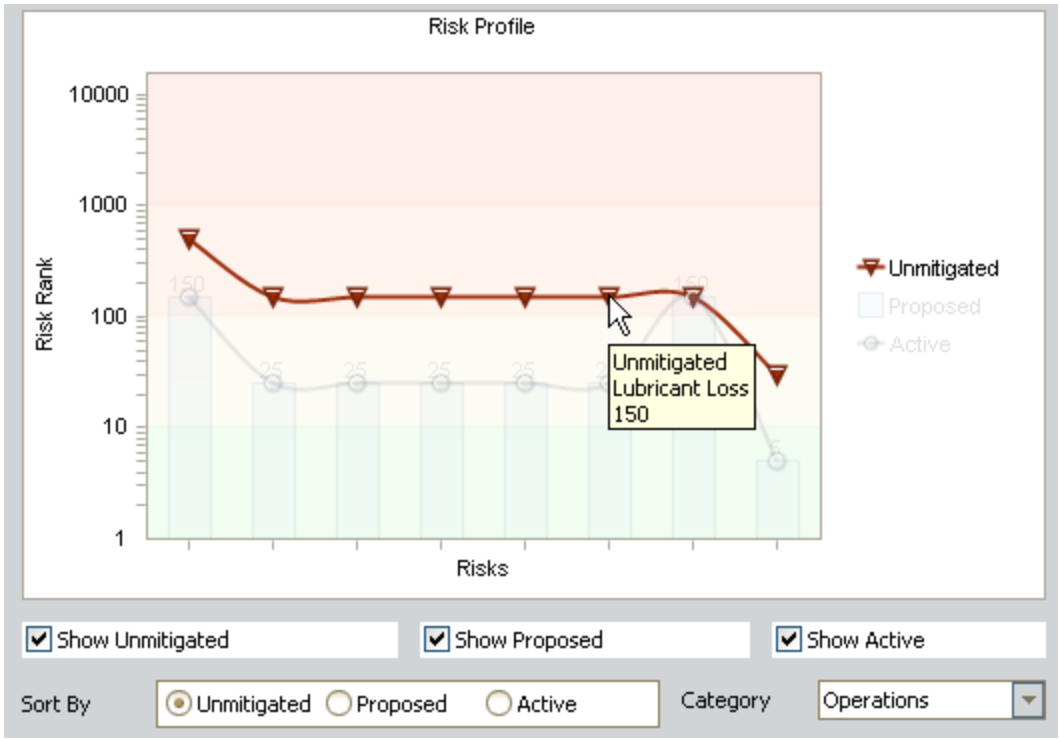
You would also see this value if you opened the **Unmitigated Risk Assessment** window for this Risk.



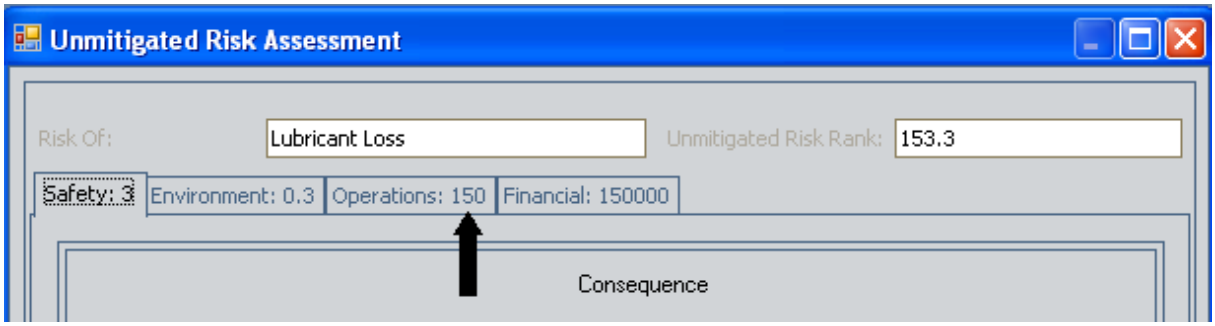
In addition, you would see this value in the **Unmitigated Risk Rank** column in the **Risks** section on the **Asset Strategy Risks** page.



If you filtered the Risk Profile graph to display only risk values associated with the *Operations* risk category, it would look like the graph shown in the following image.

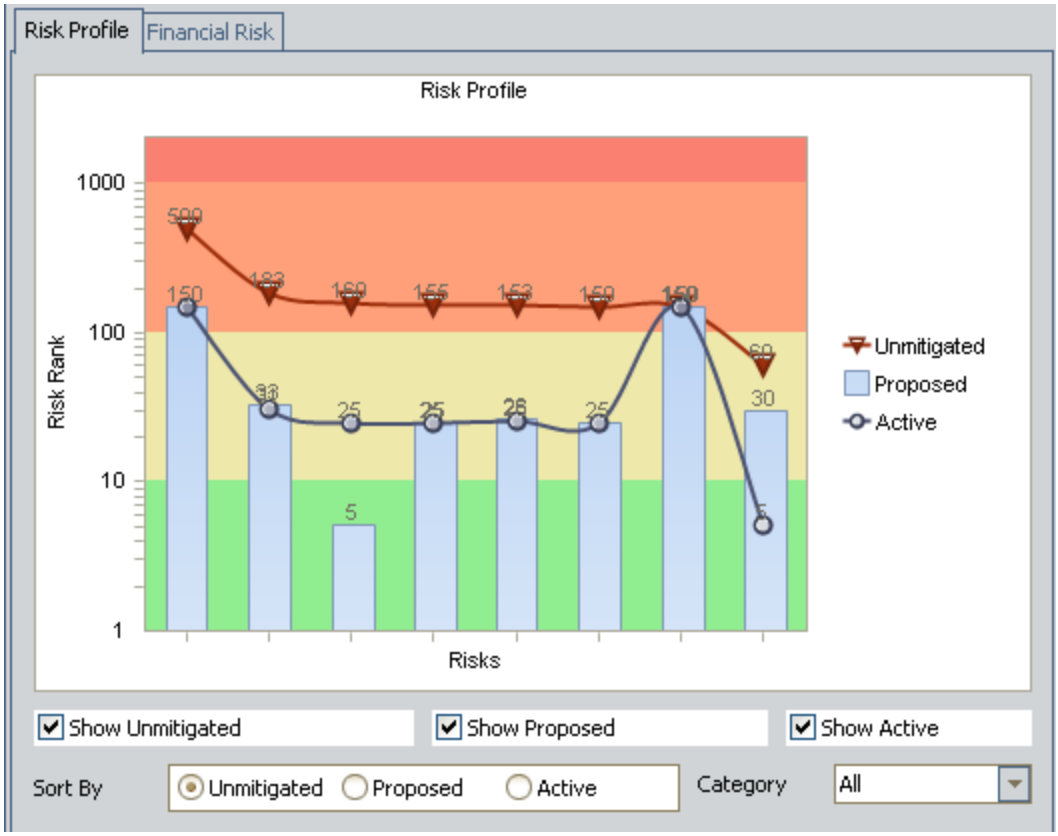


In this image, you can see that the Operations risk of Lubricant Loss is 150. You would also see this value if you opened the **Unmitigated Risk Assessment** window for this Risk, as shown in the following image.



Note: If you filter the graph to show risk rank values for a specific risk category, the graph will most likely be resorted from left to right. In other words, the Risks will appear in different places on the x-axis after the filtering is applied.

If you right-click the line and the bars, you can choose to show the datapoint values on the graph to determine the exact risk rank values. The following image displays the example graph with labeled datapoint values.

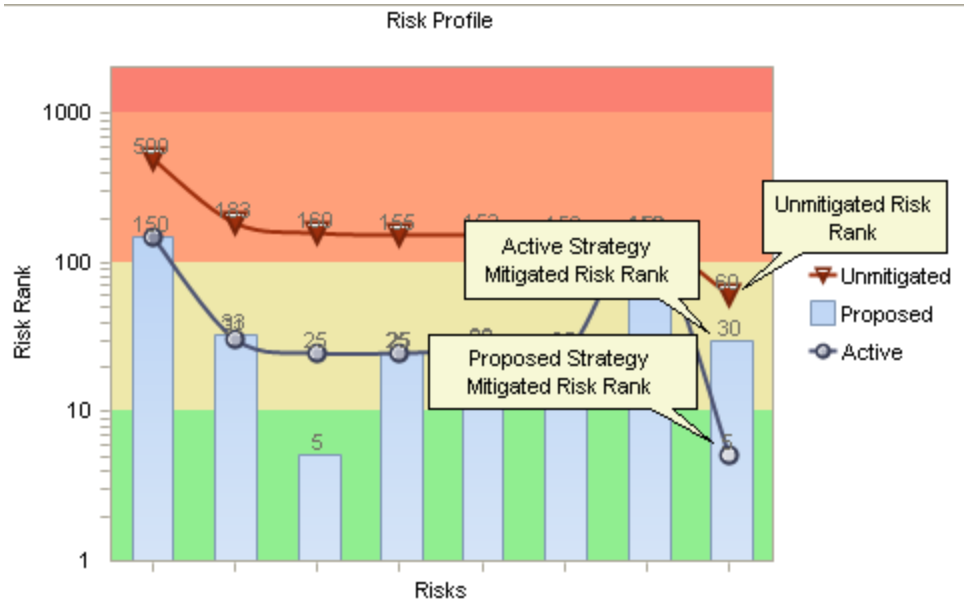


Note that in some cases, displaying the datapoint values might cause the values to overlap, as shown in this image. If this happens, you can pause on a line or a bar to see only the datapoint values on that line or bar.

From the example graph, you can see that:

- The unmitigated risk rank for the last Risk is 60.
- The current Strategy Mitigated Risk Rank for this Risk is 5.
- The Asset Strategy has been modified in some way (e.g., an Action's Mitigated Risk Rank has been reduced, an Action has been removed, etc.) The vertical bar represents the projected Strategy Mitigated Risk Rank assuming that these changes are accepted and that the Asset Strategy state becomes Active without the changes being reversed. In this example, the projected, or proposed, Strategy Mitigated Risk Rank is 30.

Note: The callouts in the following graph have been added to the documentation to make the graph easier to interpret. These callouts are not available in the graph in the ASM product.



If you were to view the **Asset Strategy Risks** page, you would see these values for this Risk in the **Unmitigated Risk Rank** and **Strategy Mitigated Risk Rank** columns in the **Risks** section.

In the preceding image, you can see that the unmitigated risk rank for the first Risk is 650, which is displayed on the Unmitigated line in the graph. You can also see that the Strategy Mitigated Risk Rank is 50.5, which is displayed on the Proposed bar on the graph.

If you were to view the **Risks** section on the **Asset Strategy Risks** page, you would see the icon in the **Flag** column. From this icon, you can determine that the Risk has been modified.

Note that if you do not want to view all Risk Rank values on the graph, you can filter the graph to display any combination of values, such as unmitigated risk rank values only or active Strategy Mitigated Risk Rank values only.

By default, the unmitigated risk rank values are plotted from highest to lowest on the graph from left to right. In other words, the Unmitigated line always slopes down to the right in the default view of the graph. If desired, you can sort the graph from left to right by the proposed Strategy Mitigated Risk Rank values or the active Strategy Mitigated Risk Rank values. To do so, below the x-axis, select the desired option.

About the Financial Risk Graph

The Financial Risk Exposure graph is available on the following pages:

- Asset Strategy Overview
- Asset Strategy Risk Analysis
- Review Asset Strategy

It is also available on the following pages:

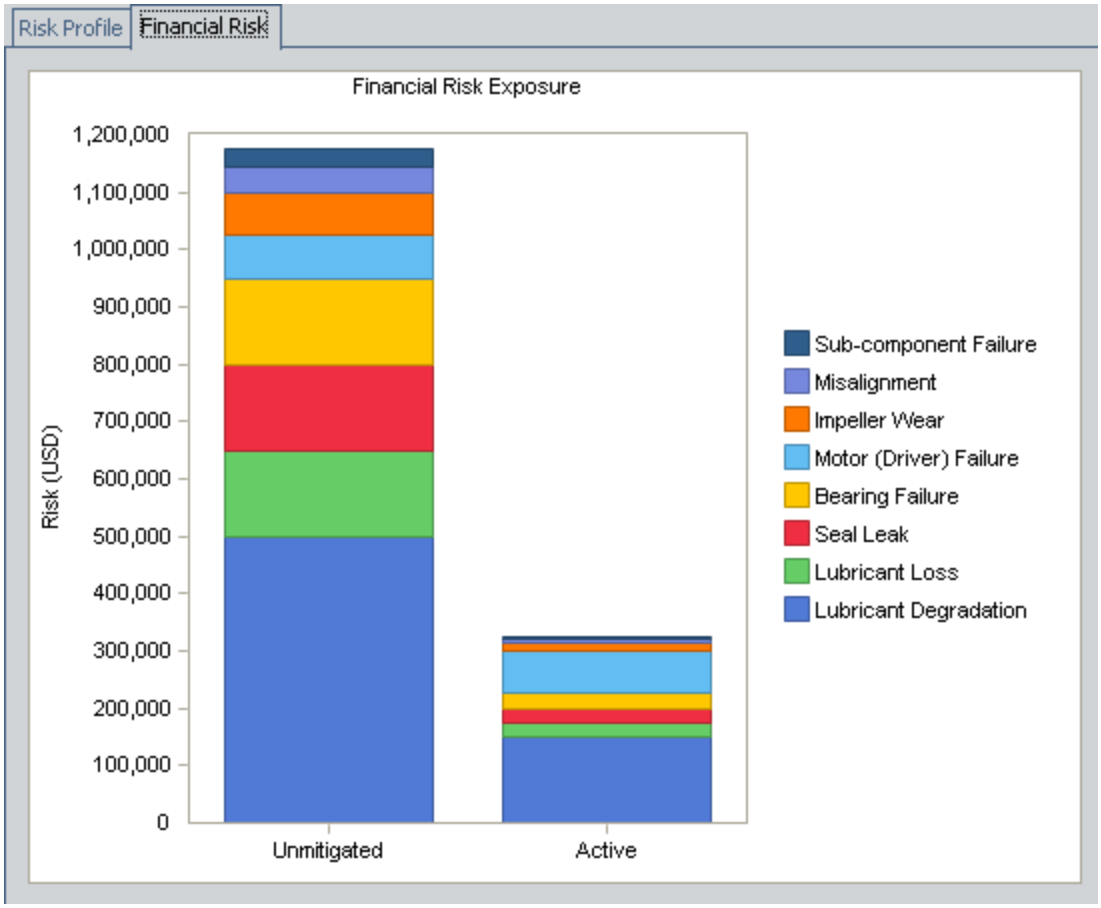
- **Asset Strategy Template Overview**
- **Asset Strategy Template Risk Analysis**
- **Review Asset Strategy Template**

The Financial Risk Exposure graph that is displayed on the **Asset Strategy Overview** page and the **Asset Strategy Template Overview** page represents data in the Active Strategy. The Financial Risk Exposure graph that is displayed on the other pages, however, represents data in the Active and Proposed Strategy.

Interpreting the Financial Risk Exposure Graph in the Overview

The Financial Risk Exposure graph that appears on the Asset Strategy Overview page represents data in the Active Strategy.

The following image shows an example of the Financial Risk Exposure graph in the Asset Strategy overview.



The Financial Risk Exposure graph displays the financial risk rank associated with each Risk that is included in the Active Strategy. For each Risk, you can see the unmitigated financial risk rank and the mitigated financial risk rank, which is based on all Actions that are currently included in the Active Strategy.

The graph contains two bars: Unmitigated and Active. Each bar is divided into multiple sections, where each section represents a Risk that is included in the Active Strategy. From the legend, you can determine which Risk is associated with which color.

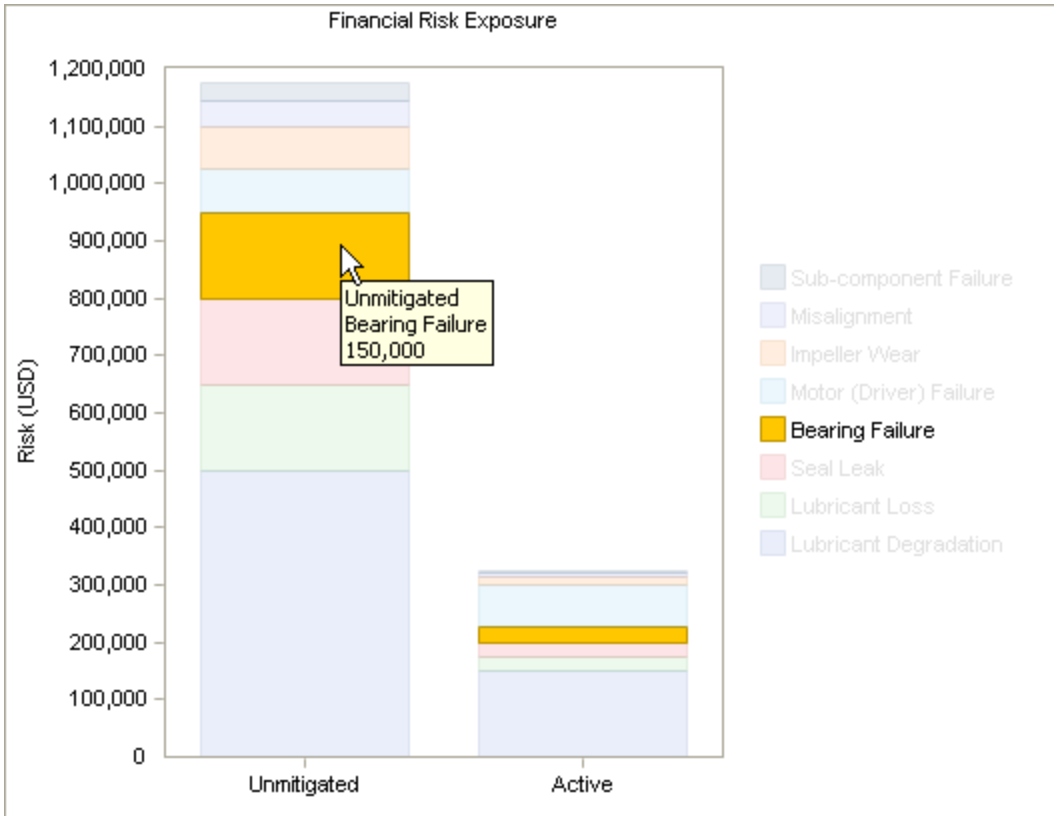
In this example, because each bar contains eight sections, you can determine that the Active Strategy record contains eight Risks.

Within each bar, each section represents the financial risk associated with that Risk.

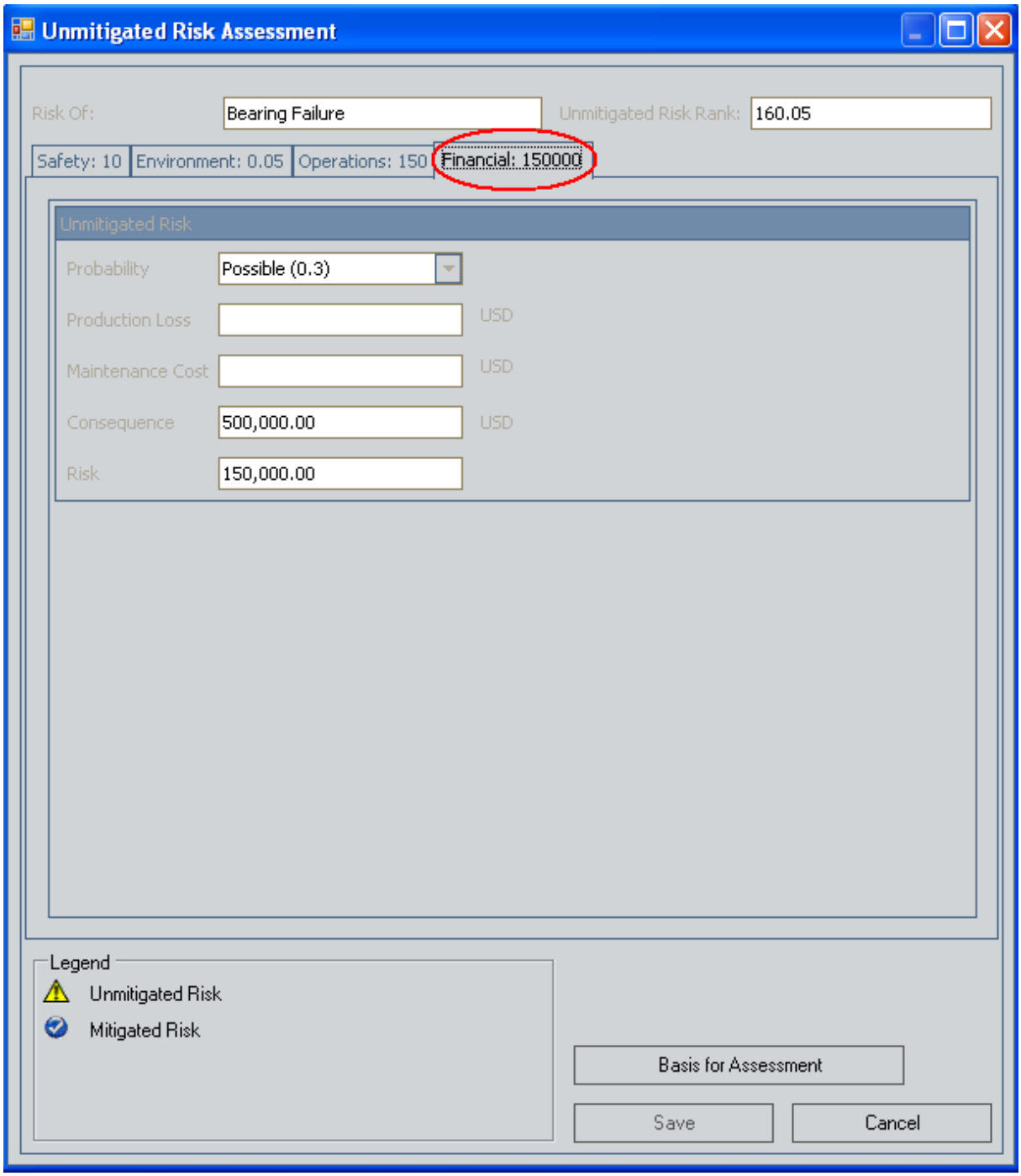
Unmitigated Bar

The Unmitigated bar displays the unmitigated financial risk rank associated with each Risk. You can also view the unmitigated financial risk rank value for a Risk by using the Risks section of the **Asset Strategy Risks** page to access the **Unmitigated Risk Assessment** window for that Risk. The financial risk rank is displayed on the **Financial** tab.

For example, in the following image, you can see that the unmitigated financial risk for the Risk *Bearing Failure* is $150,000.



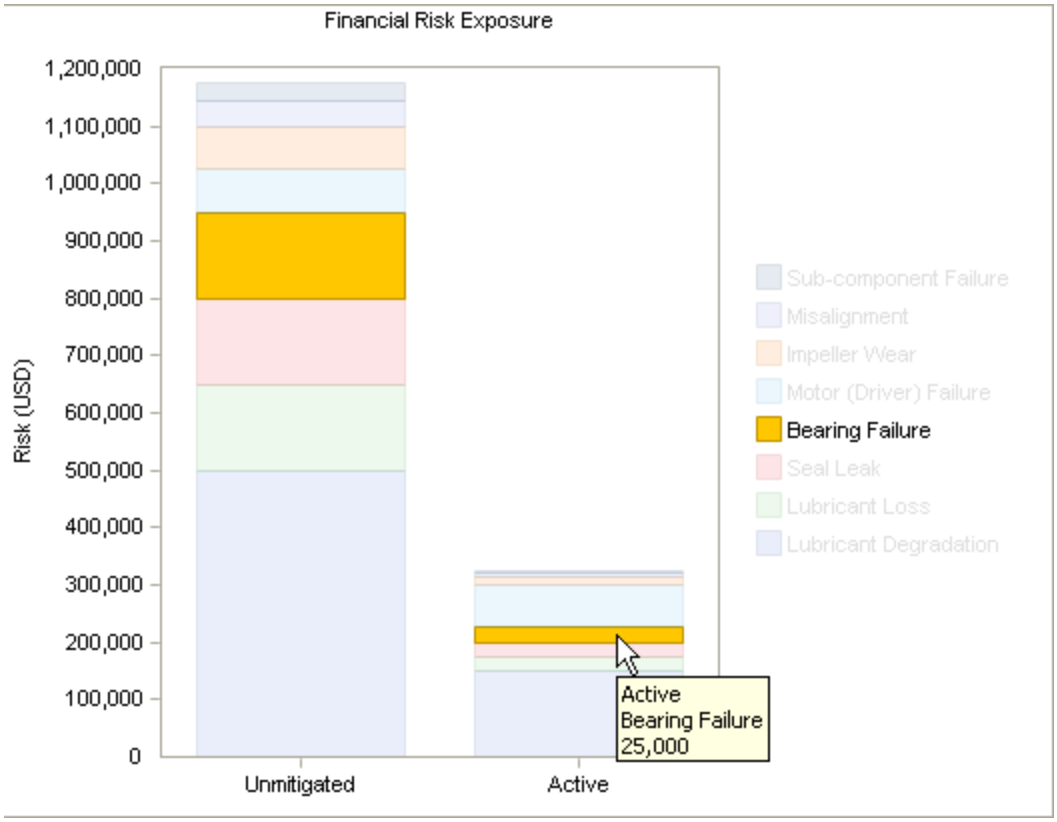
If you were to access the **Unmitigated Risk Assessment** window for this Risk, you would see that the value on the **Financial** tab is also 150,000.



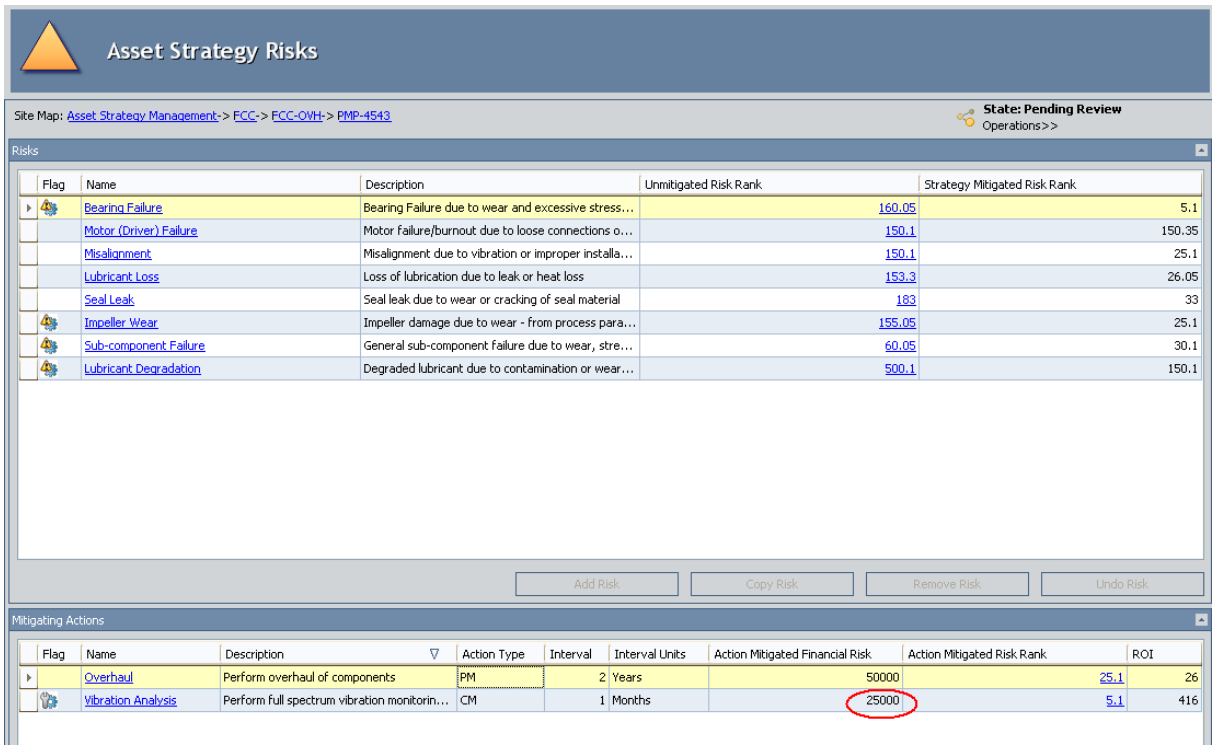
Active Bar

The Active bar in the Financial Risk Exposure graph displays the mitigated financial risk rank for each Risk. The mitigated financial risk rank value for a Risk equals the lowest financial risk rank for all Actions that are associated with the Risk.

For example, in the following image, you can see that the active mitigated financial risk rank for the Risk *Bearing Failure* is $25,000.



If you were to view all of the Action records that are associated with this Risk, you would see that the lowest unmitigated financial risk rank for all of the Actions is also 100.

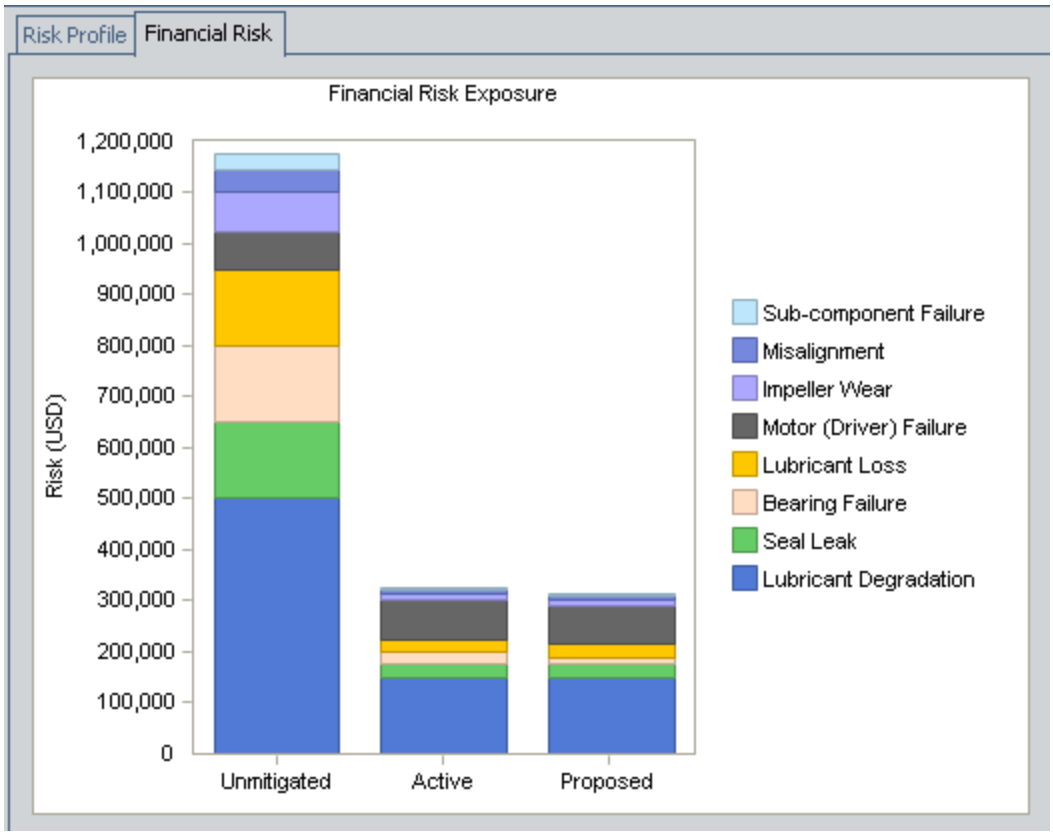

Asset Strategy Risks
Site Map: Asset Strategy Management-> FCC-> FCC-OVH-> PMP-4543
State: Pending Review
Operations>>
Risks
Flag | Name | Description | Unmitigated Risk Rank | Strategy Mitigated Risk Rank
Bearing Failure | Bearing Failure due to wear and excessive stress... | 160.05 | 5.1
Motor (Driver) Failure | Motor failure/burnout due to loose connections o... | 150.1 | 150.35
Misalignment | Misalignment due to vibration or improper installa... | 150.1 | 25.1
Lubricant Loss | Loss of lubrication due to leak or heat loss | 153.3 | 26.05
Seal Leak | Seal leak due to wear or cracking of seal material | 183 | 33
Impeller Wear | Impeller damage due to wear - from process para... | 155.05 | 25.1
Sub-component Failure | General sub-component failure due to wear, stre... | 60.05 | 30.1
Lubricant Degradation | Degraded lubricant due to contamination or wear... | 500.1 | 150.1
Add Risk
Copy Risk
Remove Risk
Undo Risk
Mitigating Actions
Flag | Name | Description | Action Type | Interval | Interval Units | Action Mitigated Financial Risk | Action Mitigated Risk Rank | ROI
Overhaul | Perform overhaul of components | PM | 2 | Years | 50000 | 25.1 | 26
Vibration Analysis | Perform full spectrum vibration monitorin... | CM | 1 | Months | 25000 | 5.1 | 416

Interpreting the Financial Risk Exposure Graph in the Risk Analysis and on the Review Page

The Financial Risk Exposure graph that appears on the Asset Strategy Risk Analysis page and the Review Asset Strategy page represents data in the Active Strategy and the Proposed Strategy.

Note: The Financial Risk Exposure graph does not display Risk records that have been removed from the Proposed Strategy.

The following image shows an example of the Financial Risk Exposure graph in the Asset Strategy risk analysis.



The Financial Risk Exposure graph displays:

- The unmitigated financial risk rank for each Risk that belongs to the Active Strategy. These values are displayed on the Unmitigated bar.
- The mitigated financial risk rank for each Risk that belongs to the Active Strategy. These values are displayed on the Active bar.
- The projected, or proposed, mitigated financial risk rank for each Risk assuming that one or more changes are made to the Asset Strategy. These values are dis-

played on the Proposed bar. As you make changes to the Asset Strategy, changing the state to Modified, those changes are reflected in the Proposed bar.

Each bar is divided into multiple sections, where each section represents a Risk that belongs to the strategy (either the Active Strategy or the Proposed Strategy, depending on the bar you are viewing). From the legend, you can determine which Risk is associated with which color.

In this example, because the Active bar contains eight sections, you can determine that the Active Strategy contains eight Risks .

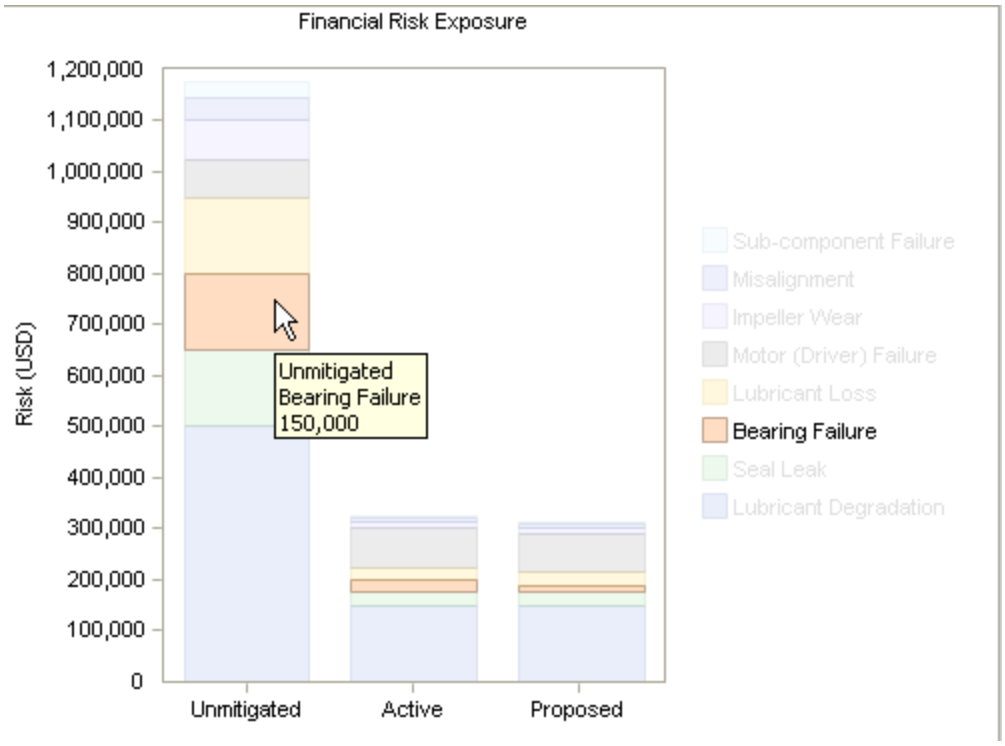
Note: If a Proposed Strategy contains more Risks than the corresponding Active Strategy, the additional Risks are represented on the Financial Risk Exposure Graph. For any additional Risk, the Unmitigated value and the Active value will be the same until the strategy is activated.

Within each bar, each section represents the financial risk rank associated with that Risk.

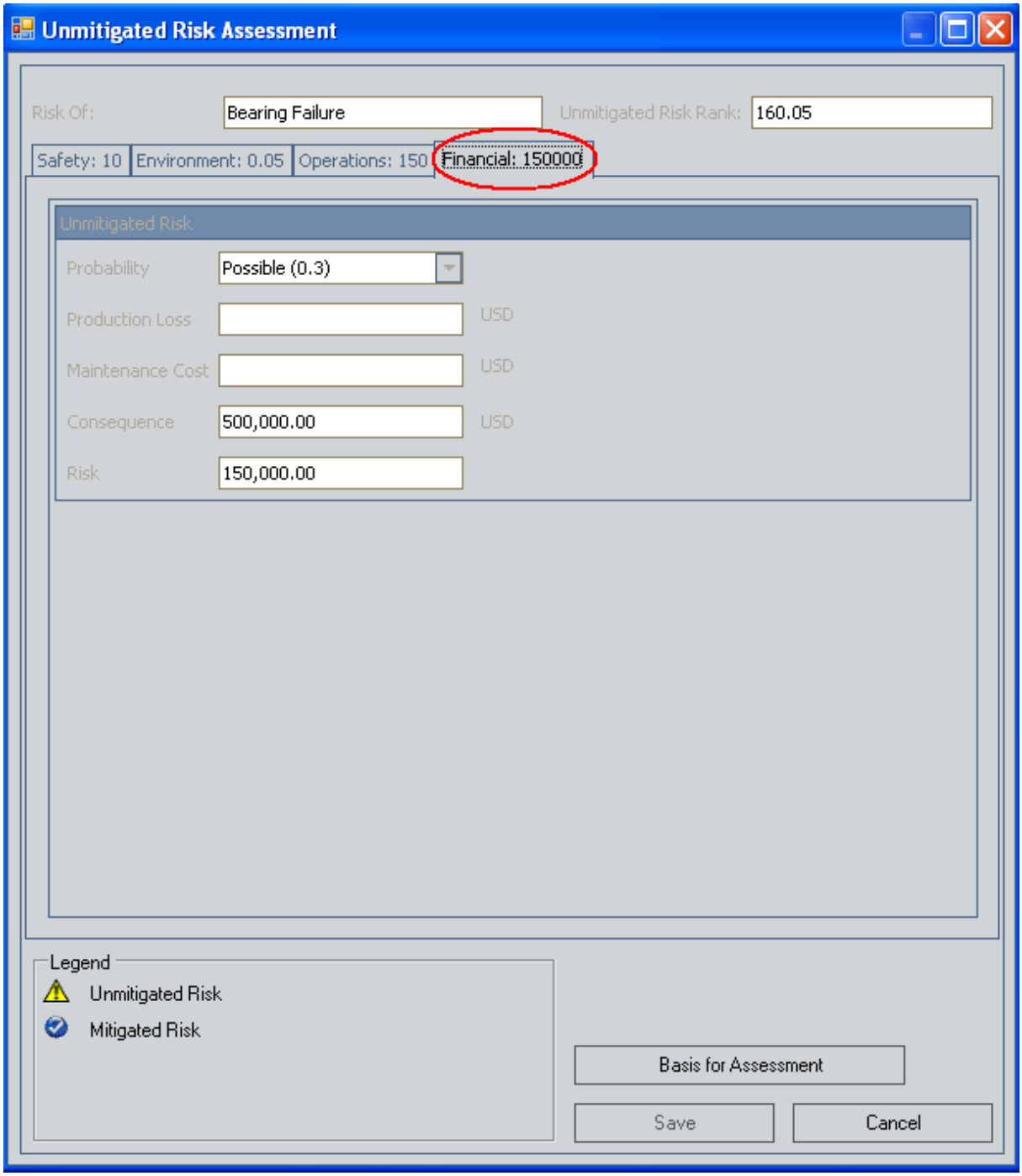
Unmitigated Bar

The Unmitigated bar displays the unmitigated financial risk rank associated with each Risk. You can also view the unmitigated financial risk rank value for a Risk by using the Risks section of the **Asset Strategy Risks** page to access the **Unmitigated Risk Assessment** window for that Risk. The financial risk rank is displayed on the **Financial** tab.

For example, in the following image, you can see that the unmitigated financial risk rank for the Risk *Bearing Failure* is $150,000.



If you were to access the **Unmitigated Risk Assessment** window for this Risk, you would see that the value on the **Financial** tab is also $150,000.

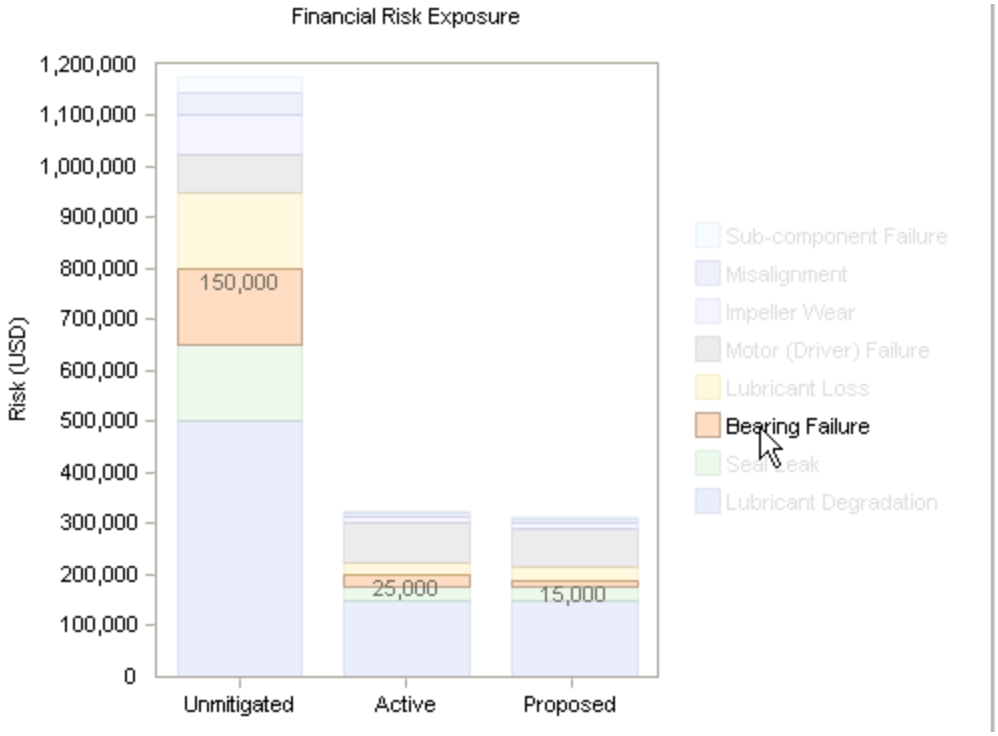


Active Bar

The Active bar in the Financial Risk Exposure graph displays the mitigated financial risk rank for each Risk. The mitigated financial risk rank value for a Risk equals the lowest

financial risk rank from all Actions (included in the Active Asset Strategy) that are associated with the Risk.

For example, in the following image, you can see that the mitigated financial risk rank for the Risk *Bearing Failure* is $25,000.

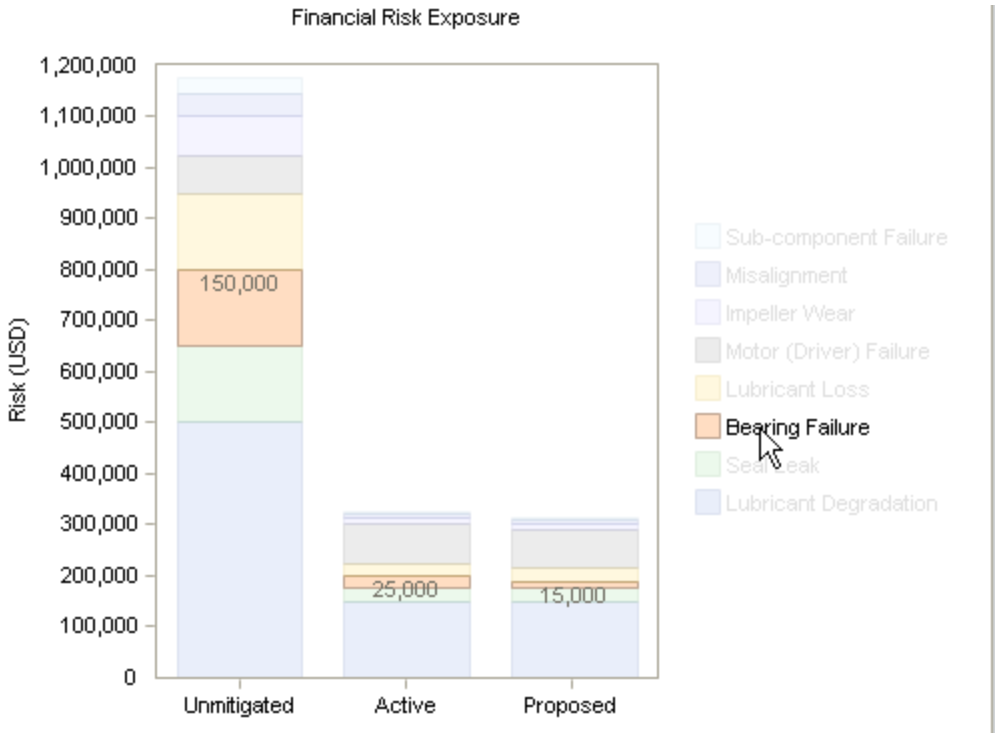


Because the example Asset Strategy is currently in a Modified state, the active financial risk rank is not displayed anywhere else besides the graph.

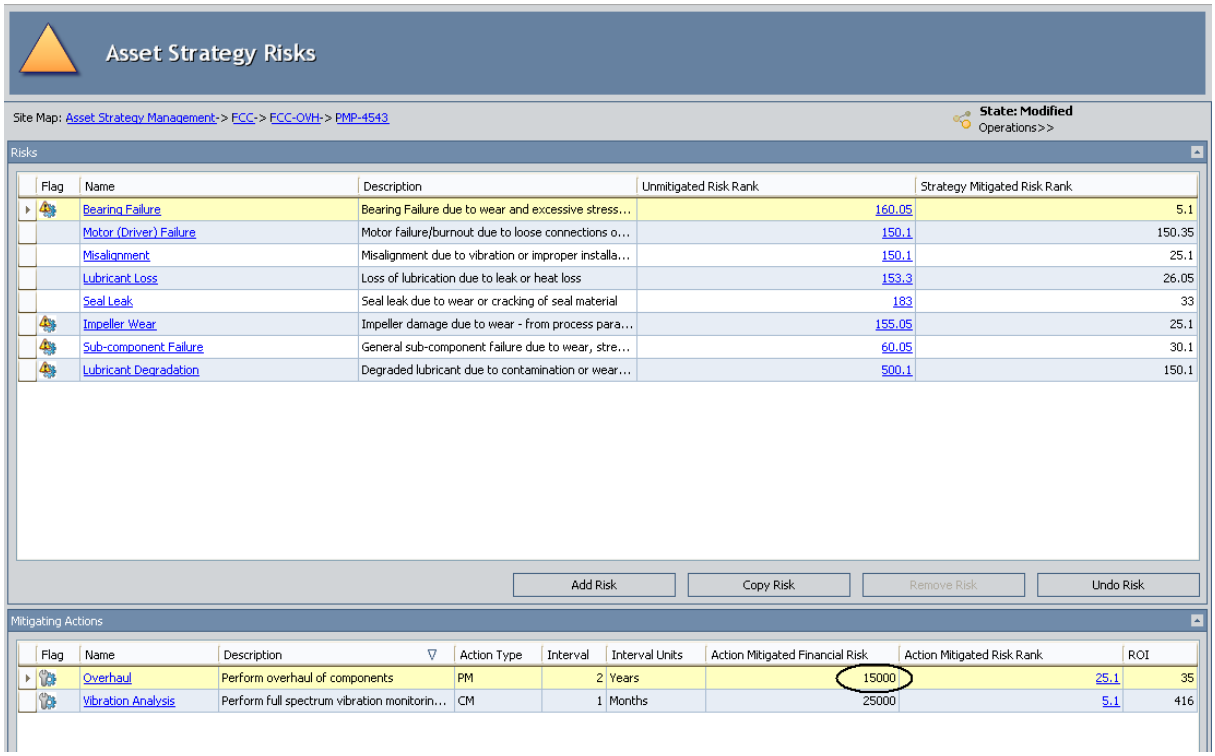
Proposed Bar

The Proposed bar displays the projected, or proposed, mitigated financial risk rank for each Risk, assuming that one or more changes are made to the Asset Strategy. As you make changes to the Asset Strategy, changing the state to Modified, those changes are reflected in the Proposed bar.

For example, in the following image, the proposed mitigated financial risk rank for the Risk *Bearing Failure* is $15,000.



If you were to view this Risk in the grid on the **Asset Strategy Risks** page, you could see from the **Action Mitigated Financial Risk** column in the **Mitigating Actions** section that the lowest mitigated financial risk rank across all Actions that are associated with this Risk is 15,000.



About the Cost of Actions Graph

The Cost of Actions graph is available on the following pages:

- Asset Strategy Overview
- Asset Strategy Risk Analysis
- Review Asset Strategy

It is also available on the following pages:

- **Asset Strategy Template Overview**
- **Asset Strategy Template Risk Analysis**
- **Review Asset Strategy Template**

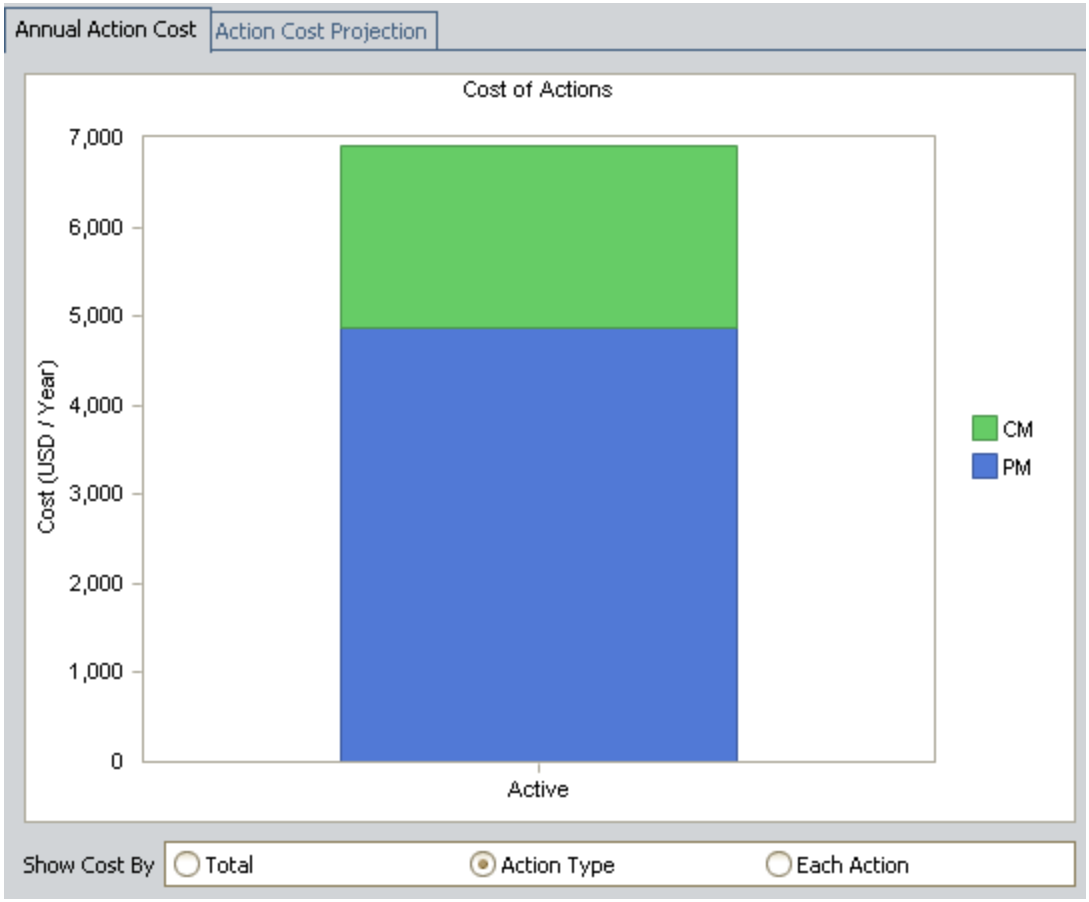
The Cost of Actions graph that is displayed on the **Asset Strategy Overview** page and **Asset Strategy Template Overview** page represents data in the Active Strategy only. The Cost of Actions graph that is displayed on the other pages, however, represents data in the Active and Proposed Strategy.

Keep in mind that if a Strategy is included in an ASO Analysis, the Cost of Actions graph will display data from the simulation.

Interpreting the Cost of Actions Graph in the Overview

The Cost of Actions graph that appears on the **Asset Strategy Overview** page represents data in the Active Strategy only.

The following image shows an example of the Cost of Actions graph in the Asset Strategy overview.



The Cost of Actions graph displays the cost *per year* associated with each Action in the Active Strategy.

Hint: The cost displayed on the graph is not the Cost value that appears by default in the grid in the **Actions** section. The Cost value on the graph actually represents the Annual Cost for each Action, which is calculated using the Cost, the Interval, and the Interval Units for each Action. For example, if the Cost is $50.00, the Interval is 6, and the Interval Units is Months, the Annual Cost will be $100.00 (the Action is performed every six months, or twice a year, and 50 multiplied by two is 100). You can see the Annual Cost for each Action by adding it to the grid in the **Actions** section using the **Show Available Fields** option.

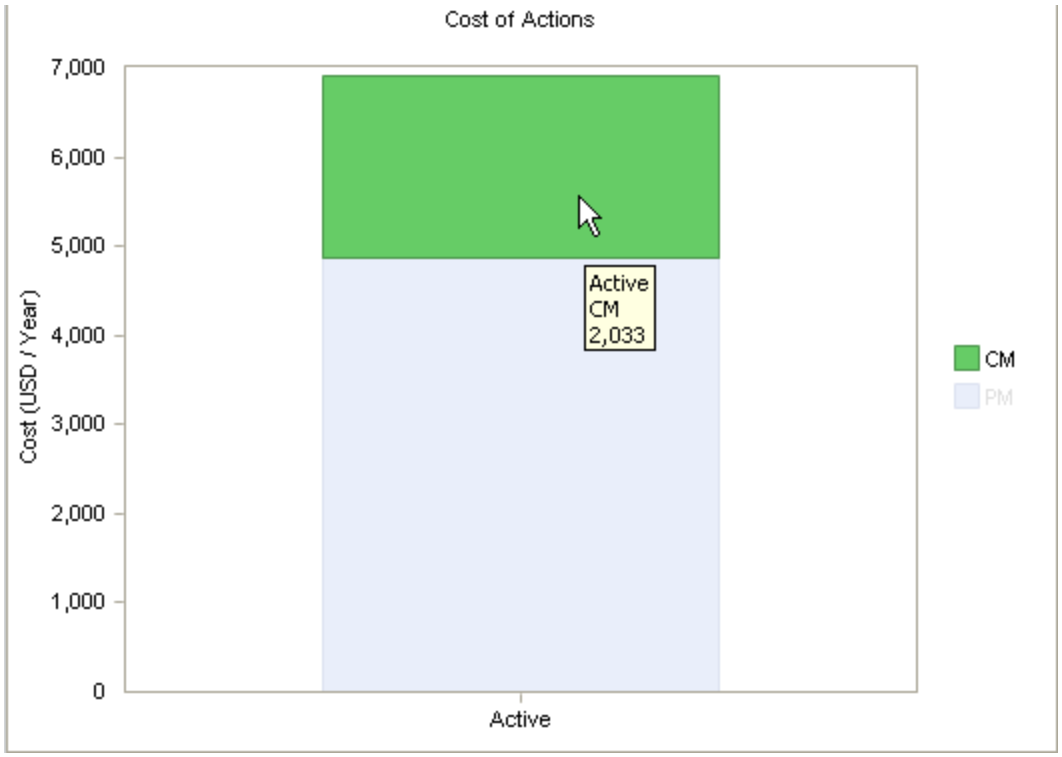
By default, the graph contains one bar, Active, which is divided into the following sections:

- **PM:** Represents the total cost per year for Actions with the Action Type Time-Based Maintenance (Preventive) (PM).
- **CM:** Represents the total cost per year for Actions with the Action Type Condition-Based Maintenance (Predictive) (CM)

Hint: If you view the Action datasheet for any Action record, you can see these options in the Action Type field.

From the legend, you can determine which action type is associated with which color.

In this example, you can see that the total cost per year for CM Actions that are included in the Active Asset Strategy is $2,033.00.



If desired, you can modify the graph to display the total cost per year for ALL Actions that are included in the Active Strategy, regardless of the Action Type. To do so, below the x-axis, select the **Total** option. In addition, you can modify the graph to display the cost per year for each Action that is included in the Active Strategy. To do so, below the x-axis, select the **Each Action** option.

Note: If you select the **Each Action** option and the Asset Strategy contains more than twelve Actions, the legend will be hidden.

Interpreting the Cost of Actions Graph in the Risk Analysis and on the Review Page

The Cost of Actions graph that appears on the Asset Strategy Risk Analysis page and the Review Asset Strategy page represents data in the Active Strategy and in the Proposed Strategy.

The following image shows an example of the Cost of Actions graph in the Asset Strategy risk analysis.

The Cost of Actions graph displays the cost *per year* associated with each Action in the Active Strategy and the Proposed Strategy.

Hint: The cost displayed on the graph is not the Cost value that appears by default in the grid in the **Actions** section. The Cost value on the graph actually represents the Annual Cost for each Action, which is calculated using the Cost, the Interval, and the Interval Units for each Action. For example, if the Cost is $50.00, the Interval is 6, and the Interval Units is Months, the Annual Cost will be $100.00 (the Action is performed every six months, or twice a year, and 50 multiplied by two is 100). You can see the Annual Cost for each Action by adding it to the grid in the **Actions** section using the **Show Available Fields** option.

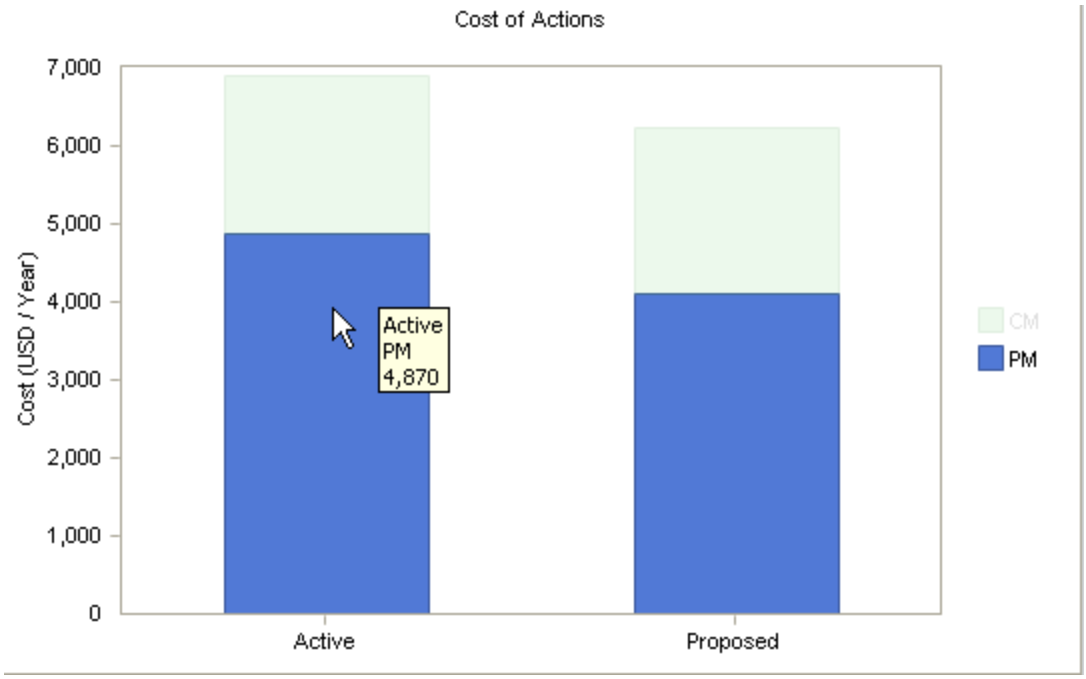
By default, the graph contains two bars: Active and Proposed. Each bar is divided into the following sections:

- **PM:** Represents the total cost per year for Actions whose Action Type is Time-Based Maintenance (Preventive) (PM).
- **CM:** Represents the total cost per year for Actions whose Action Type is Condition-Based Maintenance (Predictive) (CM)

Hint: If you view the Action datasheet for any Action record, you can see these options in the Action Type cell.

From the legend, you can determine which action type is associated with which color.

In this example, you can see that the total cost per year for PM Actions that are included in the Active Strategy is $4,870.00.



As you make changes to the Asset Strategy, causing its state to change to Modified, any changes that you make to an Action's cost will be reflected in the Proposed bar.

If desired, you can modify the graph to display the total cost per year for ALL Actions that are included in the Active Strategy and the Propose Strategy, regardless of the Action Type. To do so, below the x-axis, select the **Total** option. In addition, you can modify the graph to display the cost per year for each Action that is included in the Active Strategy and the Proposed Strategy. To do so, below the x-axis, select the **Each Action** option.

About the Cost Projection Graph

The Cost Projection graph is available on the following pages:

- Asset Strategy Overview
- Asset Strategy Risk Analysis
- Review Asset Strategy

It is also available on the following pages:

- **Asset Strategy Template Overview**
- **Asset Strategy Template Risk Analysis**
- **Review Asset Strategy Template**

The Cost Projection graph that is displayed on the **Asset Strategy Overview** page and **Asset Strategy Template Overview** page represents data in the Active Strategy only. The Cost Projection graph that is displayed on the other pages, however, represents data in the Active and Proposed Strategy.

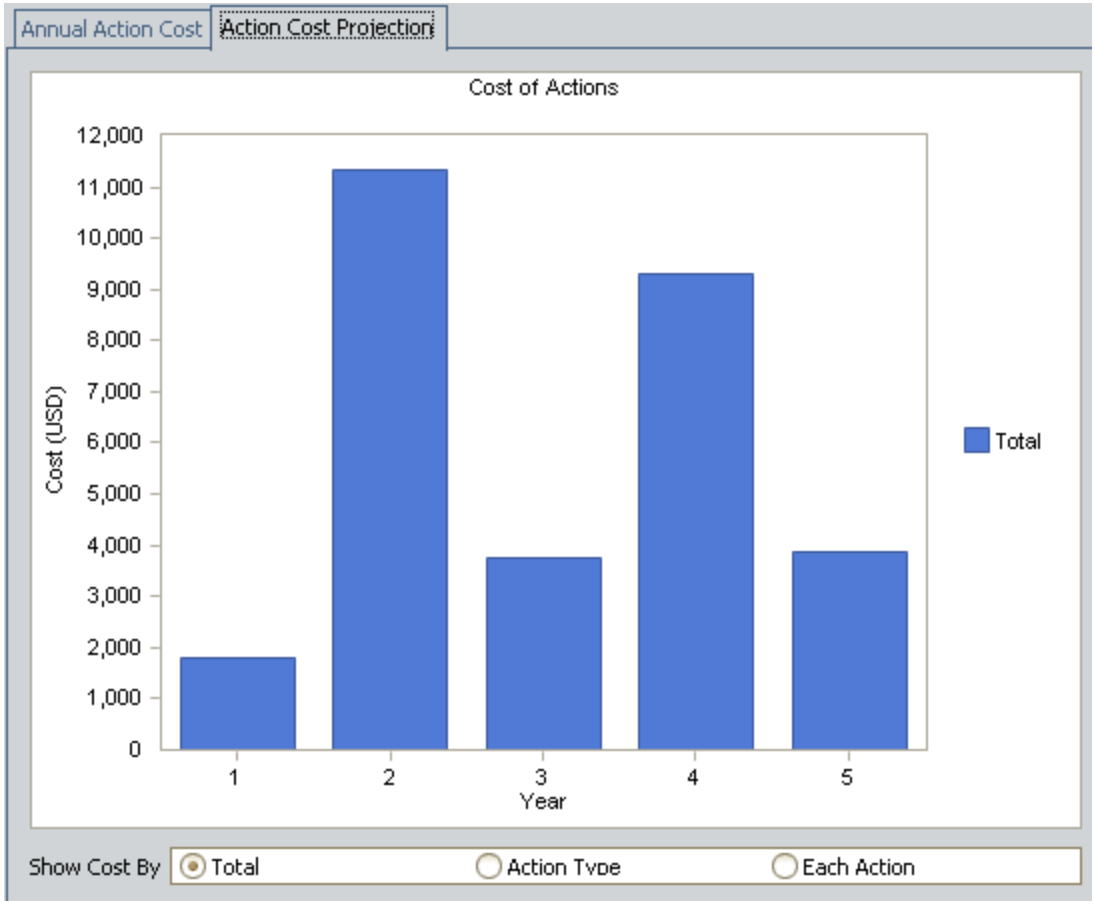
Keep in mind that if a Strategy is included in an ASO Analysis, the Cost Projection graph will display data from the simulation.

Interpreting the Cost Projection Graph in the Overview

The Cost Projection graph that appears on the **Asset Strategy Overview** page represents data in the Active Strategy only.

The number of bars on the graph mimics the value in the Plan Length field on the Asset Strategy datasheet. For example, if the Plan Length is five years, the graph will contain five bars.

The following image shows an example of the Cost Projection graph in the Asset Strategy overview.



You can use the **Total**, **Action Type**, and **Each Action** options to show the yearly cost of all Actions, the yearly cost of Actions by Action type, or the yearly cost of Actions by specific Action.

From the legend, you can determine which action type or Action is associated with which color.

Note: If you select the **Each Action** option and the Asset Strategy contains more than twelve Active Actions, the legend will be hidden.

The costs displayed on the graph are determined from the Cost value and the recurrence pattern of each Action, which is indicated with the **Nonrecurring** check box on the Action datasheet.

For example, if an Action that costs $100.00 is recurring, the Action will cost $100.00 every year for the length of the plan (determined from the Plan Length field on the Asset Strategy datasheet). Regardless of the plan length, the cost will be incurred every year.

Likewise, if an Action that costs $200.00 is *nonrecurring* and is set to occur in three years (the Interval on the Action datasheet is 3 and the Interval Units is Years), the Action will cost $200.00 three years from today. If the plan length is five years, that $200.00 will not be incurred again during the plan.

Note the following:

- All Actions with yearly intervals will be displayed in the first year of the graph.
- If an Action occurs in increments of less than a year (e.g., monthly), that Action will be represented in the first year of the graph.
- If an Action contains no interval, and interval of 0 (zero), or no interval unit, all the cost for that Action will be represented in the first year in the plan.

Interpreting the Cost Projection Graph in the Risk Analysis and on the Review Page

The Cost Projection graph that displays the cost per year associated with each Action in the Asset Strategy. The number of bars on the graph mimics the value in the Plan Length field on the Asset Strategy datasheet. For example, if the Plan Length is five years, the graph will contain five bars.

The Cost Projection graph represents data in the Active Strategy and in the Proposed Strategy.

The following image shows an example of the Cost Projection graph.

You can display the cost of Actions for the Proposed Strategy or for the Active Strategy by selecting the appropriate option below the graph: **Show Proposed** or **Show Active**.

In addition, you can use the **Total**, **Action Type**, and **Each Action** options to show the yearly cost of all Actions, the yearly cost of Actions by Action type, or the yearly cost of Actions by specific Action.

From the legend, you can determine which action type or Action is associated with which color.

Note: If you select the **Each Action** option and the Asset Strategy contains more than twelve Actions, the legend will be hidden.

The costs displayed on the graph are determined from the Cost value and the recurrence pattern of each Action, which is indicated with the **Nonrecurring** check box on the Action datasheet.

For example, if an Action that costs $100.00 is recurring, the Action will cost $100.00 every year for the length of the plan (determined from the Plan Length field on the Asset Strategy datasheet). Regardless of the plan length, the cost will be incurred every year.

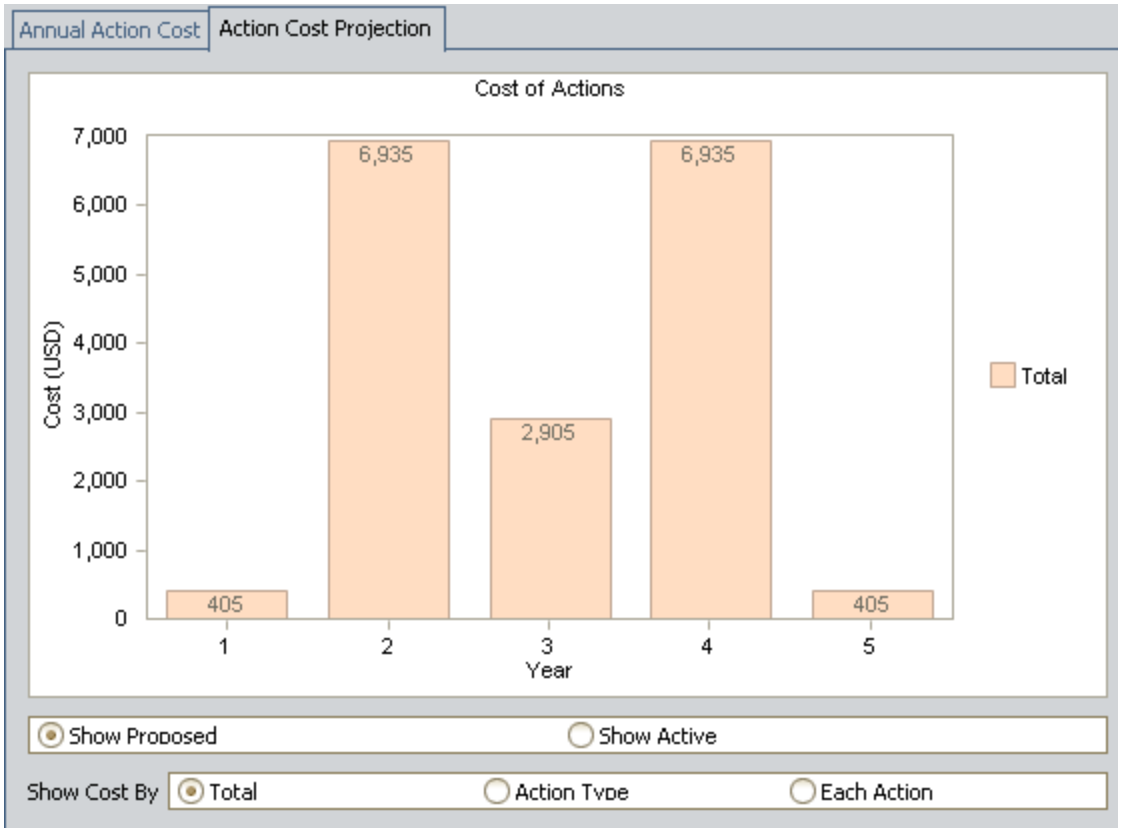
Likewise, if an Action that costs $200.00 is *nonrecurring* and is set to occur in three years (the Interval on the Action datasheet is 3 and the Interval Units is Years), the Action will cost $200.00 three years from today (the *fourth* year of the plan). If the plan length is five years, that $200.00 will not be incurred again during the plan.

Note the following:

- All Actions with yearly intervals will be displayed in the first year of the graph.
- If an Action occurs in increments of less than a year (e.g., monthly), that Action will be represented in the first year of the graph.
- If an Action contains no interval, and interval of 0 (zero), or no interval unit, all the cost for that Action will be represented in the first year in the plan.

Example of the Cost Projection Graph in the Risk Analysis

Consider the following image.



In this image, year 1 of the plan shows a cost of $405.00. This cost is incurred each year because the recurring Actions cost a total of $405.00. In other words, these Actions will cost the company $405.00 every year for the length of the plan.

The second year shows a cost of $6,935.00. This cost is a combination of the yearly recurring Action costs and the cost for Actions that occur every two years.

About Updating Asset Strategies from Task Records

If desired, you can update an Asset Strategy from existing Task records if the Task records are linked to the same Equipment or Functional Location record that is linked to the Asset Strategy record. When you do so, Meridium APM will:

- Create multiple Actions, which belong to the Proposed Strategy. Each Action represents a separate Task record.
- Update the Implementation Package record that is linked to the Asset Strategy.

Before you can update an Asset Strategy from Task records, several conditions must be met.

Conditions Required to Update Asset Strategies from Task Records

Before you can update an Asset Strategy from Task records, the following conditions must be met:

- The Task records must be linked to Equipment or Functional Location records.
- The Related Record ID field in the Task records must contain the Record ID of the Equipment or Functional Location record that is linked to the Task record.
- The Equipment and Functional Location families must be related to the Asset Strategy family through the Has Strategy relationship.
- In Asset Strategy Implementation (ASI), in the Work Management Item Definition record that represents the Task records that will be used to create the Asset Strategy, the **Allow Link Existing** check box must be selected. For example, if you want to create an Asset Strategy from Inspection Task records, the **Allow Link Existing** check box in the Inspection Task Work Management Item Definition record must be selected.
- If the Task records are linked to Functional Location records, the Locate Assets for Import query must be configured to return records in the Functional Location family.

What Happens to Asset Strategies that are Updated from Task Records?

After you update an Asset Strategy from an existing Task record:

- If the Asset Strategy was in the Active state, it will remain in the Active state.
- If the Asset Strategy was in the Pending Review state, it will remain in the Pending Review state.
- A new Action is created from each Measurement Location record that you selected in the **Asset Strategy Builder**. The data in each Action is copied from the source Task record using the rules referenced in the Action Mapping record to which that Task record is linked. The new Action will be represented by the icon.

  Note: If the Rejectable check box is *selected* in the Task record, the Mandatory check box will be *cleared* in the Action.

- No new Risks are created. You will need to assign Risks to each new Action manually.
- If the Asset Strategy record is already linked to an Implementation Package record, the Implementation Package record will remain in its current state. In addition, the Implementation Package record will be linked to the work item record (e.g., Inspection Task) that was used to create the Asset Strategy.

About Updating Asset Strategies from Measurement Location Records

If desired, you can update an Asset Strategy from existing Measurement Location records if the Measurement Location records are linked to the same Equipment or Functional Location record that is linked to the Asset Strategy record. When you do so, Meridium APM will:

- Create multiple Actions, which belong to the Proposed Strategy. Each Action represents a separate Measurement Location record.
- Update the Implementation Package record that is linked to the Asset Strategy.

Before you can update an Asset Strategy from Measurement Location records, several conditions must be met.

Conditions Required to Update Asset Strategies from Measurement Location Records

Before you can update an Asset Strategy from Measurement Location records, the following conditions must be met:

- The Measurement Location records must be linked to Equipment or Functional Location records.
- The Equipment and Functional Location families must be related to the Asset Strategy family through the Has Strategy relationship.
- In Asset Strategy Implementation (ASI), in the Work Management Item Definition record that represents Measurement Location Group records and Measurement Location records, the **Allow Link Existing** check box must be selected.
- If the Measurement Location records are linked to Functional Location records, the Locate Assets for Import query must be configured to return records in the Functional Location family.

What Happens to Asset Strategies that are updated from Measurement Location Records?

After you update an Asset Strategy from an existing Measurement Location record:

- If the Asset Strategy was in the Active state, it will remain in the Active state.
- If the Asset Strategy was in the Pending Review state, it will remain in the Pending Review state.
- A new Action is created from each Measurement Location record that you selected in the **Asset Strategy Builder**. The data in each Action is copied from the source Measurement Location record using the rules referenced in the Action Mapping record for the Measurement Location Group family. The new Action will be represented by the icon.
- A new Health Indicator record is created from each Measurement Location record that you selected in the **Asset Strategy Builder**. Each Health Indicator record is linked to the appropriate Action record.
- No new Risks are created. You will need to assign Risks to each new Action manually.
- If the Asset Strategy record is already linked to an Implementation Package record, the Implementation Package record will remain in its current state. In addition, the Implementation Package record will be linked to Measurement Location Group records. The number of Measurement Location Group records to which it is linked mimics the number of Measurement Location records that were selected in the **Asset Strategy Builder**. Each Measurement Location Group record will also be linked to a Measurement Location record that was selected during the import process.

Updating an Asset Strategy from Task or Measurement Location Records

To update an Asset Strategy from existing Task or Measurement Location records:

1. On the ASM - Start Page, click the **Import Strategy** link.

   The **Asset Strategy Builder** appears, displaying the Welcome page.

2. Click the **Next** button.

   The **Select Import Method** screen appears.

3. Select the **Existing Work Management Item(s)** option.

4. Click the **Next** button.

   The **Select Asset(s)** screen appears.

5. Select the rows containing the Equipment or Functional Location records that are linked to the Task and Measurement Location records that you want to use for updating an existing Asset Strategy.

6. Click the **Next** button.

   The **Select Work Management Item(s)** screen appears.

7. Select the rows containing the Task and Measurement Location records that you want to use for updating an Asset Strategy.

8. Click the **Finish** button.

   A series of messages appear. Each message indicates that an existing Asset Strategy record is already linked to the Equipment or Functional Location record to which the selected Task and Measurement Location records are linked.

9. Click the **Yes** button on each message to update the Asset Strategy record that is linked to the Equipment or Functional Location record to which the specified Task or Measurement Location record is linked.

   -OR-

   Click the **Yes to All** button on the first message to update all Asset Strategy records that are linked to the Equipment or Functional Location record to which the selected Task and Measurement Location records are linked.

   The **Import Existing Strategy** page appears, displaying the results of the import procedure. Each row represents an Asset Strategy that was updated successfully. The **Strategy** column contains a hyperlink, which you can click to access the **Asset Strategy Overview** page for that Asset Strategy.

   Note: When you navigate away from the **Import Existing Strategy** page, you will be prompted to save the results to a file. If you want to save the result to a Text

file, click the **Yes** button, and provide a name for the file. If you do not want to save the results, click the **No** button to proceed with viewing the Asset Strategy.

Configuring the Locate Assets for Import Query

The Locate Assets for Import query, which is located in the Catalog folder **\\Public\Meridium\Modules\Asset Strategy Management\Management\Queries**, is intended to display records in the Equipment or Functional Location family. By default, the query returns records in the *Equipment* family. If your Task and Measurement Location records are linked to Functional Locations records, however, you will need to modify the query to return records in the Functional Location family.

To configure the Locate Assets for Import query so that you can update Asset Strategies from Task and Measurement Location records:

1. In the Catalog, navigate to **\\Public\Meridium\Modules\Asset Strategy Management\Management\Queries**.
2. Open the **Locate Assets for Import** query.
3. On the **Query Tasks** menu, click the **Design View** link.

   The query design appears, displaying the Equipment family as the source.
4. Remove the Equipment family.
5. Add the Functional Location family.
6. Add any fields that will help you identify the Functional Location records when the results are displayed in the **Asset Strategy Builder**, which appears when you click the **Import Strategy** link on the **ASM - Start Page**.
7. On the **Common Tasks** menu, click the **Save Query** link.

   The query is saved.

Accessing the Implementation Package Associated with an Asset Strategy

If an Asset Strategy record is linked to an Implementation Package record, you can access that Implementation Package record from the Asset Strategy.

To access an Implementation Package record from an Asset Strategy:

1. Open the Asset Strategy that is linked to the Implementation Package record that you want to view.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Strategy Implementation** link.

   The **Packaging <Package ID>** page appears, where **<Package ID>** is the ID of the Implementation Package record that is linked to the Asset Strategy record.

Creating an Implementation Package Record from an Asset Strategy

Note: You can link an Implementation Package record to an Asset Strategy record only if the Asset Strategy record is set to an Active state.

To create a new Implementation Package record that is linked to an Asset Strategy record:

1. Open the *Active* Asset Strategy that you want to link to a new Implementation Package record.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Strategy Implementation** link.

   A message appears, indicating that an Implementation Package record is not yet linked to the Asset Strategy record, asking if you want to create one.

3. Click the **Yes** button.

   The **Implementation Package Creation** page appears, where you can create the Implementation Package record.

   Note that if the underlying Equipment or Functional Location record is linked to a Site Reference record that is linked to an SAP System record, the name of that SAP System record is used to populate the SAP System field in the Implementation Package record. Also, you will be able to link the Implementation Package record to other Asset Strategy records only if their underlying Equipment or Functional Location records are linked to the same Site Reference record.

   Note: If the Asset Strategy record state was not Active, an informational message appears. You can click the **Yes** button on the message to access the **Asset Strategy Implementation Start Page**.

Accessing AHM from an Existing Asset Strategy

Note: You can access Asset Health Manager (AHM) from an Asset Strategy only if the Asset Strategy record is linked to an Equipment or Functional Location record.

To access AHM from an existing Asset Strategy:

1. Open the Asset Strategy from which you want to access AHM.

   The **Asset Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Health Indicators** link.

   The **ASM - Asset Health Manager** page appears. The Equipment or Functional Location record that is linked to the Asset Strategy record is displayed at the root level of the **Health Indicator Explorer** pane. From this page, you can perform any task that you can perform on the **Asset Health Manager** page.

About the ASM - Asset Health Manager Page

The **ASM - Asset Health Manager** page displays the **Asset Health Manager** page within the ASM module. This page functions exactly like it does when it is accessed through the AHM module. Note that the Equipment or Functional Location record that is linked to the Asset Strategy record is displayed at the root level of the **Health Indicator Explorer** pane.

About the Asset Strategy Approval Report

The Asset Strategy Approval Report is a comprehensive report that is provided as baseline ASM content. It provides the following information about a given Asset Strategy:

- A summary of the information that is provided in the graphs in the Risk Analysis.
- A summary of the financial benefits and return on investment for the Active Strategy and the Proposed Strategy. This summary includes a section where you can write your name, the date, and any comments.
- The information in the Asset Strategy record.
- A summary of risks, including a list of the actions that mitigate them, the unmitigated Risk Rank associated with the risk, and the mitigated Risk Rank associated with the mitigating action.
- A list of Actions that are included in the Active Strategy.

The report is meant to be printed to help you decide whether to approve an Asset Strategy or send it back for rework.

Note: The printed report is easier to view if it is printed using a landscape orientation. To print it using a landscape orientation, you can use the **Page Setup** button on the Report Viewer toolbar.

You can access the Asset Strategy Approval Report by clicking the **Report** link on the **Associated Pages** menu when you are viewing any of the following pages:

- Asset Strategy Overview
- Asset Strategy Definition
- Asset Strategy Risk Analysis
- Review Asset Strategy
- Asset Strategy Revision History

The Asset Strategy Approval Report is stored in the following folder in the Catalog: \\Public\Meridium\Modules\Asset Strategy Management\Management\Reports.

Note: The report is built from queries that are stored in the Catalog folder \\Public\Meridium\Modules\Asset Strategy Management\Management\Queries. You should not change the name of the this Catalog folder, the name or content of any queries within the folder that are referenced by this report, or remove from the folder any query that is being used by the report. Modifying or moving any of these queries could cause the report to stop working.

Accessing the Asset Strategy Approval Report

To access the Asset Strategy Approval report:

1. Open the Asset Strategy whose report you want to view.

   The **Asset Strategy Overview** page appears.

2. On the **Associated Pages** menu, click the **Report** link.

   The Asset Strategy Approval Report appears on the **Report Viewer** page.

Queries Used by the Asset Strategy Approval Report

The following table lists queries that are used by the Asset Strategy Approval Report and the report sections that they generate. Each query is stored in the Catalog folder \\Public\Meridium\Modules\Asset Strategy Management\Management\Queries. For additional details on the data that is included in each query, you can run the query itself.

Query	Report Section
Asset Strategy Actions Detail	Strategy Cost
Asset Strategy Active Actions Detail	Active Actions
Asset Strategy Active Mitigated Financial Risks Detail	Financial Risk Mitigation
Asset Strategy Active Mitigated Risks Detail	Financial Risk Mitigation
Asset Strategy Definition	Strategy Definition Active Actions
Asset Strategy Financial Risks	Strategy Risk Profile Financial Risk Mitigation
Asset Strategy Risk Profile	Strategy Risk Profile
Asset Strategy Risk Summary	Asset Strategy Benefit Summary

Cover Page

The cover page of the Asset Strategy Approval Report displays the Strategy ID and Description of the Asset Strategy and the date on which the report was generated and the name of the Security User who generated the report.

The following image illustrates the cover page of a report that was generated:

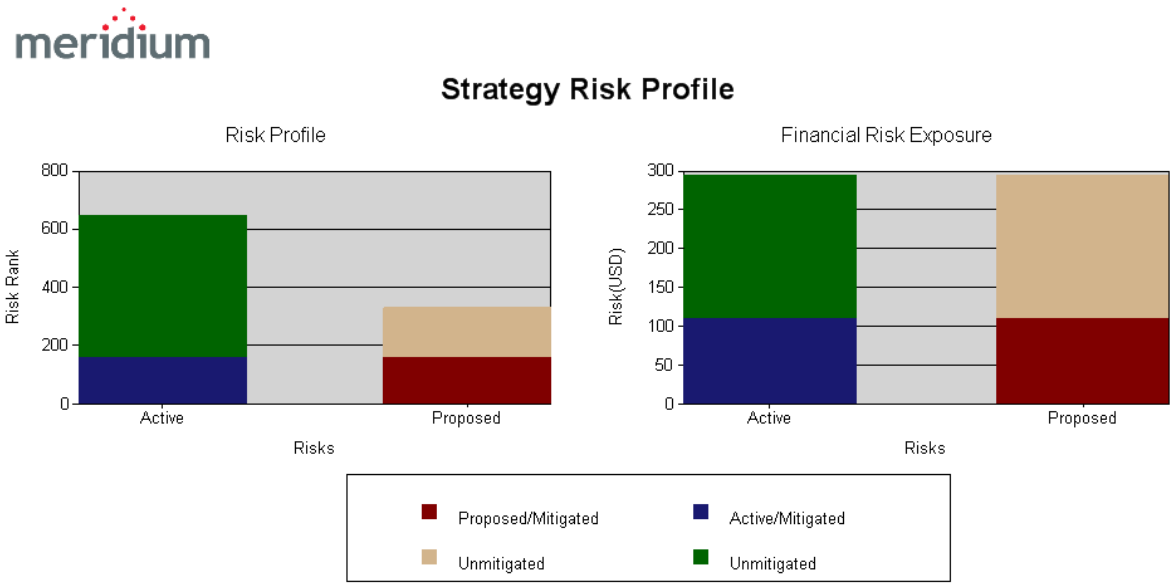
- For an Asset Strategy with the Strategy ID *Dryer Strategy* and the Description *Strategy for clothes dryer*.
- On 3/4/2010.
- By Amy Duncan.

About the Strategy Risk Profile Section

The *Strategy Risk Profile* section of the Asset Strategy Approval Report contains the following items:

- Risk Profile graph
- Financial Risk Exposure graph
- List of Risk records and their risk ranks

The following shows an example of the Strategy Risk Profile section.



Strategy Type	Name	Risk Type	Rank
Active	Catches on fire	Mitigated	160
Active	Stops drying in one cycle	Mitigated	1.2
Active	Catches on fire	Unmitigated	480
Active	Stops drying in one cycle	Unmitigated	3.6
Proposed	Catches on fire	Mitigated	160
Proposed	Stops drying in one cycle	Mitigated	1.2
Proposed	Catches on fire	Unmitigated	160
Proposed	Stops drying in one cycle	Unmitigated	6.3

Risk Profile Graph

The Risk Profile graph in the Asset Strategy Approval Report shows similar information to what you would see on the Risk Profile graph in the Risk Analysis. In the report, however, the graph type is slightly different, and some additional information is displayed.

Specifically, the Risk Profile graph in the report shows the following information:

Active Bar

The Active bar on the Risk Profile graph shows the following information:

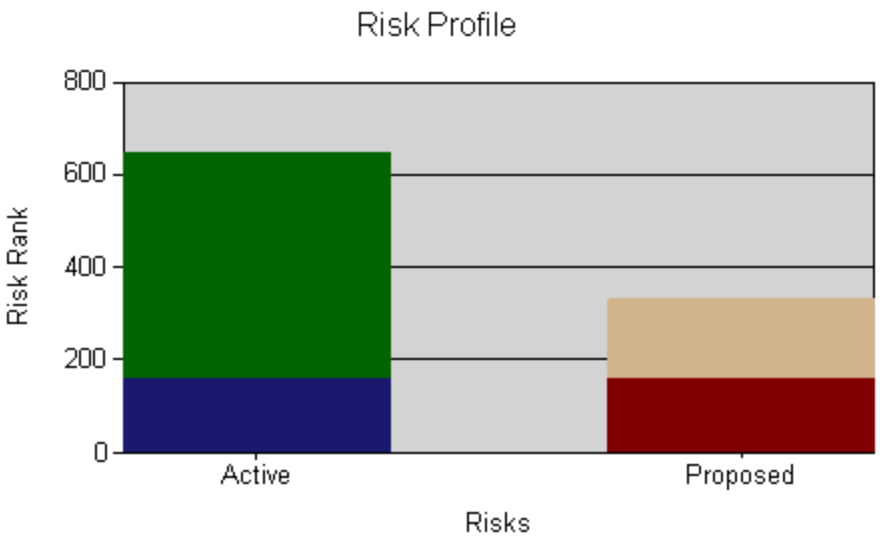
- The combined active unmitigated risk rank for all Risks. In other words, this is the sum of all *unmitigated* risk rank values that existed when you last activated the Asset Strategy (assuming that the Asset Strategy is now in a non-Active state). In the report, this value is displayed in green on the Active bar. This value does not appear for each Risk on the Risk Profile graph in the Risk Analysis.
- The combined Strategy Mitigated Risk Rank value for all Risks. In other words, this is the sum of all *mitigated* risk rank values that existed when you last activated the Asset Strategy (assuming that the Asset Strategy is now in a non-Active state). In the report, this value is displayed in blue on the Active bar. If you were to view the Risk Profile graph in the Risk Analysis, the Strategy Mitigated Risk Rank for each Risk record would be displayed as separate datapoints on the Active line (i.e., the line with the circles).

Proposed Bar

The Proposed bar on the Risk Profile graph shows the following information:

- The combined proposed unmitigated risk rank value for all Risks. In other words, this is the sum of all *unmitigated* risk rank values that could have changed since the Asset Strategy was last activated and, therefore, need to be reviewed. In the report, this value is displayed in tan on the Proposed bar. If you were to view the Risk Profile graph in the Risk Analysis, the unmitigated risk rank for each Risk record would be displayed on the Unmitigated line (i.e., the line with the triangles).
- The projected, or proposed, Strategy Mitigated Risk Rank value for all Risks. In other words, this is the sum of all *mitigated* risk rank values that could have changed since the Asset Strategy was last activated and, therefore, need to be reviewed. In the report, this value is displayed in red on the Proposed bar. If you were to view the Risk Profile graph in the Risk Analysis, the proposed Strategy Mitigated Risk Rank for each Risk record would be displayed as separate bars.

The following image shows an example of the Risk Profile graph.



In this image, you can see that:

- The combined active unmitigated risk rank for all Risks is 483.6 (on the green Active bar).
- The combined active mitigated risk rank for all Risks is 161.2 (on the blue Active bar).
- The combined proposed unmitigated risk rank for all Risks is 166.3 (on the tan Proposed bar).
- The combined proposed mitigated risk rank for all Risks is 161.2 (on the red Proposed bar).

Financial Risk Exposure Graph

The Financial Risk Exposure graph in the Asset Strategy Approval Report shows similar information to what you would see in the Financial Risk Exposure graph in the Risk Analysis. Specifically, the Financial Risk Exposure graph in the report shows the following information:

Active Bar

The Active bar on the Financial Risk Exposure graph shows the following information:

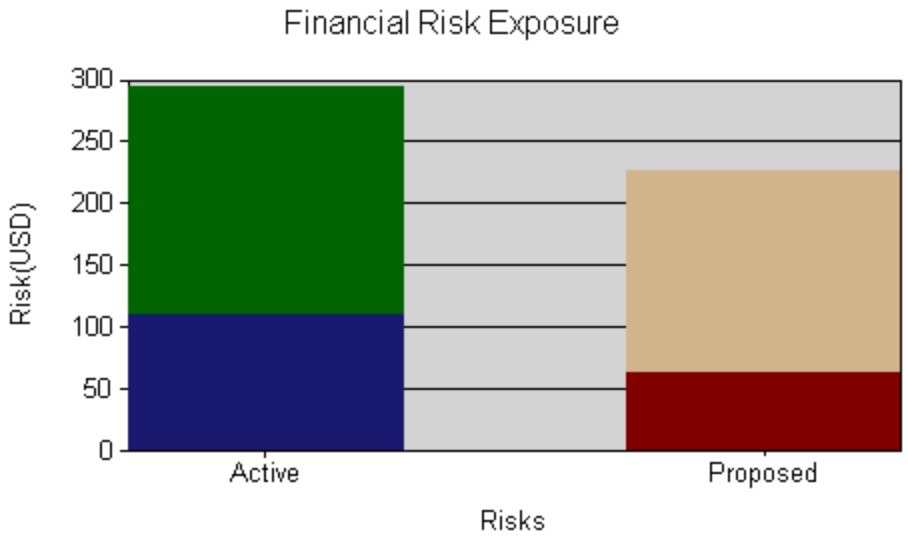
- The combined *unmitigated* financial risk rank values for all Risks that are included in the Active Strategy. In other words, this is the sum of all *unmitigated* financial risk rank values that existed when you last activated the Asset Strategy. In the report, this value is displayed in green on the Active bar. This value does not appear for each Risk on the Financial Risk Exposure graph in the Risk Analysis.
- The combined *mitigated* financial risk rank values for all Risks that are included in the Active Strategy. In other words, this is the sum of all *mitigated* financial risk rank values that existed when you last activated the Asset Strategy. In the report, this value is displayed in yellow on the Active bar. If you were to view the Financial Risk Exposure graph in the Risk Analysis, the mitigated financial risk rank value for each Risk record would be displayed on the Active bar.

Proposed Bar

The Proposed bar on the Financial Risk Exposure graph shows the following information:

- The combined projected, or proposed, *unmitigated* financial risk rank values for all Risks. In other words, this is the sum of all *unmitigated* financial risk rank values that could have changed since the Asset Strategy was last activated and, therefore, need to be reviewed. In the report, this value is displayed in purple on the Proposed bar. If you were to view the Financial Risk Exposure graph in the Risk Analysis, the proposed unmitigated financial risk rank value for each Risk record would be displayed on the Unmitigated bar.
- The projected, or proposed, *mitigated* financial risk values for all Risks. In other words, this is the sum of all *mitigated* financial risk rank values that could have changed since the Asset Strategy was last activated and, therefore, need to be reviewed. In the report, this value is displayed in blue on the Proposed bar. If you were to view the Financial Risk Exposure graph in the Risk Analysis, the proposed mitigated financial risk rank value for each Risk record would be displayed on the Proposed bar.

The following image shows an example of the Financial Risk Exposure graph.



In this image, you can see that:

- The combined active unmitigated financial risk rank for all Risks is $183.00 (on the green Active bar).
- The combined active mitigated financial risk rank for all Risks is $111.00 (on the blue Active bar).
- The combined proposed unmitigated financial risk rank for all Risks is $162.00 (on the tan Proposed bar).
- The combined proposed mitigated financial risk rank for all Risks is $64.50 (on the red Proposed bar).

List of Risk Records and Risk Ranks

The *Risk Analysis* section of the Asset Strategy Approval Report contains a list of Risks that are included in the Asset Strategy. For each Risk that is included in the Asset Strategy, the list contains four rows:

- One row displays the *unmitigated* risk rank associated with the Risk that is included in the *Active Strategy*.
- One row displays the *mitigated* risk rank associated with the Risk that is included in the *Active Strategy*.
- One row displays the *unmitigated* risk rank associated with the corresponding Risk that is included in the *Proposed Strategy*.
- One row displays the *mitigated* risk rank associated with the corresponding Risk that is included in the *Proposed Strategy*.

The following columns of information are displayed for each row:

- **Strategy Type:** Displays a value representing the type of Asset Strategy that includes the Risk.
  - If the Risk belongs to an *Active Strategy*, the **Strategy Type** column contains the value *Active*.
  - If the Risk belongs to a *Proposed Strategy*, the **Strategy Type** column contains the value *Proposed*.
- **Name:** Displays the value in the Name field in the Risk record.
- **Risk Type:** Displays a value identifying the type of risk. The value in the **Risk Type** column is tied closely to the value in the **Rank** column.
  - If the value in the **Rank** column comes from the Risk Rank field in the *Risk* record, the value in the **Risk Type** column is *Unmitigated*.
  - If the value in the **Rank** column comes from the Risk Rank field in the *Risk Assessment* record to which the Risk record is linked, the value in the **Risk Type** column is *Mitigated*.
- **Rank:** Displays the risk rank value associated with the type of Risk record represented by the value in the **Risk Type** column.
  - If the value in the **Risk Type** column is *Unmitigated*, the value in the **Rank** column is the value in the Risk Rank field in the Risk record.
  - If the value in the Risk Type column is Mitigated, the value in the Rank column is the value in the Risk Rank field in the Risk Assessment record to which the Risk record is linked.

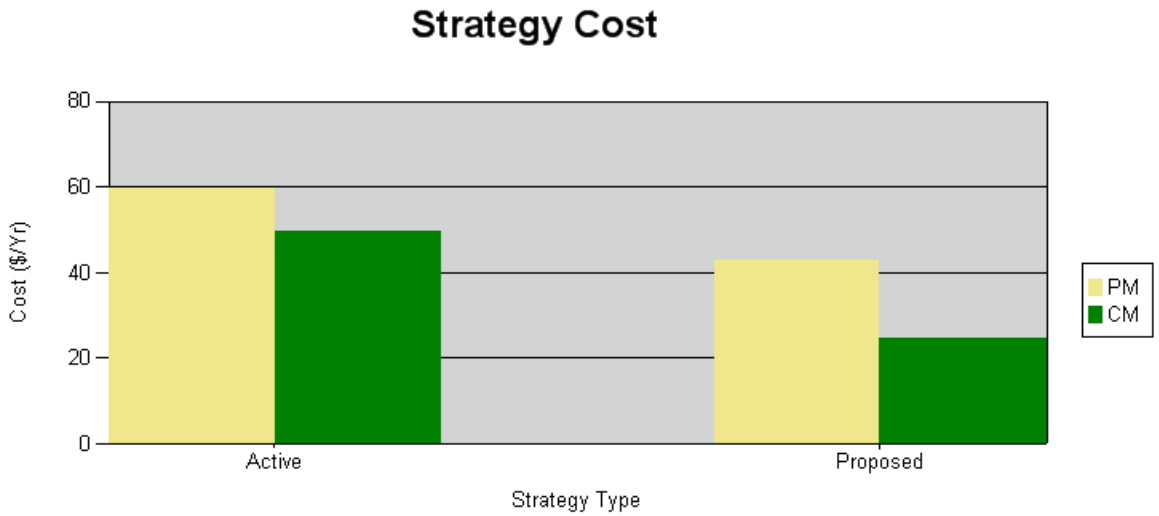
The following image shows an example of the list of Risk records.

Strategy Type	Name	Risk Type	Rank
Active	Catches on fire	Mitigated	160
Active	Stops drying in one cycle	Mitigated	1.2
Active	Catches on fire	Unmitigated	480
Active	Stops drying in one cycle	Unmitigated	3.6
Proposed	Catches on fire	Mitigated	160
Proposed	Stops drying in one cycle	Mitigated	1.2
Proposed	Catches on fire	Unmitigated	160
Proposed	Stops drying in one cycle	Unmitigated	6.3

Strategy Cost Graph

The *Strategy Cost* section of the Asset Strategy Approval Report shows similar information to what you would see in the Cost of Actions graph in the Risk Analysis. In the report, however, for both the Active Strategy and the Proposed Strategy, the graph shows two side-by-side bars to represent the CM Action records and PM Action records. The graph in the Risk Analysis, on the other hand, shows one stacked bar for the Active Strategy and another stacked bar for the Proposed Strategy, where the PM and CM Action Types are displayed on one bar.

The following image shows an example of the Strategy Cost graph.



The Strategy Cost graph displays the cost *per year* associated with each Action in the Active Strategy and in the Proposed Strategy.

Hint: The cost displayed on the graph is not the Cost value that appears by default in the grid in the **Actions** section. The Cost value on the graph actually represents the Annual Cost for each Action, which is calculated using the Cost, the Interval, and the Interval Units for each Action. For example, if the Cost is $50.00, the Interval is 6, and the Interval Units is Months, the Annual Cost will be $100.00 (the Action is performed every six months, or twice a year, and 50 multiplied by two is 100). You can see the Annual Cost for each Action record by adding it to the grid in the **Actions** section using the **Show Available Fields** option.

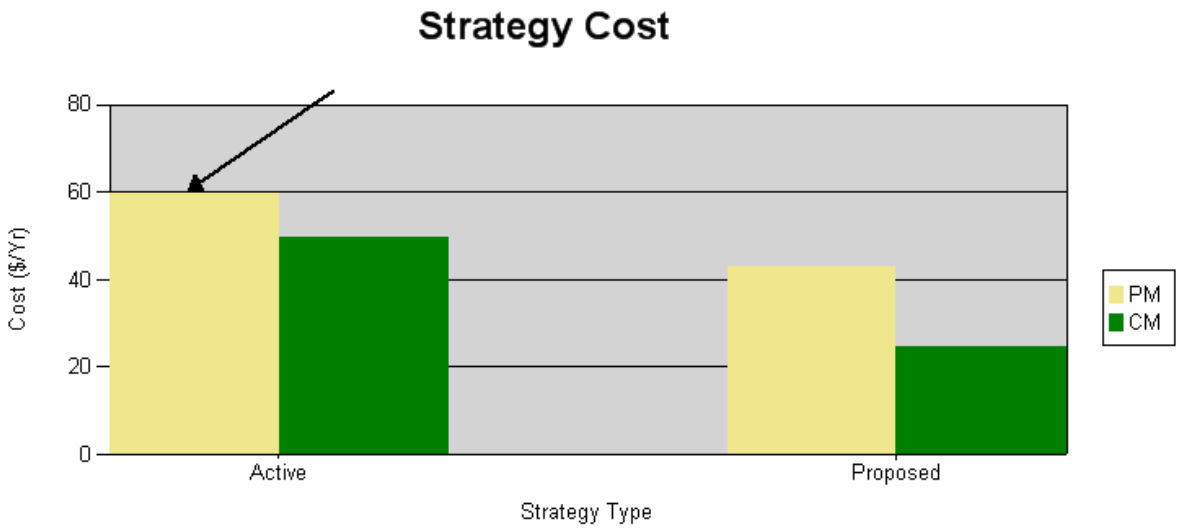
By default, the graph contains two bars for the Active Strategy and two bars for the Proposed Strategy. In each set of bars:

- One bar represents the total cost per year for Actions whose Action Type is *Time-Based Maintenance (Preventive) (PM)*.
- One bar represents the total cost per year for Actions whose Action Type is *Condition-Based Maintenance (Predictive) (CM)*.

Hint: If you view the Action datasheet for any Action, you can see these options in the **Action Type** list.

From the legend, you can determine which Action Type is associated with which color.

In this example, you can see that the total cost per year for PM Actions that are included in the Active Strategy is $60.00.



As you make changes to the Asset Strategy, causing its state to change to Modified, any changes that you make to an Action's cost will be reflected in the Proposed bar for the Action Type associated with that Action record.

Below the Strategy Cost graph is a grid containing a row for each Action in the Active Asset Strategy and a separate row for each Action in the Proposed Asset Strategy. In the grid, you can see various information about each Action, including the Annual Cost.

Strategy Definition

The *Strategy Definition* section of the Asset Strategy Approval Report contains the following information from the Asset Strategy record:

- Strategy Owner
- Description
- Strategy Activation Date
- Strategy Activated By
- Strategy Re-Evaluation Date
- Site Reference
- Notes

This information is also available on the **Asset Strategy Definition** page. The following image shows an example of the Strategy Definition section in the Asset Strategy Approval Report.

Strategy Definition

Strategy Definition For: **Dryer Strategy**

Stragegy Owner	Administrator, Meridium
Description	Strategy for clothes dryer.
Stragegy Activation Date	3/18/2010
Stragegy Activated By	MIADMIN
Stragegy Re-Evaluation Date	
Site Reference	

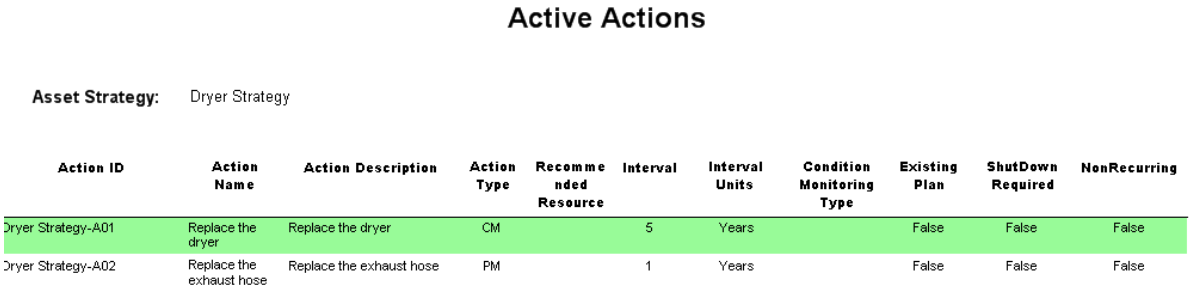
Stragegy Notes

Active Actions

The *Active Actions* section of the Asset Strategy Approval Report contains the following information from the Actions that are included in the Asset Strategy:

- Action ID
- Action Name
- Action Description
- Action Type
- Recommended Resource
- Interval
- Interval Units
- Condition Monitoring Type

The following image shows an example of the Active Actions section in the Asset Strategy Approval Report.



Active Actions

Asset Strategy: Dryer Strategy

Action ID	Action Name	Action Description	Action Type	Recommended Resource	Interval	Interval Units	Condition Monitoring Type	Existing Plan	ShutDown Required	NonRecurring
Dryer Strategy-A01	Replace the dryer	Replace the dryer	CM		5	Years		False	False	False
Dryer Strategy-A02	Replace the exhaust hose	Replace the exhaust hose	PM		1	Years		False	False	False

Creating Templates from Scratch

To create an Asset Strategy Template from scratch:

1. On the **ASM - Start Page**, click the **Manage Templates** link.

   The **Asset Strategy Template Search** page appears.

2. On the **Common Tasks** menu, click the **Create Template** link.

   The **Asset Strategy Template Definition** page appears.

3. In the **Template ID** text box, type an ID for the Asset Strategy Template.

4. In the **Description** text box, type a description of the Asset Strategy Template.

5. If desired, in the **Template Owner** text box, modify the default value. The value in the **Template Owner** text box is set by default to the name of the Security User who created the Asset Strategy Template record.

   Note: The value in the **Template Activation Date** text box is set by default to the date that the Asset Strategy Template state was set to Active for the first time. This field is disabled, and the field is populated automatically after the Asset Strategy Template state changes to Active for the first time.

6. In the **Template Evaluation Date** list, select the date on which you want to re-evaluate the Asset Strategy Template.

7. In the **Risk Matrix** list, select the Risk Matrix that you want to use in this Asset Strategy Template and all Asset Strategies to which it is applied. Note that you cannot apply an Asset Strategy Template that uses one Risk Matrix to an Asset Strategy that is already using a different Risk Matrix.

8. In the **Template Notes** text box, type any additional information you want to provide about the Asset Strategy Template.

9. On the datasheet toolbar, click the button.

   The Asset Strategy Template record is saved.

10. Continue building the Asset Strategy Template by adding Action records using the **Asset Strategy Template Actions** page.

    Note that the **Proposed Strategy** section and the **Risks** section on the **Asset Strategy Template Actions** page are identical to the **Proposed Strategy** section and the **Risks** section on the **Asset Strategy Actions** page. You can use the instructions for performing tasks on that page to determine how to determine the same tasks on the **Asset Strategy Template Actions** page.

11. Continue building the Asset Strategy Template by adding Risks using the **Asset Strategy Template Risks** page.

Note that the **Risks** section and the **Mitigating Actions** section on the **Asset Strategy Template Risks** page are identical to the Risks section and the Mitigating Actions section on the **Asset Strategy Risks** page. You can use the instructions for performing tasks on that page to determine how to determine the same tasks on the **Asset Strategy Template Risks** page.

12. When you are finished building the Asset Strategy Template, activate the Asset Strategy Template so that it can be applied to Asset Strategies.

Creating Templates from Existing Asset Strategies

To create an Asset Strategy Template from an existing Asset Strategy:

1. Search for and open the *Active* Asset Strategy that you want to use to create an Asset Strategy Template.

   The **Asset Strategy Overview** page appears.

2. On the **Template Tasks** menu, click the **Save as Template** link.

   The **Asset Strategy Template Definition** page appears.

   The following text boxes are populated automatically:

- **Template ID:** Set by default to the ID of the source Asset Strategy, appended by the text- *Template*. For example, if the ID of the source Asset Strategy is*Piping Circuit Strategy*, the ID of the Asset Strategy Template will be *Piping Circuit Strategy - Template*.
- **Description:** Set by default to the description of the source Asset Strategy record.
- **Template Owner:** Set by default to the Security User who created the Asset Strategy Template record.
- **Template Evaluation Date:** Set by default to the Strategy Re-Evaluation Date value from the source Asset Strategy record.
- **Template Notes:** Set by default to the Strategy Notes value from the source Asset Strategy record.

  Note that unlike the Asset Strategy datasheet, the Asset Strategy Template datasheet does not contain an **Asset** tab. You cannot link an Asset Strategy Template record to an Equipment or Functional Location record.

3. On the datasheet toolbar, click the button.

   The Asset Strategy Template record is saved.

   As you view the Actions, Risks, and Risk Assessments for the Asset Strategy Template, you will see that they are identical to the Actions, Risks, and Risk Assessments for the source Asset Strategy. You can modify the values in these records if desired.

   Note, however, that if the Risks or Actions that are linked to the Asset Strategy originated from RBI or SIS Management, those items will not be copied.

Creating Templates from Existing Templates

You can use an existing Asset Strategy Template to create a new Asset Strategy Template by creating a copy of the existing Asset Strategy Template. The new Asset Strategy Template will be an exact copy of the source Asset Strategy Template with the exception of the Template ID value. The Template ID of the new Asset Strategy Template will be **Copy of <Source Template ID> <#>**, where:

- **Source Template ID** is the value stored in the Template ID field in the source Asset Strategy Template record.
- **#** is a number that increments by *one* each time you create a subsequent copy of the same source Asset Strategy Template record, beginning with the second copy.

For example, if you create a copy of an Asset Strategy Template with the Template ID *Template - PMP*, the Template ID for the new Asset Strategy Template will be *Copy of Template - PMP*. If you create a second copy of the same source Asset Strategy Template record, the Template ID for the new Asset Strategy Template record will be *Copy of Template - PMP 1*.

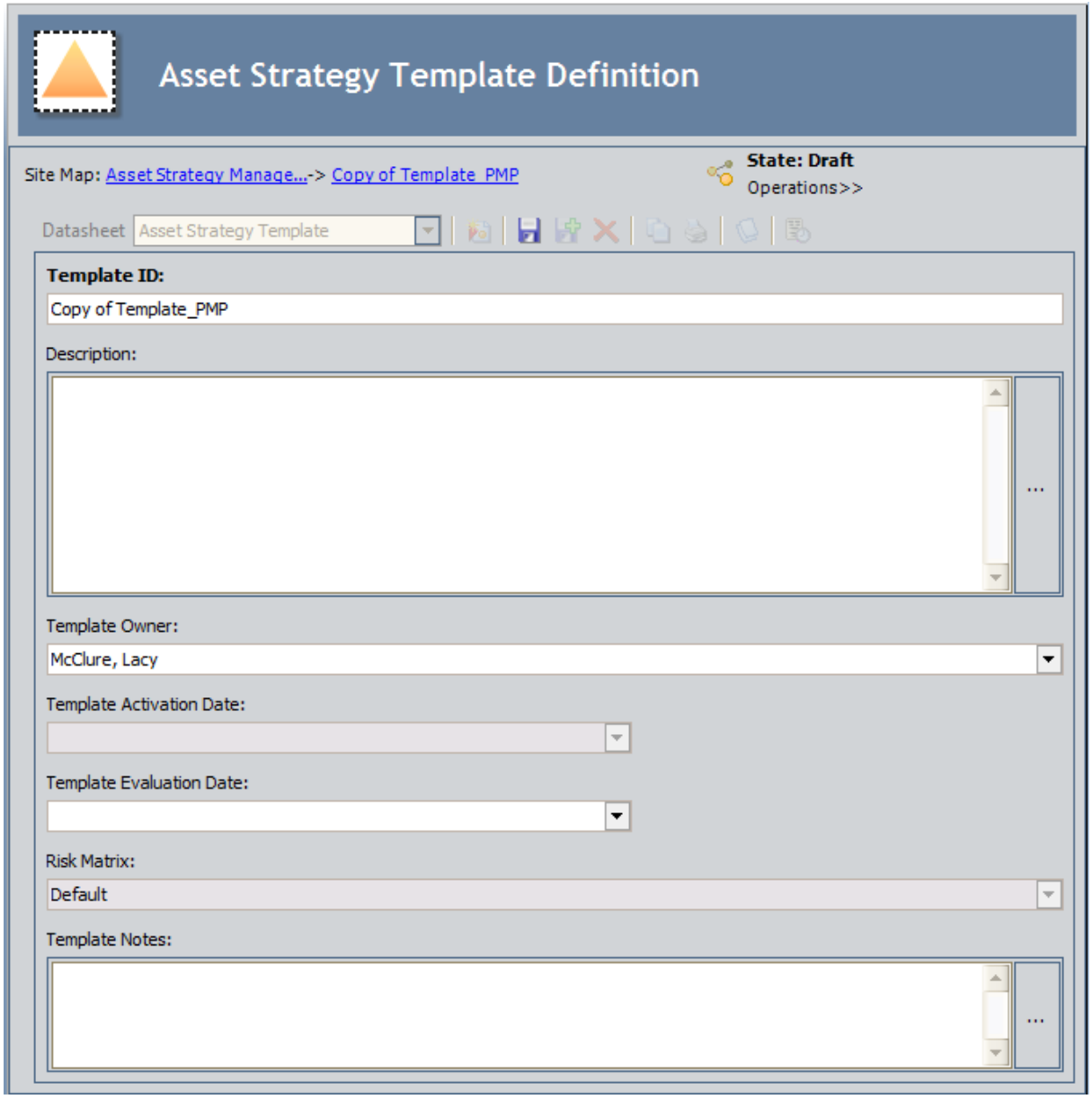
If the source Asset Strategy Template includes items that are marked for deletion, the new Asset Strategy Template will not include those items (i.e., they will be considered deleted from the source template).

You can create a copy of an Asset Strategy Template using the **Copy Template** link on the **Common Tasks** menu from any page where you are working with templates, including the **Asset Strategy Template Search** page.

To create an Asset Strategy Template from an existing Asset Strategy Template:

1. Open or select the Asset Strategy Template that you want to copy to create a new Asset Strategy Template.
2. On the **Common Tasks** menu, click the **Copy Template** link.

   A new Asset Strategy Template is created and displayed on the **Asset Strategy Template Definition** page.


Asset Strategy Template Definition
Site Map: Asset Strategy Manage...-> Copy of Template_PMP
State: Draft
Operations>>
Datasheet
Asset Strategy Template
Template ID:
Copy of Template_PMP
Description:
Template Owner:
McClure, Lacy
Template Activation Date:
Template Evaluation Date:
Risk Matrix:
Default
Template Notes:

About Creating Templates by Promoting RCM FMEA Analyses

Like creating an Asset Strategy by promoting an RCM FMEA Recommendation record, you can promote an RCM FMEA Recommendation record to an *Asset Strategy Template*. When you do so, various records will be created as a part of that process. An RCM FMEA Recommendation record can only be promoted to an Asset Strategy Template if that RCM FMEA Recommendation record is linked to an RCM FMEA Asset record.

Creating Asset Strategy Templates by Promoting RCM FMEA Analyses

To create an Asset Strategy Template by promoting an RCM FMEA Analysis:

1. Access the **Recommendation Management** page from the RCM Analysis whose recommendations you want to use to create an Asset Strategy Template.

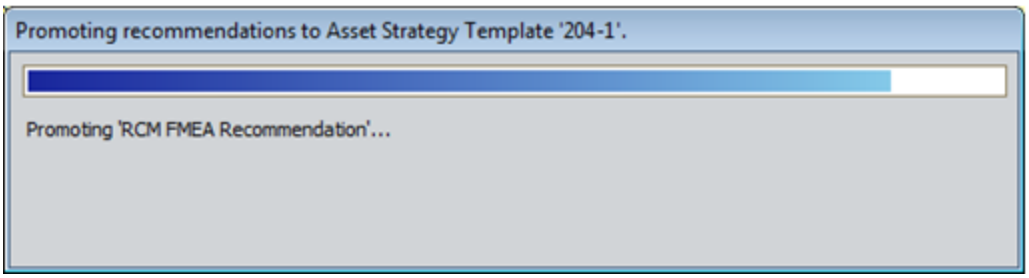
   -OR-

   Access the **Recommendation Management** page from the FMEA Analysis whose recommendations you want to use to create an Asset Strategy Template.

2. On the **Asset Tasks** menu, click the **Promote to Template** link.

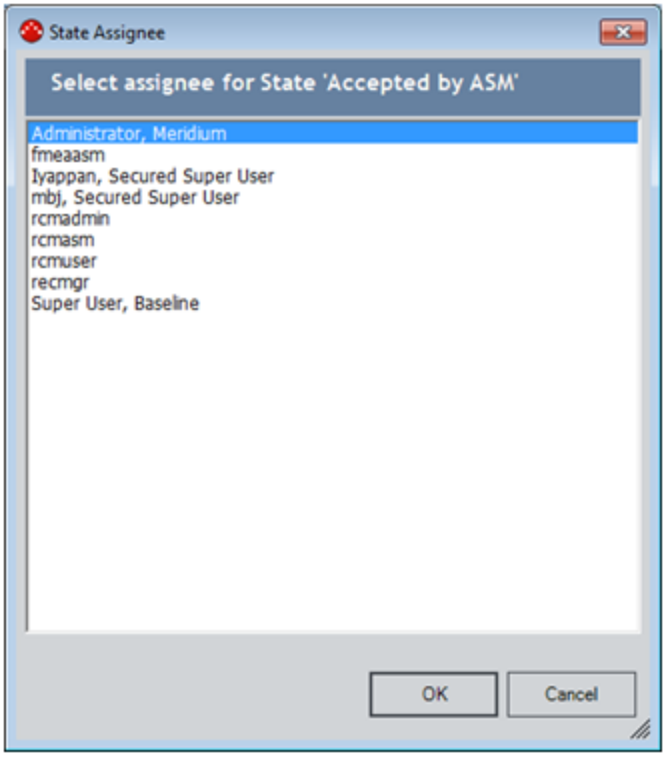
   The Meridium APM system checks to see whether the *Accepted by ASM* state requires a Security User to be assigned.

- If the State Configuration for the *Accepted by ASM* state does not require a Security User to be assigned, or if the State Configuration for the *Accepted by ASM* state already has a Security User assigned, a progress bar appears, as shown in the following image. After the progress bar reaches the end, the new Asset Strategy Template record appears on the **Asset Strategy Template Actions** page.



   -OR-

- If the State Configuration for the *Accepted by ASM* state requires a Security User to be assigned but a Security User is not currently assigned, the **State Assignee** dialog box appears, as shown in the following image.



3. On the **State Assignee** dialog box, in the **Select assignee for State 'Accepted by ASM'** list, select the Security User that you want to assign to the *Accepted by ASM* state, and click **OK**.

   A progress bar appears. After the progress bar reaches the end, the new Asset Strategy Template record appears on the **Asset Strategy Template Actions** page.

About Importing Templates from Microsoft Excel

If desired, you can create an Asset Strategy Template from a Microsoft Excel file. When you do so, Meridium APM will create:

- One Asset Strategy Template record.
- One Active Strategy record that is linked to the Asset Strategy Template record.
- One Proposed Strategy record that is linked to the Asset Strategy Template record.
- Multiple Action records, which are linked to the Proposed Strategy record. Each Action record represents a separate Action from the Microsoft Excel spreadsheet.

During the import process, you can map values in the Microsoft Excel file to fields in the Meridium APM records that will be created. To make sure that the mappings work correctly, the Microsoft Excel file must meet the following minimum requirements:

- It must contain a worksheet that lists the Asset Strategy Templates that you want to create. There are no restrictions on the tab name. Throughout this documentation, we refer to this tab as the *Templates* worksheet.
- The Templates worksheet must contain a column whose value you will map to the Template ID field in the Asset Strategy Template record. Throughout this documentation, we refer to this tab as the *Template ID* column.
- It must contain a worksheet that lists the Actions that you want to include in the Asset Strategy Template. There are no restrictions on the tab name. Throughout this documentation, we refer to this tab as the *Actions* worksheet.
- The Actions worksheet must contain a column whose value you will map to the Action ID field in the Action record.
- The Actions worksheet must contain a column that defines the Asset Strategy Template to which each Action should belong. Each cell in the column must contain a value that appears in the Template ID column on the Templates worksheet. Throughout this documentation, we refer to this column as the *Template Reference* column.

Note that if you want to map a value to the Action Type field in an Action record, the Microsoft Excel file must contain a value that mimics an Action Type as it is *stored* in the Meridium APM database, not as it is *displayed* on the Action datasheet. Use the following list to determine the Action Types that you can be mapped from the Microsoft Excel file to an Action record:

- **PM:** Will be displayed as *Time-Based Maintenance (Preventive) (PM)* on the Action datasheet.
- **CM:** Will be displayed as *Condition-Based Maintenance (Predictive) (CM)* on the Action datasheet.
- **DSN:** Will be displayed as *Redesign (DSN)* on the Action datasheet.
- **PROC:** Will be displayed as *Procedure (PROC)* on the Action datasheet.
- **TRN:** Will be displayed as *Training (TRN)* on the Action datasheet.

Performing the Import Procedure

The following instructions assume that a Microsoft Excel file that meets the minimum requirements has been saved to a location that is accessible from your workstation.

Note: You must be a Super User or a member of the MI ASM Analyst Security Group to perform the following steps.

To import an Asset Strategy Template:

1. On the **ASM - Start Page**, click the **Import Strategy Template** link.

   -OR-

   On any **Common Tasks** menu in ASM, click the **Import Template** link.

   The **Open** dialog box appears.

2. Navigate to the location containing the Microsoft Excel file that you want to use for importing an Asset Strategy Template, select the file, and then click the **Open** button.

   The **Select Data to Import** window appears, displaying the **Templates** tab by default.

3. In the **Required Mappings** section, in the **Template Worksheet** list, select the Templates worksheet that is configured in the Microsoft Excel file. This is the worksheet that contains a column whose value you will map to the Template ID field in the Asset Strategy Template record.

4. In the **Template ID Column** list, select the column whose value you want to map to the Template ID field in the Asset Strategy Template record.

5. To populate other fields in the Asset Strategy Template record, in the **Additional Mappings** section, to the right of each **Excel Column** cell, select a value in the **Meridium Strategy Template Field** column that represents a field that you want to populate from that Microsoft Excel file column. For example, if the Microsoft Excel file contains the column **Description**, to the right of the **Description** cell, you would probably want to select **Description**.

6. Click the **Actions** tab.

7. In the **Action Worksheet** list, select the Actions worksheet that is configured in the Microsoft Excel file. This is the worksheet that contains a column whose value you will map to the Action ID field in the Action record.

8. In the **Template Reference Column** list, select the Template Reference column that is configured in the Microsoft Excel file.

9. In the **Action ID** list, select the column whose value you want to map to the Action ID field on the Action datasheet.

10. To populate other fields in the Action records, in the **Additional Mappings** section,

to the right of each **Excel Column** cell, select a value in the **Meridium Action Field** column that represents a field that you want to populate from that Microsoft Excel file column. For example, if the Microsoft Excel file contains the column **Type**, to the right of the **Type** cell, you would probably want to select **Action Type**.

Note: At this point, you could click **OK** to create an Asset Strategy Template that does not contain Risks. The remaining instructions, however, assume that you want to import Risks from the Microsoft Excel file to the Asset Strategy Template.

11. Click the **Risks** tab.
12. In the **Risk Worksheet** list, select the Risks worksheet that is configured in the Microsoft Excel file. This is the worksheet that contains a column whose value you will map to the Risk ID field in the Risk record.
13. In the **Template Reference Column** list, select the column whose value contains the ID of the Asset Strategy Templates that should contain each Risk record.
14. In the **Risk ID Column** list, select the column whose value you will map to the Risk ID field in the Risk record.
15. In the **Meridium Risk Matrix** list, select the Risk Matrix that you want the Asset Strategy Template to use.
16. To populate other fields in the Risk records, in the **Additional Mappings** section, to the right of each **Excel Column** cell, select a value in the **Meridium Risk Field** column that represents a field that you want to populate from that Microsoft Excel file column.
17. Click the **Mitigations** tab.
18. In the **Mitigation Worksheet** list, select the Mitigations worksheet that is configured in the Microsoft Excel file.
19. In the **Action Reference Column** list, select the column that contains the ID of an Action, as it appears on the Actions worksheet.
20. In the **Risk Reference Column** list, select the column that contains the ID of a Risk, as it appears on the Risks worksheet.
21. To populate other fields in the Risk Assessment records, in the **Additional Mappings** section, to the right of each **Excel Column** cell, select a value in the **Meridium Risk Assessment Field** column that represents a field that you want to populate from that Microsoft Excel file column.
22. Click **OK**.

    The **Import Strategy Template** page appears, displaying the results of the import procedure. Each row represents an Asset Strategy Template that was created successfully. The **Strategy** column contains a hyperlink, which you can click to access the **Asset Strategy Actions** page. In some cases, an Asset Strategy Template may

not have been imported. If so, a message will appear in the **Info** column, indicating the reason that strategy was skipped.

Saving a Mapping

To save a mapping from a Microsoft Excel file to an Asset Strategy Template:

1. After you have accessed the **Select Data to Import** dialog box and configured the mappings that you want to save, click the **Save Mapping** button.

   The **Save Mapping** window appears.

2. In the **Mapping Name** text box, type a new name for the mapping.

3. Click **OK**.

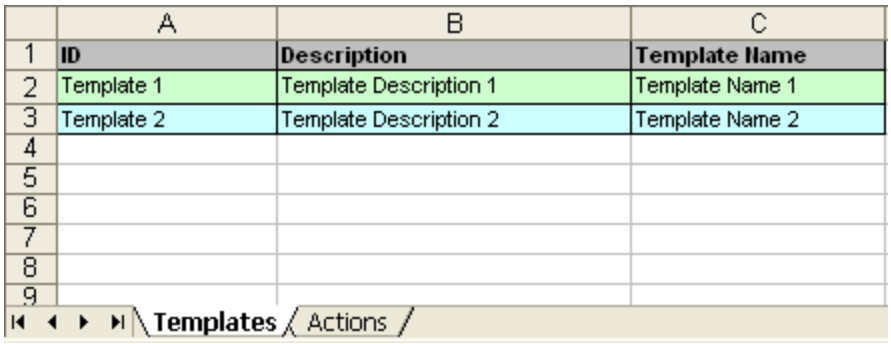
   The mapping is saved, and the **Save Mapping** window closes. The **Pre-Configured Mapping** list above the **Assets** tab is populated with the mapping name. Other users that access the **Select Data to Import** window will now be able to select this mapping and use it to create a new Asset Strategy Template.

Example of a Microsoft Excel File Used to Create Asset Strategy Templates

Consider the following example, which explains how to create two Asset Strategy Templates, where one Asset Strategy Template contains three Action records, and the other Asset Strategy Template contains two Action records.

Note: This example assumes that you are not importing Risks from the Microsoft Excel file.

The Microsoft Excel file contains the Templates worksheet, which is shown in the following image.

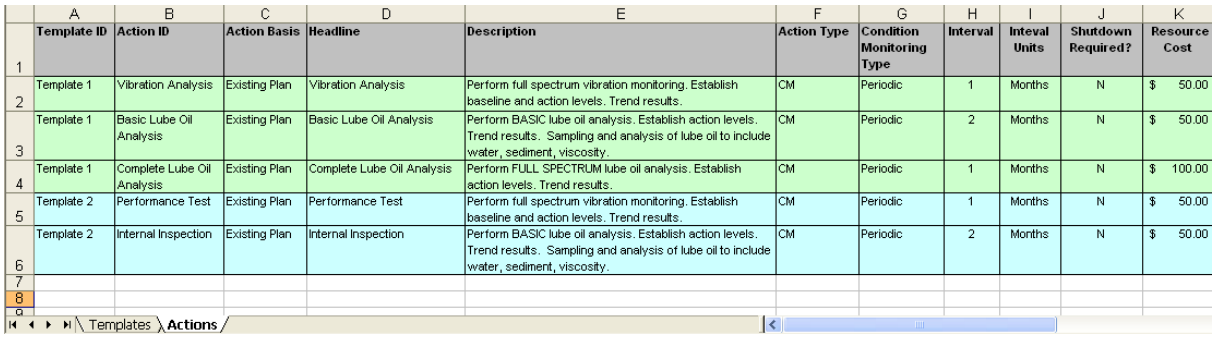


	A	B	C
1	**ID**	**Description**	**Template Name**
2	Template 1	Template Description 1	Template Name 1
3	Template 2	Template Description 2	Template Name 2
4			
5			
6			
7			
8			
9			

Templates | Actions

From this worksheet, you can see that two Template IDs are listed: *Template 1* and *Template 2*. When you use this Microsoft Excel file to create Asset Strategy Templates, *two* Asset Strategy Template records will be created.

The Microsoft Excel file also contains the Actions worksheet, which is shown in the following image.



	A	B	C	D	E	F	G	H	I	J	K
1	**Template ID**	**Action ID**	**Action Basis**	**Headline**	**Description**	**Action Type**	**Condition Monitoring Type**	**Interval**	**Inteval Units**	**Shutdown Required?**	**Resource Cost**
2	Template 1	Vibration Analysis	Existing Plan	Vibration Analysis	Perform full spectrum vibration monitoring. Establish baseline and action levels. Trend results.	CM	Periodic	1	Months	N	$ 50.00
3	Template 1	Basic Lube Oil Analysis	Existing Plan	Basic Lube Oil Analysis	Perform BASIC lube oil analysis. Establish action levels. Trend results. Sampling and analysis of lube oil to include water, sediment, viscosity.	CM	Periodic	2	Months	N	$ 50.00
4	Template 1	Complete Lube Oil Analysis	Existing Plan	Complete Lube Oil Analysis	Perform FULL SPECTRUM lube oil analysis. Establish action levels. Trend results.	CM	Periodic	1	Months	N	$ 100.00
5	Template 2	Performance Test	Existing Plan	Performance Test	Perform full spectrum vibration monitoring. Establish baseline and action levels. Trend results.	CM	Periodic	1	Months	N	$ 50.00
6	Template 2	Internal Inspection	Existing Plan	Internal Inspection	Perform BASIC lube oil analysis. Establish action levels. Trend results. Sampling and analysis of lube oil to include water, sediment, viscosity.	CM	Periodic	2	Months	N	$ 50.00
7											
8											

Templates | Actions

In the Microsoft Excel file, the three green rows represent actions for Template 1, and the two blue rows represent actions for Template 2. The Template ID associated with each action is displayed in the **Template ID** column.

In other words, for Template 1, the following actions should be included:

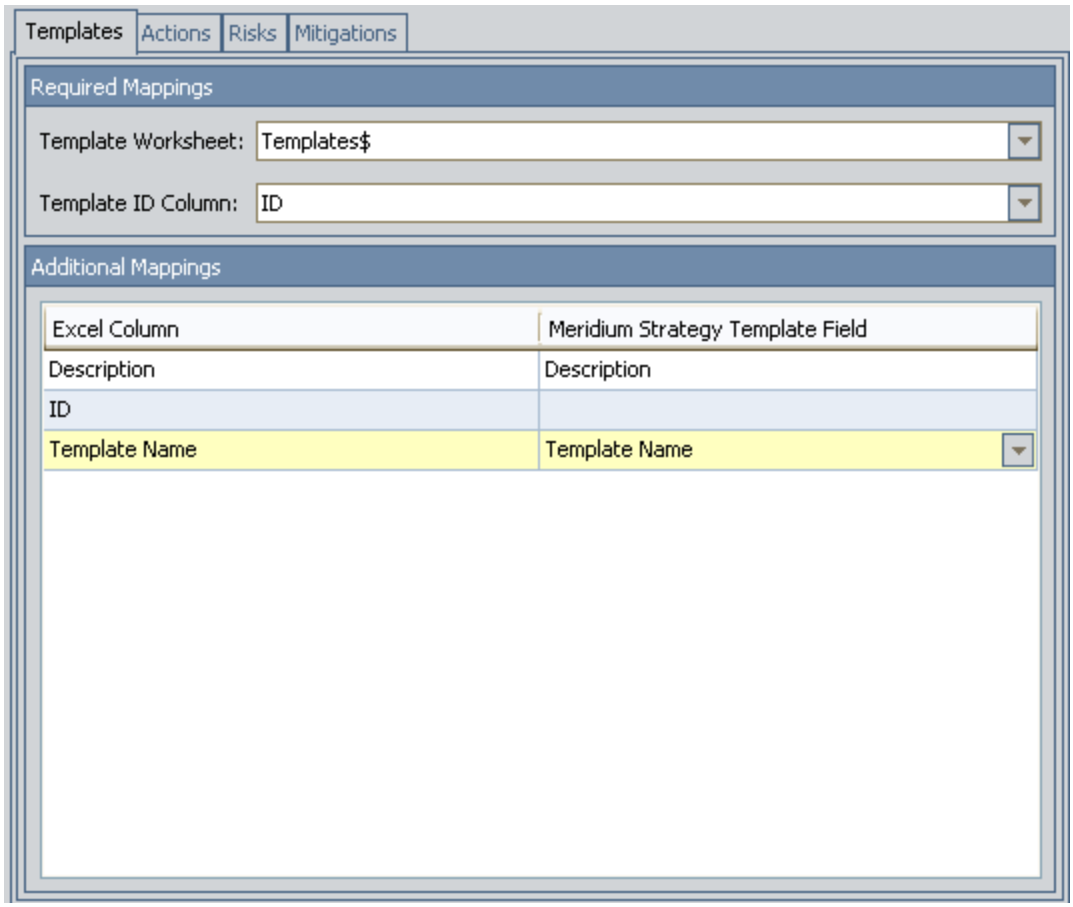
- Vibration Analysis
- Basic Lube Oil Analysis
- Complete Lube Oil Analysis

Likewise, for Template 2, the following actions should be included:

- Performance Test
- Internal Inspection

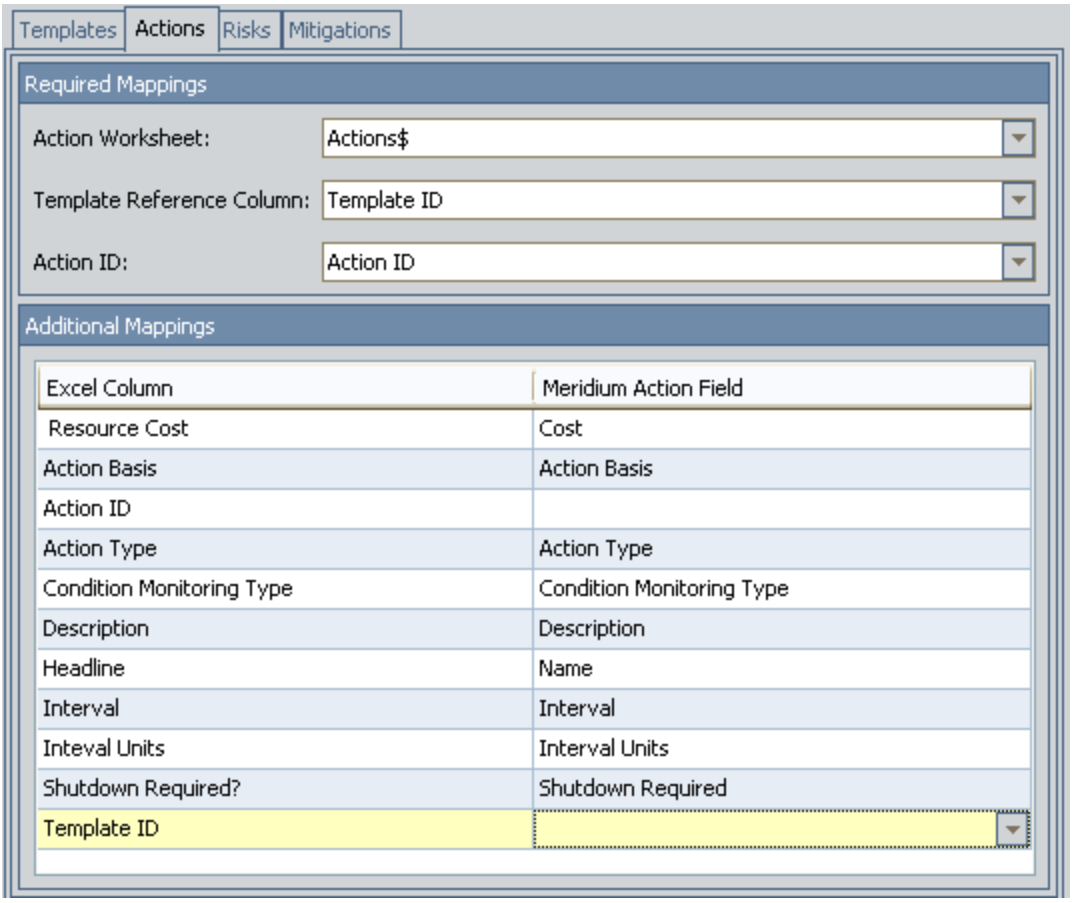
Each action will be used to create a single Action record when the import procedure is performed.

Based on this Microsoft Excel file, when performing the import procedure, you could specify the mappings from the *Templates* worksheet of the Microsoft Excel file to match the mapping that are shown in the following image.

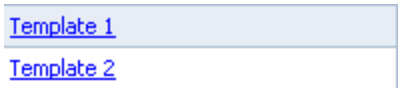


Note that in the **Additional Mappings** section, the ID is not mapped from the Microsoft Excel file to the Asset Strategy Template record. In this example, this field has already been mapped using the **Required Mappings** section of this dialog box. If additional columns were available in the Templates worksheet of the Microsoft Excel file, they would also be listed in the **Additional Mappings** section, and you might consider mapping them to a field in the Asset Strategy Template record (e.g., Notes).

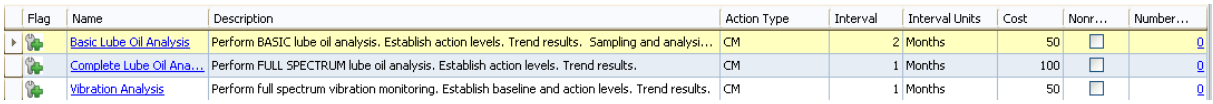
Likewise, you could specify the mappings from the *Actions* worksheet of the Microsoft Excel file to match the mappings shown in the following image.



When the import procedure is complete, two Asset Strategy Templates would be created, as shown in the following image.

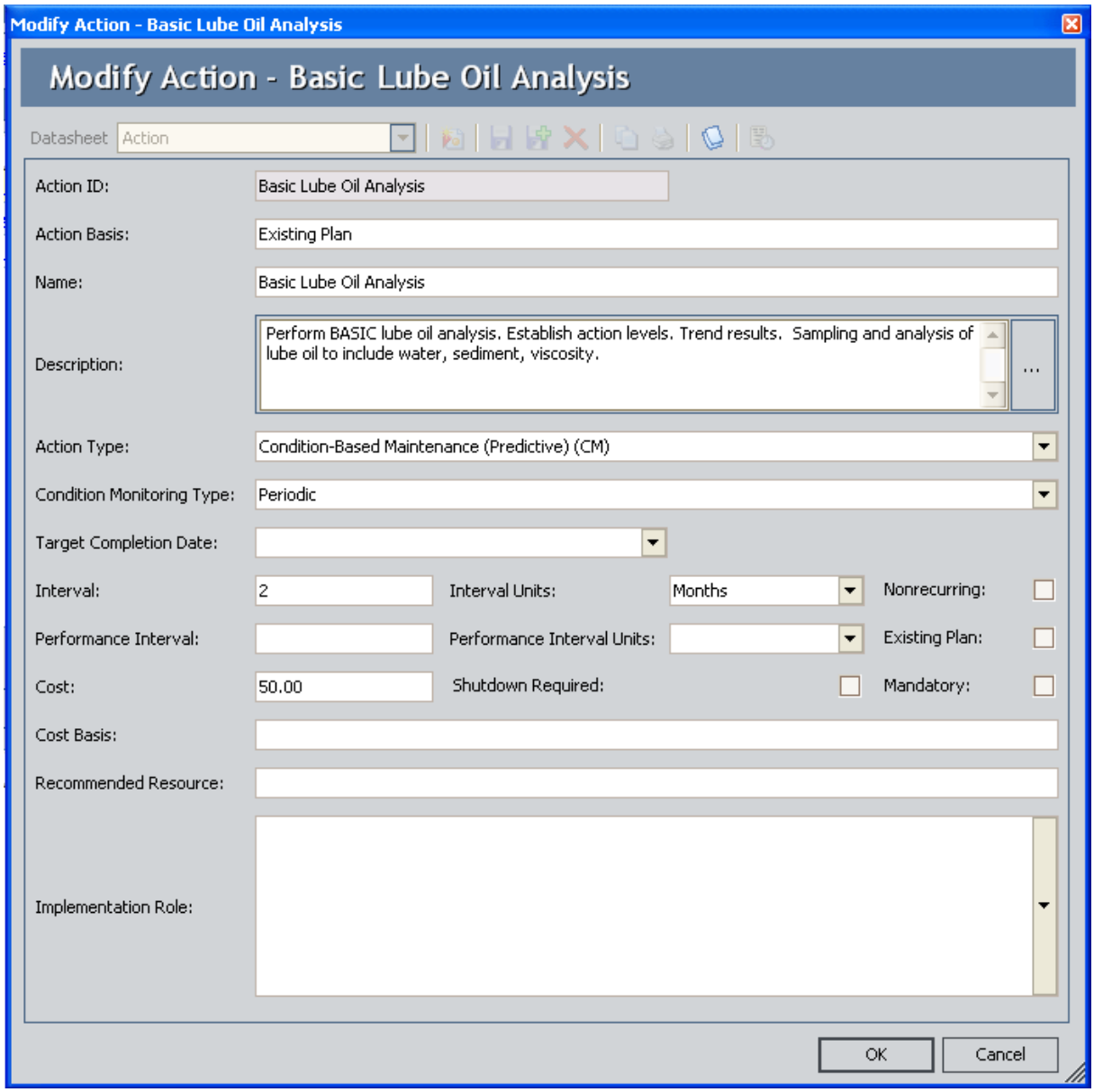


The Asset Strategy Template *Template 1* would be linked to the Action records shown in the following image.

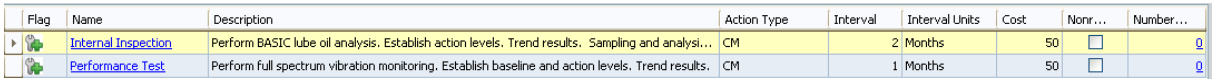


Flag	Name	Description	Action Type	Interval	Interval Units	Cost	Nonr...	Number...
	Basic Lube Oil Analysis	Perform BASIC lube oil analysis. Establish action levels. Trend results. Sampling and analysi...	CM	2	Months	50		0
	Complete Lube Oil Ana...	Perform FULL SPECTRUM lube oil analysis. Establish action levels. Trend results.	CM	1	Months	100		0
	Vibration Analysis	Perform full spectrum vibration monitoring. Establish baseline and action levels. Trend results.	CM	1	Months	50		0

The fields in *Action: Basic Lube Oil Analysis* would be populated as shown in the following image.

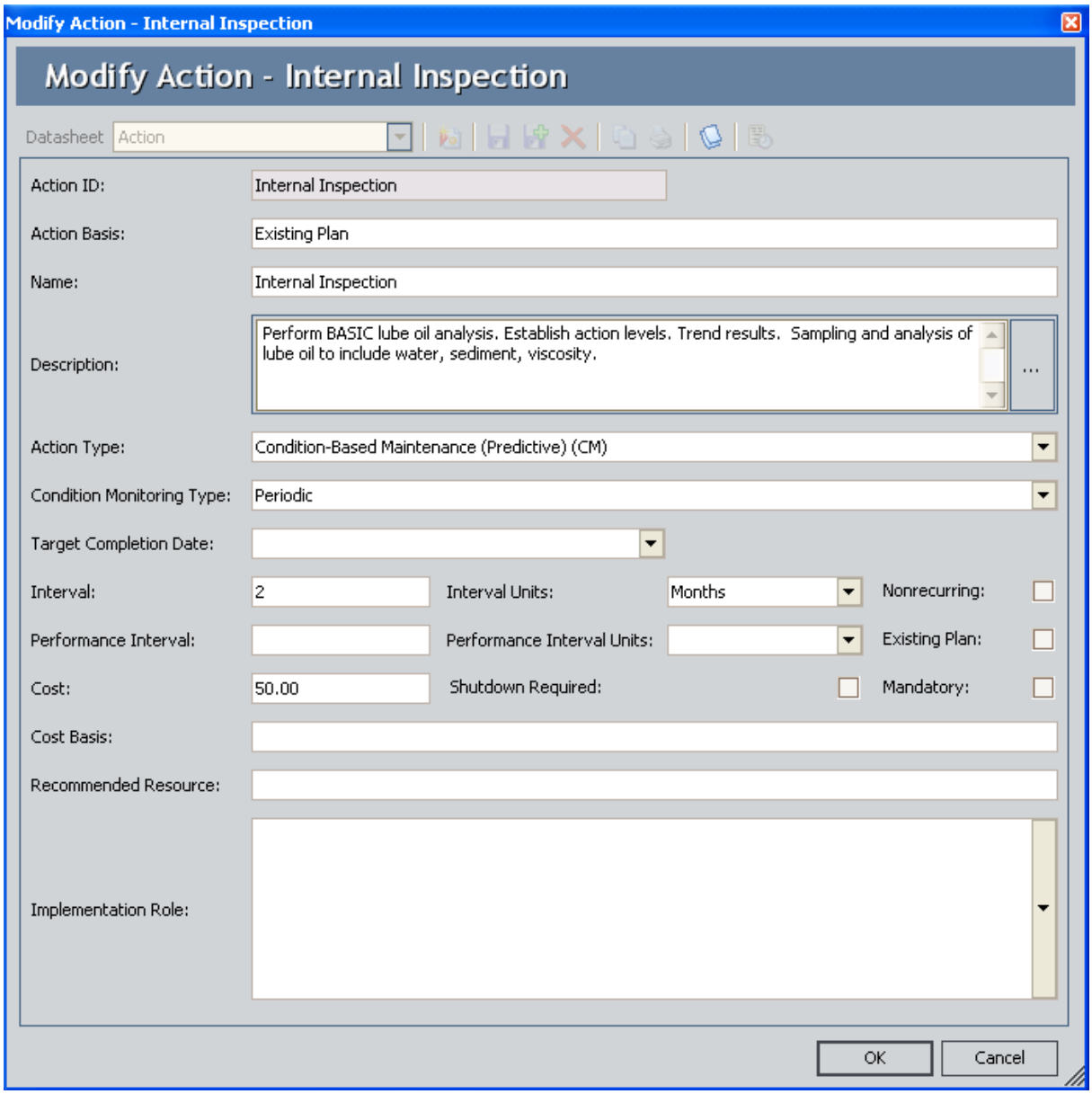


Likewise, the Asset Strategy Template *Template 2* would be linked to the Action records shown in the following image.



Flag	Name	Description	Action Type	Interval	Interval Units	Cost	Nonr...	Number...
	Internal Inspection	Perform BASIC lube oil analysis. Establish action levels. Trend results. Sampling and analysi...	CM	2	Months	50	☐	0
	Performance Test	Perform full spectrum vibration monitoring. Establish baseline and action levels. Trend results.	CM	1	Months	50	☐	0

The fields in *Action: Internal Inspection* would be populated as shown in the following image.


Modify Action - Internal Inspection
Modify Action - Internal Inspection
Datasheet
Action
Action ID:
Internal Inspection
Action Basis:
Existing Plan
Name:
Internal Inspection
Description:
Perform BASIC lube oil analysis. Establish action levels. Trend results. Sampling and analysis of lube oil to include water, sediment, viscosity.
Action Type:
Condition-Based Maintenance (Predictive) (CM)
Condition Monitoring Type:
Periodic
Target Completion Date:
Interval:
2
Interval Units:
Months
Nonrecurring:
Performance Interval:
Performance Interval Units:
Existing Plan:
Cost:
50.00
Shutdown Required:
Mandatory:
Cost Basis:
Recommended Resource:
Implementation Role:
OK
Cancel

Opening Asset Strategy Templates

To open an existing Asset Strategy Template:

1. Access the **ASM - Asset Strategy Template Search** page.
2. In the **Asset Strategy Template Search** workspace, in the row containing the Asset Strategy Template that you want to open, click the hyperlinked Template ID.

   The **Asset Strategy Template Overview** page appears.

About Applying Templates to Asset Strategies

You can apply an Asset Strategy Template to an Asset Strategy in one of two ways:

- **Apply the template as a copy:** This option allows you to manage the Asset Strategy independently of the template after the template has been applied.
- **Apply the template as a master:** This option causes the Asset Strategy to become controlled completely by the Asset Strategy Template, meaning that no changes can be made at the Asset Strategy level. To be able to make changes at the Asset Strategy level, you will need to remove the Asset Strategy from the template (i.e., break the connection between the template and the strategy).

Specifically, you can apply Asset Strategy Templates (i.e., templates) to Asset Strategies using the following methods:

- While viewing an *Asset Strategy*:
  - Apply it as a copy.
  - Apply it as a master.
- While viewing the *Asset Strategy Template*:
  - Apply it as a copy.
  - Apply it as a master.
  - Create a new Asset Strategy as a controlled strategy of a master Asset Strategy Template.
  - Create a new Asset Strategy as a copy of the Asset Strategy Template.

If an Asset Strategy Template is configured to use a non-default Risk Matrix (via the Risk Matrix field in the Asset Strategy Template record), the Asset Strategy Template can be applied only to:

- Existing Asset Strategies that are associated with a site whose Site Reference record is linked to that Risk Matrix record.
- New Asset Strategies where the Equipment or Functional Location record is linked to a Site Reference record that is linked to that Risk Matrix record.

In addition, after you apply an Asset Strategy Template that is configured to use a non-default Risk Matrix to an Asset Strategy, the Risk Matrix field in that Asset Strategy Template record is disabled.

About Applying a Template as a Master or as a Copy

Regardless of your entry point to the **Apply Template Builder**, you will need to specify the method that you want to use to apply a template. More specifically, you can select one of the following options:

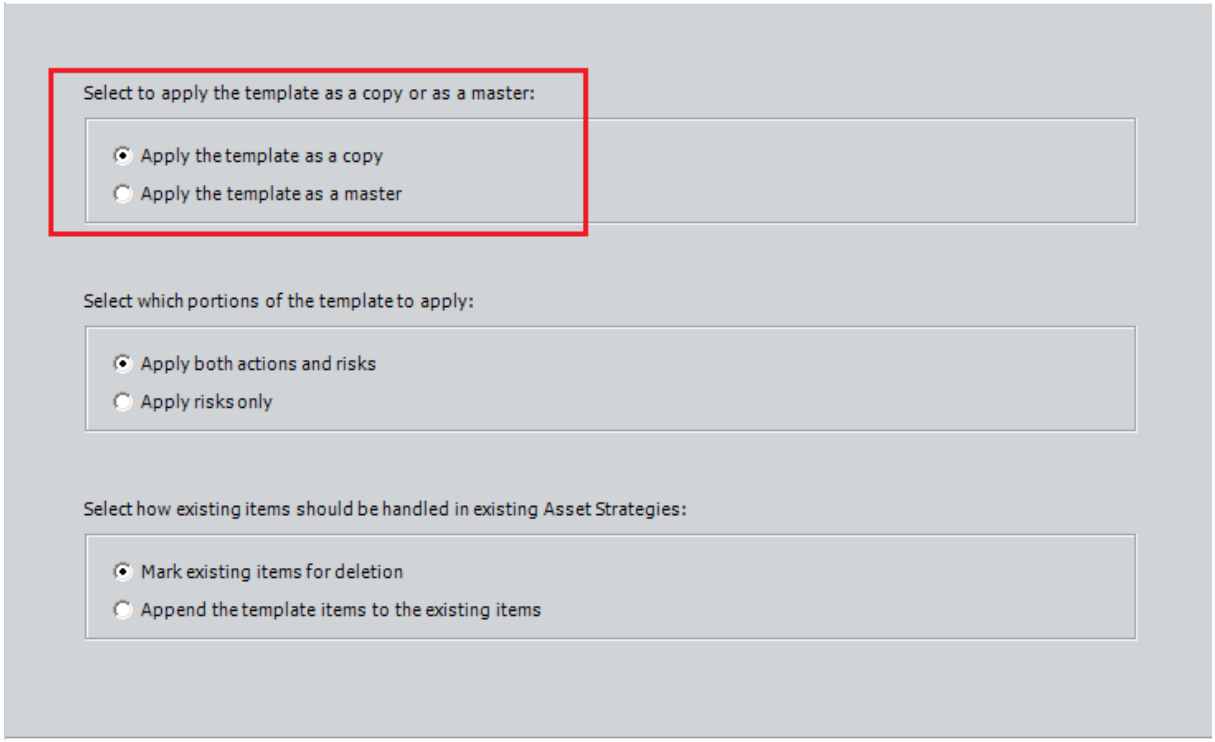
- **Apply the template as a copy:** The Asset Strategy Template will be applied to the selected Asset Strategies as a copy, and you will be able to manage the Asset Strategies independently of the master template afterwards. If you select this option, you will need to select additional settings. These settings are explained in the instructions for applying a template as a copy.
- **Apply the template as a master:** The Asset Strategy Template will be applied to the selected Asset Strategies as a master, and all changes to the Asset Strategies will be driven by changes to the Asset Strategy Template. This option causes the Asset Strategies to become controlled completely by the Asset Strategy Template, meaning that no changes can be made at the Asset Strategy level.

  If you select this option, the Asset Strategy states will be set to Active (but displayed as *Controlled by Master Template*). Note that you cannot apply a template as a master to an Asset Strategy that contains Mandatory Action records.

You will select one of these options on either of the following screens in the **Apply Template Builder**. These screens contain the same options but are titled differently depending upon your entry point.

- **Options for Applying the Template** screen, which appears when you access the **Apply Template Builder** while you are viewing an Asset Strategy.
- **Template Application Method** screen, which appears when you access the **Apply Template Builder** while you are viewing a template.

The following image shows what the options look like on these screens. A red outline has been added to the image to highlight the **Apply the template as a copy** and **Apply the template as a master** options.


Select to apply the template as a copy or as a master:
Apply the template as a copy
Apply the template as a master
Select which portions of the template to apply:
Apply both actions and risks
Apply risks only
Select how existing items should be handled in existing Asset Strategies:
Mark existing items for deletion
Append the template items to the existing items

Using the Actions or Risks to Include in Template Application Screen in the Apply Template Builder

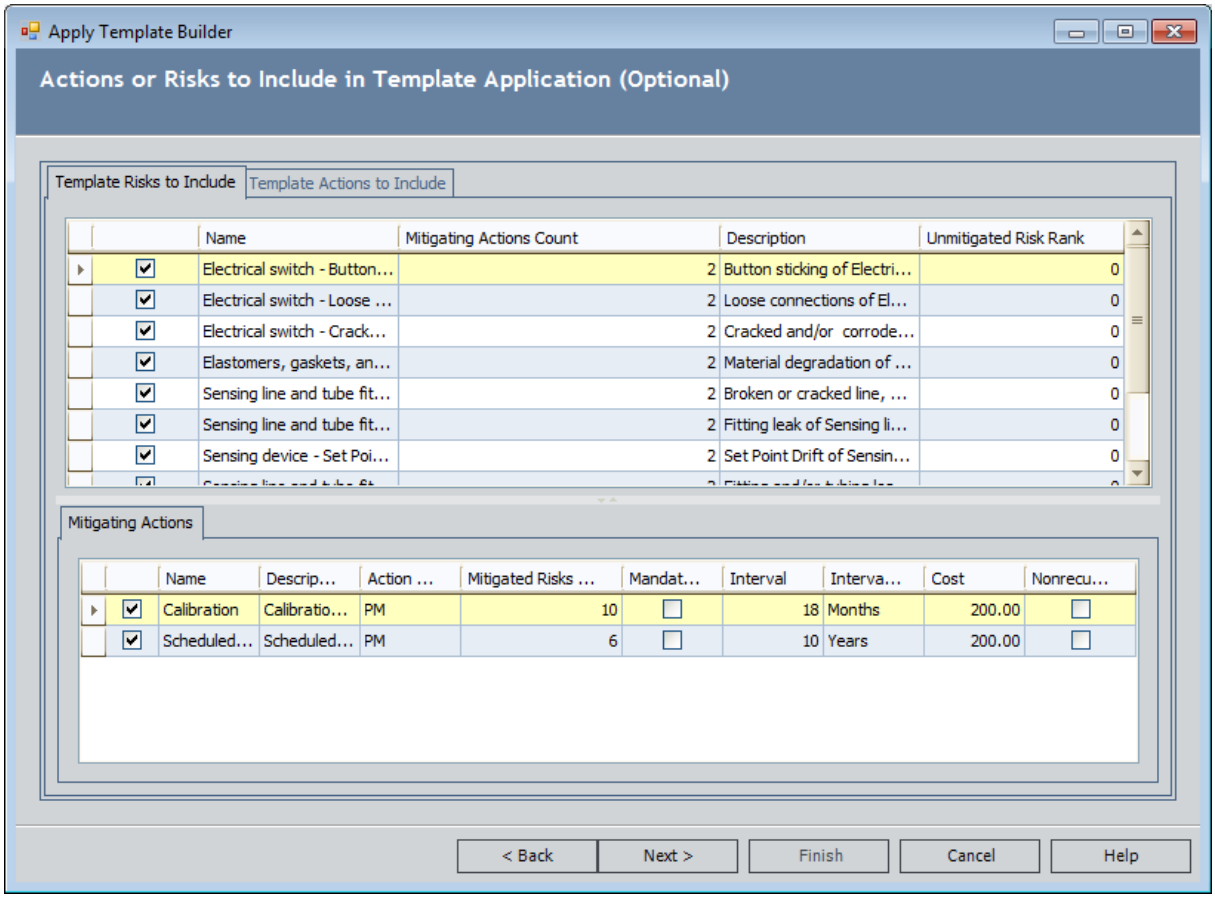
When you apply a template to an Asset Strategy as a copy, you will specify which portions of the template you want to apply. You can choose from the following options:

- Apply both Actions and Risks

  -OR-

- Apply Risks only

The option that you select will determine the content that appears on the **Actions or Risks to Include in Template Application** screen. The following image shows what the **Actions or Risks to Include in Template Application** screen looks like when you select the **Apply both actions and risks** option on the preceding screen in the builder. You can use the **Actions or Risks to Include in Template Application** screen to remove actions and risks that you do not want to add to the Asset Strategy. This step is optional.



This screen can contain the following tabs, depending upon whether you select to apply both Actions and Risks or only Risks to the Asset Strategy:

- **Template Risks to Include:** Contains two grids:
  - **Template Risks to Include:** Contains the list of Risks that are included in the template. Each row represents one Risk. When you select a row, the **Mitigating Actions** grid refreshes and displays the Actions that are associated with the selected Risk. This grid will always appear.
  - **Mitigating Actions:** Contains the list of Actions that are associated with the Risk that is selected in the **Template Risks to Include** grid. Each row represents one Action. This grid will appear only if you select the **Apply both actions and risks** option in the **Select which portions of the template to apply** section.
- **Template Actions to Include:** Contains two grids:
  - **Template Actions to Include:** Contains a list of Actions that are included in the template. Each row represents one Action. When you select a row, the **Mitigated Risks** grid refreshes and displays the Risks that are associated with the Action.
  - **Mitigated Risks:** Contains the list of Risks that are associated with the Action that is selected in the **Template Actions to Include** grid. Each row represents one Risk.

  This tab will appear only if you select the **Apply both actions and risks** option on the preceding screen in the builder.

The column on the far left in these grids contains a check box, which is selected by default. You can clear this check box to specify that the corresponding record should not be applied to the Asset Strategy. When you clear a check box for:

- A Risk, it will not be applied to the Asset Strategy. If the Risk is associated with Actions, those Actions will not be excluded automatically from the template application. In order to exclude the Actions that mitigate a risk, you must clear the check box associated with any Action you want to exclude.
- An Action, it will not be applied to the Asset Strategy. If the Action is associated with Risks, those Risks will not be excluded automatically from the template application. In order to exclude the Risks from the template application, you must clear the check box for any Risk you want to exclude.

When you clear a check box associated with an Action or Risk, you are specifying that the item should not be applied to the Asset Strategy. That item will not be removed from the template itself.

Applying a Template as a Copy While Viewing the Asset Strategy

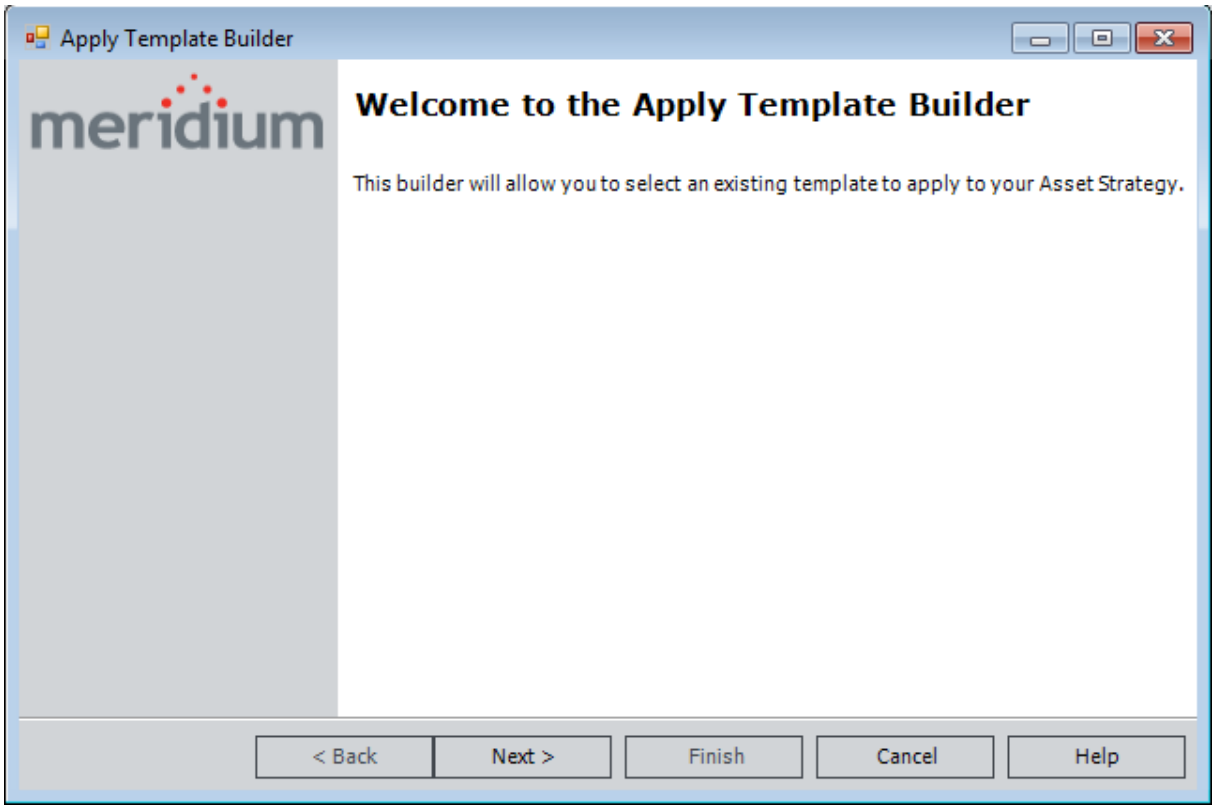
You can apply an Asset Strategy Template to an Asset Strategy only if the Asset Strategy state is *Draft*, *Modified*, or *Active*. You cannot apply an Asset Strategy Template to an Asset Strategy if the Asset Strategy state is *Pending Review*. The following instructions assume that you are applying a template to an Asset Strategy in a state other than *Pending Review*.

Members of the MI ASM Reviewer Security Group will be unable to apply a template to an Asset Strategy. The **Apply a Template** link is disabled if you are logged in as a member of the MI ASM Reviewer Security Group.

To apply a Template as a copy while viewing the Asset Strategy:

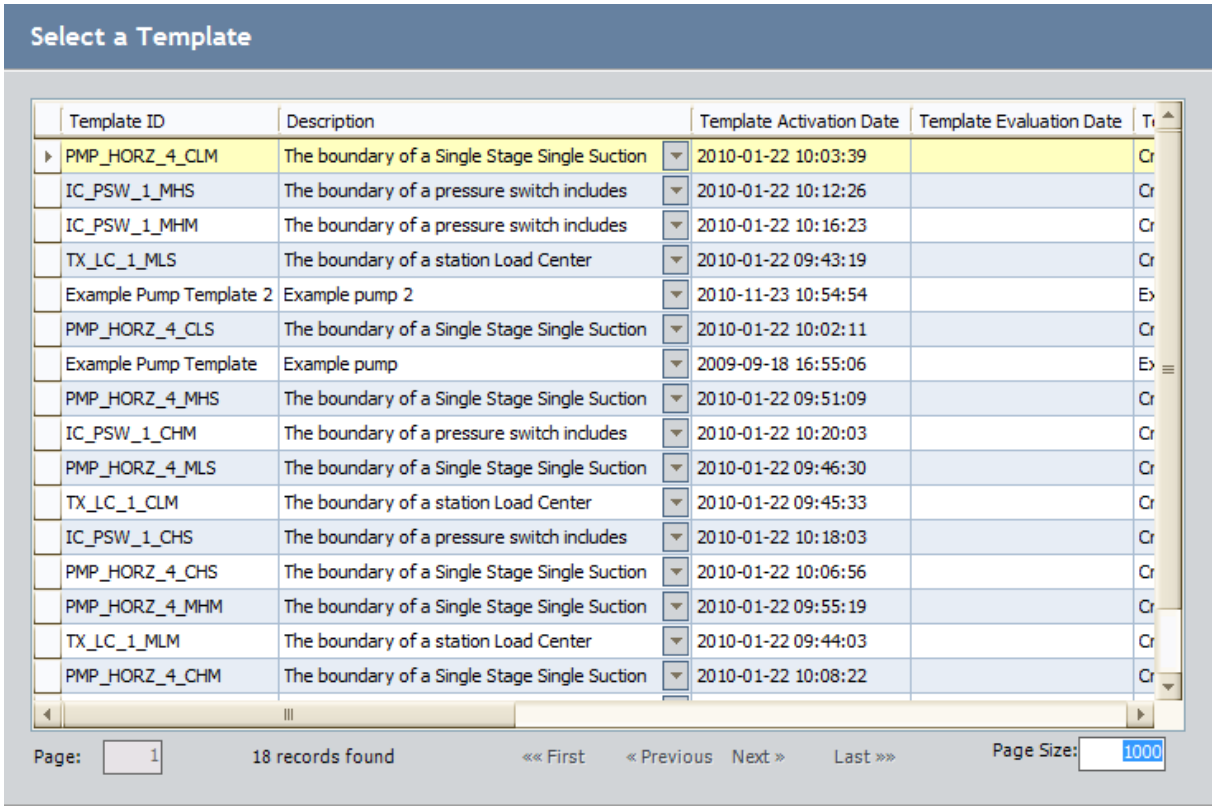
1. Open the Asset Strategy to which you want to apply an Asset Strategy Template as a copy.
2. On the **Template Tasks** menu, click the **Apply a Template** link.

   The **Apply Template Builder** appears, displaying the Welcome screen.



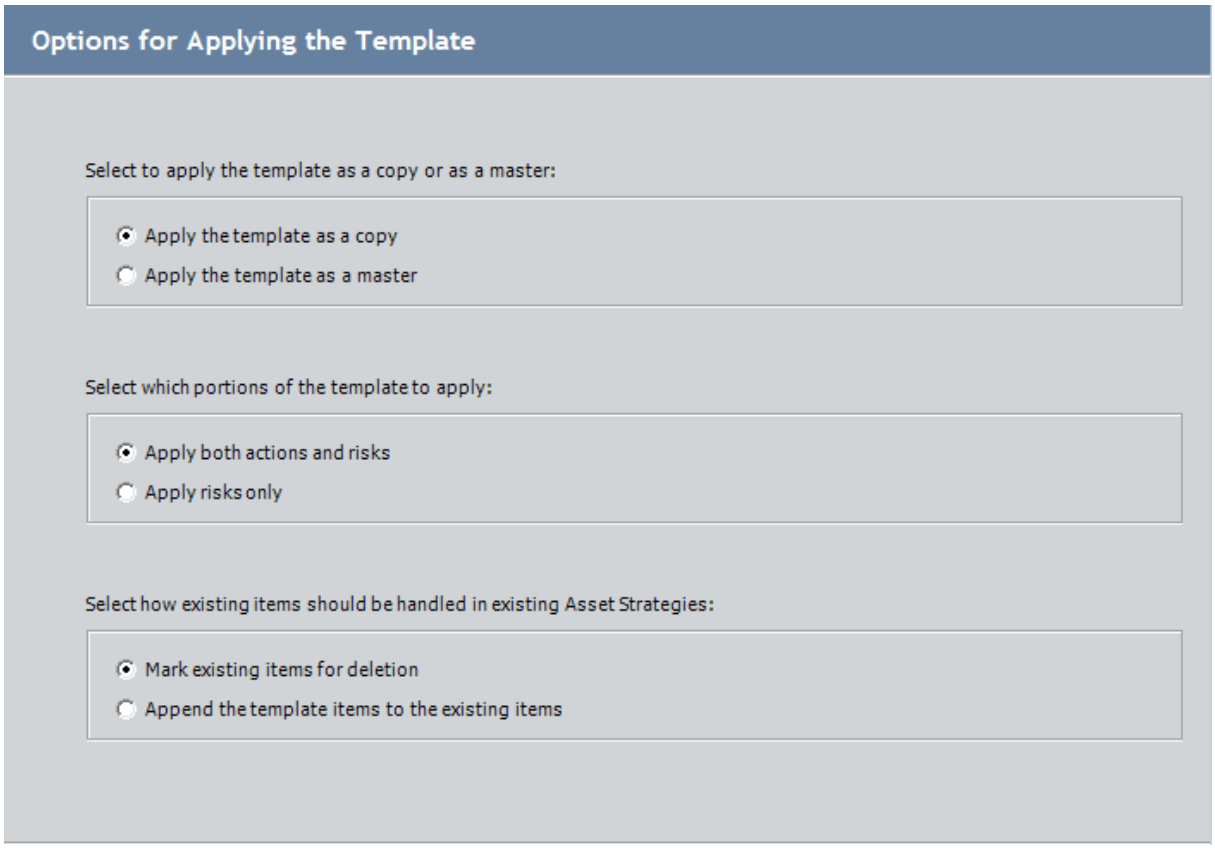
3. Click the **Next** button.

The **Select a Template** screen appears, displaying a list of all *Active* Asset Strategy Templates.



4. In the grid, select the row containing the Asset Strategy Template that you want to apply to the Asset Strategy, and then click the **Next** button.

   The **Options for Applying the Template** screen appears.



5. In the Select to apply the template as a copy or as a master section, select the **Apply the template as a copy** option.
6. In the **Select which portions of the template to apply** section, select one of the following options:

- **Apply both actions and risks:** Will cause the Actions, Risks, and all associated Risk Assessments to be transferred from the Asset Strategy Template to the new Asset Strategies. This option is selected by default.
- **Apply risks only:** Will cause only the Risks and their unmitigated Risk Assessments to be transferred from the Asset Strategy Template to the new Asset Strategies.

7. In the **Select how existing items should be handled in existing Asset Strategies** section, select one of the following options:

    - **Mark existing items for deletion:** Causes the Meridium APM system to flag any *non-Mandatory* Actions and associated Risks in the Asset Strategy as deleted, meaning their flag will contain an *X* symbol (Mandatory Actions are not flagged as deleted). This option is selected by default.

    If desired, after the Asset Strategy Template is applied, you can undo this action so that the Actions and Risks will not be deleted when the Asset Strategy is activated. Note that if an Action or Risk was added to the Asset Strategy *after* it was

last activated, that record will be *removed* from the Asset Strategy when the Asset Strategy Template is applied.

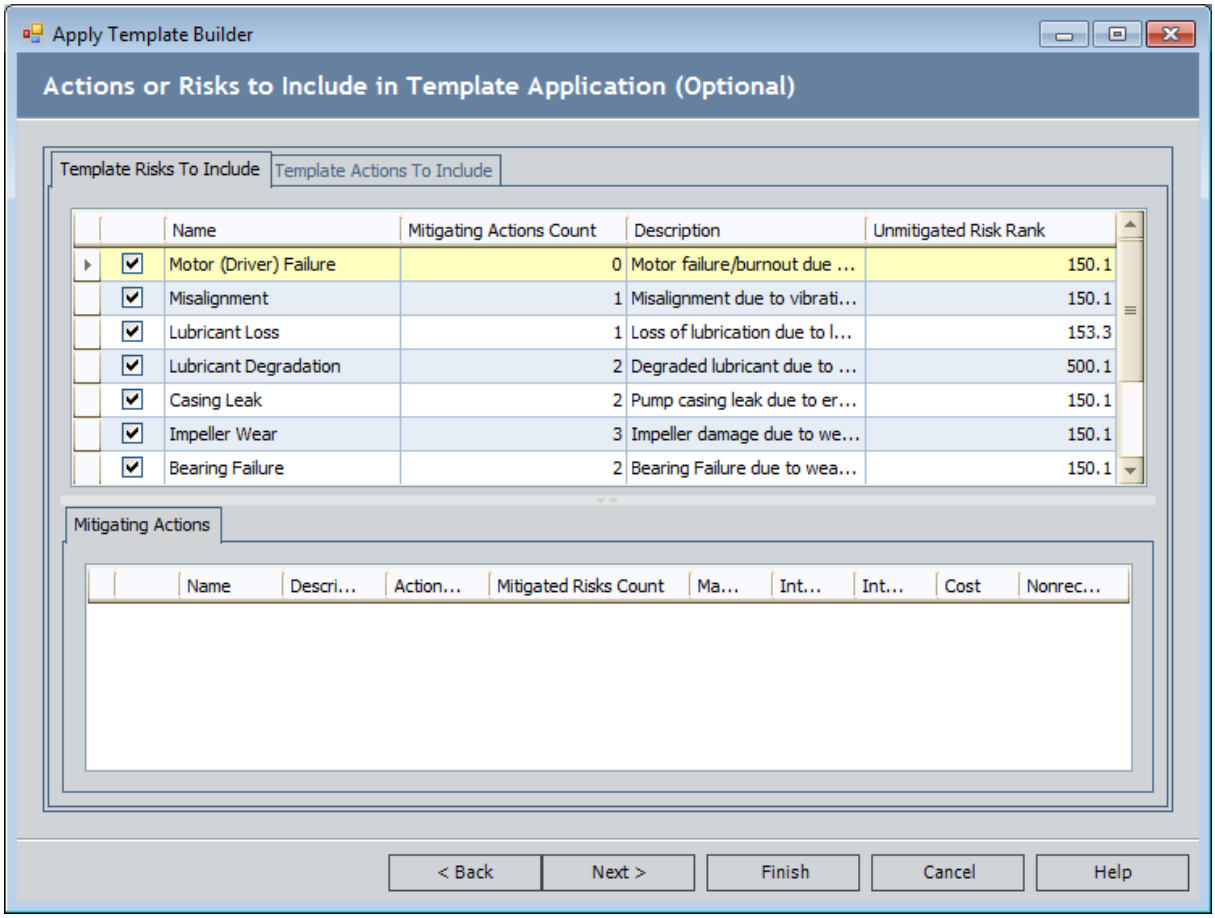
The Asset Strategy will be set to the *Modified* state.

- **Append the template items to the existing items:** Causes the Meridium APM system to flag any Action or Risk in the Asset Strategy Template as new in the Asset Strategy. This option does not flag any Action or Risk in the Asset Strategy as deleted.

  The Asset Strategy state will be set to the *Modified* state.

8. Click the **Next** button.

   The Actions or Risks to Include in Template Application screen appears, displaying in grids the Actions and Risks that are included in the template.



9. Review the Actions and Risks that are included in the template application, and clear the check box in the rows containing the items that you do not want to apply to the Asset Strategy. This step is optional.
10. Click the **Next** button.

The **Finish Applying the Template** screen appears, displaying a summary of your selections.

11. Click the **Finish** button.

    The Asset Strategy Template is applied to the Asset Strategy, and a message appears, indicating that the Asset Strategy Template was applied successfully.

12. Click **OK**.

    The Asset Strategy returns to focus.

Applying a Template as a Copy While Viewing the Template

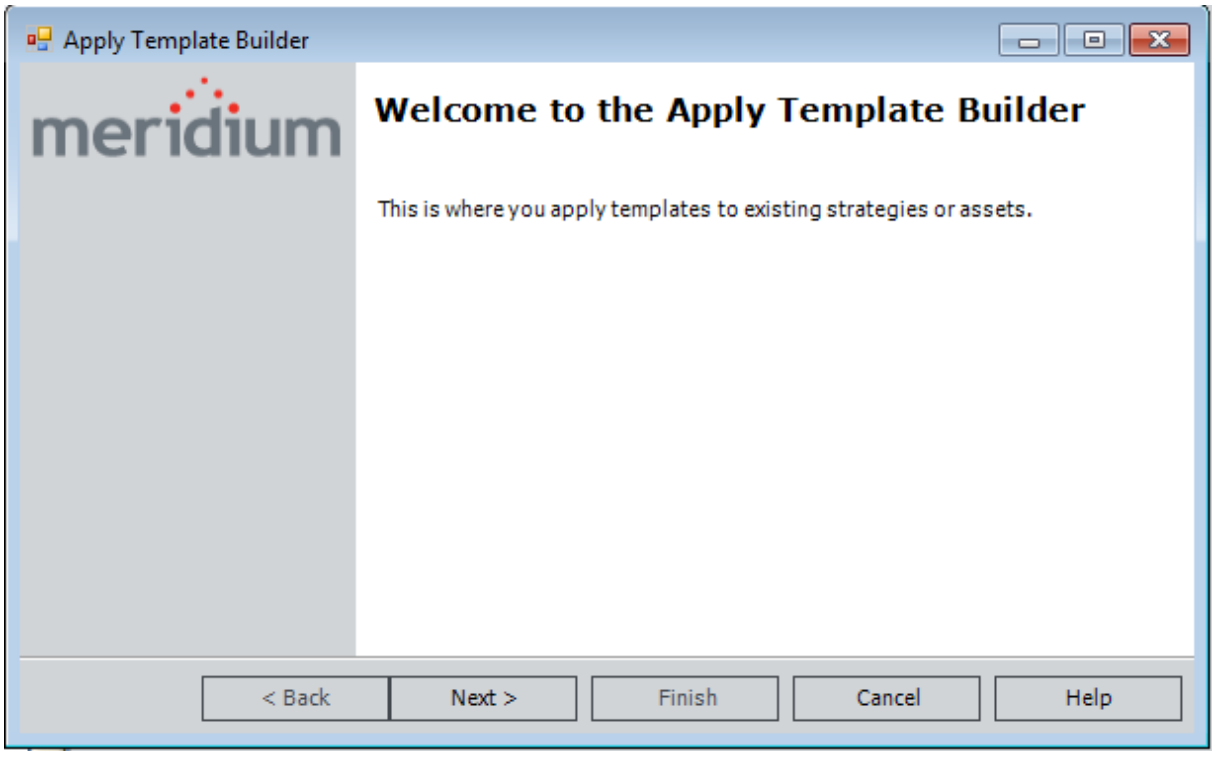
You can apply an Asset Strategy Template to an Asset Strategy only if the Asset Strategy state is *Draft*, *Modified*, or *Active*. You cannot apply an Asset Strategy Template to an Asset Strategy if the Asset Strategy state is *Pending Review*. The following instructions assume that you are applying a template to an Asset Strategy in a state other than *Pending Review*.

Members of the MI ASM Reviewer Security Group will be unable to apply a template to an Asset Strategy. The **Apply a Template** link is disabled if you are logged in as a member of the MI ASM Reviewer Security Group.

To apply a Template as a copy while viewing the Asset Strategy Template:

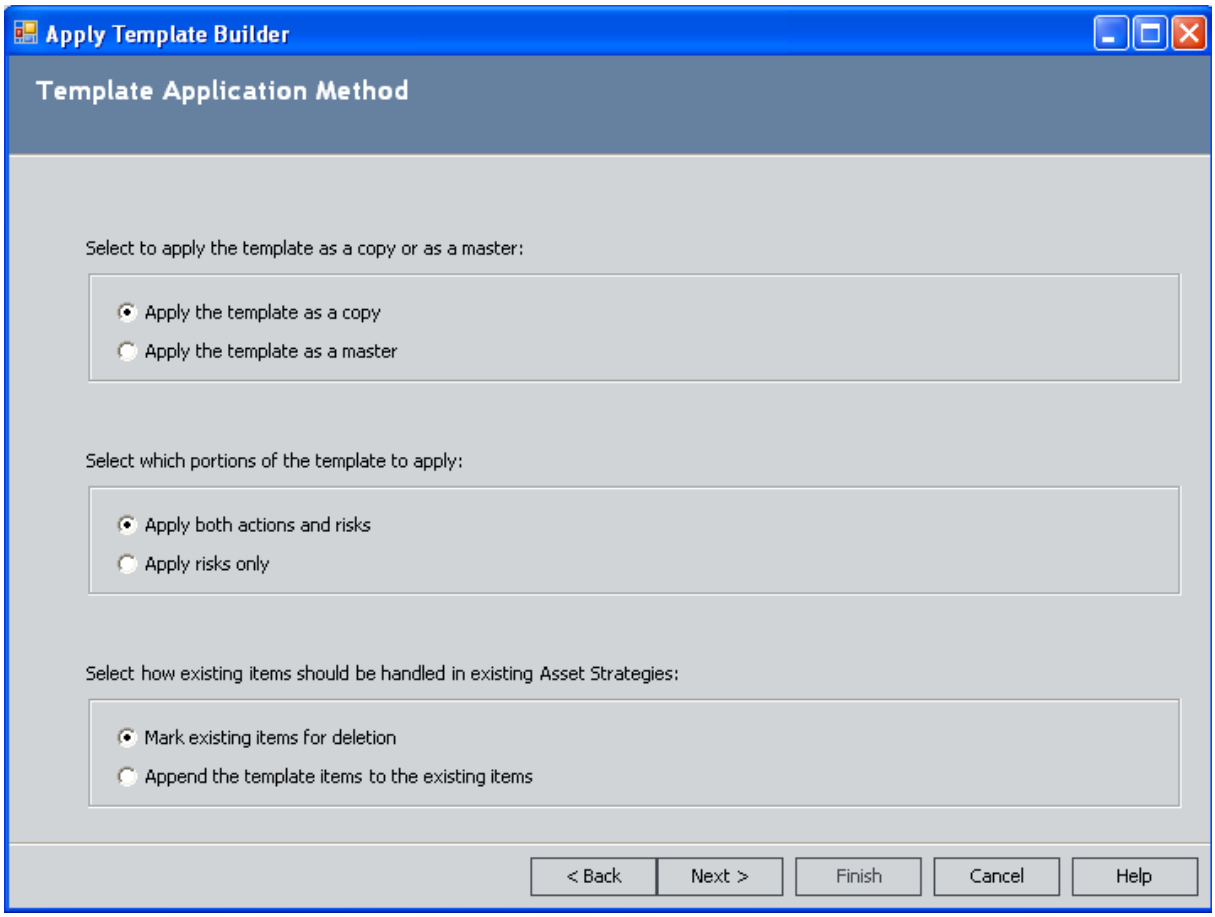
1. Open the Asset Strategy Template that you want to apply as a copy to existing Asset Strategies.
2. On the **Common Tasks** menu, click the **Apply Template** link.

   The **Apply Template Builder** appears, displaying the Welcome screen.



3. Click the **Next** button.

   The **Template Application Method** screen appears.



4. In the Select to apply the template as a copy or as a master section, select the **Apply the template as a copy** option.
5. In the **Select which portions of the template to apply** section, select either of the following options:
   - **Apply both actions and risks:** Transfers the Actions, Risks, and all associated Risk Assessments from the Asset Strategy Template to the Asset Strategies. This option is selected by default.
   - **Apply risks only:** Transfers only the Risks and their unmitigated Risk Assessments from the Asset Strategy Template to the Asset Strategies.
6. In the **Select how existing items should be handled in existing Asset Strategies** section, select one of the following options:
   - **Mark existing items for deletion:** Causes the Meridium APM system to flag any *non-Mandatory* Actions and associated Risks in the Asset Strategies as deleted, meaning their flag will contain an X symbol (Mandatory Actions are not flagged as deleted). This option is selected by default.

   If desired, after the Asset Strategy Template is applied to an Asset Strategy, you can undo this action so that the Actions and Risks will not be deleted when the

Asset Strategy is activated. Note that if an Action or Risk was added to the Asset Strategy *after* it was last activated, that record will be *removed* from the Asset Strategy when the Asset Strategy Template is applied.

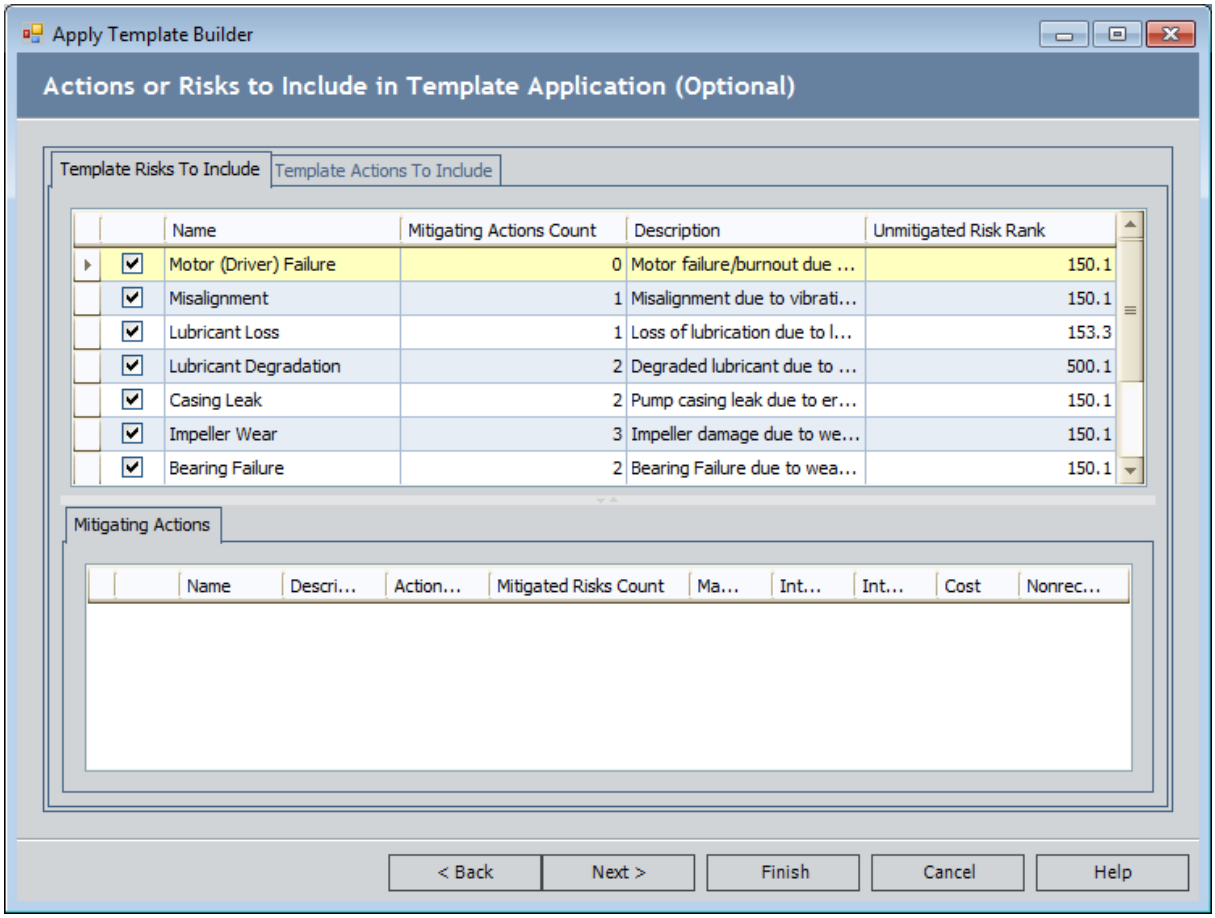
The Asset Strategies will be set to the Modified state.

- **Append the template items to the existing items:** Causes the Meridium APM system to flag any Actions or Risks in the Asset Strategy Template as new in the Asset Strategy. This option does not flag any Actions or Risks in the Asset Strategy as deleted.

The Asset Strategies will be set to the Modified state.

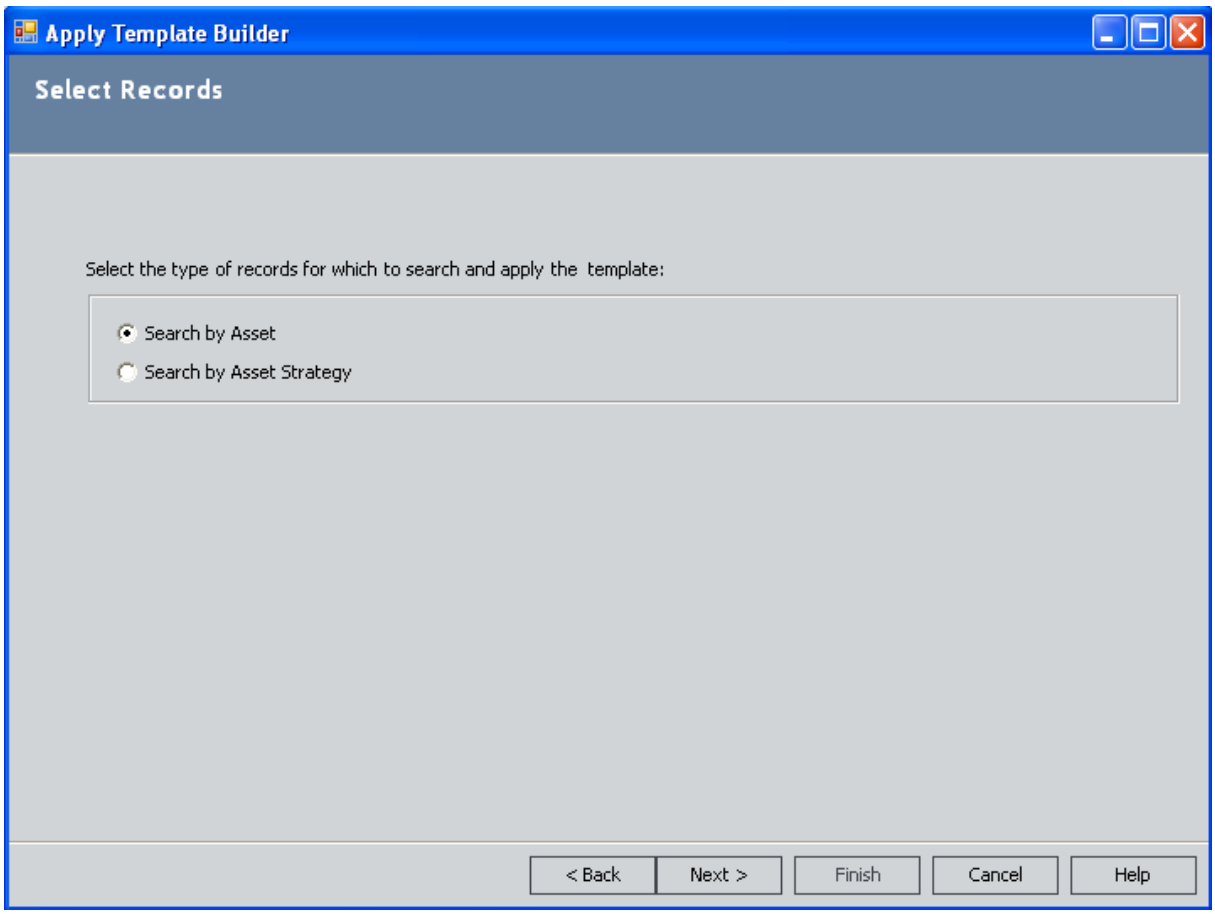
7. Click the **Next** button.

   The Actions or Risks to Include in Template Application screen appears, displaying in grids the Actions and Risks that are included in the template.



8. Review the Actions and Risks that are included in the template application, and clear the check box in the row containing the items that you do not want to apply to the Asset Strategy. This step is optional.
9. Click the **Next** button.

The **Select Records** screen appears.



10. To apply this Asset Strategy Template to Asset Strategies for specific *assets*, accept the default selection, **Search by Asset**.

    -OR-

    To apply this Asset Strategy Template to specific *Asset Strategies*, select the **Search by Asset Strategy** option.

11. Click the **Next** button.

    The **Select Records** screen appears.

    - If you selected the **Search by Asset** option on the previous screen, the **Search In** list displays a list of families that are predecessors in the Has Strategy relationship.
    - If you selected the **Search by Asset Strategy** option on the previous screen, the **Asset Type** list displays a list of families that contain a record that is already linked to an Asset Strategy record.
        - If you selected the **Apply the template as a copy** option on the **Template Application Method** screen, this screen displays the results of

the query Asset_Strategy_Search_Non_Pending.

- If you selected the **Apply the template as a master** option on the **Template Application Method** screen, this screen displays the results of the query Strategies Without Master Templates.

12. If you see the **Search In** list, select the family containing the records that are linked to Asset Strategy records to which you want to apply this template: *Equipment* or *Functional Location*. The search results will display all records in that family. If desired, you can also use the options on the **Advanced Search** tab to refine the search criteria using an Advanced Search.

    -OR-

    If you see the **Asset Type** list, select the family containing the records that are linked to the Asset Strategy records to which you want to apply this template: *Equipment* or *Functional Location*.

    - If you selected the **Apply the template as a copy** option on the **Template Application Method** screen, the search results display Asset Strategy records that are linked to an Equipment or Functional Location record in the selected family and that are not set to the Pending Review state.
    - If you selected the **Apply the template as a master** option on the **Template Application Method** screen, the search results display:
        - Non-Pending Review Asset Strategy records that are linked to an Equipment or Functional Location record in the selected family but are not linked to an Asset Strategy Template record through the Master Template Has Asset Strategy relationship.
        - Non-Pending Review Asset Strategy records that are not linked to an Equipment or Functional Location record and are not linked to an Asset Strategy Template record through the Master Template Has Asset Strategy relationship.

13. Click the **Find Now** button or the **Run Query** button, whichever is available.

    The results are returned in the grid below the search criteria.

14. Select the rows containing the desired records.

    If you select Equipment or Functional Location records, this template will be applied to the Asset Strategies for those assets.

    -OR-

    If you select Asset Strategy records, this template will be applied to those Asset Strategies.

15. Click the **Next** button.

    The **Finish Applying the Template** screen appears, displaying a summary of your selections.

16. Click the **Finish** button.

    The Asset Strategy Template is applied to the Strategy.

Creating New Asset Strategies as Copies of a Template

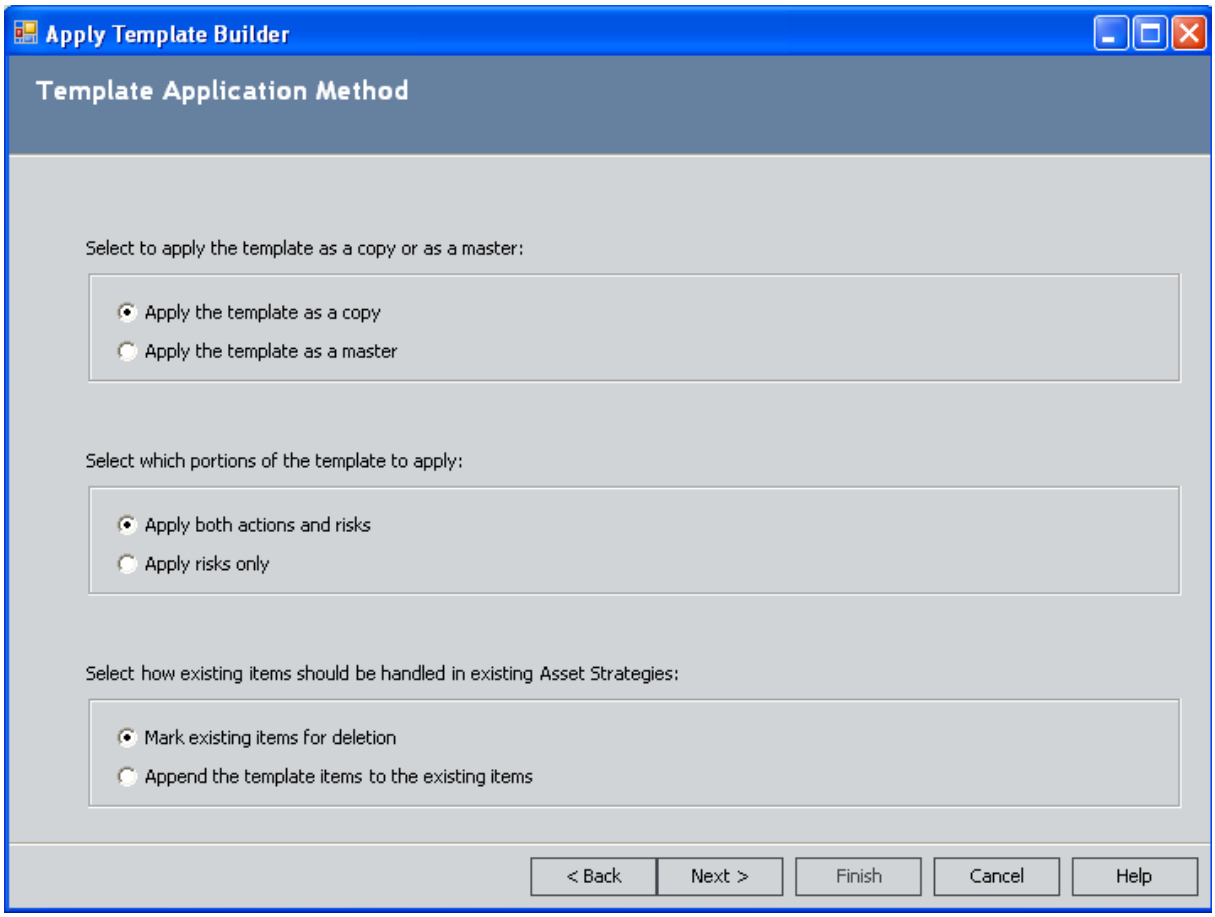
The following instructions provide details on creating one or more Asset Strategies from an Asset Strategy Template that is applied as a copy. The number of Asset Strategies that will be created is determined by the number of Equipment and Functional Location records that you select during the creation process.

To create one or more new Asset Strategies as a copy of an Asset Strategy Template:

1. Search for and open the *Active* Asset Strategy Template that you want to use to create new Asset Strategies.
2. On the **Common Tasks** menu, click the **Apply Template** link.

   The **Apply Template Builder** appears, displaying the **Welcome** screen.
3. Click the **Next** button.

   The **Template Application Method** screen appears.



4. In the Select to apply the template as a copy or as a master section, select the **Apply the template as a copy** option.
5. In the **Select which portions of the template to apply** section, select either of the following options:

- **Apply both actions and risks:** Transfers the Actions, Risks, and all associated Risk Assessments from the Asset Strategy Template to the Asset Strategies. This option is selected by default.
- **Apply risks only:** Transfers only the Risks and their unmitigated Risk Assessments from the Asset Strategy Template to the Asset Strategies.

6. In the **Select how existing items should be handled in existing Asset Strategies** section, select one of the following options:

    - **Mark existing items for deletion:** Causes the Meridium APM system to flag any *non-Mandatory* Actions and associated Risks in the Asset Strategies as deleted, meaning their flag will contain an X symbol (Mandatory Actions are not flagged as deleted). This option is selected by default.

    If desired, after the Asset Strategy Template is applied to an Asset Strategy, you can undo this action so that the Actions and Risks will not be deleted when the Asset Strategy is activated. Note that if an Action or Risk was added to the Asset Strategy *after* it was last activated, that item will be *removed* from the Asset Strategy when the Asset Strategy Template is applied.

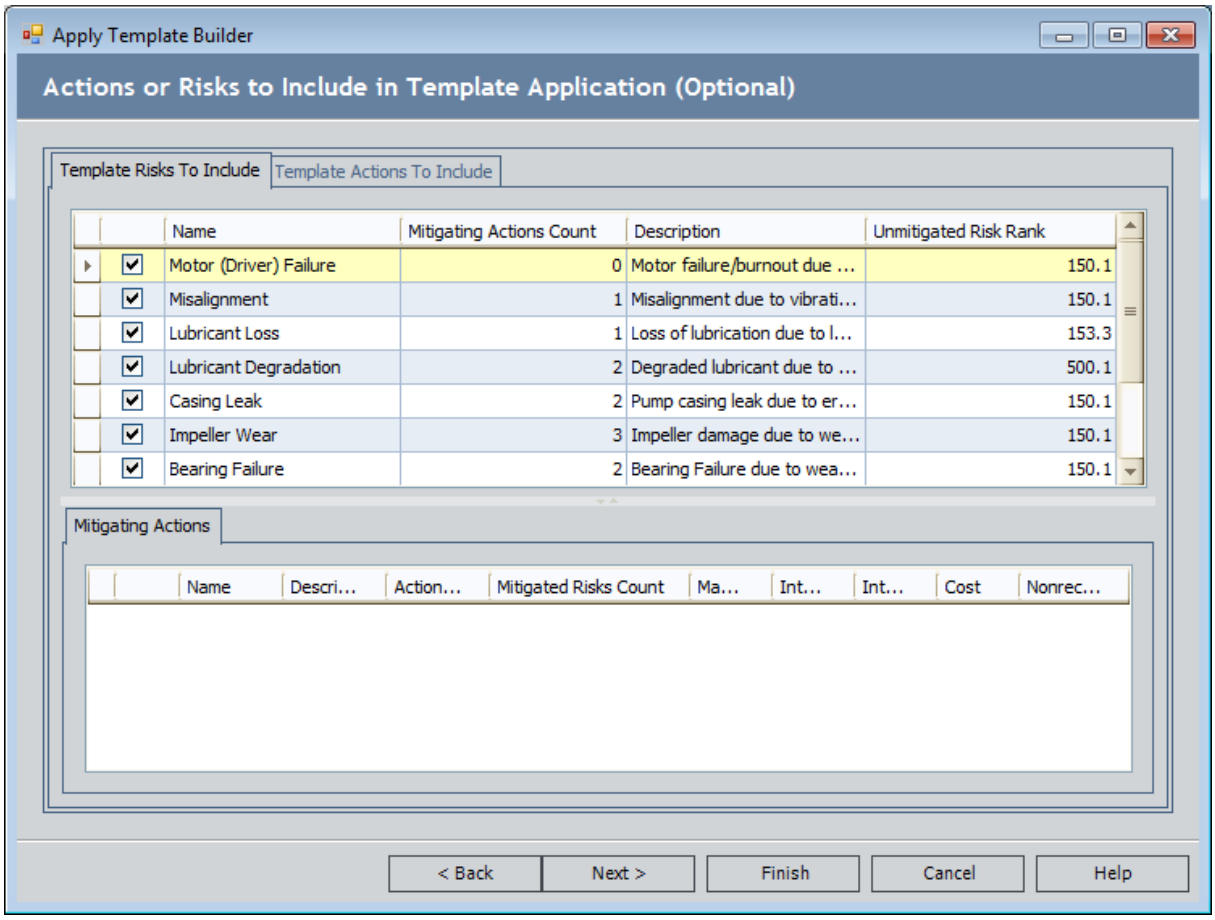
    The Asset Strategies will be set to the Modified state.

- **Append the template items to the existing items:** Causes the Meridium APM system to flag any Actions or Risks in the Asset Strategy Template as new in the Asset Strategy. This option does not flag any Actions or Risks in the Asset Strategy as deleted.

    The Asset Strategies will be set to the Modified state.

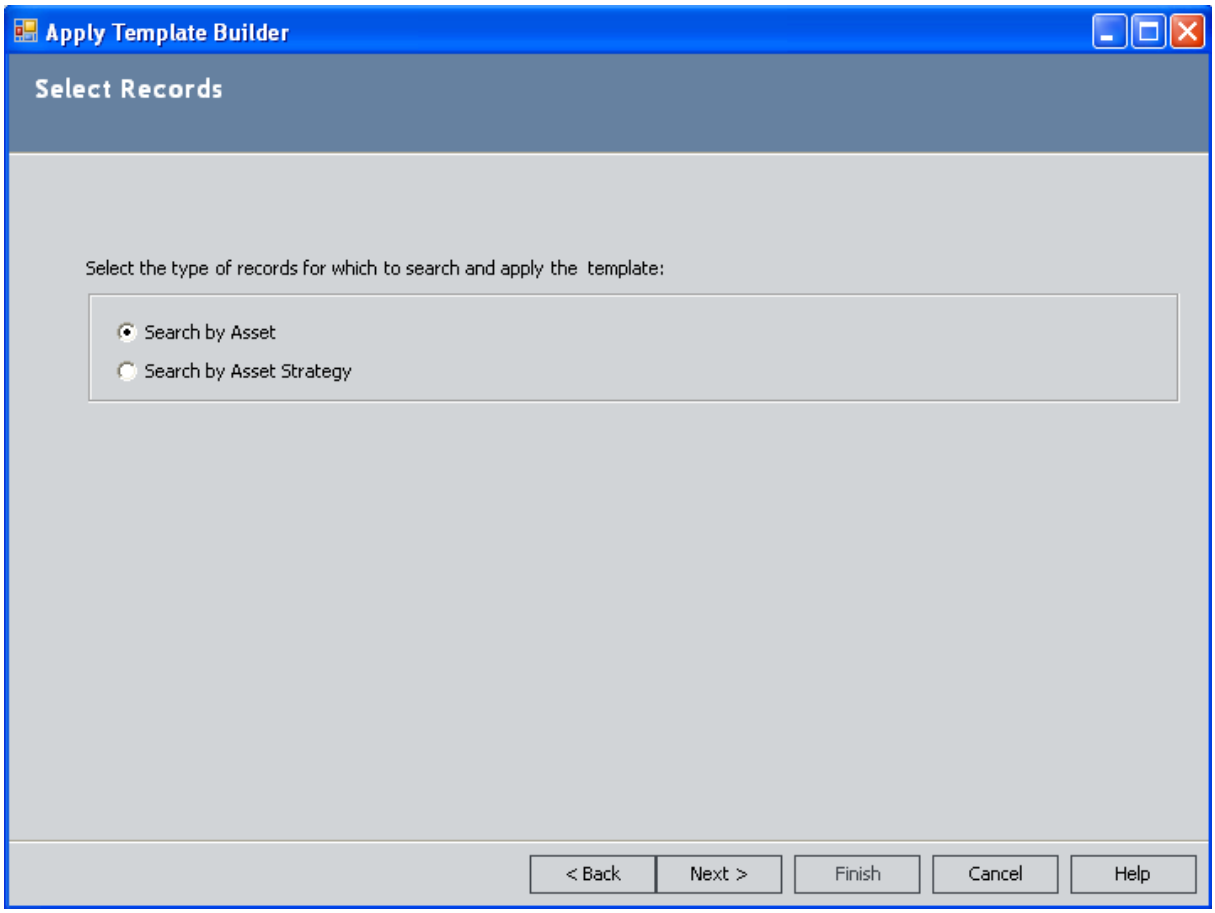
7. Click the **Next** button.

    The Actions or Risks to Include in Template Application screen appears, displaying in grids the Actions and Risks that are included in the template.



8. Review the Actions and Risks that are included in the template application, and clear the check box in the row containing the items that you do not want to apply to the Asset Strategy. This step is optional.
9. Click the **Next** button.

   The **Select Records** screen appears.



10. Accept the default selection, **Search by Asset**, and click the **Next** button.

    The **Select Records** screen appears. The **Search In** list displays a list of families that are predecessors in the Has Strategy relationship.

11. In the **Search In** list, select the Equipment or Functional Location family containing the records for which you want to create new Asset Strategies. If desired, you can also use the options on the **Advanced Search** tab to refine the search criteria using an Advanced Search.

12. Click the **Find Now** button.

    The results are returned in the grid below the search criteria.

13. Select the rows containing the desired records.

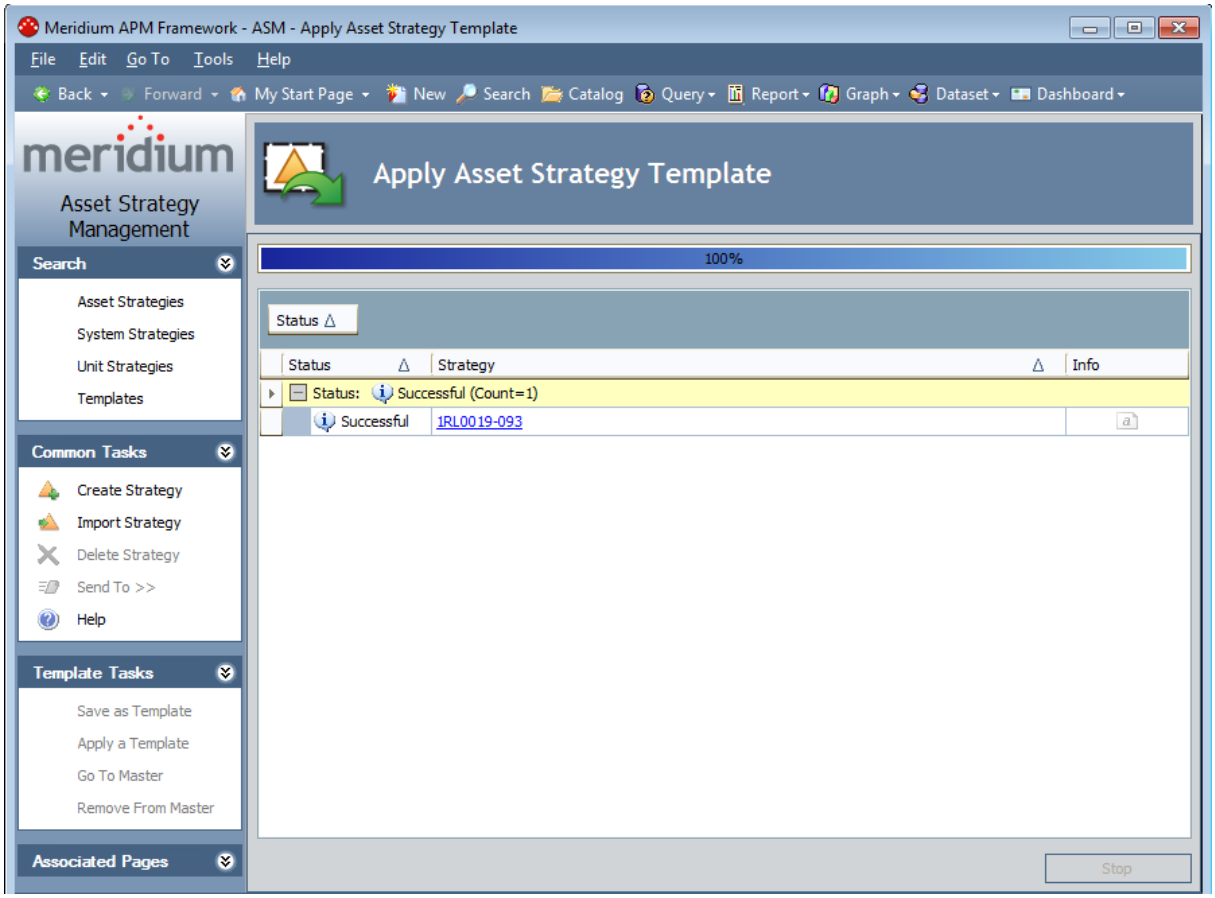
    This template will be used to create new Asset Strategies for the selected records.

14. Click the **Next** button.

    The **Finish Applying the Template** screen appears, displaying a summary of your selections.

15. Click the **Finish** button.

The Asset Strategy Template is used to create the new Asset Strategies, and the **Apply Asset Strategy Template** page appears.



Each row represents an Asset Strategy that was created successfully. The **Strategy** column contains a hyperlink, which you can click to access the **Asset Strategy Actions** page.

Note that in each new Asset Strategy that was created from the template, any Actions or Risks that exist in the Asset Strategy Template are flagged as new in the Asset Strategy (their flag will contain a plus symbol). If desired, you can undo this action so that the Actions and Risks will not be included in the Asset Strategy when the Asset Strategy is activated.

About Master Templates

A *master template* is an Asset Strategy Template that has been applied to an Asset Strategy and controls the Asset Strategy, meaning that no changes can be made at the Asset Strategy level. All changes that you make to a master template will be applied automatically to the controlled Asset Strategy when the template is activated.

Note the following characteristics of master templates and the records related to them:

- When an Asset Strategy is controlled by a master template, its stored state is always *Active*, regardless of the state of the master template. When you are viewing the Asset Strategy in ASM, however, the state will be displayed as *Controlled by Master Template*.

- When you activate a master template, a message will appear, identifying the Asset Strategies to which the changes will be applied.
- Health Indicator records that are linked to Action records in a master template will not be applied to any Asset Strategies that are controlled by the master template.
- You cannot delete an Asset Strategy Template that is functioning as a master template. If a template is applied to an Asset Strategy as a master, you must remove those Asset Strategies from the master template before you can delete the Asset Strategy Template.
- You cannot apply a master template to an Asset Strategy that contains Mandatory Actions.
- You cannot apply a master template to an Asset Strategy whose state is set to Pending Review.
- You cannot apply a master template to an Asset Strategy that contains Actions or Risks that originated in Risk Based Inspection (RBI) or Safety Instrumented System (SIS) Management.
- If an Asset Strategy Template has been applied as a master template to an Asset Strategy, another Asset Strategy Template cannot be applied to that Asset Strategy.
- An Asset Strategy Template can be applied as a master template to some Asset Strategies and as a standard template to other Asset Strategies.

Applying a Template as a Master While Viewing the Asset Strategy

You can apply an Asset Strategy Template to an Asset Strategy only if the Asset Strategy state is *Draft*, *Modified*, or *Active*. You cannot apply an Asset Strategy Template to an Asset Strategy if the Asset Strategy state is *Pending Review*. The following instructions assume that you are applying a template to an Asset Strategy in a state other than *Pending Review*.

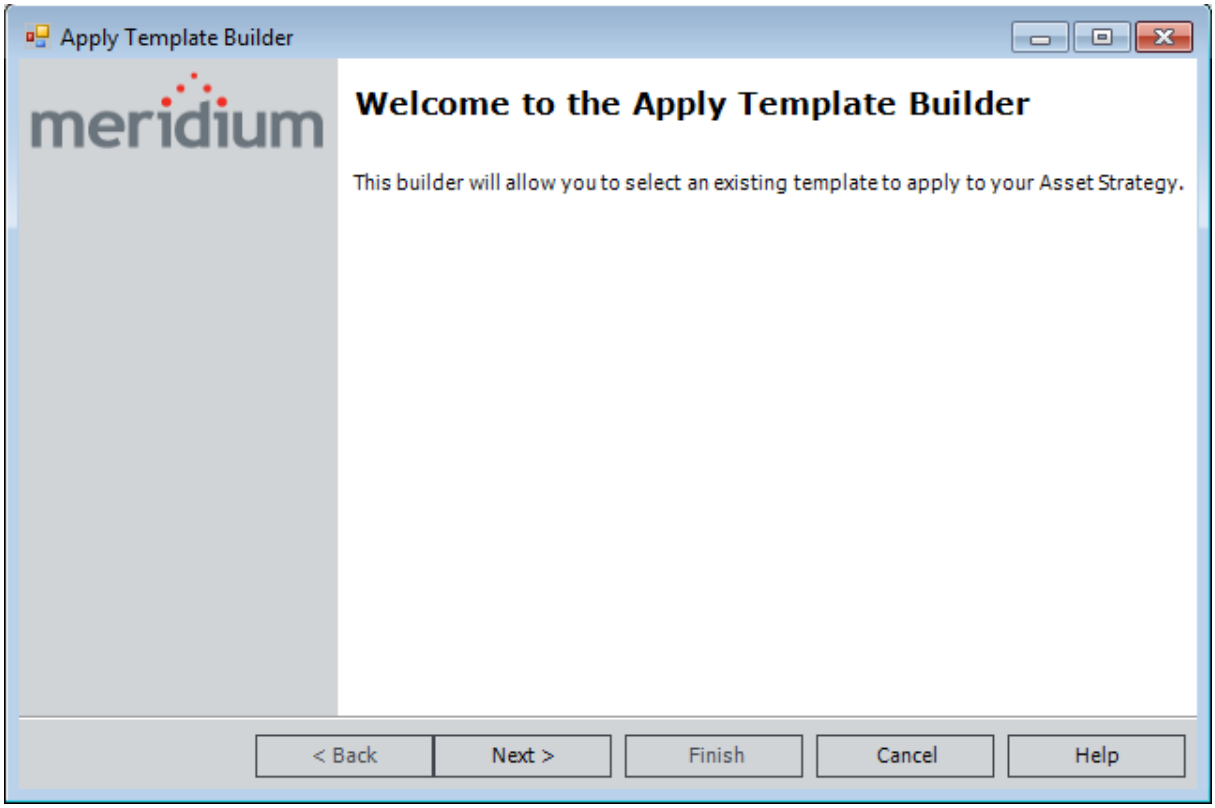
You cannot apply a template as a master to an Asset Strategy that contains Mandatory Action records.

Members of the MI ASM Reviewer Security Group will be unable to apply a template to an Asset Strategy. The **Apply a Template** link is disabled if you are logged in as a member of the MI ASM Reviewer Security Group.

To apply a template as a master while viewing the Asset Strategy:

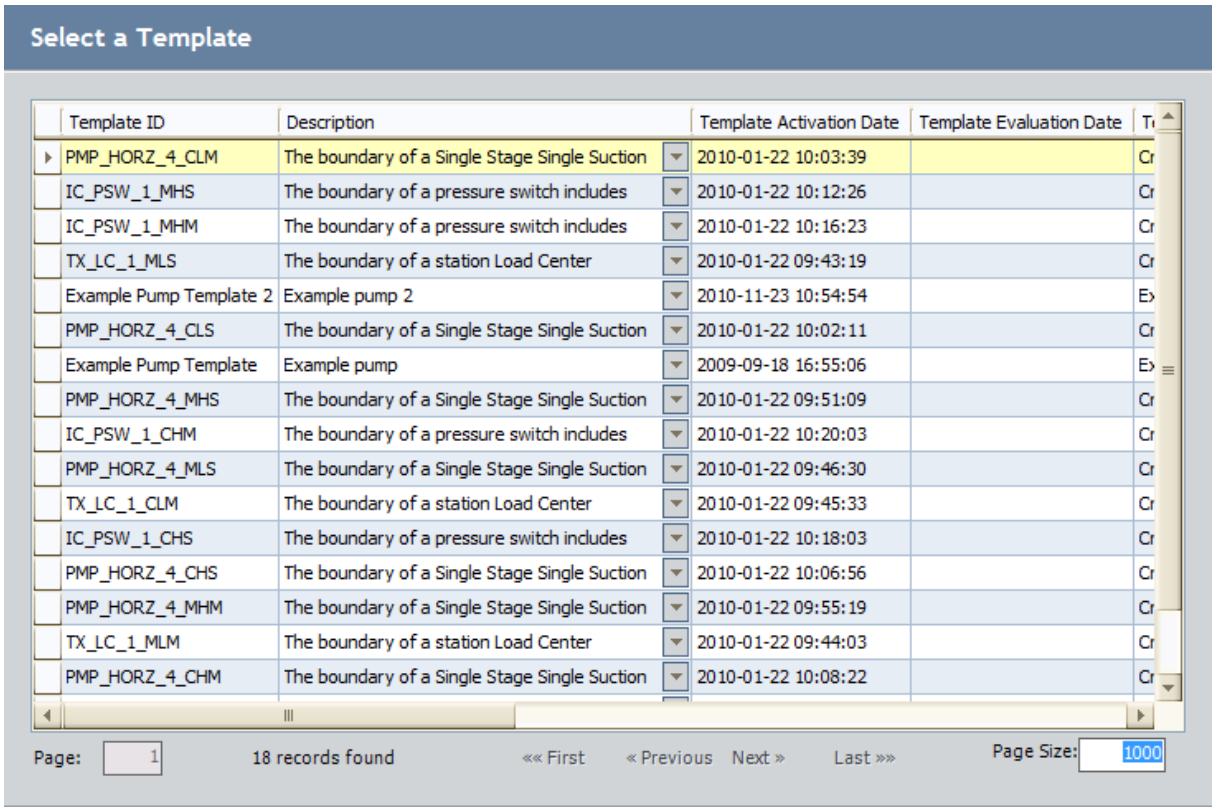
1. Open the Asset Strategy to which you want to apply an Asset Strategy Template as a master.
2. On the **Template Tasks** menu, click the **Apply a Template** link.

   The **Apply Template Builder** appears, displaying the Welcome screen.



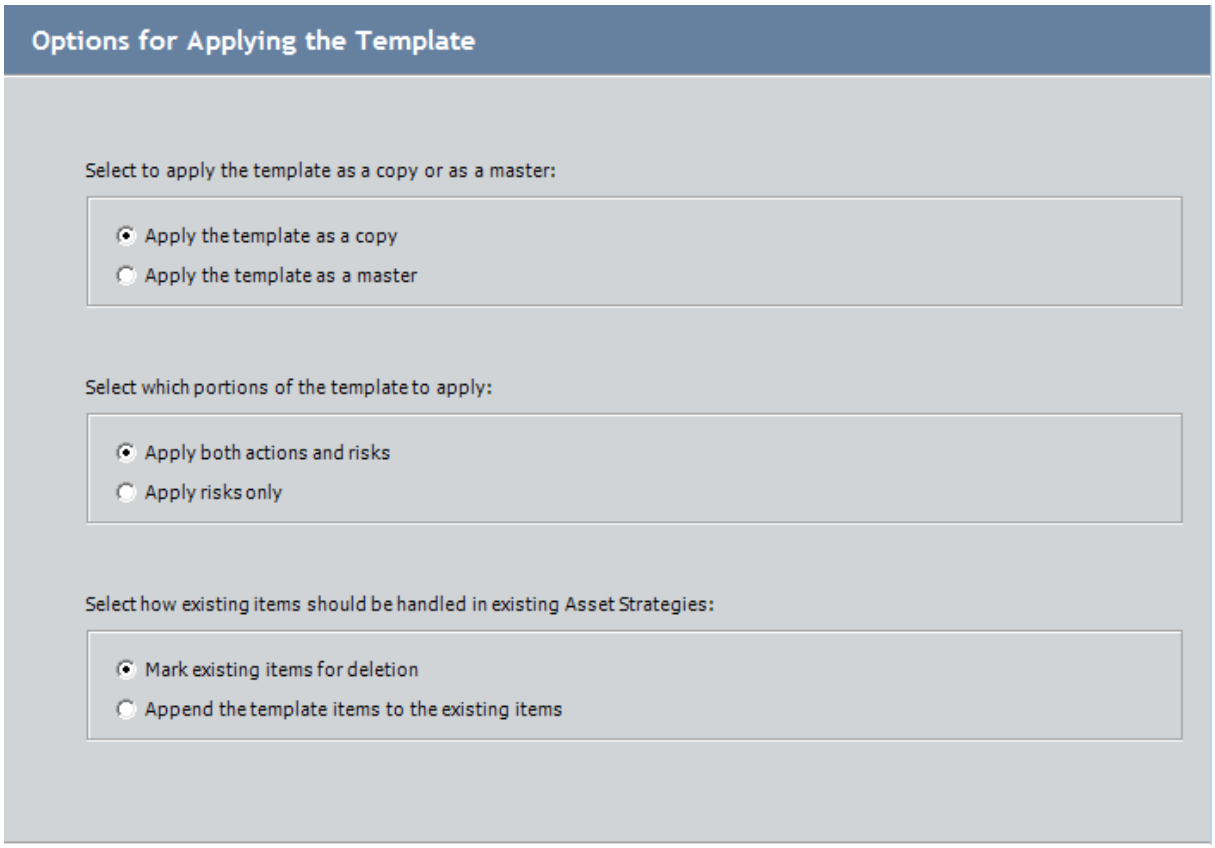
3. Click the **Next** button.

   The **Select a Template** screen appears, displaying a list of all *Active* Asset Strategy Templates.



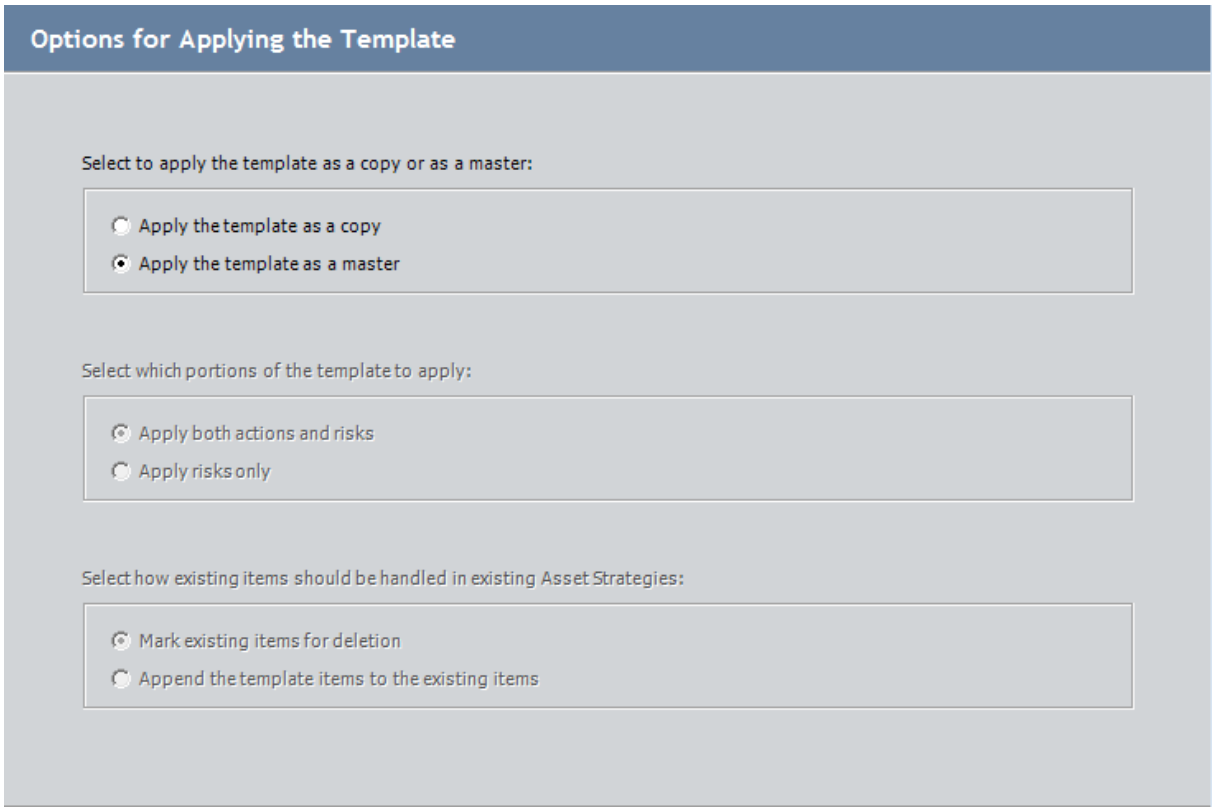
4. In the grid, select the row containing the Asset Strategy Template that you want to apply to the Asset Strategy, and then click the **Next** button.

   The **Options for Applying the Template** screen appears.



5. In the Select to apply the template as a copy or as a master section, select the **Apply the template as a master** option.

   The remaining options are disabled.



6. Click the**Next**button.

   The **Finish Applying Template** screen appears, displaying a summary of your selections.

7. Click the **Finish** button.

   A progress bar appears, indicating the progress of the operation. After the Asset Strategy Template is applied to the Asset Strategy, a message appears, indicating that the Asset Strategy Template was applied successfully.

8. Click **OK**.

   The Asset Strategy returns to focus.

Applying a Template as a Master via the Master Template Management Page

After an Asset Strategy Template exists, you can apply it to an existing Asset Strategy by:

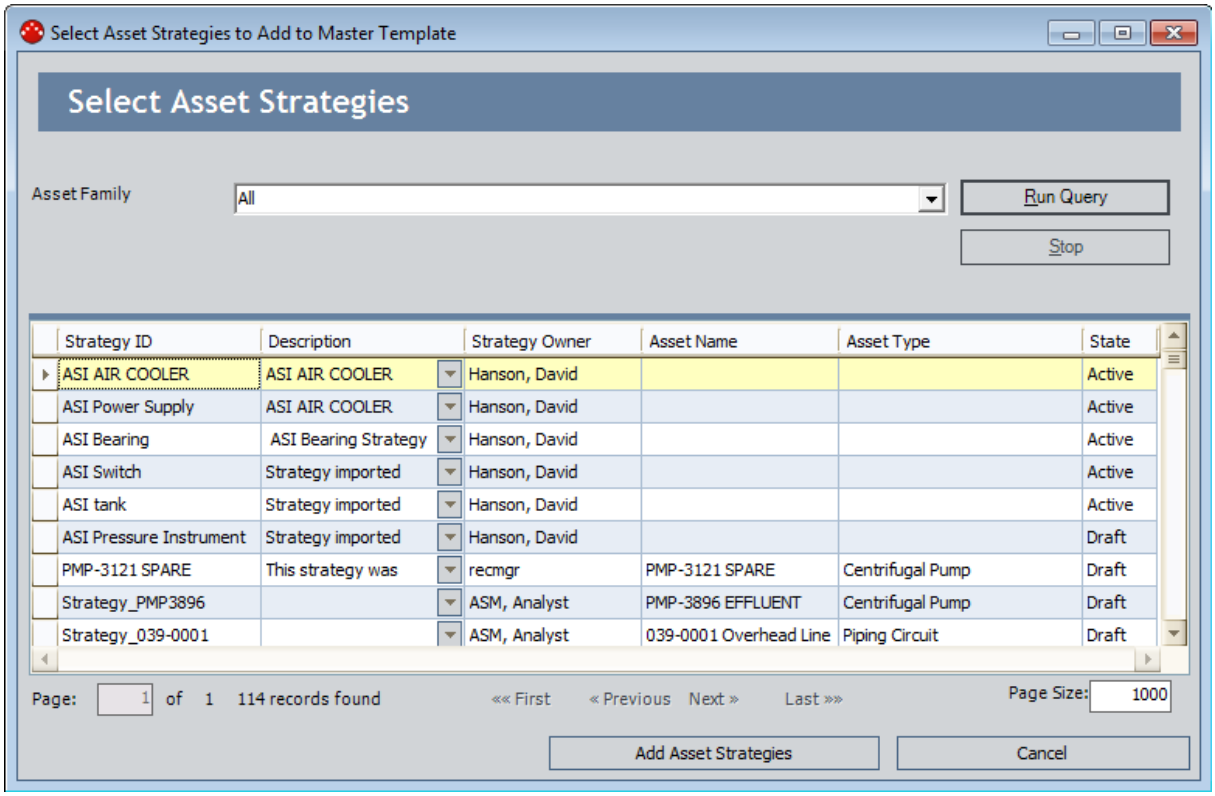
- Using the **Apply Template Builder**.
- Using the **Master Template Management** page.

These instructions explain how to add an Asset Strategy to a master template using the **Master Template Management** page.

To add existing Asset Strategies to a master template:

1. Open the desired Asset Strategy Template.
2. Access the list of Asset Strategies that the template currently controls.
3. On the **Master Template Management** page, below the grid, click the **Add Existing** button.

   The **Select Asset Strategies to Add to Master Template** window appears, displaying the results of the query Strategies Without Master Templates.



4. In the **Asset Type** list, select the family containing the records whose Asset Strategies you want to add to the master template: *Equipment* or *Functional Location*.
5. Click the **Run Query** button.

   The results are displayed in the grid. The results display:

- Asset Strategy records that are linked to an Equipment or Functional Location record in the selected family but are not linked to an Asset Strategy Template record through the Master Template Has Asset Strategy relationship.
- Asset Strategy records that are not linked to an Equipment or Functional Location record and are not linked to an Asset Strategy Template record through the Master Template Has Asset Strategy relationship.

6. In the search results, select the rows containing the Asset Strategies that you want to add to the master template.
7. Click the **Add Asset Strategies** button.

   A progress bar appears, indicating the progress of the operation. When the operation is complete, the selected Asset Strategies appear in the grid on the **Master Template Management** page.

Applying a Template as a Master via the Apply Template Builder

You can apply an Asset Strategy Template to an Asset Strategy only if the Asset Strategy state is *Draft*, *Modified*, or *Active*. You cannot apply an Asset Strategy Template to an Asset Strategy if the Asset Strategy state is *Pending Review*. The following instructions assume that you are applying a template to an Asset Strategy in a state other than *Pending Review*.

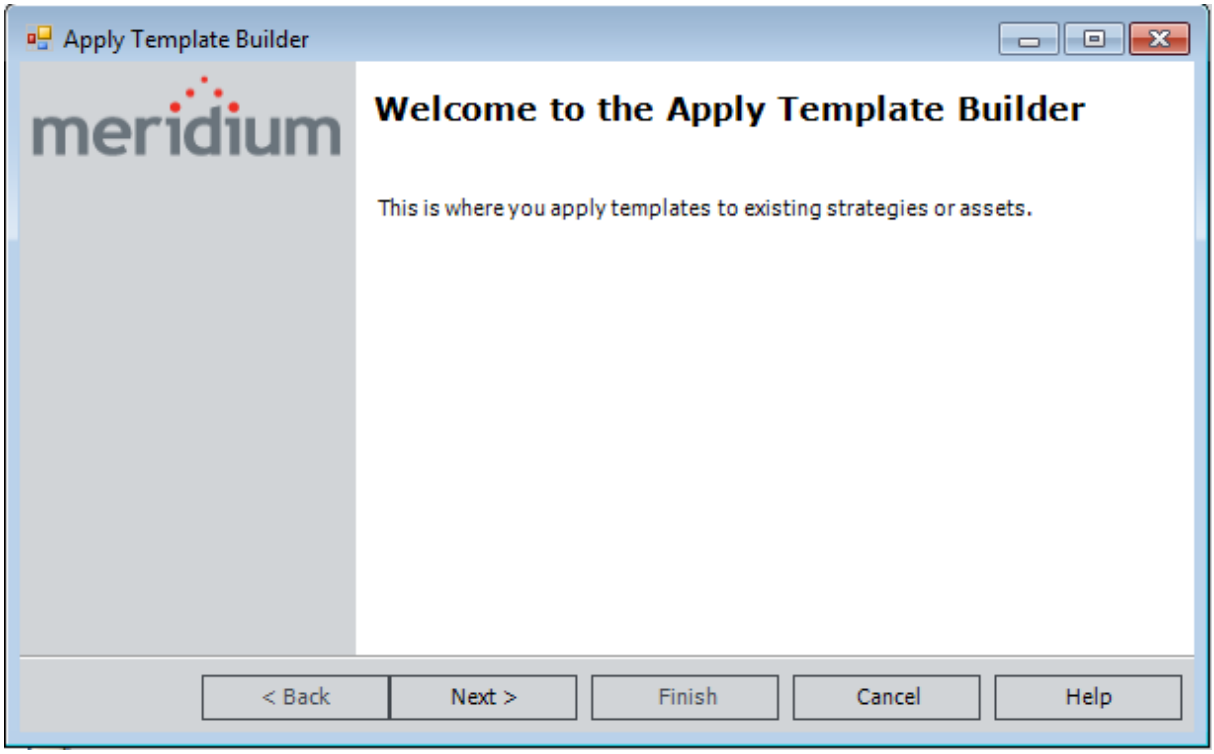
You cannot apply a template as a master to an Asset Strategy that contains Mandatory Action records.

Members of the MI ASM Reviewer Security Group will be unable to apply a template to an Asset Strategy. The **Apply a Template** link is disabled if you are logged in as a member of the MI ASM Reviewer Security Group.

To apply a Template as a master while viewing the Asset Strategy Template:

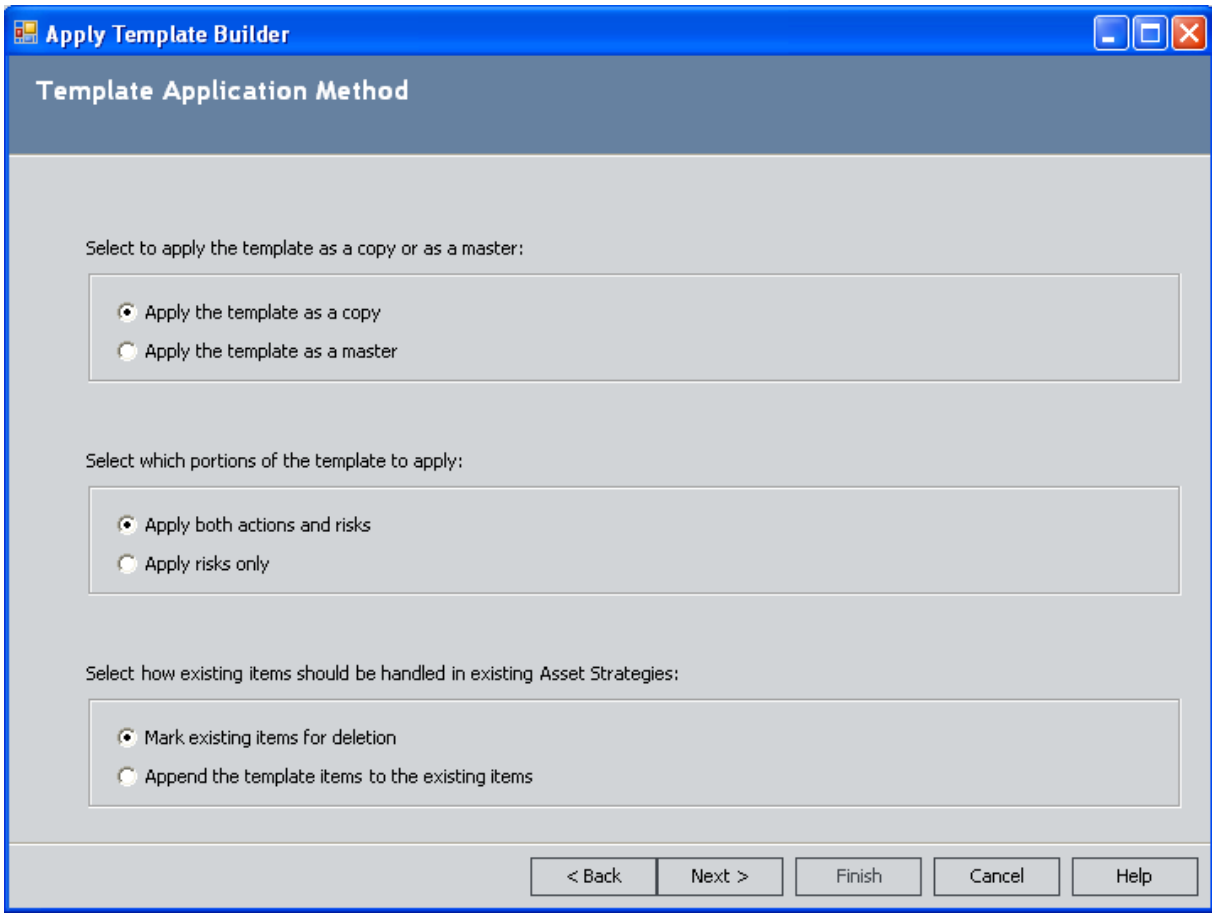
1. Open the Asset Strategy Template that you want to apply as a master to existing Asset Strategies.
2. On the **Common Tasks** menu, click the **Apply Template** link.

   The **Apply Template Builder** appears, displaying the Welcome screen.



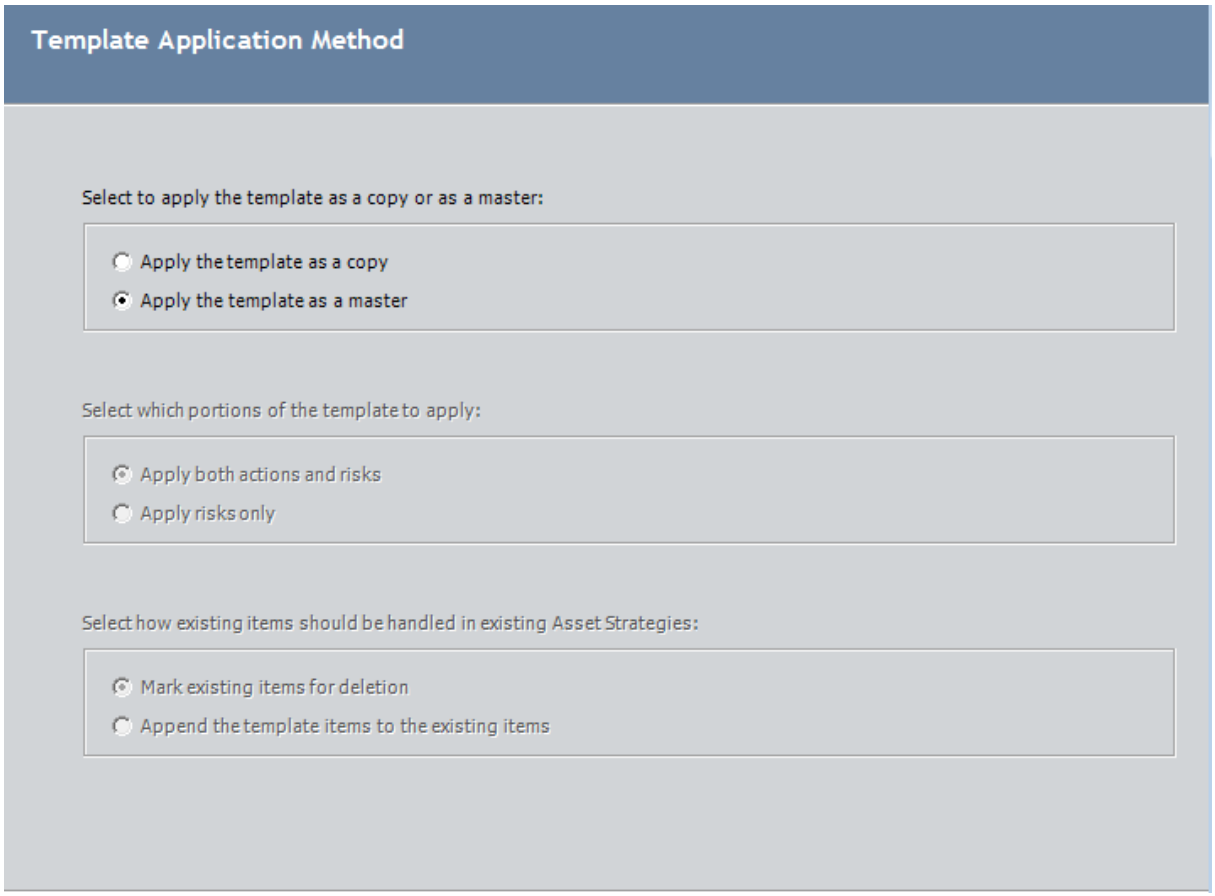
3. Click the **Next** button.

   The **Template Application Method** screen appears.



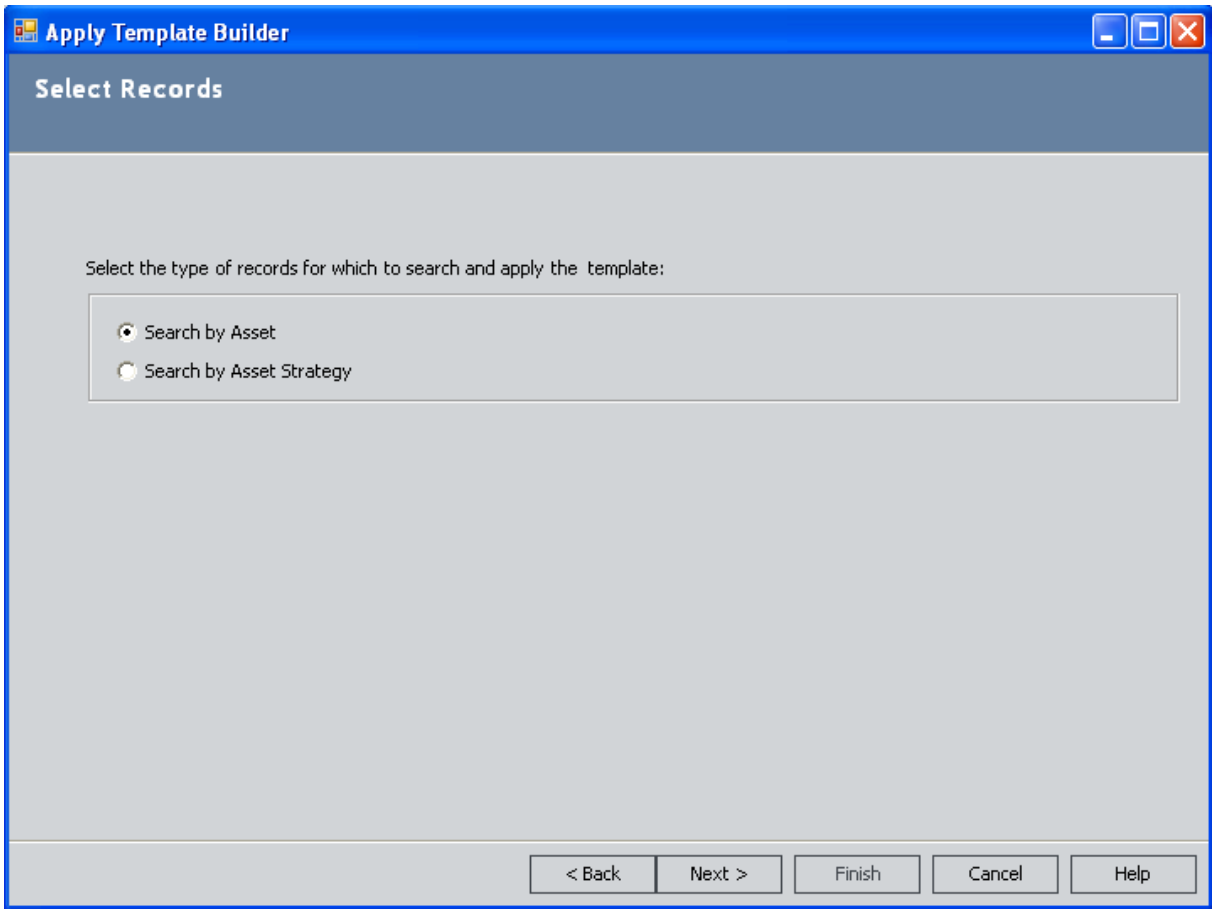
4. In the Select to apply the template as a copy or as a master section, select the **Apply the template as a master** option.

   The remaining options are disabled.



5. Click the **Next** button.

   The **Select Records** screen appears.



6. To apply this Asset Strategy Template to Asset Strategies for specific *pieces of equipment or locations*, accept the default selection, **Search by Asset**.

   -or-

   To apply this Asset Strategy Template to specific *Asset Strategies*, select the **Search by Asset Strategy** option.

7. Click the **Next** button.

   The **Select Records** screen appears.

   - If you selected the **Search by Asset** option on the previous screen, the **Search In** list displays a list of families that are predecessors in the Has Strategy relationship.
   - If you selected the **Search by Asset Strategy** option on the previous screen, the **Asset Type** list displays a list of families that contain a record that is already linked to an Asset Strategy record.
     - If you selected the **Apply the template as a copy** option on the **Template Application Method** screen, this screen displays the results of the query Asset_Strategy_Search_Non_Pending.
     - If you selected the **Apply the template as a master** option on the

Template Application Method screen, this screen displays the results of the query Strategies Without Master Templates.

8. If you see the **Search In** list, select the family containing the records that are linked to Asset Strategy records to which you want to apply this template: *Equipment* or *Functional Location*. The search results will display all records in that family. If desired, you can also use the options on the **Advanced Search** tab to refine the search criteria using an Advanced Search.

   -or-

   If you see the **Asset Type** list, select the family containing the records that are linked to the Asset Strategy records to which you want to apply this template: *Equipment* or *Functional Location*.

   - If you selected the **Apply the template as a copy** option on the **Template Application Method** screen, the search results display Asset Strategy records that are linked to an Equipment or Functional Location record in the selected family and that are not set to the Pending Review state.
   - If you selected the **Apply the template as a master** option on the **Template Application Method** screen, the search results display:
     - Non-Pending Review Asset Strategy records that are linked to an Equipment or Functional Location record in the selected family but are not linked to an Asset Strategy Template record through the Master Template Has Asset Strategy relationship.
     - Non-Pending Review Asset Strategy records that are not linked to an Equipment or Functional Location record and are not linked to an Asset Strategy Template record through the Master Template Has Asset Strategy relationship.

9. Click the **Find Now** button or the **Run Query** button, whichever is available.

   The results are returned in the grid below the search criteria.

10. Select the rows containing the desired records.

    If you select Equipment or Functional Location records, this template will be applied to the Asset Strategies for those pieces of equipment or locations.

    -or-

    If you select Asset Strategy records, this template will be applied to those Asset Strategies.

11. Click the **Next** button.

    The **Finish Applying the Template** screen appears, displaying a summary of your selections.

12. Click the **Finish** button.

    The Asset Strategy Template is applied to the Strategy.

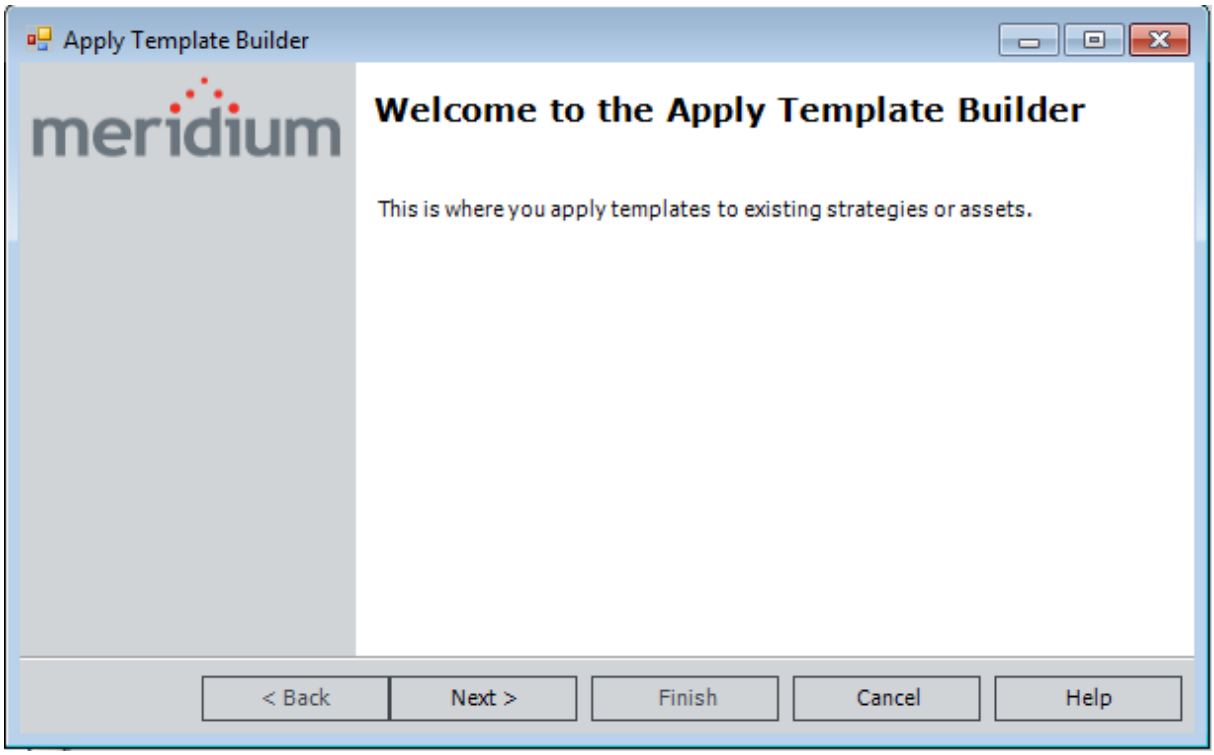
Creating New Asset Strategies as Controlled Strategies of a Master Template

The following instructions provide details on creating one or more Asset Strategies from an Asset Strategy Template that is applied as a master. The number of Asset Strategies that will be created is determined by the number of Equipment and Functional Location records that you select during the creation process.

To create one or more new Asset Strategies as controlled strategy of a master template:

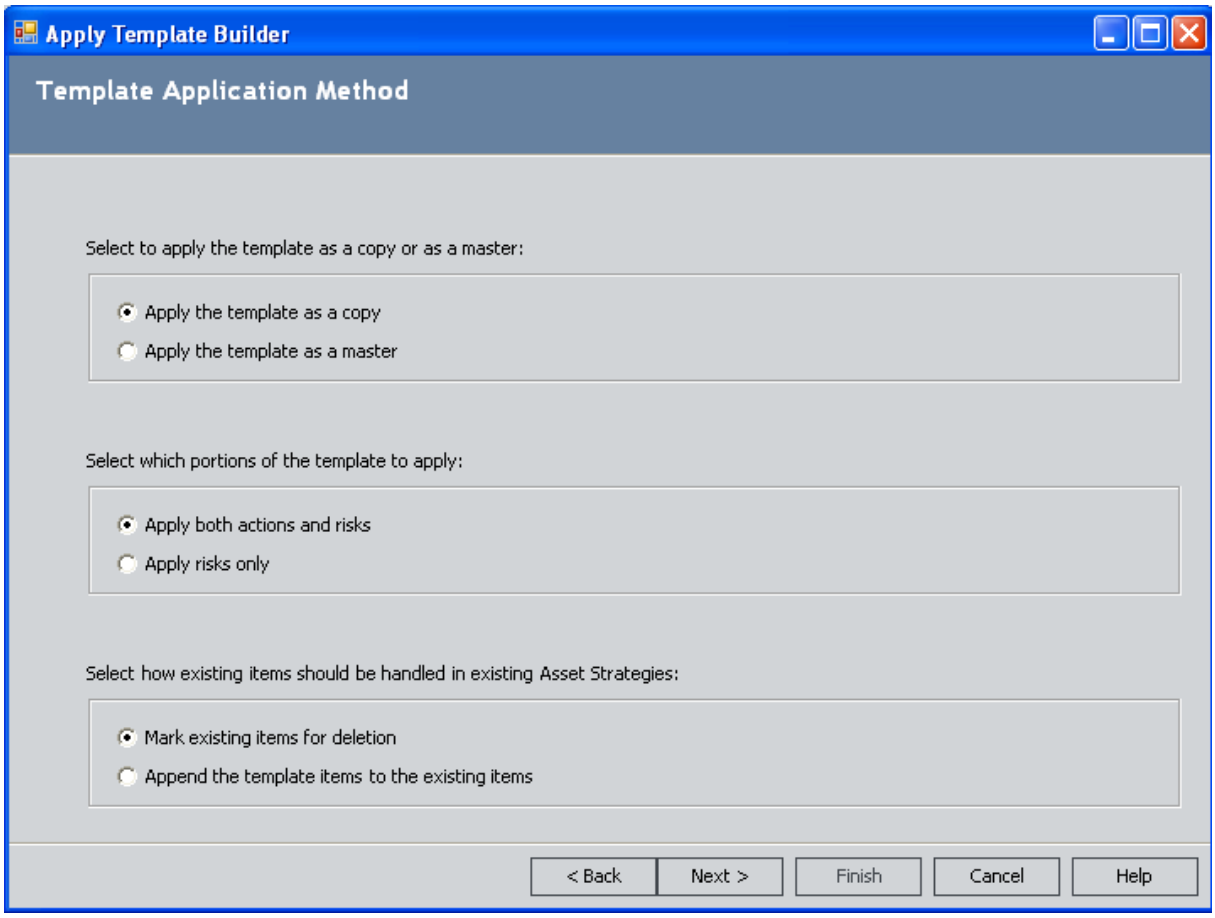
1. Search for and open the *Active* Asset Strategy Template that you want to use to create new Asset Strategies.
2. On the **Common Tasks** menu, click the **Apply Template** link.

   The **Apply Template Builder** appears, displaying the **Welcome** screen.



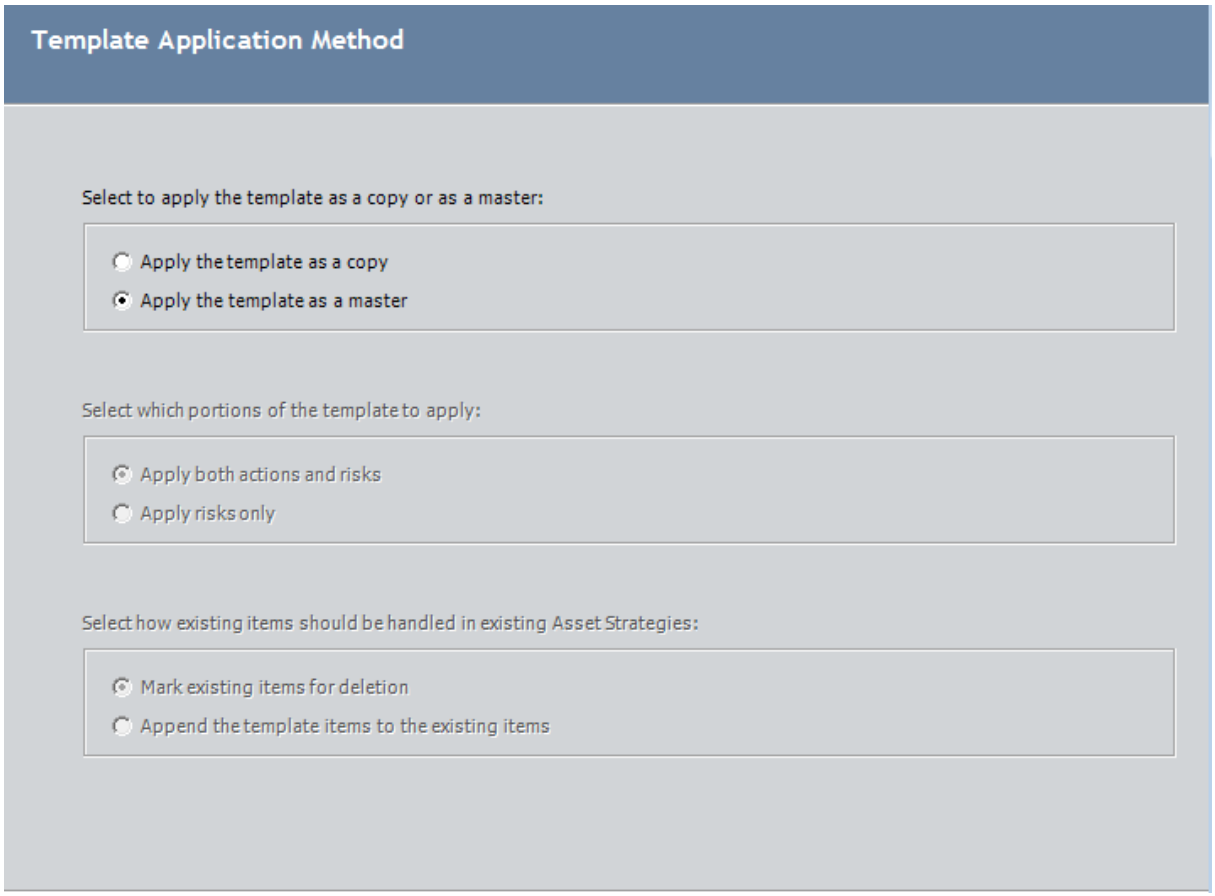
3. Click the **Next** button.

   The **Template Application Method** screen appears.



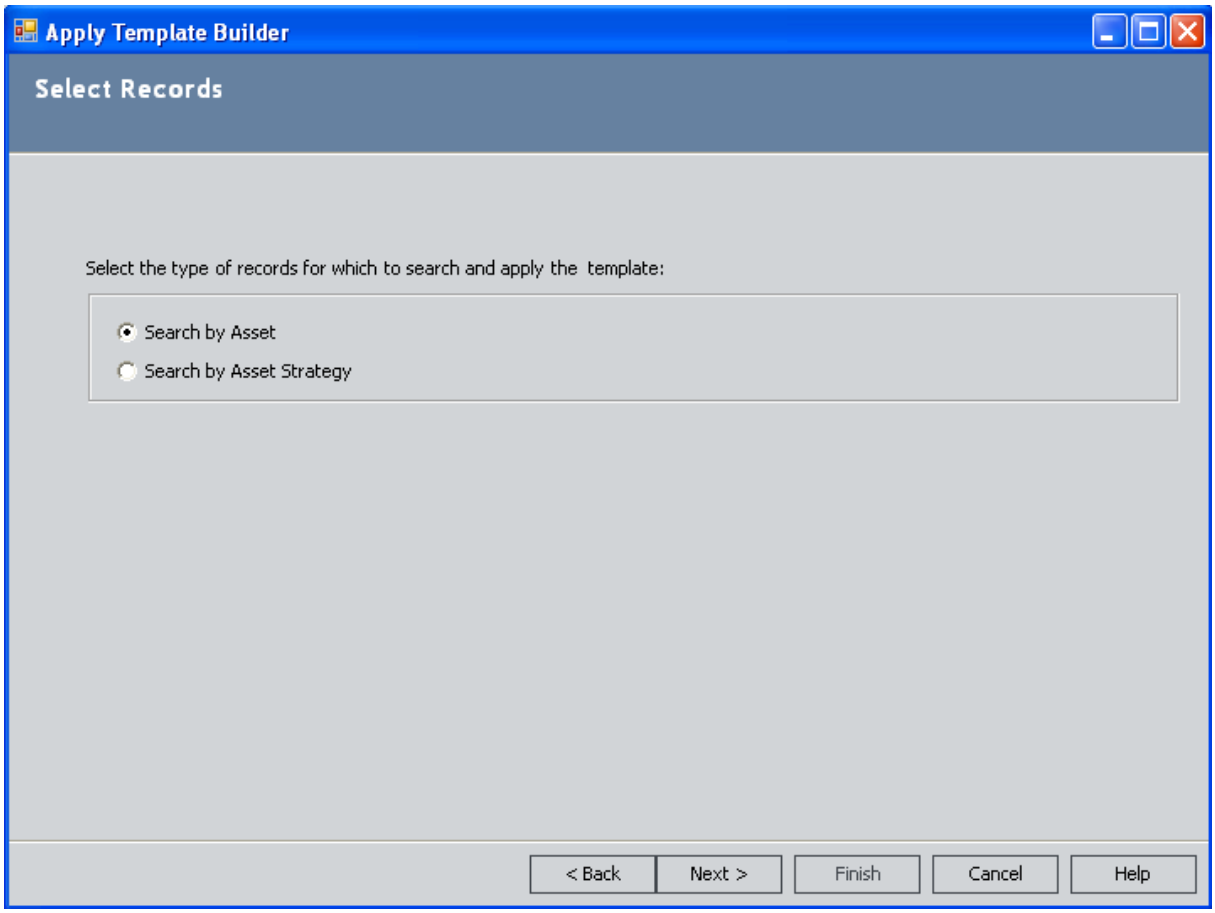
4. In the Select to apply the template as a copy or as a master section, select the **Apply the template as a master** option.

   The remaining options are disabled.



5. Click the **Next** button.

   The **Select Records** screen appears.



6. Accept the default selection, **Search by Asset**, and click the **Next** button.

   The **Select Records** screen appears. The **Search In** list displays a list of families that are predecessors in the Has Strategy relationship.

7. In the **Search In** list, select the Equipment or Functional Location family containing the records for which you want to create new Asset Strategies. If desired, you can also use the options on the **Advanced Search** tab to refine the search criteria using an Advanced Search.

8. Click the **Find Now** button.

   The results are returned in the grid below the search criteria.

9. Select the rows containing the desired records.

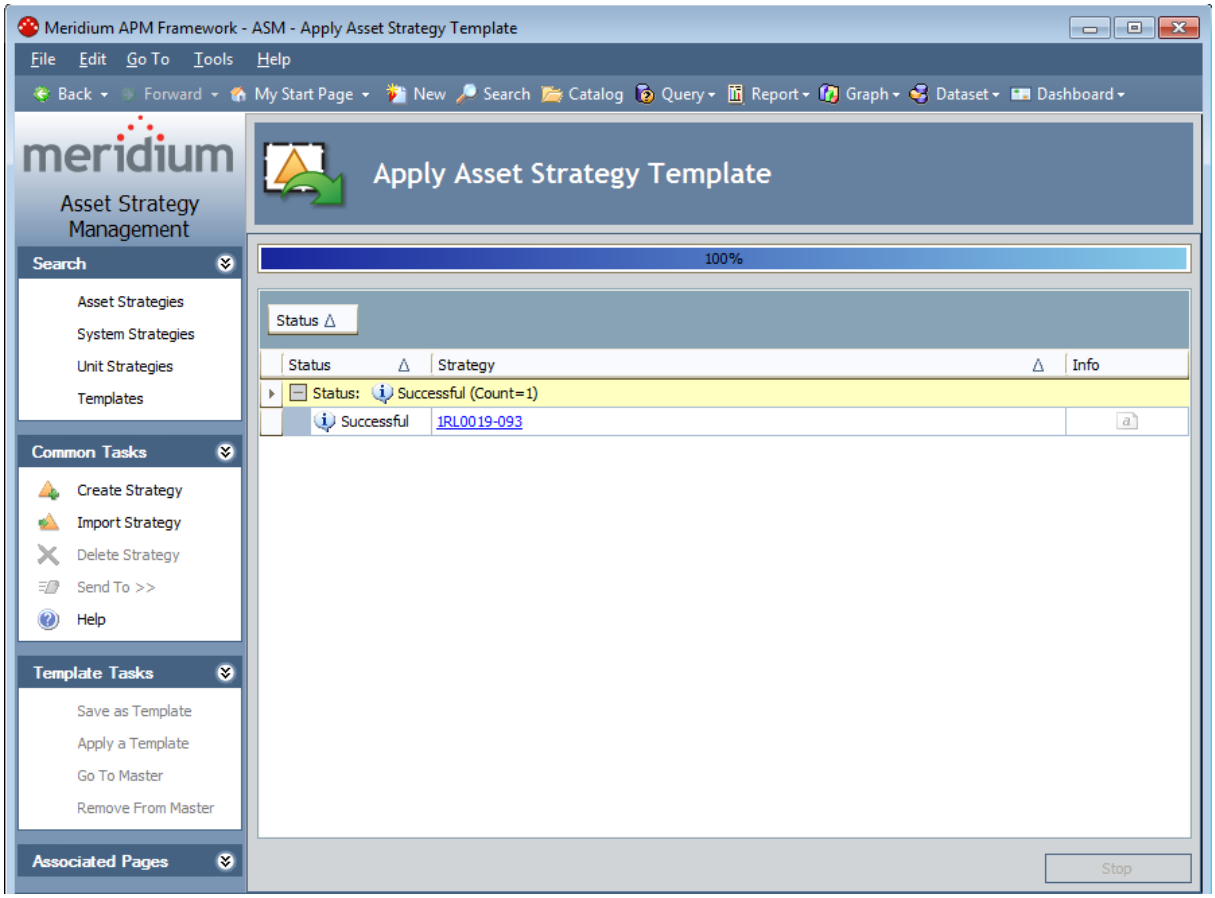
   This template will be used to create new Asset Strategies for the selected records.

10. Click the **Next** button.

    The **Finish Applying the Template** screen appears, displaying a summary of your selections.

11. Click the **Finish** button.

The Asset Strategy Template is used to create the new Asset Strategies, and the **Apply Asset Strategy Template** page appears.



Each row represents an Asset Strategy that was created successfully. The **Strategy** column contains a hyperlink, which you can click to access the **Asset Strategy Actions** page.

Note that in each new Asset Strategy that was created from the template, any Actions or Risks that exist in the Asset Strategy Template are flagged as new in the Asset Strategy (their flag will contain a plus symbol). If desired, you can undo this action so that the Actions and Risks will not be included in the Asset Strategy when the Asset Strategy is activated.

Viewing the Master Template that Controls a Specific Asset Strategy

To open an Asset Strategy's master template while viewing the Asset Strategy:

- While viewing the Asset Strategy, on the **Template Tasks** menu, click the **Go To Master** link.

  The **Asset Strategy Template Overview** page appears.

Removing Strategies from a Master Template

After an Asset Strategy Template has been applied to an Asset Strategy as a master template, you can remove the connection between the template and the strategy by:

- Opening the Asset Strategy to which the template is applied.
- Using the **Master Template Management** page.

After you remove this connection, you will be able to manage the Asset Strategy at the strategy level.

To remove an Asset Strategy from a master template while viewing the Asset Strategy:

1. While viewing the Asset Strategy, on the **Template Tasks** menu, click the **Remove from Master** link.

   A message appears, asking if you are sure that you want to remove the connection.

2. Click the **Yes** button.

   The Asset Strategy is removed from the master template.

To remove an Asset Strategy from a master template while viewing the Asset Strategy Template:

1. Open the desired Asset Strategy Template.
2. Access the list of Asset Strategies that the template currently controls.
3. On the **Master Template Management** page, in the grid, select the rows containing the Asset Strategies that you want to remove from the template.
4. Below the grid, click the **Remove Selected** button.

   A message appears, asking if you are sure that you want to remove the connection.

5. Click the **Yes** button.

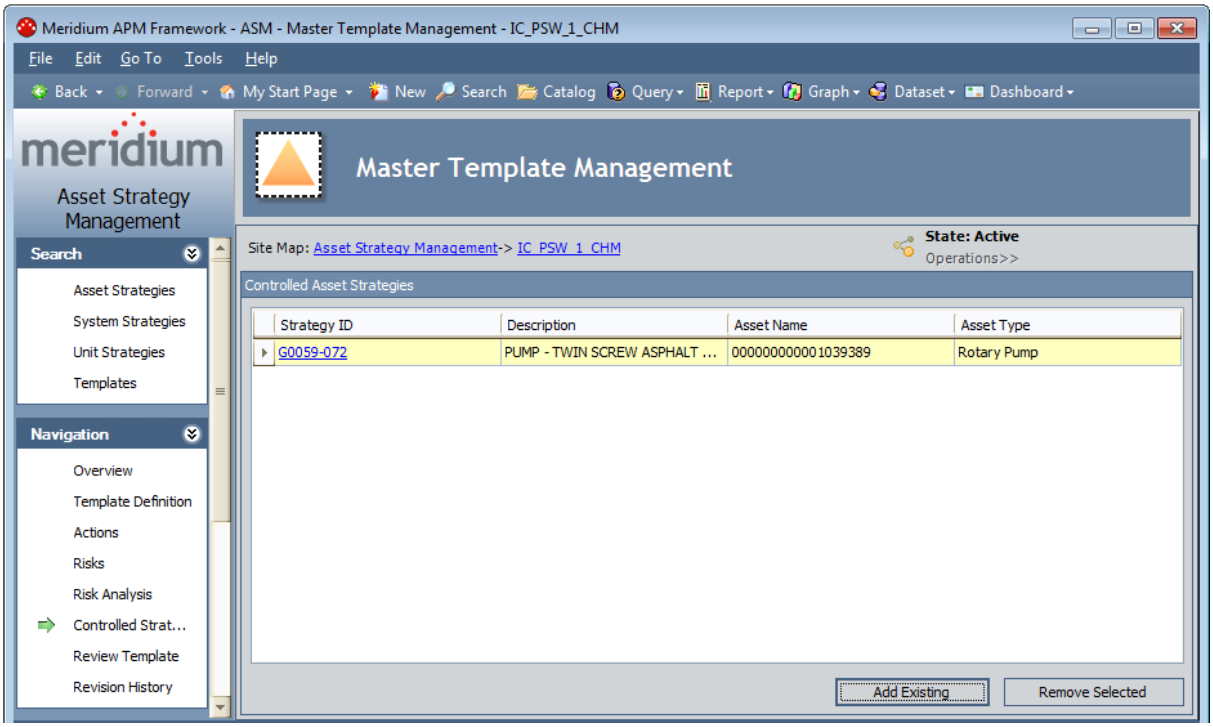
   The Asset Strategy is removed from the master template.

Viewing a List of Strategies that a Master Template Controls

To access a list of Asset Strategies that a master Asset Strategy Template controls:

1. Open the Asset Strategy Template that serves as the master of one or more Asset Strategies.
2. On the **Navigation** menu, click the **Controlled Strategies** link.

   The **Master Template Management** page appears.



Aspects of the Master Template Management Page

The **Master Template Management** page contains the **Controlled Asset Strategies** grid, which displays a list of Asset Strategies that are *controlled* by the Asset Strategy Template with which you are currently working.

Each row in the grid represents one Asset Strategy record. The grid contains the following columns, which displays information about the Asset Strategy:

- **Strategy ID:** The ID of the Asset Strategy.
- **Description:** The description of the Asset Strategy as it appears in the Asset Strategy record.
- **Asset Name:** The ID of the Asset to which the Asset Strategy is linked.
- **Asset Type:** The name of the family to which the piece of equipment or location belongs.

Below the grid, the following buttons appear:

- **Add Existing:** Displays the **Select Asset Strategies to Add to Master Template** window, where you can search for an existing Asset Strategy record to which you want to apply the Asset Strategy Template as a master template.
- **Remove Selected:** Displays a confirmation message, asking if you really want to remove the selected Asset Strategy from the master template, and then removes the link between the Asset Strategy and the Asset Strategy Template. This button is enabled only when an Asset Strategy is selected in the grid.

Notes About Health Indicator Records in Asset Strategy Templates

Note the following about Health Indicator records and Asset Strategy Templates:

- When you link a Health Indicator record to an Action record that belongs to an Asset Strategy Template, you will not be able to link the Health Indicator record to a source record.
- If you create an Asset Strategy Template from an existing Asset Strategy and the source Asset Strategy contained a Health Indicator record that was linked to a source record, the Asset Strategy Template will contain a corresponding Health Indicator record, but it will not be linked to a source record.

Activating Asset Strategy Templates

When you set an Asset Strategy Template state to Active, you indicate that you approve of the plan and agree with the Actions and Risks. You can set the state to Active if it is currently Draft or Pending Review. After an Asset Strategy Template state is Active, the Asset Strategy Template can be applied to Asset Strategies.

To set an Asset Strategy Template state to Active from the Draft state:

1. Search for and open the Asset Strategy Template that you want to activate.

   The **Asset Strategy Template Overview** page appears.

2. On the **Navigation** menu, click the **Review Template** link.

   The **Review Asset Strategy Template** page appears.

   Note: You can activate an Asset Strategy Template from other pages, such as the **Asset Strategy Template Actions** page, but these instructions assume that want to do so from the **Review Asset Strategy Template** page.

3. Above the area that displays the **Basis for Revision** tab, click the **Operations** link, and then click **Baseline** on the submenu.

   A message appears, asking if you are sure you want to activate the Asset Strategy Template even though it has not yet been reviewed.

4. Click the **Yes** button.

   A message appears, indicating that the Asset Strategy Template is now Active. On the current workspace, you can see that the Asset Strategy Template state is now Active.

   -OR-

   If the Asset Strategy Template has been applied to one or more Asset Strategies as a *master* template, the **State Management** window appears, listing the Asset Strategies to which the changes will be applied.

5. Click **OK** to complete the activation process.

   A progress bar appears, indicating the progress of the activation process. When the progress bar disappears, the **Review Asset Strategy Template** page returns to focus.

To set an Asset Strategy Template state to Active from the Pending Review state:

1. Search for and open the Asset Strategy Template that you want to activate.

   The **Asset Strategy Template Overview** page appears.

2. On the **Navigation** menu, click the **Review Template** link.

   The **Review Asset Strategy Template** page appears.

   Note: You can activate an Asset Strategy Template from other pages, such as the **Asset Strategy Template Actions** page, but these instructions assume that want to do so from the **Review Asset Strategy Template** page.

3. Above the area that displays the **Basis for Revision** tab, click the **Operations** link, and then click **Make Active** on the submenu.

   A message appears, asking if you are sure you want to activate the Asset Strategy Template.

4. Click the **Yes** button.

   A message appears, indicating that the Asset Strategy Template state is now Active. On the current workspace, you can see that the Asset Strategy Template state is now Active.

   -OR-

   If the Asset Strategy Template has been applied to one or more Asset Strategies as a *master* template, the **State Management** window appears, listing the Asset Strategies to which the changes will be applied.

5. Click **OK** to complete the activation process.

   A progress bar appears, indicating the progress of the activation process. When the progress bar disappears, the **Review Asset Strategy Template** page returns to focus.

About Reviewing Recent Changes Awaiting Approval

You can review recent changes that have been made to an Asset Strategy Template to determine whether or not you want to:

- Approve the changes and activate the Asset Strategy Template.

  -OR-

- Send the Asset Strategy Template back for revision.

You can perform this review process from the **Review Asset Strategy Template** page.

You can use this page to review the following items:

- A detailed view of any changes that have been made between an Action that belongs to the Active Strategy Template and the corresponding Action that belongs to the Proposed Strategy Template.
- The reason that changes were made to the Asset Strategy Template.
- The Risk Profile graph.
- The Financial Risk Exposure graph.
- The Cost of Actions graph.

Note: For the purposes of this documentation, the items in the preceding list are explained in terms of an *Asset Strategy*. The information provided for these items applies also to *Asset Strategy Templates*.

Graphs

Asset Strategy Template graphs function the same way that Asset Strategy graphs function. For example, the Risk Profile graph in the Risk Analysis represents data in the Active Asset Strategy Template and in the Proposed Asset Strategy Template.

Accessing an Asset Strategy from the System Strategy Overview

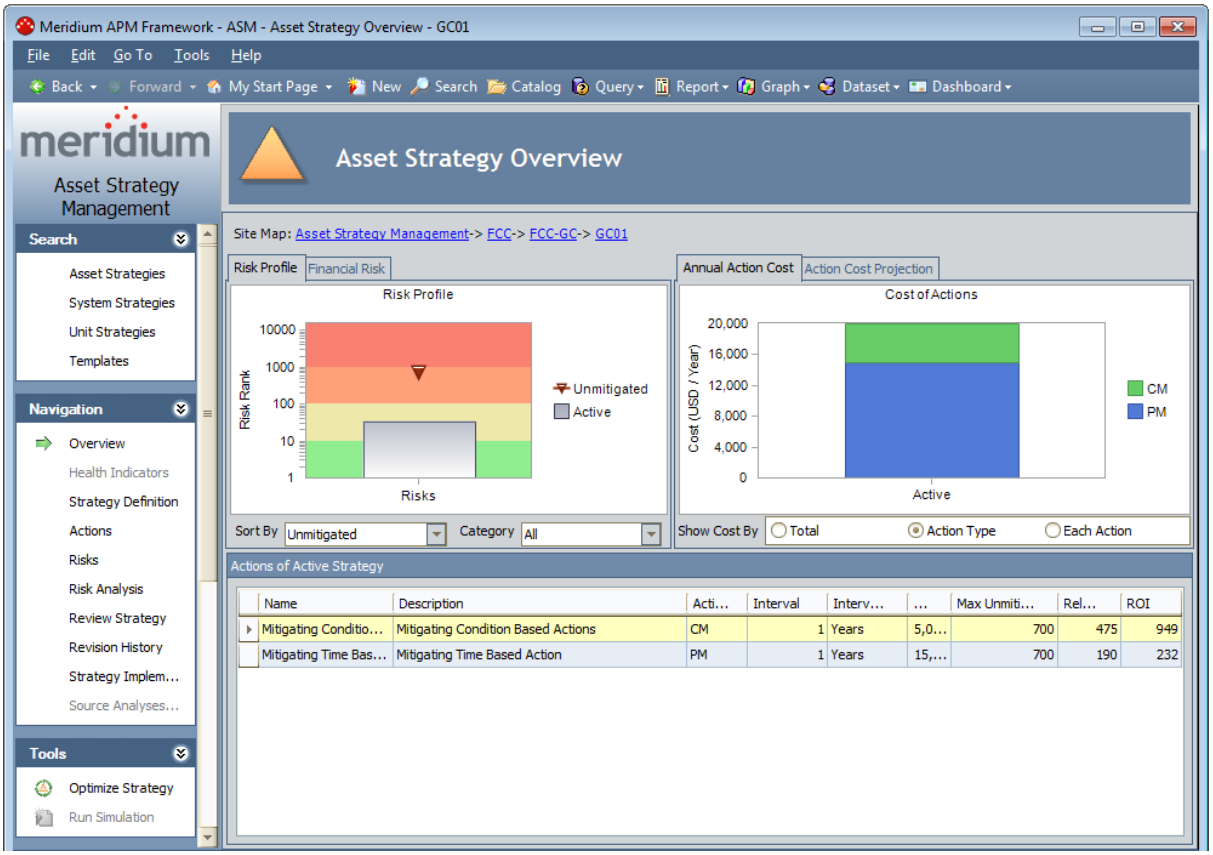
To access an Asset Strategy from the System Strategy overview:

1. Access the System Strategy overview for the desired System Strategy.

   The **System Strategy Overview** page appears.

2. In the **Active Asset Strategies** section below the graphs, in the row containing the Asset Strategy that you want to access, click the hyperlinked Strategy ID.

   The selected Asset Strategy appears on the **Asset Strategy Overview** page appears.



Adding New Asset Strategies to a System Strategy

To add new Asset Strategies to a System Strategy:

1. Access the **System Strategy Management** page.
2. At the bottom of the page, click the **Create New** button.

   The **Asset Strategy Definition** page appears.
3. Create the Asset Strategy record for the Asset Strategy that you want to add to the System Strategy.
4. Continue building the Asset Strategy by:

   - Creating Risks.
   - Creating Actions.

   The Asset Strategy is added to the System Strategy.
5. On the site map, click the **<System Strategy ID>** link. For example, if the ID of the System Strategy is Electrical System Strategy, the link on the site map will be **Electrical System Strategy**.

   The **ASM - System Strategy Overview - <Strategy ID>** page appears, where **<Strategy ID>** is the ID of the System Strategy that you selected on the site map.
6. To see that the records have been linked, on the **Navigation** menu, click the **Manage System** link.

   The newly created Asset Strategy appears in the list.

Adding Existing Asset Strategies to a System Strategy

Note: The Meridium APM system will allow you to add multiple Asset Strategies to a System Strategy only if *all* the underlying pieces of equipment and locations belong to the same site.

To add existing Asset Strategies to a System Strategy:

1. Access the **System Strategy Management** page.
2. At the bottom of the page, click the **Add Existing** button.

   The **Find Items** window appears. The **Search In** list is populated automatically with Asset Strategy.
3. Click the **Find Now** button.

   The search results appear in the grid below the search criteria.
4. Select the rows containing the Asset Strategies that you want to add to the System Strategy.
5. Click the **Open** button.

   The Selected Asset Strategies appear in the list on the **System Strategy Management** page.

Removing Asset Strategies from a System Strategy

To remove Asset Strategies from a System Strategy:

1. Access the **System Strategy Management** page.
2. In the grid, select the rows containing the Asset Strategies that you want to remove from the System Strategy.
3. At the bottom of the page, click the **Remove Selected** button.

   A message appears, asking if you are sure you want to remove the selected Asset Strategies from the System Strategy.
4. Click the **Yes** button.

   The selected Asset Strategies are removed from the System Strategy.

Excluding Actions Via the Risk Analysis

When you are viewing the Risk Analysis for a System Strategy, you can see a list of Actions that are included in all underlying Proposed Strategies. You can also use the graphs to interpret the effects of performing those actions.

If desired, via the Risk Analysis, you can exclude certain Actions from the System Strategy. Using the graphs, you can see the impact of excluding those Actions. Based on the data in the graphs, you can decide if you want to mark the Actions for deletion.

Note: You can exclude an Action only if its **Mandatory** check box is *cleared* and the Action does not belong to an Asset Strategy that is controlled by a master template.

To exclude Actions via the System Strategy Risk Analysis:

1. In the grid in the **Actions** section, in the row containing the Action that you want to exclude, clear the **Selected Action** check box.

   Hint: To exclude multiple Actions, you can use the CTRL or SHIFT key to select multiple rows at once. If you then clear the **Selected Action** check box in any of the selected rows, the **Selected Action** check box will be cleared in all remaining selected rows.

   The graphs are updated to reflect the change.

2. If you are satisfied with the results in the graphs and you want to delete the Action, below the **Actions** section, click the **Apply Selections** button.

   A message appears, indicating that the Actions that you excluded will be deleted, asking if you are sure that you want to continue.

3. Click the **Yes** button.

   Note: If you excluded an Action that belongs to an Asset Strategy whose state is set to Pending Review, a message appears, indicating that those Actions cannot be excluded from the System Strategy.

   If the associated Asset Strategy has not been activated since the selected Action was created or last updated, the Action is removed from the grid, and the Action record is deleted from the database.

   -OR-

   If the associated Asset Strategy was activated after the Action was created or last updated, the Action records are flagged for deletion but not removed from the grid.

Specifying the Reason for Changing the System Strategy

To specify the reason for changing the System Strategy:

1. On the System Strategy Risk Analysis page below the grid in the **Actions** section, click the **Basis for Revision** button.

   The **Basis for Revision** dialog box appears.

2. In the text area in the **Basis for Revision** dialog box, type the reason for the changes that you have made to the System Strategy.

3. Click **OK**.

   The **Apply Revision to Selected Strategies** window appears.

   In the grid, in the rows containing the Asset Strategies to which you want to apply the basis for revision, select the **Selected** check box

4. Click **OK**.

   The text is saved and can be seen when you review the underlying Asset Strategies.

Viewing a List of Changes Made to an Action

To view a list of changes that were made to an Action:

1. On the System Strategy Risk Analysis page, click the **Details** tab.

   A grid appears, displaying a list of Actions that belong to the underlying Proposed Asset Strategy.

2. In the grid, select the row containing the Action whose changes you want to view.

3. Below the grid, click the **Show Changes** button.

   The **Changes** window appears, displaying a list of differences that exist between the selected Action and the corresponding Action that belongs to the Active Strategy.

Interpreting the Running Total

The **Running Total** column in the **Actions** section contains a value representing the total yearly cost of implementing the Action represented by that row and all selected Actions in the rows above it.

In other words:

Running Total= Yearly cost of Action in that row + Yearly cost of Selected Actions in each previous row

For example, suppose the first row contains the following data:

- Cost = 100.00
- Interval = 1
- Interval Units = Years

In this case, the yearly cost of implementing this Action is $100.00.

Suppose the second row contains the following data:

- Cost = 200.00
- Interval = 6
- Interval Units = Months

In this case, because the Action is performed every six months, or twice a year, the *yearly* cost of implementing this Action is $400.00 ($200.00 X 2).

Using this example, the **Running Total** value in the second row would be calculated as:

Running Total = $400.00 + $100.00

Running Total = $500.00

So, the **Running Total** value displayed in the second row would be 500.00

About Reviewing a System Strategy

You can review a System Strategy to determine whether or not you want to approve the information and activate the underlying Asset Strategies. You can perform this review process from the **Review System Strategy** page.

You can use this page to:

- Review the list of non-Active Asset Strategies that are included in the System Strategy. From this list, you can click a hyperlink to access any of the Asset Strategies.
- Manage the states of the underlying non-Active Asset Strategies.
- Review the Risk Profile graph.
- Review the Financial Risk Exposure graph.
- Review the Cost of Actions graph.

About Managing Asset Strategy States from a System Strategy

When you are viewing the **Review System Strategy** page, you can see a list of all underlying Asset Strategies that are set to a state *other than* Active. From this page, you can:

- Assign a Security User to an Asset Strategy state.Doing so will set this Security User as the assignee of that state in ALL underlying Asset Strategies that are transferred *to* that state. For example, if you assign John Smith to the Active state from this page, when you transfer all underlying Asset Strategy to the Active state from the **Review System Strategy** page, John Smith will continue to be assigned to the Active state in those Asset Strategies.

  Note that the Security User who changes the states of multiple Asset Strategies using this page will be set automatically as the assignee of the state *from which* they were changed. For example, if Mary Jones is logged in and changes the state of Pending Review Asset Strategies to the Active state, Mary Jones will become the assignee of the Pending Review state in those Asset Strategies, even if another Security User was previously assigned to the Pending Review state of those Asset Strategies.

  Any state assignments that you define via the **Review System Strategy** page do not persist if you navigate away from this page before you change the state of any underlying Asset Strategy.

  > **Hint:** If State Configuration for the Asset Strategy family is configured as such, a Security User must also be assigned to the successor state before a Security User can transition a record to that state.

- Change the states of multiple Asset Strategies at one time.

To facilitate this workflow, the **Review System Strategy** page contains the following items:

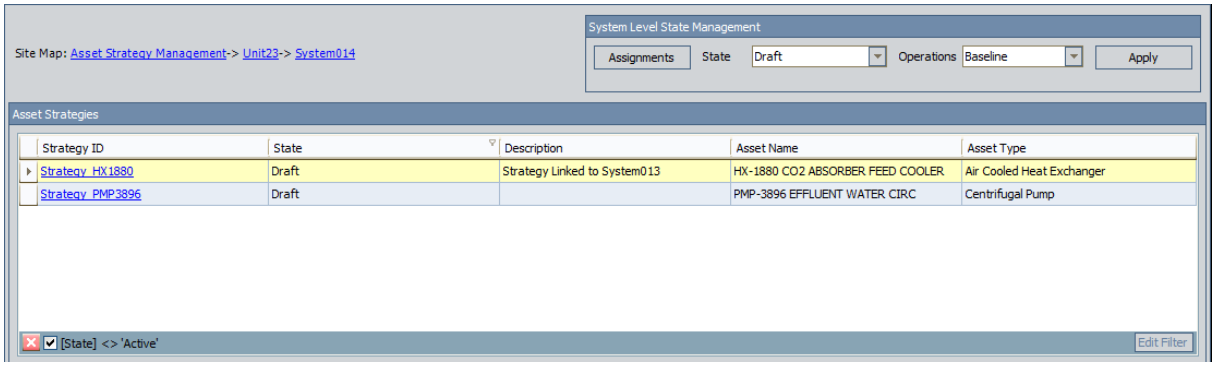
- **System Level State Management section:** Contains the following items:
  - **Assignments button:** Displays the **State Assignments** dialog box, where you can assign Security Users to any state that exists in the State Configuration that is defined for the Asset Strategy family.
  - **State list:** Displays all current states of the underlying Asset Strategies, except for Active. For example, if the System Strategy contains Draft, Pending Review, and Active Asset Strategies, the list contains the values *Draft* and *Pending Review*.
  - **Operations list:** Displays the operations that can be used to transition the Asset Strategies that are set to the predecessor state that appears in the **State** list. For example, if the **State** list contains the value *Pending Review*, the list contains the values *Make Active* and *Rework* since these are the only operations that contain the Pending Review predecessor state. The predecessor state is determined by the Asset Strategy State Configuration.

- **Apply button:** Transitions ALL underlying Asset Strategies that are set to the selected state to a successor state using the selected operation. The successor state is determined by the Asset Strategy State Configuration.

Note: Security Users belonging to the MI ASM Viewer Security Group will not see the **System Level State Management** section and thus cannot manage Asset Strategy states from a System Strategy.

- **Asset Strategies section:** Displays a grid containing a list of all non-Active Asset Strategies that are included in the System Strategy.

The following image shows the sections described in the preceding list.



Assigning a Security User to an Asset Strategy State

To assign a Security User to a state that is defined in the State Configuration for the Asset Strategy family:

1. Access the **Review System Strategy** page for the System Strategy whose underlying Asset Strategies are set to a state to which you want to assign a Security User.
2. In the **System Level State Management** section, click the **Assignments** button.

   The **State Assignments** window appears.
3. Select the row containing the state to which you want to assign a Security User.
4. In the selected row, in the **Assigned User** list, select the Security User that you want to assign to the state.
5. Click **OK**.

   The Security User is assigned to the state. This Security User will now be able to transition ALL underlying Asset Strategies from the assigned state to a successor state. Note, however, that this state assignment does not persist if you navigate away from this page before you transition the Asset Strategies that are set to the assigned state.

   Hint: If State Configuration for the Asset Strategy family is configured as such, a Security User must also be assigned to the successor state before a Security User can transition an Asset Strategy to that state.

Changing the State of Multiple Underlying Asset Strategies

Note: If you do not belong to the State Configuration Role that is assigned to a state, the **Operations** list will be empty when that state is selected in the **States** list. State Configuration Roles are assigned to states via the Configuration Manager. For example, suppose the MI ASM Administrator State Configuration Role is assigned to the *Pending Review* state. If you are not a member of this State Configuration Role, the *Make Active* operation will not appear in the **Operations** list when the *Pending Review* state is selected in the **States** list.

To select the state of the Asset Strategies whose state you want to change:

1. Access the **Review System Strategy** page for the System Strategy containing the Asset Strategies whose state you want to change.
2. In the **System Level State Management** section, in the **State** list, select the state of the Asset Strategies that you want to transition to a different state. For example, if you want to change all underlying Draft Asset Strategies to Active, select *Draft*.
3. In the **Operations** list, select the operation that you want to perform on the Asset Strategies that are set to the state that appears in the **State** list. For example, if you want to change all underlying Draft Asset Strategies to Active using the Baseline operation, select *Baseline*.
4. Click the **Apply** button.

   A message appears, indicating the number of Asset Strategies on which the selected operation will be performed and asking if you want to continue with the operation.
5. Click the **Yes** button.

   The **State Transition** dialog box appears, indicating the progress of the operation. When the operation is complete, the Asset Strategies that were set to the selected state are set to a new state using the selected operation.

About the Risk Profile Graph

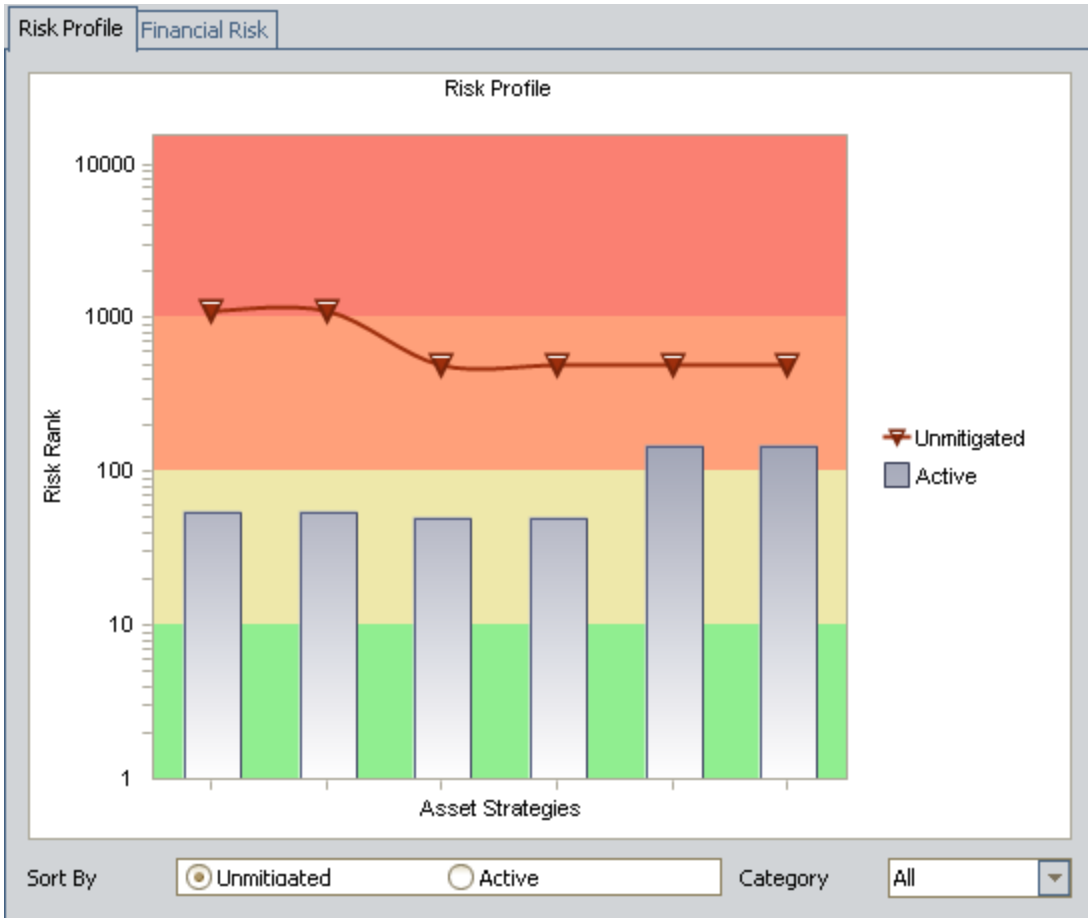
The Risk Profile graph is available on the following pages:

- System Strategy Overview: Represents data in only the Active Strategies that are included in the System Strategy.
- System Strategy Risk Analysis: Represents data in the Asset Strategies that are anything other than Active.
- Review System Strategy: Represents data in all Asset Strategies that are included in the System Strategy.

Interpreting the Risk Profile Graph in the Overview

The Risk Profile graph that appears on the System Strategy Overview page represents data in the Active Strategies that are included in the System Strategy.

The following image shows an example of the Risk Profile graph in the System Strategy overview.

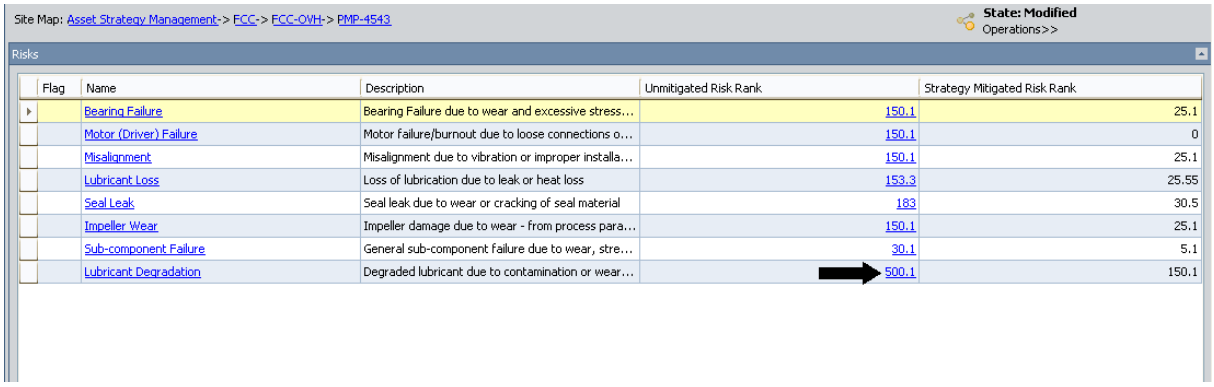


The Risk Profile graph displays a profile of the risk rank values for all Risks that belong to each Active Strategy. The graph contains a line that represents the *highest* unmitigated risk rank of all Risks that belong to each Active Strategy. The gray bar represents the *highest* Strategy Mitigated Risk Rank for all Risks that belong to each Active Strategy.

From the example graph in the preceding image, you can determine from the six datapoints on the Unmitigated line that the System Strategy contains six Active Strategies.

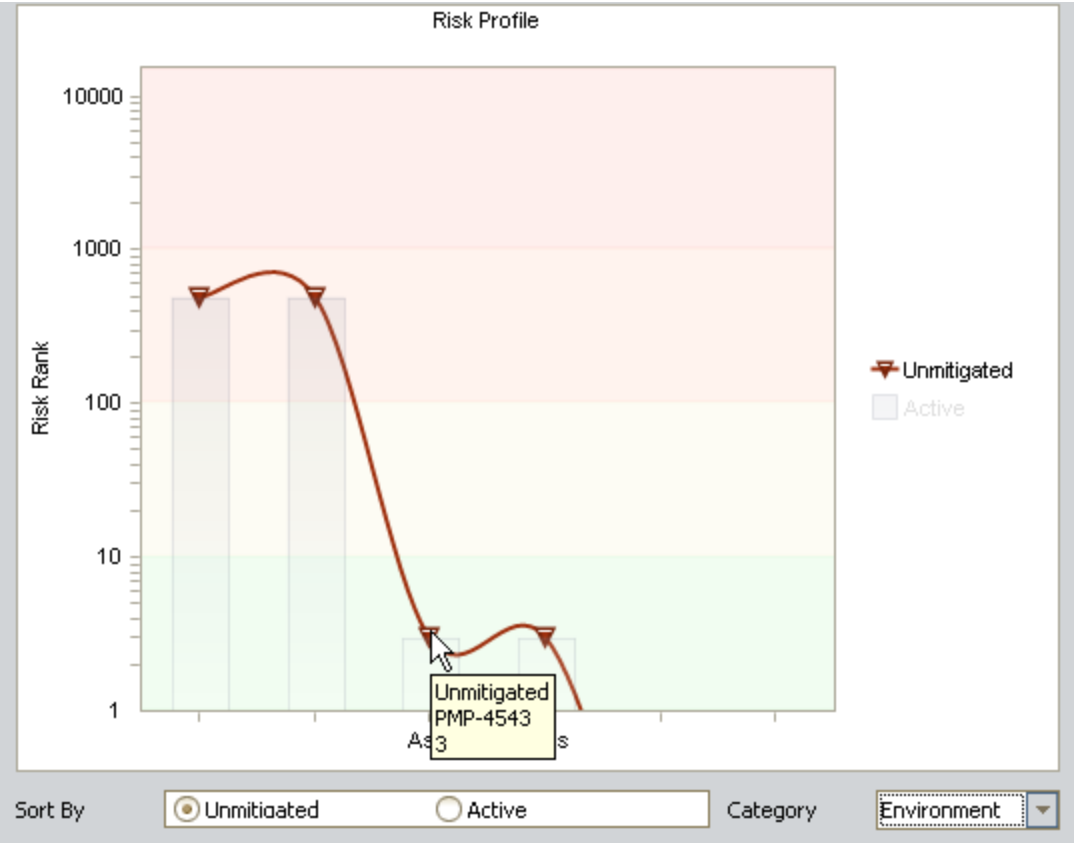
If desired, you can use the values in the **Category** list to filter the graph to display the risk rank associated with a specific risk category (excluding Financial risk categories) for each Active Asset Strategy. For example, consider the following graph, which shows the highest unmitigated risk across all risk categories, 500.1, for the Asset Strategy *PMP-4543*.

You would see this value in the **Unmitigated Risk Rank** column in the **Risks** section on the **Asset Strategy Risks - PMP-4543** page, as shown in the following image. (A black arrow has been added to call out the value.)



Flag	Name	Description	Unmitigated Risk Rank	Strategy Mitigated Risk Rank
	Bearing Failure	Bearing Failure due to wear and excessive stress...	150.1	25.1
	Motor (Driver) Failure	Motor failure/burnout due to loose connections o...	150.1	0
	Misalignment	Misalignment due to vibration or improper installa...	150.1	25.1
	Lubricant Loss	Loss of lubrication due to leak or heat loss	153.3	25.55
	Seal Leak	Seal leak due to wear or cracking of seal material	183	30.5
	Impeller Wear	Impeller damage due to wear - from process para...	150.1	25.1
	Sub-component Failure	General sub-component failure due to wear, stre...	30.1	5.1
	Lubricant Degradation	Degraded lubricant due to contamination or wear...	500.1	150.1

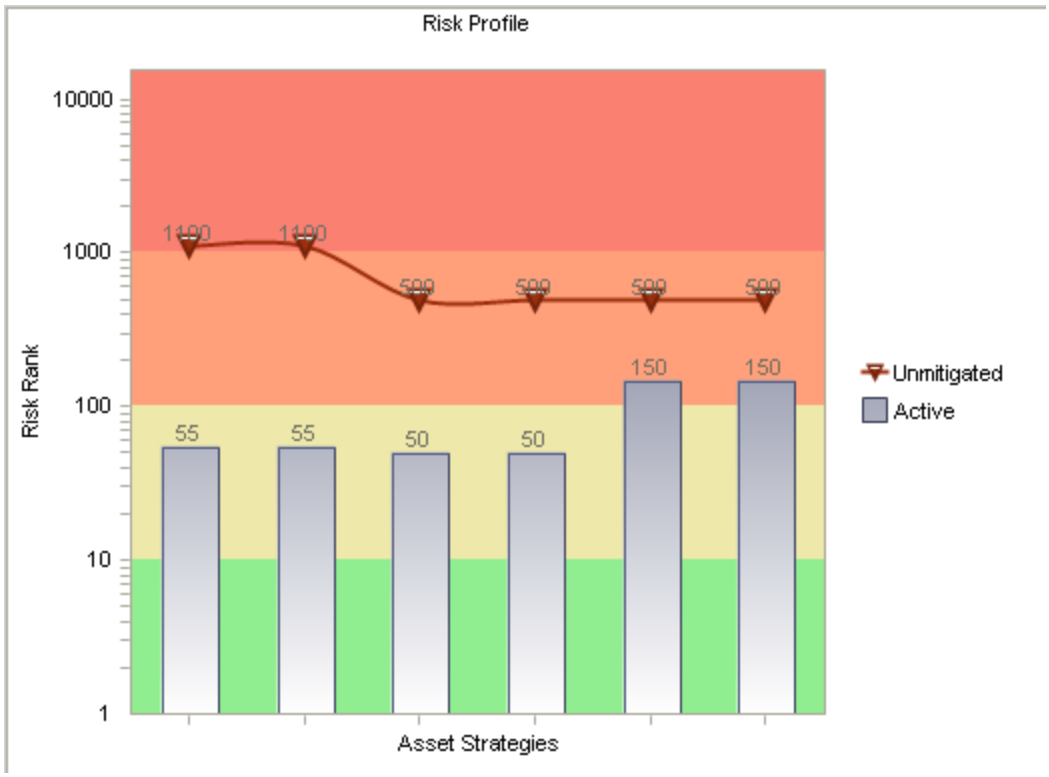
If you filtered the Risk Profile graph to display only risk values associated with the *Environment* risk category, it would look like the graph in the following image.



In this image, you can see that the highest Environment risk included in Asset Strategy PMP-4543 is 3.

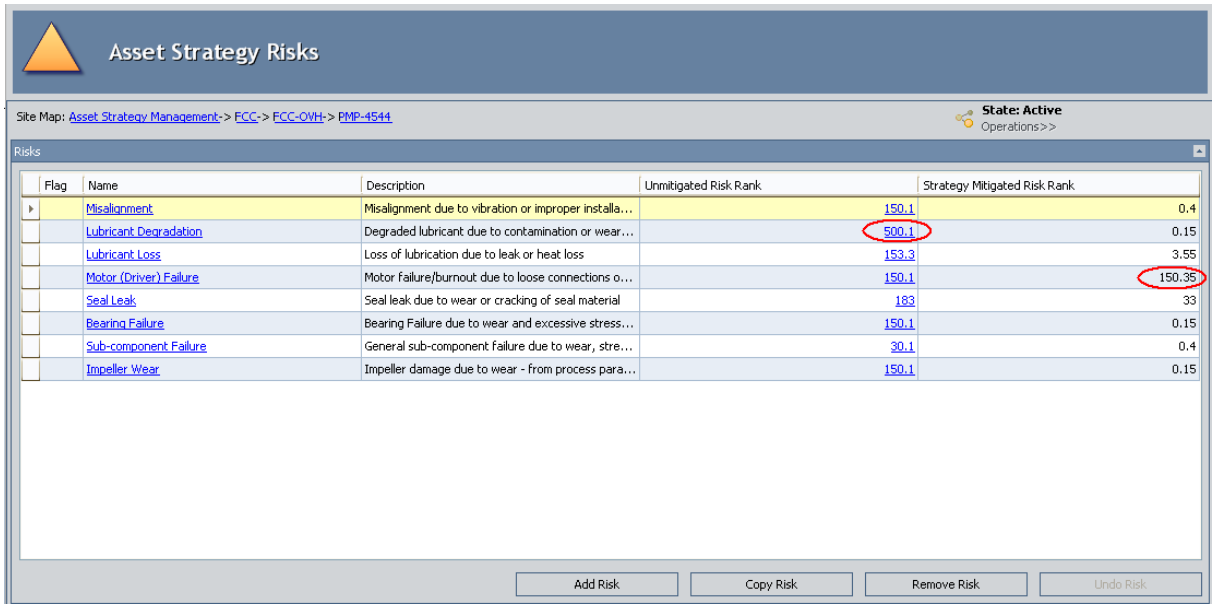
Note: If you filter the graph to show risk ranks values for a specific risk category, the graph will most likely be resorted from left to right. In other words, the Risks will appear in different places on the x-axis after the filtering is applied.

If you right-click the line and the bars, you can choose to show the datapoint values on the graph to determine the exact risk rank values. The following image displays the example graph with labeled datapoint values.



From this graph, you can see that the highest unmitigated risk rank across all Risks for the last Active Strategy is 500. Likewise, the highest Strategy Mitigated Risk Rank across all Risk records for this Active Strategy is 150.

If you were to view the **Asset Strategy Risks** page for the first Active Strategy, you would see these same values in the **Unmitigated Risk Rank** and **Strategy Mitigated Risk Rank** columns in the **Risks** section.



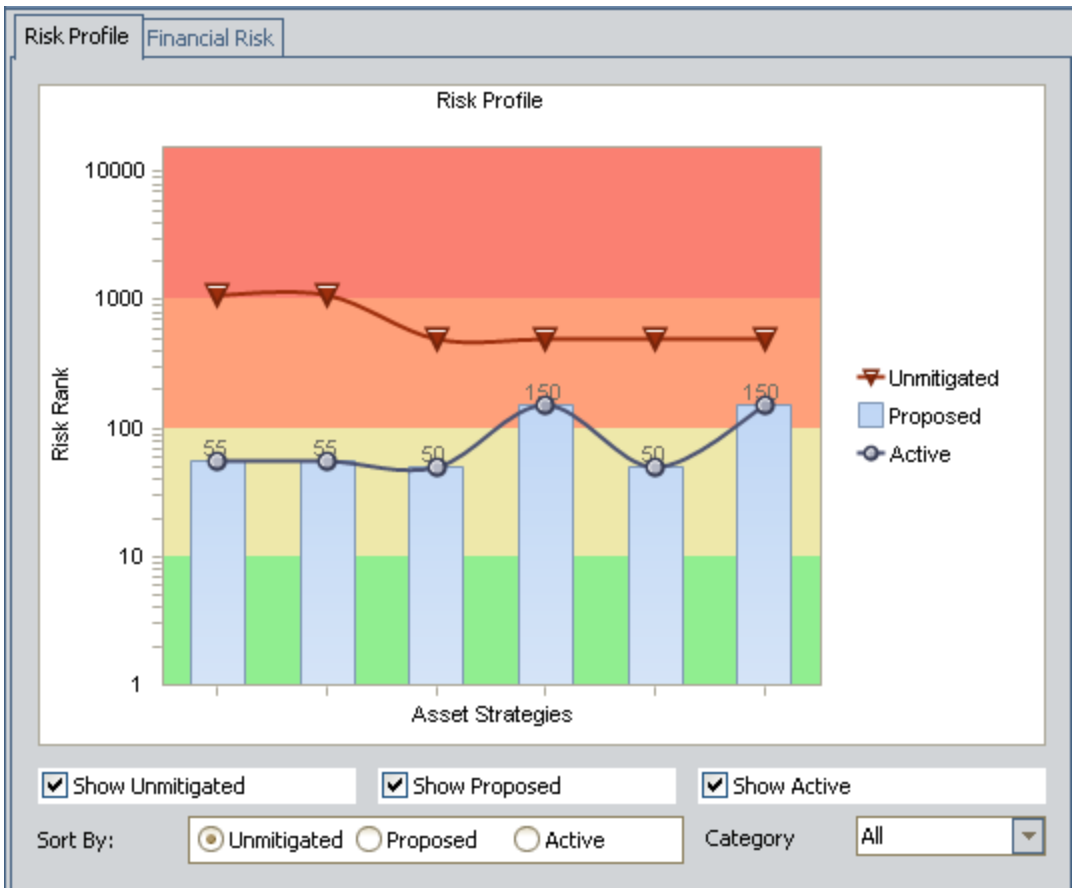
By default, the unmitigated risk rank values are plotted from highest to lowest on the graph from left to right. In other words, the line always slopes down to the right in the default view of the graph. If desired, you can sort the graph from left to right by the Strategy Mitigated Risk Rank values. To do so, below the x-axis, select the **Active** option.

Note that you can also click any datapoint on the graph to open the **Asset Strategy Overview** page for the Asset Strategy that is represented by the clicked datapoint.

Interpreting the Risk Profile Graph in the Risk Analysis

The Risk Profile graph that appears on the System Strategy Risk Analysis page represents data in all Asset Strategies that are included in the System Strategy.

The following image shows an example of the Risk Profile graph in the System Strategy overview.

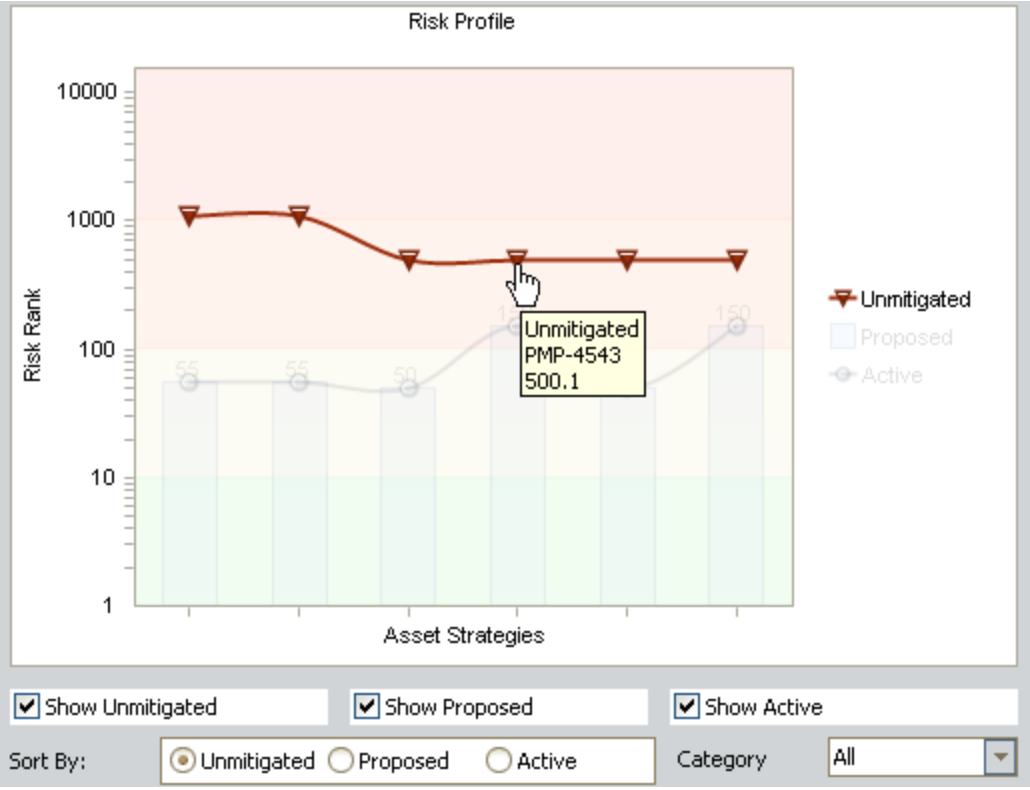


The Risk Profile graph displays:

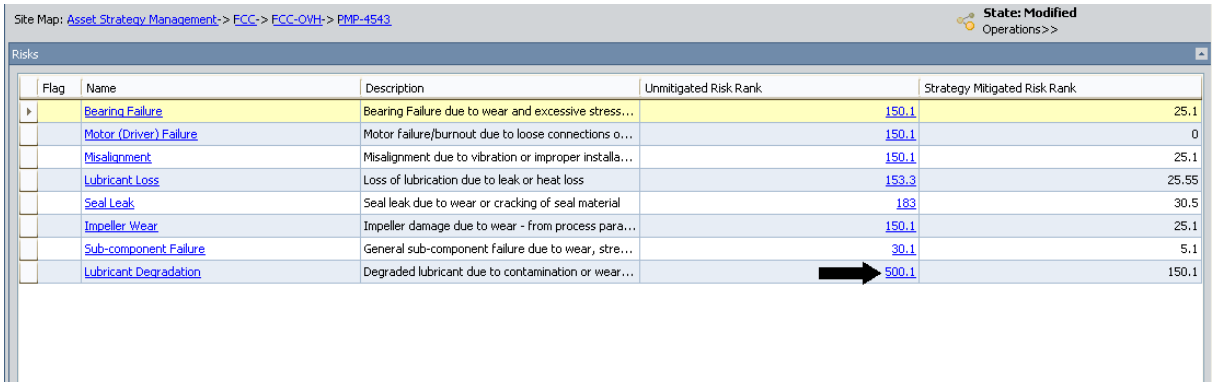
- The highest Strategy Mitigated Risk Rank value across all Risks that belong to the Active Strategy. These values are displayed on the line with the circles.
- The highest projected, or proposed, Strategy Mitigated Risk Rank value across all Risks that belong to the Proposed Strategy. These values are displayed on the vertical bars. As you make changes to the Asset Strategies, changing their state to Modified, those changes are reflected in the bars on the graph.
- The highest unmitigated risk rank value across all Risks that belong to the Active Strategy record. These values are displayed on the line with the triangles.

From the example graph in the preceding image, you can determine from the six data-points on each line that the System Strategy contains six Asset Strategies.

If desired, you can use the values in the **Category** list to filter the graph to display the risk rank associated with a specific risk category (excluding Financial risk categories) for each Asset Strategy. For example, consider the following graph, which shows the highest unmitigated risk across all risk categories, 500.1, for the Asset Strategy *PMP-4543*.

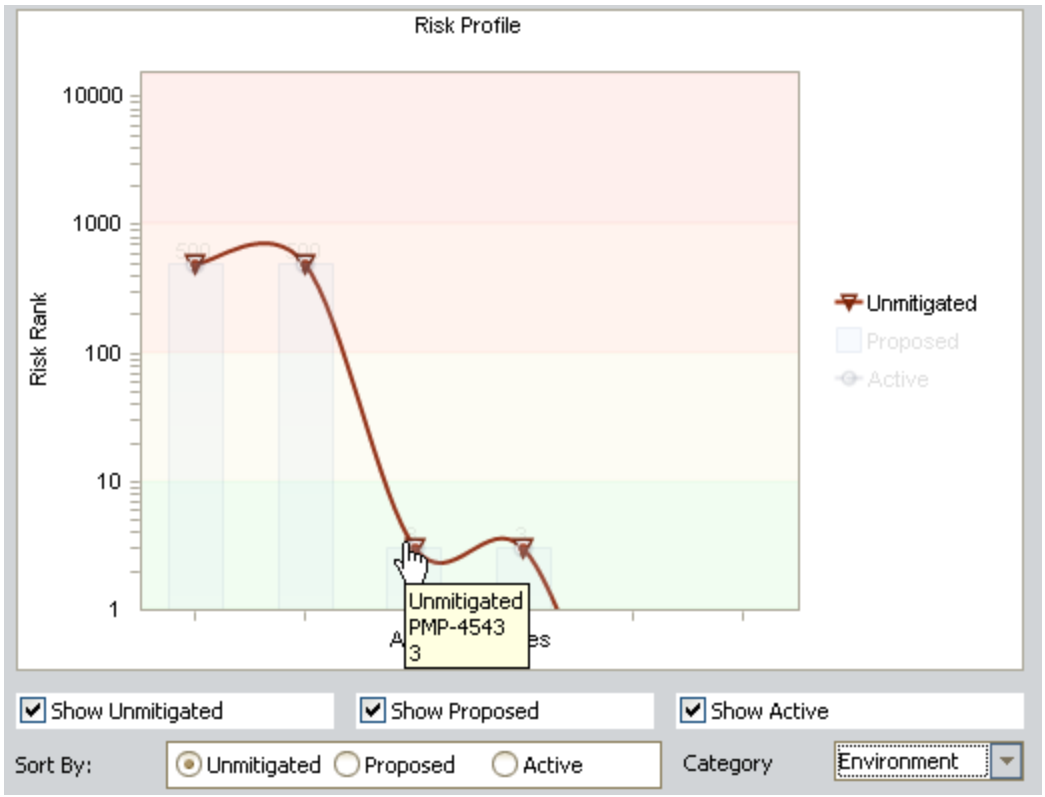


You would see this value in the **Unmitigated Risk Rank** column in the **Risks** section on the **Asset Strategy Risks - PMP-4543** page, as shown in the following image. (A black arrow has been added to call out the value.)



Flag	Name	Description	Unmitigated Risk Rank	Strategy Mitigated Risk Rank
	Bearing Failure	Bearing Failure due to wear and excessive stress...	150.1	25.1
	Motor (Driver) Failure	Motor failure/burnout due to loose connections o...	150.1	0
	Misalignment	Misalignment due to vibration or improper installa...	150.1	25.1
	Lubricant Loss	Loss of lubrication due to leak or heat loss	153.3	25.55
	Seal Leak	Seal leak due to wear or cracking of seal material	183	30.5
	Impeller Wear	Impeller damage due to wear - from process para...	150.1	25.1
	Sub-component Failure	General sub-component failure due to wear, stre...	30.1	5.1
	Lubricant Degradation	Degraded lubricant due to contamination or wear...	500.1	150.1

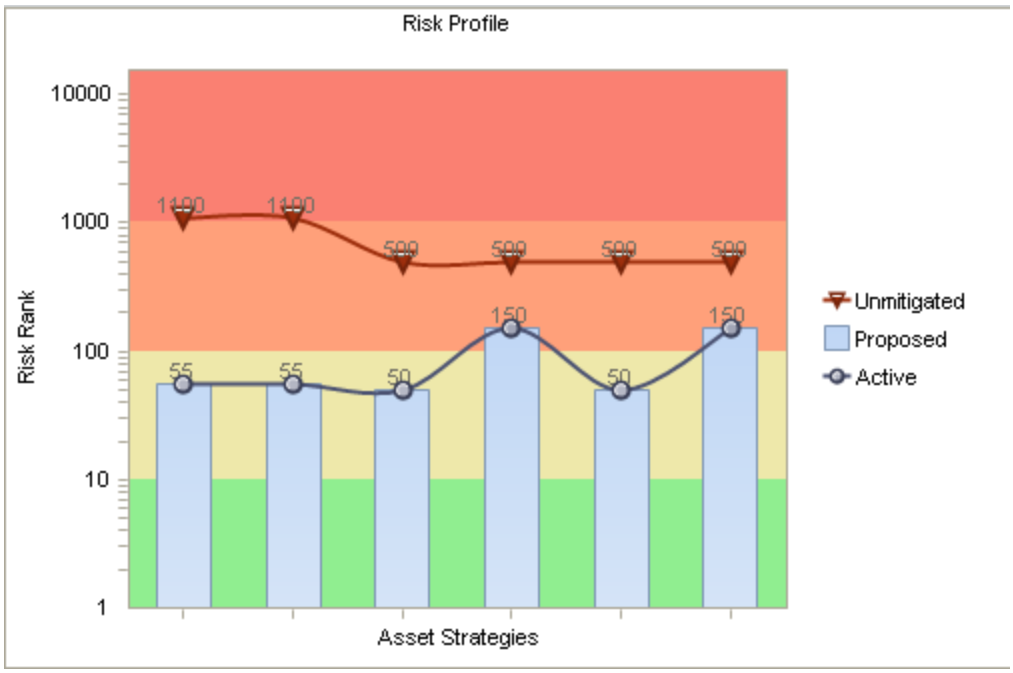
If you filtered the Risk Profile graph to display only risk values associated with the *Environment* risk category, it would look like the graph shown in the following image.



In this image, you can see that the highest Environment risk included in Asset Strategy PMP-4543 is 3.

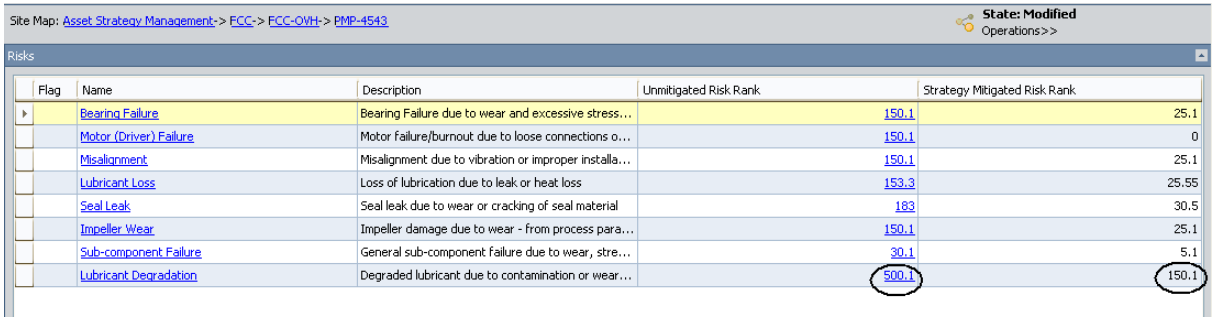
Note: If you filter the graph to show risk ranks values for a specific risk category, the graph will most likely be resorted from left to right. In other words, the Risks will appear in different places on the x-axis after the filtering is applied.

If you right-click the line and the bars, you can choose to show the datapoint values on the graph to determine the exact risk rank values. The following image displays the example graph with labeled datapoint values.



From this graph, you can see that the highest unmitigated risk rank across all Risks for the fourth Asset Strategy is 500.1 (rounded to 500 in the label on the graph). Likewise, the highest Strategy Mitigated Risk Rank across all Risk records for this Asset Strategy is 150.1 (rounded to 150 in the label on the graph).

If you were to view the **Asset Strategy Risks** page for the fourth Asset Strategy, you would see these same values in the **Unmitigated Risk Rank** and **Strategy Mitigated Risk Rank** columns in the **Risks** section, as shown in the following image.



Flag	Name	Description	Unmitigated Risk Rank	Strategy Mitigated Risk Rank
	Bearing Failure	Bearing Failure due to wear and excessive stress...	150.1	25.1
	Motor (Driver) Failure	Motor failure/burnout due to loose connections o...	150.1	0
	Misalignment	Misalignment due to vibration or improper installa...	150.1	25.1
	Lubricant Loss	Loss of lubrication due to leak or heat loss	153.3	25.55
	Seal Leak	Seal leak due to wear or cracking of seal material	183	30.5
	Impeller Wear	Impeller damage due to wear - from process para...	150.1	25.1
	Sub-component Failure	General sub-component failure due to wear, stre...	30.1	5.1
	Lubricant Degradation	Degraded lubricant due to contamination or wear...	500.1	150.1

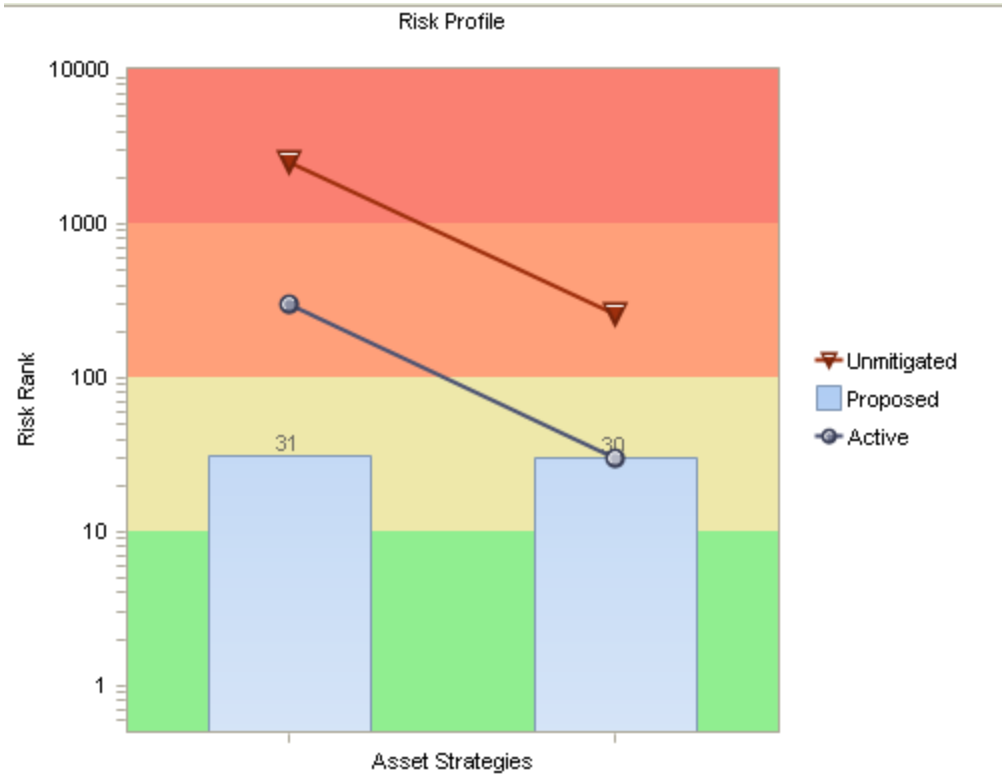
By default, the unmitigated risk rank values are plotted from highest to lowest on the graph from left to right. In other words, the line always slopes down to the right in the default view of the graph. If desired, you can sort the graph from left to right by the proposed or active Strategy Mitigated Risk Rank values. To do so, below the x-axis, select the **Proposed** or **Active** option.

Note that you can also click any datapoint on the graph to open the **Asset Strategy Risk Analysis** page for the Asset Strategy that is represented by the clicked datapoint.

Interpreting the Risk Profile Graph on the Review Page

The Risk Profile graph that appears on the **Review System Strategy** page represents data in all included Asset Strategies in any state *except* Active.

The following image shows an example of the **Review System Strategy** page.

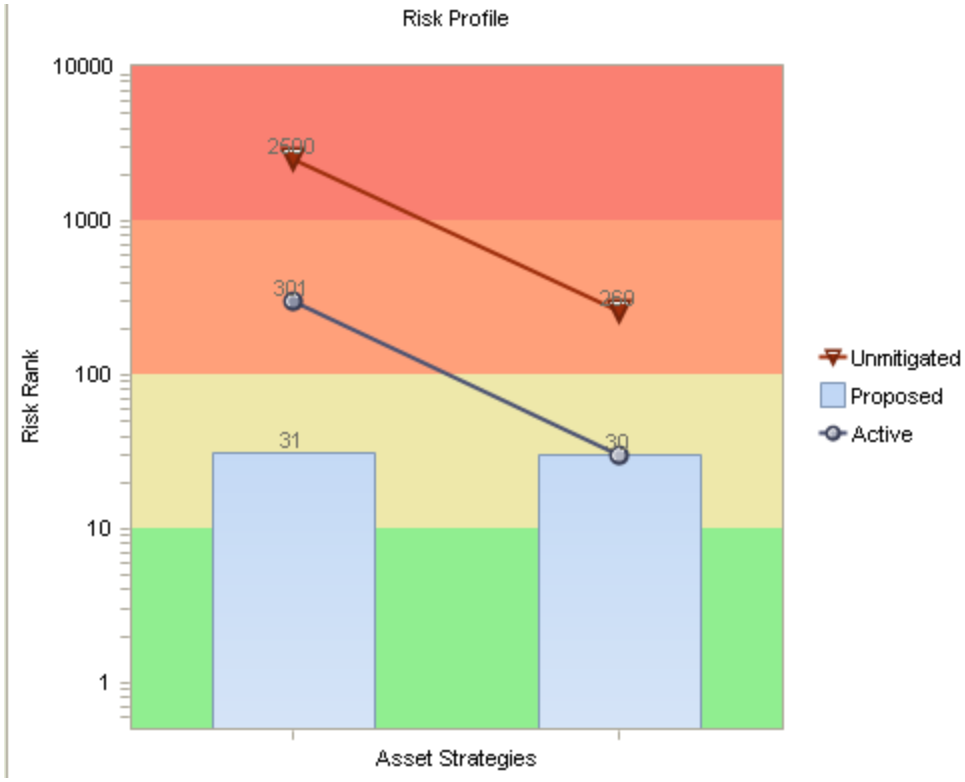


The Risk Profile graph displays:

- The highest Strategy Mitigated Risk Rank value across all Risks that belong to each Asset Strategy. These values are displayed on the line with the circles.
- The highest projected, or proposed, Strategy Mitigated Risk Rank value across all Risks that belong to each Proposed Strategy. These values are displayed on the vertical bars. As you make changes to an Asset Strategy, changing its state to Modified, those changes are reflected in the bars on the graph.
- The highest unmitigated risk rank value across all Risks that belong to each Active Strategy. These values are displayed on the line with the triangles.

From the example graph in the preceding image, you can determine from the two datapoints on each line that the System Strategy contains two Asset Strategies.

If you right-click the line and the bars, you can choose to show the datapoint values on the graph to determine the exact risk rank values. The following image shows the example graph with labeled datapoint values.



Note that in some cases, displaying the datapoint values might cause the values to overlap. If this happens, you can pause on a line or a bar to see only the datapoint values on that line or bar.

From the example graph, you can see that:

- The highest unmitigated risk rank across all Risks in the first Asset Strategy is 2500.
- Currently, the highest Strategy Mitigated Risk Rank across all Risks in the first Asset Strategy is 301.
- The Asset Strategy has been modified in some way (e.g., an Action's Mitigated Risk Rank has been reduced, an Action has been removed, etc.) The vertical bar represents the highest projected Strategy Mitigated Risk Rank assuming that these changes are accepted and the Asset Strategy state becomes Active without the changes being reversed. In this example, the highest projected, or proposed, Strategy Mitigated Risk Rank is 31.

If you were to view the **Asset Strategy Risks** page for the first Asset Strategy, you would see these values for the Risks records in the **Unmitigated Risk Rank** and **Strategy Mitigated Risk Rank** columns in the **Risks** section.

In the preceding image, you can see that the highest unmitigated risk rank is 2500, which is displayed on the Unmitigated line in the graph. You can also see that the highest Strategy Mitigated Risk Rank is 30.6, which is rounded and displayed as 31 on the Proposed bar on the graph.

By default, the unmitigated risk rank values are plotted from highest to lowest on the graph from left to right. In other words, the Unmitigated line always slopes down to the right in the default view of the graph.

Note that you can also click any datapoint on the graph to open the **Review Asset Strategy** page for the Asset Strategy that is represented by the clicked datapoint.

About the Financial Risk Exposure Graph

The Financial Risk Exposure graph is available on the following pages:

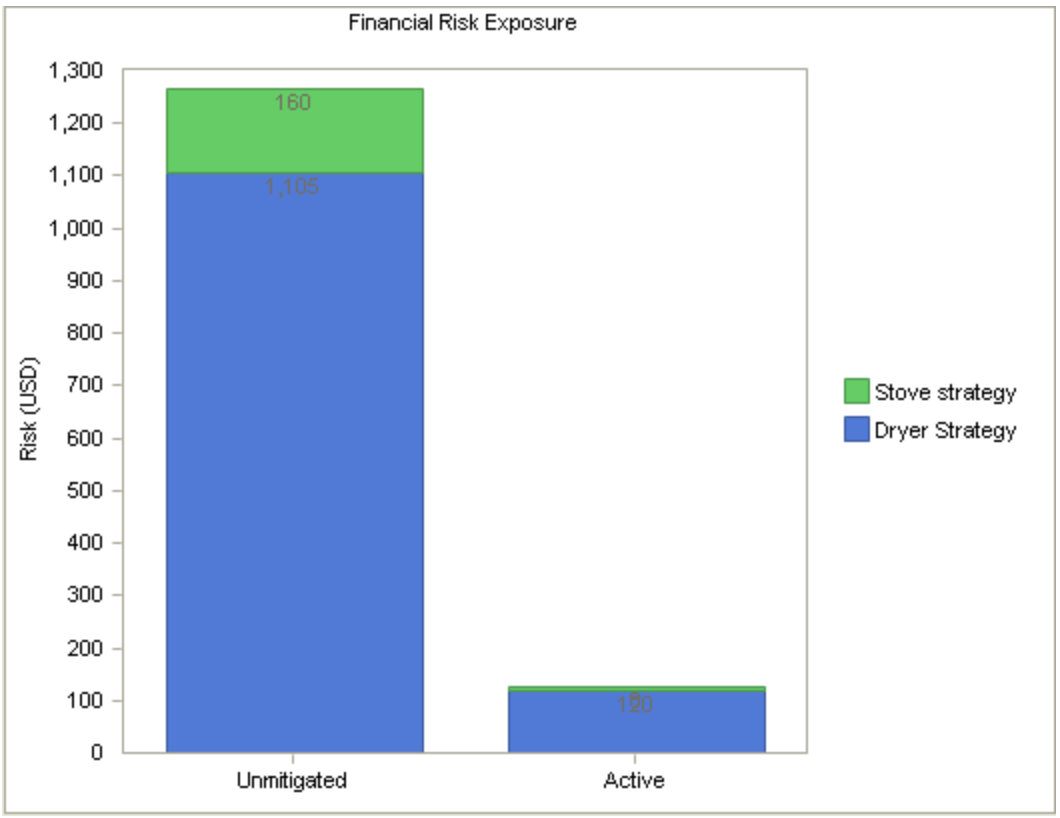
- System Strategy Overview
- Review System Strategy

The Financial Risk Exposure graph that is displayed on the **System Strategy Overview** page represents data in only the *Active* Strategies that are included in the System Strategy. The Financial Risk Exposure graph that is displayed on the **Review System Strategy** page, however, represents data in the Asset Strategies that are anything *other than* Active.

Interpreting the Financial Risk Exposure Graph in the Overview

The Financial Risk Exposure graph that appears on the System Strategy Overview page represents data in only the Active Strategies that are included in the System Strategy.

The following image shows an example of the Financial Risk Exposure graph in the System Strategy overview.



The Financial Risk Exposure graph displays the financial risk rank associated with all Risks that belong to each Active Strategy that is included in the System Strategy. For each Asset Strategy, you can see the unmitigated financial risk rank and the mitigated financial risk rank, which is based on all Actions that are currently included in that Asset Strategy.

The graph contains two bars, Unmitigated and Active. Each bar is divided into multiple sections, where each section represents an Active Strategy that is included in the System Strategy. From the legend, you can determine which Asset Strategy is associated with which color.

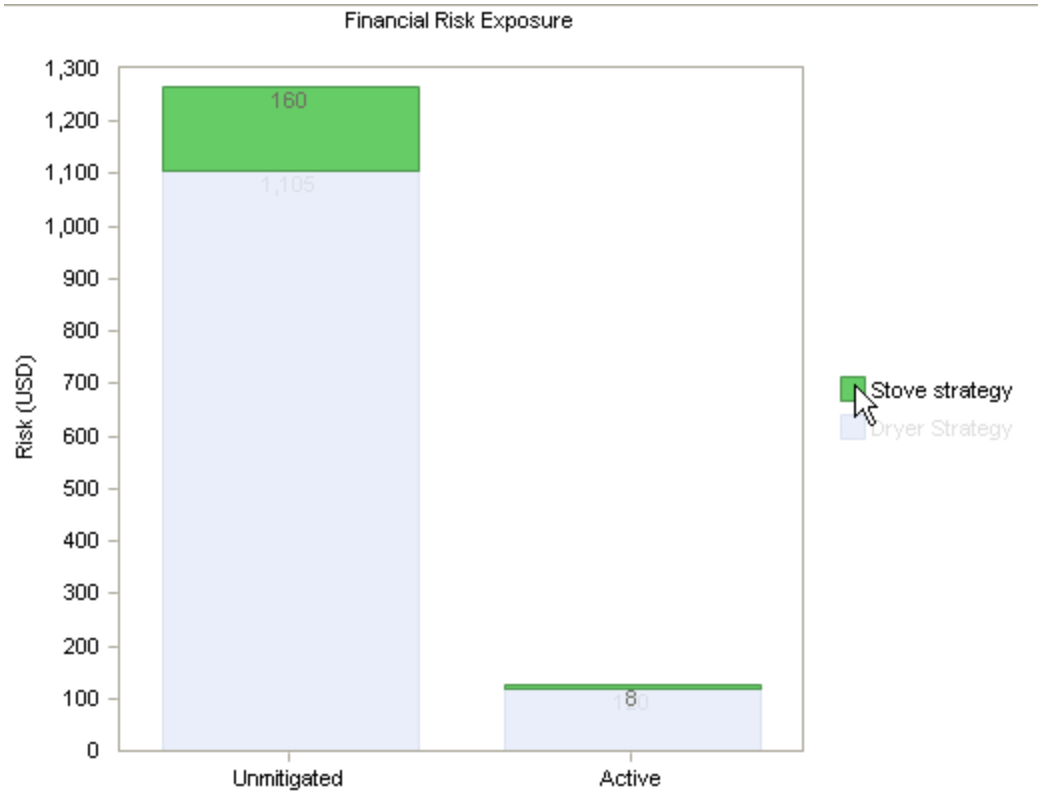
In this example, because each bar contains two sections, you can determine that the System Strategy contains two Active Strategies.

Within each bar, each section represents the financial risk rank associated with that Asset Strategy.

Unmitigated Bar

The Unmitigated bar displays the *total* unmitigated financial risk rank associated with each Asset Strategy. You can view the individual unmitigated financial risk rank values for each Risk in the Asset Strategy by using the **Risks** section of the **Asset Strategy Risks** page to access the **Unmitigated Risk Assessment** window for that Risk. The financial risk rank is displayed on the **Financial** tab.

For example, in the following image, you can see that the total unmitigated financial risk rank for the Asset Strategy *Stove Strategy* is 160.



If you were to access the **Unmitigated Risk Assessment** window for each Risk that is included in the Stove Strategy, you would see that the sum of the values on the **Financial** tabs equals 160.

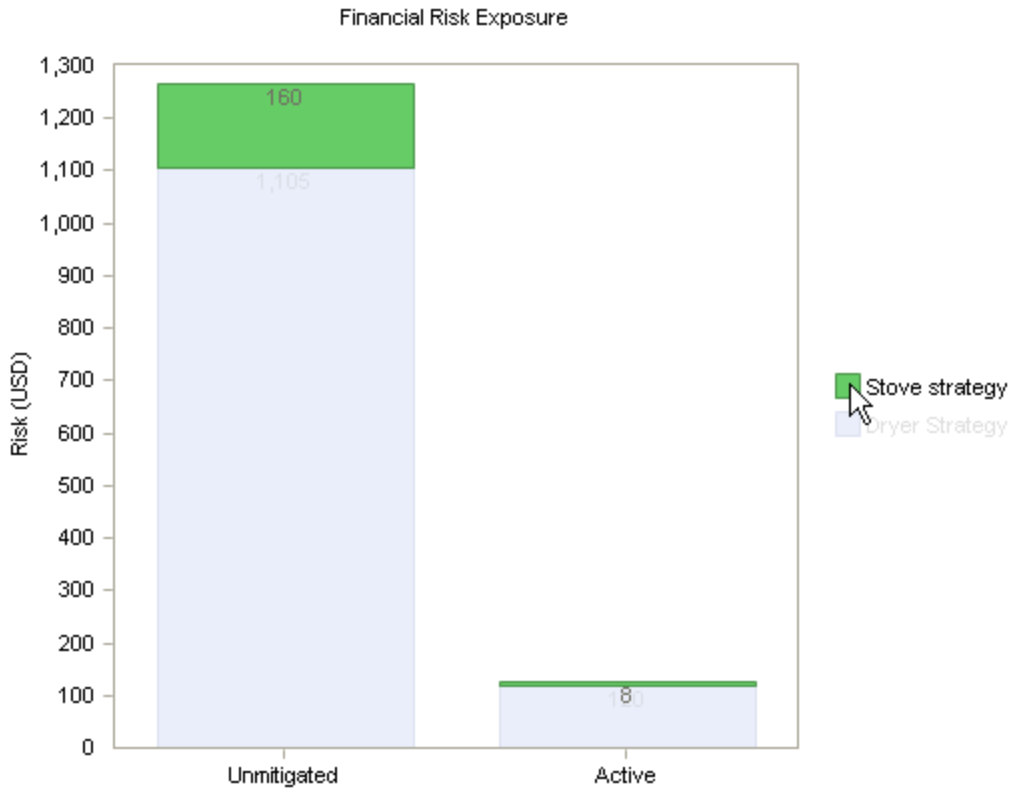
- The unmitigated financial risk rank for the first Risk is 60.
- The unmitigated financial risk rank for the second Risk is 100.

In this case, the sum of values equals 160, which is reflected on the Financial Risk Exposure graph.

Active Bar

The Active bar in the Financial Risk Exposure graph displays the sum of the lowest mitigated financial risk ranks across all Risks that belong to each Active Strategy.

For example, in the following image, you can see that the active mitigated financial risk rank for the Asset Strategy *Stove Strategy* is 8.



If you were to view all of the Actions for each Risk that belongs to the Active Strategy, you would see in the **Action Mitigated Financial Risk** column of the **Mitigating Actions** section that the lowest unmitigated financial risk rank across all Actions that are associated with the first Risk is 5.

The lowest unmitigated financial risk rank across all Actions that are associated with the second Risk is 2.5, which is rounded to 3 for graphing purposes.

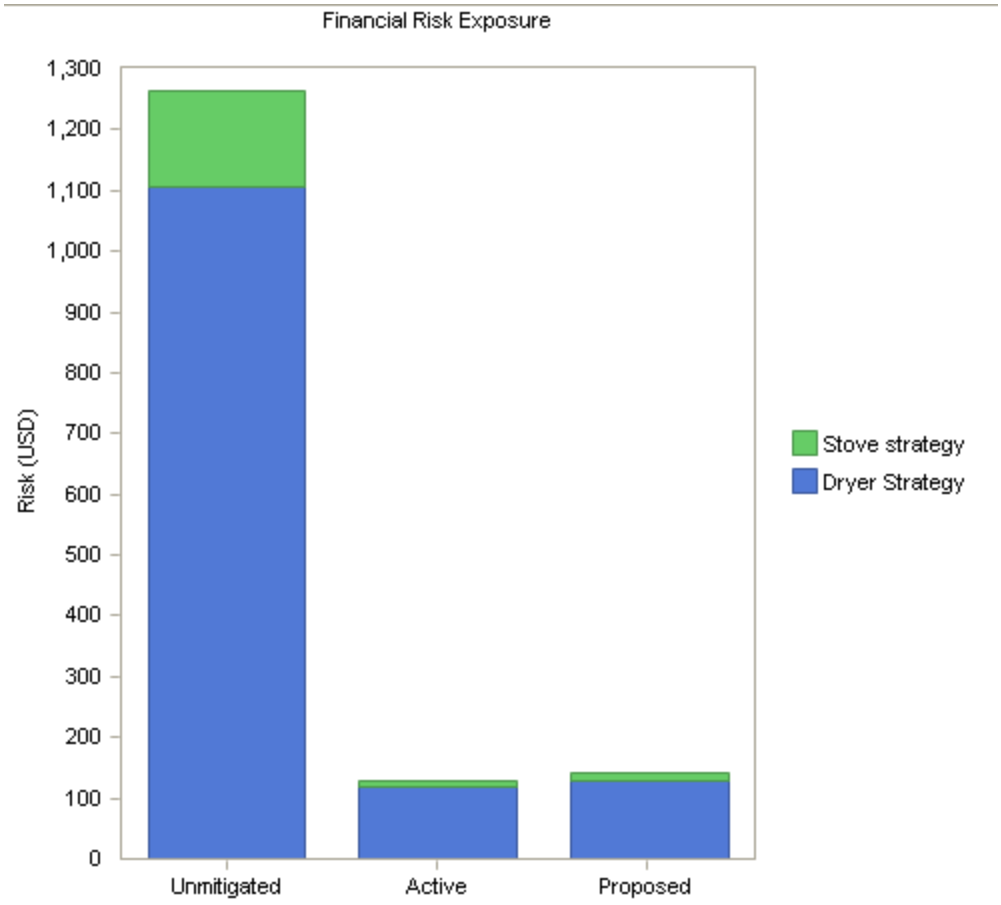
If you add these numbers together, the total value is 8, which is reflected in the Financial Risk Exposure graph.

Note that you can also click any datapoint on the graph to open the **Asset Strategy Overview** page for the Asset Strategy that is represented by the clicked datapoint.

Interpreting the Financial Risk Exposure Graph on the Review Page

The Financial Risk Exposure graph that appears on the **Review System Strategy** page represents data in all included Asset Strategies in any state *except* Active.

The following image shows an example of the Financial Risk Exposure graph on the **Review System Strategy** page.



The Financial Risk Exposure graph displays:

- The total unmitigated financial risk rank across all Risks that belong to each Active Strategy. These values are displayed on the Unmitigated bar.
- Currently, the sum of the lowest mitigated financial risk ranks across all Risks that belong to each Active Strategy. These values are displayed on the Active bar.
- The sum of the lowest projected, or proposed, mitigated financial risk ranks across all Risks that belong to each Proposed Strategy, assuming that one or more changes are made to the Asset Strategies. These values are displayed on the Proposed bar. As you make changes to the Asset Strategy, changing the state to Modified, those changes are reflected in the Proposed bar.

Each bar is divided into multiple sections, where each section represents an Asset Strategy that is included in the System Strategy. From the legend, you can determine which Asset Strategy is associated with which color.

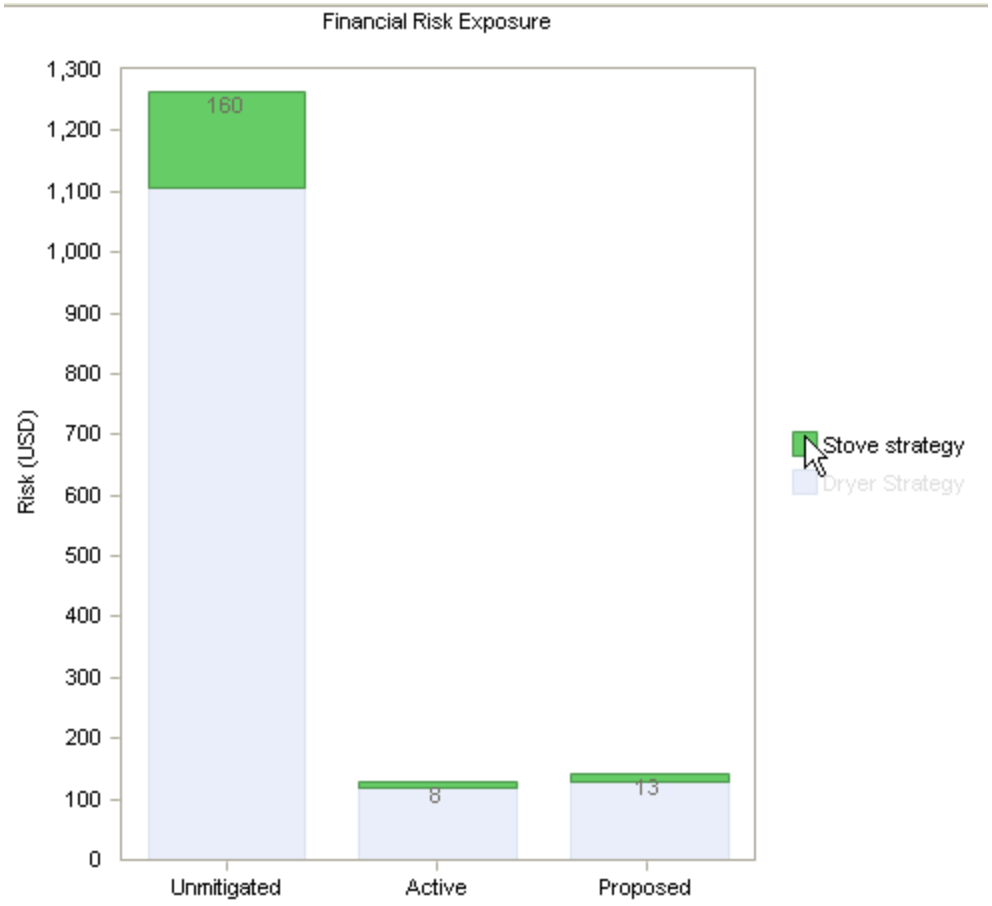
In this example, because each bar contains two sections, you can determine that the System Strategy contains two Asset Strategies.

Within each bar, each section represents the financial risk rank associated with that Asset Strategy.

Unmitigated Bar

The Unmitigated bar displays the total unmitigated financial risk rank associated across all Risks that belong to the Active Strategy. You can also view the individual unmitigated financial risk rank value for each Risk by using the **Risks** section of the **Asset Strategy Risks** page to access the **Unmitigated Risk Assessment** window for that Risk. The financial risk is displayed on the **Financial** tab.

For example, in the following image, you can see that the total unmitigated financial risk rank for the Asset Strategy *Stove Strategy* is 160.



If you were to access the **Unmitigated Risk Assessment** window for each Risk that is included in the Stove Strategy, you would see that the sum of the values on the **Financial** tabs equals 160.

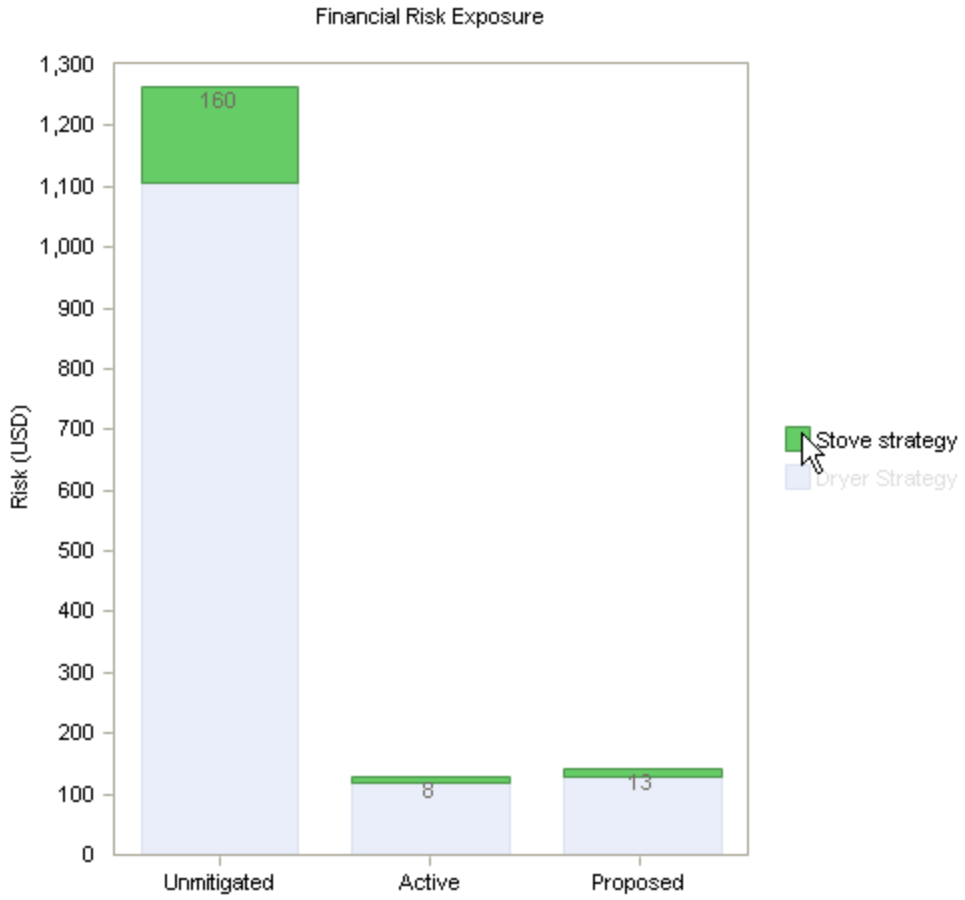
- The unmitigated financial risk rank for the first Risk is 60.
- The unmitigated financial risk rank for the second Risk is 100.

In this case, the sum of values equals 160, which is reflected on the Financial Risk Exposure graph.

Active Bar

The Active bar in the Financial Risk Exposure graph displays the sum of the lowest mitigated financial risk ranks across all Risks that belong to each Active Strategy.

For example, in the following image, you can see that the active mitigated financial risk rank for the Asset Strategy *Stove Strategy* is 8.



If you were to view all of the Actions for each Risk that is included in the Asset Strategy, you would see that the lowest unmitigated financial risk rank across all Actions that are associated with the first Risk is 5.

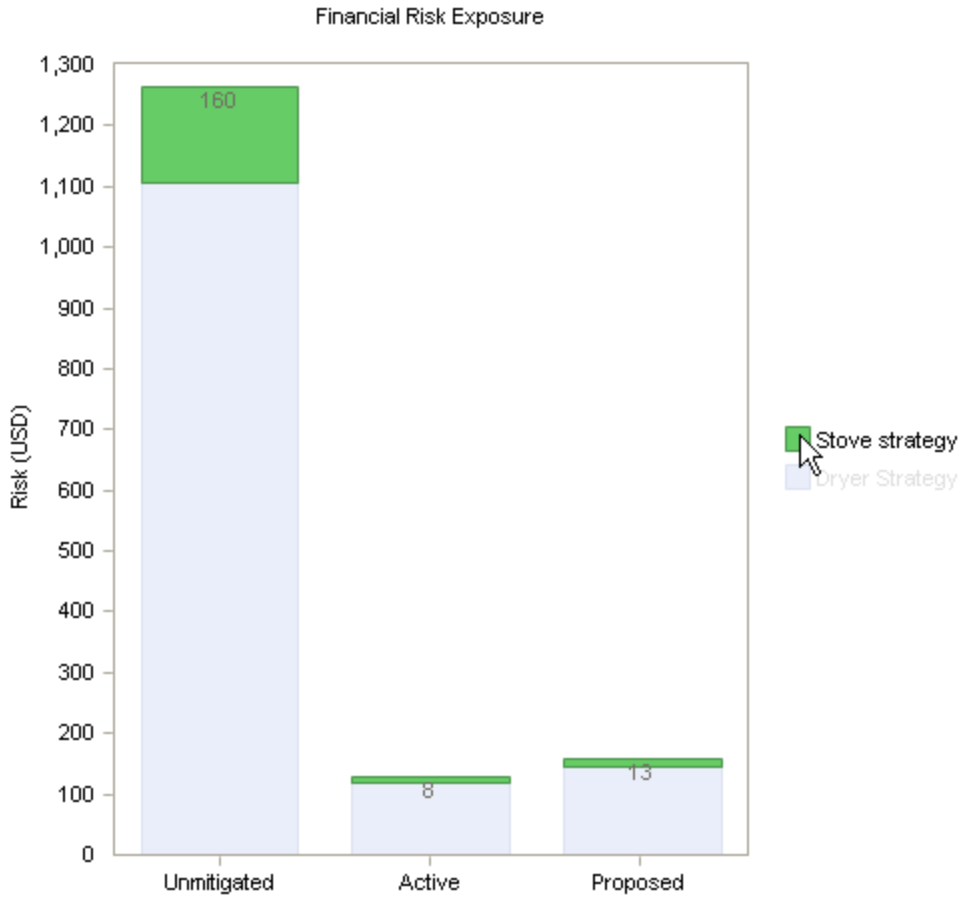
The lowest unmitigated financial risk rank across all Actions that are associated with the second Risk is 2.5, which is rounded to 3 for graphing purposes.

If you add these numbers together, the total value is 8, which is reflected in the Financial Risk Exposure graph.

Proposed Bar

The Proposed bar displays the sum of the lowest projected, or proposed, mitigated financial risk rank across all Risks for each Asset Strategy, assuming that one or more changes are made to the Asset Strategy. As you make changes to the Asset Strategy, changing the state to Modified, those changes are reflected in the Proposed bar.

For example, in the following image, the proposed mitigated financial risk rank for the Asset Strategy *Stove Strategy* is 13.



If you were to view this Asset Strategy on the **Asset Strategy Risks** page, you could see that the sum of the lowest mitigated financial risk rank across all Risks is 13.

The lowest mitigated financial risk rank for the first Risk in the Stove Strategy is 7.5, which rounded to 8 for graphing purposes. The lowest mitigated financial risk rank for the second Risk is 5.

The sum of these numbers, 5 and 8 (rounded from 7.5), is 13, which is reflected in the graph on the Proposed bar.

Note that you can also click any datapoint on the graph to open the **Review Asset Strategy** page for the Asset Strategy that is represented by the clicked datapoint.

About the Cost of Actions Graph

The Cost of Actions graph is available on the following pages:

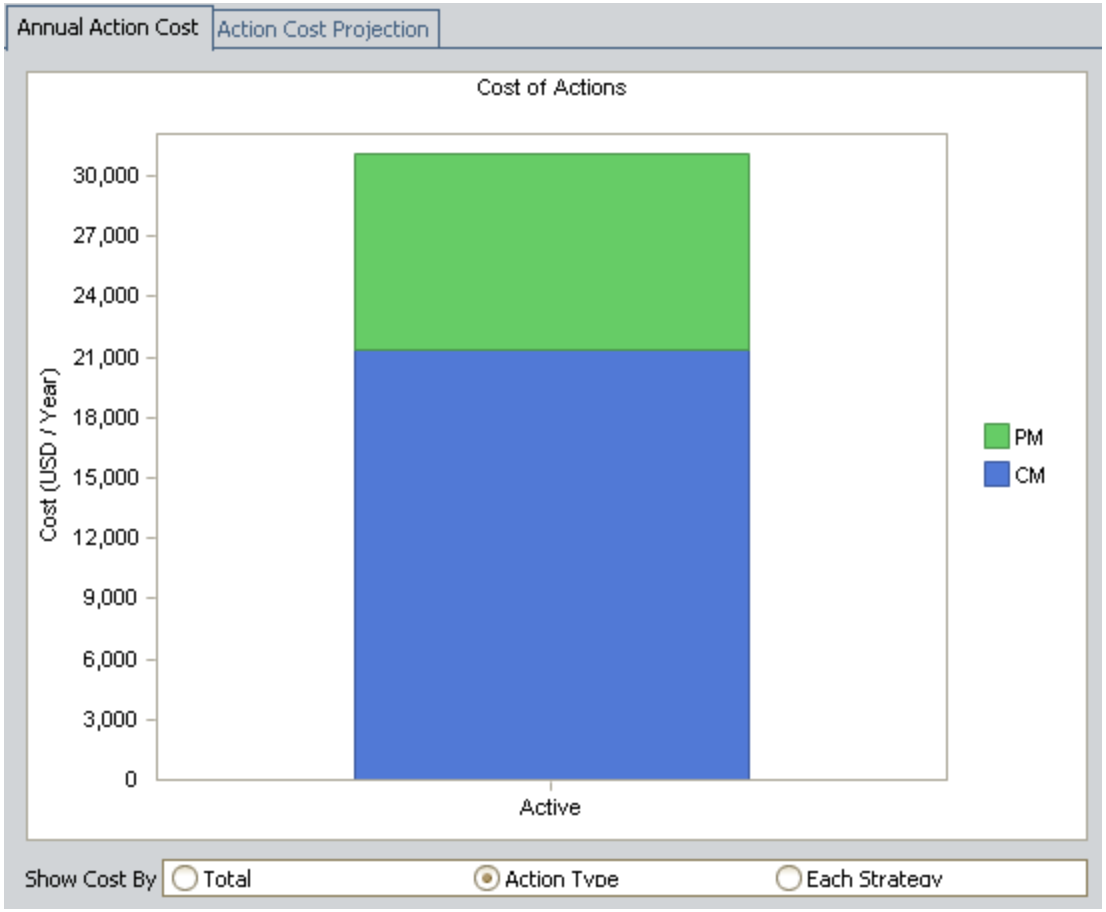
- System Strategy Overview
- Review System Strategy

The Cost of Actions graph that is displayed on the **System Strategy Overview** page represents data in only the *Active* Strategies that are included in the System Strategy. The Cost of Actions graph that is displayed on the **Review System Strategy** page, however, represents data in the Asset Strategies that are anything *other than* Active.

Interpreting the Cost of Actions Graph in the Overview

The Cost of Actions graph that appears on the System Strategy Overview page represents data in only the Active Strategies that are included in the System Strategy.

The following image shows an example of the Cost of Actions graph in the System Strategy overview.



The Cost of Actions graph displays the cost per year associated with all Actions in all Active Strategies that belong to the System Strategy.

Hint: The cost displayed on the graph is not the Cost value that appears by default in the grid in the **Actions** section. The Cost value on the graph actually represents the Annual Cost for each Action, which is calculated using the Cost, the Interval, and the Interval Units for each Action. For example, if the Cost is $50.00, the Interval is 6, and the Interval Units is Months, the Annual Cost will be $100.00 (the Action is performed every six months, or twice a year, and 50 multiplied by two is 100). You can see the Annual Cost for each Action by adding it to the grid in the **Actions** section using the **Show Available Fields** option.

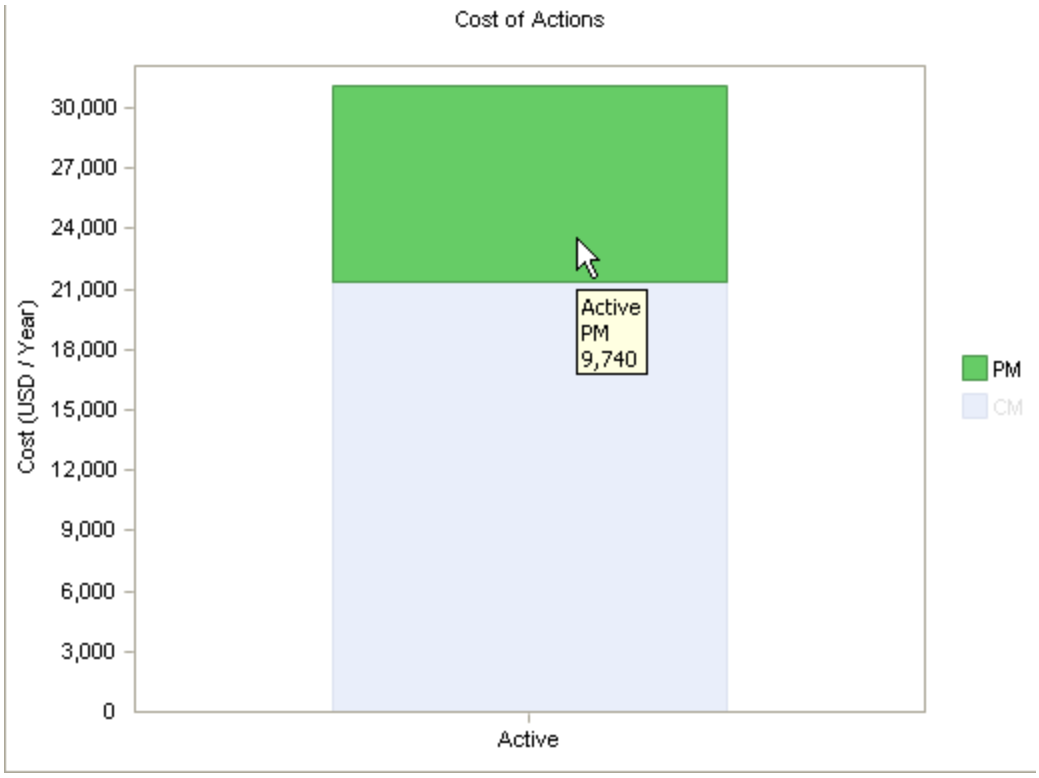
By default, the graph contains one bar, Active, which is divided into the following sections:

- **PM:** Represents the total cost per year for Actions with the Action Type Time-Based Maintenance (Preventive) (PM).
- **CM:** Represents the total cost per year for Actions with the Action Type Condition-Based Maintenance (Predictive) (CM)

Hint: If you view the Action datasheet for any Action record, you can see these options in the Action Type field.

From the legend, you can determine which action type is associated with which color.

In this example, you can see that the total cost per year for PM Actions that are included in both Active Strategies is $9,740.00.



If desired, you can modify the graph to display:

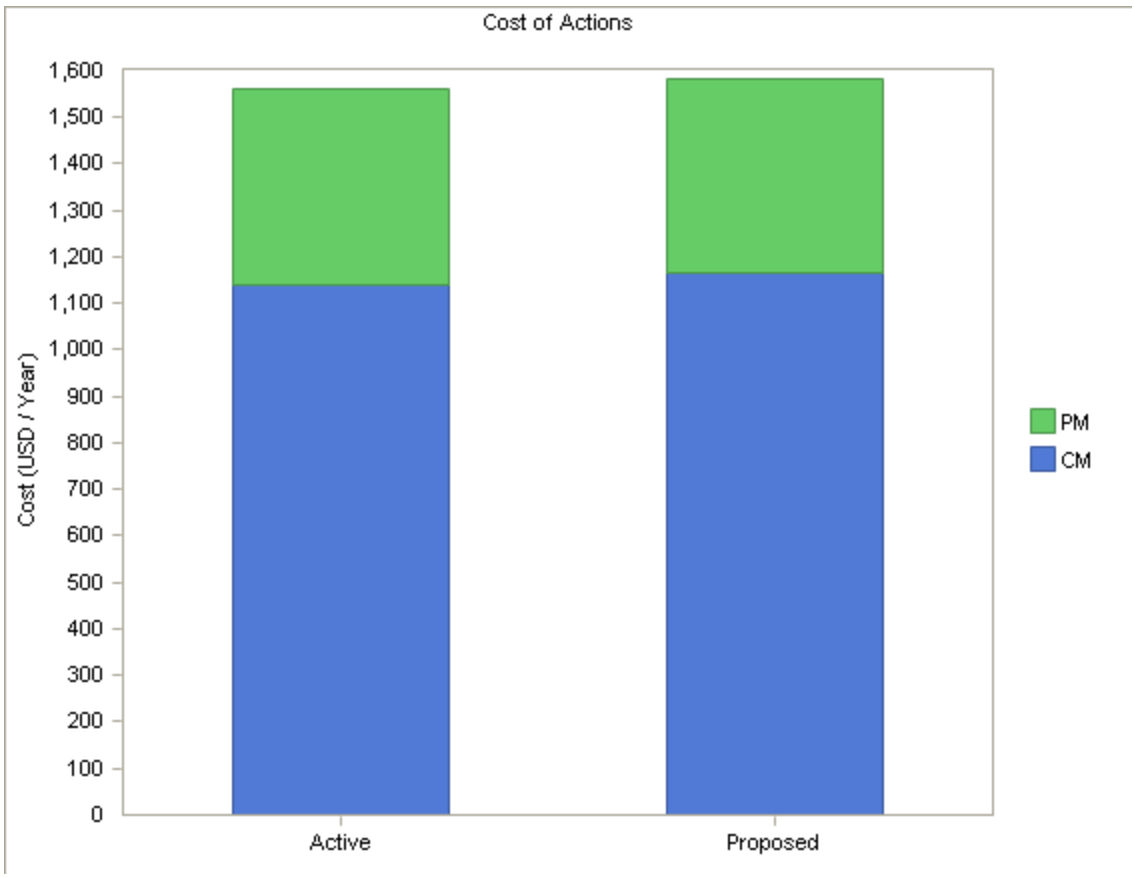
- The total cost per year for ALL Actions, regardless of their Action Type, that are included in all Active Strategies that in included in the System Strategy. To do so, below the x-axis, select the **Total** option. Selecting this option causes the Active bar on the graph to contain only one section, where that section represents the sum of all Actions in all Active Strategies that are included in the System Strategy.
- The total cost per year for all Actions that are included in each Active Strategy, where the Active bar is divided into sections, where each section represents an Active Strategy. To do so, below the x-axis, select the **Each Strategy** option.

Note: If you select the **Each Strategy** option and the System Strategy contains more than twelve Asset Strategies, the legend will be hidden.

Interpreting the Cost of Actions Graph on the Review Page

The Cost of Actions graph that appears on the **Review System Strategy** page represents data in included Asset Strategies in any state *except* Active.

The following image shows an example of the Cost of Actions graph on the **Review System Strategy** page.



The Cost of Actions graph displays the cost *per year* associated with all Actions in all non-Active Asset Strategies that are included in the System Strategy.

Hint: The cost displayed on the graph is not the Cost value that appears by default in the grid in the **Actions** section. The Cost value on the graph actually represents the Annual Cost for each Action, which is calculated using the Cost, the Interval, and the Interval Units for each Action. For example, if the Cost is $50.00, the Interval is 6, and the Interval Units is Months, the Annual Cost will be $100.00 (the Action is performed every six months, or twice a year, and 50 multiplied by two is 100). You can see the Annual Cost for each Action by adding it to the grid in the **Actions** section using the **Show Available Fields** option.

By default, the graph contains two bars: Active and Proposed. Each bar is divided into the following sections:

- **PM:** Represents the total cost per year for Actions whose Action Type is Time-Based Maintenance (Preventive) (PM).
- **CM:** Represents the total cost per year for Actions whose Action Type is Condition-Based Maintenance (Predictive) (CM)

Hint: If you view the Action datasheet for any Action, you can see these options in the Action Type cell.

From the legend, you can determine which action type is associated with which color.

Active Bar

The Active bar is divided into two sections, where each section represents, for a specific action type (PM or CM), the total cost per year for all Actions that are included in the Active version of all Asset Strategies that are included in the System Strategy.

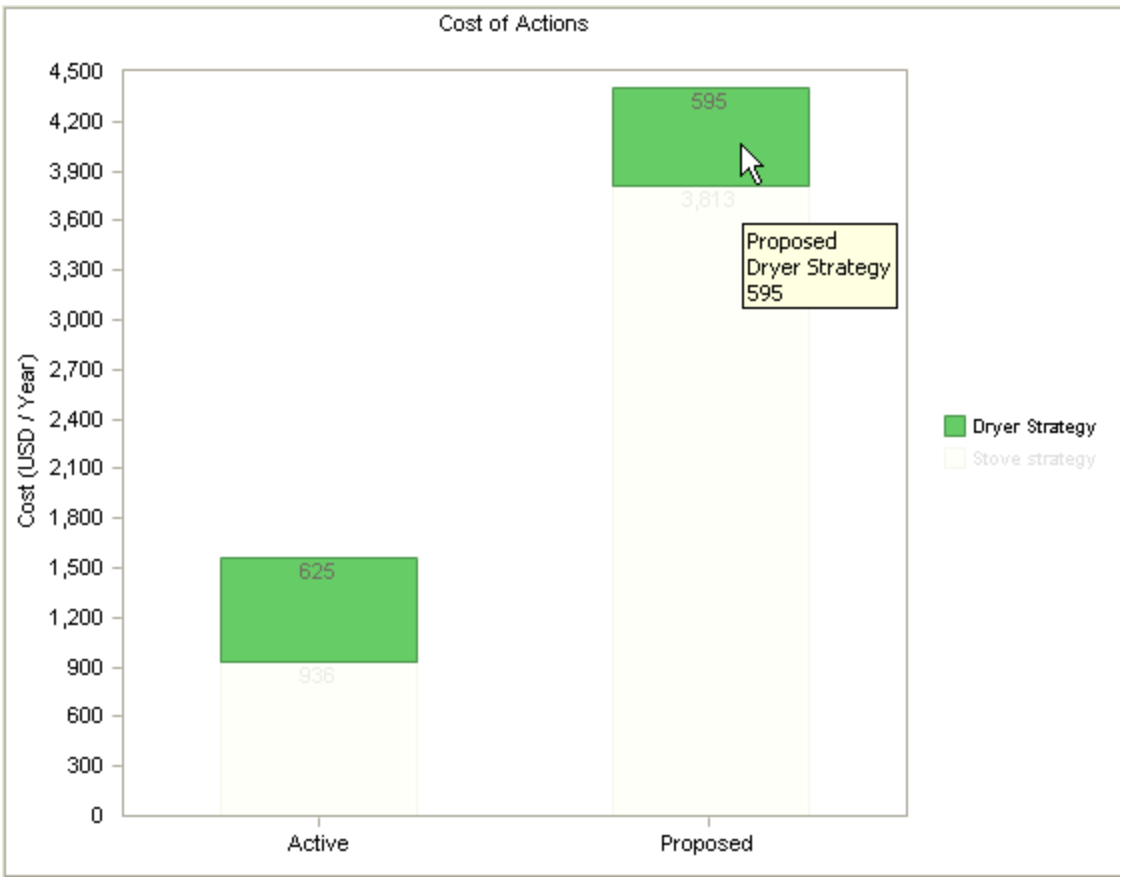
In this example, you can see that the total cost per year for CM Actions that are included in the Active version of all Asset Strategies that are included in the System Strategy is $1,141.00.

Hint: The color of the bars has been modified in this image to make the labels easier to see.

Proposed Bar

As you make changes to an Asset Strategy, causing its state to change to Modified, any changes that you make to an Action's cost will be reflected in the Proposed bar.

In the following image, you can see that the proposed total cost per year for all Actions in all Asset Strategies that are included in the System Strategy is $595.00.


Cost of Actions
Cost (USD / Year)
4,500
4,200
3,900
3,600
3,300
3,000
2,700
2,400
2,100
1,800
1,500
1,200
900
600
300
0
595
3,813
625
936
Proposed
Dryer Strategy
595
Active
Proposed
Dryer Strategy
Stove strategy

About the Cost Projection Graph

The Cost Projection graph is available on the following pages:

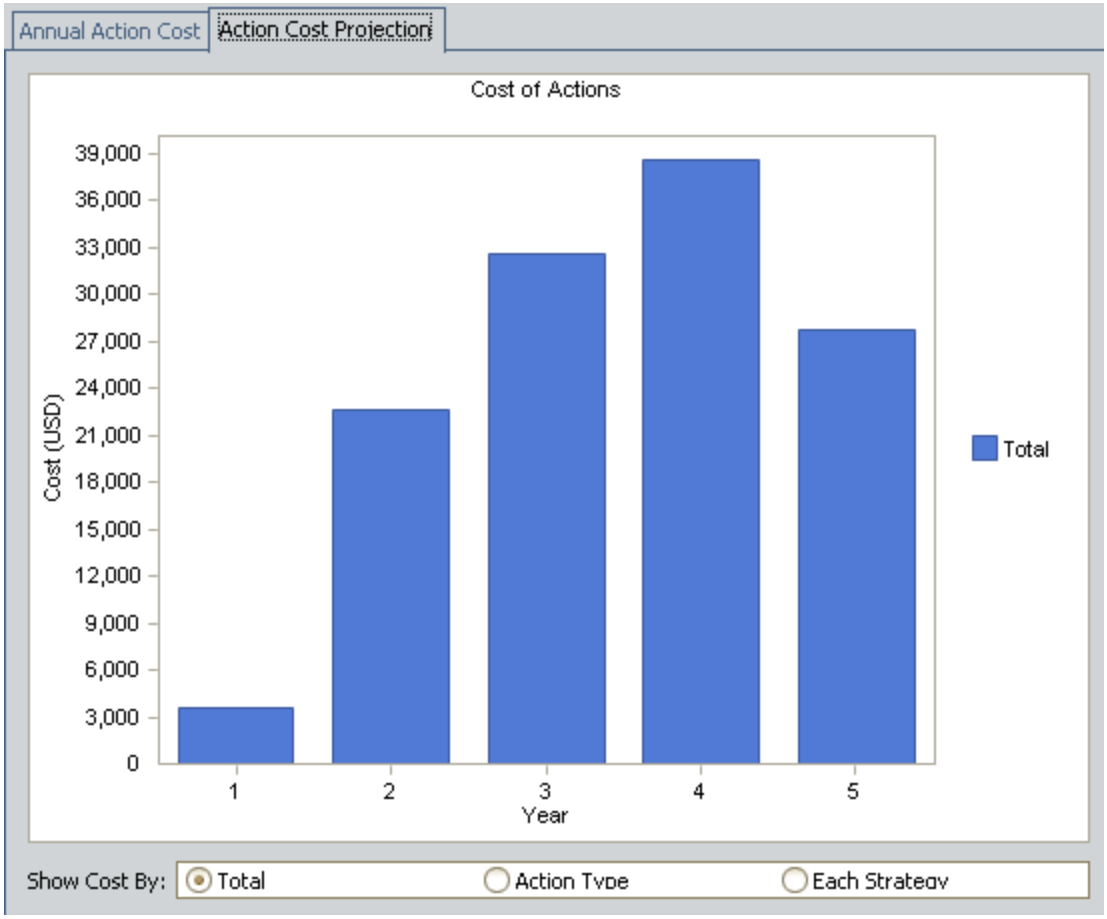
- System Strategy Overview
- System Strategy Risk Analysis
- Review System Strategy

The Cost Projection graph that is displayed on the **System Strategy Overview** page represents data in the Active Strategy only. The Cost Projection graph that is displayed on the other two pages, however, represents data in the Active Strategy and in the Proposed Strategy.

Interpreting the Cost Projection Graph in the Overview

The Cost Projection graph that appears on the System Strategy Overview page represents data in only the Active Strategies that are included in the System Strategy.

The following image shows an example of the Cost Projection graph in the System Strategy Overview.



The Cost Projection graph displays the cost per year of all Actions that are included in all underlying Active Strategies and that fall within the planning period. The planning period is the *shortest* plan length across all underlying Active Strategies.

Note: If none of the underlying Active Strategies have a plan length, the Cost Projection graph will use a plan length of one year.

For example, if the System Strategy contains three Active Strategies with Plan Lengths of five years, seven years, and ten years, the Cost Projection graph in the System Strategy will represent the five-year plan length. In other words, the graph will contain five bars.

You can use the **Total**, **Action Type**, and **Each Strategy** options to show the yearly cost of all Actions, the yearly cost of Actions by Action type, or the yearly cost of Actions by Asset Strategy.

From the legend, you can determine which Action type or Asset Strategy is associated with which color.

Note: If you select the **Each Strategy** option and the System Strategy contains more than twelve Active Strategies, the legend will be hidden.

The costs displayed on the graph are determined from the Cost value and the recurrence pattern of each Action, which is indicated with the **Nonrecurring** check box on the Action datasheet.

For example, if an Action that costs $100.00 is recurring, the Action will cost $100.00 every year for the length of the plan (determined from the shortest plan length of all underlying Asset Strategies). Regardless of the plan length, the cost will be incurred every year.

Likewise, if an Action that costs $200.00 is *nonrecurring* and is set to occur in three years (the Interval on the Action datasheet is 3 and the Interval Units is Years), the Action will cost $200.00 three years from today (the *fourth* year of the plan). If the plan length is five years, that $200.00 will not be incurred again during the plan.

Interpreting the Cost Projection Graph

The Cost Projection graph represents data in all Asset Strategies that are included in the System Strategy.

The following image shows an example of the Cost Projection graph.

The Cost Projection graph displays the cost per year of all Actions that are included in the underlying Asset Strategies and that fall within the planning period. The planning period is the *shortest* plan length across all underlying Asset Strategies.

Note: If none of the underlying Asset Strategies have a plan length, the Cost Projection graph will use a plan length of one year.

For example, if the System Strategy contains three Asset Strategies with Plan Lengths of five years, seven years, and ten years, the Cost Projection graph in the System Strategy will represent the five-year plan length. In other words, the graph will contain five bars.

You can display the cost of Actions for all Proposed Asset Strategies or for all Active Asset Strategies by selecting the appropriate option below the graph: **Show Proposed** or **Show Active**.

The costs displayed on the graph are determined from the Cost value and the recurrence pattern of each Action, which is indicated with the **Nonrecurring** check box on the Action datasheet.

For example, if an Action that costs $100.00 is recurring, the Action will cost $100.00 every year for the length of the plan (determined from the shortest plan length of all underlying Asset Strategies). Regardless of the plan length, the cost will be incurred every year.

Likewise, if an Action that costs $200.00 is *nonrecurring* and is set to occur in three years (the Interval on the Action datasheet is 3 and the Interval Units is Years), the Action will cost $200.00 three years from today. If the plan length is five years, that $200.00 will not be incurred again during the plan.

Example of the Cost Projection Graph in the Risk Analysis

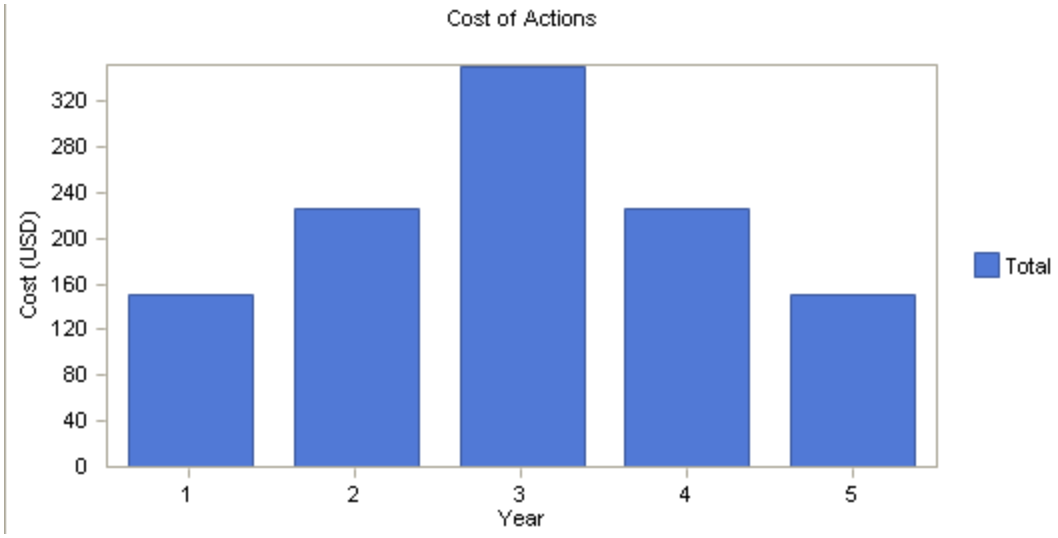
Consider the following Asset Strategies.

Strategy A (Plan Length = 5 years)				
Action	Cost ($)	Interval	Interval Units	Recurring?
Action 1	200	3	Years	No
Action 2	100	1	Years	Yes

Strategy B (Plan Length = 7 years)				
Action	Cost ($)	Interval	Interval Units	Recurring?
Action 1	50	1	Years	Yes
Action 2	75	2	Years	No

If these Asset Strategies are included in a System Strategy, the plan length used in the System Strategy would be five years, since this is the shortest plan length between the two Asset Strategies.

The Cost Projection graph would look like the graph shown in the following image.



Year 1

Year 1 of the plan shows a cost of $150.00. which is a combination of the cost of all Actions that occur that year. Based on the preceding tables, you can see that the following Actions occur in year 1:

- Action 2 from Asset Strategy A
- Action 1 from Asset Strategy B

Remember that the total cost for year 1 is calculated as:

Cost for Year 1 = Combined cost of all Actions that occur that year

...so:

Cost for Year 1 = Cost of Action 2 from Asset Strategy A + Cost of Action 1 from Asset Strategy B

Given the following values:

- **Cost of Action 2 from Asset Strategy A = $100.00**
- **Cost of Action 1 from Asset Strategy B = $50.00**

...the total cost for year 1 is calculated as follows:

- **Cost for Year 1 = $100.00 + $50.00**
- **Cost for Year 1 = $150.00**

Year 2

Year 2 of the plan shows a cost of $225.00, which is a combination of the cost of all Actions that occur that year. Based on the preceding tables, you can see that the following Actions occur in year 2:

- Action 2 from Asset Strategy A
- Action 1 from Asset Strategy B
- Action 2 from Asset Strategy B

Remember that the total cost for year 2 is calculated as:

Cost for Year 2 = Combined cost of all Actions that occur that year

...so:

Cost for Year 2 = Cost of Action 2 from Asset Strategy A + Cost of Action 1 from Asset Strategy B+ Cost of Action 2 from Asset Strategy B

Given the following values:

- **Cost of Action 2 from Asset Strategy A = $100.00**
- **Cost of Action 1 from Asset Strategy B = $50.00**
- **Cost of Action 2 from Asset Strategy B = $75.00**

...the total cost for year 2 is calculated as follows:

- **Cost for Year 2 = $100.00 + $50.00 + $75.00**
- **Cost for Year 2 = $225.00**

Year 3

Year 3 of the plan shows a cost of $350.00, which is a combination of the cost of all Actions that occur that year. Based on the preceding tables, you can see that the following Actions occur in year 3:

- Action 2 from Asset Strategy A
- Action 1 from Asset Strategy B
- Action 1 from Asset Strategy A

Remember that the total cost for year 3 is calculated as:

Cost for Year 3 = Combined cost of all Actions that occur that year

...so:

Cost for Year 3 = Cost of Action 2 from Asset Strategy A + Cost of Action 1 from Asset Strategy B+ Cost of Action 1 from Asset Strategy A

Given the following values:

- **Cost of Action 2 from Asset Strategy A = $100.00**
- **Cost of Action 1 from Asset Strategy B = $50.00**
- **Cost of Action 1 from Asset Strategy A = $200.00**

...the total cost for year 3 is calculated as follows:

- **Cost for Year 3 = $100.00 + $50.00 + $200.00**
- **Cost for Year 3 = $350.00**

Year 4

Year 4 of the plan shows a cost of $225.00, which is a combination of the cost of all Actions that occur that year. Based on the preceding tables, you can see that the following Actions occur in year 4:

- Action 2 from Asset Strategy A
- Action 1 from Asset Strategy B
- Action 2 from Asset Strategy B

Remember that the total cost for year 4 is calculated as:

Cost for Year 4 = Combined cost of all Actions that occur that year

...so:

Cost for Year 4 = Cost of Action 2 from Asset Strategy A + Cost of Action 1 from Asset Strategy B+ Cost of Action 2 from Asset Strategy B

Given the following values:

- **Cost of Action 2 from Asset Strategy A = $100.00**
- **Cost of Action 1 from Asset Strategy B = $50.00**
- **Cost of Action 2 from Asset Strategy B = $75.00**

...the total cost for year 4 is calculated as follows:

- **Cost for Year 2 = $100.00 + $50.00 + $75.00**
- **Cost for Year 2 = $225.00**

Year 5

Year 5 of the plan shows a cost of $150.00. which is a combination of the cost of all Actions that occur that year. Based on the preceding tables, you can see that the following Actions occur in year 5:

- Action 2 from Asset Strategy A
- Action 1 from Asset Strategy B

Remember that the total cost for year 5 is calculated as:

Cost for Year 5 = Combined cost of all Actions that occur that year

...so:

Cost for Year 5 = Cost of Action 2 from Asset Strategy A + Cost of Action 1 from Asset Strategy B

Given the following values:

- **Cost of Action 2 from Asset Strategy A = $100.00**
- **Cost of Action 1 from Asset Strategy B = $50.00**

...the total cost for year 5 is calculated as follows:

- **Cost for Year 5 = $100.00 + $50.00**
- **Cost for Year 5 = $150.00**

Accessing Implementation Packages Associated with Any Underlying Asset Strategy

If a System Strategy is linked to an Asset Strategy record that is linked to an Implementation Package record, you can access that Implementation Package record from the System Strategy.

To access an Implementation Package record from a System Strategy:

1. Open the System Strategy that is linked to the Asset Strategy whose linked Implementation Package record you want to view.

   The **System Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Strategy Implementation** link.

   The **Implementation Package List** page appears, displaying a list of Implementation Package records that are linked to any Asset Strategy record that is linked to the System Strategy record.

Adding a New System Strategy to a Unit Strategy

To add a new Asset Strategy to a System Strategy:

1. Access the **Unit Strategy Management** page.
2. At the bottom of the page, click the **Create New** button.

   The **System Strategy Definition** page appears.
3. Create the System Strategy record for the System Strategy that you want to add to the Unit Strategy.
4. On the site map, click the **<Unit Strategy ID>** link. For example, if the ID of the Unit Strategy is Unit A Strategy, the link on the site map will be **Unit A**.

   The System Strategy is added to the Unit Strategy, and the **Unit Strategy Overview - <Strategy ID>** page appears, where **<Strategy ID>** is the ID of the Unit Strategy that you selected on the site map.
5. To see that the System Strategy has been added, on the **Navigation** menu, click the **Manage Unit** link.

   The newly created System Strategy appears in the list.

Adding Existing System Strategies to a Unit Strategy

Note: The Meridium APM system will allow you to add multiple System Strategies to a Unit Strategy only if *all* the underlying pieces of equipment and locations belong to the same site.

To add existing System Strategies to a Unit Strategy:

1. Access the **Unit Strategy Management** page.
2. At the bottom of the page, click the **Add Existing** button.

   The **Find Items** window appears. The **Search In** list is populated automatically with System Strategy.
3. Click the **Find Now** button.

   The search results appear in the grid below the search criteria.
4. Select the rows containing the System Strategies that you want to add to the Unit Strategy record.
5. Click the **Open** button.

   The selected System Strategies appear in the list on the **Unit Strategy Management** page.

Removing System Strategies from a Unit Strategy

To remove a System Strategy from a Unit Strategy:

1. Access the **Unit Strategy Management** page.
2. In the grid, select the rows containing the System Strategies that you want to remove from the Unit Strategy.
3. At the bottom of the page, click the **Remove Selected** button.

   A message appears, asking if you are sure you want to remove the selected System Strategies from the Unit Strategy.
4. Click the **Yes** button.

   The selected System Strategies are removed from the Unit Strategy record.

Excluding Actions Via the Risk Analysis

When you are viewing the Risk Analysis for a Unit Strategy, you can see a list of Actions that are included in all underlying Proposed Strategies. You can also use the graphs to interpret the effects of performing those actions.

If desired, via the Risk Analysis, you can exclude certain Actions from the Unit Strategy. Using the graphs, you can see the impact of excluding those Actions. Based on the data in the graphs, you can decide if you want to mark the Actions for deletion.

Note: You can exclude an Action only if its **Mandatory** check box is *cleared* and the Action does not belong to an Asset Strategy that is controlled by a master template.

To exclude Actions via the Unit Strategy Risk Analysis:

1. In the grid in the **Actions** section, in the row containing the Action that you want to exclude, clear the **Selected Action** check box.

   Hint: To exclude multiple Actions, you can use the CTRL or SHIFT key to select multiple rows at once. If you then clear the **Selected Action** check box in any of the selected rows, the **Selected Action** check box will be cleared in all remaining selected rows.

   The graphs are updated to reflect the change.

2. If you are satisfied with the results in the graphs and you want to delete the Action, below the **Actions** section, click the **Apply Selections** button.

   A message appears, indicating that the Actions that you excluded will be deleted, asking if you are sure that you want to continue.

3. Click the **Yes** button.

   Note: If you excluded an Action that belongs to an Asset Strategy whose state is set to Pending Review, a message appears, indicating that those Actions cannot be excluded from the Unit Strategy.

   If the associated Asset Strategy has not been activated since the selected Action was created or last updated, the Action is removed from the grid, and the Action record is deleted from the database.

   -OR-

   If the associated Asset Strategy was activated after the Action was created or last updated, the Action records are flagged for deletion but not removed from the grid.

Specifying the Reason for Changing the Unit Strategy

To specify the reason for changing the Unit Strategy:

1. On the Unit Strategy Risk Analysis page, below the grid in the **Actions** section, click the **Basis for Revision** button.

   The **Basis for Revision** dialog box appears.

2. In the text area in the **Basis for Revision** dialog box, type the reason for the changes that you have made to the System Strategy.

3. Click **OK**.

   The **Apply Revision to Selected Strategies** window appears.

   In the grid, in the rows containing the Asset Strategies to which you want to apply the basis for revision, select the **Selected** check box

4. Click **OK**.

   The text is saved and can be seen when you review the underlying Asset Strategies.

Viewing a List of Changes Made to an Action

To view a list of changes that were made to an Action:

1. On the **Unit Strategy Risk Analysis** page, click the **Details** tab.

   A grid appears, displaying a list of Actions that belong to the underlying Proposed Asset Strategy.

2. In the grid, select the row containing the Action whose changes you want to view.

3. Below the grid, click the **Show Changes** button.

   The **Changes** window appears, displaying a list of differences that exist between the selected Action and the corresponding Action that belongs to the Active Strategy.

About Reviewing a Unit Strategy

You can review a Unit Strategy from the **Review Unit Strategy** page.

You can use this page to:

- Review the list of System Strategies whose Asset Strategies are in a state *other than* Active. The list of System Strategies is displayed on the **System Strategies** tab. From this list, you can click any hyperlink to access the System Strategy.
- Review the list of all underlying Asset Strategies. The list of Asset Strategies is displayed on the **Asset Strategies** tab. From the list, you can click any hyperlink to access the Asset Strategy.
- Manage the states of the underlying non-Active Asset Strategies.
- Review the Risk Profile graph.
- Review the Financial Risk Exposure graph.
- Review the Cost of Actions graph.

About Managing Asset Strategy States from a Unit Strategy

When you are viewing the **Review Unit Strategy** page, you can see a list of all underlying Asset Strategies that are set to a state *other than* Active. From this page, you can:

- Assign a Security User to an Asset Strategy state.Doing so will allow this Security User to transition ALL underlying Asset Strategies *from* the assigned state to a successor state. Note, however, that this state assignment does not persist if you navigate away from this page before you transition the Asset Strategies that are set to the assigned state.

  Hint: If the State Configuration for the Asset Strategy family is configured as such, a Security User must also be assigned to the successor state before a Security User can transition a record to that state.

- Change the states of multiple Asset Strategies at one time.

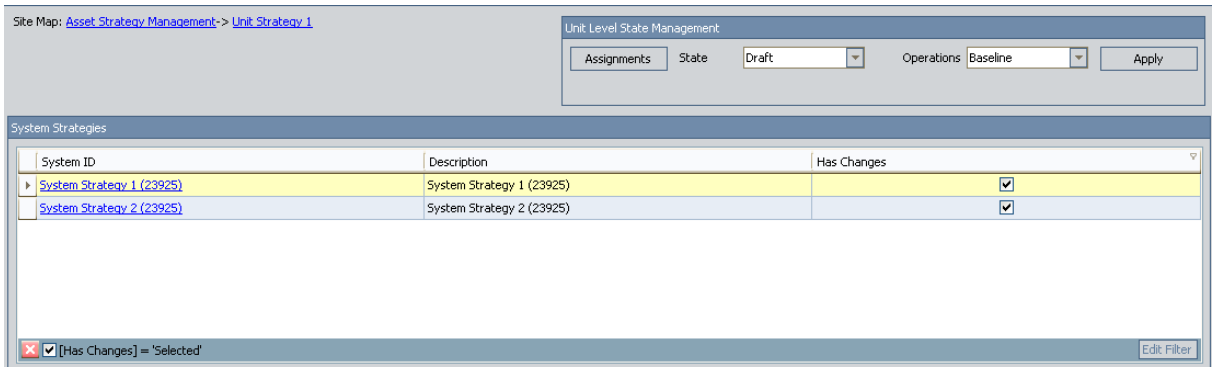
To facilitate this workflow, the **Review Unit Strategy** page contains the following items:

- **Unit Level State Management section:** Contains the following items:
  - **Assignments button:** Displays the **State Assignments** dialog box, where you can assign Security Users to any state that exists in the State Configuration that is defined for the Asset Strategy family.
  - **State list:** Displays all current states of the underlying Asset Strategies, except for Active. For example, if the Unit Strategy contains Draft, Pending Review, and Active Asset Strategies, the list contains the values *Draft* and *Pending Review*.
  - **Operations list:** Displays the operations that can be used to transition the Asset Strategies that are set to the predecessor state that appears in the **State** list. For example, if the **State** list contains the value *Pending Review*, the list contains the values *Make Active* and *Rework* since these are the only operations that contain the Pending Review predecessor state. The predecessor state is determined by the Asset Strategy State Configuration.
  - **Apply button:** Transitions ALL underlying Asset Strategies that are set to the selected state to a successor state using the selected operation. The successor state is determined by the Asset Strategy State Configuration.

  Note: Security Users belonging to the MI ASM Viewer Security Group will not see the **Unit Level State Management** section and thus cannot manage Asset Strategy states from a Unit Strategy.

- **Asset Strategies section:** Displays a grid containing a list of all underlying System Strategies that contain non-Active Asset Strategies.

These sections are displayed in the following image.


Site Map: Asset Strategy Management-> Unit Strategy 1
Unit Level State Management
Assignments
State
Draft
Operations
Baseline
Apply
System Strategies
System ID
Description
Has Changes
System Strategy 1 (23925)
System Strategy 1 (23925)
System Strategy 2 (23925)
System Strategy 2 (23925)
[Has Changes] = 'Selected'
Edit Filter

Assigning a Security User to an Asset Strategy State

To assign a Security User to a state that is defined in the State Configuration for the Asset Strategy family:

1. Access the **Review Unit Strategy** page for the Unit Strategy whose underlying Asset Strategies are set to a state to which you want to assign a Security User.
2. In the **Unit Level State Management** section, click the **Assignments** button.

   The **State Assignments** window appears.
3. Select the row containing the state to which you want to assign a Security User.
4. In the selected row, in the **Assigned User** list, select the Security User that you want to assign to the state.
5. Click **OK**.

   The Security User is assigned to the state. This Security User will now be able to transition ALL underlying Asset Strategies from the assigned state to a successor state. Note, however, that this state assignment does not persist if you navigate away from this page before you transition the Asset Strategies that are set to the assigned state.

   Hint: If State Configuration for the Asset Strategy family is configured as such, a Security User must also be assigned to the successor state before a Security User can transition an Asset Strategy to that state.

Changing the State of Multiple Underlying Asset Strategies

Note: Security Uses belonging to the MI ASM Analyst Security Group cannot set Asset Strategies to the Active state from the Pending Review state using the **Unit Level State Management** features. This means that if you are logged in as a member of this Security Group and see the *Pending Review* state in the **State** list, the *Make Active* operation will not appear in the **Operations** list.

To select the state of the Asset Strategies whose state you want to change:

1. Access the **Review Unit Strategy** page for the Unit Strategy containing the Asset Strategies whose state you want to change.
2. In the **Unit Level State Management** section, in the **State** list, select the state of the Asset Strategies that you want to transition to a different state. For example, if you want to change all underlying Draft Asset Strategies to Active, select *Draft*.
3. In the **Operations** list, select the operation that you want to perform on the Asset Strategies that are set to the state that appears in the **State** list. For example, if you want to change all underlying Draft Asset Strategies to Active using the Baseline operation, select *Baseline*.
4. Click the **Apply** button.

   A message appears, indicating the number of Asset Strategies on which the selected operation will be performed and asking if you want to continue with the operation.
5. Click the **Yes** button.

   The **State Transition** dialog box appears, indicating the progress of the operation. When the operation is complete, the Asset Strategies that were set to the selected state are set to a new state using the selected operation.

About the Risk Profile Graph

The Risk Profile graph that is displayed when you are viewing a Unit Strategy is similar to the Risk Profile graph that is displayed when you are viewing a System Strategy. While the graphs for a System Strategy display data based on the underlying Asset Strategies, the graphs for a Unit Strategy display data based on the underlying System Strategies.

Use the information in this documentation about interpreting the Risk Profile graph for System Strategies to gain an understanding of the type of data that the graph displays. Then, use this information to interpret the Risk Profile graph for Unit Strategies.

About the Financial Risk Exposure Graph

The Financial Risk Exposure graph that is displayed when you are viewing a Unit Strategy is similar to the Financial Risk Exposure graph that is displayed when you are viewing a System Strategy. While the graphs for a System Strategy display data based on the underlying Asset Strategies, the graphs for a Unit Strategy display data based on the underlying System Strategies.

Use the information in this documentation about interpreting the Financial Risk Exposure graph for System Strategies to gain an understanding of the type of data that the graph displays. Then, use this information to interpret the Financial Risk Exposure graph for Unit Strategies.

About the Cost of Actions Graph

The Cost of Actions graph that is displayed when you are viewing a Unit Strategy is similar to the Cost of Actions graph that is displayed when you are viewing a System Strategy. While the graphs for a System Strategy display data based on the underlying Asset Strategies, the graphs for a Unit Strategy display data based on the underlying System Strategies.

Use the information in this documentation about interpreting the Cost of Actions graph for System Strategies to gain an understanding of the type of data that the graph displays. Then, use this information to interpret the Cost of Actions graph for Unit Strategies.

About the Cost Projection Graph

The Cost Projection graph that is displayed when you are viewing a Unit Strategy is similar to the Cost Projection graph that is displayed when you are viewing a System Strategy. While the graphs for a System Strategy display data based on the underlying Asset Strategies, the graphs for a Unit Strategy display data based on the underlying System Strategies.

Use the information in this documentation about interpreting the Cost Projection graph for System Strategies to gain an understanding of the type of data that the graph displays. Then, use this information to interpret the Cost Projection graph for Unit Strategies.

Accessing Implementation Packages Associated with Any Underlying Asset Strategy

If a Unit Strategy's underling Asset Strategy record is linked to an Implementation Package record, you can access that Implementation Package record from the Unit Strategy.

To access an Implementation Package record from a Unit Strategy:

1. Open the Unit Strategy whose underlying Asset Strategy record is to the Implementation Package record that you want to view.

   The **Unit Strategy Overview** page appears.

2. On the **Navigation** menu, click the **Strategy Implementation** link.

   The **Implementation Package List** page appears, displaying a list of Implementation Package records that are linked to any underlying Asset Strategy record.

About Saving Strategies

When you are viewing a strategy on any page *other than* a strategy definition page, you will notice that a **Save** link is not available on the **Common Tasks** menu. In ASM, changes that you make on pages other than a strategy definition page are saved automatically.

When you are working with an Asset Strategy, your changes are saved automatically to either:

- The Proposed Strategy record or a record to which it is linked.

  -OR-

- The Active Strategy record or a record to which it is linked.

For example, if you are working with a new Asset Strategy that has never been activated and you add an Action, the information is saved automatically to the Action record that is linked to the Proposed Strategy record.

When you are working with a System Strategy or a Unit Strategy, any changes that you make to an underlying Asset Strategy (e.g., on the **System Strategy Risk Analysis** page, you clear the **Selected Actions** check box for an Action) are saved automatically to the underlying *Proposed Strategy* record. The same is true when you are working with a Unit Strategy.

To determine the records that will store your changes, refer to the overview of the ASM data structure and illustration of the ASM data model.

Deleting Strategies

When you are finished with a strategy, you can delete it using the **Delete** link on the **Common Tasks** menu on any page within ASM where you are working with that strategy. Likewise, you can delete multiple strategies at one time using the **Delete** link on the **Common Tasks** menu on the following pages:

- **Asset Strategy Search**
- **System Strategy Search**
- **Unit Strategy Search**
- **Asset Strategy Template Search**

The following instructions provide details on deleting one or multiple strategies via any of the search pages in the previous list.

To delete a single strategy or multiple strategies:

1. Access the search page for the type of strategies that you want to delete.
2. In the search results, select the rows containing those strategies you want to delete.
3. On the **Common Tasks** menu, click the **Delete Strategy** link (if you are viewing a list of strategies) or the **Delete Template** link (if you are viewing a list of Asset Strategy Templates).

   The Meridium APM system checks to see if the strategy can be deleted, and then displays a confirmation message, asking if you are sure want to delete the record. If, however, one or more of the strategies cannot be deleted (e.g., it is a master template with controlled strategies), a dialog box appears, displaying the list of strategies that could not be deleted and indicates why it could not be deleted. You can click **OK**to close this message.
4. On the delete confirmation message, click the **Yes**button.

   The selected strategies are deleted.

About ASM and ASO

The Meridium APM Asset Strategy Optimization (ASO) module extends the analytical capabilities of the Asset Strategy Management (ASM) module by providing features, which allow you to perform the following additional steps:

- Define planned and unplanned correction costs for each Risk.
- Define Resources, such as spare parts and human resources, that are needed to perform actions.
- Define Time to Failure (TTF) and Time to Repair (TTR) information based on Monte Carlo simulation results.
- Integrate with the Meridium APM Reliability Analytics module.
- Use a diagramming tool that allows you to represent the physical structure of your equipment and locations.
- Define Global Events.

While ASO is its own separate module, it is intended to *extend* the capabilities available in ASM by providing a a more detailed analysis. You will, therefore, access ASO directly from an existing Asset Strategy, System Strategy, or Unit Strategy. You can use the additional features in ASO to perform the steps in the preceding list to determine the most optimal strategy, which can then be reflected in ASM.

In other words, ASO and ASM work together to provide a more comprehensive view of your equipment and locations to help you determine the best way to manage them to reduce cost and risk.

In ASM, the **Tools** menu provides options that let you create or open an ASO Analysis and run a simulation after an analysis exists.

If you run a simulation from ASM, while the simulation is running, you can continue working in other areas of the Meridium APM Framework by:

- Clicking anywhere on the Meridium APM Framework main window outside the **Run Simulation** dialog box. When you do so, the simulation will continue to run in the background, and the dialog box will be hidden behind the Meridium APM Framework window. When the simulation finishes, the dialog box will be returned to focus automatically.

  -or-

- Clicking either the minimize or the close button on the **Run Simulation** dialog box. When you do so, the simulation will continue to run in the background, and the minimized dialog box will appear on your Windows taskbar. When the simulation finishes, the dialog box will be maximized and returned to focus automatically.

Note: While a simulation is running, you cannot modify the Asset Strategy. If you try to do so, an error message will appear, indicating the action cannot be completed until the simulation is complete.

Running Simulations from ASM

To run a simulation from ASM:

1. While viewing the Risk Analysis for an Asset Strategy, System Strategy, or Unit Strategy, on the **Tools** menu, click the **Run Simulation** link.

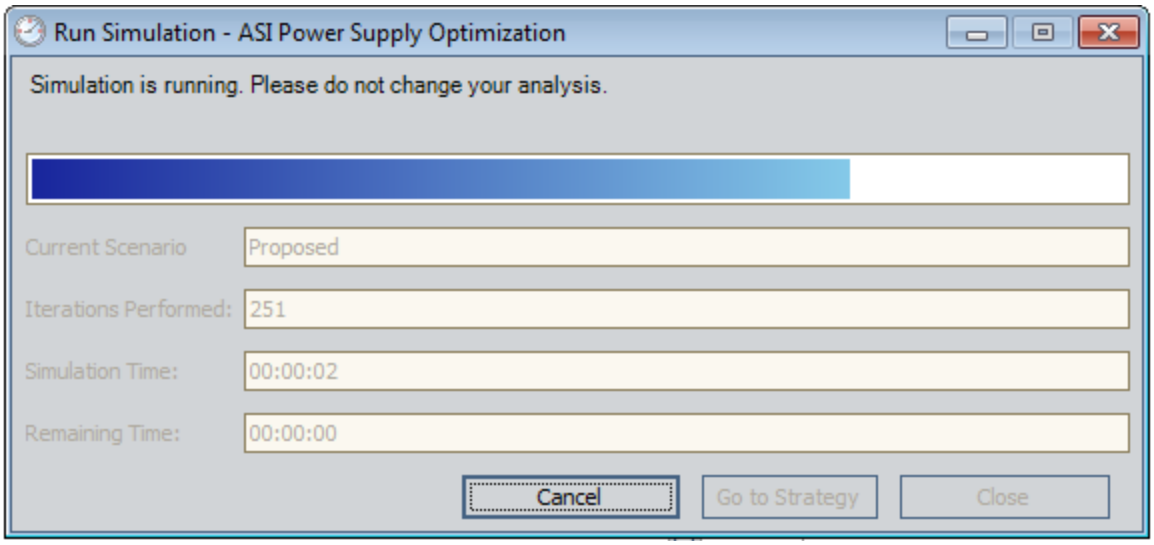
   The **Browse For Folder** window appears, where you can select or create a folder in which to store the Event Logs. If you are viewing an Asset Strategy to which changes have not been made since the last time the simulation was run, however, a message appears, indicating that the simulation does not need to be run. These instructions assume that the simulation needs to be run.

   > **Hint:** If the **Enable Event Log** check box is cleared on the **Asset Strategy Optimization Analysis Definition** page, the **Browse For Folder** dialog box will not appear.

2. Navigate to the location where you want to save the Event Logs.
3. Click **OK**.

   > **Note:** If there are already Event Logs files in the folder that you select, a warning message will appear, stating that any existing Event Log files may be overwritten.

   The **RunSimulation** dialog box appears and displays the progress of the simulation.

   After the progress bar reaches the end, the **Go to Strategy** and **Close** buttons become enabled. If you do not want to view the results, you can click the **Close** button to close the **Run Simulation** dialog box. These instructions assume that you want to view the results.

4. Click the **Go to Strategy** button.

The **Asset Strategy Risk Analysis** page appears.

Associated Pages

The following Associated Page is configured by default for the Asset Strategy family:

- **Report:** Launches the Asset Strategy Approval Report for the Asset Strategy that you are currently viewing.

Note: To see the underlying URL for this Associated Page, you can use the URL Manager application.

About the ASM Catalog Folder Structure

The main ASM Catalog folder is \\Public\Meridium\Modules\Asset Strategy Management\Management. This folder contains a subfolder, Queries, which contains baseline queries that are used by default in ASM.

If desired, you can store additional items in the main ASM Catalog folder or in the Queries subfolder. In addition, you can create new subfolders to store additional items.

Note: All Public folders exist by default. Any baseline item in the Baseline folder is also available in the corresponding Public folder. Throughout this documentation, however, we refer to items in the Public folder.

Files in the Queries Folder

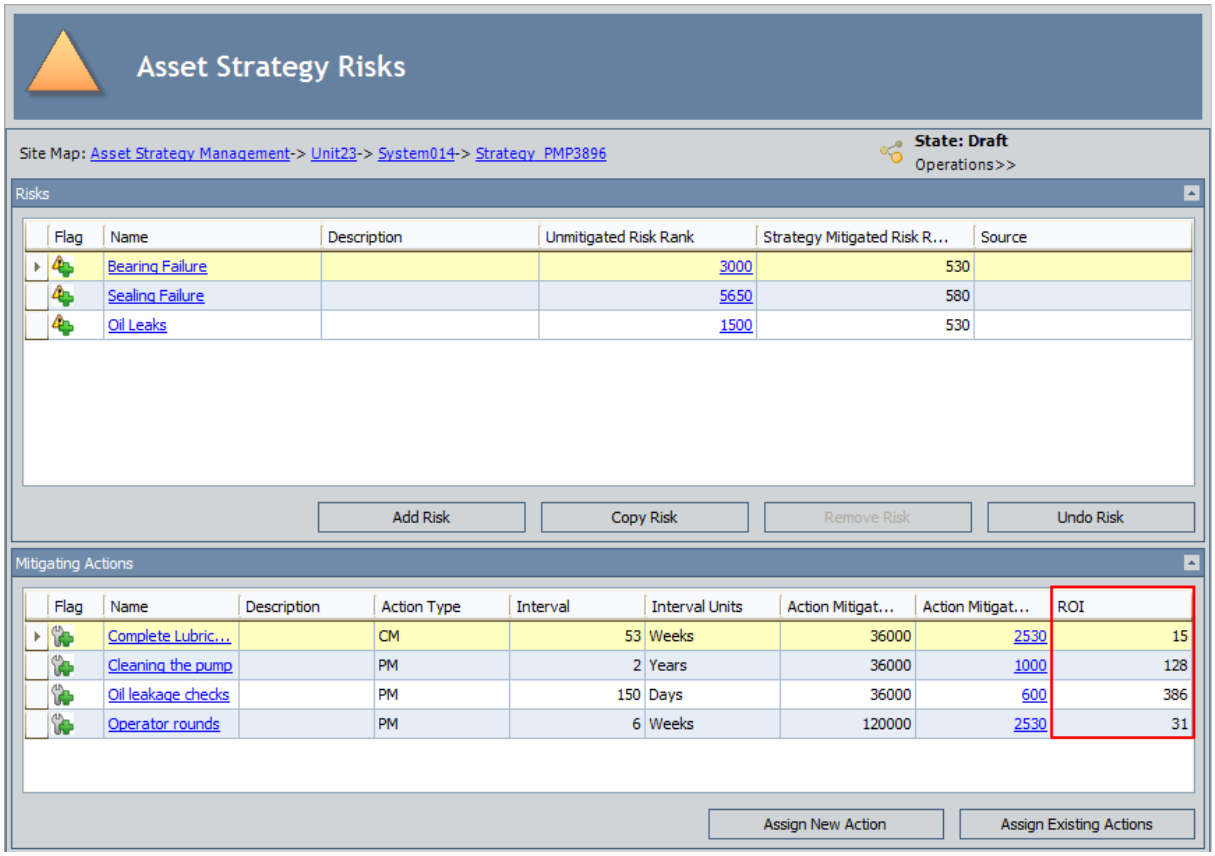
The queries listed in the following table are provided in the Catalog folder \\Public\Meridium\Modules\Asset Strategy Management\Management\Queries. In this table, the values listed in the **Query** column refer to the query *names*. The baseline captions are the same as the names.

Query	Behavior and Usage
Active_ Template_ Search	Returns a list of all Asset Strategy Template records that are currently in the Active state. When you choose to apply an Asset Strategy Template to an existing Asset Strategy while viewing the Asset Strategy, you will see the **Apply Template Builder**. Meridium APM runs this query when you access the **Select a Template** screen of this builder.
Asset_ Strategy_ Search	After prompting you to select a family and a state, returns a list of all Asset Strategy records that are linked to a record in the selected family and that are currently in the selected state. Meridium APM runs this query when you click the **Search for Strategy** link on the **ASM - Start Page** and are directed to the **Asset Strategy Search** page. Meridium APM also runs this query when you click the **Asset Strategies** link on any **Search** menu in ASM.
Asset_ Strategy_ Search_ Non_Pending	After prompting you to select a family, returns a list of all Asset Strategy records that are linked to a record in the selected family. When you choose to apply an Asset Strategy Template to an existing Asset Strategy while viewing the Asset Strategy Template, you will see the **Apply Template Builder**. If you choose to apply the template to existing Asset Strategies on the **Options for Applying the Template** screen, Meridium APM runs this query when you access the **Select Records** screen.
Locate Assets for Import	Returns a list of Equipment records. Meridium APM runs this query when you select the **Existing Work Management Item(s)** option on the **Select Import Method** screen when you are importing an Asset Strategy. Note that if you plan to import Task records or Measurement Location records that are linked to Functional Location record, you should configure this query to return records in the Functional Location family.

Query	Behavior and Usage
Strategies Without Master Templates	After prompting you to select a family, returns a list of: • Asset Strategy records that are linked to a record in the selected family but are not linked to an Asset Strategy Template record through the Master Template Has Asset Strategy relationship. • Asset Strategy records that are not linked to a record and are not linked to an Asset Strategy Template record through the Master Template Has Asset Strategy relationship. Meridium APM runs this query when you click the **Add Existing** button on the **Master Template Management** page or when you choose to apply an Asset Strategy Template as a master in the **Apply Template Builder**.
System_ Strategy_ Search	Returns a list of all System Strategy records. Meridium APM runs this query when you click the **Search for Strategy** link on the **ASM - Start Page** and are directed to the **System Strategy Search** page. Meridium APM also runs this query when you click the **System Strategies** link on any **Search** menu in ASM.
Template_ Search	After prompting you to select an Asset Strategy Template state, returns a list of all Asset Strategy Template records that are currently in the selected state. Meridium APM runs this query when you click the **Manage Templates** link on the **ASM - Start Page** and are directed to the **ASM - Asset Strategy Template** Search page. Meridium APM also runs this query when you click the **Templates** link on any **Search** menu in ASM.
Unit_ Strategy_ Search	Returns a list of all Unit Strategy records. Meridium APM runs this query when you click the **Search for Strategy** link on the **ASM - Start Page** and are directed to the **Unit Strategy Search** page. Meridium APM also runs this query when you click the **Unit Strategies** link on any **Search** menu in ASM.

ROI Calculation

On the **Asset Strategy Risks** page, the **ROI** column appears in the **Mitigating Actions** section, as shown in the following image. A red outline has been added to this image to highlight this column.



For each Action displayed in the grid, ROI is calculated as:

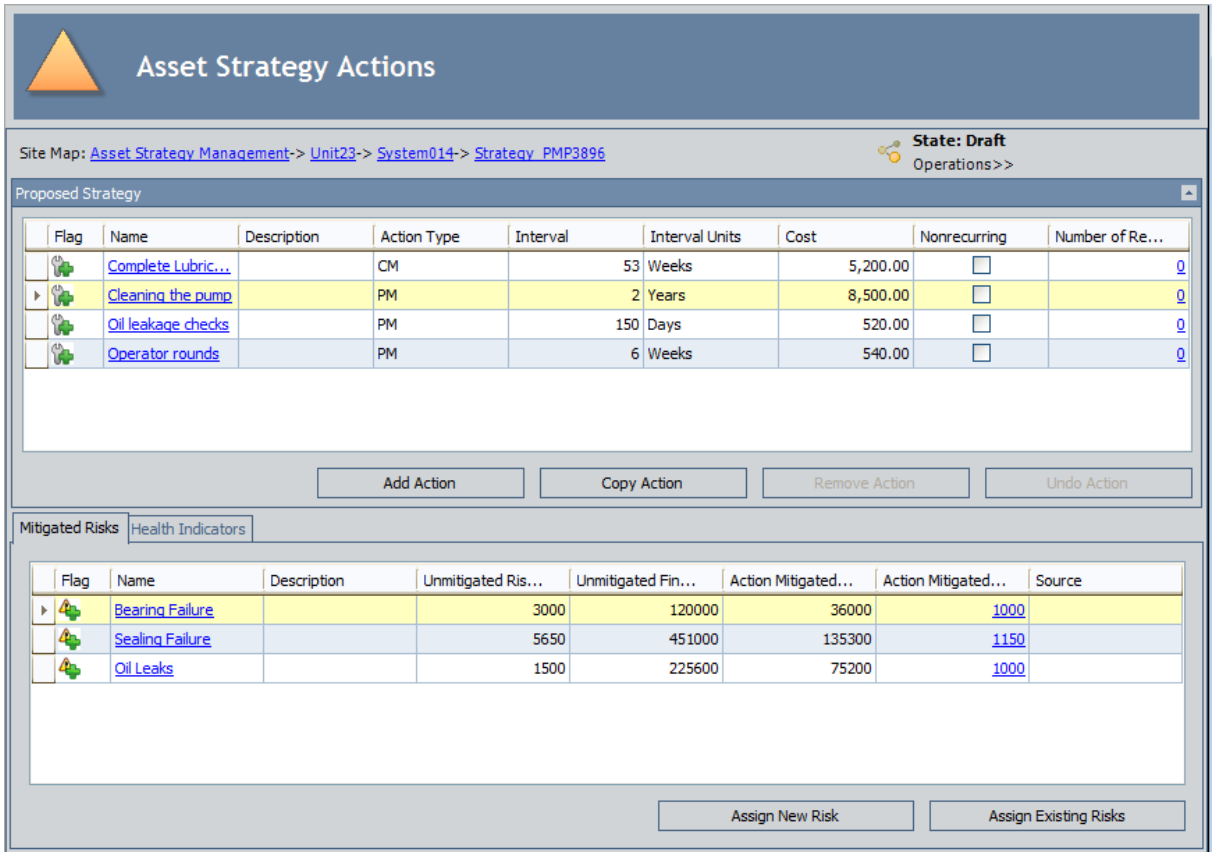
ROI = ([Unmitigated Financial Risk - Mitigated Financial Risk] – Annual Action Cost) / Annual Action Cost

If an Action mitigates only one Risk, the unmitigated financial risk and mitigated financial risk apply only to that Risk. If, however, an Action mitigates multiple Risks, the ROI calculation uses the *sum* of the differences between the unmitigated and mitigated financial risks for each Risk that the Action mitigates.

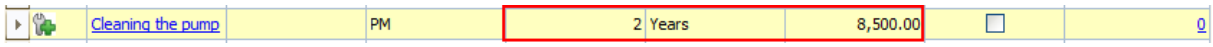
Because this case is more difficult to understand, the remaining example in this documentation uses an Action that mitigates multiple Risks.

Consider the following image of the Action *Cleaning the pump*, where the Action is displayed in the **Proposed Strategy** section on the **Asset Strategy Actions** page.

Note: The grid has been modified to include additional columns beyond those that are included in the baseline grid.



You can see that the cost of performing the action is $8,500.00 every two years.



Remember that the ROI calculation uses an annual action cost, so in this example, the value 8,500 is divided by two to determine the annual cost: *$4,250*.

So far, for this example, we have determined two parts of the ROI equation, shown in blue in the following equation:

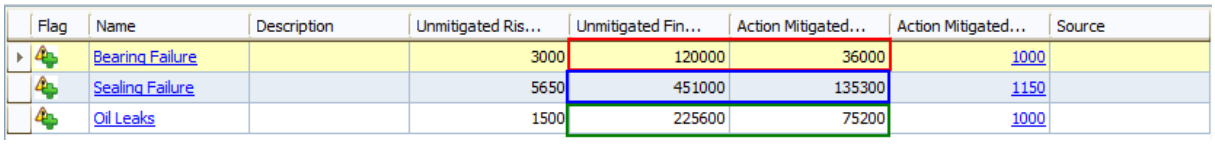
ROI = ([Unmitigated Financial Risk - Mitigated Financial Risk] – Annual Action Cost) / Annual Action Cost

ROI = ([Unmitigated Financial Risk - Mitigated Financial Risk] – 4,250) / 4,250

To determine the unmitigated financial risk and the mitigated financial risk, we need to look at the individual Risks that the Action mitigates. From the example image, you can see that the Action mitigates the following Risks:

- Bearing Failure
- Sealing Failure
- Oil Leaks

In the following image, the unmitigated financial risk and mitigated financial risk is outlined for each individual Risk.



Flag	Name	Description	Unmitigated Ris...	Unmitigated Fin...	Action Mitigated...	Action Mitigated...	Source
	Bearing Failure		3000	120000	36000	1000	
	Sealing Failure		5650	451000	135300	1150	
	Oil Leaks		1500	225600	75200	1000	

Because the Action mitigates multiple Risks, the ROI calculation uses the differences between the unmitigated and mitigated financial risk for *each* Risk. Using the example values in the grid, the ROI calculation would use the following individual differences:

- **Bearing Failure**: 120,000 - 36,000 = *84,000*
- **Sealing Failure:** 451,000 - 135,300 = *315,700*
- **Oil Leaks:** 225,600 - 75,200 = *150,400*

...where the individual differences are added together to determine the total difference: *550,100* (84,000 + 315,700 + 150,400).

Now, for this example, we have determined the remaining part of the ROI equation, shown in green in the following equation:

ROI = ([Unmitigated Financial Risk - Mitigated Financial Risk] – Annual Action Cost) / Annual Action Cost

ROI = (550,100 – 4,250) / 4,250

Therefore, the final ROI equation would look like this:

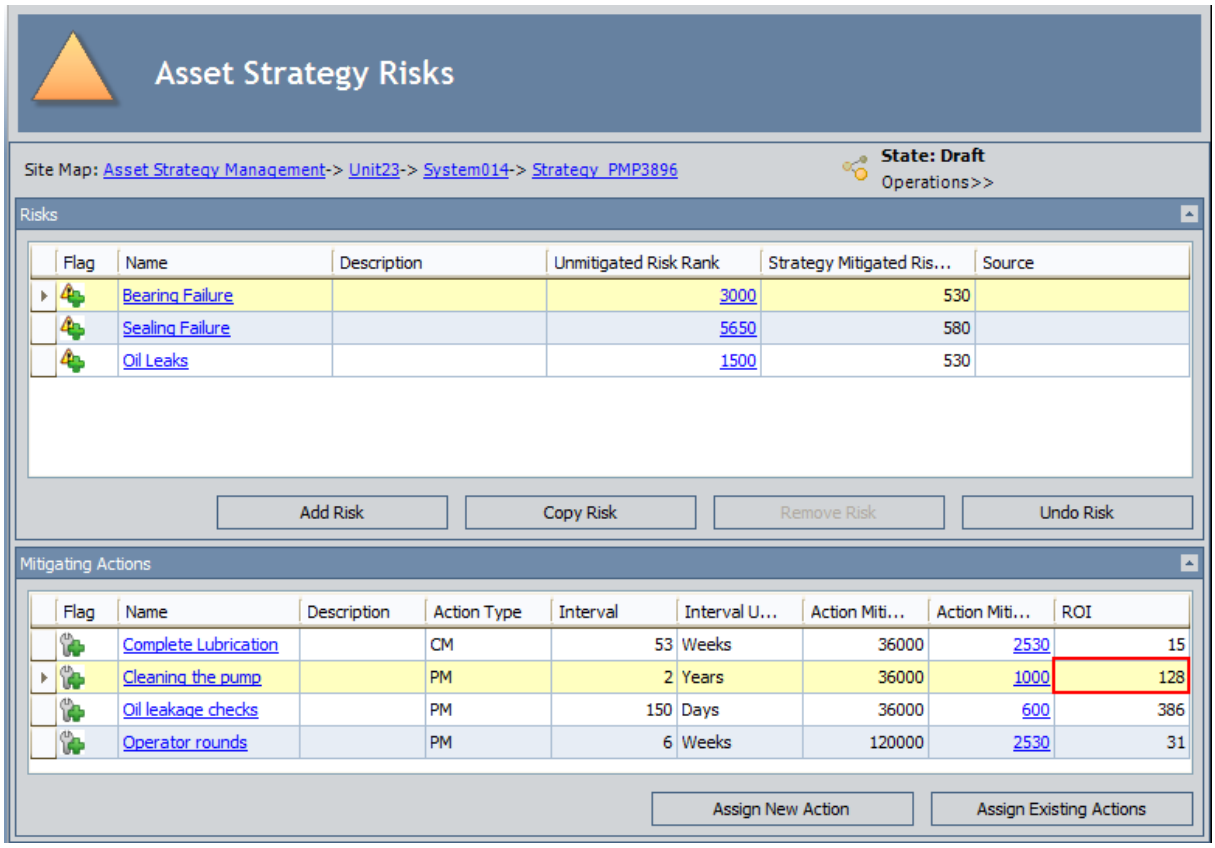
ROI = ([Unmitigated Financial Risk - Mitigated Financial Risk] – Annual Action Cost) / Annual Action Cost

ROI = (550,100 – 4,250) / 4,250

ROI = 545,850 / 4,250

ROI = 128.43

If you remember from the first image in this example, for the Action *Cleaning the pump*, the value displayed in the **ROI** column in the **Mitigating Actions** section is *128* (where *128.43* has been rounded down).


Asset Strategy Risks
Site Map: Asset Strategy Management-> Unit23-> System014-> Strategy_PMP3896
State: Draft
Operations>>
Risks
Flag
Name
Description
Unmitigated Risk Rank
Strategy Mitigated Ris...
Source
Bearing Failure
3000
530
Sealing Failure
5650
580
Oil Leaks
1500
530
Add Risk
Copy Risk
Remove Risk
Undo Risk
Mitigating Actions
Flag
Name
Description
Action Type
Interval
Interval U...
Action Miti...
Action Miti...
ROI
Complete Lubrication
CM
53
Weeks
36000
2530
15
Cleaning the pump
PM
2
Years
36000
1000
128
Oil leakage checks
PM
150
Days
36000
600
386
Operator rounds
PM
6
Weeks
120000
2530
31
Assign New Action
Assign Existing Actions

System Code Tables Used by ASM

The following table provides a list of the System Code Tables that are used by ASM.

Table ID	Table Description	Function
MI_ACTION_TYPE	Action Type	Used to populate the **Action Type** list in Action records.
MI_PERFORMANCE_INTERVAL_UNITS	Performance Interval Units	Used to populate the **Performance Interval Units** list in Action records.
MI_TIME_UNITS	Time Units	Used to populate the **Interval Units** list in Action records.
SC_RECOM_RESOURCE	Recommended Resource	Used to populate the **Recommended Resource**list in Action records.

Parameters for the Asset Strategy Management URL

There is one root URL associated with Asset Strategy Management (ASM): **meridium://ASM/Management**. A link constructed from the path alone will open the **ASM - Start Page**. In addition, you can use any of the parameters described in the following table.

Parameter Name	Description	Accepted Value (s)	Notes
EntyKey	Specifies the Entity Key of the Asset Strategy, System Strategy, or Unit Strategy record whose data you want to display.	The Entity Key(s) of the desired Asset Strategy, System Strategy, Unit Strategy, or Asset Strategy Template record.	None
Mode	Specifies that the page will display information associated with an Asset Strategy Template record.	Template	The Mode parameter can be used if any the following values are specified for the Page parameter: • Definition • Overview • Actions • FailureRisks • RiskAnalysis • Approval • History

Parameter Name	Description	Accepted Value (s)	Notes
Page	Specifies the page that you want to display.	SearchAsset Definition Overview Actions FailureRisks RiskAnalysis Approval History SearchSystem SysDefinition SysOverview SysAssets SysReview SearchUnit UnitDefinition UnitOverview UnitSystems UnitReview Import SearchTemplate Admin HealthIndicators	Displays the **Asset Strategy Search** page. Displays a blank **Asset Strategy Definition** page if no Entity Key is provided in the URL. If an Entity Key is provided using the EntyKeys parameter, however, the Definition value displays the **Asset Strategy Definition - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Asset Strategy record identified by the EntyKeys parameter value. Note that if the Template value is specified for the Mode parameter, the Definition value will display the **Asset Strategy Template Definition** page. If an Entity Key is not provided in the URL, this page will be blank so that you can create a new Asset Strategy Template record. If, however, an Entity Key is provided using the EntyKeys parameter, this page will display the **Asset Strategy Template Definition - <Template ID>** page, where <**Template ID>** is the ID of the Asset Strategy Template record identified by the EntyKeys parameter. Displays the **Asset Strategy Overview - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Asset Strategy record identified by the EntyKeys parameter value. If Page=Overview, the EntyKeys parameter must also be specified. Note that if the Template value is specified for the Mode parameter, the Overview value will display the **Asset Strategy Template Overview - <Template ID>** page, where **<Template ID>** is the ID of the Asset

Parameter Name	Description	Accepted Value (s)	Notes
			Strategy Template record identified by the EntyKeys parameter. Displays the **Asset Strategy Actions - <Strategy ID>** page, where <**Strategy ID**> is the ID of the Asset Strategy record identified by the EntyKeys parameter value. If Page-e=Actions, the EntyKeys parameter must also be specified. Note that if the Template value is specified for the Mode parameter, the Actions value will display the **Asset Strategy Template Actions - <Template ID>** page, where **<Tem-plate ID>** is the ID of the Asset Strategy Template record identified by the EntyKeys parameter. Displays the **Asset Strategy Risks - <Strategy ID>** page, where <**Strategy ID**> is the ID of the Asset Strategy record identified by the EntyKeys parameter value. If Page-e=FailureRisks, the EntyKeys para-meter must also be specified. Note that if the Template value is specified for the Mode parameter, the FailureRisks value will display the **Asset Strategy Template Risks - <Template ID>** page, where **<Tem-plate ID>** is the ID of the Asset Strategy Template record identified by the EntyKeys parameter. Displays the **Asset Strategy Risk Analysis - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Asset Strategy record identified by the EntyKeys parameter value. If Page=RiskAnalysis, the EntyKeys parameter must also be specified. Note that if the Template value is

Parameter Name	Description	Accepted Value (s)	Notes
			specified for the Mode parameter, the RiskAnalysis value will display the **Asset Strategy Template Risk Analysis - <Template ID>** page, where **<Template ID>** is the ID of the Asset Strategy Template record identified by the EntyKeys parameter. Displays the **Review Asset Strategy - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Asset Strategy record identified by the EntyKeys parameter value. If the Page=Approval, the EntyKeys parameter must also be specified. Note that if the Template value is specified for the Mode parameter, the Approval value will display the **Review Asset Strategy Template - <Template ID>** page, where **<Template ID>** is the ID of the Asset Strategy Template record identified by the EntyKeys parameter. Displays the **Asset Strategy Revision History - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Asset Strategy record identified by the EntyKeys parameter value. If Page=History, the EntyKeys parameter must also be specified. Note that if the Template value is specified for the Mode parameter, the History value will display the **Asset Strategy Template Revision History - <Template ID>** page, where **<Template ID>** is the ID of the Asset Strategy Template record identified by the EntyKeys parameter. Displays the **System Strategy Search** page.

Parameter Name	Description	Accepted Value (s)	Notes
			Displays a blank **System Strategy Definition** page if no Entity Key is provided in the URL. If an Entity Key is provided using the EntyKeys parameter, however, the **SysDefinition** value displays the **System Strategy Definition - <Strategy ID>** page, where **<Strategy ID>** is the ID of the System Strategy record identified by the EntyKeys parameter. Displays the **System Strategy Overview - <Strategy ID>** page, where **<Strategy ID>** is the ID of the System Strategy record identified by the EntyKeys parameter value. If Page=SysOverview, the EntyKeys parameter must also be specified. Displays the **System Strategy Management - <Strategy ID>** page, where **<Strategy ID>** is the ID of the System Strategy record identified by the EntyKeys parameter value. If Page=SysAssets, the EntyKeys parameter must also be specified. Displays the **Review System Strategy - <Strategy ID>** page, where **<Strategy ID>** is the ID of the System Strategy record identified by the EntyKeys parameter value. If Page=SysReview, the EntyKeys parameter must also be specified. Displays the **Unit Strategy Search** page. Displays a blank **Unit Strategy Definition** page if no Entity Key is provided in the URL. If an Entity Key is provided using the EntyKeys parameter, however, the **UnitDefinition** value displays the **Unit Strategy Definition - <Strategy ID>** page, where **<Strategy ID>** is the ID of the

Parameter Name	Description	Accepted Value (s)	Notes
			Unit Strategy record identified by the EntyKeys parameter. Displays the **Unit Strategy Overview - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Unit Strategy record identified by the EntyKeys parameter value. If Page=UnitOverview, the EntyKeys parameter must also be specified. Displays the **Unit Strategy Management - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Unit Strategy record identified by the EntyKeys parameter value. If Page=UnitSystems, the EntyKeys parameter must also be specified. Displays the **Review Unit Strategy - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Unit Strategy record identified by the EntyKeys parameter value. If Page=UnitReview, the EntyKeys parameter must also be specified. Displays the **Open** window, where you can select a Microsoft Excel file, existing Task records, or existing Measurement Location records to use for creating or updating an existing Asset Strategy. Displays the **Asset Strategy Template Search** page. Displays the **ASM -Administration** page. Displays the **AHM Start Page**. If you use the EntyKey parameter, the**Asset Health Manager**page opens, where the root level of the **Health Indicator Explorer** is the Asset record that is linked to the

Parameter Name	Description	Accepted Value (s)	Notes
			Asset Strategy record identified by the EntyKeys parameter. Note that if Page=HealthIndicators, the EntyKey parameter is required. To see examples of URLs that include these parameter values, see the topic **Examples of ASM URLs**.

Examples of ASM URLs

- meridium://ASM/Management

  Displays the **ASM - Start Page**.

- meridium://ASM/Management**?Page=SearchAsset**

  Displays the **Asset Strategy Search** page.

- meridium://ASM/Management?Page=**Definition&EntyKey=0**

  Displays a blank **Asset Strategy Definition** page, where you can create a new Asset Strategy record.

- meridium://ASM/Management?Page=Definition&EntyKey=0**&Mode=Template**

  Displays a blank **Asset Strategy Template Definition** page, where you can create a new Asset Strategy Template record.

- meridium://ASM/Management?Page=Definition&EntyKey=**1234567&Mode-e=Template**

  Displays the **Asset Strategy Template Definition - <Template ID>** page, where **<Template ID>** is the ID of the Asset Strategy Template record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**Overview&EntyKey=1234567**

  Displays the **Asset Strategy Overview - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Asset Strategy record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**Actions&EntyKey=1234567**

  Displays the **Asset Strategy Actions - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Asset Strategy record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**FailureRisks&EntyKey=1234567**

  Displays the **Asset Strategy Risks - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Asset Strategy record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**RiskAnalysis&EntyKey=1234567**

  Displays the **Asset Strategy Risk Analysis - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Asset Strategy record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**Approval&EntyKey=1234567**

  Displays the **Review Asset Strategy - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Asset Strategy record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**History&EntyKey=1234567**

Displays the **Asset Strategy Revision History - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Asset Strategy record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**SearchSystem**

  Displays the **System Strategy Search** page.

- meridium://ASM/Management?Page=**SysDefinition&EntyKey=0**

  Displays a blank **System Strategy Definition** page, where you can create a new System Strategy record.

- meridium://ASM/Management?Page=SysDefinition&EntyKey=**1234567**

  Displays the **System Strategy Definition - <Strategy ID>** page, where **<Strategy ID>** is the ID of the System Strategy record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**SysOverview&EntyKey=1234567**

  Displays the **System Strategy Overview - <Strategy ID>** page, where **<Strategy ID>** is the ID of the System Strategy record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**SysAssets&EntyKey=1234567**

  Displays the **Manage System Strategy - <Strategy ID>** page, where **<Strategy ID>** is the ID of the System Strategy record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**SysReview&EntyKey=1234567**

  Displays the **Review System Strategy - <Strategy ID>** page, where **<Strategy ID>** is the ID of the System Strategy record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**SearchUnit**

  Displays the **Unit Strategy Search** page.

- meridium://ASM/Management?Page=**UnitDefinition&EntyKey=0**

  Displays a blank **Unit Strategy Definition** page, where you can create a new Unit Strategy record.

- meridium://ASM/Management?Page=UnitDefinition&EntyKey=**1234567**

  Displays the **Unit Strategy Definition - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Unit Strategy record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**UnitOverview&EntyKey=1234567**

  Displays the **Unit Strategy Overview - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Unit Strategy record with the Entity Key 1234567

- meridium://ASM/Management?Page=**UnitSystems&EntyKey=1234567**

  Displays the **Manage Unit Strategy - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Unit Strategy record with the Entity Key 1234567

- meridium://ASM/Management?Page=**UnitReview&EntyKey=1234567**

Displays the **Review Unit Strategy - <Strategy ID>** page, where **<Strategy ID>** is the ID of the Unit Strategy record with the Entity Key 1234567

- meridium://ASM/Management?Page=**Import**

  Displays the **Open** window, where you can select a Microsoft Excel file, existing Task records, or existing Measurement Location record to use for creating or updating an existing Asset Strategy.

- meridium://ASM/Management?Page=**SearchTemplate**

  Displays the **Asset Strategy Template Search** page.

- meridium://ASM/Management?Page=**Overview&Mode=Template&EntyKey=1234567**

  Displays the **Asset Strategy Template Overview - <Template ID>** page, where **<Template ID>** is the ID of the Asset Strategy Template record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**Actions&Mode=Template&EntyKey=1234567**

  Displays the **Asset Strategy Template Actions - <Template ID>** page, where **<Template ID>** is the ID of the Asset Strategy Template record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**FailureRisks&Mode=Template&EntyKey=1234567**

  Displays the **Asset Strategy Template Risks - <Template ID>** page, where **<Template ID>** is the ID of the Asset Strategy Template record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**RiskAnalysis&Mode=Template&EntyKey=1234567**

  Displays the **Asset Strategy Template Risk Analysis - <Template ID>** page, where **<Template ID>** is the ID of the Asset Strategy Template record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**Approval&Mode=Template&EntyKey=64251748617**

  Displays the **Review Asset Strategy Template - <Template ID>** page, where **<Template ID>** is the ID of the Asset Strategy Template record with the Entity Key 1234567.

- meridium://ASM/Management?Page=**History&Mode=Template&EntyKey=1234567**

  Displays the **Asset Strategy Template Revision History - <Template ID>** page, where **<Template ID>** is the ID of the Asset Strategy Template record with the Entity Key 1234567.

- meridium:///ASM/Management?**Page=Admin**

  Displays the **ASM - Administration** page.

Action

Identifies the physical ways in which you maintain a piece of equipment or location. For example, an Action might indicate that you want to perform a visual inspection of a piece of equipment. After you have created an Asset Strategy record, you can begin adding Actions to the Asset Strategy.

The values you specify in an Action are stored in an *Action record*. Throughout this documentation, however, unless it is necessary to refer to the record itself, we use the term *Action*.

Asset Strategy

The combination of actions and risks that are associated with a piece of equipment or location and represent a plan to optimize performance to achieve business benefits.

Risk

The way in which the piece of equipment or location can fail and the consequence of the failure. This consequence is presented as a risk rank value, which is determined from the values that you select in the Risk Assessment interface that appears when you create a Risk.

Strategy Mitigated Risk Rank

The sum of the smallest risk rank values across *all* risk categories (represented by tabs on the risk matrix) defined for *all* Actions that are associated with the Risk.

System Strategy

A collection of Asset Strategies.

Unit Strategy

A collection of System Strategies.