GE VERNOVA

Asset Performance Management
On-Premises APM
V5.2.2.0.0

Risk Matrix

Contents

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Chapter

1

Overview

Topics:

Overview of the Risk Matrix Module

The Risk Matrix, which can be accessed in various places throughout the APM application, is used to evaluate mitigated and unmitigated risk in various contexts.

Chapter
2

Risk and Risk Assessment

Topics:

About Risk and Risk Assessment

In APM, risk is the combination of a harmful event or condition and its negative outcome. In addition to identifying risks, in APM, you can also perform a risk assessment, which assesses:

- The probability that the negative outcome will have an impact on safety, the environment, operations, or finances.
- The severity of the safety, environmental, operational, or financial impact.

In some APM modules, you will assess risk using the Risk Matrix. In other modules, you will assess risk using datasheets or other forms. Keep in mind that the type of impact that each module allows you to assess might differ. For example, Asset Strategy Optimization (ASO) allows you to assess safety, environmental, and operational impact. Asset Strategy Management (ASM), on the other hand, allows you to assess safety, environmental, operational, and financial impact.

More About Risk

In any company, equipment and locations can fail. In some cases, these failures do not cause any immediate problems. For instance, consider a clothes dryer with a switch that shuts off the dryer automatically if the temperature inside the drum reaches 180 degrees Fahrenheit (F). If the switch stops working but the temperature never reaches 180 degrees F, meaning that the switch is never activated, the switch failure would not present any problems.

In other cases, however, a failure can cause not only problematic but catastrophic consequences. Consider the same clothes dryer and safety switch. If the safety switch stops working and the temperature inside the drum does reach 180 degrees F, the switch will not perform its intended function: shutting off the dryer. Instead, the dryer would continue to run, allowing the temperature to potentially rise even further, which could ultimately cause the dryer to catch on fire.

From this example, you can see that the safety switch failure is problematic because it could cause a fire, which would have safety, financial, and operational impacts.

In APM, a risk is the combination of a harmful event or condition and the negative outcome of that event or condition. In the example described above:

- The switch failure is the harmful event.
- A fire is the negative outcome.

So, the risk in this example is the combination of the switch failure and the negative outcome. In other words, the risk is that the switch stops working and the dryer overheats, eventually causing a fire.

To perform a risk assessment of this situation, you would consider:

- The probability that the fire will have a safety, environmental, operational, or financial impact. For example, you might determine that an operational impact is inevitable, while an environmental impact is possible but not likely.
- The severity of the safety, environmental, operational, or financial impact. For example, you might determine that the severity of a safety impact is very high (homeowners could be killed), but the severity of an environmental impact is low (damage only to immediate, surrounding landscaping).

Specify Risk Values to Determine an Overall Risk Rank

About This Task

You can use the **Risk Assessment** window to select values in various categories that will be used to determine an overall risk rank.

Note: These steps assume that you want to specify a risk value on each tab of the Risk Matrix. You can, however, specify that a risk category does not apply to the current risk.

Procedure

1. In APM, access the **Risk Assessment** window.

   Tip: Refer to a specific module's documentation for details on how to access this window.
2. In each tab that contains a risk matrix, select the cell whose value represents the risk for that category.
   An icon appears in the selected cell. The way in which you accessed the Risk Assessment window determines the icon that appears in the cell.

   - If you are defining unmitigated risk (for example, for a Risk in Asset Strategy

     Management), the icon will appear.
   - If you are defining mitigated risk (for example, for an Action in Asset Strategy

     Management), the icon will appear.

   Note: When defining mitigated risk, you cannot select a value with a higher probability or

   consequence than the value that is already represented by the icon. For example,

   suppose the icon appears in the cell at the intersection of the Probable probability (1)

   and Low consequence (10). In this case, using the icon, you could not select a value
   with a probability greater than 1 or a consequence greater than 10.
3. Select the **Financial** tab, if applicable.
4. In each list or box on the **Financial** tab, select or enter the necessary value.
   The values that you type in the **Production Loss** and **Maintenance Cost** boxes will be added together to determine the overall consequence, which is displayed in the **Consequence** box.

   Note: If you are defining mitigated risk, the mitigated financial values must be lower than the unmitigated financial values.
5. Select **Save**.

Results

- When you are finished making selections on each tab, the values that appear next to each tab name (except for a financial tab) are used in a calculation to determine the overall risk rank.

  - In the corresponding Risk Matrix record, if the **Use Maximum Risk Rank** check box is selected, the risk rank will equal the largest value on the tabs.
    -or-

- In the corresponding Risk Matrix record, if the **Use Maximum Risk Rank** check box is not selected, the risk rank will equal the sum of values on each tab.
- The calculated risk rank is displayed in either the **Unmitigated Risk Rank** section or the **Mitigated Risk Rank** section, depending on the type of risk you are working with.

The calculated risk rank is displayed in either the **Unmitigated Risk Rank** section or the **Mitigated Risk Rank** section, depending on the type of risk you are working with.

Specify That a Risk Category Does Not Apply to the Current Risk

Procedure

1. In APM, access the **Risk Assessment** window.

   Tip: Refer to a specific module's documentation for details on how to access this window.
2. In any tab that represents a risk category that does not apply to the risk that you are assessing, below the matrix, select the **Not Applicable** check box.
   The values on that tab will be disabled and the tab label will contain the text N/A.
3. Select **Save**.
   Your changes are saved. In the Risk Rank record that is associated with the tab on which you selected the check box, the value in the Not Applicable field is set to True.

Chapter
3

Protection Level Slider

Topics:

About the Protection Level Slider

Each Risk Matrix can use multiple Protection Level records, where each Protection Level record corresponds to one level on a protection level slider. The baseline Risk Matrix does not include a Protection Level record. Protection Level records can be linked to Risk Category records through the Has Reference Values relationship, which determines the section in which the protection level slider will appear.
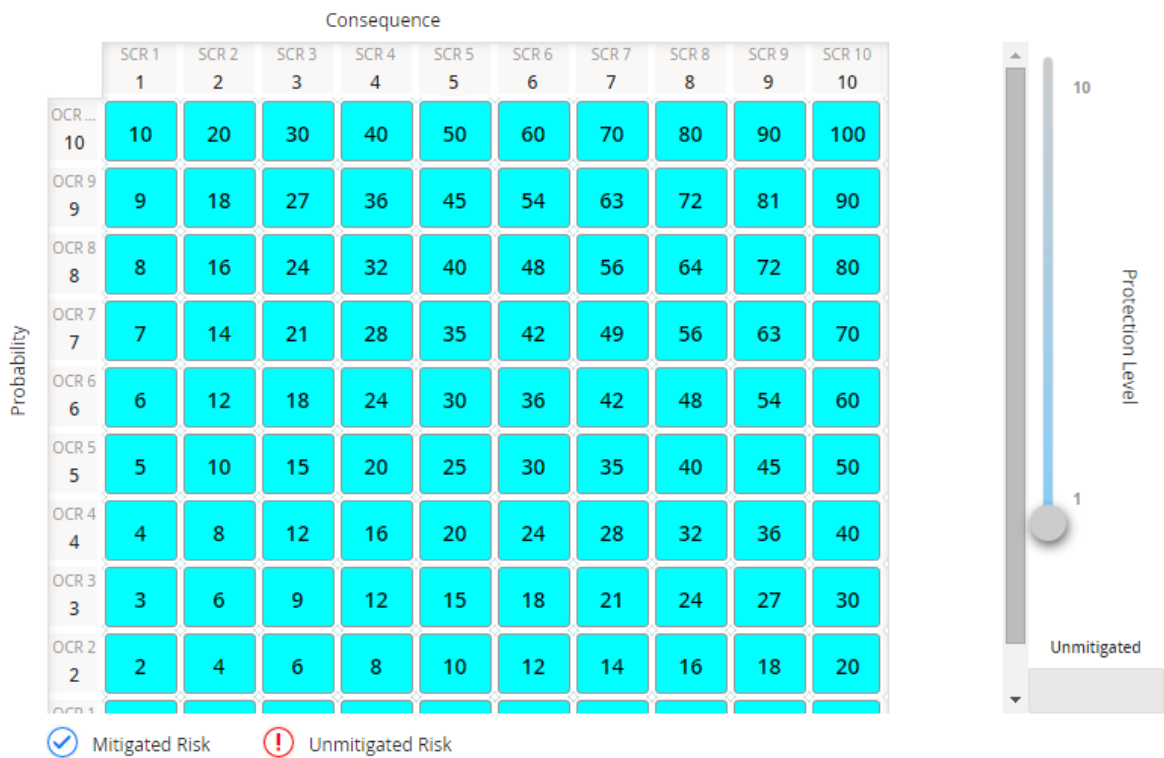
In this image, you can see that the protection level slider name is Normal, and the description is Procedural controls; inherent design controls. You can also see in the Unmitigated cell (below the slider) that the factor for this protection level is 1. In this case, any number that is selected in the **Environment** section will be multiplied by 1 to determine the total risk value for the Environment risk category.

Note that when the protection level slider is displayed in a section, the values in the cells in that section change depending on the level at which the slider is positioned. The factor associated with the current position of the slider is multiplied by the baseline values in the matrix cells to determine the new numbers that are displayed in each cell.

For example, in the baseline Risk Matrix, the value in the cell at the intersection of the Remote probability and Low consequence is 1. If the protection level slider were displayed and the slider was positioned where the factor was 5, the value in the cell at the intersection of the Remote probability and Low consequence would be 5 (1 x 5).

Consequence											
	SCR 1 5	SCR 2 10	SCR 3 15	SCR 4 20	SCR 5 25	SCR 6 30	SCR 7 35	SCR 8 40	SCR 9 45	SCR 10 50	
OCR... 50	250	500	750	1000	1250	1500	1750	2000	2250	2500	
OCR 9 45	225	450	675	900	1125	1350	1575	1800	2025	2250	
OCR 8 40	200	400	600	800	1000	1200	1400	1600	1800	2000	
OCR 7 35	175	350	525	700	875	1050	1225	1400	1575	1750	
OCR 6 30	150	300	450	600	750	900	1050	1200	1350	1500	
OCR 5 25	125	250	375	500	625	750	875	1000	1125	1250	
OCR 4 20	100	200	300	400	500	600	700	800	900	1000	
OCR 3 15	75	150	225	300	375	450	525	600	675	750	
OCR 2 10	50	100	150	200	250	300	350	400	450	500	

✓ Mitigated Risk   ⊘ Unmitigated Risk

If needed, you can change the label of the protection level slider using the Protection Level Label System Code Table. For instructions on adding System Codes to the System Code Table, refer to Add System Codes to a Table.

Add a Protection Level Slider with Default Name and Description

About This Task

The baseline Risk Matrix does not display a protection level slider by default, but the appropriate System Codes exist to allow you to add a protection level slider to the baseline Risk Matrix. Using these baseline System Codes, the default name and description of the protection level slider is Default. The name and description are concatenated in the tooltip when you pause on the protection level slider, as shown in the following image.

10

Protection Level

6

1

Unmitigated

6
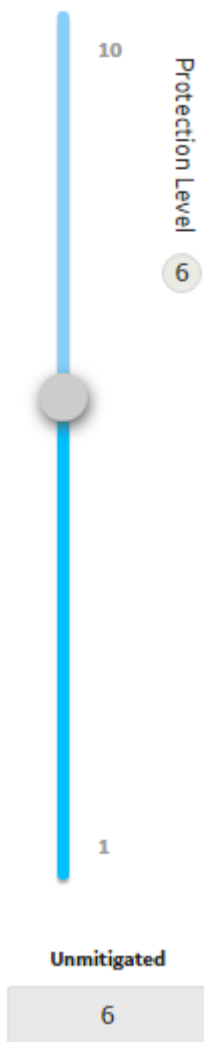
If you want to add a protection level slider with the default name and description, Default, you can do so using the following workflow, which assumes that:

- You want to add the protection level slider to the **Safety** section of the Risk Matrix.
- You want the protection level slider to contain levels 1 through 10.

Procedure

1. Open the Risk Matrix record for the Risk Matrix to which you want to add the protection level slider.
2. In the **Record Explorer** pane, expand the **Risk Category** node, and then expand the **Safety** node.
3. Below the **Safety** node, select the **Protection Level** node, then select ⁝ , and then select **Add New Record**.

   Tip: If you do not see the **Protection Level** node at the bottom of the **Record Explorer** pane, select ▶ next to **Related Families**, and then select **All Possible Families**.
4. In the new Protection Level record, in the **Name** list, select **Default**.

Note: The **Description** cell is populated automatically with the value Default.

5. In the **Alias** box, enter any value If the Alias Format Mask field in the associated Risk Matrix record contains the value {pl}, the value in the Alias field in the Protection Level record will be displayed in the cell in the Risk Matrix (according to the complete template that is defined in the Alias Format Mask field).

6. In the **Factor** box, enter a number by which you want to multiply each consequence and probability value that is selected in the Risk Matrix. Using our example, for this first Protection Level record, you would enter 1.

7. Save the record.

8. Repeat steps 3 through 7 until you have created ten Protection Level records with the factors 1 through 10.
   When you are finished completing these steps, when you access the **Safety** section for an item that uses this Risk Matrix (e.g., an Action in ASM), the protection level slider will look like this:
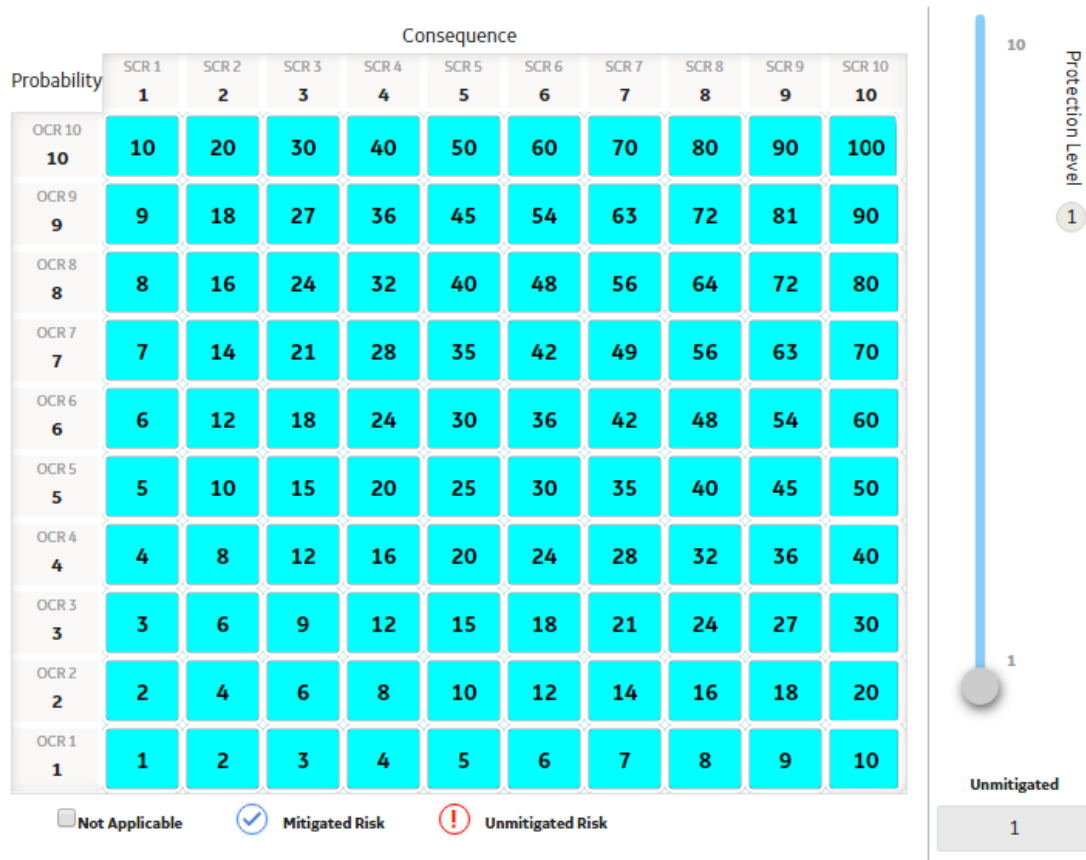
In this image, you can see that the highest level of the slider is selected (with the factor of 10), causing the value in the selected cell to be 50 (the result of the calculation 1 x 5 x 10, where 1 is the selected consequence and 5 is the selected probability). You can also see that the tooltip displays the default name and description as a concatenated value, Default: Default.
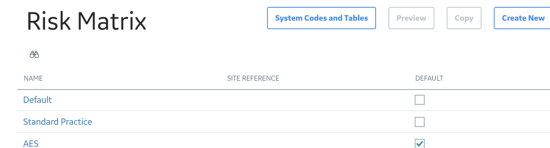
Chapter
4

Operations

Topics:

Overview

Access the Risk Matrix Admin Page

Procedure

In the **Applications** menu, navigate to **ADMIN** > **Operations Manager** > **Risk Matrix**. The **Risk Matrix Admin** page appears.

Risk Matrix		System Codes and Tables	Preview	Copy	Create New

NAME	SITE REFERENCE	DEFAULT
Default		☐
Standard Practice		☐
AES		☑

Risk Workflow

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

1. Access the Risk Matrix record for the Risk Matrix that you want to configure, create a new Risk Matrix from scratch, or copy an existing Risk Matrix.
2. Add or Modify the records associated with a Risk Matrix to define the probabilities, consequences, risk thresholds, and site for the Risk Matrix.
3. Customize the appearance of the Risk Matrix and the Risk Assessment window within which it appears.
4. Preview the Risk Matrix.

Risk Matrix

About the Risk Matrix

The Risk Matrix that appears in the **Risk Assessment** window allows you to make selections that are used in calculations to determine an overall risk rank value.

The values that you see in the Risk Matrix are determined by various records. The baseline APM database contains a Risk Matrix that you can use when evaluating risk, but if you do not want to use the baseline values, an administrative user can customize the default Risk Matrix or create a new Risk Matrix.

The following image displays the Risk Matrix that is provided in the baseline database, where no risk values have yet been specified.

Total Risk

Safety			Consequence				
	Probability		Very Low **1**	Low **10**	Medium **100**	High **500**	Very High **1,000**
Environment	Probable **1**		1	10	100	500	1,000
Operations	Credible **0.1**		0.1	1	10	50	100
Financial	Remote **0.01**		0.01	0.1	1	5	10
	Improbable **0.001**		0.001	0.01	0.1	0.5	1
	Unlikely **0.0001**		0.0001	0.001	0.01	0.05	0.1

☐ Not Applicable ✓ **Mitigated Risk** ⊙ **Unmitigated Risk**

Each tab in the Risk Matrix represents an area that might be affected if risk were to be presented. The Safety, Environment, and Operations tab each contains its own matrix, which combines in a grid format probability factors with consequence factors. The Financial tab contains text boxes that serve the same purpose.

Depending on how you access the **Risk Assessment** window, the risk matrix will represent either mitigated or unmitigated risk:

- If you have accessed the **Risk Assessment** window from a record that represents risk before any actions have mitigated it (for example, a Failure Risk record in ASM or a Failure Effect node in an RCM Analysis), the specified risk values in each matrix are represented by a ⊙ icon.
- If you have accessed the **Risk Assessment** window from a record that represents an action that might mitigate risk (for example, an Action record in ASM or a Recommendation node in an RCM Analysis), the previously specified unmitigated risk values are represented by a ⊙ icon and the mitigated risk values are represented by a ✓ icon.

When a risk value is selected, the number on the corresponding tab is updated to indicate the specified risk.

In addition, the cumulative values specified in the risk matrix are used in a calculation to determine the overall risk rank, which is displayed in either the **Mitigated Risk Rank** or **Unmitigated Risk Rank** section on the right side of the window.

Example

The **Risk Assessment** window shown in the following image was accessed from an Action record in ASM. You can see that the ✓ icon appears in the Risk Matrix, so you know that the values represent mitigating action (the name of the window also indicates this, by default).

You can see that the ✓ icon appears in the cell that contains the value 5, indicating that the mitigated risk for the Safety category is 5. This value also appears on the **Safety** tab. The cumulative **Mitigated Risk Rank** appears to the left of the Risk Matrix.

Disabled cells in a risk matrix

A cell may be disabled in the risk matrix when you are defining a mitigated risk assessment. This is because you can only select a consequence or probability value that is less than the unmitigated consequence or probability value.

Disabled cells will be colored slightly lighter than the enabled cells of the same color. For example, in the following image, you can see that some cells are slightly lighter, indicating that you must select a probability value less than or equal to 1 and a consequence value less than or equal to 100.

Mitigated Risk Assessment

Total Risk

Safety 30	Consequence					
	Probability	Very Low **1**	Low **10**	Medium **100**	High **500**	Very High **1,000**
Environment 25	Frequent **5**	5	50	500	2500	5000
Operations 25	Probable **1**	1	10	100 ⊙	500	1000
Financial 50,000	Possible **0.3**	0.3	3	30 ✓	150	300
	Remote **0.1**	0.1	1	10	50	100
	Improbable **0.05**	0.05	0.5	5	25	50

☐ Not Applicable   ✓ Mitigated Risk   ⊙ Unmitigated Risk

Basis for Assessment

Another scenario where certain cells will be disabled in each matrix is if the **Lock Mitigated Consequence** check box is selected in the Risk Matrix record. In this scenario, when you are defining a mitigated risk assessment, you will not be able to modify the consequence value. Instead, you will be able to modify only the probability value.

About the Not Applicable Check Box

Each tab in the Risk Matrix contains the **Not Applicable** check box. If this check box is selected, it indicates that the risk category that is represented by that tab does not apply to the risk.

You might, for example, determine that a leak does not have a safety impact. In this case, when you are assessing the risk of the Leak Risk record, you would select the **Not Applicable** check box on the **Safety** tab. The following image shows the selected **Not Applicable** check box on the **Safety** tab for the Leak Risk record.

Unmitigated Risk Assessment

Total Risk 3,000

Safety N/A	Probability	Consequence				
		Very Low 1	Low 10	Medium 100	High 500	Very High 1,000
Environment 2,500	Frequent 5	5	50	500	2,500	5,000
Operations 500	Probable 1	1	10	100	500	1,000
Financial 121,785	Possible 0.3	0.3	3	30	150	300
	Remote 0.1	0.1	1	10	50	100
	Improbable 0.05	0.05	0.5	5	25	50

☑ Not Applicable ✓ Mitigated Risk ⊘ Unmitigated Risk

Basis for Assessment

When you select the **Not Applicable** check box, the values on that tab will be disabled, and no unmitigated risk rank icon will appear. In addition, the tab label will contain the text N/A.

After you perform a risk assessment, multiple Risk Rank records are created, where the value in the Category field in each Risk Rank record represents a specific risk category (for example, Safety) that you assessed. If, for example, you create a Risk record with the name Leak, when you assess the risk using the Risk Matrix, multiple Risk Rank records will be created and linked to that Risk record. Each Risk Rank record will contain a value in the Category field to indicate the risk rank per category (for example, Safety). In addition, each Risk Rank record will contain the value True or False in the **Not Applicable** field to indicate whether or not you selected the Not Applicable check box on the tab representing that category.

So, using the Leak Risk record example, if you selected the **Not Applicable** check box on the **Safety** tab, the Leak Risk record would be linked to a Risk Rank record with the following values:

- **Category**: Safety
- **Not Applicable**: True

Preview a Risk Matrix

About This Task

When configuring Risk Matrices, you can preview a Risk Matrix to see how it will appear in the **Risk Assessment** window in other areas of APM.

Procedure

1. Access the **Risk Matrix Admin** page.
2. Select the row containing the Risk Matrix record that you want to preview.
3. Select **Preview**.
   The **Risk Assessment** window appears, displaying the Risk Matrix.

Access a Risk Matrix Record

Procedure

1. Access the **Risk Matrix Admin** page.
2. Select the name of a Risk Matrix.
   The corresponding Risk Matrix record opens in Record Manager. The **Record Explorer** pane contains links to the related record that make up the values that appear on the Risk Matrix.

Create a New Risk Matrix

Procedure

1. Access the **Risk Matrix Admin** page.
2. Select **Create New**.
   A blank Risk Matrix datasheet appears.
3. As needed, enter values in the available fields, and then select 💾.
   The new Risk Matrix is saved. At this point, you can customize the Risk Matrix appearance as needed.

Next Steps

- Add a New Risk Category
- Add a Consequence

Copy a Risk Matrix

Procedure

1. Access the **Risk Matrix Admin** page.
2. Select the row containing the Risk Matrix record that you want to copy.
3. Select **Copy**.
   The list is refreshed and displays the new Risk Matrix record in the list with the name **Copy of <Name>**. At this point, you can modify the new record.

Access the Risk Categories Associated with a Risk Matrix

Procedure

1. Access the Risk Matrix record whose risk category details you want to access.
2. In the **Record Explorer** pane, under **Related Families**, select **Risk Category**.
   A list of the linked Risk Category records appears in the **Record Explorer** pane. You can select a record to view its datasheet.

Access the Consequences and Probabilities Associated with a Risk Matrix

About This Task

You can access the details of the Consequence and Probability records associated with a Risk Matrix via Record Manager.

Note: When viewing a Consequence or Probability record, you can make changes only if the corresponding Risk Matrix has not been used by a module in APM.

Procedure

1. Access the Risk Categories associated with a Risk Matrix.
2. Select the category associated with the consequence or probability that you want to access.
   The datasheet for the selected Risk Category record appears and the **Record Explorer** pane lists the families related to the selected Risk Category record.
3. Under **Related Families**, select **Consequence** or **Probability**, depending on which type of record you want to access.
   A list of linked Consequence or Probability records, respectively, appears. You can select a record to view its datasheet.

Access the Risk Thresholds Associated with a Risk Matrix

Procedure

1. Access the Risk Matrix record whose risk threshold details you want to access.
2. In the **Record Explorer** pane, under **Related Families**, select **Risk Threshold**.
   A list of the linked Risk Threshold records appears in the **Record Explorer** pane. You can select a record to view its datasheet.

Add a New Risk Category

Procedure

1. Access the Risk Categories associated with a Risk Matrix.

2. In the **Record Explorer** pane, in the **Risk Category** heading, select ⁝ .
   An options menu appears.

3. If a Risk Category record already exists for the category you want to associate with the Risk Matrix:

a. Select **Link Existing Record**.

The **Search** window appears.

b. Enter search criteria to locate the record that you want to associate with the Risk Matrix.

c. Select the record, and then select **OK**.

-or-

If a Risk Category record does not already exist for the category you want to associate with the Risk Matrix:

a. Select **Add New Record**.

A blank datasheet for the new Risk Category appears.

b. In the **Category Name** box, select a name from the drop-down menu.

The **Category Description** box is populated automatically with the description that corresponds to the name value that you selected.

If you select Financial for the **Category Name**, the **Is Financial** check box is automatically selected, signifying that the Risk Category will appear in the **Financial** tab of the Risk Matrix.

Note: The values that you can select in a new Risk Category record are determined by the MI_RISK_CATEGORY System Code Table.

c. In the **Category Alias** box, if the **Use Aliases?** check box is selected in the associated Risk Matrix record, specify a value that you want to appear on the Risk Matrix in the column heading along with the consequence name.

d. In the **Weight** box, enter the number by which you want to multiply each selected value in the matrix.

e. In the **Index** box, enter the number corresponding to the order in which you want the tab to appear, relative to all other tabs defined for the same Risk Matrix.

f. Select 🖫.

Your changes are saved and can be viewed in the matrix on the **Risk Matrix Preview window**.

Add a Consequence

About This Task

Note: You should not create more than ten Consequence records within a given Risk Matrix configuration. Creating more than ten Consequence records will cause the Risk Matrix to become visually unusable (for example, it will contain scroll bars, and the cells and text will be too small to read easily).

Procedure

1. Access the Consequence records associated with a Risk Matrix.

2. In the **Record Explorer** pane, in the **Consequence** heading, select ⠿ .
   An options menu appears.

3. If a Consequence record already exists for the consequence you want to associate with the Risk Matrix:

a. Select **Link Existing Record**.
   The **Search** window appears.

b. Enter search criteria to locate the record that you want to associate with the Risk Matrix.
c. Select the record, and then select **OK**.

-or-

If a Consequence record does not already exist for the consequence you want to associate with the Risk Matrix:

a. Select **Add New Record**.
A blank datasheet for the new Consequence appears.
b. In the **Name** box, select a name from the list.
The **Description** box is populated automatically with the description that corresponds to the name value that you selected.

   Note: The values that you can select in a new Consequence record are determined by the MI_RISK_CONSEQUENCE System Code Table.
c. In the **Alias** box, if the **Use Aliases?** check box is selected in the associated Risk Matrix record, specify a value that you want to appear on the Risk Matrix in the column header along with the consequence name.
d. In the **Consequence** box, enter a number to indicate the severity of the consequence.
e. Select 💾.

Your changes are saved and can be viewed in the matrix on the **Risk Matrix Preview window**.

Add a Probability

About This Task

Note: You should not create more than ten Probability records within a given Risk Matrix configuration. Creating more than ten Probability records will cause the Risk Matrix to become visually unusable (for example, it will contain scroll bars, and the cells and text will be too small to read easily).

Procedure

1. Access the Probability records associated with a Risk Matrix.
2. In the **Probability** heading, select ⋮ .
An options menu appears.
3. If a Probability record already exists for the probability you want to associate with the Risk Matrix:

a. Select **Link Existing Record**.
The **Search** window appears.
b. Enter search criteria to locate the record that you want to associate with the Risk Matrix.
c. Select the record, and then select **OK**.

-or-

If a Probability record does not already exist for the probability you want to associate with the Risk Matrix:

a. Select **Add New Record**.
A blank datasheet for the new Probability record appears.

b. In the **Name** box, select a name from the list.
The **Description** box is populated automatically with the description that corresponds to the name value that you selected.

   Note: The values that you can select in a new Probability record are determined by the MI_RISK_PROBABILITY System Code Table.

c. In the **Alias** box, if the **Use Aliases?** check box is selected in the associated Risk Matrix record, specify a value that you want to appear on the Risk Matrix in the column heading along with the consequence name.

d. In the **Probability** box, enter a number to indicate the likelihood that the risk will occur.

e. Select 🖫.

   Note: The Failure Interval and Failure Interval Units values are used only for a specific workflow within the Asset Strategy Optimization module.

Your changes are saved and can be viewed in the matrix on the Risk Matrix Preview window.

Add a Risk Threshold

Procedure

1. Access the Risk Threshold records associated with a Risk Matrix.
2. In the **Record Explorer** pane, in the **Risk Threshold** heading, select ⸬ .
   An option menu appears.
3. If a Risk Threshold record already exists for the consequence you want to associate with the Risk Matrix:

   a. Select **Link Existing Record**.
      The **Search** window appears.
   b. Enter search criteria to locate the record that you want to associate with the Risk Matrix.
   c. Select the record, and then select **OK**.

   -or-

   If a Risk Threshold record does not already exist for the consequence you want to associate with the Risk Matrix:

   a. Select **Add New Record**.
      A blank datasheet for the new Risk Threshold appears.
   b. In the **Alias** box, if the **Use Aliases?** check box is selected in the associated Risk Matrix record, specify a value that you want to appear on the Risk Matrix in the column heading along with the consequence name.
   c. In the **Description** box, select from the drop-down menu.

      Note: The values that you can select in a new Risk Threshold record are determined by the MI_RISK_THRESHOLD System Code Table.

   d. In the **Value** box, enter the value that you want to correspond to the risk threshold.
   e. In the **Color** field, select the color that you want to set for this risk threshold.
   f. Select 🖫.

Your changes are saved and can be viewed in the matrix on the **Risk Matrix Preview** window.

Associate a Risk Matrix with a Site

Procedure

1. Access the Risk Matrix record that you want to associate with a site.
2. In the **Record Explorer** pane, under **Related Families**, select **Site Reference**.

   Note: If **Site Reference** does not appear, select ▶, and then select **All Possible Families**.
3. Select ⫶ .
   An options menu appears.
4. If a Site Reference record already exists for the site you want to associate with the Risk Matrix:

   a. Select **Link to Existing Record**.
      The **Search** window appears.
   b. Enter search criteria to locate the record that you want to associate with the Risk Matrix.
   c. Select the record, and then select **OK**.

   -or-

   If a Site Reference record does not already exist for the site you want to associate with the Risk Matrix:

   a. Select **Add New Record**.
      A blank datasheet for the new Site Reference record appears.
   b. In the **Name** box, enter the name of the site.
   c. Select 💾.

   The Risk Matrix is associated with the specified site.

Access the System Code Tables Used by Risk Matrices

Procedure

1. Access the Risk Matrix Admin page.
2. Select **System Codes and Tables**.
   The **System Codes and Tables** page appears.
3. In the **System Tables** list, select the System Code Table that you want to view.
   The details of the System Code Table appear in the page.

   In this page you can manage the System Code Table values for the families that are linked to Risk Matrix records. Refer to the System Codes and Tables section of the documentation for additional information.

Risk Assessment Feature

About the Risk Assessment Feature

The Risk Assessment feature is a combination of:

- The **Risk Assessment** window, which is an interface that displays a Risk Matrix and other risk information.

   -and-
- The Risk Matrix data model, which includes entity families, relationship families, and records that determine:
   ◦ The values that you will see in the Risk Assessment interface.
   ◦ The calculations that will be performed based on the values that you select.

The baseline APM database contains a set of baseline records that determine the values that you will see on the Risk Assessment window and the calculations that are performed using those values. You can access this window through modules such as:

- Asset Strategy Management (ASM)
- Asset Criticality Analysis (ACA)
- Risk Based Inspection (RBI)

If you do not want to use the baseline values and calculations, you can customize them or configure your own.

Tip: Refer to the Risk Matrix section of the end user documentation for additional information about understanding the Risk Matrix.

Important: You must associate your risk matrices with the sites before you assess risks using the risk matrices in one of the following modules:

- Asset Strategy Management (ASM)
- Asset Criticality Analysis (ACA)
- Risk Based Inspection (RBI)

Modify the Risk Assessment Window Title

About This Task

You can modify the default title of the **Risk Assessment** window using the Risk Matrix record.

Note:

When you modify the title, the new title will be used everywhere that the Risk Matrix record is used to display the Risk Assessment window. For example, if an Asset Strategy and an RCM Analysis use the same Risk Matrix, if you modify the title in that Risk Matrix record, the new title will be displayed when you access the Risk Assessment interface from any of the following items:

- An Action or Risk in that Asset Strategy
- A Failure Effect or Recommendation in that RCM Analysis.

Procedure

1. Access the Risk Matrix record for the Risk Matrix that you want to modify.
2. In the Risk Matrix Layout datasheet, select ✎
3. In the **Appearance** section, in the **Dialog Title** box, enter the new title for the **Risk Assessment** window.

   Note: The default title is not displayed on the datasheet. If the **Dialog Title** text box is empty, it indicates that the default title is being used.
4. Select 💾.

Your changes are saved. The next time you view the **Risk Assessment** window from any item that uses this Risk Matrix (for example, an Asset Strategy or RCM Analysis), the new title will appear.

Modify Text Box Labels in the Risk Assessment Window

About This Task

If the default labels Risk Of, Mitigated By, Unmitigated Risk Rank, and Mitigated Risk Rank that appear in the Risk Assessment window are not suitable for your organization and terminology, you can modify the labels using the Risk Matrix record.

Note:

When you modify a label, the new label will be used everywhere that the Risk Matrix record is used to display the Risk Assessment window. For example, if an Asset Strategy and an RCM Analysis use the same Risk Matrix, if you modify the labels in that Risk Matrix record, the new labels will be displayed when you access the Risk Assessment interface from any of the following items:

- An Action or Risk in that Asset Strategy.
- A Failure Effect or Recommendation in that RCM Analysis.

Procedure

1. Access the Risk Matrix record for the Risk Matrix that you want to modify.
2. In the Risk Matrix Layout datasheet, select 🖉 .
3. In the **Appearance** section, in the following boxes, type the new titles:
   - **Unmitigated Risk Label**: The label of section that displays the name of the risk. This will be used in place of Risk Of.
   - **Mitigation Label**: The label of the section that displays the name of the item that is mitigating the risk. This will be used in place of Mitigated By.
   - **Unmitigated Risk Rank**: The label of the section that displays the unmitigated risk rank. This will be used in place of Unmitigated Risk Rank.
   - **Mitigated Risk Rank**: The label of the section that displays the mitigated risk rank. This will be used in place of Mitigated Risk Rank.

   Note: The default titles are not displayed on the datasheet. If the text boxes are empty, it indicates that the default titles are being used.
4. Select 💾 .
   Your changes are saved. The next time you view the **Risk Assessment** window from any item that uses this Risk Matrix (for example, an Asset Strategy or RCM Analysis), the new titles will appear.

Customize the Risk Matrix

About Customizing a Risk Matrix

You can customize the Risk Matrix that appears in the **Risk Assessment** window throughout APM. You can do so by modifying values in the corresponding Risk Matrix record and the records to which it is linked.

You can modify the baseline Risk Matrix record without creating a completely new one, or you can make a copy of the baseline Risk Matrix and customize the copy. Note that only one Risk Matrix record can be specified as the default.

If a Risk Matrix has been used by a module in APM, the values in the following fields in the Risk Matrix record cannot be modified:

- Currency
- Use Maximum Risk Rank
- Use Aliases?
- Alias Format Mask

In addition, you will not be able to add or remove probabilities or consequences from the Risk Matrix.

Change the Axis on which Values Appear

About This Task

On the baseline Risk Matrix, values in Consequence records appear on the x-axis, and values in Probability records appear on the y-axis. If desired, you can flip the axes for these families so that values in Probability records appear on the x-axis and values in Consequence records appear on the y-axis.

When you modify the axis setting for one family, the axis setting for the other family is updated automatically to the opposite axis setting. In other words, if you specify that values in Consequence records should appear on the y-axis instead of the x-axis, the axis setting for values in Probability records will automatically appear on the x-axis instead of the y-axis.

Procedure

1. Access the Risk Matrix record for the Risk Matrix that you want to modify.
2. On the Risk Matrix Layout datasheet, select ✏.
3. In the **Consequence Axis** or **Probability Axis** lists, select the axis on which you want to view the family.
   The axis setting for the family whose option you did not change is updated automatically to display the opposite axis.
4. Select 💾.
   Your changes are saved.

Change the Order in Which Consequence or Probability Values Appear

About This Task

In the baseline Risk Matrix, consequence values appear in ascending order from left to right, and probability values appear in descending order from top to bottom. You can change the sort order for one or both of these families.

Procedure

1. Access the Risk Matrix record for the Risk Matrix that you want to modify.
2. On the Risk Matrix Layout datasheet, select ✏.

3. In the **Consequence Sort Order** or **Probability Sort Order** box, select the sort order that you want to apply: Ascending or Descending.

4. Select ⊟.
The order of the consequence or probability values has been changed.

Unlock the Mitigated Consequence

About This Task

By default, the baseline Risk Matrix is configured to lock the mitigated consequence. This means that for mitigated risk assessments, you will be able to modify only the probability value. You will not be able to modify the consequence value.

Procedure

1. Access the Risk Matrix record for the Risk Matrix that you want to modify.

2. On the Risk Matrix Layout datasheet, select ✎ .

3. Clear the **Lock Mitigated Consequence** check box.

4. Select ⊟.
Your changes are saved, and when you view the Risk Matrix via the **Risk Assessment** window, you will be able to change the probability value or the consequence value in mitigated risk assessments.

Disable the Not Applicable Check Box

About This Task

In some cases, you might want to disable the **Not Applicable** check box (which appears on each tab of the Risk Matrix) so that Risk Matrix users cannot select it. For example, your company might have a policy that requires risk to always be evaluated rather than allowing people to bypass the risk assessment process.

Note: The process of disabling the **Not Applicable** check box requires you to create a disabled rule on the Not Applicable field in the Risk Rank family. Because this field is used to display the **Not Applicable** check box on all tabs of all Risk Matrices, it will be disabled everywhere that any Risk Matrix is displayed.

Procedure

1. Using the Rules editor, in the **Risk Rank** family, create a disabled rule on the **Not Applicable** field. You can create the rule such that the check box is always disabled, or you can create a more complex rule that causes the check box to become disabled only under certain conditions (for example, after the risk rank is set to anything higher than 100).

2. Save the family.

3. Compile the family.

The **Not Applicable** check box will now be disabled on all tabs of all Risk Matrices.
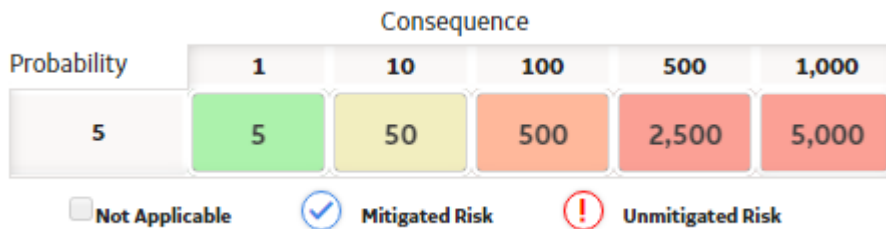
Hide the Probability and Consequence Names

About This Task

In the baseline Risk Matrix, Probability and Consequence names appear as row and column headers in the Risk Matrix. If necessary, you can hide the Consequence and Probability names.

Procedure

1. [Access the Risk Matrix record](#) for the Risk Matrix from which you want to hide Consequence and Probability names.
2. On the Risk Matrix Layout datasheet, select ✏️ .
3. In the **Appearance** section, select the **Hide Probability and Consequence Names** check box.
4. Select 💾 .
   Your changes are saved. The next time the Risk Matrix is displayed, the Consequence and Probability names will be hidden from the column and row headings, as shown in the following image.

Display Custom Values in the Risk Matrix

About This Task

In the baseline Risk Matrix, numeric values appear in each cell in a Risk Matrix. You can hide these numeric values and then use the **Use Aliases?** option to display aliases in place of the numeric values. For example, instead of the value 1, you could display the alias value Credible - Low.

Procedure

1. [Access the Risk Matrix record for the Risk Matrix that you want to modify](#).
2. On the Risk Matrix Layout datasheet, select ✏️ .
3. Select the **Hide Numeric Risk Rank?** check box.
   At this point, if you were to save the Risk Matrix, the numeric risk rank values would be hidden as shown in the following image.

Consequence

Probability	Very Low 1	Low 10	Medium 100	High 500	Very High 1,000
Frequent 5					
Probable 1					
Possible 0.3					
Remote 0.1					
Improbable 0.05					

☐ Not Applicable   ✓ Mitigated Risk   ⚠ Unmitigated Risk

4. Select the **Use Maximum Risk Rank** check box. This causes the total risk rank value to be the maximum risk rank across all categories (tabs) versus the sum of all risk rank values. This box must be selected in order to use enable the **Use Aliases?** check box.
5. Select the **Use Aliases?** check box.
6. Select 💾
7. Access the Consequence and Probability records linked to the Risk Matrix record.
8. In the Alias field in each Consequence and Probability record, specify the custom values that you want to appear.
9. Save all changes.
   The specified alias values will appear in the cells of the associated Risk Matrix.

Show the Unmitigated Financial Impact for Each Risk Category

About This Task

The Unmitigated Financial Impact value, stored in Risk Rank records, specifies the estimated monetary value attributed to a specific Risk category. On the baseline Risk Matrix, the Unmitigated Financial Impact value is not displayed by default. These steps describe how to show this value on the Risk Matrix.

Procedure

1. Access the Risk Matrix record for the Risk Matrix for which you want to show the Unmitigated Financial Impact.
2. In the Risk Matrix Layout datasheet, in the **Appearance** section, select the **Show Financial Impact** check box.
3. Select 💾.
   Your changes are saved. The next time the Risk Matrix is displayed, the **Unmitigated Financial Impact** box appears on each category section.

Note: The value in the **Unmitigated Financial Impact** box is a calculated value and cannot be modified.

Change the Financial Precision of the Risk Matrix

About This Task

The Financial Precision value, stored in Risk Matrix records, specifies the number of decimal places to display when rendering financial values in a Risk Matrix. If no Financial Precision value is specified, a Financial Precision of 2 (for example, 1.00) will be used. These steps describe how to change the Financial Precision of a Risk Matrix.

Procedure

1. Access the Risk Matrix record for the Risk Matrix for which you want to change the Financial Precision.
2. In the Risk Matrix Layout datasheet, in the **Appearance** section, enter a value in the Financial Precision field.
3. Select 💾.
   The Financial Precision for the selected Risk Matrix is saved.

Define a Template for Displaying Risk Values

About This Task

If you have decided to display custom values in the Risk Matrix, you can create a template that will determine how values will be displayed in individual cells and on the tab labels.

For example, suppose your custom aliases appear in the Risk Matrix like this:

You can see that the risk value in each cell is a combination of the row alias and column alias, without a delimiter. You can also see that the selected risk value is reflected on the tab label. For instance, at the intersection of the **Probable E** row and the **Very Low 1** column, you see the value E1, which is also displayed on the tab label.

You could change this so that the risk values use a delimiter, such as a dash, so you would see E-1 instead of E1.

Procedure

1. Access the Risk Matrix record for the Risk Matrix for which you want to specify how risk values will be displayed.
2. In the Risk Matrix Layout datasheet, make sure the **Use Maximum Risk Rank** and **Use Aliases?** boxes are checked.
3. In the **Alias Format Mask** box, enter a formula that represents the format in which you want risk values to be displayed, using any combination of the following parameters, with or without delimiters:

   - **{c}**: The alias for the column (specified in the Alias field in the corresponding Consequence record).
   - **{r}**: The alias for the row (specified in the Alias field in the corresponding Probability record).
   - **{t}**: The alias for the risk threshold (specified in the Alias field in the corresponding Risk Threshold record).

   For example, suppose you want risk values to be displayed using the format <row alias> - <column alias>. In other words, if the row alias is E and the column alias is 1, you want the risk value will be displayed as E-1. In this case, you would type the following formula in the **Alias Format Mask** box: {r}-{c}
4. Select 💾.
   The template has been defined.

Create System Codes for a Consequence or Probability Label

Procedure

1. Access the Risk Matrix Admin Page on page 13.
2. Select **System Codes and Tables**.
   The **System Codes and Tables** page appears.
3. In the **System Tables** list, select the Consequence Label or Probability Label System Code Table that you want to modify.
   The details of the System Code Table appear in the **System Code Table** page.

MI_RISKMATR_CONS_LABEL_C (Consequence Label)

Last Modified On 1/24/2020 10:35:14 PM Modified By Administrator,Meridium

ID *

MI_RISKMATR_CONS_LABEL_C

Description *

Consequence Label

Display Format

◯ Code Only ⦿ Description Only ◯ Code & Description

System Code

\+ 👓 **Change Sequence**

CONSEQUENCE (Consequence) ✓ **1**

4. In the **System Code Table** page, under **System Code**, select ＋.
   The **Create System Code** window appears.
5. Enter values in the **ID** and **Description** boxes, and then select **Save**.
   The System Code is created.

   Note: You must log off from APM, and then log in again for the System Codes that you created to appear in the **Probability Label** or **Consequence Label** drop down list box in the Risk Matrix Layout datasheet.

Specify the Consequence or Probability Label For a Risk Matrix

Procedure

1. Access the Risk Matrix record for the Risk Matrix for which you want to specify the consequence or probability label.
2. In the Risk Matrix Layout datasheet, in the **Appearance** section, select a value from the **Consequence Label** or **Probability Label** drop down list box.

3. Select 💾.
   The consequence or probability label for the Risk Matrix is saved.

   Note: You must log off from APM, and then log in again to implement the changes in Risk Matrix.

Chapter
5

Reference

Topics:

- General Reference
- Family Field Descriptions

General Reference

Risk Assessment Data Model

The values that appear on the baseline Risk Matrix come from values that are stored in records in the following families:

- Risk Matrix
- Risk Category
- Consequence
- Probability
- Risk Threshold
- Protection Level

The following diagram illustrates the families that are used to create a Risk Matrix and how they are related to one another in the baseline APM database. APM leverages its fundamental entity and relationship family infrastructure to store data about the Risk Matrix.
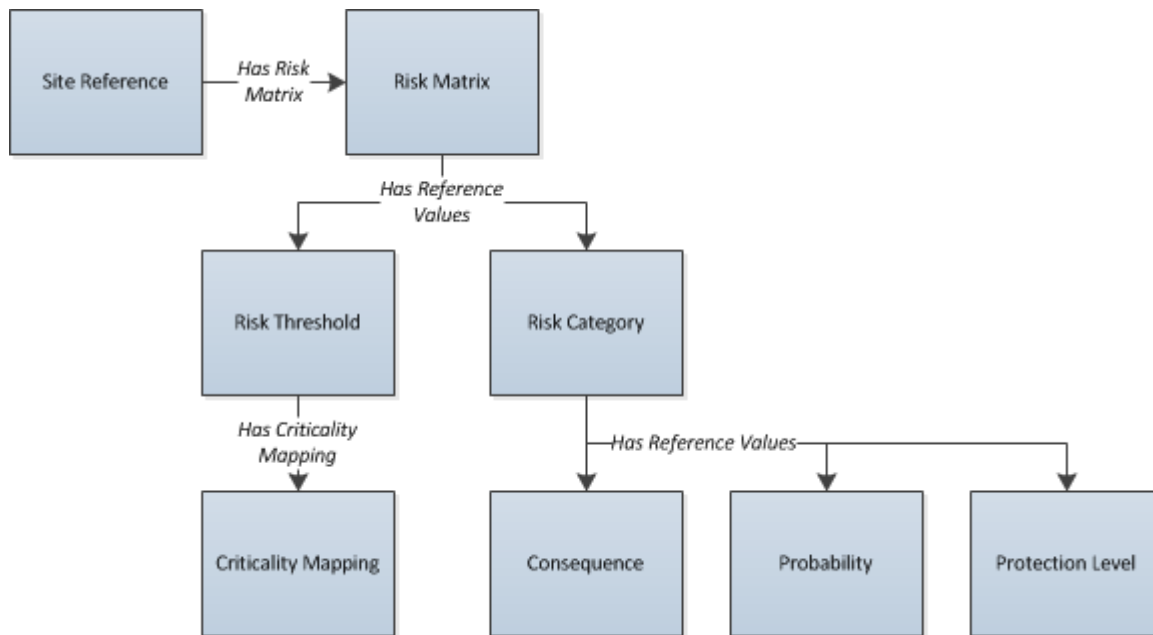
Note: The Criticality Mapping entity family and the Has Criticality Mapping relationship family are used only by the Asset Criticality Analysis (ACA) module.

Risk Matrix System Code Tables

The following table lists the System Code Tables that are used by the Risk Matrix feature.

Table ID	Table Description	Function
MI_RISK_CATEGORY	Risk Category	Populates the Category Name field in Risk Category records.
MI_RISK_CATEGORY_DESC	Risk Category Description	Populates the Category Description field in Risk Category records.

Table ID	Table Description	Function
MI_RISK_CONSEQUENCE	Consequence	Populates the Name field in Consequence records.
MI_RISK_CONSEQUENCE_DESC	Consequence Description	Populates the Description field in Consequence records.
MI_RISKMATR_CONS_LABEL_C	Consequence Label	Populates the label of the Consequence axis in a Risk Matrix.
MI_RISK_MATRIX_AXIS	Risk Matrix Axis Selection	Populates the Consequence Axis and Probability Axis fields in Risk Matrix records.
MI_RISK_MATRIX_SORT_ORDER	Risk Matrix Sort Order for Consequence and Probability	Populates the Consequence Sort Order field in Risk Matrix records.
MI_RISK_PROBABILITY	Probability	Populates the Name field in Probability records.
MI_RISK_PROBABILITY_DESC	Probability Description	Populates the Description field in Probability records.
MI_RISKMATR_PROB_LABEL_C	Probability Label	Populates the label of the Probability axis in a Risk Matrix.
MI_RISKMATR_PROT_LABEL_C	Protection Level Label	Populates the label of the protection level slider in a Risk Matrix.
MI_RISK_PROTECTION_LEVEL	Protection Level	Populates the Name field in Protection Level Slider records.
MI_RISK_PROTECTION_LEVEL_DESC	Protection Level Description	Populates the Description field in Protection Level Slider records.
MI_RISK_THRESHOLD	Risk Threshold	Populates the Description field in Risk Threshold records.
MI_RISK_THRESHOLD_DESC	Risk Threshold Description	This table is not used.

About the Risk Assessment Window

This documentation uses the term **Risk Assessment** window to refer to the window that displays the Risk Matrix and other risk information, and which can be accessed in various places throughout the APM application. The actual name of the window that appears in the application may be **Unmitigated Risk Assessment** or **Mitigated Risk Assessment**, depending on how you accessed the window. Various aspects of the window, including its name, may be customized by an administrative user.

Note: For details on accessing the **Risk Assessment** window using a particular module, see the documentation for that module.

The following image illustrates what the **Risk Assessment** window looks like when accessed from Asset Criticality Analysis.

The **Risk Assessment** window contains different items depending upon how you access it. The following table describes the possible items that you might see on the **Risk Assessment** window.

Item	Description	Notes
Risk Of section	Displays the name of the risk.	An administrative user can modify the label of this section using the Risk Matrix datasheet.
Unmitigated Risk Rank section	Displays a value that is calculated based on the sum of the unmitigated risk values, which are represented by a ⚠ icon on the matrix.	The value in the **Unmitigated Risk Rank** section is a sum of all of the values on the tabs on the Risk Matrix, multiplied by the appropriate weight and protection level factor (the weight and the protection level factor are configured in Risk Category records and Protection Level records). If the Risk Matrix is configured to use the maximum risk rank, this value is the greatest of all the risk values, not the sum. An administrative user can modify the label of this section using the Risk Matrix datasheet.

Item	Description	Notes
Mitigated By section	Displays the name of the action or the recommendation that mitigates the risk.	An administrative user can modify the label of this section using the Risk Matrix datasheet.
Mitigated Risk Rank section	Displays a value that is calculated based on the sum of the mitigated risk values, which are represented by a icon in the matrix. For a given risk, the mitigated risk rank will be lower than the unmitigated risk rank.	The value in the **Mitigated Risk Rank** section is a sum of all of the values on the tabs on the Risk Matrix, multiplied by the appropriate weight and protection level factor (the weight and the protection level factor are configured in Risk Category records and Protection Level records). If the Risk Matrix is configured to use the maximum risk rank, this value is the greatest of all the risk values, not the sum. An administrative user can modify the label of this section using the Risk Matrix datasheet.
Risk Matrix	Contains a series of tabs that contain a matrix, where you can make selections that the APM system will use to calculate the overall risk rank.	For details about the Risk Matrix, see the topic About the Risk Matrix.
Legend	Displays the icons that are used to represent mitigated risk values and unmitigated risk values in the matrix.	None
Basis for Assessment section	An explanation of the current risk assessment.	None
Save button	Saves any changes you have made using the **Risk Assessment** window.	None
Cancel button	Closes the **Risk Assessment** window, discarding any changes you have made.	None

Risk Matrix Site Filtering

Site Filtering helps users who are assigned to specific sites find relevant records more easily by preventing users from viewing records associated with sites with which they are not associated. Site Filtering uses a Site Reference Key on families that have site filtering enabled.

Tip: For more information, refer to the Site Filtering section of the documentation.

Entity families in APM, including Equipment and Functional Locations, store the Site Reference Key in the system field MI_SITE_KEY. In the following image, you can see that entity families are related to a Site Reference via the MI_SITE_KEY system field. Each Site Reference is related to a Risk Matrix by the Has Risk Matrix relationship family.
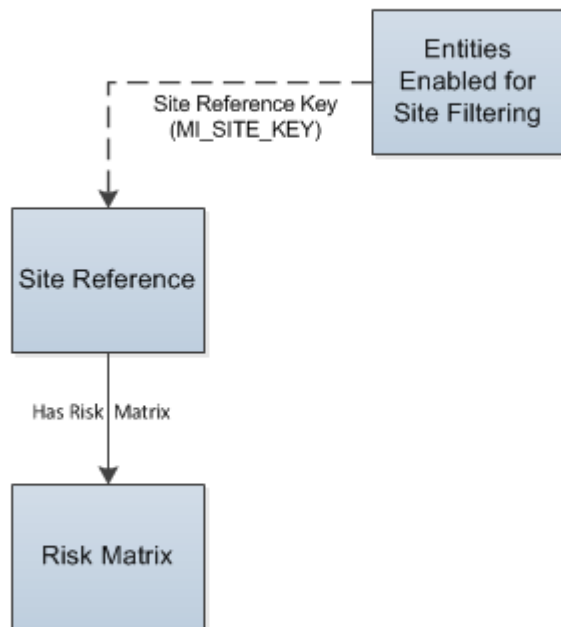
Example: Customizing Row, Column, and Tooltip Labels

Suppose the internal matrix that your company uses to evaluate safety risk looks like this:

	Very Low 1	Low 2	Medium 3	High 4	Very High 5
Frequent E	E1	E2	E3	E4	E5
Probable D	D1	D2	D3	D4	D5
Possible C	C1	C2	C3	C4	C5
Remote B	B1	B2	B3	B4	B5
Improbable A	A1	A2	A3	A4	A5

You want to begin using APM Asset Strategy Management to create Asset Strategies and evaluate risk, and the baseline APM Risk Matrix that will be used in ASM looks like this:

Unmitigated Risk Assessment

Total Risk

Safety		Consequence				
	Probability	Very Low 1	Low 10	Medium 100	High 500	Very High 1,000
Environment	Probable 1	1	10	100	500	1,000
Operations	Credible 0.1	0.1	1	10	50	100
	Remote 0.01	0.01	0.1	1	5	10
Financial	Improbable 0.001	0.001	0.01	0.1	0.5	1
	Unlikely 0.0001	0.0001	0.001	0.01	0.05	0.1

☐ Not Applicable   ✓ Mitigated Risk   ⊘ Unmitigated Risk

You could modify the baseline Risk Matrix so that the probability and consequence labels more closely resemble the Risk Matrix that you are familiar with.

To do so, in the Risk Matrix record, you would need to:

- Select the **Hide Numeric Risk Rank** check box, which hides the probability values 0.0001 through 1 and consequence values 1 through 1000 from the Risk Matrix.
- Select the **Use Maximum Risk Rank** check box, which causes the total risk rank value to be the maximum risk rank across all categories (tabs) versus the sum of all risk rank values.
- Select the **Use Aliases** check box, which allows you to define your own custom labels.
- Type the text {r}{c} in the **Alias Format Mask** text box.

Then, in the Probability and Consequence records that are linked to the Safety Risk Category record, you would need to create aliases to specify the labels that you want to see in the Risk Matrix. Specifically, you would need to:

- Specify the probability values A through E in the Alias field in the Probability records. For example, in the Unlikely Probability record with the Probability value 0.0001, you would type A in the **Alias** text box.

  If you were to view the Risk Matrix, you would see a row with the label Unlikely A, as shown in the following image.

  In each remaining Probability record, you would specify the aliases B, C, D, and E.
- Specify the consequence values 1 through 5 in the Alias field in the Consequence records. For example, in the Very High Consequence record with the Consequence value 1000, you would type 5 in the **Alias** box.

  If you were to view the Risk Matrix, you would see a column with the label Very High 5, as shown in the following image.
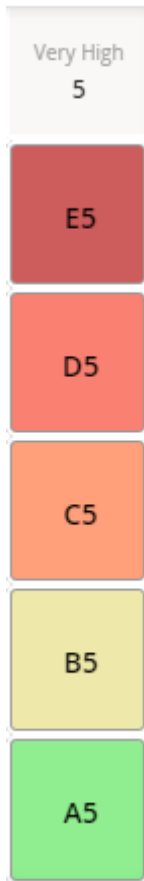
In each remaining Consequence record, you would specify the aliases 2, 3, 4, and 5.

When you finished defining the aliases, the completed **Safety** section in the Risk Matrix would look like this:

About the Risk Matrix System Code Tables

When you create or modify certain records linked to a Risk Matrix record, the values that you can select in the **Name** and **Description** lists are defined by System Code Tables. The following table lists these records and the corresponding tables.

Record	Table that defines the Name list	Table that defines the Description list
Risk Category	MI_RISK_CATEGORY	MI_RISK_CATEGORY_DESC
Consequence	MI_RISK_CONSEQUENCE	MI_RISK_CONSEQUENCE_DESC
Probability	MI_RISK_PROBABILITY	MI_RISK_PROBABILITY_DESC
Risk Threshold	N/A	MI_RISK_THRESHOLD_DESC

You can modify or add new entries to these System Code Tables via the **System Codes and Tables** page within the **Risk Matrix Admin** section of the application.

For each entry in a System Code Table that defines the **Name** list, there must be a corresponding entry (i.e., an entry with the same ID) in the System Code Table that defines the **Description** list. After you select a value in the **Name** box, the **Description** box is populated automatically with the value defined by the corresponding system code.

Example

When you create a new Probability record, suppose that the following list appears in the Name box.

These values are defined in the MI_RISK_PROBABILITY System Code Table, where the values that appear in the **Name** list are the Descriptions for each System Code.

Further, after you select a value in the **Name** box, the **Description** box is populated automatically. The value that is populated is specified by the entry in the MI_RISK_PROBABILITY_DESC table that contains the same ID as the selected entry in the MI_RISK_PROBABILITY System Code Table, where the value populated is stored in the Description field of the System Code.

For example, suppose you create a new Probability record and select Frequent in the **Name** box. The **Description** box is populated automatically with the text Likely to occur more frequent than mission time.

The following System Code in the MI_RISK_PROBABILITY System Code Table represents the value Frequent.

The following System Code in the MI_RISK_PROBABILITY_DESC System Code Table has the same ID. The value from this System Code is used to populate the **Description** box for the Probability record with the text Likely to occur more frequent than mission time.

How the Values in the Risk Matrix are Configured

You can configure each Risk Matrix to display values in certain places to guide users in selecting the appropriate risk values.

Values in a Risk Matrix are determined as follows:

- The Risk Matrix as a whole that appears in the **Risk Assessment** window is specified by a Risk Matrix record. Risk Matrix records store the values that determine how the Risk Matrix looks. Some of the values in a Risk Matrix record are also used to filter the values that you can select in other records in the Risk Matrix data model.
- Each tab in the Risk Assessment window is specified by a Risk Category record linked to the Risk Matrix record.
- Within the Risk Matrix that appears upon selecting given tab, each row identifies a probability level associated with the matrix. Each probability level is specified by a Probability record. The Risk Category record to which the Probability record is linked determines the section in which the row will appear.
- Within the Risk Matrix that appears upon selecting a given tab, each column identifies a consequence level associated with the matrix. Each consequence level is specified by a Consequence record. The Risk Category record to which the Consequence record is linked determines the section in which the column will appear.
- Within each Risk Matrix, each cell contains a color and a tooltip that explains the threshold within which the risk value falls. The threshold values and corresponding colors are specified by Risk Threshold records that are linked to the Risk Matrix record.

Example

Consider the following Risk Matrix.

The values shown in this Risk Matrix are determined by the following records:

- **Risk Matrix records**: Determines the look of the Risk Matrix, such as the appearance, order, and axis on which the probability and consequence values appear.
- **Risk Category records**: There are 4 Risk Category records linked to the Risk Matrix record shown: Safety, Environment, Operations, and Financial. Each Risk Category record corresponds to one tab within the **Risk Assessment** window. The image shown above displays the values in Probability and Consequence records that are linked to the Safety Risk Category record.
- **Probability records**: There are 5 Probability records linked to the Environment Risk Category record. Each Probability record corresponds to one row in the Risk Matrix.
  The Probability record for the first row shown in this example contains the following values:

  - Name: Probable
  - Value: 1
  - Description: Likely to occur the same as mission time

    Note: This value appears as a tooltip when you pause over the row heading.

- **Consequence records**: There are 5 Consequence records linked to the Environment Risk Category record. Each Consequence record corresponds to one column in the Risk Matrix.
  The Consequence record for the first column shown in this example contains the following values:

  - Name: Very Low
  - Value: 1
  - Description: None to minor first-aid

Note: This value appears as a tooltip when you pause over the column heading.

- **Risk Threshold records**: There are 5 Risk Threshold records linked to this Risk Matrix record. Each Risk Threshold record corresponds to a range of values that are represented with the same color in the matrix, as well as the risk threshold value that appears when you pause on a cell in the matrix.

  The Risk Threshold record representing the cell in this example contains the following values:

  - Description: Medium
  - Value: 1
  - Color: PaleGoldenrod

    Note: Risk Threshold records represent a range of values. Refer to the topic About Risk Threshold Records for more information about how Risk Threshold records are used.

About Risk Threshold Records

Each Risk Matrix is linked to multiple Risk Threshold records, where each Risk Threshold record corresponds to a range of values that are represented with the same color in the matrix, as well as the risk threshold value that appears when you pause on a cell in the matrix.

When you select a tab on the Risk Matrix, the cells in the matrix are shaded according to the value in that cell and where it falls within the ranges as they are defined in the Risk Threshold records. For example, in the following image, you can see that the cells contain in the number 0.1 and 0.01 are colored LightGreen. If you pause on the cell, the tooltip says Low.

The following Risk Threshold records are provided in the baseline APM database to support the baseline Risk Matrix.

Datasheet ID:

Risk Threshold ▼

Risk Threshold

Value(s)

Alias

Text input

Description

Low ▼

Value

0

Color

LightGreen ▼

Datasheet ID:

Risk Threshold ▼

Risk Threshold

Value(s)

Alias

Text input

Description

Medium ▼

Value

10

Color

PaleGoldenrod ▼

Datasheet ID:

Risk Threshold ▼

Risk Threshold

Value(s)

Alias

Text input

Description

High ▼

Value

100

Color

LightSalmon ▼

Datasheet ID:

Risk Threshold ▼

Risk Threshold

Value(s)

Alias

Text input

Description

Very High ▼

Value

1,000

Color

Salmon ▼

Datasheet ID:

Risk Threshold ▼

Risk Threshold

Value(s)

Alias

Text input

Description

Very High ▼

Value

1,000

Color

IndianRed ▼

From the values in these records, we can determine that the following criteria will be applied to numbers that appear on the baseline Risk Matrix:

- Any number greater than or equal to 0 and less than 1 will be considered low risk. Cells in the matrix that contain numbers greater than or equal to 0 and less than 1 will be shaded LightGreen.
- Any number greater than or equal to 1 and less than 10 will be considered medium risk. Cells in the matrix that contain numbers within this range will be shaded PaleGoldenrod.
- Any number greater than or equal to 10 and less than 100 will be considered high risk. Cells in the matrix that contain numbers within this range will be shaded LightSalmon.
- Any number greater than or equal to 100 and less than 1000 will be considered very high risk. Cells in the matrix that contains numbers within this range will be shaded Salmon.
- Any number greater than or equal to 1000 will be considered extreme risk. Cells in the matrix that contains numbers greater than or equal to 1000 will be shaded IndianRed.

About the Baseline Risk Matrix Records

The baseline APM database contains two Risk Matrices:

- Standard Practice
- Default

Note: If you are upgrading from a previous version of APM, you will not receive the Standard Practice Risk Matrix. You will receive only the Default Risk Matrix (and any Risk Matrices that you created manually). The Default Risk Matrix will be phased out over the next several releases. If you are an existing customer, you should continue using the Risk Matrix that you were using before you upgraded. New customers, however, will receive both Risk Matrices but should use the Standard Practice Risk Matrix or create their own Risk Matrix. In other words, the Standard Practice Risk Matrix is recommended for customers who are not already using a different Risk Matrix. For this reason, the APM documentation explains the functionality of the Standard Practice Risk Matrix, not the Default Risk Matrix. Throughout this documentation, when we use the phrase baseline Risk Matrix, we are referring to the Standard Practice Risk Matrix. The Standard Practice Risk Matrix is not set automatically as the default Risk Matrix. If you are planning to use it as the default Risk Matrix, you will need to select the **Default** check box on the datasheet (after clearing the **Default** check box for the Default Risk Matrix).

The following image shows the Standard Practice Risk Matrix.

Unmitigated Risk Assessment

Total Risk

The Standard Practice Risk Matrix consists of a Risk Matrix record and the following additional records:

- 4 Risk Category records: Safety, Environment, Operations, and Financial.
- 5 Consequence records: Very Low, Low, Medium, High, and Very High.
  In the baseline APM database, each Consequence record is linked to the following Risk Category records: Environment, Operations, Safety. The Risk Category record Financial is not linked to a Consequence record.
- 8 Probability records: Frequent, Probable, Likely, Credible, Remote, Possible, Improbable, Unlikely.
  5 of these Probability records are linked to each Risk Category record, as shown in the following table.

Safety	Environment	Operations	Financial
Probable	Probable	Frequent	Frequent
Credible	Credible	Probable	Probable
Remote	Remote	Likely	Likely
Improbable	Improbable	Credible	Credible
Unlikely	Unlikely	Possible	Possible

- 5 Risk Threshold records: Low, Medium, High, Very High, and Extreme.

Family Field Descriptions

Consequence Records

Consequence records determine the consequence levels available within a Risk Matrix. This topic provides an alphabetical list and description of the fields that exist for the Consequence family and appear on the Consequence Definition datasheet. The information in the table reflects the baseline state and behavior of these fields.

Field	Data Type	Description	Behavior and Usage
Alias	Character	An alias for the consequence.	When the **Use Aliases?** check box is selected in the associated Risk Matrix record, the value in the Alias field in the Consequence record appears in the column heading along with the consequence name. In addition, if the Alias Format Mask field in the associated Risk Matrix record contains the value {c}, the value in the Alias field in the Consequence record will be displayed in the cell in the Risk Matrix (according to the complete template that is defined in the Alias Format Mask field).
Color Code	Character	The HEX or RGB code for the specific colors used in Risk Matrix	None
Consequence	Numeric	A numeric value representing the severity of the consequence.	This value appears on the column heading in the risk matrix. After the Risk Matrix has been used by a module in APM, this field is disabled.

Field	Data Type	Description	Behavior and Usage
Description	Character	A description of the severity of consequence.	This field is populated automatically based upon the value in the Name field. It is populated with a System Code in the MI_RISK_CONSEQUENCE_DESC System Code Table, which contains the same ID as the System Code that is stored in the Name field. In the risk matrix, this value appears when you pause on the column heading.
Name	Character	The name of the consequence.	This field contains a list that is populated based upon the MI_RISK_CONSEQUENCE System Code Table. This value appears on the column heading in the risk matrix.

Probability Records

Probability records determine the probability levels available within a Risk Matrix. This topic provides an alphabetical list and description of the fields that exist for the Probability family and appear on the Probability Definition datasheet. The information in the table reflects the baseline state and behavior of these fields.

Field	Data Type	Description	Behavior and Usage
Alias	Character	An alias for the probability.	When the **Use Aliases?** check box is selected in the Risk Matrix record, the value in this field appears in the row heading along with the probability name. In addition, if the Alias Format Mask field in the associated Risk Matrix record contains the value {r}, the value in the Alias field in the Probability record will be displayed in the cell in the Risk Matrix (according to the complete template that is defined in the Alias Format Mask field).
Color Code	Character	The HEX or RGB code for the specific colors used in Risk Matrix	None
Description	Character	A description of the probability.	This field is populated automatically based upon the value in the Name field. It is populated with the System Code in the MI_RISK_PROBABILITY System Code table, which contains the same ID as the System Code that is stored in the Name field. In the risk matrix, this value appears when you pause on the row heading.
Failure Interval	Numeric	A numeric value that is used to define the failure rate associated with the probability value for a specific workflow within the Asset Strategy Optimization module.	None

Field	Data Type	Description	Behavior and Usage
Failure Interval Units	Character	The unit of measure that specifies the amount of time on which the failure interval and probability values are based.	On the datasheet, you can select a unit of measure from the **Failure Interval Units** list. The baseline Probability records contain the value **Years** by default.
Name	Character	The name of the probability level.	This field contains a list that is populated based upon the MI_RISK_PROBABILITY System Code Table. The value that you select appears on the row heading in the risk matrix.
Probability	Numeric	A numeric value that represents the probability that the risk will occur.	After the Risk Matrix has been used by a module in APM, this field is disabled.
Risk Category	Character	The name of the risk category to which this probability applies (stored in the Category Name field of the Risk Category record to which this Probability record is linked).	This field does not appear on the datasheet.

Protection Level Slider

The following table provides an alphabetical list and description of the fields that exist in the Protection Level family and that are displayed on the baseline Protection Level Definition datasheet (unless otherwise noted). The information in the table reflects the baseline state and behavior of these fields.

This topic provides an alphabetical list and description of the fields that exist for the Protection Level family and appear on the Protection Level Definition datasheet. The information in the table reflects the baseline state and behavior of these fields.

Field	Data Type	Description	Behavior and Usage
Alias	Character	An alias for the protection level.	If the Alias Format Mask field in the associated Risk Matrix record contains the value {pl}, the value in the Alias field in the Protection Level record will be displayed in the cell in the Risk Matrix (according to the complete template that is defined in the Alias Format Mask field).
Description	Character	A description of the protection level.	This field is populated automatically based upon the value in the Name field. It is populated with the System Code in the MI_RISK_PROTECTION_LEVEL_DESC System Code Table, which contains the same ID as the System Code that is stored in the Name field. A Super User can modify the System Codes that are available via the Protection Level tab in the Risk Matrix record to which this Protection Level record is linked. When you pause on a level in the Protection Level Definition slider, this value appears to the right of the protection level name (separated by a colon). For example, if the name is 1 and the description is One, when you pause on that level in the slider, you will see the value 1:One.

Field	Data Type	Description	Behavior and Usage
Factor	Number	A number by which you want to multiply the currently selected risk value. For example, if the Factor is 10 and the value selected in the **Environment** section is 30, the total risk value for the Environment category would be 300 (10 x 30).	This number appears below the Protection Level slider in the Unmitigated cell or the Mitigated cell, depending upon whether you are defining the unmitigated risk (e.g., from a Risk in ASM) or mitigated risk (e.g., from an Action in ASM). After the Risk Matrix has been used by a module in APM, this field is disabled.
Name	Character	The name of the protection level.	This field contains a list that is populated based upon the MI_RISK_PROTECTION_LE VEL System Code Table. A Super User can modify the System Codes that are available in this list via the **Protection Level** section in the Risk Matrix record to which this Protection Level record is linked. This value appears when you pause on a level in the Protection Level slider.

Risk Category Records

Risk Category records determine the tabs available within a Risk Matrix. This topic provides an alphabetical list and description of the fields that exist for the Risk Category family and appear on the Risk Category datasheet. The information in the table reflects the baseline state and behavior of these fields.

Field	Data Type	Description	Behavior and Usage
Category Alias	Character	An alias for the category.	This value does not appear on the Risk Matrix.
Category Description	Character	A description of the category.	This field is populated automatically based upon the value in the Category Name field. It is populated with the System Code in the MI_RISK_CATEGORY_DESC System Code Table, which contains the same ID as the System Code that is stored in the Category Name field.
Category Name	Character	The name of the category.	This field contains a list that is populated based on the MI_RISK_CATEGORY System Code Table. The name that you select is used as the tab name in the Risk Matrix. The name does not have to be unique.
Index	Numeric	Specifies the order in which the tab will appear, relative to all other tabs defined for the same Risk Matrix.	Regardless of its index value, the Risk Category record with the selected Is **Financial** check box will always appear farthest to the right on the Risk Matrix.

Field	Data Type	Description	Behavior and Usage
Is Financial	Boolean	A logical field that specifies that the category is financial and will therefore be displayed on the **Financial** tab of the Risk Matrix.	APM does not provide any logic to enforce that only one Risk Category record per Risk Matrix record be selected as the financial category, but we recommend that you specify only one financial category per Risk Matrix record. After the Risk Matrix has been used by a module in APM, this field is disabled.
Weight	Numeric	Specifies the number by which you want to multiply each selected value in the matrix.	When you create a new Risk Category record, the value in the Weight field is set by default to 1 (one). After the Risk Matrix has been used by a module in APM, this field is disabled.

Risk Matrix Records

Risk Matrix records determine how a Risk Matrix looks, as well as other information about the Risk Matrix. This topic provides an alphabetical list and description of the fields that exist for the Risk Matrix family and appear on the Risk Matrix Layout datasheet. The information in the table reflects the baseline state and behavior of these fields.

Field	Data Type	Description	Behavior and Usage
Alias Format Mask	Character	Specifies the format in which you want to display the risk rank values in the cells on the risk matrix.	The format must be defined using the following formula: {c} - {r} - {pl} - {t} Where: • {c} is the alias for the column. • {r} is the alias for the row. • {pl} is the alias for the protection level. • {t} is the alias for the risk threshold. The delimiter in this formula is a dash (-), but it can be customized. For example, you could use a colon (:), in place of a dash. You can exclude from the format any parameter that you do not want to see on the risk matrix. The default format is {c} - {r}.
Consequence Axis	Character	Specifies the axis on which the consequence values are displayed.	You can choose from: • **X-Axis**: Displays the consequence values along the x-axis. • **Y-Axis**: Displays the consequence values along the y-axis. When you change this value, the value in the Probability Axis field is updated automatically to display the opposite value. In the baseline Risk Matrix record and all new Risk Matrix records that you create, the default value is X-Axis.

Field	Data Type	Description	Behavior and Usage
Consequence Sort Order	Character	Specifies the order in which the consequence values are displayed.	In the baseline Risk Matrix record and all new Risk Matrix records that you create, the default value is Ascending.
Currency	Character	Specifies the unit of measure that appears next to the **Consequence** box on the **Financial** tab of the Risk Matrix.	After the Risk Matrix has been used by a module in APM, this field is disabled, and you cannot modify the value. In the baseline Risk Matrix record and all new Risk Matrix records that you create, the default value is USD.
Default	Boolean	Indicates whether or not this Risk Matrix is the default Risk Matrix.	You can specify only one Risk Matrix record as the default. In the Standard Practice Risk Matrix record, the **Default** check box is cleared. In the Default Risk Matrix record, the **Default** check box is selected.
Dialog Title	Character	Specifies the title on the **Risk Assessment** window that appears when accessed from an item that uses this Risk Matrix (e.g., an Action in an Asset Strategy).	In the baseline Risk Matrix record and all new Risk Matrix records that you create, the **Dialog title** box is empty, indicating that the default title is being used.
Financial Precision	Numeric	Specifies the number of decimal places to display when rendering financial values in a Risk Matrix.	If no Financial Precision value is specified, a Financial Precision of 2 (e.g., 1.00) will be used. In the baseline Risk Matrix record and all new Risk Matrix records that you create, the **Financial Precision** box is empty, indicating that the default precision value is being used.

Field	Data Type	Description	Behavior and Usage
Hide Numeric Risk Rank?	Boolean	Indicates whether or not you want to display the numeric risk rank values in the Risk Matrix.	If this check box is cleared, the numeric risk rank values are displayed. If this check box is selected, the numeric risk rank values are hidden in the Risk Matrix. In the baseline Risk Matrix record and all new Risk Matrix records that you create, this check box is cleared.
Hide Probability and Consequence Names	Boolean	Indicates whether or not the Probability and Consequence names are hidden on the Risk Matrix.	If the check box is cleared, the names are displayed. If the check box is selected, the names are hidden. In the baseline Risk Matrix record and all new Risk Matrix records that you create, this check box is cleared.
Hide Protection Level Text	Boolean	Hide Protection Level Text.	This allows the user to hide the text boxes that normally show the unmitigated and mitigated protection level values in the **Risk Assessment** window.
Lock Mitigated Consequence	Boolean	Indicates whether or not the mitigated consequence is locked.	When this check box is selected, for mitigated risk assessments, you will be able to modify only the probability value. You will not be able to modify the consequence value. In the baseline Risk Matrix record and all new Risk Matrix records that you create, the check box is selected.
Logarithmic Scale	Boolean	Indicates whether or not the y-axis will use a logarithmic scale on a graph that displays risk values.	In the baseline Risk Matrix record and all new Risk Matrix records that you create, this check box is selected.

Field	Data Type	Description	Behavior and Usage
Mitigated Risk Rank	Character	Specifies the label of the section on the **Risk Assessment** window that displays the mitigated risk rank.	The default label is Mitigated Risk Rank. In the baseline Risk Matrix record and all new Risk Matrix records that you create, the **Mitigated Risk Rank** box is empty, indicating that the default title is being used.
Mitigation Label	Character	Specifies the label of the section on the **Risk Assessment** window that displays the name of the item that is mitigating the risk.	The default label is Mitigated By. In the baseline Risk Matrix record and all new Risk Matrix records that you create, the **Mitigation Label** box is empty, indicating that the default title is being used.
Probability Axis	Character	Specifies the axis on which the probability values are displayed.	You can choose from: • **X-Axis**: Displays the probability values along the x-axis. • **Y-Axis**: Displays the probability values along the y-axis. If you change this value, the value in the Consequence Axis field will be updated automatically to display the opposite value. In the baseline Risk Matrix record and all new Risk Matrix records that you create, the default value is Y-Axis.
Probability Sort Order	Character	Specifies the order in which the probability values are displayed.	In the baseline Risk Matrix record and all new Risk Matrix records that you create, the default value is Descending.

Field	Data Type	Description	Behavior and Usage
Risk Matrix Name	Character	The name of the Risk Matrix.	This value is used to identify the record. It does not, however, appear anywhere on the Risk Assessment interface. In the baseline Risk Matrix record, the Risk Matrix name is Default.
Show Financial Impact	Boolean	Indicates whether or not the Financial Impact field of the Risk Rank family appears on each category tab the Risk Matrix.	This field appears on the Risk Matrix Layout and the Risk Matrix Definition datasheets. If the **Show Financial Impact** check box is cleared, the Financial Impact value does not appear on each category section of the Risk Matrix. If the **Show Financial Impact** check box is selected, then the Financial Impact value appears on each category section of the Risk Matrix. In the baseline Risk Matrix record and all new Risk Matrix records that you create, this check box is cleared by default.
Unmitigated Risk Label	Character	Specifies the label of the section on the **Risk Assessment** window that displays the name of the risk.	The default label is Risk Of. In the baseline Risk Matrix record and all new Risk Matrix records that you create, the **Unmitigated Risk Label** box is empty, indicating that the default label is being used.

Field	Data Type	Description	Behavior and Usage
Unmitigated Risk Rank	Character	Specifies the label of the section on the **Risk Assessment** window that displays the unmitigated risk rank. **Note:** If you are using the Asset Criticality Analysis feature, this value will also be used as the label of the column that displays the unmitigated risk rank in ACA.	The default label is Unmitigated Risk Rank. In the baseline Risk Matrix record and all new Risk Matrix records that you create, the **Unmitigated Risk Rank** box is empty, indicating that the default label is being used.
Use Aliases?	Boolean	Indicates whether or not you want to display the aliases that have been defined for the records that are linked to the Risk Matrix record. For example, if the Alias field in the Consequence record High contains the value E, when the **Use Aliases?** check box is selected, instead of seeing only the value High in the Risk Matrix, the value E will appear.	In the baseline Risk Matrix record and all new Risk Matrix records that you create, this check box is disabled and cleared. It becomes enabled only when you select the **Use Maximum Risk Rank** check box.
Use Maximum Risk Rank	Boolean	Indicates whether or not the overall risk rank will equal the largest value of all selected values (except for the Financial value) in Risk Matrix.	If this check box is cleared, the overall risk rank will equal the sum of all selected values (except for the Financial value). After the Risk Matrix has been used by a module in APM, this field is disabled, and you cannot modify the selection. In the baseline Risk Matrix record and all new Risk Matrix records that you create, this check box is cleared.

Risk Rank Records

Risk Rank records are used to determine a single instance of risk for a specific category within a Risk Assessment. This topic provides an alphabetical list and description of the fields that exist for the Risk Rank family and appear on the Risk datasheet. The information in the table reflects the baseline state and behavior of these fields. This list is not comprehensive.

Field	Data Type	Description	Behavior and Usage
Category	Character	The ID of the Risk Category record used to assess the Risk.	The value in this field is populated automatically with one of the following values: • Safety • Environment • Operations • Financial
Consequence	Numeric	A numeric value representing the severity of the consequence.	The value in this field is populated based on the selections made on the **Risk Assessment** window.
Financial Impact	Numeric	The estimated monetary value attributed to a specific Risk Category.	A value is not required. The value in this field can be configured to appear on the Risk Matrix. The default label on the Risk Matrix is Unmitigated Financial Impact.
Probability	Numeric	A numeric value representing the probability that the risk will occur.	The value in this field is populated based on the selections made on the **Risk Assessment** window.
Risk	Numeric	Specifies the total risk of the assessment.	The value in this field appears at the top of the Risk Matrix and is calculated as follows: **Risk = Probability x Consequence**

Risk Threshold Records

Risk Threshold records determine the threshold values and colors that appear within a Risk Matrix. This topic provides an alphabetical list and description of the fields that exist for the Risk Threshold family and appear on the Risk Threshold datasheet. The information in the table reflects the baseline state and behavior of these fields.

Field	Data Type	Description	Behavior and Usage
Alias	Character	An alias for the risk threshold.	When the **Use Aliases?** check box is selected in the Risk Matrix record, when you pause on a cell in the risk matrix, instead of the value in the Description field in the Risk Threshold record, this value will appear. In addition, if the Alias Format Mask field in the associated Risk Matrix record contains the value {t}, the value in the Alias field in the Risk Threshold record will be displayed in the cell in the Risk Matrix (according to the complete template that is defined in the Alias Format Mask field).
Color	Character	A value indicating the color that will appear in all cells in the matrix that contain a number that falls within this risk boundary (according to the number in the **Value** box of this Risk Threshold record and other Risk Threshold records that are linked to the same Risk Matrix record).	None

Field	Data Type	Description	Behavior and Usage
Description	Character	A description of the risk level.	This value is used to identify the record. This value appears when you pause on a cell in the risk matrix.
Value	Numeric	A number that represents the risk level associated with the number in a cell in the matrix.	If a cell in the matrix contains a number greater than or equal to the risk level and less than the next highest risk level in a Risk Threshold record that is linked to the same Risk Matrix record, the number will be considered to reside within this risk level. For example, if the Value field in the Risk Threshold record Medium contains the number 10, and the Value field in the Risk Threshold record High, which is linked to the same Risk Matrix record, contains the number 100, then any cell in the matrix that contains a number greater than or equal to 10 and less than 100 will be considered Medium risk. Any number greater than or equal to 100 will be considered High risk.