

metricstream

Arno Release | SPRING '21

Risk Assessments

User Guide



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Overview

Risk Assessment is the process of identifying, quantifying, and managing the risks that may cause harm to people, assets, organization, and others. A few examples for risks are strategic failures, operational failures, financial failures, market disruptions, environmental disasters, regulatory violations.

Using MetricStream Risk Assessments, you can analyze, monitor, and evaluate how likely and severe a risk is for an organization. This helps in minimizing, effectively eliminating, and controlling the probability and impact of unfortunate events and thus maximizing the realization of opportunities.

Sections:

- [Risk Assessments Workflow](#)
- [Risk Assessments Plan Approval Workflow](#)
- [Risk Assessments Approval Workflow](#)
- [Elements of a Sample Form](#)

Risk Assessments Workflow

A typical risk assessment approach is as follows:

- Specify the assessment in the context of a single perspective. Define the type of assessment that needs to be performed for the perspective (Org-Risk, Assessable-Item Risk, and Org-Assessable Item-Risk).
- Schedule a periodic or ad hoc risk assessment of one or more risks (all risks are related to an assessable item such as Process, Product, or Objective).
- Define the scope for the assessment and assign it to an assessor.
- The risk assessments are triggered to the selected assessors based on the frequency defined at the plan/individual assessment level.
- Risk assessors respond to one or more factors to arrive at the inherent and residual scores and ratings.
- The assessment is sent to the approver (optional step).
- Assign a two-stage approval process for each of the risk assessment content. Depending on the approval cycle setup, on creation of the risk assessment contents, the required form is assigned to the selected approver.
- Define ongoing risk assessments for the scopes defined in the risk plans. For more information, see [Ongoing Risk Assessments](#).

The following figure explains the workflow of **Risk Assessments**.

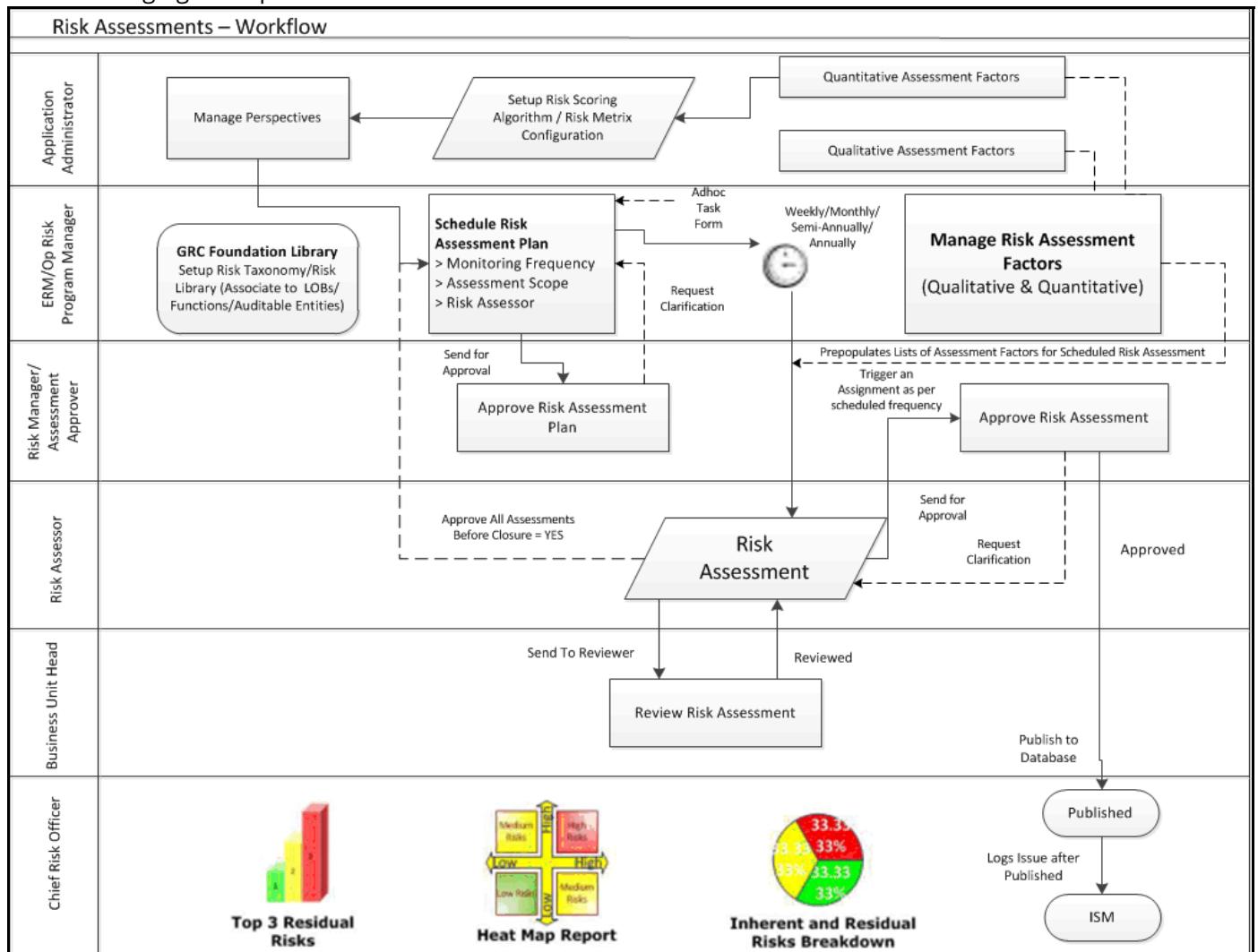


Figure 1 Risk Assessments Overall Workflow

1. The administrator sets up the risk assessment before performing it. Setting up risk assessments comprises defining factors (quantitative and qualitative) for assessments, defining risk profile, defining risk matrix configuration, defining risk scoring algorithm (only applicable if you are using Scoring Algorithm method for

assessment), specify heat map configuration (only applicable if you are using Scoring Algorithm method for assessment), and creating perspective for assessment.

2. The risk assessment plan **Initiator** creates the risk assessment plan by specifying the schedule, assessment scope, ownership, settings, and additional details.
3. The **Initiator** submits the plan to the owner for review and approval.
4. The **Plan owner** approves the plan and sends it to level 1 or level 2 approver based on the approval stages defined by the initiator.
5. **Level 1 plan approver** or **Level 2 plan approver** approves the plan and publishes it.
6. Once the risk assessment plan is published, the selected **Assessor** receives the assessment based on the schedule specified in the risk assessment plan.

Note: You can trigger risk assessment on an ad hoc basis using the [Risk Assessment Task Form](#). The creator of the task can choose to inherit the original assessment scope from the plan, or modify the scope, before sending the task to the assessor.

7. Once the risk assessment is completed, it is sent to the reviewer for review if opted for review. The reviewer provides comments and sends the form back to the **Assessor**.
8. The **Assessor** makes the changes suggested by the reviewer, if any, and submits the assessment details for approval.
9. The approver approves and publishes the risk assessment results.

Notes:

- The risk assessment plan owner can cancel the plan; the plan initiator is notified.
- The level 1 or level 2 plan approver can cancel the plan; the plan owner and the initiator are notified.
- The risk assessor or assessment approver can cancel a risk assessment; the plan owner is notified about the cancellation.

Risk Assessments Plan Approval Workflow

The following figure displays the approval workflow involved in the Risk Assessments plan.

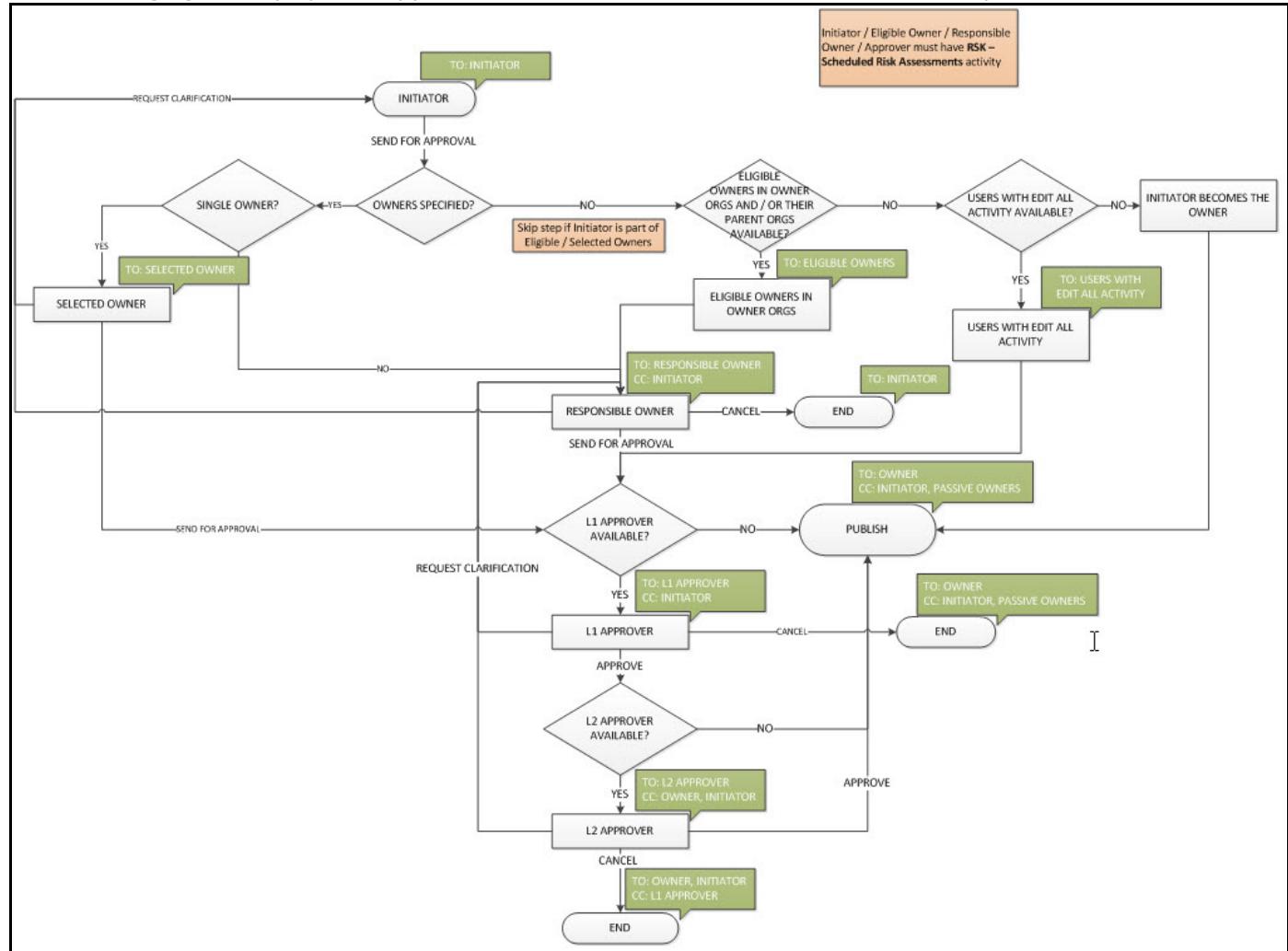


Figure 2 Risk Assessments Plan Approval Workflow

The following steps help you understand the workflow of the Risk Assessments Plan.

1. If the risk assessment plan initiator and owner is the same person, then the **Risk Assessment Plan** form is routed to the level 1 and level 2 approvers (If approvers are selected in the **Risk Assessment Plan** form).
 - If the risk assessment plan initiator and owner are not the same, then the **Risk Assessment Plan** form is routed to the plan owner selected in the **Owners** field of the form, for review. The plan owner can route the **Risk Assessment Plan** form to the initiator or send it to level 1 and level 2 approvers, if specified. If no level 1 or level 2 approvers are specified, the workflow is completed and the plan is published. The plan owner and approver can send the respective form back to the previous level for clarification.

Note: To select a level 2 approver, you must first select the level 1 approver. Otherwise, **Level 2 Approver** field is not populated.
 - If no owners are specified in the **Risk Assessment Plan** form, then the form is routed to all the users with **RSK Edit Risk Assessment Plan** activity in the selected owner organizations.

Note: For details, see [Organization Structure](#).

 - If no valid users are found with **RSK Edit Risk Assessment Plan** activity in any of the selected owner organizations, then the **Risk Assessment Plan** form is routed to any valid user with the **RSK Edit All Risk Assessment Plans** activity.
 - If no valid users are found with **RSK Edit All Risk Assessment Plans** activity, then the **Risk Assessment Plan** form is routed to the risk assessment plan initiator.
2. At each stage, the owner/approver can perform the following actions:
 - **Request Clarification:** To get clarification from the plan initiator/owner.

Note: If the plan owner requests for clarification, the plan initiator receives the assignment. If the plan approvers (level 1 or level 2) request for clarification, the plan owner receives the assignment.
 - **Approve:** To approve the risk assessment plan. Then the **Risk Assessment Plan** form is routed to the next approver (If there are no other approvers, the risk assessment plan is published).
 - **Cancel:** To cancel the risk assessment plan.

Notes:

- The canceled risk assessments are not available in the data browser and other reports.
- Two users cannot edit the published risk assessment plans simultaneously.

Risk Assessments Approval Workflow

The following figure displays the workflow involved in the risk assessments approval workflow process.

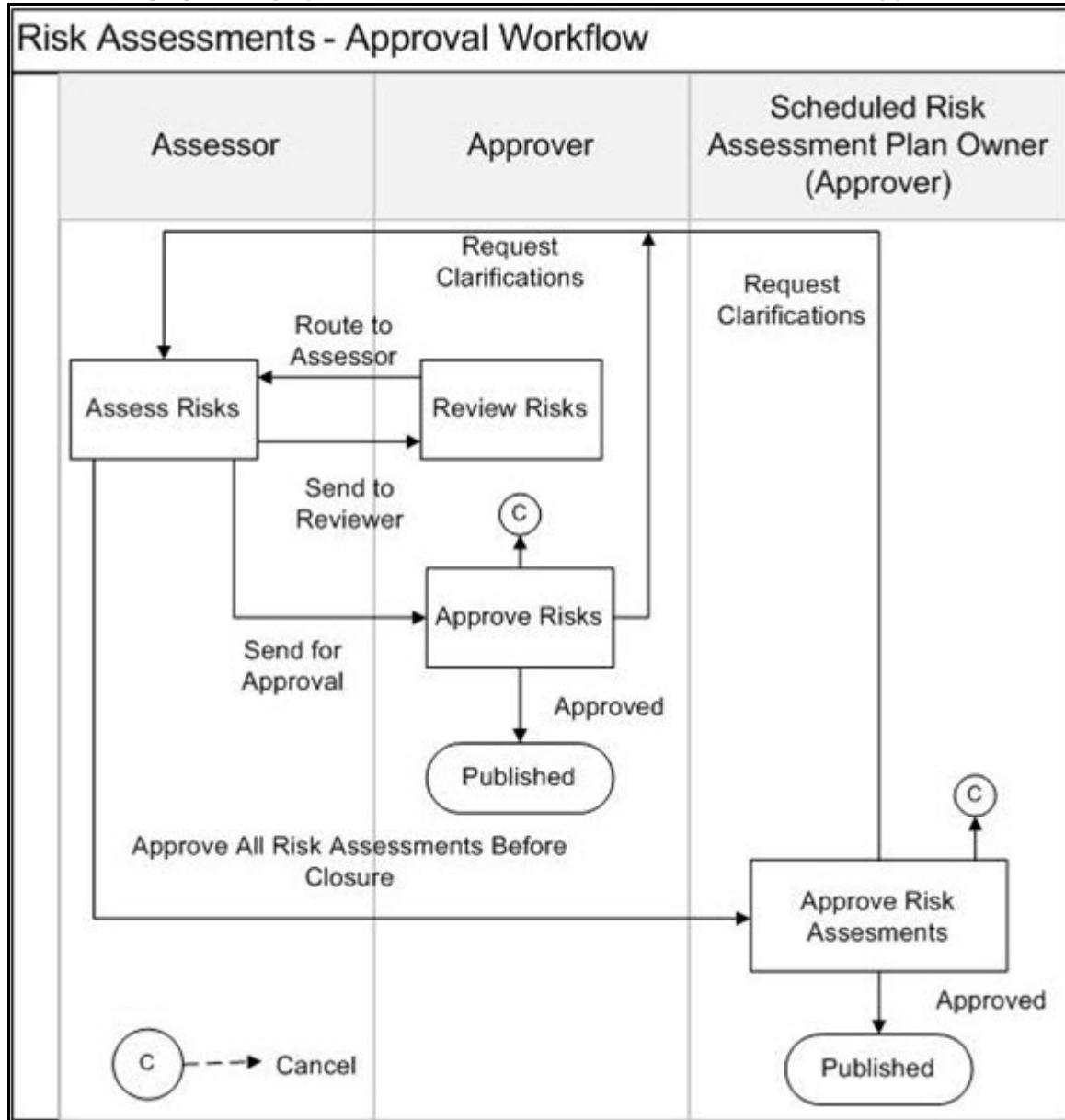


Figure 3 Risk Assessments Approval Workflow

The following steps help you understand the approval workflow of the risk assessments.

1. The risk assessor assesses the risk and sends the **Risk Assessment** form to the reviewer for review.
2. The reviewer reviews the form, provides comments, and routes it back to the assessor with the review comments.

Note: The review stage is optional and no data can be modified by reviewer except providing comments. You can skip the review stage if not required.

3. The assessor makes the changes suggested by the reviewer, if any, and sends the form to the assessment approver if selected in the scope defined in the risk assessment plan.
4. The assessment approver then approves the risk assessment results and publishes it
5. The approver approves and publishes the risk assessment results.

Notes:

- If you select only the assessment approver and no final approver is selected in the **Risk Assessment Plan** form, then the **Risk Assessment** form will be published after the assessment approver approves the **Risk Assessment** form.
- If assessment approver is not selected, but only the final approver is selected, then the **Risk Assessment** form is routed to the final approver directly for approval. Once the final approver approves the **Risk Assessment** form, it will be published.
- If both the assessment approver and final approver are selected as the same person (**Assessment Approver**), then the **Risk Assessment** form will be published after the approval by the assessment approver.
- If both the assessment approver and final approver are selected as different persons (**Assessment Approver** and **Assessment Plan Owner** respectively), then the **Risk Assessment** form is first routed to the assessment approver and then routed to the final approver; the form will be published after the final approver (**Assessment Plan Owner**) approves the **Risk Assessment** form.
- The risk assessor or assessment approver can cancel a risk assessment; the plan owner is notified about the cancellation.

Elements of a Sample Form

The following figure illustrates the elements of a sample form.

RISK ASSESSMENT PLAN STAGE 1 OF 4
RISK OF THEFT OF PHYSICAL ASSETS BY EXTERNAL PARTY

Frequency: No Scheduling Status: New Risk Assessment Type: Org - Assessable Item - Risk

Save Send for Approval Close

General
Details
Validity
Scheduling
Assessments
Ownership and Security
Settings
Additional Details

33%

GENERAL
Use this section to specify the basic details of the Risk Assessment Plan such as Name, Perspective, Purpose/Scope and Instructions, and Validity of the assessment plan.

Details

Name*: Risk of theft of physical assets by external party

Status: New

Perspective*: Scoring Algorithm Method - O...

Risk Assessment Type: Org - Assessabl...

Purpose/Scope*: The assessment is to rate the impact and likelihood of theft of physical assets by external party. The Risk is assessed against

Figure 4 Sample Form Layout

The numbered callouts identify the following:

1. Header - Provides a high-level overview about the risk assessment plan. See [Header](#).

Note: You can click to activate the full screen mode.

2. Form Sections - Displays relevant fields to capture the required information. By default, the sections are displayed in the expanded format. Click to collapse the section.
3. Navigation to Sections: Click the section name to navigate to a particular section.
4. Percentage Completion - Indicates the percentage completion of the form. After you provide inputs in all the mandatory fields of all the sections, a green tick appears, which indicates that the form is 100% complete.

Header

The header provides a quick overview about the form by displaying the primary and secondary titles, workflow stage, and few key fields. It also allows you to take relevant action on the form.

RISK ASSESSMENT PLAN STAGE 2 OF 4
RISK OF THEFT OF PHYSICAL ASSETS BY EXTERNAL PARTY

Frequency: No Scheduling Status: New Risk Assessment Type: Org - Assessable Item - Risk

Save Send for Approval Close

Figure 5 Header section of a Form

The numbered callouts identify the following:

1. Primary title
2. Secondary title

3. Workflow stage indicator
4. Key fields
5. Action Tool Bar

Title

The form title can be categorized into primary and secondary. The form name appears in the primary title, for example, Risk Assessment Plan. The name provided for the risk assessment plan appears in the secondary title, which appears just below the primary title. The secondary title appears as soon as you enter the risk assessment plan name in the **Name** field and click outside. At the initial stage (stage 1), the Plan ID is not appended together with the secondary title. From the second stage onwards, the Plan ID is appended together with the secondary title.

Workflow Stage Indicator

The workflow stage indicator is available on the left corner of the form adjacent to the form title, as shown below.

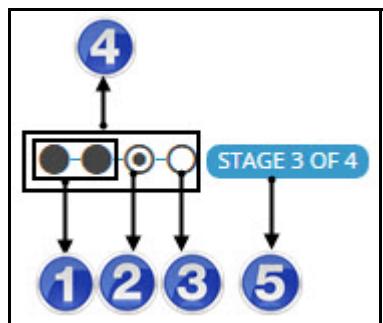


Figure 6 Workflow Stage Indicator

The numbered callouts identify the following:

1. Workflow stages that are already completed
2. Current workflow stage depicted through figure.
3. Workflow stages that are yet to be completed
4. Total workflow stages.
5. Stage indicator, where the current workflow stage is explained in words.

When the form is at the initiation stage, the workflow stage indicator displays four circles as shown in the fourth callout in the preceding figure. The number of circles is determined by the maximum workflow stages applicable for the form at the initiation stage. The completed workflow stages are displayed in black circles and the current workflow stage (level 1 approval) appears with a small circle within the empty circle. This indicates that out of the total four workflow stages available, the current workflow is at the third stage (that is, level 1 approval stage). To know the details of each workflow stage, move the pointer over the circle indicating that particular stage. Tooltips are displayed, which provide the following details.

Workflow Stage	Workflow Indication	Tooltip Description
Initiation Stage	 STAGE 1 OF 4	<ul style="list-style-type: none"> • Current Stage: Indicates the name of the current stage.

Workflow Stage	Workflow Indication	Tooltip Description
Owner Review Stage		<ul style="list-style-type: none"> • Current Stage: Indicates the level of approval at this stage. • Assigned By: Indicate the user who has worked on the assignment on the previous stage and assigned the assignment to the current user • Assigned on: Indicates the date on which the assignment was assigned.
Level 1 Approval		<ul style="list-style-type: none"> • Current Stage: Indicates the level of approval at this stage. • Assigned By: Indicates the user who assigned the assignment to this stage. • Assigned on: Indicates the date on which the assignment was assigned.
Level 2 Approval		<ul style="list-style-type: none"> • Current Stage: Indicates the level of approval at this stage. • Assigned By: Indicates the user who assigned the assignment to this stage. • Assigned on: Indicates the date on which the assignment was assigned.

Depending on the workflow stages defined in the **Ownership and Security** section of the form, the number of circles in the workflow indicator is dynamically updated on reaching that particular workflow stage. For example, during the initiation stage, the workflow indicator displays four circles as four workflow stages are defined in the configuration.

Consider that during the owner stage, you selected only the owner and no approvers are selected. When the form is at the Owner stage, the workflow Indicator is automatically updated to two circles as only two levels of workflow are defined in the **Ownership and Security** section. The first circle will be completely in black and the second circle will be highlighted. This means that the first workflow stage is completed and the current stage is in owner review.

The stage indicator text field, as shown in the 5th call out in the preceding figure indicates the current workflow stage, based on the total number of workflow stages defined for the form. For example, if the workflow process involves four stages, and you are currently in the third stage, then, it is displayed as **STAGE 3 OF 4**.

Key Fields

The key fields that are considered significant for the form are displayed in the header. This helps you to get a quick overview about the important fields in the form.

Header Toolbar

The header toolbar comprises icon to download the related reports and action buttons to take action on the form. The following table provides information on the commonly used icon and action buttons.

Note: Based on the workflow stage, one or more additional action buttons may be available. These actions are documented at the end of the each workflow procedure.

Button/Icon	Description
	<p>Click this button to view the reports related to the current form. To view the reports, perform the following steps:</p> <ol style="list-style-type: none"> 1. Click the Related Reports icon. <p>A list of related reports appears.</p> <ol style="list-style-type: none"> 2. Click on the report name that you want to view. <p>The respective report appears.</p> <p>Note: This button is not visible when the form is at the initiation stage.</p>
Save	Click this button to save the form as a working draft without processing it to the next workflow stage.
Send for Approval	Click this button to send the form for approval.
Submit	<p>Click this button to list the various actions available. Select the required action, and click the Submit button to route the form to the corresponding workflow stage.</p> <p>The following actions are available:</p> <ul style="list-style-type: none"> • Send for Approval: Select this option to send the form for approval. • Send for Review: Select this option to send the form for review. • Request Clarification: Select this option to send the form back to the previous stage for further clarification. <p>After you select any one of the preceding options, the Comments window appears.</p>

APPROVE

Comments

Provide your comments here

(7/4000)

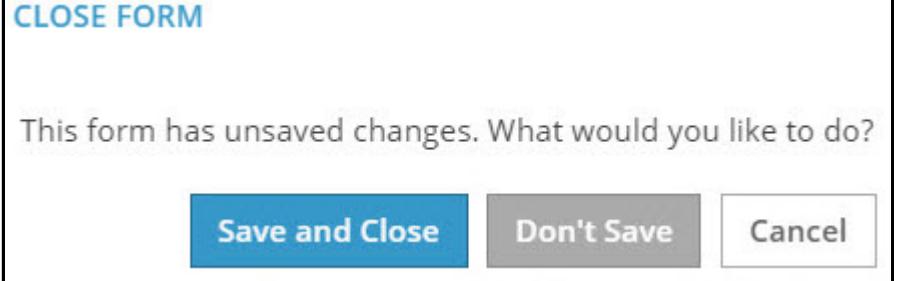
Submit

Cancel

Use the **Comments** window to provide your comments regarding the action selected and click the **Submit** button to save the comments and submit the form.

Notes:

- You can submit the form even if you do not provide any comments at the creation stage. However, if the comments are mandatory in any of the stages (for example, request clarification), you must provide the comments to submit the form.
- Click the **Cancel** button to close the **Comments** window and return to the form. This action cancels the form submission.

Button/Icon	Description
Close button	<p>Click this button to close the current form. When you click this button, the Close Form dialog box appears.</p>  <p>The dialog box has a title bar labeled "CLOSE FORM". The main message says "This form has unsaved changes. What would you like to do?". Below the message are three buttons: "Save and Close" (blue), "Don't Save" (gray), and "Cancel" (white).</p> <p>The following actions are available:</p> <ul style="list-style-type: none"> • Save and Close: Click this button to save the form as a working draft and close the form without processing it to the next workflow stage. • Note: You can access the form from the My Tasks menu later and continue working. • Don't Save: Click this button if you do not want to save the changes done in the form. • Cancel: Click this button to close the dialog box and return to the form.

Risk Assessments Setup

The administrator sets up the essential building blocks for risk assessments, such as perspectives, assessment factors, scoring algorithm, and risk assessment profiles.

Sections:

- [Setting Up Risk Assessments](#)
- [Quantitative Factors](#)
- [Qualitative Factors](#)
- [Risk Scoring Algorithm](#)
- [Defining Risk Assessment Profile](#)
- [Perspectives](#)
- [Configuring Organization Weighting](#)
- [Defining Risk Aggregation Weight](#)
- [Risk Aggregation View Form](#)

Setting Up Risk Assessments

The admin or program manager in the organization sets up risk assessments. Setting up risk assessments comprises the following:

- Defining Assessment Factors (Quantitative/Qualitative)
- Configuring Risk Scoring Algorithm and Risk Profile (risk matrix and heat map)
- Creating Perspectives

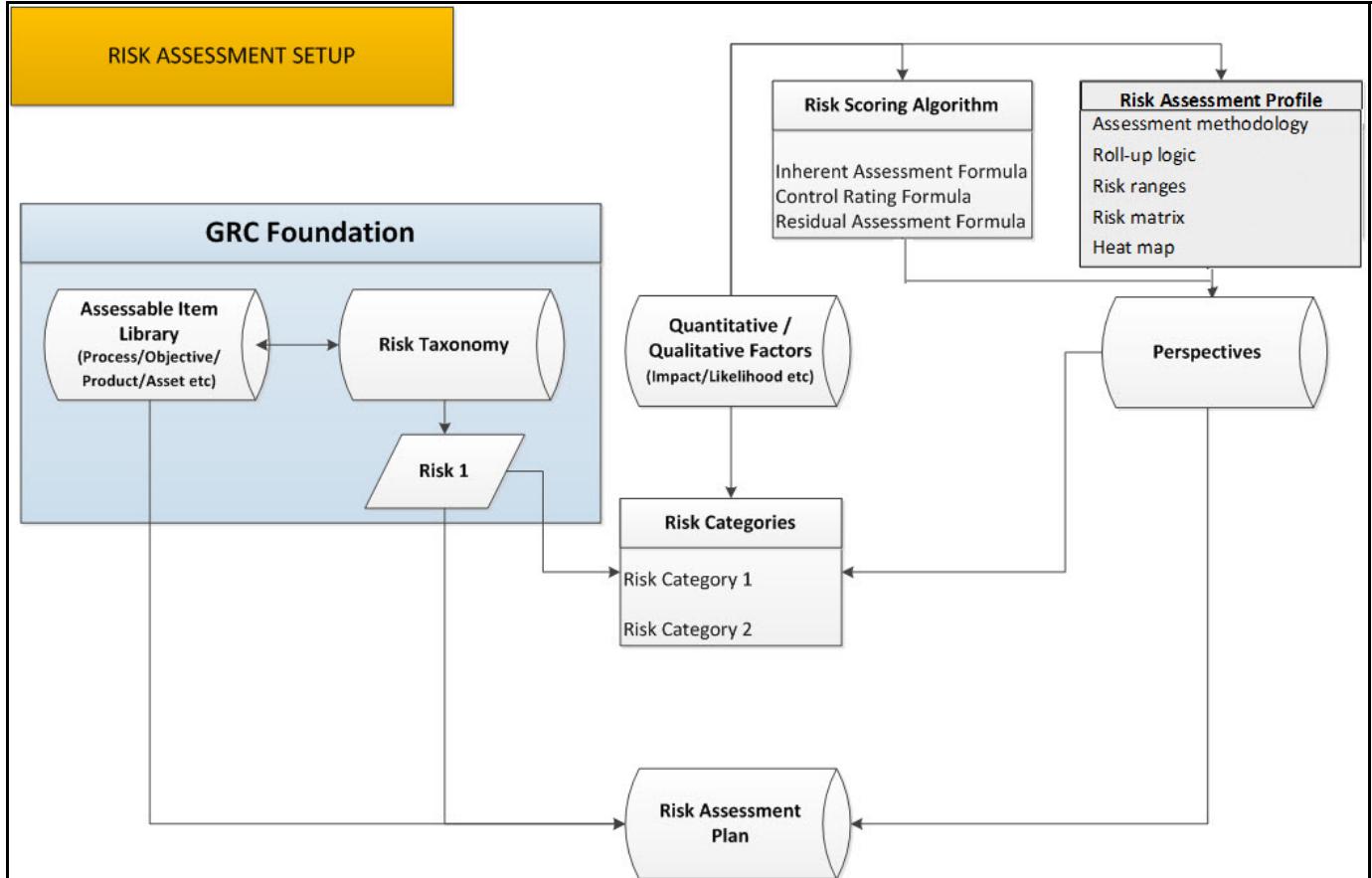


Figure 7 Risk Assessment Setup Workflow

Note: Providing risk categories is optional and is configurable.

Quantitative Factors

Quantitative factors are directly assessed and the assessment ratings directly contribute to the overall risk score and rating. Examples of quantitative factors are Impact, Likelihood, Velocity, and so on. You can add quantitative factors for control environment assessment also.

Users with the **administrator** role or **RSK Manage Factors** access rights can view, create and manage Quantitative Factors so as to perform risk assessments in a quantitative manner.

There are two types of assessment factors:

- **Standard factors:** Standard factor are those factors having a default weight of 100%. The weight cannot be modified, and the assessment rating provided by the assessor is taken as a whole for the overall risk rating calculation. Example: Impact, Likelihood, Velocity, Dollar Exposure, and so on are standard factors.
- **Non-standard factors:** Non-standard factors are those factors whose weight can be modified by the user by defining the factor and optionally by the assessor at the time of assessment. The factor carries a 100% weight by default, but you can modify the weight value. For example, consider that the factor rating is provided as High, which translates to a score of 5, and the weight value is modified to 50%. After applying the weight, the score becomes 5 X (50%) resulting in a score of 2.5, whose corresponding rating could be medium. Non-standard factors cannot be plotted on heat map.

You can tag or select risk assessment factors as rule based or list of values.

Rule Based Factors

When you tag a factor as Rules Based, it lets you define rules (essentially numeric ranges) and corresponding ratings and scores. The assessor can provide a numeric value during assessment, which is verified against the rules or ranges defined. Based on the closest match, the rating and score is arrived at.

Note: You cannot add rule-based factors for control environment assessment.

List of Values Factors

When you tag a factor as List of Values, it allows you to define the factor in such a way that the responses are available in the form of a drop-down list, and the assessor can select the most appropriate response from multiple values available during risk assessment. Typically, these values are ratings such as High, Medium, Low, and so on that is translated to its corresponding score.

The various sections of the **Quantitative Factor** form are described below with relevant figures.

Header section of Quantitative Factor Form

The header provides a quick overview about the **Quantitative Factor** form.

Note: The field-related information is automatically displayed in the header when you open the form.

QUANTITATIVE FACTOR IMPACT	Segmentation Main Factor	Status New	Standard Factor Yes	Save	Submit	Close
Factor Type List of Values				 		

Figure 8 Header section of Quantitative Factor Form

The header comprises:

- **Quantitative Factor Name:** The name provided for the Quantitative Factor is displayed in this field.
- **Segmentation:** The default factor segmentation value is displayed in this field.

- Status:** The status is always **New** at the creation stage. However, after you submit the form, the status is automatically updated based on the next workflow stage.
- Standard Factor:** Indicates whether the factor is standard or non-standard. If the Standard Factor check box is selected, the value is displayed as **Yes**, else, the value is displayed as **No**.
- Factor Type:** The factor type selected is displayed here. If **List of Values** option is selected, the value is displayed as **List of Values**. If **Rules Based** option is selected, the value is displayed as **Rules Based**.

For more information on header, see [Header](#).

General section of Quantitative Factor Form

Use the **General** section to provide the details of the **Quantitative Factor** such as name, classification, and validity.

GENERAL

Details

Name *	Impact										
Status	New										
Description	This determines Impact of this Risk on the organization										
Applicable To *	Inherent / Residual Assessment										
	<input type="checkbox"/> Standard Factor										
Input Type and Weight *	<table border="1"> <tr> <td>Input Type Percentage</td> <td>Default Weight 100</td> </tr> </table>	Input Type Percentage	Default Weight 100								
Input Type Percentage	Default Weight 100										
Classification	<table border="1"> <tr> <td>Sort Order *</td> <td>14</td> </tr> <tr> <td>Factor Type *</td> <td>List of Values</td> </tr> <tr> <td>Factor Segmentation *</td> <td>Segmentation Main Factor</td> </tr> <tr> <td>Factor Contribution *</td> <td>Increases Inherent Risk</td> </tr> <tr> <td>Risk Categories *</td> <td> <input checked="" type="checkbox"/> Business Relationships <input checked="" type="checkbox"/> Business Resiliency and Continuity </td> </tr> </table>	Sort Order *	14	Factor Type *	List of Values	Factor Segmentation *	Segmentation Main Factor	Factor Contribution *	Increases Inherent Risk	Risk Categories *	<input checked="" type="checkbox"/> Business Relationships <input checked="" type="checkbox"/> Business Resiliency and Continuity
Sort Order *	14										
Factor Type *	List of Values										
Factor Segmentation *	Segmentation Main Factor										
Factor Contribution *	Increases Inherent Risk										
Risk Categories *	<input checked="" type="checkbox"/> Business Relationships <input checked="" type="checkbox"/> Business Resiliency and Continuity										
Validity	<table border="1"> <tr> <td>Dates</td> <td> Valid From 05/29/2018 </td> <td> Valid Until 06/09/2018 </td> </tr> </table>	Dates	Valid From 05/29/2018	Valid Until 06/09/2018							
Dates	Valid From 05/29/2018	Valid Until 06/09/2018									

Figure 9 General section of Quantitative Factor Form

Field/List Name	Description
Details	
Name	<p>Specify the name of the Quantitative Factor form. Examples: Impact, Likelihood, Velocity You can create multiple quantitative factors with the same name. After submitting the form, for each quantitative factor, a unique ID is generated.</p> <p>Note: Once you enter the quantitative factor name and click anywhere outside the field, the quantitative factor name appears in the header of the form. After you submit the form, a unique ID is generated, which is appended to the content title in the header. For more information, see Header section of Quantitative Factor Form.</p>
Status	<p>The current status of the quantitative factor is displayed in this field. When you create a quantitative factor for the first time, the status always appears as New.</p> <p>After you submit the form, the status of the Quantitative Factor form is automatically updated.</p>
Description	<p>Provide a detailed description of the quantitative factor based on its usage and context to which it is applicable. You can also attach documents and images. Click anywhere within the text box to type the description.</p>
Applicable To	<p>Specify whether the factor is used for Control Framework Assessment or Inherent/Residual Assessment or Individual Control Assessment.</p>
Standard Factor check box <i>(available only for Inherent/Residual Assessment)</i>	<p>Use this check box to classify the quantitative factor as standard or non-standard.</p> <ul style="list-style-type: none"> If you select the check box, the factor becomes a standard factor. You need not define a weightage value for standard factors. The default weight for standard factors is always 100%, and cannot be modified. If you do not select the check box, the factor becomes a non-standard factor. You have to provide a weight value for standard factors, which is multiplied with the factor score provided during risk assessment. You can specify the weight in terms of number or percentage. <p>For example, consider that you have defined a factor named Financial Impact. The user has rated the factor as High, which is translated to a score of 5, and applied a weight of 50%. The final score contribution of the factor becomes 50% of 5 = 2.5, which is rounded off to 3.</p>

Field/List Name	Description
Input Type and Weight <i>(this field is visible only for non standard factors. Also, this field is not visible Individual Control Assessments Sub Factors)</i>	<p>Specify the input type and default weight factor for the current quantitative factor. The available fields are:</p> <ul style="list-style-type: none"> • Input Type: Use this field to provide weight aspect to each non-standard factors defined in the system. The available values are: <ul style="list-style-type: none"> ◦ Number ◦ Percentage <p>Note: For a quantitative factor created for Control Framework Assessment, only Percentage is available as Input Type.</p> <ul style="list-style-type: none"> • Default Weight: Specify the weight factor for the quantitative factor. The default value is 100. <p>The final computation of factor score is based on the input type provided and value selected in the Default Weight field.</p> <p>For instance,</p> <p>If factor score is 5, and if the input type is selected as Percentage and Default Weight field as 50%, the final computed score of the factor is $5 \times 50\% = 2.5$, which is rounded off to 3.</p> <p>If factor score is 5, if the input type is selected as Number and Default Weight field is 50, the final computed score of the Factor is $5 \times 50 = 250$.</p>
Sort Order <i>(this field is not visible Individual Control Assessments Sub Factors)</i>	<p>Provide a position (number) to determine the order in which the factor should appear in the Risk Assessment form.</p> <p>Notes:</p> <ul style="list-style-type: none"> - The factors with same Sort Order value will be sorted alphabetically. - All factors will be sorted based on the Sort Order specified irrespective of the type of factors such as standard or non-standard and qualitative or quantitative.

Field/List Name	Description		
Factor Name	Factor Segmentation	Hierarchical Factor of the Sub Factor	Sort Order
Quantitative Factors			
Vulnerability	Main Factor	Not applicable	4
Speed of Onset	Main Factor	Not applicable	3
Impact	Hierarchical Factor	Not applicable	2
Likelihood	Hierarchical Factor	Not applicable	3
Reputational Impact	Sub Factor	Impact	1
Client Impact	Sub Factor	Impact	4
Market Impact	Sub Factor	Impact	2
Financial Impact	Sub Factor	Impact	3
Reputational Likelihood	Sub Factor	Likelihood	1
Market Likelihood	Sub Factor	Likelihood	2
Qualitative Factors			
How many Fraudulent Incidents are recorded in a quarter?	Not applicable	Not applicable	1
Does your company have access to and an understanding of all legislation relevant to your company?	Not applicable	Not applicable	9
Does the supplier maintain documentation in the areas covered by the Workplace Code of Conduct?	Not applicable	Not applicable	10

On the **Risk Assessment form**, the factors appear in the following order:

How many Fraudulent Incidents are recorded in a quarter?	
Impact	Reputational Impact Market Impact Financial Impact Client Impact
Likelihood	Reputational Likelihood Market Likelihood
Speed of Onset	
Vulnerability	
Does your company have access to and an understanding of all legislation relevant to your company?	
Does the supplier maintain documentation in the areas covered by the Workplace Code of Conduct?	

Classification

Field/List Name	Description
Factor Type	<p>The field determines the type of factor responses that can be provided during risk assessment. The available options are:</p> <ul style="list-style-type: none"> • List of Values • Rules Based <p>Note: The Rule Based option is unavailable for a factor created for Control Framework assessment.</p> <p>List of Values: If you choose the value as List of Values, then you can define a definitive set of responses from which the assessor can choose a response at the time of risk assessment. For example, for a factor called Impact, the possible set of values can be High, Medium and Low. The assessor can select one of the three values at the time of risk assessment.</p> <p>Notes:</p> <ul style="list-style-type: none"> - List of Values is not applicable for hierarchical factors. If you have selected a value other than Hierarchical Factor in the Factor Segmentation list, and then later change the value to Hierarchical Factor, then the value in the Factor Type list will automatically be changed to Rules Based, and becomes a non-editable field. - In the Applicable To field for Individual control Assessment, Factor type is always List of Values for all factor segmentation types. <p>Rules Based: If you choose the value as Rules Based, then you can define a set of numeric ranges with scores tied to each range. During risk assessment, the assessor has to provide a value in the respective column; the value will in turn be mapped to one of the ranges defined. This field supports positive, negative, integer, and decimal values.</p>

Field/List Name	Description
Factor Segmentation	<p>This field determines the structure of the factor. The available options are:</p> <ul style="list-style-type: none"> • Hierarchical Factor • Main Factor (Default value) • Sub-Factor <p>Notes:</p> <ul style="list-style-type: none"> - Only Main Factor option is available when you create a factor for Control Framework assessment. - For Individual Control Assessment type, you can create only Hierarchical Factor & Sub Factors. <p>Main Factor:</p> <p>Main Factors have a flat structure, and are directly assessed. The scores and ratings calculated for main factors directly contribute to calculate the overall risk score and rating. Main factor can either be a standard or non-standard factor.</p> <p>Example: Number of employees</p> <p>Hierarchical Factor and Sub-Factor: Hierarchical and sub-factors share a parent-child relationship. You can map multiple sub-factors to a single hierarchical factor. When there are sub-factors defined for a hierarchical factor, the sub-factors are directly assessed, and they together contribute to the score and rating for the hierarchical factor based on the computation logic selected.</p> <p>Example:</p> <p>Hierarchical Factor: Impact Sub-Factors: Financial Impact, Reputational Impact</p> <p>In the above example, if the computation logic selected is sum, then the hierarchical factor score is the sum of all the sub-factor scores.</p> <p>The score displayed for the hierarchical factor is based on the score arrived at using the computation logic specified. The same is then mapped against the ranges defined in the hierarchical factor and the rating is picked corresponding to the range within which the computed score falls.</p> <p>If there are no sub-factors mapped to the hierarchical factor, then the hierarchical factor can be assessed directly.</p> <p>You can map a standard sub factor only to a standard hierarchical factor and non-standard sub factor only to a non-standard hierarchical factor.</p> <p>Note: The sub-factors on which the risk assessment will be performed are dependent on the parent factor selected within the Perspective form. Therefore, it is not possible to have different set of sub-factors in one perspective and another set of sub-factors in another perspective. For example, if Impact as a factor is selected as a measure in the Perspective form and it has three sub-factors, then all these three sub factors will be used for assessment. It is not possible to have two factors on one assessment and other one on the assessment.</p>

Field/List Name	Description
Sub Factors <i>(appears only if you select the value Individual Control Assessment in the Applicable To field and select the value Hierarchical Factor in the Factor Segmentation field)</i>	<p>Select the Sub Factor 1 and Sub Factor 2 to map them to Hierarchical Factor.</p> <p>Note: In individual control assessment, the sub factors created cannot be removed or made inactive from the system. However, you can unlink the sub factor from the hierarchical factor.</p>
Computation Logic <i>(appears only if you select the value Inherent/Residual Assessment in the Applicable To field and select the value Hierarchical Factor in the Factor Segmentation field)</i>	<p>Determines the logic that has to be applied on the sub factor scores to calculate the resultant hierarchical factor score. The available options are:</p> <ul style="list-style-type: none"> • Average • Maximum (default value) • Minimum • Product • Sum <p>Example: Hierarchical Factor: Impact Sub-Factors: Financial Impact, Reputational Impact Score: Financial Impact = 4, Reputational Impact=8</p>

- **Average:** The hierarchical factor score is calculated by adding the sub-factor scores, divide the sum by 2.

Average: Impact - AVG (Financial Impact, Reputational Impact) = $4+8/2 = 6$

Note: If Sub-Factors have weighting applied, the average is weighted average.

- **Maximum:** The hierarchical factor score is calculated by taking the maximum value from all the sub-factor scores.

Maximum: Impact - MAX (Financial Impact, Reputational Impact) = 8

- **Minimum:** The hierarchical factor score is calculated by taking the minimum value from all the sub-factor scores.

Minimum: Impact - MIN (Financial Impact, Reputational Impact)= 4

- **Product:** The hierarchical factor score is calculated by multiplying the score of all the sub-factors.

Product: Impact - PROD (Financial Impact, Reputational Impact) = $4*8 = 32$

- **Sum:** The hierarchical factor score is calculated by adding the scores of all the sub-factors.

Sum: Impact - SUM (Financial Impact, Reputational Impact) = $4+8 = 12$

Field/List Name	Description
Hierarchical Factors <i>(appears only if the Factor Segmentation value is chosen as Sub Factor)</i>	<p>Use this field to map sub factors to a hierarchical factor so that the score of sub factor rolls up to the hierarchical factor based on the computation logic defined.</p> <p>Notes:</p> <ul style="list-style-type: none"> The sub factors are populated in the Risk Assessments form, based on the risk categories and the hierarchical factor to which they are associated. Sub factors tagged as standard factors can be associated only with hierarchical factors tagged as standard factors. Similarly, sub factors tagged as non-standard factors can be associated only with hierarchical factors tagged as non-standard factors.
Factor Contribution <i>(this field appears only for non standard factors and if the Factor Segmentation is selected as Hierarchical Factor or Main Factor)</i> Note: This field is unavailable for factors for control framework assessment.	<p>This field is visible only for Non-Standard Factors, and is used to specify how the Factor score and rating contribute to the overall risk assessment.</p> <ul style="list-style-type: none"> Increases Inherent Risk: The factor contributes to increase the inherent risk rating. Reduces Inherent Risk: The factor contributes to reduce the inherent risk rating. Reduces Residual Risk: The factor contributes to reduce the residual risk rating. <p>If the value chosen is either Increases Inherent Risk or Reduces Inherent Risk, the factor is available only for inherent risk assessment. If the value chosen is Reduces Residual Risk, the factor is available only for residual risk assessment.</p>
Risk Categories	<p>Select the risk categories to which the quantitative factor is mapped.</p> <p>If the Assess Risk Based on Assessment Category check box in the Perspective form is selected, the risk categories selected for a factor must match with the ones that are mapped to the risk being assessed.</p> <p>The values in this field are populated from GRC Library. The risks categories are created in the GRC Library and used in the Risk Assessments during the risk assessment. The risks associated with the selected risk categories are available for selection based on the risk category related the perspective. For example, If you have selected a risk category called 'Business Relationships', which is associated with three risks, all the three risks are available during the risk assessment stage for the current quantitative factor.</p> <p>Note: Risk categories of the sub-factors are derived based on the risk category of the parent factor.</p>
Applicable For <i>(this field appears only if Standard Factor check box is selected and the Factor Segmentation is selected as Hierarchical Factor or Main Factor)</i>	<p>Specify whether the factor contributes only to the Inherent section or both Inherent and Residual sections in the Risk Assessment form. The available options are:</p> <ul style="list-style-type: none"> Inherent Rating: If the standard factor rating or score is used for calculating only inherent risk rating and score, select this option. Inherent Rating and Residual Rating: If the standard factor rating or score is used for calculating both inherent and residual risk ratings and scores, select this option. <p>Note: Based on the value selected above, factors are available in their respective sections within the Risk Assessment form.</p>

Field/List Name	Description
Validity	
Dates	<p>Define the longevity of the quantitative factor by providing dates in the following fields:</p> <ul style="list-style-type: none"> • Valid From: Enter a date. On that date, the quantitative factor becomes valid or active. • Valid Until: Enter a date. On that date, the quantitative factor expires.

Rating section of Quantitative Factor Form

The **Rating** section provides the facility to define the factor response type and values. The factor response type could be either **List of values**, where a definite set of values are defined and the assessor can pick one value per factor, or **Rules Based**, where numerical ranges are defined. You can input a numerical value that is mapped against the ranges defined to arrive at a rating and score. The response type information is displayed immediately below the **Rating** header.

List of Values

The **List of Values** section defines a definite set of values for the assessor to pick for each factor (both standard and non standard). Using this section, you can define the risk rating values and the corresponding risk score. During risk assessment, the rating and score of the factor is arrived at based on the rating and score defined for the factor in this section. You can use this section to define the score and rating for Control Framework assessment using the control factors.

Note: You can define list of values for main and sub factors, but not for hierarchical factors.

RATING

List of Values

	Response *	Score *	Guidance	Response Order *
<input type="checkbox"/>	Not Effective	2		1
<input type="checkbox"/>	Partially Effective	5		2
<input type="checkbox"/>	Effective	10		3
<input type="checkbox"/>	Not Applicable	0		4

Displaying items 1 - 4 of 4 (0 Selected)

The score captured above is used only in case the control effectiveness is overridden in assessment.

Design Effectiveness	Operating Effectiveness	Overall Effectiveness *	Score*
Unlikely	Ineffective	Not Applicable	0
Unlikely	Partially Effective	Not Effective	3
Unlikely	Effective	Partially Effective	2
Possible	Ineffective	Partially Effective	1
Possible	Partially Effective	Partially Effective	8
Possible	Effective	Effective	9
Likely	Ineffective	Partially Effective	6
Likely	Partially Effective	Partially Effective	7
Likely	Effective	Effective	5

Figure 10 List of Values Section of Quantitative Assessment Factor Form

Field/List Name	Description
List of Values	Use this section to describe the user specific responses and associate a numeric score for computing inherent and residual risk scores accordingly for the factor available for risk assessment. You can use this section to capture the Control Framework assessment responses also.

Field/List Name	Description
Display 'Not Applicable' as a choice to Assessor check box	<p>Select this check box if you want to give an option to the assessor to exclude the factor from risk assessment.</p> <p>By default, all the factors are selected in the Risk Assessment form. If you select the Display Not Applicable as a choice to Assessor check box, the check box corresponding to the factor in the Risk Assessment form appears editable.</p> <p>To exclude a factor from assessment calculation, assessor can clear the respective check box in the Risk Assessment form.</p> <p>The following figure illustrates the preceding scenario in the Risk Assessment form.</p> 
Add list	<p>To add a new response and related attributes, click the Add and click End of Page link.</p> <p>Note: To add additional list of values, click this link as many times as required.</p>
Fields in List of Values Tabular Format	
Response	<p>Use this field to specify the response that must appear for the assessor to choose from the Assessment field in the Risk Assessment form.</p> <p>You can re-initiate the Factor form any time and modify the values.</p>
Score	<p>Use this field to capture the score corresponding to the response value. The score that you enter here is used to calculate the risk score.</p>
Guidance	<p>Provide the detailed guideline for each response.</p>
Response Order	<p>Use the values provided in this field to determine the sequence in which the factor responses have to be displayed in the Risk Assessment form. This is particularly useful if the responses need to be logically (Example: High / Medium / Low) sorted and not alpha-numerically. By default, for the first row, the default value in the Response Order field is displayed as 1, and subsequent rows display the subsequent numbers. However, you can edit them based on the order in which you want the responses to be displayed in the Risk Assessment form.</p>
Notes: <ul style="list-style-type: none"> - You can enter a maximum of 10 digits in this field. - The field accepts only positive integer values. 	
Sub Factor 1 <i>(Displays the name of the defined in Classification section)</i>	<p>Displays the Design Effectiveness factor selected in the Classification field.</p>
Sub Factor 2 <i>(Displays the name of the defined in Classification section)</i>	<p>Displays the Operating Effectiveness factor selected in the Classification field.</p>

Field/List Name	Description
Overall Effectiveness	From the drop down option, select the rating created in the List of Values section.
Score	Click the edit button and enter the score.
Sub Factor 1 <i>(Design Effectiveness)</i>	Displays the list of design effectiveness scales.
Sub Factor 2 <i>(Operating Effectiveness)</i>	Displays the list of operating effectiveness scales.
Overall Effectiveness	From the drop down list, select the hierarchy factor rating for every combination of sub factors. The drop down rating options available are the rating added in the List of Values section.
Score	Click the edit icon and set the score for every sub factors combination.
Delete	To delete one or more rows, select the required rows, and then click Delete . The selected rows are deleted.
Undo	To undo the deletion of columns, click Undo .
Edit	To modify the values in the selected row, click this icon

Rules section of Quantitative Factor Form

The **Rules** section appears only when you select the value **Rules Based** in the **Factor Type** field. Use this section to define the risk scoring rules for the factor. You must add at least one scoring rule in this section. You can also specify the rating for each scoring rule. During risk assessment, the rating and score of the factor is arrived at based on the rating and score defined for the factor in this section.

	Lower Value *	Upper Value *	Score *	Rating *	Default Sco...*	Guidance
<input type="checkbox"/>	1	10	1	Incidental	Yes	Select it for a ran...
<input type="checkbox"/>	11	20	2	Minor	No	Select it for a ran...
<input type="checkbox"/>	21	30	3	Moderate	No	Select it for a ran...
<input type="checkbox"/>	31	40	4	Major	No	Select it for a ran...

Figure 11 Rules Section of Quantitative Factor Form

Field/List Name	Description
Rules Use this section to describe a set of rules and assign a corresponding rating and score for the result.	
Display 'Not Applicable' as a choice to Assessor check box	<p>Select this check box if you want to give an option to the assessor to exclude the factor from risk assessment.</p> <p>By default, all the factors are selected in the Risk Assessment form. If you select the Display Not Applicable as a choice to Assessor check box, the check box corresponding to the factor in the Risk Assessment form appears editable.</p> <p>To exclude a factor from assessment calculation, assessor can clear the respective check box in the Risk Assessment form.</p> <p>The following figure illustrates the preceding scenario in the Risk Assessment form.</p> 
Input Type	<p>Use this field to classify the input type (unit of measure) for the scoring rules defined for the quantitative factor.</p> <p>The available options are:</p> <ul style="list-style-type: none"> Amount: If you select this option, it indicates that the value entered in the Lower Value, Upper Value and Score fields need to be considered as amount. Number: If you select this option, it indicates that the value entered in the Lower Value, Upper Value and Score fields need to be considered as number. Percentage: If you select this option, it indicates that the value entered in the Lower Value, Upper Value and Score fields need to be considered as percentage.
Currency <i>(appears only if you select the value Amount in the Input Type field)</i>	<p>Select the currency in which the amount to be considered. The selected currency is considered for the amount entered by the assessor during the risk assessment.</p> <p>Note: The currency codes are made available in this field by enabling them in the system. For details, refer to MetricStream Arno Release Spring '21 - Platform - Administrator Guide, Currency.</p>
Fields in Rules Based Tabular Format	
Add	<p>To add a new rule for the factor, click the Add button. The list of scoring rules-related fields appear.</p> <p>Note: To add additional scoring rules, click this link as many times as required.</p>
Lower Value	<p>Specify the lower cap for the range. This is a numeric-entry field. For example, to define a range between 10 and 20, you must enter the lower cap value of 10 in the Lower Value field.</p>

Field/List Name	Description																								
Upper Value	Specify the upper cap for the range. This is a numeric-entry field. For example, to define a range between 10 and 20, you must enter the upper cap value as 20 in the Upper Value field.																								
Score	Use the value in this field for calculating the overall risk score. The score provided here is computed against other factor scores based on the formula selected.																								
Rating	Use this field to specify the rating value corresponding to the range and the score defined in the rule.																								
Guidance	Provide the detailed guidance.																								
Default Score and Rating	<p>Indicates whether the score and rating provided in a particular row in the tabular format can be considered as the default score and rating for the current factor.</p> <p>The available options are:</p> <ul style="list-style-type: none"> • Yes - The score and rating in the row where Yes is displayed are considered as the default score and rating. • No - The score and rating in the row where No is displayed are not considered as the default score and rating. <p>The default score is applicable for main, hierarchical, and sub-factors</p> <p>The default score and rating are considered in case the value entered by the user does not match with any of the rules defined.</p> <p>Example:</p> <table border="1"> <thead> <tr> <th></th> <th>Lower Value *</th> <th>Upper Value *</th> <th>Score *</th> <th>Rating *</th> <th>Default Score and Rating *</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>1</td> <td>10</td> <td>1</td> <td>Incidental</td> <td>Yes</td> </tr> <tr> <td><input type="checkbox"/></td> <td>11</td> <td>20</td> <td>2</td> <td>Minor</td> <td>No</td> </tr> <tr> <td><input type="checkbox"/></td> <td>21</td> <td>30</td> <td>3</td> <td>Moderate</td> <td>No</td> </tr> </tbody> </table> <p>If the risk assessor enters the value 13 in the Current Assessment field, as the defined scoring rule is satisfied, the system populates 2 as the risk score and Minor as the risk rating for the current factor.</p> <p>If the value entered by the risk assessor is 35, as the defined scoring rule is not satisfied, the system populates the default risk score, that is 1, and the default risk rating, that is, Incidental for the current factor.</p> <ul style="list-style-type: none"> - You can enter a maximum of 10 digits in this field. - The field accepts positive and negative integers values. - Default score in rules based factor accepts only the values from one of the defined ranges in that factors. 		Lower Value *	Upper Value *	Score *	Rating *	Default Score and Rating *	<input type="checkbox"/>	1	10	1	Incidental	Yes	<input type="checkbox"/>	11	20	2	Minor	No	<input type="checkbox"/>	21	30	3	Moderate	No
	Lower Value *	Upper Value *	Score *	Rating *	Default Score and Rating *																				
<input type="checkbox"/>	1	10	1	Incidental	Yes																				
<input type="checkbox"/>	11	20	2	Minor	No																				
<input type="checkbox"/>	21	30	3	Moderate	No																				
Delete	To delete one or more rows, select the required rows, and then click Delete . The selected rows are deleted.																								
Undo	To undo the deletion of columns, click Undo .																								
Edit	To modify the values in the selected row, click this icon																								

Additional Details section of Quantitative Factor Form

Use the **Additional Details** section to attach documents that the user can refer to.

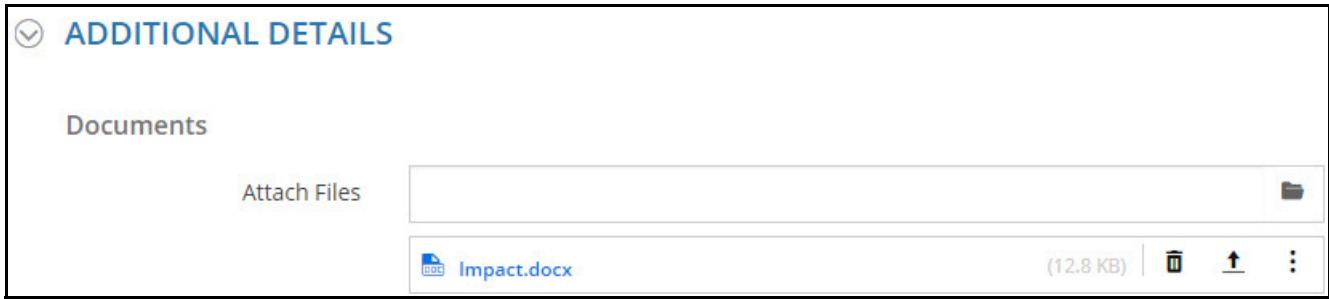
The screenshot shows the 'ADDITIONAL DETAILS' section of a Quantitative Factor form. It includes a 'Documents' section with a 'Attach Files' button and a file named 'Impact.docx' (12.8 KB) with standard file operations like delete, upload, and more.

Figure 12 Additional Details Section of Quantitative Factor Form

Field/List Name	Description
Documents	
Attach Files	<p>Attach relevant files by clicking the Browse and attach multiple files icon.</p> <p>Once you attach the file, you can perform the following:</p> <ul style="list-style-type: none"> Download the file: Click the file name to download the attachment. Delete the file: Click the Delete icon to remove the attachment. <p>Note: Attachments done in the Quantitative Factor form is available only to users who have access to the Quantitative Factor form. These attachments are not available in the Risk Assessment Plan/Task form even if those factors are used in the Plan/Task form.</p>

Actions of Quantitative Factor Form

After you enter all the details, you can perform the following actions on the **Quantitative Factor** form.

Action/Button	Description
Save	<p>Click this button to save the changes done in the form. When you click this button, the following message is displayed:</p> <p>Form saved successfully</p> <p>You can access the form from Tasks menu.</p>
Submit	Click this button to publish the factor.
Close	<p>Click this button to close the current form.</p> <p>When you click this button, the Close Form dialog box appears. The following actions are available:</p> <ul style="list-style-type: none"> Save and Close: Click this button to save the form as a working draft and close the form without processing it to the next workflow stage. <p>Note: You can access the form from Tasks menu at a later time and continue working.</p> <ul style="list-style-type: none"> Don't Save: Click this button if you do not want to save the changes done in the form. Cancel: Click this button to close the dialog box and return to the form.

Related Reports and Charts

After you submit the form, the following reports are updated:

- [Quantitative Factors Report](#)
- [Risk Assessment Profiles Report](#) and [Risk Scoring Algorithms Report](#) if the factors are used in risk matrix configuration and risk scoring algorithm.

Note: No chart is updated when **Quantitative Factor** form is published.

Copying Quantitative Factor

You can copy an existing quantitative factor to create a new factor.

1. Open the quantitative factor that you want to copy from the relevant report or data browser (for example, [Quantitative Factors Report](#)).
2. In the form header, click **Copy**.

A new factor form opens with all the details of the existing factor copied.

Note: The Copy option is available only if you have the privilege to create a new quantitative factor.

3. Edit the required details and proceed with saving or submitting the form.

Qualitative Factors

Qualitative factors are typically questions and responses that can be used for reference, reporting, and documentation. The response types include text, date, options such as Yes/No, and paragraph. The responses to qualitative factors do not directly contribute to the risk score or rating. Instead, these factors help the assessor in determining the overall score for the assessment.

Examples:

- When was the last assessment done?

The response type in this case is a date.

- Have necessary trainings been provided to all employees regarding handling of the Risks?

The response type in this case can be a response such as Yes/No.

Users with **RSK Manage Factors** access rights can view, create and manage Qualitative Factors so as to perform risk assessments in a qualitative manner.

Header section of Qualitative Factor Form

Use the header section to capture the qualitative factor name and other details.

QUALITATIVE FACTOR ARE SAFETY POLICIES BEING MONITORED PERIODICALLY?	Status New	Response Type Number					
---	---------------	-------------------------	--	--	--	--	--

Figure 13 Header of Qualitative Factor

The header comprises:

- Qualitative Factor Name:** The name provided for the Qualitative Factor is displayed in this field.
- Status:** The status is always **New** at the creation stage. However, after you submit the form, the status is automatically updated.
- Response Type:** The type of response that you want from the risk assessor for this qualitative factor is displayed here.

For more information on header, see [Header](#).

General section of Qualitative Factor

Use the **General** section to enter the details of the Qualitative factor.

Name *	What are the primary policies / procedures and controls in place to mitigate the risk
Status	New
Description	What are the primary policies / procedures and controls in place to mitigate the risks?
Response Type *	Response Type Text
Sort Order *	1
Classification	Risk Categories * * Business Strategy
Validity	Dates Valid From 05/28/2018
	Valid Until 11/30/2018

Figure 14 General Section of Qualitative Factor

Field/List Name	Description
Details	
Use this section to enter general details of the qualitative assessment factor.	
For the special characters that are restricted in free-text fields, see Restricted Special Characters .	
Name	Type the name of the qualitative factor. You can create multiple qualitative assessment factors with the same name. After providing the name, if you click outside this field, the entered name appears next to the form title. Note: For each qualitative assessment factor, a unique ID is generated, which is appended to the name that you have entered. The combination of name and ID is unique for every qualitative assessment factor.
Status	The current status of the qualitative factor is displayed in this field. When you create a qualitative factor for the first time, the status always appears as New . After you submit the form, the status of the qualitative factor form is automatically updated.

Field/List Name	Description
Description	Provide a detailed description of the Qualitative Factor based on its usage and context to which it is applicable. You can also attach documents and images, if required. Click anywhere within the text box to type the description.
Response Type	<p>Select the type of response that you want from the risk assessor for this qualitative factor.</p> <p>The available options are:</p> <ul style="list-style-type: none"> • Amount: If you select this option, the risk assessor can enter only numerical values as the response for the Qualitative factor. The value entered is interpreted as a currency value. • Date: If you select this option, the risk assessor can enter only date as the response for the qualitative factor. • List of Values: Based on the values that you define in the Value field, the risk assessor can select any one of the values as the response for the current qualitative factor. • Number: If you select this option, the risk assessor can enter only numbers as the response for the current question. • Text: If you select this option, the respondent can enter alpha-numeric values as the qualitative factor response.
Currency <i>(appears only if you select the value Amount in the Response Type field)</i>	<p>Select the currency in which the amount to be considered. The selected currency is considered for the amount entered by the assessor during the risk assessment.</p> <p>The currency codes are made available in this field by enabling them in the system. For details, refer to Currency section of MetricStream Arno Release Spring '21 - Platform - Administrator Guide.</p>
Value <i>(appears only if you select the value List of Values in the Response Type field)</i>	<p>Use this field to enter specific values, separating each value with a comma, as response to the selected response type (list of values).</p>
Sort Order	<p>Provide a position (number) to determine the order in which the factor should appear in the Risk Assessment form.</p> <p>Notes:</p> <ul style="list-style-type: none"> - The factors with same Sort Order value will be sorted alphabetically. - All factors will be sorted based on the Sort Order specified irrespective of the type of factors such as standard or non-standard and qualitative or quantitative.
Classification Use this section to categorize the qualitative assessment factor.	

Field/List Name	Description
Risk Categories	Select the risk categories to which the qualitative factor has to be mapped. If the Assess Risk Based on Assessment Category check box in the Perspective form is selected, the risk categories selected for a factor must match with the ones that are mapped to the risk being assessed.
Validity	<p>The values in this field are populated from GRC Library. The risks categories are created in the GRC Library and used in Risk Assessments during the risk assessment. The risks associated with the selected risk categories are automatically selected during the risk assessment stage for the current perspective. For example, If you have selected a risk category called 'Business Relationships', which is associated with three risks, all the three risks are populated during the risk assessment stage for the current qualitative factor.</p> <p>For more information, refer to MetricStream Arno Release Spring '21 - Governance, Risk, and Compliance Foundation - User Guide.</p>
Dates	<p>Define the longevity of the current Qualitative Factor by providing dates in the following fields:</p> <ul style="list-style-type: none"> • Valid From: Provide the date from which the plan should be valid. • Valid Until: Provide the date until which the plan should be valid. If you do not provide any date in this field, this factor possesses perpetual validity. <p>Notes:</p> <ul style="list-style-type: none"> - You must enter a date which is greater than the entered valid From date. - If you do not enter any date in this field, this qualitative assessment factor possesses perpetual validity. - The user with RSK Manage Risk Factors activity can edit this date and this qualitative assessment factor is again available in the Qualitative Factor form for assessment.

Additional Details section of Qualitative Factor

Use the **Additional Details** section to attach documents that the user can refer to.

The screenshot shows a user interface for managing additional details. At the top left, there is a circular icon with a checkmark and the text "ADDITIONAL DETAILS". Below this, the word "Documents" is displayed. To the right of "Documents" is a button labeled "Attach Files". Underneath the "Attach Files" button is a list of files. The first file listed is "Qualitative factor details.docx", which is a Microsoft Word document. To the right of the file name are its size "(12.8 KB)" and several small icons for file operations: a trash bin, an upward arrow, and a vertical ellipsis. The background of the interface is white, and the overall layout is clean and organized.

Figure 15 Additional Details Section of Qualitative Factor

Field/List Name	Description
Documents	
Attach Files	<p>Attach relevant files by clicking Browse icon.</p> <p>Once you attach the file, you can perform the following:</p> <ul style="list-style-type: none"> • View the file: Click the file name to view the attachment. • Delete the file: Click Delete icon to remove the attachment. <p>Note: Attachments done in the Qualitative Factor form is available only to users who have access to the Qualitative Factor form. These attachments are not available in the Risk Assessment Plan/Task form even if those factors are used in the Plan/Task form.</p>

Actions section of Qualitative Factor Form

After you enter all the details, you can perform the following actions on the Qualitative Factor form.

Action/Button	Description
Save	<p>Click this button to save the changes done on the form. When you click this button, on successful save of the form, the following message is displayed:</p> <p>Form saved successfully</p> <p>You can access the form from Tasks inbox at a later time and continue working on the form.</p>
Submit	Click this button to publish the factor.
Close	<p>Click this button to close the current form.</p> <p>When you click this button, the Close Form dialog box appears. The following actions are available:</p> <ul style="list-style-type: none"> • Save and Close: Click this button to save the form as a working draft and close the form without processing it to the next workflow stage. • Note: You can access the form from Tasks menu at a later time and continue working. • Don't Save: Click this button if you do not want to save the changes done in the form. • Cancel: Click this button to close the dialog box and return to the form.

Related Reports and Charts

After you submit the form, the following report is updated only if the qualitative factor is published at this stage (initiator stage):

- [Qualitative Factors Report](#)

Note: No chart is updated when **Qualitative Factor** form is published.

Copying Qualitative Factor

You can copy an existing qualitative factor to create a new factor.

1. Open the qualitative factor that you want to copy from the relevant report or data browser (for example, [Qualitative Factors Report](#)).

2. In the form header, click **Copy**.

A new factor form opens with all the details of the existing factor copied.

Note: The Copy option is available only if you have the privilege to create a new qualitative factor.

3. Edit the required details and proceed with saving or submitting the form.

Risk Scoring Algorithm

The **Risk Scoring Algorithm** form is used to set up risk scoring algorithm for computing inherent, and residual risk scores and control effectiveness during risk assessment process. This component supports definition of simple to moderate complex formula. The administrator or any user with **RSK Manage Setup** activity can define risk scoring algorithms.

Note: This is a one-time setup. It is recommended not to change the risk scoring algorithm once the algorithm is used in the risk assessments.

Using the **Risk Scoring Algorithm** interface, you can define the risk scoring algorithm specific to your organization to conduct risk assessments on a periodic or ongoing basis. This form interface provides you an option to define the risk scoring formula for the following:

- **Inherent Risk Score:** Overall risk score without the effect of any controls.
- **Control Score:** Overall controls being assessed to mitigate risks.
- **Pre-Residual score:** The logic that needs to be used to calculate the residual risk when factors are mitigated using controls.
- **Residual Risk Score:** Overall risk score with the effect of mitigated controls applied to reduce inherent risks.

This interface provides an option to the user to drag and drop the required factor/control options and use the various mathematical functions and operators to define the risk scoring algorithm. You can also validate the defined scoring algorithm expression using the validate option available in this interface. The scoring algorithm that you define here is available in the **Perspectives** form. During the risk assessment planning, the plan initiator selects the Perspective, which is mapped to the scoring algorithm and initiates the risk assessment workflow. Based on the scoring algorithm that you defined, risk scores are calculated during the risk assessment stage.

The screenshot shows the 'RISK SCORING ALGORITHM: IMPACT*LIKELIHOOD' interface. Numbered arrows indicate the following steps:

1. Algorithm title: Displays the title of the risk scoring algorithm.
2. Factors list: Shows a list of factors including 'Enter Factor Name', 'Standard Factors', 'Factors Increasing Inherent Risk', and 'Factors Reducing Inherent Risk'.
3. Inherent Score Formula: The formula 'Impact * Likelihood' is entered here.
4. Control Score Formula: The formula 'Average (All Controls)' is shown.
5. Pre-Residual Score Formula: The formula 'Inherent Score - Controls' is shown.
6. Validation icons: Includes a green checkmark, a save icon, and a delete icon.
7. Snapshot: A summary table showing the formulas: Inherent Score Formula (Impact * Likelihood), Control Score Formula (Average (All Controls)), and Residual Score Formula (Inherent Score - Controls).
8. Formula entry field: An arrow points from the 'Snapshot' section back to the 'Inherent Score Formula' input field.

Figure 16 Risk Scoring Algorithm User Interface

1- Algorithm title: Displays the title of the risk scoring algorithm. Use this section to enter the title of the risk algorithm interface.

2 - Factors/Control Pane: Displays the standard and non-standard factors that are tagged as **Increases Inherent Risk**, **Reduces Inherent Risk** and **Reduces Residual Risk** and **Controls**.

3- Formula Bar: Provides mathematical operators to define the risk scoring formula.

4- Clear Formula and Undo Options: Use the Clear Formula icon to clear the entered formula. Use the Undo icon to redo the most recent undone action. You can also use the BACKSPACE key.

5 - Validate Formula: Use this button to validate the defined scoring formula. After you click this icon, if there are any errors in the defined scoring formula in various panes of the workspace, the system displays specific errors corresponding to the panes.

6 - Form Tool Bar: Comprises a set of icons to perform various actions.

7 - Workspace: Provides different formula panes such as Inherent Score Formula, Control Score Formula, and so on to define the risk scoring algorithm.

8 - Formula Snapshot Pane: Displays the overall formula view of formulas defined in the workspace area.

Algorithm Name

Type the name of the risk scoring algorithm in the **Algorithm Name** field. This field accepts alpha-numeric values. After you type the name in the **Algorithm Name** field and click outside this field, the typed name appears in the algorithm title. After you submit the form for each risk scoring algorithm, the system generates a unique risk scoring algorithm ID. The combination of risk scoring algorithm name and risk scoring algorithm ID is unique for every risk scoring algorithm. For example, in the text, 'Impact * Likelihood (RRB-000006)', 'Impact * Likelihood' is the Risk scoring algorithm name and '(RRB-000006)' is the risk scoring algorithm ID.

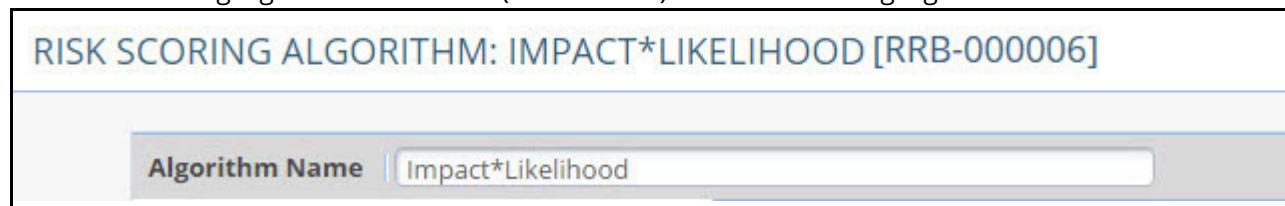


Figure 17 Title and Name of Risk Scoring Algorithm Interface

Factors/Controls Pane

The **Factors/Controls** pane displays a list of factors and controls that can be used in the formulae. The **Factors/Controls** pane is available on the upper-left of the risk scoring algorithm interface as collapsible/expandable side bar widget. When you access the scoring algorithm interface the Factors/Controls bar is available as expanded view. To collapse the **Factors/Controls** pane, click the left-pointing arrow.

The pane name varies based on the workspace for which you are defining the scoring formula.

Example:

While defining the scoring formula for **Inherent score Formula** workspace, the standard and non-standard factors that increase and reduces inherent risks are available in this pane.

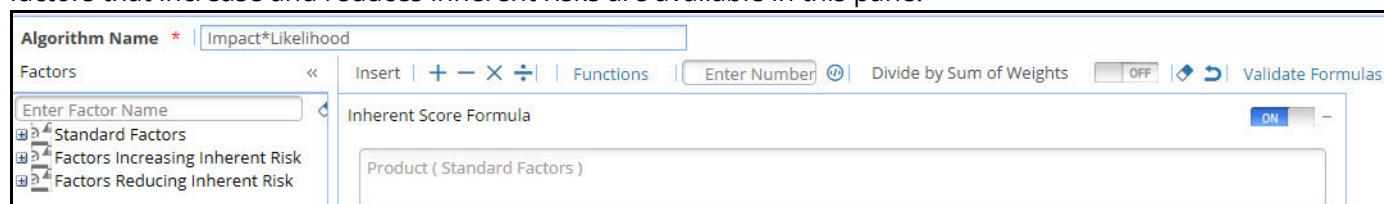


Figure 18 Factors/Controls Pane View for Inherent Score Formula Workspace

While defining the scoring formula for **Controls** formula, **All Controls** option is available in this pane

The screenshot shows a software interface for defining a scoring formula. At the top, there is a header bar with the title "Algorithm Name" followed by "Impact*Likelihood". Below this is a toolbar with various mathematical operators (Insert, +, -, ×, ÷) and functions (Enter Number, Divide by Sum of Weights, OFF). On the left, there is a sidebar titled "Controls" with a dropdown menu showing "Enter Factor Name" and "All Controls". The main workspace contains two sections: "Inherent Score Formula" and "Control Score Formula". Under "Control Score Formula", there are two radio button options: one selected (radio button is filled) labeled "Based On Overall Control Score Reducing Inherent Risk" with the example "(Example: 5 Controls with an overall control score of 20. Inherent Score (25)-Control score (20)=Residual Score(5).)" and another unselected (radio button is empty) labeled "Based On Controls Mitigating Standard Factors" with the example "(Example: Control 1 Reducing Impact, Control 2 Reducing Likelihood)". At the bottom right of the workspace, there are two buttons labeled "ON" with plus and minus signs respectively. A footer at the bottom of the workspace says "Sum (All Controls)".

Figure 19 Controls Pane View for Control Score Formula Workspace

Expanding and Collapsing Factors

Displays a list of factors and controls that can be used in the formulas.

When you open the Risk Scoring Algorithm form, the following factors that are applicable for inherent risk calculation appear by default in the **Factors/Controls** pane:

- Standard Factors
- Non-Standard Factors that reduce Inherent Risk
- Non-Standard Factors that increase Inherent Risk

When you click any formula in the work space, access this pane, by default, various factor types appear in collapsed mode in the factor pane. Click Expand icon to view the factors available for that particular factor type. On clicking, the Expand icon changes to Collapse icon. Click Collapse icon again to collapse the factor view.

You can expand all the factor types available in this pane by clicking the Expand All icon. The Expand icon then changes to Collapse All icon. On clicking this icon, all the available factors are collapsed and appears.

The screenshot shows the 'Algorithm Name' field set to 'Impact*Likelihood'. The 'Factors' pane on the left lists various factor types and their sub-factors. The 'Inherent Score Formula' section on the right contains the formula 'Average (Standard Factors)'.

Algorithm Name	Factors	Inherent Score Formula
Impact*Likelihood	<ul style="list-style-type: none"> Standard Factors <ul style="list-style-type: none"> Impact(IAD) Speed of Onset Likelihood Likelihood(IAD) Vulnerability Impact Market Movement Client Impact Financial Reputational Reputation and Media Factors Increasing Inherent Risk Factors Reducing Inherent Risk 	Average (Standard Factors)

Figure 20 Factor types with the associated factors

Searching Factors/Controls

The **Factors/Controls** pane provides an option to search for the existing assessment factors. This option enables you to filter information and narrow-down your search. To search for required factors, use the search field available in the **Factors/Controls** pane.

When you enter the first letter or word of the factor that you are searching for in this field, the system displays the factors with all the words beginning with the entered letter or word present under the parent hierarchical level in

an expanded view. If the factor name does not have the letters or words that you typed in the search field, no results are displayed under the factor type. However, the factor appear expanded without displaying the factors.

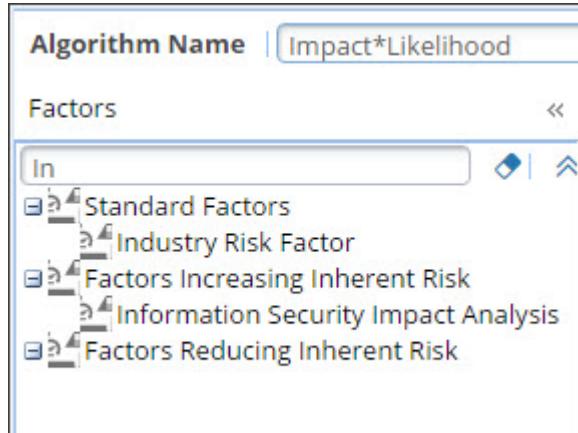


Figure 21 Search Results Found

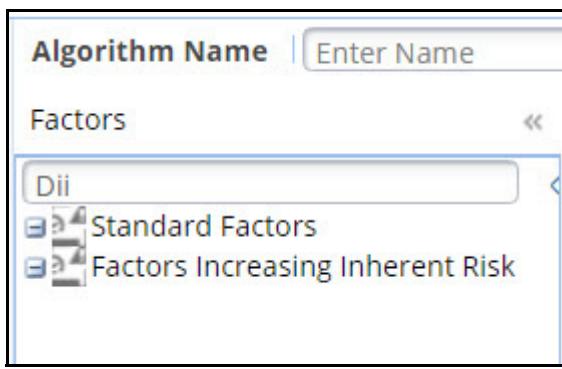


Figure 22 Search Results Not Found

To clear the entered data in the search field, click the Erase icon next to the search field. The text Enter Factor Name appears in the search field.

Note: The search function is unavailable for **Control Score Formula** workspace pane.

Formula Bar

Use the mathematical functions and operators available in this bar to define the Risk scoring algorithm in workplace. You must select the mathematical functions and operators available in this bar to create your Risk scoring formula.

To add the operators or functions, perform the following steps:

- 1 Navigate to the specific section in the workspace where you want to define the formula.
- 2 Click the required option that you want to add from the formula bar.

The option that you selected is added in the selected workspace and the **All Formula** pane displays the formula details that you added in the workspace.

The following table provides the list of options and their descriptions available in the Insert menu bar.

Formula Bar	Description
	<p>Plus, Minus, Multiplication, Division, Open Bracket, and Close Bracket are the mathematical operators available in the formula bar. These mathematical operators are used to create inherent score formula, control score formula, pre-residual score formula, and residual score formula. The formulas are created using individual factors that belong to factor categories such as standard factors, factors increasing inherent risk, factors reducing inherent risks and factors reduce residual risks.</p>
	<p>Note: While computing using division, the opening and closing of brackets must be effectively used.</p>
Functions	<ul style="list-style-type: none"> • Average, Maximum, Minimum, Product, and Sum functions are available. • You must add these functions before adding the factors from the Factors/Controls pane. Select a function to add it to the workspace and then drag factors such as standard factors, factors increasing inherent risk, and factors reducing inherent risks. You cannot use these functions to individual factors. <p>Note: If you try to add factors before adding the function in the workspace, the message "Please enter a Function and try again" appears.</p> <p>In the following example, Likelihood and Impact are the individual factors belonging to the factor type Standard Factors. You can use these functions to drag only the Standard Factors, and not the individual factors.</p>
Number Insert	<p>Use this option when you want to insert a number while defining the scoring algorithm.</p> <p>To insert the number, perform the following steps:</p> <ol style="list-style-type: none"> 1. Click the field beside  2. Type the number. 3. Click the Insert button. <p>Notes:</p> <ul style="list-style-type: none"> - The number is added in the respective pane in the workspace. - You can enter a number which is less than or equal to 999999.99. - If you enter a number which is less than or equal to 999999.99, an alert message is displayed. <p>For more information on alert messages, refer to the SnapShot section.</p>
Divide by Sum of Weights <i>(the ON icon is interchangeable with OFF icon)</i>	<p>If you want to consider the weighted factor score (defined for factors) for risk score calculation, click the OFF button (default option). When you click this button, the message "The Factors (Non-Standard) affecting Inherent and Residual Risk will be divided by the sum of their weights" appears. If you click OK, OFF is replaced with ON, and the weighted factors defined for factors during factor creation stage are considered for risk score calculation.</p>

Formula Bar Options

Use the options available in this bar to perform various functions like clear formula, validate formula and so on.

Icon/Button	Description
Clear Formula	Use this icon to clear the formula that you defined in the different panes of workspace. To delete the formula, navigate to the specific pane in the workspace and click this icon. After you click this icon, the formula defined in the specific pane is cleared and you can define the new formula.
Undo	Use this icon to redo the recent changes done.
Validate Formulas	To validate the defined scoring formula, click this icon. After you click this icon, if there are any errors in defined scoring formula in different panes of workspace, the system displays the specific errors corresponding to different panes in the workspace.

Workspace

Workspace is the region where you can define the risk scoring algorithm. Based on the formula that you define here, the risk scores are calculated during the risk assessment stage. Using this region, you can define the scoring formula for parent hierarchical level or child hierarchical levels that are available in the **Factors/Controls** pane. The workspace comprises the following panes:

- Inherent Score Formula
- Control Score Formula
- Pre-Residual Score Formula
- Residual Score Formula

Expanding and Collapsing Workspace Panes

When you access the risk scoring algorithm interface, all the workspace panes are collapsed except the **Inherent Score Formula** pane. To expand the other workspace panes, click the Expand icon in the respective pane.

Note: You can expand only one pane at a time.

To collapse the workspace pane, click the Collapse icon in the respective pane. The selected workspace pane is collapsed.

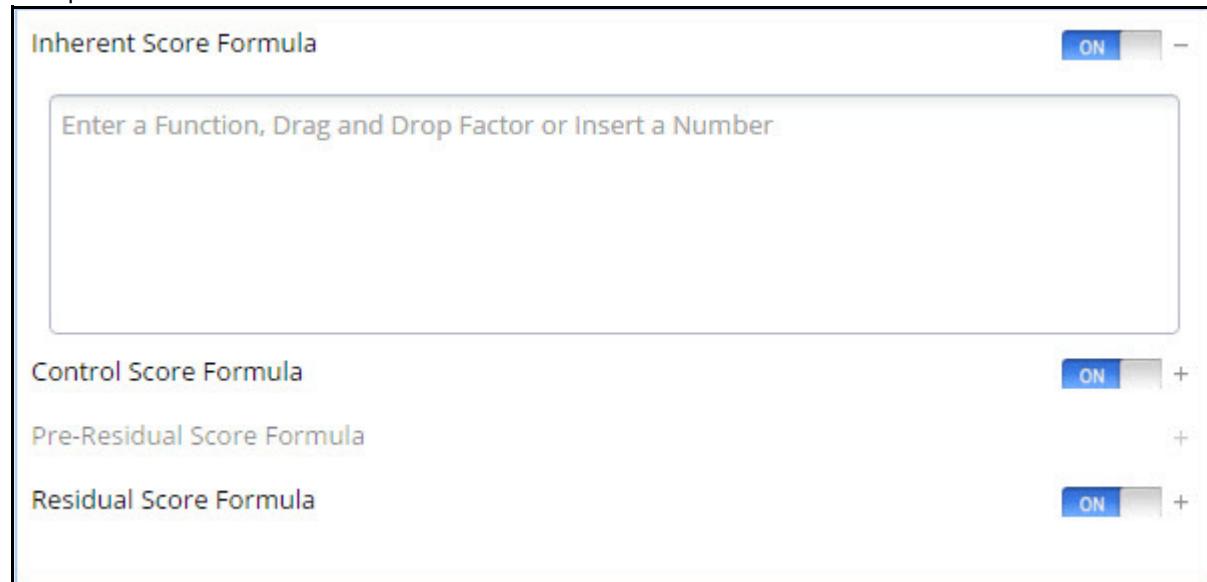


Figure 23 Expanding and Collapsing Workspace

Enabling and Disabling Formulas

Using the **ON/OFF** buttons, you can enable or disable the formula panes. The **ON** and **OFF** buttons are available in each workspace panes. You can disable the formula panes that are not applicable for risk assessment scoring methodology. Based on the formula panes that you enable or disable, the **Factors/Controls** pane displays the factor details. You cannot disable both Inherent and Residual score formulas. When you click the **OFF** button, the message "Either Inherent or Residual Score Formula can be Disable. Not Both" appears. Click **OK**.

Based on the formula panes that you disable in this interface, the respective section is hidden on the **Risk Assessment** form. For example, if you disable Control Score formula, the **Control Effectiveness** or **Control Environment** section is hidden for the Risk Assessor in the **Risk Assessment** form while assessing the risk.

Note: When you switch off a section, the changes will be reflected on the assessment form. Any section that is switched off will not be visible on the assessment form.

The following table provides the list of buttons and descriptions used for enabling or disabling the formula panes.

Button	Description
ON <i>(this button interchanges with OFF button)</i>	If you want to enable or disable a particular formula pane, click ON or OFF button respectively. This button is available in the following formula panes: <ul style="list-style-type: none"> • Inherent Score Formula • Control Score Formula • Residual Score Formula

Defining Scoring Formula

You can define the scoring formula for different workspace panes by dragging the different options available in the **Factors/Controls** pane into the workspace.

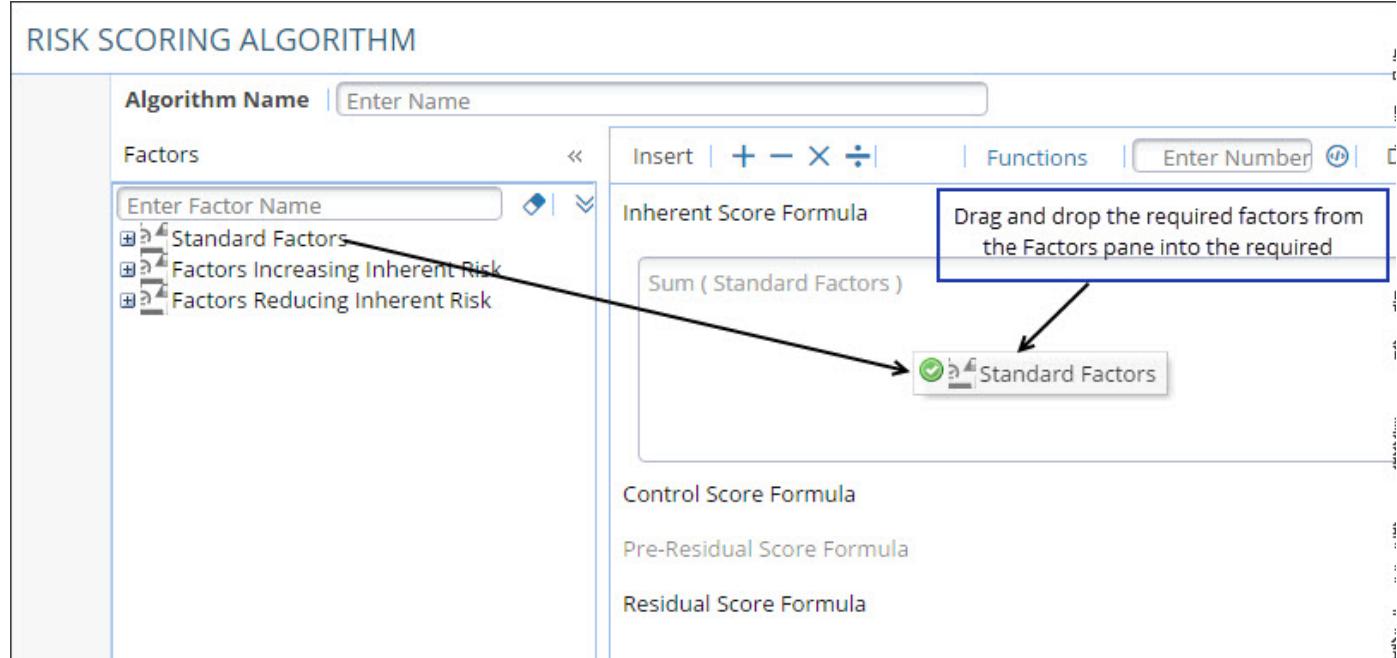


Figure 24 Defining Scoring Formula

While dragging the required factor/control options from this pane into the workspace, the validations are performed to verify if the action that is performed is a valid action or not.

The valid drag action is indicated with a tick mark before the factor type, as shown below.



An error in dragging is indicated as shown below

If there is an error in dragging, the factor type will not be added to the workspace and shows the error icon before the factor type as shown below together with a message indicating the invalid entry.



For example, if you try to add the parent Standard Factor to the **Inherent Score Formula** workspace pane without adding the function, the message **Please enter a Function and try again** appears.

Defining Inherent Score Formula

The risk that an activity would pose if no controls or other mitigating factors were in place (the gross risk or risk before controls) are called as inherent risks. Click **Inherent Score Formula** to display the work space where you can define the formula using the factors available in the **Factors/Controls** pane.

The available options in the **Factors/Controls** pane are:

- **Standard Factors:** Displays all the quantitative factors that are tagged as standard factors.
- **Factors Increasing Inherent Risk:** Displays all the non-standard quantitative factors that increases the inherent risk.

- **Factors Reducing Inherent Risk:** Displays all the quantitative factors that reduces inherent risk.

Inherent Score Formula ON

Enter a Function, Drag and Drop Factor or Insert a Number

Figure 25 Inherent Score Formula Pane

In the **Inherent Score Formula Pane**, you can inserting mathematical functions, drag factor types, and factors

Control Score Formula Pane

Click **Inherent Score Formula** to display the work space where you can define the formula using the factors available in the **Factors/Controls** pane.

When you click on **Control Score Formula** in the work space, and select **Based on Overall Control Score Reducing Inherent Risk** option, **All Controls** option is displayed in the factor pane. When you select this option, the overall control is selected based on the function selected in the formula bar. For example, if you select Product as the function, Product of (All Controls that are scoped in) is considered during the assessment to calculate the overall control score.

You can define the control score formula using this pane based on two criteria:

- **Based on Overall Control Score Reducing Inherent Risk:** If you want a simple method to calculate the overall control score that can be reduced from the overall inherent score to calculate the residual score, select this option. When you click on **Control Score Formula** in the work space, and select this option, **All Controls** option is displayed in the **Factors/Control** pane, as shown below.

Control Score Formula ON

Based On Overall Control Score Reducing Inherent Risk
 (Example: 5 Controls with an overall control score of 20. Inherent Score (25)-Control score (20)=Residual Score(5).)

Based On Controls Mitigating Standard Factors
 (Example: Control 1 Reducing Impact, Control 2 Reducing Likelihood)

Sum (All Controls)

Figure 26 Control Score Formula Pane

To define the formula, add the required function from the formula bar, and then drag the **All Controls** option from the **Factors/Control** pane. For example, if you select Sum as the function, Sum of (All Controls that are added) is considered during the assessment to calculate the overall control score.

Note: You cannot use individual mathematical operators in this case.

Example:

Control 1 score=10

Control 2 score=15

Control function = Sum

Overall Control Score=10+15=25.

The screenshot shows the 'RISK SCORING ALGORITHM' interface. At the top, there's a search bar labeled 'Algorithm Name' with 'Enter Name'. Below it, a 'Controls' section has a dropdown menu set to 'All Controls'. A toolbar above the main area includes 'Insert' with mathematical operators (+, -, ×, ÷), 'Functions', 'Enter Number' with a help icon, 'Divide by Sum of Weights' with an 'OFF' switch, and a 'Sum' button with a checkmark and 'All Controls' text. The main panel displays several formula categories: 'Inherent Score Formula', 'Control Score Formula', 'Based On Overall Control Score Reducing Inherent Risk' (selected, with an example: 'Example: 5 Controls with an overall control score of 20. Inherent Score (25)-Control score (20)=Residual Score(5).'), 'Based On Controls Mitigating Standard Factors' (with an example: 'Example: Control 1 Reducing Impact, Control 2 Reducing Likelihood'), 'Pre-Residual Score Formula', 'Residual Score Formula', 'Snapshot' (with 'Inherent Score Formula', 'Control Score Formula', and 'Sum' buttons), and 'Residual Score Formula'.

Figure 27 Adding Control Score Formula

If you choose this option, the following fields are displayed in the **Control Effectiveness** section in the **Risk Assessment** form:

- Control Name
- Effectiveness
- Score
- Weighted Score

All the control scores that are populated in the Score column are added, averaged or multiplied based on the function that you use here for defining the control score formula.

- **Based On Controls Mitigating Standard Factors:** If you want to specify the % by which each control mitigates each of the factors, select this option. For example Control 1 mitigates Impact by 50% and Likelihood by 70%, Control 2 mitigates Impact by 20% and Likelihood by 80%). This formula is applied for each factor used during risk assessment.

Note: When you choose this option, you can use only functions to define the control score formula.

If you choose this option, the following fields are displayed in the **Control Effectiveness** section in the **Risk Assessment** form:

- Mitigation (%)

The assessor decides on the factors that need to be mitigated and records the mitigated percentage value. Based on the formula defined in this section, the factor scores are calculated and displayed during the assessment stage.

	Control Name	Type	Key Control	Purpose	Mitigation (%) *	Comments
<input type="checkbox"/>	Token Security	Related To Risk	Yes	Compensating	Impact; Likelihood	

Figure 28 Control Effectiveness Section in the Assessment Details Section - Mitigation Method

Pre-Residual Score Formula Pane

Pre-residual score is the score of standard factors after mitigation. You can view this section only if you select the option **Based On Controls Mitigating Standard Factors** in the **Control Score Formula** pane. After entering the mitigated percentage, the factor scores are recalculated before arriving at the residual scores.

Click **Pre-Residual Score Formula** to display the work space where you can define the formula using the factors available in the **Factors/Controls** pane.

You can drag the following options available in the **Factors/Controls** pane to the workspace:

- **Standard Factors:** Displays all the quantitative factors tagged as standard factors that are applicable to pre-residual section.
- **Standard Factors Mitigated By Control:** Displays all the quantitative factors (tagged as standard factors) mitigated by controls that are applicable to pre-residual section.

Note: Functions are unavailable for pre-residual calculation. You can only use operators available in the Insert menu bar..

Figure 29 Pre-Residual Score Formula

The pre-residual calculation is as follows:

INHERENT RISK	
Impact	5
Likelihood	3
Overall (IMPACT X LIKELIHOOD)	15

CONTROL	(SUM)	
	Impact Mitigation	Likelihood Mitigation
Control 1	20	50
Control 2	30	20
Overall	50	70

PRE-RESIDUAL Standard Factors-(Standard Factors X Standard Factors mitigated by Controls)/100

RESIDUAL RISK		Rounded Value
Impact	2.5	3
Likelihood	0.9	1
Overall (IMPACT X LIKELIHOOD)		3

Impact of inherent risk = 5

Likelihood of inherent risk = 3

Overall impact mitigation = 50

Overall likelihood mitigation = 70

Pre-residual Impact score = Impact of inherent risk - [Impact of inherent risk * Overall Control used for mitigation]/100 = 5-[5*50]/100 = 5-2.5 = 2.5 rounded off to 3

Pre-residual likelihood score = Likelihood of inherent risk - [Likelihood of inherent risk * Overall Control used for mitigation]/100 = 3-[3*70]/100 = 3-2.1 = 0.9 rounded off to 1

Overall pre-residual score = Pre-residual Impact score * Pre-residual likelihood score = 3*1 = 3

Residual Score Formula Pane

A residual risk is a portion of the risk that is left after a risk assessment has been mitigated.

The following options are available in Factors/Controls browser when the Residual section is expanded:

- Standard Factors: Displays all the quantitative factors that are tagged as standard factors and is applicable to Residual Section.
- Factors Reducing Residual Risk: Displays all the non-standard quantitative factors that reduces the residual risk.
- Inherent Score Formula: Carries the same scoring logic defined in the Inherent Score Formula pane.
- Inherent Score: If you want to use the overall inherent score that is computed during the risk assessment stage in the formula, use this option.

Example:

Inherent Impact: 5

Inherent Likelihood: 3

Inherent Score = Impact * Likelihood = 15

Residual Score = Inherent Score - Controls = 15 - 5 = 10

Validating Formulas

After defining the formula in each pane, you must click the **Validate Formulas** button present in the Insert menu options to validate the expressions that you defined in each workspace pane. When you click this button, the expressions defined in each pane are validated and the error or alert messages are displayed in the respective panes. The validation related messages are represented with different icons.

The following table provides a list of validation related icons and its description.

Icon	Description
	If the formula entered in the workspace pane is a valid expression, this icon is displayed in the respective pane.
	If you have not defined the formula in a particular workspace pane, this icon is displayed, which indicates that you must enter a formula in the respective workspace pane.
	If the formula entered in the workspace pane is an invalid expression, this icon is displayed in the respective pane. You must rectify the formula in the respective pane and validate the rectified formula again by clicking the Validate Formula button.

SnapShot

This section displays the overall formula that you define in each workspace pane. When you access this interface, the default columns **Inherent Score Formula**, **Control Score Formula**, and **Residual Score Formula** columns are displayed. When you start building the risk scoring algorithm, this pane is refreshed and displays the latest updates that you make in each pane. If you have disabled a particular formula pane, the text **NA** is displayed next to the respective formula.

Snapshot	
Inherent Score Formula	Impact * Likelihood
Control Score Formula	Average (All Controls)
Residual Score Formula	Inherent Score Formula - Controls

Figure 30 Snapshot Pane

Sample Formula

Consider a scenario where the risk administrator creates a risk scoring algorithm by name Impact*Likelihood. The algorithm consists of the following expressions for different risk score calculations.

- **Inherent Score Formula:** Product of Impact and Likelihood
- **Control Score Formula:** Average of all the controls selected during assessment.
- **Residual Score Formula:** Inherent Score Formula - Controls

To create the above sample formula, perform the following steps:

- 1 Navigate to the Risk Scoring Algorithm interface.
- 2 Click the **Algorithm Name** field and type the name Impact*Likelihood.

The screenshot shows a software interface titled "RISK SCORING ALGORITHM: IMPACT*LIKELIHOOD". Below the title, there is a search bar with the placeholder text "Search...". Underneath the search bar, the "Algorithm Name" field is highlighted and contains the value "Impact*Likelihood".

Figure 31 Adding Risk Scoring Algorithm Name

- 3 Now, navigate to the **Inherent Score Formula** pane, click **Functions** in the Insert menu, and then select **Product**.
- 4 Drag and drop the Standard Factor parent hierarchical level from the **Factors/Controls** pane into the **Inherent Score Formula** pane.
- 5 Click the **Control Score Formula** pane, select **Based On Controls Mitigating Standard Factors** option.
- 6 Navigate to the formula space and click **Functions** in the Insert menu and then select **Sum**.
- 7 Click **Pre-Residual Score Formula** pane, drag and drop the **Standard Factors Mitigated By Controls** option from the **Factors/Controls** pane.
- 8 Click the **Residual Score Formula** pane, drag and drop the **Inherent Score Formula - Controls** from the **Factors/Controls** pane.

The following screen displays the snapshot of the sample use case.

Snapshot	
Inherent Score Formula	Product (Standard Factors)
Control Score Formula	Sum
Pre-Residual Score Formula	Standard Factors Mitigated By Controls
Residual Score Formula	Inherent Score - Controls

Figure 32 Snapshot of Sample Use case

Assignments and E-mails

After you submit the current form, no task assignments and e-mail notifications are generated.

Related Reports and Charts

After you submit the form, the following report is updated when the risk scoring algorithm is published:

- [Risk Scoring Algorithms Report](#)

Note: No chart is updated when risk scoring algorithm is published.

Defining Risk Assessment Profile

Defining risk assessment profile includes specifying the risk assessment methodology, scoring algorithm, roll-up logic, risk ranges, configuring risk matrix, setting up control assessment, and configuring heat map. You can select the defined risk assessment profile on the **Perspective** form.

The **Risk Assessment Profile** form comprises the following sections:

HEADER	Displays the buttons to take action on the form.
GENERAL	Helps you capture the name of the profile, assessment methodology, scoring algorithm, and roll-up logic. Notes: <ul style="list-style-type: none"> - Selecting scoring algorithm is applicable only for risk scoring algorithm assessment methodology. - Roll-up logic is not applicable rating assessment methodology.
RISK ASSESSMENT	Helps you specify how the risk scores translate into the risk ratings and colors in your heat map, the risk ratings and their corresponding colors. You can also provide the score ranges in the heat map range table and the override information. Note: This section is available only for an assessment methodology of risk scoring algorithm.
	The Risk Assessment section comprises the following subsections: <ul style="list-style-type: none"> • Risk Rating Scale: Use this subsection to specify the risk ratings and their corresponding background and text colors in which these risk ratings should appear in the Risk Assessment form and reports. You can associate these configured ratings with the required risk score ranges. For example, you can define risk ratings as Low, Medium, and High and specify green, yellow, and red as the text colors respectively. • Heat Map Scale: Use this subsection to define the ranges of risk scores and map them to the corresponding risk ratings and X-axis/Y-axis coordinates in the heat map on which the risk, organization, or assessable item should be plotted. Associate each score range with X-axis and Y-axis coordinates so that the risk is plotted precisely in the heat map. If the score ranges are not unique, then the risk is plotted for the first occurrence of the range in this table. • Risk Roll Up and Reporting Scale: Use this subsection to specify the risk score and ratings that should be used for reporting and roll-up when you override the system-calculated scores and ratings. This allows risk assessors and approvers to provide their own ratings. When an assessor or approver overrides the risk rating, the overridden score and rating become the final rating that is used for risk roll-up. Ensure that each rating in this table has a unique score. Additionally, you can specify the order in which these ratings should appear in the drop-down list of the risk assessment override modal window using the display order column. For example, overridden score of 15 for a rating of High, 10 for Medium, and 5 for Low.

RISK MATRIX CONFIGURATION	<p>Helps you define the risk matrix based on which the risk ratings are calculated. For the rating (rating/scoring and rating/ranking and rating/scoring algorithm and rating) assessment methodologies, the risk rating is calculated based on the matrix between two factors. The matrix definition also dictates the heat map visualization. Use this section to select the factors that should be plotted on X-axis and Y-axis and to specify the risk ratings that should appear on the intersection of each of X-axis and Y-axis values.</p>
	<p>The Risk Matrix Configuration section comprises the following subsections:</p> <ul style="list-style-type: none"> • Define Overall Ratings: Use this subsection to specify the risk ratings and the corresponding colors in which these risk ratings should appear. This information helps in configuring the risk ratings along with the text and background color in which these ratings should appear on the risk assessment form and reports including the heat map. For example, the risk ratings can be Low, Medium, High with the colors green, yellow, and red respectively. • Define Risk Ratings: Use this subsection to specify how the factor responses within the assessment form translates into a risk rating. For example, if factors on which risk is assessed are impact and likelihood and an impact of high along with likelihood of likely translates into a risk rating of high, select the rating as high against the corresponding X-axis and Y-axis response values. The matrix value combinations appear based on the defined number responses of the assessment factors that are selected in X coordinate and Y coordinate. For example, if the factors selected in X coordinate and Y coordinate have five responses each, then 5x5 matrix appears with 25 rows in the table.
CONTROL EFFECTIVENESS	<p>Use this section to specify if the assessor should perform assessment on individual controls or the overall control environment based on the defined quantitative factors for controls.</p>
	<p>Helps you specify the score and effectiveness of the controls that should appear in risk assessment form. In the Control Framework Assessment based list, click Individual Controls if you want to assess each control during assessment or click Overall Environment Based on Factors if you want to assess the overall environment, but not individual controls.</p>
	<p>The Control Effectiveness section comprises the following subsections:</p>
	<ul style="list-style-type: none"> • Individual Control Effectiveness Scale: Use this subsection to specify the control effectiveness that should appear in the risk assessment form while assessing the controls along with the score that the effectiveness translates to. These scores are used to calculate the overall control effectiveness score and rating. Additionally, you can specify the order in which the drop-down values should appear along with a short description about these values.
	<p>Note: This subsection is available only for individual controls.</p>
	<ul style="list-style-type: none"> • Overall Control Effectiveness Scale: Use this subsection to specify the control effectiveness for the corresponding score range that should be considered when the assessor overrides the system-calculated effectiveness. For instance, if an overall control score between 0 and 5 implies an overall ineffective control assessment then specify the overridden score as 0-5 with an overall effectiveness as Ineffective. The score and ratings specified here are also used in the override modal window. Additionally, you can specify the background and text color for the overridden overall control effectiveness.
RESIDUAL ASSESSMENT DETAILS	<p>Helps you to define the matrix based on which the residual risk rating is calculated. The residual risk rating and score is calculated based on a matrix between the inherent risk rating and control effectiveness rating.</p>
	<p>Note: This section is available only if you select the Residual Assessment based on Inherent vs Control check box in the General section.</p>

HEAT MAP CONFIGURATION

Helps you define the factors on which the heat map should be plotted. If you are assessing the risk based on multiple factors and want different views in the heat map, you can create multiple such profiles and flag one of them as default. For instance, if you are assessing risk based on impact, likelihood, and vulnerability, you can create three different profiles such as Impact vs. Likelihood, Impact vs. Vulnerability and Likelihood vs. Vulnerability and flag Impact vs. likelihood as default. By default, the heat map loads for the default profile, but users can change the profile to get a different view.

Note: This configuration is applicable only for the risk scoring algorithm assessment methodology.

To create a risk assessment profile:

1. Open the **Risk Assessment Profile** form.
2. In the **General** section, provide the required details as described in the following table.

Field	Description
Name	The name of the risk assessment profile.
Assessment Methodology	<p>The methodology based on which the risk assessment should be performed. The available methodologies are:</p> <ul style="list-style-type: none"> • Rating Method • Scoring and Rating Method • Ranking and Rating Method • Scoring Algorithm and Rating Method • Risk Scoring Algorithm <p>Note: For details on these methodologies, see Risk Assessment Methodologies.</p>
Scoring Algorithm <i>(available only for Risk Scoring Algorithm and Scoring Algorithms and Rating Method)</i>	<p>The risk scoring algorithm for computing inherent and residual risk score and control effectiveness during risk assessment process.</p> <p>Note: The algorithm is defined in the Risk Scoring Algorithm form. For details, see Risk Scoring Algorithm.</p>
Roll Up Logic <i>(available only for scoring methods)</i>	<p>The operator to determine the roll-up (aggregation) score logic. The available options are:</p> <ul style="list-style-type: none"> • Average • Minimum • Maximum <p>Note: For details on roll-up logic with Average considered as an example, see Aggregation Logic.</p>
Residual Assessment based on Inherent vs Control	Selecting this check box indicates that you want to calculate the residual risk rating based on a matrix between inherent risk rating and control effectiveness. You can define the matrix details in the Residual Assessment Details section.

3. Proceed to the **Risk Range Tables** section if you have selected Risk Scoring Algorithm as the assessment methodology.

- a. In the **Define Overall Rating** subsection, click **Add**, and then capture the required details as described in the following table.

Column	Description
Risk Rating	The risk rating value that should appear in the risk assessment form and reports. For example: Low, High, Medium, and so on.
Fill Color	The background color for the risk rating.
Fill Color Code	Displays the hexadecimal code for the selected background color.
Text Color	The text color for the risk rating.
Text Color Code	Displays the hexadecimal code for the selected text color.

- b. In the **Define Heat Map Range** subsection, click **Add**, and then capture the required details as described in the following table.

Column	Description
Lower Score	The lower score of the heat map range for the risk rating.
Upper Score	The upper score of the heat map range for the risk rating.
X Coordinate	The X coordinate on the heat map where the rating should be plotted.
Y Coordinate	The Y coordinate on the heat map where the rating should be plotted.
Risk Rating	The corresponding risk rating for the provided heat map range.

- c. In the **Define Risk Override Table**, specify the risk score and ratings that should be used for reporting and rollup when you override the system-calculated scores and ratings.

Column	Description
Risk Rating	The risk rating that can be selected when the system-calculated rating is overridden.
Score Range	The corresponding risk score range for the overridden rating. Note: The score needs to be provided as a range value. For example, 10-15.
Display Order	The order in which the risk ratings should appear in the Override window.
Description	Any additional details on the risk rating and score range.

4. Proceed to the **Risk Matrix Configuration** section if you have selected any rating method (rating/scoring and rating/ranking and rating/scoring algorithm and rating).

- a. Select the factors in the X Coordinate and Y Coordinate.

Note: Only standard factors are available for selection.

- b. Select or clear the **Inherent Section**, **Control Section**, and **Residual Section** to determine their availability in the **Risk Assessment** form.

- c. In the **Define Overall Rating** subsection, click **Add**, and then capture the required details as described in the following table.

Column	Description
Risk Rating	The risk rating value that should appear in the risk assessment form and reports. For example: Low, High, Medium, and so on.
Fill Color	The background color for the risk rating. Note: You can either select a color in the Fill Color field or type the corresponding hexadecimal color code in the Fill Color Code field.
Fill Color Code	The hexadecimal code for the selected background color.
Text Color	The text color for the risk rating. Note: You can either select a color in the Text Color field or type the corresponding hexadecimal color code in the Text Color Code field.
Text Color Code	Displays the hexadecimal code for the selected text color.

- d. In the **Define Risk Rating** section, select the risk rating for each X Coordinate and Y Coordinate row.

Note: The matrix value combinations appear based on the defined responses of the assessment factors that are selected in X coordinate and Y coordinate. For example, if the factors selected in X coordinate and Y coordinate have five responses each, then 5x5 matrix appears with 25 rows in the table.

5. Proceed to the **Control Effectiveness** section.

- a. In the **Control Framework Assessment based** list, click Overall Environment Based on Factors or Individual Controls.

Overall Environment Based on Factors: Selecting this option indicates that the overall control environment will be assessed based on the defined quantitative factors for controls. The **Risk Assessment** form shows **Control Environment** section for the assessor.

Individual Controls: Click Overall Effectiveness or Factor Based Effectiveness

Overall Effectiveness: Selecting this option indicates that individual controls will be assessed. The **Risk Assessment** form shows **Control Effectiveness** section for the assessor.

Factor Based Effectiveness: Selecting this option indicates that individual controls will be assessed based on the Hierarchical Factors created in the Quantitative forms.

Enable the check box **Override Control Effectiveness** to override the hierarchical factor score in the **Risk Assessment** form.

Control Factor: Select the hierarchical factor from the list. The list displays the hierarchical factors created in the **Quantitative** form.

Note: Hierarchical Factor is not displayed in the Risk assessment profile, If the validity of hierarchical factor is expired,

- b. Select the Score Formula.

Note: Selected formula will be applicable for control score or overall score based on the value selected in the **Control Framework Assessment based** field.

- c. If you have selected Individual Controls, in the **Define Control Effectiveness Range** subsection, specify the control effectiveness that should appear in the risk assessment form while assessing the controls along with the score that the effectiveness translates to.

Column	Description
Control Effectiveness	The control effectiveness that should appear in the risk assessment form for selection of individual controls.
Score	The corresponding control score defined for the effectiveness.
Display Order	The order in which the risk ratings should appear in the Override window.
Description	Any additional details on control effectiveness.

- d. In the **Define Override Range** subsection, specify the control effectiveness for the corresponding score range that should be considered when the assessor overrides the system-calculated effectiveness.

Column	Description
Overall Effectiveness	The overall control effectiveness that should be available for selection while overriding system-calculated effectiveness.
Score Range	The score range value for the overall effectiveness.
Fill Color	The background color for the overridden control effectiveness. Note: You can either select a color in the Fill Color field or type the corresponding hexadecimal color code in the Fill Color Code field.
Fill Color Code	The hexadecimal code for the selected background color.
Text Color	The text color for the overridden control effectiveness. Note: You can either select a color in the Text Color field or type the corresponding hexadecimal color code in the Text Color Code field.
Text Color Code	Displays the hexadecimal code for the selected text color.
Default Weighting	The default weighting of the control score that should appear in the risk assessment form. This is considered for calculating the weighted score. Note: 100% appears in this field by default. If you remove % symbol while editing the value, the entered value is considered as a number for calculating the weighted score.
Description	Any additional details on the override range.

Note: The control scoring formula for the control environment assessment using factors is based on the value selected in the **Overall Score Formula** field in the form.

6. If you have selected to calculate residual risk rating based on matrix between inherent rating and control effectiveness, define the matrix in the **Residual Assessment Details** section.

- a. Define the axes for the matrix by selecting the X coordinate and Y coordinate values.

- b. In the **Define Overall Rating** subsection, click **Add**, and then specify the risk ratings and their corresponding colors in which these risk ratings should appear.

Column	Description
Risk Rating	The risk rating value that should appear in the risk assessment form and reports. For example: Low, High, Medium, and so on.
Fill Color	The background color for the risk rating. Note: You can either select a color in the Fill Color field or type the corresponding hexadecimal color code in the Fill Color Code field.
Fill Color Code	The hexadecimal code for the selected background color.
Text Color	The text color for the risk rating. Note: You can either select a color in the Text Color field or type the corresponding hexadecimal color code in the Text Color Code field.
Text Color Code	Displays the hexadecimal code for the selected text color.

- c. In the **Define Residual Ratings** subsection, define how the inherent rating and control effectiveness translates into a residual risk rating by specifying the risk score and the corresponding risk rating for the defined X coordinate and Y coordinate (Inherent Ratings or Control Effectiveness).

7. In the Heat Map Configuration section, click **Add Profile.**

The **Profile** window appears.

- a. Define the heat map configuration as described in the following table.

Field	Description
Profile Name	The name of the heat map configuration profile.
Axis	<ul style="list-style-type: none"> X Coordinate: The standard factor that you want to plot on the X-axis of the heat map. Y Coordinate: The standard factor that you want to plot on the Y-axis of the heat map.
Default	Specifies if this profile is tagged as default for generating heat map reports for the logged-on user.

- b. Click **Done**.

8. Click **Submit.**

Notes:

- To save the form and access it from the **My Tasks** menu later, click **Save**.
- To close the form, click **Close**.
- The legend colors displayed on the risk assessment charts are based on the colors set while creating charts and not set in the Risk Assessment Profile setup. For more information on creating charts, refer MetricStream Arno Release Spring '21 - Platform - Configuration Guide.

Risk Assessment Methodologies

The following table describes the risk assessment methodologies.

Method	Use This Method When...
Rating	<p>The rating is based on the intersection of ratings of two factors, based on which risk assessment is performed.</p> <p>The following is an example of rating for a specific combination of response values provided for Impact and Likelihood:</p> <p>Impact = Moderate Likelihood = Possible Rating = Medium</p>
Scoring and Rating	<p>The rating and score are based on the intersection of two factors, based on which risk assessment is performed.</p> <p>The following is an example of rating and score for a specific combination of response values provided for Impact and Likelihood:</p> <p>Impact = Moderate Likelihood = Possible Rating = Medium Score is '8'</p>
Ranking and Rating	<p>You can arrive at a unique score and rating and also rank the risk based on the intersection of two factors. The ranking is useful to differentiate between two or more risks having the same score. This helps in determining the top 5 or top 10 risks although there may be risks that are rated as very high and high.</p> <p>The following is an example of rating, and ranking for a specific combination of response values provided for Impact and Likelihood:</p> <p>Impact = Moderate Likelihood = Possible Rating = Medium Ranking = 9</p>
Scoring Algorithm and Rating	<p>Only the rating is based on the combination of two attributes or factors, based on which the risk assessment is performed. The scores however are based on the Risk Scoring Algorithm.</p> <p>The following is an example of rating (based on the Risk Configuration Matrix), and score (based on the algorithm) for a specific combination of response values provided for Impact and Likelihood:</p> <p>Impact = Moderate (Score=2) Likelihood = Possible (Score=3) Rating = Medium' (based on the Matrix configuration) Score = 6 (Product of Impact and Likelihood).</p>

Method	Use This Method When...
Risk Scoring Algorithm	<p>The score is based on the scoring algorithm and rating based on the score range specified for each rating. Here the rating is based on a range and not based on a two-dimensional matrix.</p> <p>Using this method, you can perform assessments with more than two factors.</p> <p>Example 1: Impact = Moderate (Score=2) Likelihood = Possible (Score=3) Score = 6 (Product of Impact and Likelihood) The rating is calculated from the heat map range table.</p> <p>Example 2: The factors can be Project Complexity, Project Size, Budget, Staffing, and so on based on which risk assessment is done and not based on simple Impact and Likelihood factors.</p>

Perspectives

A perspective is the point of view of specific teams who perform risk assessments. For example, the Enterprise Risk team runs periodic risk assessments throughout the year, and internal audit team performs assessments on the same set of organizations, assessable items, and risks. The two teams define two different perspectives so that comparisons and reconciliations can be done on the assessment results. Aggregation of score and rating happens by perspective.

A perspective supports only one type of assessment (Org-Risk / Assessable Item-Risk / Org-Assessable Item-Risk) and one of the five assessment methodologies.

For Org-Risk, Assessable Item-Risk, and Org-Assessable Item-Risk assessment types, you can define the assessment settings and preferences in the perspective.

Users with the **administrator** role or users with **RSK Manage Setup** activity can set up perspectives for risk assessment.

The created perspectives are available in the **Risk Assessment Plan**; you can schedule the assessment of these perspectives periodically to mitigate the associated risks.

General Section of Perspective Form

GENERAL

Specify a name and short description for the perspective. Flag the risk as default, if you wish to set this as default perspective.

Name *	Enterprise Business Unit - Risk (Scoring Algorithm and Rating Method)			
	<input checked="" type="checkbox"/> Default Perspective			
Description	Enterprise Business Unit - Risk (Scoring Algorithm and Rating Method)			
Validity	<table border="1"> <tr> <td>Dates</td> <td>Valid From 05/29/2018</td> <td>Valid Until 08/29/2019</td> </tr> </table>	Dates	Valid From 05/29/2018	Valid Until 08/29/2019
Dates	Valid From 05/29/2018	Valid Until 08/29/2019		

Figure 33 General Section of Perspectives Form

Field/List Name	Description
Name	Type a unique perspective name. Note: You can enter a maximum of 100 characters in this field.
Default Perspective	Select this check box to make the current perspective as the default perspective. You can make only one perspective as the default perspective.
Description	Provide the description for the perspective in this field.
Validity	
Dates	Define the longevity of the perspective by providing dates in the following fields: <ul style="list-style-type: none"> • Valid From: Provide the date from which the perspective should be valid. • Valid Until: Provide the date until which the perspective should be valid. If you do not provide any date in this field, this perspective possesses perpetual validity. Notes: <ul style="list-style-type: none"> - Only valid perspectives are available for selection in the risk assessment plan. - No assessment is triggered after the validity of the perspective expires.

Assessment Settings of Perspective Form

ASSESSMENT SETTINGS

Methodology

Specify the risk assessment type and profile to be used in the risk assessments to be performed under the current perspective.

Assessment Type *	<input type="text" value="Org - Assessable Item - Risk"/>
Assessable Items *	<input type="text" value="Assessable Items"/>
Risk Assessment Profile *	<input type="text" value="Risk Assessment Profile"/>

Select this flag if you want the assessable items and risks within the risk assessment plan scope to be filtered based on the relationships maintained within GRC library. If the flag is unchecked, you may select any assessable item or risk for assessment.

Use GRC Relationship

Factors for Assessment

Specify the factors that will be used for performing risk assessment. You can choose to either select these factors explicitly for all risks below or define the factors only for Ad-Hoc Risk (Risk added during assessment). If the flag "Assess Risk based on Assessment Category" is selected, factors for scoped in risk would be dynamically selected based on the assessment category while for the Ad-Hoc Risk will be assessed based on the factors specified below.

Risk Categories *	<input type="text" value="Risk Categories"/>
Mandatory Factors	-
Additional Factors *	<input type="text" value="Additional Factors"/>

Control Framework Assessment

Select the factors to be included in the overall control environment assessment or individual controls that will be picked up for assessment.

Default Controls Based on	<input type="text" value="Risk Relationship"/>
	<input checked="" type="checkbox"/> Control Test Results

Figure 34 Assessment Settings of Perspective Form

Field/List Name	Description
Methodology	
Assessment Type	<p>Select the type of assessment for the current perspective. You can perform the following three types of risk assessment. Based on the type of risk assessment, the risk score is calculated during the risk assessment stage.</p> <ul style="list-style-type: none"> • Assessable Item - Risk: If the assessment type is based on assessable item and risk, select this option. • Org - Assessable Item - Risk: If the assessment type is based on organization, assessable item and risk, select this option. <p>Note: Assessable items include GRC library content (except risk and control), Suppliers, and Auditable Entities.</p> <ul style="list-style-type: none"> • Org - Risk: If the assessment type is based on organization and risk, select this option. <p>Example:</p> <ul style="list-style-type: none"> • The Org-Risk and Org-Assessable Item-Risk assessment types are typically ideal for Enterprise Risk Management use cases where the line managers can assess risks for their individual organizations and aggregate the individual organization scores to arrive at the risk scores. • The Org-Assessable Item-Risk and Assessable Item-Risk assessments are ideal for Audits, SOX, and operational risk management related risks.
Assessable Items <i>(appears only if you select Assessable Item - Risk or Org - Assessable Item - Risk in the Assessment Type field)</i>	<p>Select one or more items that you want to assess. The assessable items available for selection in this list are:</p> <ul style="list-style-type: none"> • All GRC libraries except Risk and Control. <p>Note: Risk and Control library types cannot be configured.</p> <ul style="list-style-type: none"> • Supplier • Auditable Entity <p>Note: Auditable Entity is displayed only if the Audit Planning and Execution or the App containing the Audit Planning and Execution is installed. Similarly, Supplier object is displayed only if any of the components such as Third Party Information Management or Third Party On-Boarding and Monitoring is installed or the App containing any of these components is installed.</p>
Risk Assessment Profile	Select the risk assessment profile that defines assessment methodology, scoring algorithm, roll up logic, risk ranges, risk matrix configuration, control assessment setup, and heat map configuration.
Use GRC Relationship	<p>Selecting this check box indicates that the only the library items with the defined GRC relationship will be available in the Scope window (Assessments section) for selection.</p> <p>Note: Based on the item that is selected in the Assessable Items field and the organizations to which the assessable items are mapped to, the assessable items are filtered and displayed in the Assessable Item field of the Risk Assessment Plan form. For example, if you select Objective, all the objectives mapped to the selected organizations are made available in the Assessable Item field of the Risk Assessment Plan form. You must select at least one assessable item.</p>
Factors for Assessment	

Field/List Name	Description
Assess Risk Based on Assessment Category	<p>Selecting this check box indicates that only the risks selected in the Risk Assessments Plan form are assessed based on the risk category and ad hoc risks based on the factors provided in the Mandatory Factors and Additional Factors fields.</p> <p>If this check box is selected, the risk categories selected in the Perspective form have to be the same as the risk categories selected in the risks being assessed as well as the factors created for risk assessment.</p> <p>If this check box is cleared, all the risks in the assessment using this perspective are assessed based on the factors in the Mandatory Factors and Additional Factors fields. All the risks will be available for selection in the Risk Assessment Plan form irrespective of the risk category.</p>
Risk Categories <i>(appears if you select the Assess Risk Based on Assessment Category check box)</i>	Select the risk categories based on which the risks need to be assessed.
Mandatory Factors	Displays the factors specified in Risk Assessment Profile, Risk Matrix Configuration or Risk Scoring Algorithm that determine the score and rating.
Additional Factors	<p>Select more factors if you want them to be considered for assessment.</p> <p>If no mandatory factors are available, you need to provide at least two additional factors. The qualitative factors and the quantitative risk factors (with Applicable To field value as Inherent/Residual Assessment in the Quantitative Factor form) are available for selection.</p>

Control Framework Assessment

For assessment on overall control environment, you can select the control factors that are defined as quantitative factors and provide the overall control score formula.

Enable Controls Section <i>(Unavailable if Control Scoring/Control section is not enabled in the Risk Scoring Algorithm or Risk Matrix Configuration (Risk Assessment Profile) that is used in the perspective)</i>	<p>Selecting this check box indicates that the Control Effectiveness section for individual controls or Control Environment for overall control assessment based on factors is available on the Risk Assessment form. By default, the check box is selected when the Risk Scoring Algorithm with mitigation is used in the selected profile.</p> <p>If this check box is not selected, the assessor cannot assess the controls.</p>
Control Factors <i>(available only if the Overall Environment Based on Factors option is selected in the Assess Control Framework Based On field)</i>	<p>Select the factors on which the overall control environment should be assessed. The factors that are defined in quantitative factors with Applicable To as Control Framework Assessment are available for selection.</p>
Default Controls <i>(appears only individual control assessment)</i>	<p>Select this check box to make the controls related to the risks available for assessment by default.</p> <p>If this check box is not selected, no controls will be available to the assessor for assessment by default; however, the assessor can add controls for assessment.</p>

Field/List Name	Description
Default Controls Based on <i>(appears only if the Default Controls check box is selected)</i>	<p>Use this field to select the logic for filtering and displaying the default controls in the Control Effectiveness section in the Risk Assessment form. The available options are:</p> <ul style="list-style-type: none"> • Risk Relationship: Select this option to display all the controls that are related to the assessed risk to the assessor irrespective of the assessable item and organization. • Risk and Organization Relationship: Select this option to display only the controls that are related to both the assessed risk and the organization on which the risk is assessed. • Risk and Assessable Item Relationship: Select this option to display only the controls that are related to both the assessed risk and the assessable item.
Control Test Results	<p>Selecting this check box indicates that the Risk Assessment form shows the View Test Results link. Clicking this link opens the Test Execution report that shows the results of the controls that are tested as part of risk assessment. For details on this report, refer to MetricStream Arno Release Spring '21 - Self-Assessment and Testing - User Guide.</p>

Note: If you want to edit any details in the form, open it from the [Perspectives Report](#) and then make the necessary changes.

Assessment Preferences Section of Perspective Form

ASSESSMENT PREFERENCES

Ad-Hoc Risk

Specify whether the assessor can add only Ad-Hoc risk from library or can type in a new risk (Typed In) or both. Additionally, you can also specify the level at which these Typed - In should be added in assessment. The Typed In risks remains local to risk assessment and are not added automatically to GRC library.

Add Risks from	Both
Add Risks at *	Level 1 Level 2

Additional Assessment Preferences

Specify the final approver for risk assessments along with various other configurations. The final approver configuration only affects Scheduled and Ad-Hoc risk assessments and do not impact Ongoing Risk Assessments as they does not have any approval workflow.

Final Approver for Assessments	Assessment Plan Owner
<input checked="" type="checkbox"/> Enable Issues Section <input type="checkbox"/> Default to Previous Assessment <input checked="" type="checkbox"/> Modify Weighting	

Display

<input type="checkbox"/> Prior Rating	<input type="checkbox"/> Metrics Data	<input type="checkbox"/> Loss Events	<input type="checkbox"/> Issues
<input checked="" type="checkbox"/> Show Rolled Up Score for Organization & Assessable Item			
<input checked="" type="checkbox"/> Risk Scores			
<input type="checkbox"/> Prior Assessment for Factors			

Risk Register Preferences

Specify the preference with which the risk register report would be exported to Excel format. Depending on the component you are using in your application you can select the preferences. If you are using only Metrics, Risk Assessment and Issues select the preference as 'Risk Assessment, Issues and Metrics Information'.

Export Risk Register with	Risk Assessment, Issues and Metrics Information
---------------------------	---

Figure 35 Assessment Preferences of Perspective Form

Field/List Name	Description
Ad-Hoc Risk	

Field/List Name	Description
Add Risks from	<p>Selecting an option determines whether or not to allow assessor to add risks while performing the assessment. The available options are:</p> <ul style="list-style-type: none"> • Library Risks: Select this option to allow assessor to select and add any published and active risks from the GRC library during the assessment. • New Risks: Select this option to allow assessor to add new risks during the assessment. <p>Note: The new risk is added for the assessment, but not added to the library.</p> <ul style="list-style-type: none"> • Both: Select this option to allow assessor to add new risks by entering the details and select and add risks from the GRC library during the assessment. <p>Note: When the assessor is allowed to add new risks, they can be added in the Assessable Item node for an Assessment Type of Org-Assessable Item-Risk or Assessable Item-Risk. For an Assessment Type of Org-Risk, the assessor can add risks in Organization node during the assessment.</p> <ul style="list-style-type: none"> • None: Select this option if you do not want to allow the assessor to add risks during assessment.
Add Risks at <i>(Available only if you have selected New Risks or Both in the preceding field)</i>	<p>Select the levels for the new risks that can be added by the assessor during the assessment.</p> <p>If only one value is selected in this field, the selected level appears in the Level field of New Risk dialog box for the assessor. If more than one value is selected in this field, the assessor has to select the level at which the risk is added in the Level field of the New Risk dialog box.</p>
Additional Assessment Preferences	
Final Approver for Assessments	<p>This value selected in this field determines the final approver for the risk assessments. The available options are:</p> <ul style="list-style-type: none"> • Assessment Plan Owner: When you select this option, after assessor submits the assessment, it will be first routed to assessment approver, if available, for approval. Once approved by the approver, it goes to the responsible Plan Owner for final approval. If there is no assessment approver available, as soon as the assessor submits the form, it goes to the Responsible plan owner for final approval. <p>Note: If the Plan Owner does not exist, or is no more assigned to the required activity, then the assessment is published on approval from assessment approver.</p> <ul style="list-style-type: none"> • Assessment Approver: When you select this option, assessment approver becomes the final approver. The assessment will be published once the assessment approver approves the assessment.
Enable Issues Section	<p>Select this check box if you want to make the Issues section available in the Risk Assessment form.</p>

Field/List Name	Description
Default to Previous Assessment	<p>This check box determines whether the upcoming risk assessment values (score, rating, and ranking) must inherit and display the values from the previous assessment results. This is applicable for both inherent and residual sections.</p> <p>If you select the check box:</p> <ul style="list-style-type: none"> The upcoming risk assessment values are defaulted to the previous inherent and residual risk assessment values if both the risk assessments are performed using the same combination of Org-Risk/Assessable Item-Risk /Org-Assessable Item-Risk and the same perspective even if the assessments are triggered from different plans. <p>Note: The preceding scenarios are applicable for all factors.</p> <p>Example:</p> <p>Consider that the combination of Org1-Process1-Risk1 is being assessed as part of Plan 1 and Plan 2 using the same Perspective.</p> <p>Following are the assessment details triggered from Plan 1:</p> <ul style="list-style-type: none"> Has inherent risk rating - High Has residual risk rating - Medium Was performed in the previous month. <p>Following are the assessment details triggered from Plan 2:</p> <ul style="list-style-type: none"> Has inherent risk rating - High Has residual risk rating - High Was performed 1 day ago <p>When the next assessment is again triggered from Plan 1, the inherent risk becomes High and residual risk becomes High since both these values are inherited from the latest assessment performed.</p>
Modify Weighting <i>(unavailable for Rating Method)</i>	Select this check box if you want to allow the assessor to modify the non-standard factor weights, control weights, and control factor weights during assessment.
Display	
Prior Rating	This check box determines whether to show or hide previous residual risk ratings on the Risk Assessment form. Selecting this check box displays the previous residual rating in the header section. The rating is picked from the assessment performed and published most recently in the past on the same combination of Org-Risk/Org-Assessable Item-Risk/Assessable Item-Risk as that of the current assessment. The previous rating is displayed only for risks, but not for organization or assessable item.

Field/List Name	Description
Metrics Data	<p>Select this check box to specify whether or not to show Metric breaches based on the Metrics defined and being tracked for, as well as the metrics related to the risk being assessed on the Assessment form. If you select this check box, then Metrics Data is displayed in the related reports available in the Risk Assessment form. Click Metrics Data to view the metrics being tracked for as well as related to the risks being assessed.</p> <p>Note: The details in the Related Loss Events report is picked from the Loss Events component that is part of your App.</p>
Loss Events	<p>Select or clear this check box to specify whether or not to show the losses related to the Risk being assessed on the Assessment form. The details are populated based on the loss relationship with the Risk being assessed. If you select this check box, then Related Loss Events is displayed in the related reports available in the Risk Assessment form. Click this report to view all the loss events related to the risk.</p>
Issues	<p>Select or clear this check box to specify whether or not to show open issues related to the risk being assessed. If you select this check box, then the Open Issues displayed in the related reports is available in the Risk Assessment form. Click this report view the open issues related to the risk.</p>
Show Rolled Up Score for Org. & Assessable Item	<p>Select this check box to display the score and rating at the organization and assessable item levels on the Risk Assessment form.</p> <p>Note: Irrespective of the availability of the scores and ratings at the organization and assessable item level on the Risk Assessment form, these are considered for the rollup calculation and the results are displayed in all relevant reports.</p>
Risk Scores	<p>Select this check box to specify whether to show the Risk Score in square brackets together with the risk rating in the Risk Assessment form. This setting is applicable for all risk assessment methods except Risk Rating method.</p> <ul style="list-style-type: none"> If you select this check box, then the score is displayed in square brackets adjacent to the rating in the Risk Assessment form. This is applicable for Organization node, Assessed Item node, and Risk node. Example: Rating: High [10] If you do not select this check box, then the scores are not displayed in square brackets adjacent to the ratings in the Risk Assessment form.
Prior Assessment for Factors	<p>Select or clear this check box to specify whether or not to display the prior assessment factor values. If you select this check box:</p> <ul style="list-style-type: none"> Prior assessment factor values are displayed in a separate column within the Inherent Rating and Residual Rating sections on the Risk Assessment form. Prior assessment factor values are displayed in a separate column within the Control Environment section on the Risk Assessment form if the control environment is assessed using factors.
Risk Register Preferences	

Field/List Name	Description
Export Risk Register with	Select the preference to export the risk register report details. When you click Export in the Risk Register Report , the Excel sheet displays the details based on the value selected in this field. The available options are: <ul style="list-style-type: none"> Risk Assessment and Issues Information: You can select this option to export the risk register with assessment and related issues details. This is ideally useful for risk assessment performed as part of internal audits, business continuity management, or IT risk management. Risk Assessment, Issues and Metric Information: You can select this option to export the risk register with assessment, related issues, and metric details. This is ideally useful for risk assessment performed as part of enterprise risk management. Risk Assessment, Issues, Metrics and Loss Events Information: You can select this option to export the risk register with assessment, related issues, metric, and loss event details. This is ideally useful for risk assessment performed as part of operational risk management.

Actions in Perspective Form

After you enter all the details, you can perform the following actions on the Perspective form.

Action/Button	Description
Save	Click this button to save the form. You can access the form from Tasks at a later time to continue working on the form.
Submit	Click this button to publish the perspective.
Close	Click this button to close the current form. If the changes made to the form are not saved, then the Close Form dialog box appears to save and close the form.

Assignments and E-mails

After you submit the current form, no task assignments and e-mail notifications are generated.

Related Reports and Charts

After you submit the form, the following reports are updated when the **Perspective** form is published:

- [Perspectives Report](#)
- All reports available in risk assessment (for details, [Click Here](#)) except the set up-related reports such as [Quantitative Factors Report](#), [Qualitative Factors Report](#), [Risk Scoring Algorithms Report](#), [Risk Scoring Algorithms Report](#).

Note: No chart is updated when **Perspective** form is published.

Copying Perspective

You can copy an existing perspective to create a new perspective.

- Open the perspective that you want to copy from the relevant report (for example, [Perspectives Report](#)).
- In the form header, click **Copy**.

A new perspective form opens with all the details of the existing perspective copied.

Note: The Copy option is available only if you have the privilege to create a new perspective.

3. Edit the required details and proceed with saving or submitting the form.

Notes:

- The **Default Perspective** check box is always cleared in the new perspective even if the original perspective was selected as default.
- You cannot change the Assessment Type.

Configuring Organization Weighting

You can access the **Organization Weighting** form only from **Organization Weighting** data browser. It is used to specify the weighting value for different organizations defined in the system. The values specified are factored in while aggregating the risk assessment scores along the organization hierarchy.

Using this form, you can specify the weighting value for different organizations defined in the system to determine the risk score. The scores are calculated based on the weighting assigned to the organization and the same rolls up to its hierarchy. You can view the calculated scores through the roll up reports.

You can set up weighting by specifying weights or percentage through the following parameters:

- MS_RSK_ORG_WEIGHTAGE_CONFIG
- MS_RSK_ORG_WEIGHTAGE_ROLLUP

The weight is converted into percentage if the input method chosen is **Weights**.

For more information on configuration parameters, contact your system administrator.

All the organizations that are defined at the Enterprise level in the platform are available for weighting configuration. If a new business unit is added or in case of organization restructuring, you need to reconfigure the organization weights for new organizations or restructured organizations.

Note: In the calculations and examples provided in this section, Average is used as the roll up logic. The other possible options are Minimum and Maximum. This is based on the value selected in the Roll Up Logic field in the [Assessment Settings of Perspective Form](#) section.

Organization Weighting Form

Use the **Organization Weighting** form to define the weighting or percentage for organizations.

The screenshot shows the 'ORGANIZATION WEIGHTING' form for 'OWF-000014 [ACME CORP]'. On the left, a tree view displays the organization hierarchy:

- ACME Corp (Level 1)
- LOB - MidWest Power (Level 2)
- LOB - Healthcare (Level 2)
- LOB - Retail Banking (Level 2)
- LOB - Retail (Level 2)
- LOB - Manufacturing (Level 2)
- LOB - Insurance (Level 2)
- LOB - Shared HR (Level 2)
 - HR (Level 3)
 - Benefits (Level 3)
 - Staffing (Level 3)
- Acme GRC Organization (Level 1)
- System Access (Level 1)
- SCM Supply Chain (Level 1)

Three callouts point to specific items: 1 points to ACME Corp, 2 points to LOB - Shared HR, and 3 points to Benefits. A large green checkmark icon is located in the center-right area.

General

GENERAL													
Organization Hierarchy	LOB												
Organization	ACME Corp												
Total Percentage	100.00												
<table border="1"> <thead> <tr> <th>Organization</th> <th>Percentage (%) *</th> </tr> </thead> <tbody> <tr> <td>LOB - Healthcare</td> <td>10</td> </tr> <tr> <td>LOB - Shared IT Services</td> <td>30</td> </tr> <tr> <td>LOB - Shared HR</td> <td>15</td> </tr> <tr> <td>LOB - Shared Finance & Accounting</td> <td>20</td> </tr> <tr> <td>LOB - Retail Banking</td> <td>25</td> </tr> </tbody> </table>		Organization	Percentage (%) *	LOB - Healthcare	10	LOB - Shared IT Services	30	LOB - Shared HR	15	LOB - Shared Finance & Accounting	20	LOB - Retail Banking	25
Organization	Percentage (%) *												
LOB - Healthcare	10												
LOB - Shared IT Services	30												
LOB - Shared HR	15												
LOB - Shared Finance & Accounting	20												
LOB - Retail Banking	25												

Displaying records 1-5 of 9

Figure 36 Organization Weighting Form

The callouts identify the following:

1. Organizations at level 1
2. Organizations at level 2
3. Organizations at level 3

Field/List Name	Description
Data Browser	
You can select the organization through data browser.	
Organization Names	Displays the list of level 1 organizations, with the option for the user to expand and view the underlying organizations. If weights are already assigned, the organization name will be appended with the weight % value in square brackets Example: LOB Retail Banking [60%]
General	
The organization hierarchy and weightage details are displayed in this section	
Organization Hierarchy	The name of the hierarchy in the organization for which you want to define the weight is displayed in this field. All the organization hierarchies that are defined in the platform are available for selection. Note: If you are editing the existing weightage of an organization, this field is non-editable.

Field/List Name	Description
Organization	<p>The organizations are displayed based on the selected hierarchy of the organization.</p> <p>After you select the organization, the organizations at the top and lower hierarchical levels are available in a tabular format in the Organization Weighting form for specifying the weightages.</p> <p>In the above example, consider that ACME Corp organization is the organization at the top hierarchical levels, which has the following organizations at the lower hierarchical level:</p> <ul style="list-style-type: none"> • LOB - Healthcare • LOB - Retail • LOB - Shared HR <p>You can enter the weights for each level that aggregates to 100% at the top hierarchical level. This is applicable for each hierarchy. If the input is through weights, the percentage is automatically calculated.</p> <p>For example, If the weights for LOB - Healthcare, LOB - Retail, and LOB - Shared HR are 1, 2, and 3 respectively, then the percentage is (Weight/Total Weights)*100=Percentage. Therefore for LOB - Healthcare, the percentage is $[1/(1+2+3)]*100=16.67\%$</p> <p>If the input is through percentage, then the total percentage input for the child organizations need to be 100%</p> <p>Note: If you are editing the existing weightage of an organization, this field is non-editable.</p>
Total Percentage	<p>The total percentage weigh contributions of the organizations appear. The value in this field is automatically refreshed based on the percentage that you enter for each child organizations.</p> <p>The total% must be 100 before you submit the form. Otherwise, the message 'The percentage distributed is not equal to 100%. Please check the distribution' is displayed.</p> <p>Note: This field is made available based on the MS_RSK_ORG_WEIGHTAGE_CONFIG configuration parameter setting. Contact your system administrator for details on configuration parameters.</p>

Tabular format to represent organizations at lower hierarchical levels

Organization	The name of the organization at the lower hierarchical level appears.
Weight <i>(this is available based on the configuration parameter setting)</i>	Specify the weight that needs to be considered for the organization while rolling up the scores to enterprise entity.
Notes:	<ul style="list-style-type: none"> - This field accepts positive integers. - The weight that you enter here is converted into percentage and displayed in the Percentage field. - One or more organizations at lower hierarchical levels can have same weight, however the total percentage must be 100% for the organization at the top hierarchical level. - This field is made available based on the configuration parameter setting. Contact your system administrator for managing configuration parameters.

Field/List Name	Description
Percentage	<p>Type the percentage contribution that needs to be considered for the organization for risk score aggregation.</p> <p>Note: This field is made available based on the configuration parameter setting. Contact your system administrator for managing configuration parameters.</p> <p>If the above parameter is set to Weight, this field becomes non-editable. The percentage weight based on the value that you enter in the Weight field is displayed. Weight is calculated based on the formula: $(\text{weight (entered in the Weight field)} / (\text{Sum of weights entered for child organizations in the tabular format}) * 100$</p> <p>Example: The following table shows different weights for each organization</p>

Organization	Weight	Percentage
LOB - HR	1	1 / 6*100= 16.67
LOB-Benefits	2	2 / 6*100= 33.33
LOB - Staffing	3	3 / 6*100= 50.00

Example: The following table shows same weight for two organizations.

Organization	Weight	Percentage
LOB - HR	1	1/5*100= 20
LOB-Benefits	1	1/5 *100= 20
LOB - Staffing	3	3/5*100 = 60

Note: The fraction weights and percentages are rounded off to the nearest digit after the decimal point.

Example:

Weight = 1.45, it is rounded off as 1.5.

Weight = 1.44, it is rounded off as 1.4.

Assignments and E-mails

After you submit the form, no task assignments and e-mails are generated.

Risk Aggregation - Score Calculation

The following figures depict the scenarios for calculating risk score aggregation when organization weighting is configured based on percentage:

Scenario - 1 (Organization weighting configured based on percentage)

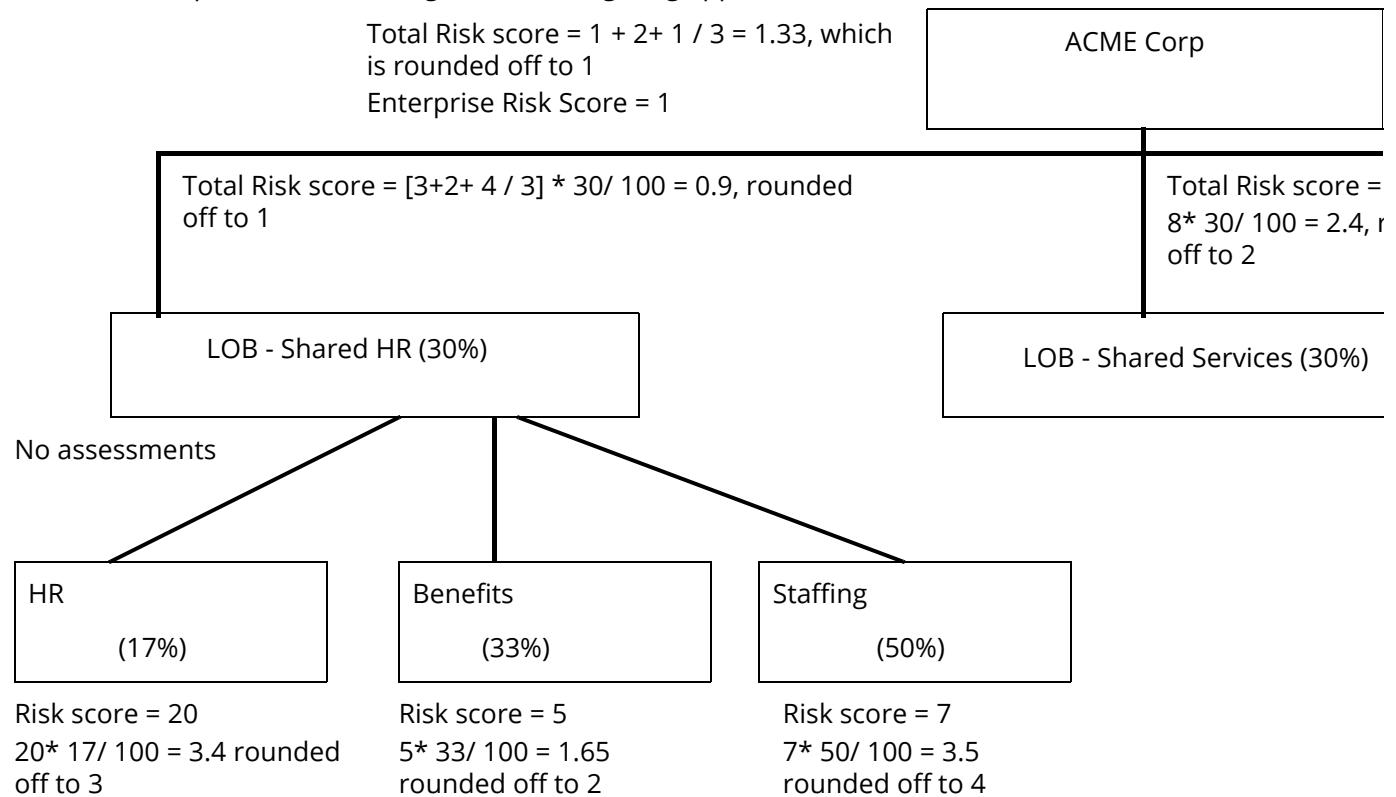
In the below scenario, risk assessments are done at level 3 and level 2.

HR, Benefits, and Staffing - Three assessments are done at level 3 as shown in the below scenario.

LOB - Shared HR, LOB - Shared Services, LOB Retail - Two assessments are done at level 2 as shown in the below scenario. No assessment is done for LOB - Shared HR, which is at level 2, but the child organizations are assessed.

The score is rolled up to ACME Corp by applying the individual percentage defined for each organization at the third level and then rolled to the LOB - Shared HR by applying the percentage (that is, 30%) as shown below. The organization weighting can be configured for either inherent or residual score.

The below example is shown for organization weighting applied on residual score.



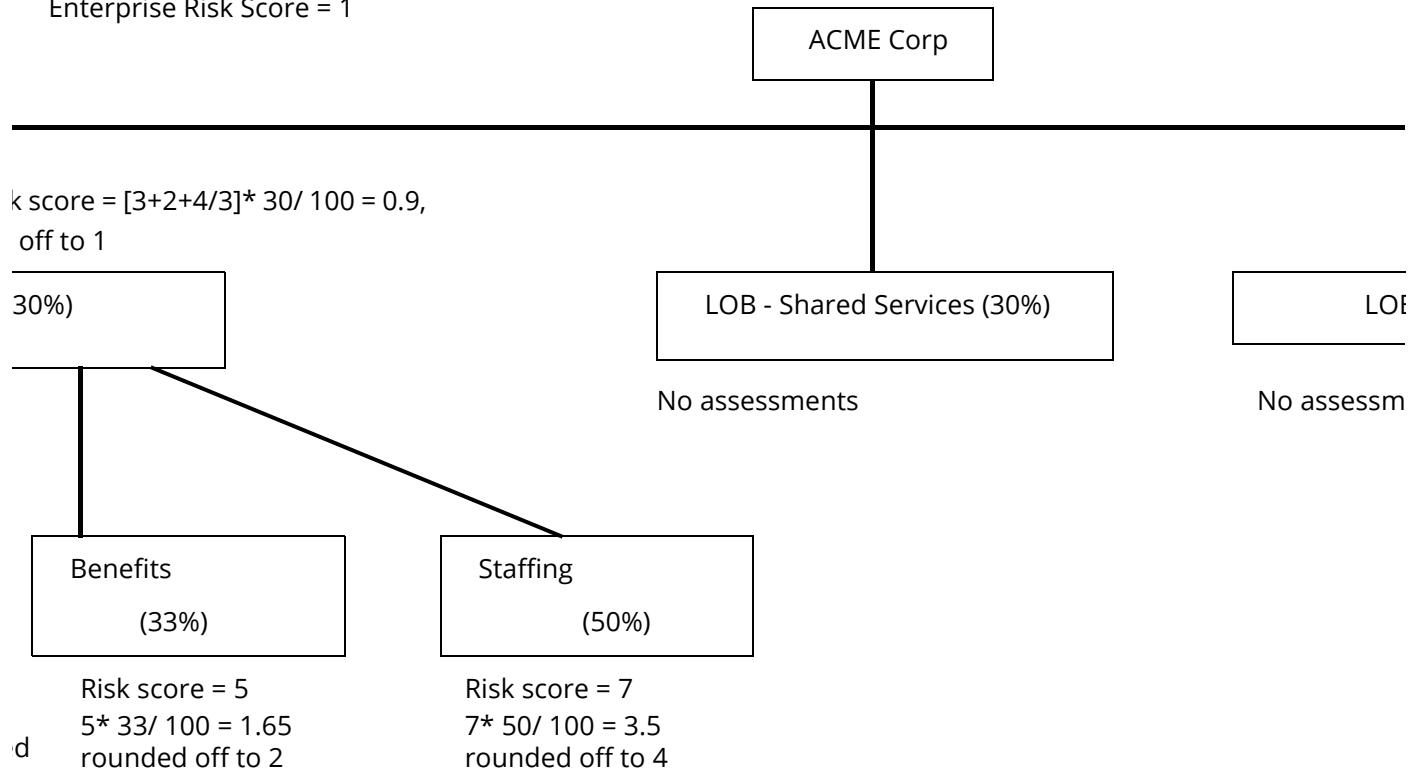
Scenario - 2 (Organization weighting configured based on percentage)

In the below scenario, there are three assessments at level 3 and there are no assessments at level 2 and level 1. The score is rolled up to AMCE Corp by applying the percentage at level 3 (that is the HR level having 17%) and level 2 (that is the LOB Shared HR having 30%) as shown below.

The organization weighting can be configured for either inherent or residual score.

The below example is shown for organization weighting applied on residual score.

Enterprise Risk Score = 1



Scenario - 3 (Organization weighing configured based on percentage)

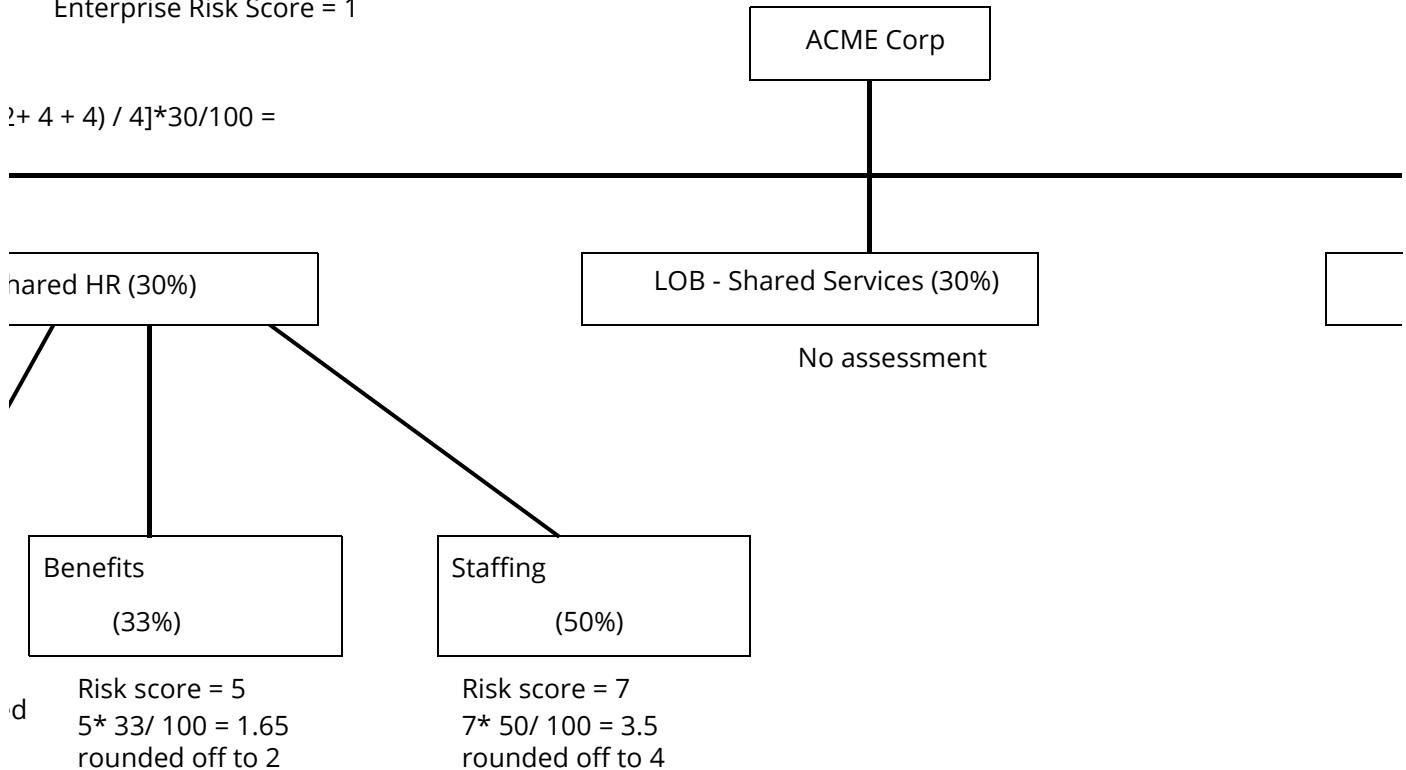
In the below scenario, risk assessments are done at level 3 and level 2.

HR, Benefits, and Staffing - Three assessments are done at level 3.

LOB Shared HR, which is at level 2 is also assessed. The score is rolled up to ACME Corp by applying the individual percentage defined for each organization at the third level and these scores from level 3 and the risk score of LOB Shared HR score are averaged by applying the percentage (that is 30%). It is then aggregated to the ACME Corp as shown in following figure.

The organization weighting can be configured for either inherent or residual score. The below example is shown for organization weighting applied on residual score.

Enterprise Risk Score = 1



The following figure depicts the scenario on calculating roll up risk scores when organization weightage is configured based on Weight:

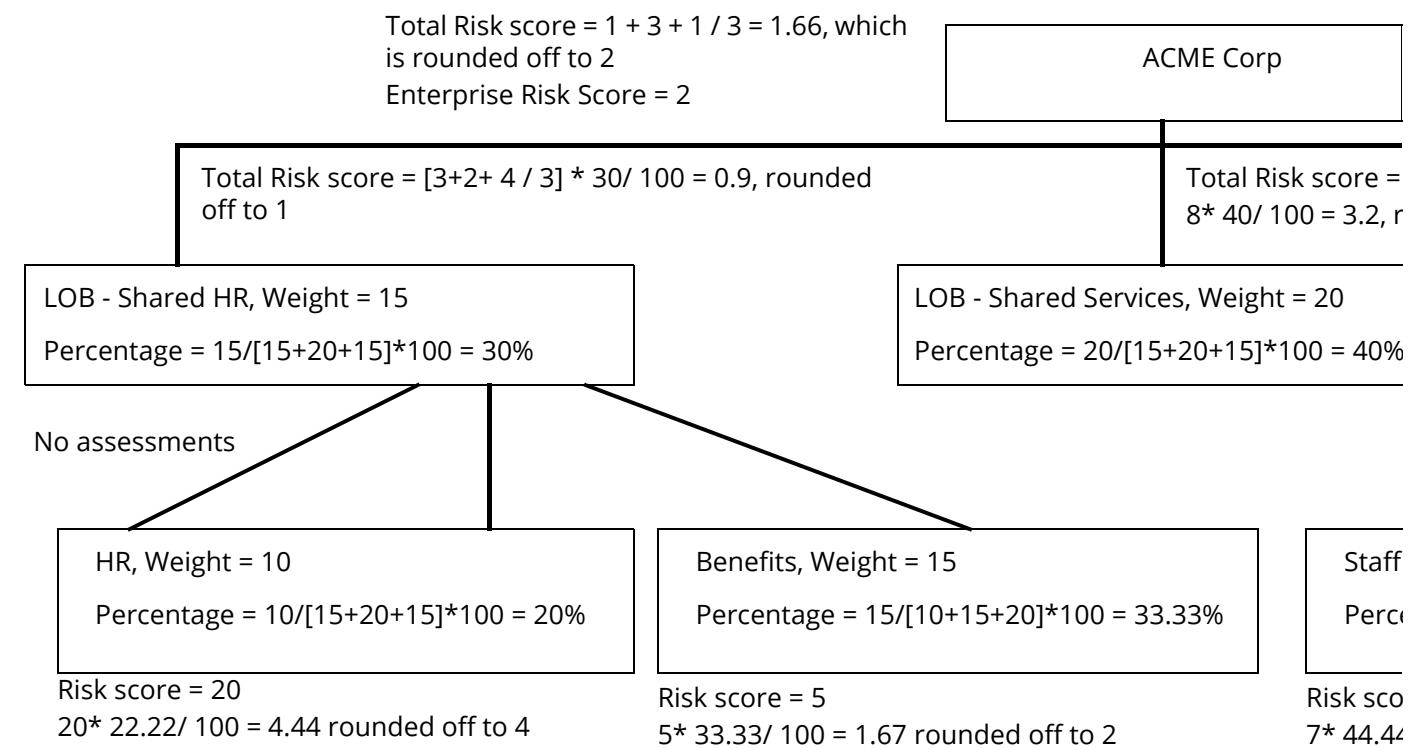
Scenario - 4 (Organization weighting configured based on weight)

In the below scenario, risk assessments are done at level 3 and level 2.

HR, Benefits, and Staffing - Three assessments are done at level 3 as shown in the below scenario.

LOB - Shared HR, LOB - Shared Services, LOB Retail - Two assessments are done at level 2 as shown in the below scenario. No assessment is done for LOB - Shared HR, which is at level 2, but the child organizations are assessed. The score is rolled up to ACME Corp by applying the individual percentage defined for each organization at the third level and then rolled to the LOB - Shared HR by applying the percentage (that is, 30%) as shown below.

The organization weighting can be configured for either inherent or residual score. The below example is shown for organization weighting applied on residual score.

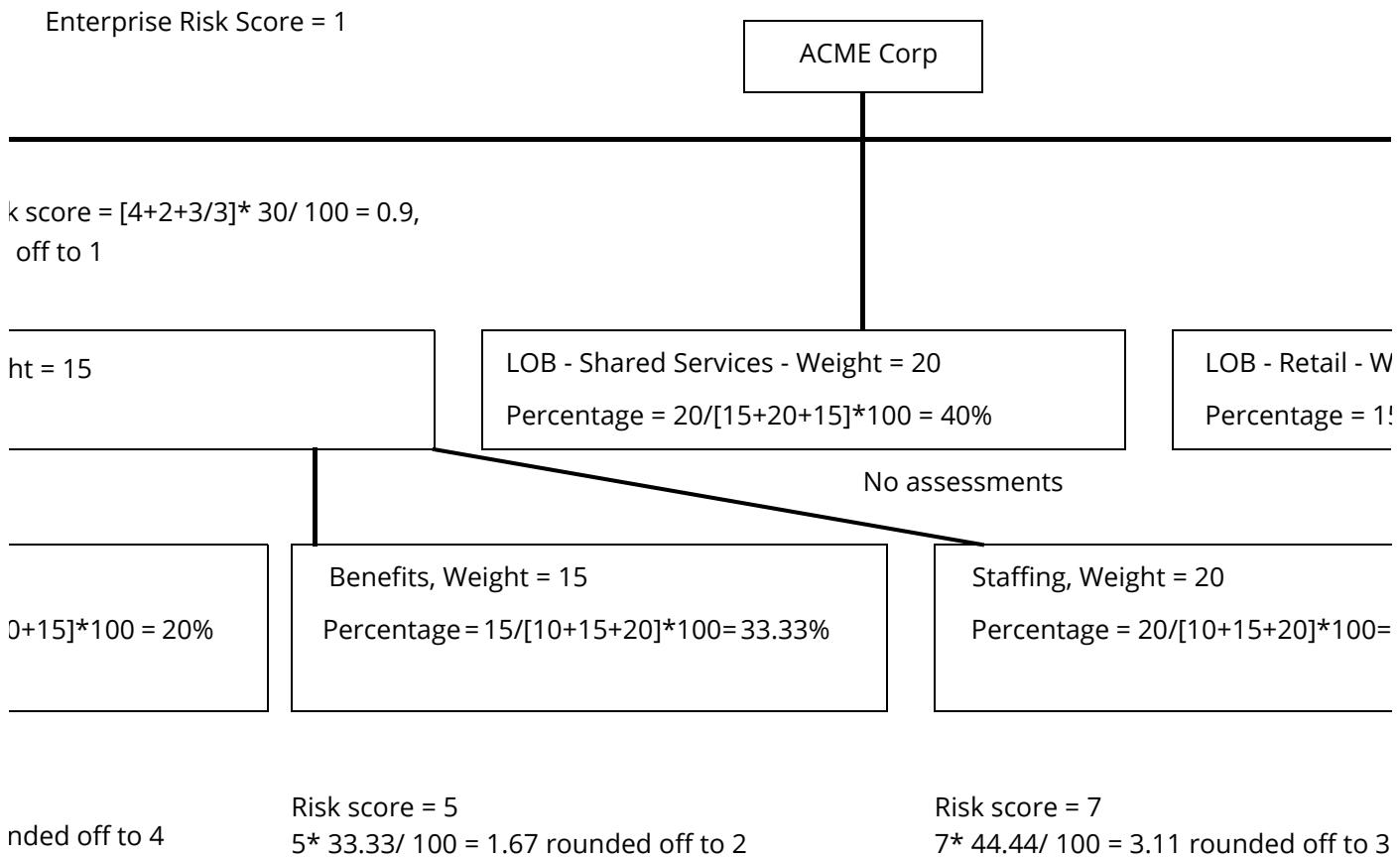


Scenario - 5 (Organization weighting configured based on weight)

In the below scenario, there are three assessments done at level 3 and there are no assessments at level 2 and level 1. The score is rolled up to ACME Corp by applying the percentage at level 3 (that is the HR level having 22.22%) and level 2 (that is the LOB Shared HR having 30%) as shown below.

The organization weighting can be configured for either inherent or residual score. The below example is shown for organization weighting applied on residual score.

Enterprise Risk Score = 1



Scenario - 6 (Organization weighting configured based on weight)

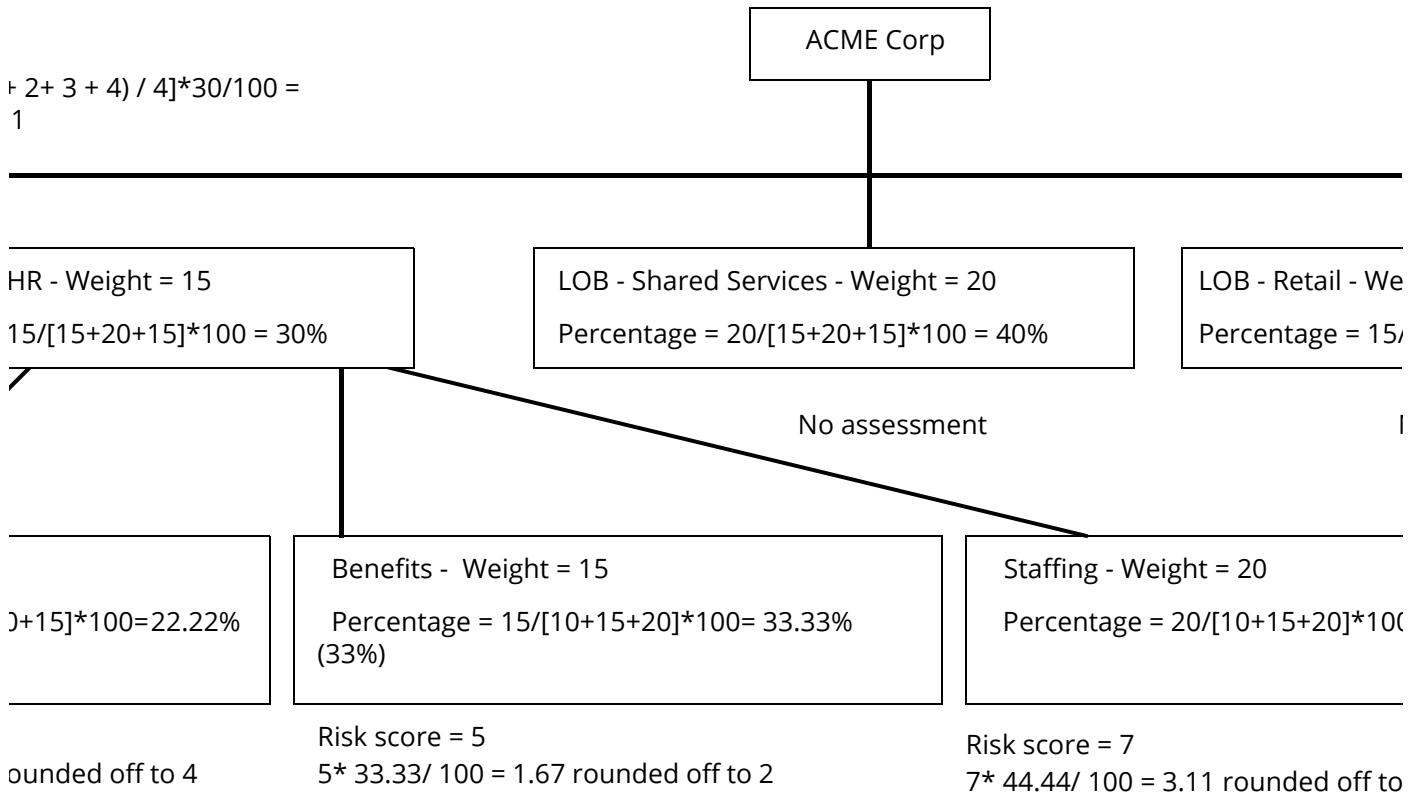
In the below scenario, risk assessments are done at level 3 and level 2.

HR, Benefits, and Staffing - Three assessments are done at level 3.

LOB - Shared HR, which is at level 2 is also assessed. The score is rolled up to ACME Corp by applying the individual percentage defined for each organization at the third level. These scores from level 3 and the risk score of LOB - Shared HR are averaged by applying the percentage (that is 30%). It is then aggregated to the ACME Corp, as shown in following figure.

The organization weighting can be configured for either inherent or residual score. The below example is shown for organization weighting applied on residual score.

Enterprise Risk Score = 1



Defining Risk Aggregation Weight

You can define weights of the dimensions based on the perspectives. These defined weights will be used in the **Risk Aggregation** report. Users with activities **RSK Setup Weights** and **Manage Data Import Export** can view, create, and modify weights.

Details Section of Risk Aggregation Weight Form

RISK AGGREGATION WEIGHT

DETAILS
Specify the weight for the selected combination of Organization dimension, Assessed item and Risk for the perspective.

Perspective *	Enterprise Business - Objective - Risk (Rankin...)
Assign Weights To *	<input type="button" value="Line of Business"/> <input type="button" value="Function"/> <input type="button" value="Location"/> <input type="button" value="Legal Entity"/> <input type="button" value="Assessed Item"/> <input type="button" value="Risk"/>
Line of Business *	ACME Corp
Function *	Access Management
Location *	Americas
Legal Entity *	ACME American Manufacturing & Trading Co...
Assessed Item *	% of members present in the review ?
Risk *	Access & Relevance
Weight *	24

Active

Save **Submit** **Close**

Figure 37 Details section of Risk Aggregation Weight form

Field/List Name	Description
Perspective	Drop down list, displays all the available perspectives. Select any perspective.
Assign Weights To	This field is a combination of entities for which weights are assigned to. Displays all the organization dimensions with risk and assessable item. Note: Assign Weights To drop down values are displayed based on the assessment type of selected perspective.
Line of Business <i>(This is available based on the selection of Assign Weights To)</i>	Click anywhere on the field and select the LOB value.
Function <i>(This is available based on the selection of Assign Weights To)</i>	Click anywhere on the field and select a function value.
Location <i>(This is available based on the selection of Assign Weights To)</i>	Click anywhere on the field and select a location.

Field/List Name	Description
Legal Entity <i>(This is available based on the selection of Assign Weights To)</i>	Click anywhere on the field and select a legal entity.
Assessed Item <i>(This is available based on the selection of Assign Weights To)</i>	Click anywhere on the field and select the Assessed Item.
Risk <i>(This is available based on the selection of Assign Weights To)</i>	Click anywhere on the field and select a risk.
Weight	Enter the weight for the selected entity combination. Weight is corresponding to the combination of the entities selected above.
Active	Selecting this check box indicates that this weights will be considered for the Risk Aggregation report.

Notes:

- If the user does not specify the weight, then the default weight will be **One**.
- **Every Other:** This value is available for all the dimensions and helps to set a default value. Weight defined for Every Other will override the default weight of 1 if specific weights are not defined.
- **NA:** This value is available only for **Function**, **Location** and **Legal Entity** dimensions. User can select this option if any dimension is not applicable.
- User can also upload weights through Data Upload form. All the columns seen in the **Risk Aggregation Weights** forms will be also be available in the excel template.

Editing Risk Aggregation Weight Form

User can edit the submitted Risk Aggregation Weight assessment.

To edit the weight assessment:

1. From Setup infocenter, open **Risk Aggregation Weight** report.
2. Click **Show Filter**, select the **Perspective** and click **Apply Filter**.
3. Scroll to right and click **Edit** for the assessment you want to modify.

for more information on the edit the form, refer [Defining Risk Aggregation Weight](#).

Risk Aggregation View Form

You can use this form to register to configure aggregation views for other products to use the data for their reporting purposes. The views in this can be created before and after the assessments are performed. You can create views for a specific perspective or for all the perspectives available.

The Risk Aggregation View form comprises of the following sections:

HEADER	Provides the action buttons to take action on the form.
GENERAL	Helps you enter the details of the form registration for creating a new view.
ADDITIONAL	Helps you select the details for the optional filters.
FILTERS	

To create a new view:

1. In the **Setup** infocenter, click **Forms**, then click **Risk Assessments** and then click **Risk Aggregation View**.
2. In the **General** section, enter the registration name, view name and select the entities as show in the following table:

The screenshot shows the 'GENERAL' section of the Risk Aggregation View form. It includes fields for Registration Name, View Name, Aggregate By, Risk Aggregation Basis, Control Aggregation Basis, Assign Weights To, Perspectives, and Handle Empty Values. The 'View Name' field is highlighted with a red border.

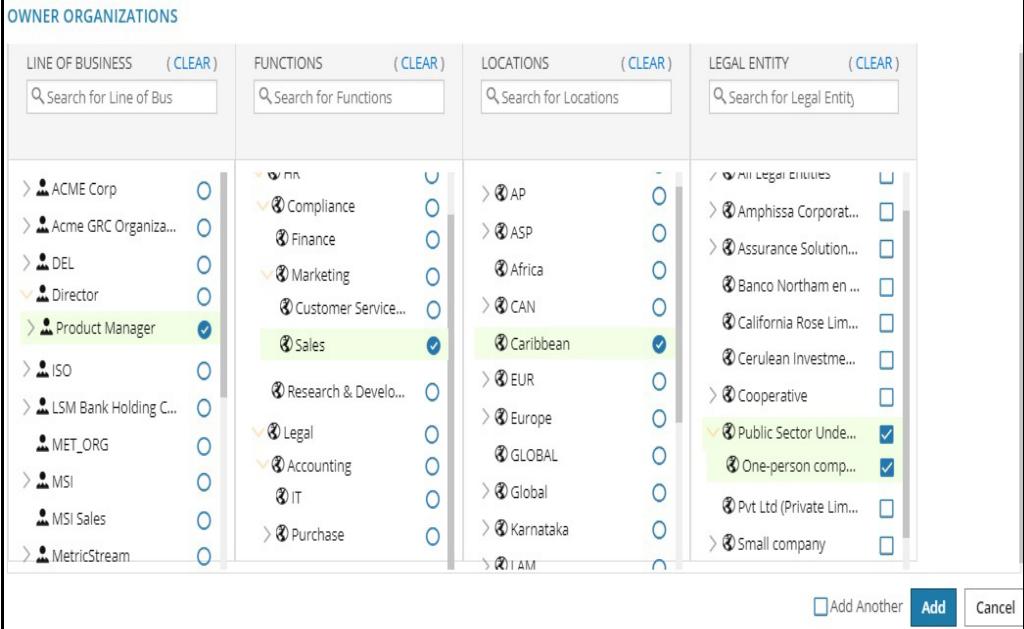
GENERAL	
Use this form to configure aggregation views to suit the needs of your product.	
Registration Name *	Internal Audit Registration View for Line of Business
View Name * ⓘ	MS_RSK_IAD_LOB_RR_Pub_V
Except underscore, other special characters are not supported.	
Aggregate By *	Line of Business
Risk Aggregation Basis *	Simple Average
Control Aggregation Basis *	Weighted Average
Assign Weights To *	Line of Business, Function, Location
Perspectives	Perspectives
Handle Empty Values *	Ignore Empty Values

Figure 38 Risk Aggregation View form, General section

Field	Description
Registration Name	Enter the registration name for view you want to create.
View Name	Enter the name for the view you want to create. Enter the name and click outside the field, a suffix (_RR_Pub_V) will be added. This is to purposes the view creation in the database and infolets.
Aggregate By	From the drop down list, select the entity to aggregate by.

Field	Description
Risk Aggregation Basis	<p>From the drop-down list, select the risk aggregation value. The selected value helps in inherent/residual score calculation. The available options are:</p> <ul style="list-style-type: none"> • Minimum • Maximum • Simple Average • Weighted Average
Control Aggregation Basis	<p>From the drop-down list, select the control aggregation value. The selected value helps in control score calculation. The available options are:</p> <ul style="list-style-type: none"> • Minimum • Maximum • Simple Average • Weighted Average
Perspective <i>(This field is displayed when you select Aggregate By value)</i>	<p>Click anywhere on the field and select a perspective. Perspective displayed is the intersection of Aggregate By and Assign Weights To.</p> <p>User can leave this field blank if it applies to all perspective.</p>
Handle Empty Values	<p>From the drop-down list, select the value to consider/ignore the blank values during score aggregation.</p>

3. In the Additional Filters section, select the options to filter the views.

Field	Description
Organizations	<p>Perform the following procedure to select one or more organization structure.</p> <ol style="list-style-type: none"> Click anywhere in the field or the icon associated with the field. <p>The Organizations window appears. For example, the four dimensions - Organizations, Functions, Locations, and Legal Entity are displayed.</p>  <ol style="list-style-type: none"> Select the required organization structure, and click Add. To add multiple items simultaneously. <ol style="list-style-type: none"> In the Organizations window, select the Add Another check box. Select the required organization structure that must be added. click Add to List and click Done to close the Owner Organizations window. <p>The selected Organization Structure is displayed in the Owner Organizations field.</p> <p>Notes:</p> <ul style="list-style-type: none"> Selecting ALL may not provide you the expected results. Hence, it is recommended to not enable ALL option. For more information on how selecting ALL option works, please refer to How NA and All Values Work on MDOS Widget? section in MetricStream Arno Release Spring '21 - Platform - Setup Guide. Turn on the NA option, if any dimension is not applicable for the organization structure that you want to select Click edit icon to edit the added organization structure Click delete icon to delete the added organization structure
Assessed Items	<p>Click anywhere on the field and select the assessed item. Assessed item displayed are based on the selected perspective.</p> <p>If no perspective is selected, all the assessable items are displayed.</p> <p>If specific perspective is selected, then Assessed Items fields will display values related to assessable item types selected in the perspective.</p>

Field	Description
Risks	<p>Click anywhere on the field and select the risk. Risks displayed are based on the selected perspective.</p> <p>If no perspective is selected, all the risks in the system are displayed.</p> <p>If specific perspective is selected, then risks fields will display GRC risks related to risks categories selected in the perspective.</p>
Apply Security	<p>From the drop down option select Yes or No to apply security.</p> <ul style="list-style-type: none"> • Yes: Risk Aggregation report displays only the records based on the owner organization access to the user. • No: Risk Aggregation report displays all the records will be displayed to the user.

Editing Risk Aggregation View form

User can edit the submitted Risk Aggregation Weight assessment.

To edit the weight assessment:

1. From Setup infocenter, open **Risk Aggregation View** report.
2. Click on any **Registration Name** you want to edit. This will open the form in read only form.
3. Click **Edit** to perform any necessary modifications to the form.

Risk Aggregation View form is opened in the edit mode. **Registration Name** and **View Name** are in non editable fields, other fields, sections, and options are same as that of the capturing view creation stage. For more information, refer [Risk Aggregation View Form](#).

4. Make the necessary changes, and then perform the required action.

Managing Risk Assessment Plans

This chapter provides information on how to create and approve risk assessment plans, and initiate ad hoc assessments.

Sections:

- [Creating Risk Assessment Plans](#)
- [Owner section of Working on Risk Assessment Plans](#)
- [Working on Risk Assessment Plans - Approver](#)
- [Initiating Ad hoc Risk Assessment Tasks](#)

Creating Risk Assessment Plans

To assess risks, the plan owner (Enterprise Risk Manager, Operational Risk Manager, Internal Audit Group, Risk Manager, Risk Program Manager, and so on) identify the assessable items such as Processes, Assets, Suppliers, Auditable Entities, Objectives, Products, and so on) and Risks to be assessed. The plan owner needs to create the risk assessment plan using the **Risk Assessment Plan** form. While creating the plan, the plan owner can specify the frequency of assessment, risk assessors, and approvers. The plan owner can create and setup any number of scopes (a combination of Organizations- Assessable Items-Risks / Organizations-Risks / Assessable Items-Risks) with the appropriate frequency and the assessment due date for each assessment. When the plan is published, corresponding assessment tasks are triggered to the assessors based on schedule defined.

Ongoing Risk Assessments

Ongoing Assessments is a risk assessment report that is always available to the assessor. The assessor can assess the risks any number of times and the latest assessment result always override the previous result. The triggering of a new assessment is not dependent on the schedule; instead, a new assessment is displayed on the Ongoing Assessment report as soon as an assessment is completed. When the validity of the plan is over, the assessment ceases to exist in the report.

Notes:

- No new assessment is triggered after the validity of the perspective or the assessment plan is expired.
- If an assessment is already triggered and if it is due for assessing after the validity is expired, the Ongoing Assessment report does not provide a link to assess the risk.

An ongoing assessment may have one or multiple assessor assigned to it, but only a single user can work on an assignment at a time. When an assessor is already performing a risk assessment and another user tries to access the assignment, a message is displayed with the name of the user who is working on the assessment. The message also states that no other user can work on the risk assessment until the current user completes it.

Note: There is no approval life cycle for ongoing assessments.

Risk Assessment Plan Form

The various sections in the **Risk Assessment Plan** form are explained below.

Header section of Risk Assessment Plan Form

Use the header section to view the details of risk assessment plan name and other key information related to the risk assessment plan.

The screenshot shows the header section of a Risk Assessment Plan form. It includes the following details:

- RISK ASSESSMENT PLAN** (●○○○) **STAGE 2 OF 4**
- RISK OF THEFT OF PHYSICAL ASSETS BY EXTERNAL PARTY**
- Frequency**: No Scheduling
- Status**: New
- Risk Assessment Type**: Org - Assessable Item - Risk
- Action buttons: **Save**, **Send for Approval**, and **Close**.

Figure 39 Header of Risk Assessment Plan Form

The header provides a quick overview about the **Risk Assessment Plan** form. The following information is displayed:

Note: The field-related information in the header is automatically displayed after you enter values in the relevant fields.

- Name of the Risk Assessment Plan: Name provided for the risk assessment plan is displayed in this field.
- Workflow Indicator: The workflow indicator provides a glimpse of where the user is with respect to the workflow. The stages relevant to workflow stage indicator are:
 - Step 1 - Initiator
 - Step 2 - Owner
 - Step 3 - Level 1 Approver
 - Step 4 - Level 2 Approver

For example, when the form is with initiator, the logical indicator is displayed as 'Step 1 of 4'

- Frequency: The frequency scheduled for the risk assessment plan is displayed in this field.
- Status: The status is always **New** at the creation stage. However, after you submit the form, the status is automatically updated based on the next workflow stage.
- Risk Assessment Type: The type of risk assessment selected for the plan is displayed in this field.
- Action buttons: The set of actions for the logged-in user available at the current stage of the risk assessment plan is displayed in this section.

For more information on header, see [Header](#).

Risk Assessment Plan Form, General Section

Use the **General** section to provide basic details about the risk assessment plan.

 **GENERAL**

Specify basic details of the Risk Assessment plan including name, perspective, scope, and validity of the assessment plan.

Details

Name *	Assess Vendor related risk for Asset management
Status	Update
Perspective *	Enterprise Business - Objective - Risk (Scoring Algorithm and Rating Method) 
<input type="checkbox"/> Use Settings from Perspective	
Risk Assessment Type	Org - Assessable Item - Risk
Purpose/Scope *	Assess Vendor related risk for Asset management 
Instructions	Follow the instructions provided in the attached document 

Validity

Dates	Valid From 05/29/2018 	Valid Until 09/27/2019 
-------	--	---

Figure 40 General section Form

Field/List Name	Description
Details	
Use this section to enter the details of the risk assessment plan.	
Name	Type the name of the risk assessment plan. You can create multiple risk assessment plans with the same name. After providing the name, if you click outside this field, the entered name appears next to the form title. The same name appears as the assessment name in the Risk Assessment form. Note: For each plan, a unique ID is generated, which is appended to the plan name. The combination of name and ID is unique for every risk assessment plan.
Status	Displays the current form status. When you create a risk assessment plan for the first time, the status of this field is displayed as New .
Perspective	Select the perspective (point of view of conducting risk assessment) for which you want to create the risk assessment plan.
Use Settings from Perspective	Selecting this check box indicates that the configurations defined in the selected perspective (Settings section of the Perspective form) will be considered for risk assessment. If you select this option, the assessment settings at the plan level (Settings sections) become unavailable.

Field/List Name	Description
Risk Assessment Type	<p>The type of risk assessment in this field is populated based on the value that you select in the Assessment Type field in the Perspectives form.</p> <p>The possible values in this field are:</p> <ul style="list-style-type: none"> • Assessable Item-Risk • Org-Assessable Item-Risk • Org-Risk
Purpose/Scope	<p>Click  or anywhere within the text box to type the description. The Rich Text Format (RTF) window appears.</p> <p>Provide a detailed description of the objective and scope of the current risk assessment. You can also attach documents and images, if required. These details help the assessor while assessing the risks.</p>
Instruction(s)	<p>Click  or anywhere within the text box to type the description. The Rich Text Format (RTF) window appears.</p> <p>Provide instructional guidelines in performing a risk assessment. You can also attach documents and images, if required. These instructions help the assessor while assessing the risks.</p>
Validity	<p>Use this section to define the longevity of the risk assessment plan.</p>
Dates	<p>Define the longevity of the current risk assessment plan by providing dates in the following fields:</p> <ul style="list-style-type: none"> • Valid From: Provide a date from which the plan should be valid. • Valid Until: Provide a date for plan expiry. The risk assessment plans becomes inactive after this date.

Scheduling Section of Risk Assessment Plan Form

Use the **Scheduling** tab to schedule the risk assessment frequency. Based on the schedule that you specify here, the risk assessment is triggered.

 **SCHEDULING**

Specify the frequency at which the assessment has to trigger. In addition, for recurring frequency, you can also specify the assignment Start Date and Due by Date.

Frequency*	<input style="border: none; background-color: inherit; color: inherit; font-size: inherit; width: 100%; height: 100%;" type="button" value="Frequency"/> <input style="border: none; background-color: inherit; color: inherit; font-size: inherit; width: 100%; height: 100%;" type="button" value="Specific Date"/>
Next Scheduled Date*	<input style="width: 100%; border: none; border-bottom: 1px solid #ccc; height: 20px;" type="text" value="09/30/2016"/> 

Figure 41 Scheduling Tab

Field/List Name	Description
Scheduling Use this section to define the schedule frequency.	
Frequency	<p>Select the assessment frequency. The available options are:</p> <ul style="list-style-type: none"> • Specific Date: To trigger an assessment on a specific date, select this option and then enter the date in the Next Scheduled Assessment Date field. • Weekly: To trigger an assessment every week, select this option. • Monthly: To trigger an assessment every month, select this option. • Quarterly: To trigger an assessment once in three months, select this option. • Semi-Annual: To trigger an assessment once in every six months, select this option. • Annual: To trigger an assessment once in a year, select this option. • No Scheduling: The assessments with No Schedule frequency will not be triggered unless an assessment task is created on the plan and is manually triggered.
Start After (Calendar Days) <i>(appears only if you select the value Weekly/Monthly/Quarterly/ Semi-Annually/Annually in the Frequency field)</i>	<p>Specify the off-set day by which the risk assessment is scheduled. The Start After field specifies a start offset in number of calendar days for the period selected in the “Frequency” field.</p> <p>The following are the range of values that you can enter in this field for different types of frequencies:</p> <ul style="list-style-type: none"> • Weekly: - 6 to 6 • Monthly: -30 to 30 • Quarterly: - 90 to 90 • Semi-Annual: -180 to 180 • Annual: -365 to 365 <p>Note: This value can also be in the past.</p> <p>Sample Scenario: The frequency is set as Quarterly and the plan is published on March 31, 2017 in the Frequency field.</p> <p>Example 1 (Positive value): Considering this scenario, if the user enters 5 in the Start After (Calendar Days) field, then the risk assessment is triggered on April 06 2017; July 06, 2017; and October 06, 2017.</p> <p>Example 2 (Negative value): Considering this scenario, if the user enters -5 in the Start After (Calendar Days) field, then the risk assessment is triggered on June 25, 2017; September 25, 2017; December 25, 2017.</p> <p>Note: If the entered value is negative, the start date is calculated by adding the number of days specified in this field with the last day of the month (calculated based on the scheduling frequency).</p>

Field/List Name	Description
Due By (Calendar Days) <i>(appears only if you select the value Weekly/Monthly/Quarterly/Semi-Annual/Annual in the Frequency field)</i>	<p>Specify the offset day by which the risk assessment is due by. This is free entry numeric field. The Due By field specifies a due offset in number of calendar days for the period selected by you in the Frequency field.</p> <p>The following are the range of values that you can enter in this field for different types of frequencies:</p> <ul style="list-style-type: none"> • Weekly: 1 to 6 • Monthly: 1 to 30 • Quarterly: 1 to 90 • Semi-Annually: 1 to 180 • Annually: 1 to 365 <p>The due date is always calculated by adding the number of days specified in the Due By (Calendar Days) field with the start date, irrespective of whether a positive value or negative value is given in the Start After (Calendar Days) field.</p> <p>Example: If the start date is April 6, and you enter the value 10 in the Due By (Calendar Days) field, then the due date is considered after 10 days from the start date, that is, the risk assessment is due on 16 April, 16 July, 16 October, and 16 January respectively.</p>
Next Scheduled Date <i>(appears only if you select the value Specific Date in the Frequency field)</i>	<p>Enter the date on which you want to schedule the risk assessment.</p> <p>Note: On the selected date, the risk assessment is triggered.</p>

Assessments section of Risk Assessment Plan Form

Use the **Assessments** section to specify:

- List of items that are in the current scope for assessment.
- Risk assessor and approver for performing the risk assessments.
- Frequency at individual scope level (optional). If specified, this overrides the overall schedule frequency provided in the **Scheduling** section.
- The ongoing assessment details such as the schedule and roles/users.

ASSESSMENTS

Specify the scope of one or more assessments. Choose from organizations / business hierarchies, assessable items and risks that need to be assessed.

<input checked="" type="checkbox"/> Default User for All Assessments					
Assessor *	Andre Alvarez				
Approver	ORM Risk Manager				
<input style="border: 1px solid #ccc; padding: 2px;" type="button" value="Add Scope"/>	<input style="border: 1px solid #ccc; padding: 2px;" type="button" value="Show more info"/> 1 Item				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Assessable Business Hierarchies RSK Corp → APAC → Asset Management</td> <td style="width: 25%;">Assessable Items To ensure efficient operation and</td> <td style="width: 25%;">Risks Vendor disputes- Vendor not</td> <td style="width: 25%;">Frequency -</td> </tr> </table>		Assessable Business Hierarchies RSK Corp → APAC → Asset Management	Assessable Items To ensure efficient operation and	Risks Vendor disputes- Vendor not	Frequency -
Assessable Business Hierarchies RSK Corp → APAC → Asset Management	Assessable Items To ensure efficient operation and	Risks Vendor disputes- Vendor not	Frequency -		

Figure 42 Assessments Section

Field/List Name	Description
Assessments	
Default User for All Assessments check box <i>(appears only if you selected Yes in the Default User for all Assessments field)</i>	<p>This check box determines whether to assign a common user for assessing and approving one or more assessment scopes specified in a single risk assessment plan.</p> <p>If you select the check box</p> <ul style="list-style-type: none"> The users selected in the Assessor field and Approver field become the default user for all the assessments scopes specified in the single risk assessment plan. <p>If you do not select the check box</p> <ul style="list-style-type: none"> The assessor and approver vary across different assessment scopes being defined in the plan. <p>Note: If you select this check box, the Assessor and Approver fields appear below the Default User for All Assessments check box. Also, the individual rows do not display the Assessor and Approver fields in the Assessor sub-section in the Scope section.</p>
Assessor <i>(appears only if you selected Yes in the Default User for all Assessments field)</i>	<p>Select the assessor whom you want to set as the default assessor for the various assessment tasks added in the scope.</p> <p>On form submission, the risk assessment is triggered to the assessor selected in this field based on the schedule frequency.</p>
Approver <i>(appears only if you selected Yes in the Default User for all Assessments field)</i>	<p>Select the approver whom you want to set as the default approver for the assessment scopes at each level.</p> <p>On form submission, the risk assessment is triggered to the approver selected in this field based on the frequency specified in the Scheduling section.</p>
Add Scope button	<p>To add assessment, click the Add Scope button.</p> <p>Notes:</p> <ul style="list-style-type: none"> You can add multiple tasks by clicking Add Scope. The assessments are triggered based on the number of tasks added in the scope
The summary of the scopes added in the Assessments section appears as a tabular format below the Add Scope button, as highlighted in the above figure.	
Edit	Click this icon to provide the details of the corresponding assessment scope
Delete	Click this icon to delete the details of the corresponding assessment scope.

Adding Scope in Assessments Section

Use the **Add Scope** button in the **Assessments** section to define the scope of the risk assessment.

Scope

1 of 2 [Next](#)

Name *	Asset Management - Vendor Risk		
Organizations *	ORGANIZATI...	LOCATIONS	FUNCTIONS
	RSK Corp	APAC	Asset Man...
Assessable Items *	<ul style="list-style-type: none"> * To ensure efficient operation and maintenance of different categories of physical assets, namely buildings, plant and equipment, vehicles and information technology (IT) assets. 		
Risks *	<ul style="list-style-type: none"> * Vendor disputes-Vendor not reimbursing the agreed up price of disposed equipment 		

Classification

<input checked="" type="checkbox"/> Ongoing Assessment			
Tag/Identifier *	Assess Vendor related risk for Asset management		
Availability *	Availability	Available From (Calen...	# Of Days To Be Avai...
	Annual		

Assessors

Available To *	Roles
Roles *	* ERM Business User

Figure 43 Assessment Section - Add Scope

Field/List Name	Description
Adding Scope Use this section to add scope for performing risk assessments.	
Name	Name of the risk assessment scope. By default, the name of the plan appears in this field. You can edit this name.
Organizations Select one or more organizations to be assessed. 1. Click Add icon associated with the Organizations field. The Organizations window appears. This displays the defined single or multidimensional organization structure. 2. Select the required organization, and then click Add . a. If you want to add more organizations for assessing, in the Organizations window, select the Add Another check box. b. Select the organization that needs to be added, and then click Add to List . 3. After you added all the required organizations, click Done to close the Organizations window. Notes: <ul style="list-style-type: none"> - Selecting ALL may not provide you the expected results. Hence, it is recommended to not enable ALL option. For more information on how selecting ALL option works, please refer to How NA and All Values Work on MDOS Widget? section in MetricStream Arno Release Spring '21 - Platform - Setup Guide. - Turn on the NA option if any dimension is not applicable for the organization structure that you want to select. - See Organization Structure for more details on multidimensional organization structure. 	
Assessable Items <i>(appears only if the perspective is of type Assessable Item - Risk or Org - Assessable Item - Risk)</i>	Select one or more assessable items to be assessed. The assessable items listed here depend on the type of assessable items selected in the Perspective form. For example, If the Assessable Item types selected in the perspective are Process and Asset, all the active processes and assets are listed in the Assessable Items field. You can then select one or more assessable items from the displayed list. If the assessment type is Org-Assessable Item-Risk, then you can pick from all the active assessable items listed that are applicable to the organizations selected in the Scope section. The mapping of assessable item with the organization is done in GRC Foundation if the assessable item selected is a GRC library content and if the Use GRC Relationship check box in the Perspective form is selected.

Field/List Name	Description															
Risks	<p>Select one or more risks for assessments. Expand the parent risk to select the child risks.</p> <div> <p>RISKS</p> <div style="display: flex; justify-content: space-between;"> Search Clear Selected 1 Selected </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Name</th> <th>Type</th> <th>ID</th> </tr> </thead> <tbody> <tr> <td>HR Compensation and Benefits</td> <td>MS_GRC_RISK</td> <td>RISK-0000001000</td> </tr> <tr> <td>Operational Risk</td> <td>MS_GRC_RISK</td> <td>RISK-0000001001</td> </tr> <tr> <td>Information Technology Risk</td> <td>MS_GRC_RISK</td> <td>RISK-0000001002</td> </tr> <tr style="background-color: #ffffcc;"> <td>Intrusion Protection</td> <td>MS_GRC_RISK</td> <td>RISK-0000001003</td> </tr> </tbody> </table> <div style="text-align: right; margin-top: 10px;"> Done Cancel </div> </div>	Name	Type	ID	HR Compensation and Benefits	MS_GRC_RISK	RISK-0000001000	Operational Risk	MS_GRC_RISK	RISK-0000001001	Information Technology Risk	MS_GRC_RISK	RISK-0000001002	Intrusion Protection	MS_GRC_RISK	RISK-0000001003
Name	Type	ID														
HR Compensation and Benefits	MS_GRC_RISK	RISK-0000001000														
Operational Risk	MS_GRC_RISK	RISK-0000001001														
Information Technology Risk	MS_GRC_RISK	RISK-0000001002														
Intrusion Protection	MS_GRC_RISK	RISK-0000001003														
	<p>You can select the risk that you want to assess for a particular assessable item or organization (based on the assessment type) as applicable. If the assessment type is Org-Risk, all risks which applies to the selected organizations are available for selection in this field. If the assessment type is Assessable Item-Risk, or Org-Assessable Item-Risk, all risks which is related to the assessable item are available for selection in this field.</p> <p>These risks appear based on their relationship with the assessed items maintained in GRC library if the Use GRC Relationship check box in the Perspective form is selected. Otherwise, all the risks appear. Each risk that you select here will be available in the Assessment Summary section of the Risk Assessment form.</p>															

Field/List Name	Description
Ongoing Assessment check box	<p>This check box determines whether to classify the risk assessment as ongoing or scheduled.</p> <p>If you select the check box:</p> <ul style="list-style-type: none"> The assessment becomes an ongoing assessment. Unlike the scheduled assessments, the ongoing assessments are available to the selected users in the Ongoing Assessment report all the time for assessing the risks until the validity expires. The assessor can assess a risk that is part of the ongoing assessment any number of times until the risk plan expires. Once the user completes the assessment and submits the Risk Assessment form, the risk assessment is again generated by the system for this plan and is made available in the Ongoing Assessment report. The ongoing risk assessments are generated based on the time that you specify in the Available From (Calendar Days) and #Of Days To Be Available (Calendar Days) fields. <p>Note: You cannot select a default user for all assessment for ongoing assessments. If you have already selected the option Default User for all Assessments, and in the Scope section, if you select the Ongoing Assessment check box, then the message Default User for All Assessment will not be considered for this Assessment(s) is displayed. Click OK to continue filling the details in the Scope section.</p> <p>If you do not select the check box:</p> <ul style="list-style-type: none"> The assessment becomes the scheduled type, and are triggered based on the frequency setting.
Tag/Identifier	Use this field to define the assignment text for the ongoing assessment. By default the system inherits the name of the Risk Assessment Plan . You have the flexibility to choose a different name for the Ongoing Assessment.

Field/List Name	Description
Availability	<p>The system displays the value Annual in the Availability field. The ongoing assessment for the current plan is made available for a period of one year by default. The availability of the ongoing assessment is based on the values that you enter in the Available From (Calendar Days) and #Of Days To Be Available (Calendar Days) fields.</p> <ul style="list-style-type: none"> • Available From (Calendar Days): Specify the date from which the ongoing assessment for the current plan is available to the risk assessors. This is numeric entry field. You can enter any number between 1 and 364. • #Of Days To Be Available (Calendar Days): This field is visible only if Ongoing Assessments is enabled. The value entered in this field determines the number of days for which the assignment should be available to the assessor. The value provided here, when added with the Available From (Calendar Days) field should not cross 365. <p>Note:</p> <ul style="list-style-type: none"> - If you leave this field blank, then the assignment is available until the plan is valid. - If the value entered in this field is added to the Available From (Calendar Days) field exceeds 365, the following alert message pops up which states that the # of days for which the Ongoing Assessment must be made available exceeds the Annual Boundary. <p>Example:</p> <p>Scenario-1 Availability = Annual Available From (Calendar Days) = 2 #Of Days To Be Available (Calendar Days) = 20 Expiry date of the ongoing assessment = 2+20=22, January</p> <p>Scenario-2 Availability = Annual Available From (Calendar Days) = 2 #Of Days To Be Available (Calendar Days) = blank Expiry date of the ongoing assessment = 31, December</p>
Assessor This section is available for both scheduled and ongoing assessments	

Field/List Name	Description
Available To <i>(this field is made available in the Assessor section for both scheduled and ongoing assessments)</i>	<p>The field value determines who should assess the risk assessments.</p> <p>Select the role or user groups to whom you want to send the risk assessment. The available options are:</p> <ul style="list-style-type: none"> • Assessor: If you want to send the assessment to the assessor in the selected assessed organization, select this option. The assessor must be from the assessed organization or its parents for Org-Risk and Org-Assessable Item-Risk types. For Assessable Item-Risk assessment type, the assessor can be from any organization. • Risk Owners: If you want to send the assessment to risk owners in the selected assessed organization, select this option. The risk owner is the global owner of the Risk library type in an organization in relation to the risk and assessed organization in the plan form. The risk owner must have the RSK Assess Risks activity. If none of the risk owners have RSK Assess Risks activity, then no assignments are triggered. If no risk owners are explicitly mentioned in GRC Library, then no assessments are triggered. Risk assessments are triggered only when owners are explicitly selected. If there are multiple owners selected, then the assessment is triggered to all owners. • Risk Stakeholders: If you want to send the assessment to Risk Stakeholders in the selected assessed organization, select this option. The Risk Stakeholder is the local owner of the Risk library type for various business units within an organization in relation to the risk and assessed organization in the plan form. The Risk Stakeholder must have 'RSK Assess Risks' activity. If risk stakeholders are not assigned to this activity, or not selected explicitly in the Risk form in GRC Library, then no assignments are triggered. <p>Note: If multiple risk stakeholders and owners are specified for different organizations, the risks are clubbed for a user and assigned for assessments. The Risk Stakeholders and Risk Owners data are retrieved from the GRC Foundation and this is based on options selected in the Risk form. For more information on how the assessment assignments are assigned, refer to the Adding Scope in Assessments Section section.</p> <ul style="list-style-type: none"> • Roles: If you want to send the assessments to multiple users at a time, select this option. • Users: If you want to send the assessments to multiple users at a time, select this option. <p>Notes:</p> <ul style="list-style-type: none"> - Assessor, Risk Owners, and Risk Stakeholders options are not available for ongoing assessments. - The default user selected is not applicable for ongoing assessments. If you try to check the Default Users for all Assessments check box for ongoing assessments, you get the following error message: Default User for All Assessment will not be considered for this Assessment(s).

Field/List Name	Description
Assessor <i>(appears only if Default Users for all Assessments check box in the Assessments section and Ongoing Assessment check box in the Scope section are unchecked)</i>	<p>Select the assessor for each scope.</p> <p>On form submission, the risk assessment is triggered to only the assessor selected in this field based on the schedule frequency. This field displays all the users with RSK Assess Risks access rights. The assessor must be from the assessed organizations or its parent for Org-Risk and Org-Assessable Item-Risk types. For Assessable Item-Risk assessment type, the assessor need not be from the assessed organization.</p>
Approver <i>(appears only if Default Users for all Assessments check box in the Assessments section and Ongoing Assessment check box in the Scope section are unchecked)</i>	<p>Select the risk assessment approver.</p> <p>On form submission, the risk assessment is triggered to only the approver selected in this field. This field displays all the users with RSK Approve Risk Assessments activities in assessed organization or its parents</p>
Roles <i>(appears only if you select the value Roles in the Available To field)</i>	<p>Select the roles who can work on the risk assessments.</p> <p>The assessments are sent to users belonging to the selected role having the RSK Assess Risks activity. The user who first accesses the assignment acquires the lock on the assessment form. The roles must be paired with assessed organizations for Org-Risk and Org-Assessable Item-Risk types. For Assessable Item-Risk assessment type, role can be paired with any organization. These roles may be differently defined from organization to organization and specific users can be mapped to these roles. Examples: risk manager, chief risk officer, risk assessor</p> <p>The user who first accesses the assignment acquires the lock on the assessment form and is expected to complete the assessment.</p>
Users <i>(appears only if you select the value Users in the Available To field)</i>	<p>Select the users who can work on the risk assessments. The users must have the RSK Assess Risks activity. The users must be from the assessed organizations or its parents for Org-Risk and Org-Assessable Item-Risk types. For Assessable Item-Risk assessment type, users can be from any organization. The user who first accesses the assignment acquires the lock on the assessment form.</p>
Scheduling This section is applicable only for scheduled assessments and hence will not be displayed for ongoing assessments. For details, see Scheduling .	
Done	Click this button to save the form with the provided details.

Risk Assessment to Stakeholders and Risk Owners

The following section describes the scenarios on how the assessments are assigned to the risk stakeholders and owners.

Consider the following scenario in which the user is part of the following risks:

Legends:

- R: Risks
- U: User

Risk and User Mapping

RI	R2	R3	R4	R5
U1	U1	U1	U1	U1
U2	U2	U3	U5	U5
	U4			

- Users U1 and U2 are mapped to Risk R1
- Users U1, U2, and U4 are mapped to Risk R2
- Users U1, and U3 are mapped to Risk R3
- Users U1 and U5 are mapped to Risk R4
- Users U1 and U5 are mapped to Risk R5

The following four assignments are assigned to the users by consolidating the risks that the user is mapped to.

Assignments Generated to the Users

Assignment number	Users	Risks
A1	U1, U5	R4, R5
A2	U1, U2	R1
A3	U3, U1	R3
A4	U1, U2, U4	R2

Ownership and Security section, Risk Assessment Plan Form

The **Ownership and Security** section controls the form security of the risk assessment plan. The system provides a set of activities to allow the users to view, edit, and approve the risk assessment plan, as required. Based on your requirement, you can assign one or more of these activities to the users to provide specific access rights to them. For more information on the various activities available in the risk assessments, see [Elements of a Sample Form](#).

The screenshot displays the 'OWNERSHIP AND SECURITY' section of a risk assessment form. It includes the following fields:

- Owner Organizations***: A table with three rows showing 'ORGANIZATIONS', 'LOCATIONS', and 'FUNCTIONS'. The first row contains 'RSK - HR Com...' under 'ORGANIZATIONS', 'Americas' under 'LOCATIONS', and 'Wealth Manag...' under 'FUNCTIONS'. The second row contains 'RSK - HR Com...' under 'ORGANIZATIONS', 'Americas' under 'LOCATIONS', and 'Asset Manag...' under 'FUNCTIONS'. Each row has edit and delete icons.
- Owners**: A list box containing 'Ruth Reece' with a search icon.
- Approvers**: Two separate boxes for 'Level 1 Approver' (Stan Smith) and 'Level 2 Approver' (ERM Program Manager), each with a search icon.
- Restrict Access To ***: A dropdown menu currently set to 'No Restriction'.

Figure 44 Sample Ownership and Security Section with Three Dimensions (Org, Location, Function) of Organization Structure

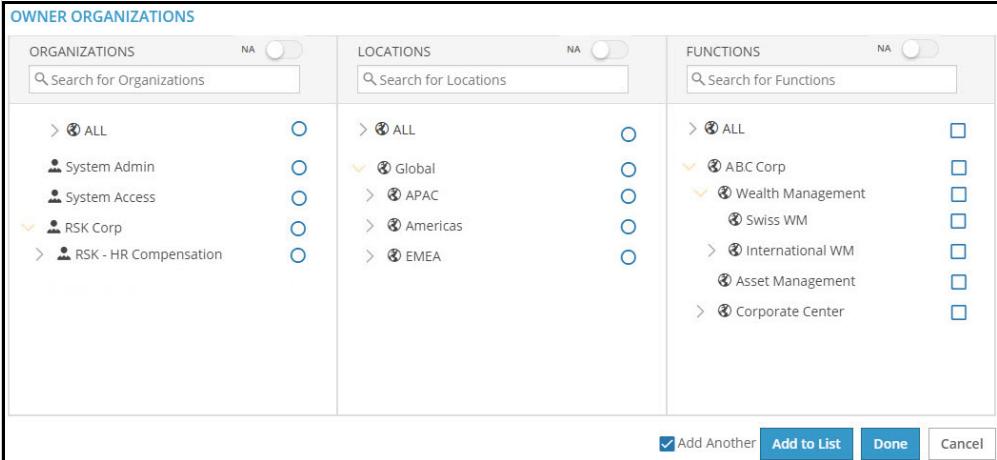
Field/List Name	Description
Owner Organizations	<p>Use this field to select one or more organizations that own and maintain the risk assessment plan.</p> <p>This field controls the workflow (for approvals) and security (for the plan where security is restricted to Owner Organizations).</p> <ol style="list-style-type: none"> Click Add icon associated with the Owner Organizations field. <p>The Owner Organizations window appears. This displays the defined single or multidimensional organization structure.</p> 

Figure 45 Sample Owner Organizations Window

- Select the required organization structure, and then click **Add**.
 - If you want to add more organizations, in the **Owner Organizations** window, select the **Add Another** check box.
 - Select the organization dimensions that needs to be added, and then click **Add to List**.
- After you added all the required organizations, click **Done** to close the **Owner Organizations** window.

Notes:

- Selecting **ALL** may not provide you the expected results. Hence, it is recommended to not enable **ALL** option. For more information on how selecting **ALL** option works, please refer to **How NA and All Values Work on MDOS Widget?** section in MetricStream Arno Release Spring '21 - Platform - Setup Guide.
- Turn on the **NA** option if any dimension is not applicable for the organization structure that you want to select.

Field/List Name	Description
Owners <i>(the display of this field is controlled by the configuration parameter MS_RSK_Display_Owners_Approvers)</i>	<p>Use this to select one or more assessment plan owners.</p> <p>The users with RSK Edit Risk Assessment Plan access grant belonging to selected Owner Organizations and their parents are available for selection in this field. If no owners are explicitly selected, once the initiator submits the plan form, an approval request is sent to all eligible owners from the selected owner organizations and their parents.</p> <p>If there are no eligible owners found, the task to approve the plan goes to users with RSK Edit All Risk Assessment Plans activity from any organization. If this also fails, then the task to approve the plan is sent to the initiator. Once the initiator approves, the plan will be published as the initiator and owner is same.</p> <p>If the initiator and the owner are different, on submission of the risk assessment plan form, an approval task is triggered to the risk assessment plan owner.</p>
Level 1 Approver <i>(the display of this field is controlled by the configuration parameter MS_RSK_Display_Owners_Approvers)</i>	<p>Select the first level approver for this risk assessment plan. Level 1 approver is a user who belongs to the owner organizations with the RSK Approve Risk Assessment Plan activity.</p> <p>Note: Once the Plan Owner approves the plan, an approval task is triggered to the user specified in this field.</p>
Level 2 Approver <i>(the display of this field is controlled by the configuration parameter MS_RSK_Display_Owners_Approvers)</i>	<p>Select the level 2 approver for this risk assessment plan. Level 2 approver is a user who belongs to the owner organizations with the RSK Approve Risk Assessment Plan activity.</p> <p>Note: Once the Level 1 Approver approves the plan, an approval task is triggered to the user specified in this field.</p>
Restrict Access To	<p>Use this field to control access rights of users belonging to the current risk assessment plan.</p> <p>If you select No Restrictions in this field, all users with RSK View Risk Assessment Plan activity can view this risk assessment plan. If you select owner organizations in this field, only users belonging to the owner organizations of the risk assessment plan with RSK View Risk Assessment Plan activity can view this risk assessment plan.</p> <p>Note: Only users belonging to the owner organizations or their parent organizations can edit the assessment plan.</p>

Settings Section of Risk Assessment Plan Form

The **Settings** section provides you the capability to set configuration values applicable for assessments that are triggered from the risk assessment plan and for the ad hoc risks that can be added by the assessor. You can define these configuration either in the risk assessment plan or in the perspective.

Note: This section is available only if the **Use Settings from Perspective** check box is not selected.

SETTINGS

Ad-Hoc Risk

Specify whether the assessor can add only Ad-Hoc risk from library or can type in a new risk (Typed In) or both. Additionally you can also specify the level at which these Typed - In should be added in assessment. The Typed In remain local to risk assessment.

Add Risks from	Both
Add Risks at *	Level 1 Level 2 Level 4

Additional Assessment Preferences

Approval workflow is not available for Ongoing Assessment. Therefore this configuration will affect Scheduled and Ad-Hoc Risk risk assessment tasks.

Final Approver for Assessments	Assessment Approver
<input checked="" type="checkbox"/> Default Controls <input checked="" type="checkbox"/> Enable Issues Section <input type="checkbox"/> Default to Previous Assessment <input checked="" type="checkbox"/> Modify Weighting	

Display

<input checked="" type="checkbox"/> Risk Scores	<input checked="" type="checkbox"/> Prior Rating	
<input type="checkbox"/> Metrics Data	<input type="checkbox"/> Loss Events	<input checked="" type="checkbox"/> Issues
<input type="checkbox"/> Prior Assessment for Factors		

Figure 46 Settings section

Field/List Name	Description
Ad-Hoc Risk	

Field/List Name	Description
Add Risks from	<p>Selecting an option determines whether or not to allow assessor to add risks while performing the assessment. The available options are:</p> <ul style="list-style-type: none"> • Library Risks: Select this option to allow assessor to select and add any published and active risks from the GRC library during the assessment. • New Risks: Select this option to allow assessor to add new risks during the assessment. • Both: Select this option to allow assessor to add new risks by entering the details and select and add risks from the GRC library during the assessment. <p>Note: When the assessor is allowed to add new risks, they can be added in the Assessable Item node for an Assessment Type of Org-Assessable Item-Risk or Assessable Item-Risk. For an Assessment Type of Org-Risk, the assessor can add risks in Organization node during the assessment.</p> <ul style="list-style-type: none"> • None: Select this option if you do not want to allow the assessor to add risks during assessment.
Add Risks at <i>(available only if you have selected New Risks or Both in the preceding field)</i>	<p>Select the levels for the new risks that can be added by the assessor during the assessment.</p> <p>If only one value is selected in this field, the selected level appears in the Level field of New Risk dialog box for the assessor. If more than one value is selected in this field, the assessor has to select the level at which the risk is added in the Level field of the New Risk dialog box.</p>
Additional Assessment Preferences	
Final Approver for Assessments	<p>This value selected in this field determines the final approver for the risk assessments. The available options are:</p> <ul style="list-style-type: none"> • Assessment Plan Owner: When you select this option, after assessor submits the assessment, it will be first routed to assessment approver, if available, for approval. Once approved by the approver, it goes to the responsible Plan Owner for final approval. If there is no assessment approver available, as soon as the assessor submits the form, it goes to the Responsible plan owner for final approval. <p>Note: If the Plan Owner does not exist, or is no more assigned to the required activity, then the assessment is published on approval from assessment approver.</p> <ul style="list-style-type: none"> • Assessment Approver: When you select this option, assessment approver becomes the final approver. The assessment will be published once the assessment approver approves the assessment.

Field/List Name	Description
Control Assessment	<ul style="list-style-type: none"> • Enable Controls Section: Selecting this check box indicates that the Control Effectiveness section for individual controls or Control Environment for overall control assessment based on factors is available on the Risk Assessment form. If this check box is not selected, the assessor cannot assess the controls. <p>Note: This field is unavailable if the Control Scoring/Control section is not enabled in the Risk Scoring Algorithm or Risk Matrix Configuration (Risk Assessment Profile) used in the selected perspective.</p> <ul style="list-style-type: none"> • Default Controls: Select this check box to make the controls related to the risks available for assessment by default. If this check box is not selected, no controls will be available to the assessor for assessment by default; however, the assessor can add controls for assessment..
Default Controls Based on <i>(appears only if the Default Controls check box is selected)</i>	<p>Use this field to select the logic for filtering and displaying the default controls in the Control Effectiveness section in the Risk Assessment form. The available options are:</p> <ul style="list-style-type: none"> • Risk Relationship: Select this option to display all the controls that are related to the assessed risk to the assessor irrespective of the assessable item and organization. • Risk and Organization Relationship: Select this option to display only the controls that are related to both the assessed risk and the organization on which the risk is assessed. • Risk and Assessable Item Relationship: Select this option to display only the controls that are related to both the assessed risk and the assessable item.
Enable Issues Section	<p>Select this check box if you want to make the Issues section available in the Risk Assessment form.</p>

Field/List Name	Description
Default to Previous Assessment	<p>This check box determines whether the upcoming risk assessment values (score, rating, and ranking) must inherit and display the values from the previous assessment results or from the Quantitative factor values. This is applicable for both inherent and residual sections.</p>
	<p>If you select the check box:</p> <ul style="list-style-type: none"> The upcoming risk assessment values are defaulted to the previous inherent and residual risk assessment values if both the risk assessments are performed using the same combination of Org-Risk/Assessable Item-Risk /Org-Assessable Item-Risk and the same perspective even if the assessments are triggered from different plans.
	<p>Note: The preceding scenarios are applicable for all factors.</p>
	<p>Example:</p>
	<p>Consider that the combination of Org1-Process1-Risk1 is being assessed as part of Plan 1 and Plan 2 using the same Perspective.</p> <p>Following are the assessment details triggered from Plan 1:</p> <ul style="list-style-type: none"> Has inherent risk rating - High Has residual risk rating - Medium Was performed in the previous month. <p>Following are the assessment details triggered from Plan 2:</p> <ul style="list-style-type: none"> Has inherent risk rating - High Has residual risk rating - High Was performed 1 day ago <p>When the next assessment is again triggered from Plan 1, the inherent risk becomes High and residual risk becomes High since both these values are inherited from the latest assessment performed.</p>
Modify Weighting <i>(unavailable if the selected perspective uses Rating Method)</i>	<p>Select this check box if you want to allow the assessor to modify the non-standard factor weights, control weights, and control factor weights during assessment.</p>
Display	
Risk Ratings	<ul style="list-style-type: none"> Risk Score: Select this check box to specify whether to show the Risk Score in square brackets together with the risk rating in the Risk Assessment form. This setting is applicable for all risk assessment methods except Risk Rating method. If you select this check box, then the score is displayed in square brackets adjacent to the rating in the Risk Assessment form. This is applicable for Organization node, Assessed Item node, and Risk Node. Example: Rating: High [10] Previous Residual Rating: This check box determines whether to show or hide previous residual risk ratings on the Risk Assessment form. Selecting this check box displays the previous residual rating in the header section. The rating is picked from the assessment performed and published most recently in the past on the same combination of Org-Risk/Org-Assessable Item-Risk/Assessable Item-Risk as that of the current assessment.

Field/List Name	Description
Related Reports	<ul style="list-style-type: none"> Metrics Data: Select this check box to specify whether or not to show Metric breaches based on the Metrics defined and being tracked for, as well as the metrics related to the risk being assessed on the Assessment form. If you select this check box, then Metrics Data is displayed in the related reports available in the Risk Assessment form. Click Metrics Data to view the metrics being tracked for as well as related to the risks being assessed. Loss Events: Select or clear this check box to specify whether or not to show the losses related to the Risk being assessed on the Assessment form. The details are populated based on the loss relationship with the Risk being assessed. If you select this check box, then Related Loss Events is displayed in the related reports available in the Risk Assessment form. Click this report to view all the loss events related to the risk. <p>Note: The details in the Related Loss Events report is picked from the Loss Events component that is part of your App.</p> <ul style="list-style-type: none"> Open Issues: Select or clear this check box to specify whether or not to show open issues related to the risk being assessed. If you select this check box, then the Open Issues displayed in the related reports is available in the Risk Assessment form. Click this report view the open issues related to the risk.
Prior Assessment for Factors	Select or clear this check box to specify whether or not to display the prior assessment factor values. If you select this check box: <ul style="list-style-type: none"> Prior assessment factor values are displayed in a separate column within the Inherent Rating and Residual Rating sections on the Risk Assessment form. Prior assessment factor values are displayed in a separate column within the Control Environment section on the Risk Assessment form if the control environment is assessed using factors.
Control Test Results	Selecting this check box indicates that the Risk Assessment form shows the View Test Results link. Clicking this link opens the Test Execution report that shows the results of the controls that are tested as part of risk assessment. For details on this report, refer to MetricStream Arno Release Spring '21 - Self-Assessment and Testing - User Guide.
Overall Risk Rating	Select or clear this check box to specify whether or not to show the overall risk rating in the Inherent and Residual sections. If you select this check box, then the overall risk rating is available in both Inherent Rating and Residual Rating sections.

Additional Details Section of Risk Assessment Plan Form

The **Additional Details** section provides reference details and supporting documents that the user can refer to.

ADDITIONAL DETAILS		
Get a quick history of creation and modification details of the plan. Attach any relevant files and documents which can be useful for reference.		
History		
Creation	Created On 03/24/2017	Created By MetricStream Admini...
Modification	Modification Requested On 03/28/2017	Modification Requested By MetricStream Admini...
Attachments		
Attach Files	Choose a file to be attached	<input type="button" value=""/>
Risk Assessment Plan - Additio...	4.0 MB	

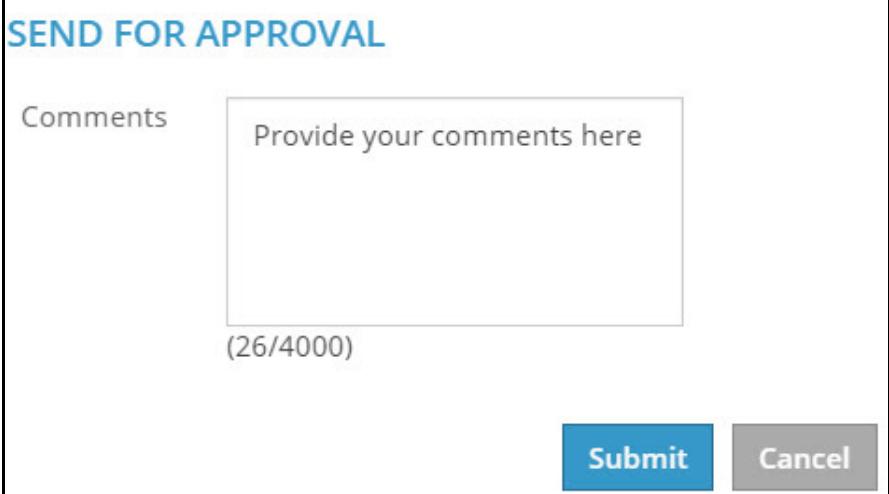
Figure 47 Additional Details Section

Field/List Name	Description
History: See History .	
Attachments	
Attach Files	<p>Attach one or more relevant files by clicking .</p> <p>Once you attach the file, you can perform the following:</p> <ul style="list-style-type: none"> View the file: Click the file name to view the attachment. Delete the file: Click to delete the attachment.

Actions section of Risk Assessment Plan Form

After entering all the details, you can perform the following actions on the **Risk Assessment Plan** form.

Action/Button	Description
Save	<p>Click this button to save the changes made in the form. When you click this button, the following message is displayed:</p> <p>Form Saved successfully</p> <p>You can access the form from Tasks inbox (My Tasks menu) at a later time and continue.</p>

Action/Button	Description
Send for Approval	<p>Click this button to send the plan to selected owners for review. When you select this option, the Send for Approval window appears, where you can type your comments, if any, and submit the form.</p> 
Close	<p>Click this button to close the current form. When you click this button, the Close Form dialog box appears. The following actions are available:</p> <ul style="list-style-type: none"> • Save and Close: Click this button to save the form as a working draft and close the form without processing it to the next workflow stage. <p>Note: You can access the form from My Tasks menu at a later time and continue working.</p> <ul style="list-style-type: none"> • Don't Save: Click this button if you do not want to save the changes done in the form. • Cancel: Click this button to close the dialog box and return to the form.

Assignments and E-mails

After you submit the current form, the following task assignments and e-mail notifications are generated.

Action Selected	Assigned To	E-Mail Sent To
Send for Approval	Owner	Owner

Note: For detailed information on e-mails and notifications, see [E-mail Notifications](#).

Notes:

- Assessment is not triggered if the validity of the selected perspective or the assessment plan is expired.
- The validity of the perspective or the assessment plan has no impact on the scheduled assessments that are already triggered.

Related Reports and Charts

After you submit the form, the following report is updated only if the risk assessment plan is published at this stage (initiator stage):

- [Risk Assessment Plans Report](#)
- [Risk Assessment Status Details Report](#)
- [Risk Control Assessments Report](#)
- [Risk Register Report](#)
- [Risks Identified During Assessments](#)
- [View Assessments Report](#)
- [Ongoing Assessments Report](#)

Note: No chart is updated when risk assessment plan is published.

Copying Risk Assessment Plan

You can copy an existing risk assessment plan to create a new plan.

1. Open the risk assessment plan that you want to copy from the relevant report (for example, [Risk Assessment Plans Report](#)).
2. In the form header, click **Copy**.

A new risk assessment plan form opens with all the details of the existing plan copied.

Note: The Copy option is available only if you have the RSK Edit All Risk Assessment Plans and RSK Edit Risk Assessment Plan activity.

3. Edit the required details and proceed with saving or submitting the form.

Note: You cannot change the Perspective.

Owner section of Working on Risk Assessment Plans

After you submit the **Risk Assessment Plan** form, an assignment is generated to the plan owner. The plan owner must review and approve the plan details, and then make an appropriate decision.

If the risk assessment plan initiator and owner is the same person, then the **Risk Assessment Plan** form is routed to the level 1 and level 2 approvers (If approvers are selected in the **Risk Assessment Plan** form).

If the same user is selected as plan owner and approver, the assignment is not triggered to this stage; it is triggered directly to the next approval stage.

Accessing Risk Assessment Plan Form

To approve the risk assessment plan as an owner:

- Access the required task assignment from My Tasks as shown in the following figure:

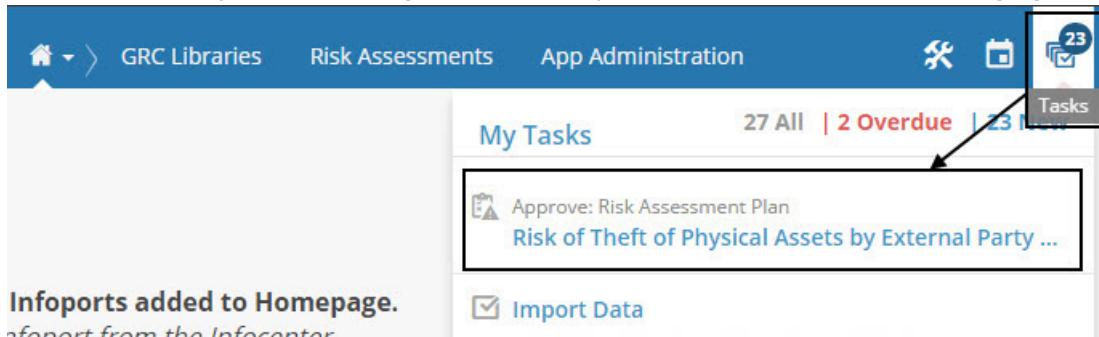


Figure 48 Approve Risk Assessment Plan from My Task

The **Risk Assessment Plan** form appears.

Workflow Changes

At this stage, all the sections and fields of the **Risk Assessment Plan** form are the same as that of the initiation stage except for a few field-level changes, which are captured in the following table. For more details on the **Risk Assessment Plan** form at the owner stage, see [Header section of Risk Assessment Plan Form](#).

Field/List Name	Description
Header Section	
Workflow Stage Indicator	RISK ASSESSMENT PLAN  STAGE 2 OF 4
Status	Status of the Risk Assessment Plan form is automatically updated as Pending Approval . This field becomes non-editable at the owner stage.
Additional Details Section	
The following fields are non-editable when the plan form is with the owner.	
History	
This field appears only when the owner is working on the Risk Assessment Plan form.	
Creation	Define the creation details of the risk assessment plan: <ul style="list-style-type: none"> Created by: Displays the full name of the user who created the plan. Created on: Displays the date on which the plan is created.

Field/List Name	Description
Modification	<p>Define the modification details of the risk assessment plan when the plan is re-initiated from reports or data browsers:</p> <ul style="list-style-type: none"> • Modification Requested On: Displays the date on which the modification is done on the risk assessment plan. • Modification Requested By: Displays the full name of the user who modified the risk assessment plan.
Actions	

Click **Submit** to view the actions that are available at this stage.

Approve	Select this option to approve the plan and submit the form to the next stage. When you select this option, the Approve window appears, where you can add your comments and submit the form.
Request Clarification	Select this option to send the form back to the initiator requesting for clarification if required. When you select this option, the Request Clarification window appears, where you have to add the details of your request and submit the form.
Cancel	Select this option to cancel the risk assessment plan. When you select this option, the Cancel window appears, where you have to add your comments and submit the form.

Assignments and E-mails

After you submit the current form, the following task assignments and e-mail notifications are generated.

Action Selected	Assigned To	E-Mail Sent To
Approve	<p>Level 1 Approver</p> <p>Note: Assignment is generated based on the approvers selected. If no approvers are selected, then plan is published once the owner approves the risk assessment plan.</p>	<p>Level 1 approver if selected at the plan creation stage</p> <p>CC: Initiator</p>
Request Clarification	Initiator for providing clarifications	Initiator
Cancel	None	Initiator

Note: For detailed information on e-mails and notifications, see [E-mail Notifications](#).

Related Reports and Charts

After you submit the form, the following report is updated only if the risk assessment plan is published at this stage (owner stage):

- [Risk Assessment Plans Report](#)

Note: No chart is updated when the risk assessment plan is published.

Working on Risk Assessment Plans - Approver

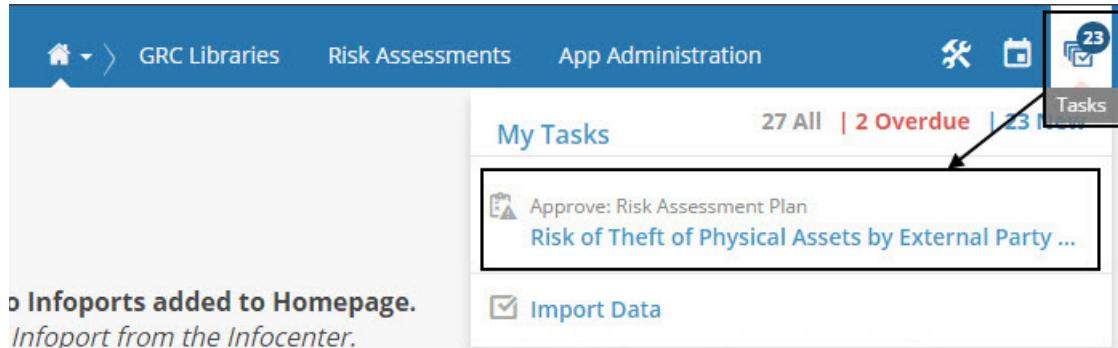
When the risk assessment plan owner sends the plan for approval, the selected level 1 approver receives the plan. When the level 1 approver sends the form for approval, the plan is published if no level 2 approver is selected. Otherwise, the plan is routed to the level 2 approver for approval. If no approvers are selected when the owner approves the plan, the plan is published automatically.

Note: The approved risk plans are published and can be accessed from the data browser and the Risk Assessment Plans report.

Accessing Risk Assessment Plan Form

To approve risk assessment plan:

- Access the required task assignment from **Tasks** inbox as shown in the following figure:



Infoports added to Homepage.

Infoport from the Infocenter.

Figure 49 Approve Risk Assessment Plan

The **Risk Assessment Plan** form appears.

Workflow Changes

At the approval stage, all the sections, and fields of the **Risk Assessment Plan** form are the same as that of the initiation stage except for a few field-level changes, which are captured in the following table. For more details on the **Risk Assessment Plan** form, see [Header section of Risk Assessment Plan Form](#).

Field/List Name	Description
Header Section	
Stage Indicator at level 1 approval level	RISK ASSESSMENT PLAN STAGE 3 OF 4
Stage Indicator at level 2 approval level	RISK ASSESSMENT PLAN STAGE 4 OF 4
Status	Status of the Risk Assessment Plan form is automatically updated as Approval Pending .

Additional Details Section

The following fields are non-editable when the plan form is with the approver.

History

This field appears only when the level 1 approver/ level 2 approver is working on the **Risk Assessment Plan** form.

Field/List Name	Description
Creation	Define the creation details of the risk assessment plan: <ul style="list-style-type: none"> • Created by: Displays the full name of the user who created the plan. • Created on: Displays the date on which the plan is created.
Modification	Define the modification details of the risk assessment plan when the plan is re-initiated from reports or data browsers: <ul style="list-style-type: none"> • Modification Requested On: Displays the date on which the modification is done on the risk assessment plan. • Modification Requested By: Displays the full name of the user who modified the risk assessment plan.
Actions	
Click Submit to view the actions that are available at this stage.	
Approve	Select this option to approve the plan and submit the form to the next stage. When you select this option, the Approve window appears, where you can add your comments and submit the form.
Request Clarification	Select this option to send the form back to the owner requesting for clarification if required. When you select this option, the Request Clarification window appears, where you have to add the details of your request and submit the form.
Cancel	Select this option to cancel the risk assessment plan. When you select this option, the Cancel window appears, where you have to add your comments and submit the form.

Assignments and E-mails

After you submit the current form, the following task assignments and e-mail notifications are generated.

Action Selected	Assigned To	E-Mail Sent To
Approve	Level 2 Approver if selected Note: Assignment is generated based on the approvers selected. If no level 2 approver is selected, then plan is published once the level 1 approver approves the test/self-assessment plan.	Level 2 Approver if selected at the plan creation stage CC: Owner and Initiator
Request Clarification	Owner for providing clarifications	Owner
Cancel	None	Owner CC: Initiator

Note: For detailed information on e-mails and notifications, see [E-mail Notifications](#).

Related Reports and Charts

After you submit the form, the following report is updated when the risk assessment plan is published:

- [Risk Assessment Plans Report](#)

Note: No chart is updated when the risk assessment plan is published.

Initiating Ad hoc Risk Assessment Tasks

Using the **Risk Assessment Task** form, you can create ad hoc risk assessments tasks using the active risk assessment plans. You can create ad hoc tasks for the published plan to meet the immediate requirements. Once you submit this form, the selected user receives an assignment to complete the risk assessment task.

Risk Assessment Task Form

Use the **Risk Assessment Task** form to initiate ad hoc risk assessment tasks.

The screenshot shows the 'RISK ASSESSMENT TASK' form. On the left, there's a vertical sidebar with 'General' and 'Details' tabs, and a green circular icon with a checkmark at the bottom. The main area has a header 'GENERAL'. It includes a note about choosing a Plan, a 'Details' section with a table, and a 'Task Details' section with fields for Assessor, Approver, and Due Date.

Risk Assessment Plan *	Assess Credit Risk for Commercial Banking
Perspective	Risk Rating Method-Org Risk Assessm...
Assessment Type	Org - Risk
<input checked="" type="checkbox"/> Inherit Assessment Scope *	
Available To *	Assessor
Assessor *	Rita Rory
Approver	Stan Smith
Due Date *	09/30/2016

Figure 50 Risk Assessment Task Form

Header section of Risk Assessment Task Form

Use the header section to view the name selected for the risk assessment plan.

The screenshot shows the header section of the 'RISK ASSESSMENT TASK' form. It displays the plan name 'RISK THEFT-TEST [SCHAMT-000217]' and includes standard form controls like 'Submit' and 'Close' buttons.

Figure 51 Header Section

General section of Risk Assessment Task Form

Use the **General** section for providing details about the risk assessment plan, perspective used, assessment types, and the assessors and approvers.

GENERAL

Use this section to choose the Plan using which you want to create a Task. You can either inherit the original scope as defined in the plan, or specify a new scope before triggering the task.

Details

Risk Assessment Plan *	Assess Credit Risk for Commercial Banking	
Perspective	Risk Rating Method-Org Risk Assessm...	
Assessment Type	Org - Risk	
<input checked="" type="checkbox"/> Inherit Assessment Scope *		
Available To *	Assessor	
Assessor *	Rita Rory	
Approver	Stan Smith	
Due Date *	09/30/2016	

Figure 52 General Section

Field/List Name	Description
Risk Assessment Plan	Select the risk assessment plan for which you want to create an ad hoc task. All the risk assessment plans that are published are available in this field for selection. You can select only one plan at a time.
Perspective	The perspective name appears. The value in this field is populated based on the plan that you selected in the Risk Assessment Plan field.
Assessment Type	<p>The type of risk assessment for the selected plan appears. The value in this field is populated based on the plan that you selected in the Risk Assessment Plan field.</p> <p>The possible values in this field are:</p> <ul style="list-style-type: none"> • Assessable Item- Risk • Org - Assessable Item - Risk • Org - Risk

Field/List Name	Description
Inherit Assessment Scope	<p>This check box determines whether to inherit the assessment scope from the selected risk assessment plan or not. Select this check box to inherit the assessment scope.</p> <p>If you select the check box:</p> <ul style="list-style-type: none"> The entire scope of assessment is inherited as per what is defined in the plan, and the fields such as Available To, Assessor / Roles / Users, Approver, and Due Date are displayed where you can provide the values. <p>If you do not select the check box:</p> <ul style="list-style-type: none"> The user gets the option to define a new scope
Available To	<p>The field value determines who should assess and approve the risk. Select the role or user groups to whom you want to send the risk assessments for the current plan.</p> <p>The available options are:</p> <ul style="list-style-type: none"> Assessor: If you want to send the assessment to all assessors having the required activity, select this option. This option appears by default. Risk Owners: If you want to send the assessment to all Risk Owners having the required activity, select this option. Risk Stakeholders: If you want to send the assessment to all Risk Stakeholders having the required activity, select this option. The option is available only for the Org - Assessable Item - Risk and the Org - Risk assessment type. Roles: If you want to send the assessment to all users mapped to the selected role having the required activity, select this option. Users: If you want to send the assessment to all users having the required activity, select this option.
Assessor	<p>Select the assessor whom you want to set as the default assessor. On form submission, the risk assessment is triggered to all assessors having the required activity.</p>
Approver	<p>Select the approver whom you want to set as the default approver for the assessment scopes at each level. On form submission, the risk assessment is triggered to all the approvers having the required activity.</p>
Roles <i>(appears only if you select the value Role in the Available To field)</i>	<p>Use this option if you want users belonging to specific roles to perform assessment. You may select one or more roles in this field, and the assessments are triggered to all users belonging to the selected roles. The user who first accesses the assignment acquires the lock on the assessment form. For ongoing assessment, form lock is applicable.</p>
Users <i>(appears only if you select the value Users in the Available To field)</i>	<p>Select the users for performing the risk assessment. The user who first accesses the assessment acquires the lock on the assessment form.</p>
Due Date	<p>Specify the assessment due date. If the assessment is not completed on or before this date, the assessment status is displayed as Overdue.</p>

Assessments section of Risk Assessment Task Form

Use the **Assessments** section to define the scope for the assessment. This section appears only when you do not select the **Inherit Assessment Scope** check box.

Organizations	Assessable Items	Risks
ACME Corp → ALL → ALL → ACME Bank	Banking...	Fraudulent Transaction...

Figure 53 Assessments Section

For details on adding scopes in the **Assessment** section, see [Assessments section of Risk Assessment Plan Form](#).

Actions section of Risk Assessment Task Form

After you enter all the details, you can perform the following actions on the Quantitative Factor form.

Field/Icon	Description
Submit	Click this button to submit the form. When you click this button, the Form Submit dialog box appears. The following actions are available: <ul style="list-style-type: none"> Submit: Click this button to submit the form. Cancel: Click this button to close the dialog box and return to the form.
Close	Click this button to close the current form. When you click this button, the Close Form dialog box appears. The following actions are available: <ul style="list-style-type: none"> Discard & Leave: Click this button if you do not want to save the changes made and close the form. Stay on this page: Click this button to close the dialog box and return to the form.

Assignments and E-mails

There is no approval workflow for risk assessment tasks since the tasks are generated on an ad-hoc basis. The only email generated are notifications for the assessor.

For information on task assignments, refer to task assignments sections in the [Risk Assessment Form](#).

Related Reports and Charts

After you submit the form:

The following report is updated when the risk assessment task is published:

- [Risk Assessment Status Details Report](#)

The following chart is updated when the risk assessment task is published:

- [Risk Assessment Status Chart](#)

Performing Risk Assessments

This chapter provides information on the Risk assessment form functions that are common across all the Risk assessment methods. It also provides information on how to approve and review the assessment details.

Sections:

- [Assessing Risks](#)
- [Reviewing Risk Assessments](#)
- [Approving Risk Assessments](#)

Assessing Risks

Based on the schedule that is set in the risk assessment plan, the risk assessor receives an assignment on a periodic basis. The assigned risks need to be assessed for one or more organizations and assessable items that they are mapped to. This section provides information on the common functions that you can perform while assessing risks using different methods of assessment.

Notes:

- Assessment is not triggered if the validity of the selected perspective or the assessment plan is expired.
- The validity of the perspective or the assessment plan has no impact on the scheduled assessments that are already triggered.

Accessing Ongoing Risk Assessments

The ongoing risk assessments are available in the **Ongoing Risk Assessments** report. Click the **Assessment ID** link corresponding to the risk to assess it.

Risks	Residual Score	Residual Rating	Inherent Score	Inherent Rating	Control Score	Control Rating
ASSESS : Assess Strategic Risk for Mid-West Power [ASSMNT-0000000004] (5)						
ORGANIZATION : MWP - Customer Support (1)						
> Organization structure of the department may not be suited or aligned to the objectives of the organization	3	Very Low	3	Very Low	0	Ineffective
ORGANIZATION : MWP - Generation (1)						
> Organization structure of the department may not be suited or aligned to the objectives of the organization	6	Low	6	Low	0	Ineffective

Figure 54 Ongoing Assessment Report

These are ongoing risk assessment that are available for logged-in assessors and the assessors can assess these risks whenever required. The **Ongoing Risk Assessments** report always displays the most recent assessment details.

Note: For an ongoing assessment, the value in **Name** field of **General** section cannot be modified.

Risk Assessment Form

Use the **Risk Assessment** form to perform the Risk assessment and record the details.

Header section of Risk Assessment Form

Use the header section to view the details of the risk assessment.

RISK ASSESSMENT (0-0) STAGE 1 OF 2	ASSESS PEOPLE RELATED RISK FOR ALL ORGANIZATIONS UNDER RETAIL BANKING [...]	Assessment Du...	Status	Save	Submit ▾	Close
		05/25/2018	Sent for Asse...	?		

Figure 55 Header section

Click to view the all the header details.

The header comprises:

- Name of the risk assessment is displayed in this field.
- Workflow Indicator: The workflow stage indicator provides a glimpse of the workflow status of the user. The stages relevant to logical stage indicator are:
 - Step 1 - Assessor
 - Step 2- Reviewer if reviewer is selected in the assessment form
 - Step 3 - Approver
 - Step 4 - Plan owner if final approver is selected as the final approver in the assessment form

Example: When the form is with reviewer, the logical indicator shows **Step 2 of 4**.

- **Assessment Due Date:** Displays the date by which you need to complete the risk assessment.
- **Status:** The current risk assessment status is displayed in this field. The status is always **New** when the form is with the assessor. However, after you submit the form, the status is automatically updated based on the next workflow stage.

For more information on header, see [Header](#).

General Section of Risk Assessment Form

The **General** section displays the general details of the risk assessment. The information is inherited from the **Risks Assessment Plan** form and displayed here.

 GENERAL

Get a quick overview of the scope of the assessment along with guidelines which will help you in performing this assessment.

Name *	Asset Management Vendor Risk
Purpose / Scope	The assessment is to rate the impact and likelihood of fraudulent transactions. The Risk is assessed against different organizations within the enterprise. 

Figure 56 General Section

Field/List Name	Description
Name	Displays the name of the assessment as provided while adding the scope. Modify the name if required.
Purpose/Scope	Displays the purpose of assessment as specified in the plan.
Instructions	Displays the instructions to perform the assessment as specified in the plan.

Assessment Summary Section of Risk Assessment Form

The **Assessment Summary** section provides the summary of risk assessments. The **Assessment Summary** section displays the assessed organization, related assessable items, and risks that are scoped for assessment. Any risks added during assessment also appears on the **Assessment Summary** screen.

Note: If there are multiple combinations of Org-Assessable Item-Risk / Assessable Item-Risk / Org-Risk scoped in the single assessment, only one of the combinations is in expanded mode at a time. By default, the first combination remains expanded, and others remain collapsed. When another combination is expanded, the previously expanded combination collapses automatically.

ASSESSMENT SUMMARY

The assessment scope is displayed here. Click on the Risk Name to perform assessment. Also use this section to add new Risks or Override calculated Risk Ratings

Scope	Inherent Rating	Residual Rating
ACME Corp → ALL → ALL → ACME Bank 1 Assessable Item(s)	Not Assessed	Not Assessed
Banking 1 Risk(s)	Not Assessed	Not Assessed
LOB - Finance & Accounting 2 Assessable Item(s)	Not Assessed	Not Assessed

Figure 57 Assessment Summary Section Before Assessing Risk

ASSESSMENT SUMMARY

The assessment scope is displayed here. Click on the Risk Name to perform assessment. Also use this section to add new Risks or Override calculated Risk Ratings

Scope	Inherent Rating	Residual Rating
ACME Corp → ALL → ALL → ACME Bank 1 Assessable Item(s)	High [85]	Low [0]
Banking 1 Risk(s)	High [85]	Low [0]
Fraudulent Transaction	Medium [...]	Effective ...

Figure 58 Assessment Summary Section After Assessing Risk

ASSESSMENT SUMMARY

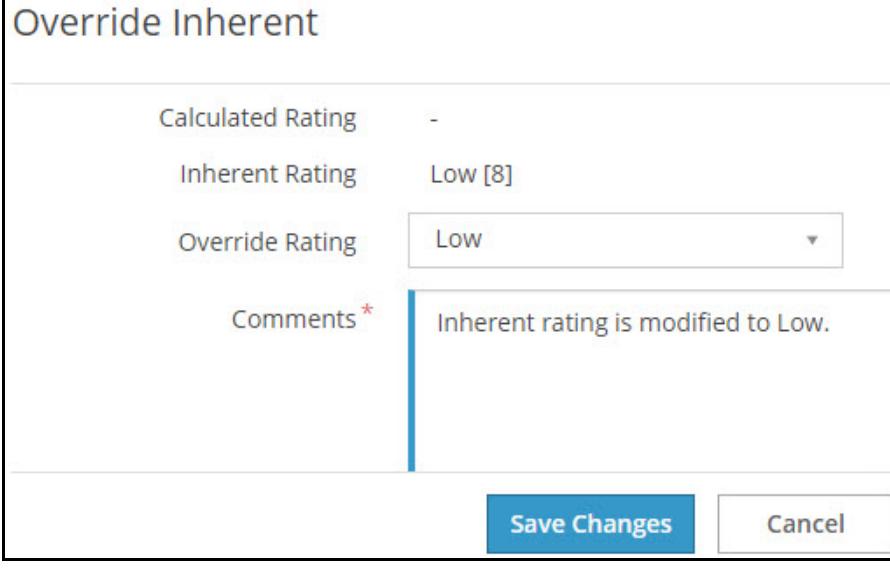
The scope of the assessment is displayed here. Click on the Risk name to perform the inherent, residual and control effectiveness assessment.

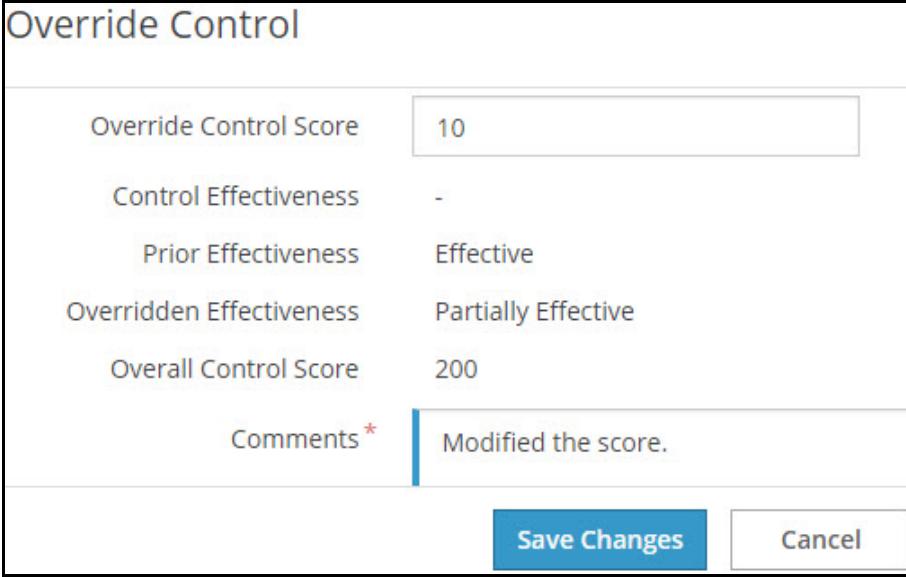
Organization / Assessable Item	Inherent Rating	Residual Rating
ACME Corp → ALL → ALL → ACME Bank 2 Assessable Item	● Low[1] Edit	● Low[1] Edit
AXYS Portfolio Exchange 5 Risk	● Low[1] Edit	● Low[1] Edit
Financial Risk	● Low[1] Edit	● Ineffect... Edit
Human Resources Risk	● Low[1] Edit	● Ineffect... Edit

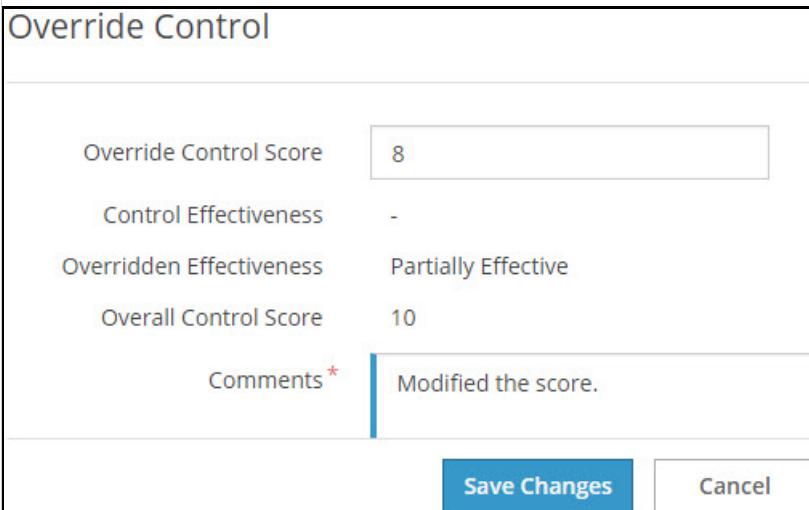
Figure 59 Assessment Summary with Control Environment

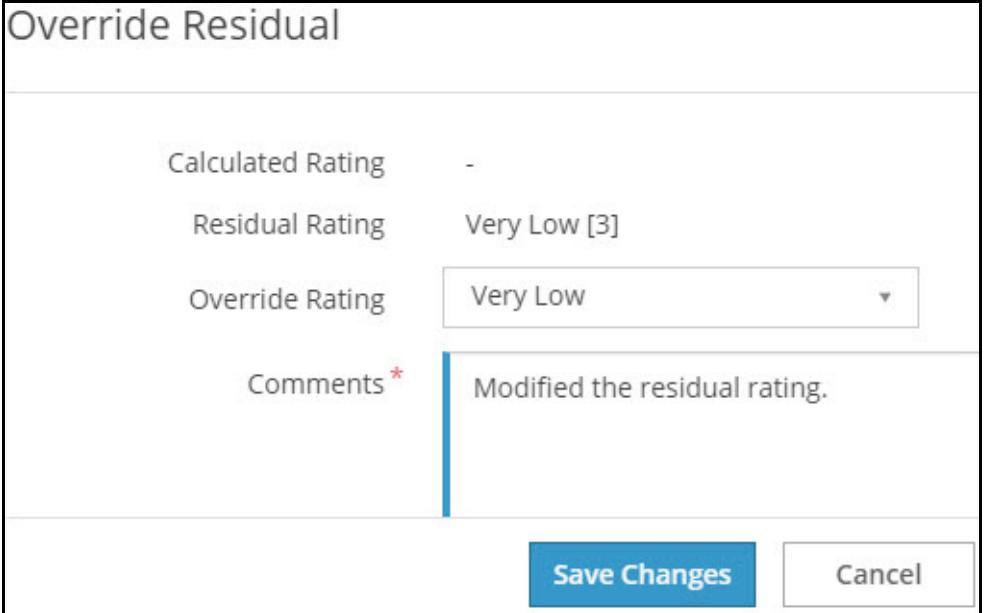
The score and rating at the organization and assessable item levels are available only if the **Show Rolled Up Score for Org. & Assessable Item** check box is selected on the **Perspective** form.

Field/List Name	Description
Organization Name	<p>Displays the organization selected in the Assessments section of the Risk Assessment Plan while defining the scope. For example, if the plan initiator has added two organizations, both the organizations are displayed.</p> <p>Notes:</p> <ul style="list-style-type: none"> - The organizations are sorted in alphabetical order. - When you move the pointer over the organization name, the Hover Cards appear.
Assessable Item Name	<p>Displays the assessable items selected in the perspective.</p> <p>Notes:</p> <ul style="list-style-type: none"> - The assessable items are sorted in alphabetical order. - When you move the pointer over the assessable item name, the Hover Cards appear.
Risk	<p>This field displays the risk names applicable for the organization (for Org-Risk) or assessable Items (for Org-Assessable Item-Risk / Assessable Item-Risk) for which risk assessment is being performed. If there are no risks related to organization or assessable Items, or the risk has become inactive by the time the assessment triggered, then the risk rows disappear.</p> <p>Notes:</p> <ul style="list-style-type: none"> - The risks are sorted in alphabetical order. - When you move the pointer over the organization name, the Hover Cards appears. - Hover cards are not applicable for non-library risks added on the fly during assessment.
Inherent Rating	<p>This field is auto-populated with the inherent rating value based on the inherent assessment performed. The rating is arrived at based on the algorithm used in the system for risk scoring algorithm method and based on risk matrix if the assessment is done using risk matrix configuration methods. The Rating field also displays the corresponding score if enabled.</p> <p>If the assessment is performed using Risk Scoring Algorithm method, the assessor can override the inherent rating for risk, assessable items and / or organizations.</p> <p>You can override the rating by clicking Edit icon corresponding to the calculated inherent rating field.</p>

Field/List Name	Description								
	<p>When you click Edit icon, the following screen appears.</p>  <p>Override Inherent</p> <table border="1"> <tr> <td>Calculated Rating</td> <td>-</td> </tr> <tr> <td>Inherent Rating</td> <td>Low [8]</td> </tr> <tr> <td>Override Rating</td> <td>Low</td> </tr> <tr> <td>Comments *</td> <td>Inherent rating is modified to Low.</td> </tr> </table> <p>Save Changes Cancel</p>	Calculated Rating	-	Inherent Rating	Low [8]	Override Rating	Low	Comments *	Inherent rating is modified to Low.
Calculated Rating	-								
Inherent Rating	Low [8]								
Override Rating	Low								
Comments *	Inherent rating is modified to Low.								
Control Effectiveness <i>(appears only for individual control assessment)</i>	<p>This field displays the effectiveness rating for individual control based on the control assessments performed as part of the risk assessments. This field is available only against the risks, and is not available for organizations and assessable items.</p>								

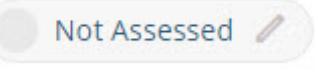
Field/List Name	Description
	<p>You can override the rating by clicking Edit icon corresponding to the calculated Control Effectiveness field. When you click Edit icon, the following dialog box appears.</p>  <ul style="list-style-type: none"> Override Control Score: Provide the new control score. Control Effectiveness: The overall control effectiveness is displayed in this field. Prior Effectiveness: Displays the control effectiveness before changing the score. Overridden Effectiveness: Displays the control effectiveness value corresponding to the overridden control score. Overall Control Score: Displays the overall calculated score. Comments: Provide your comments for overriding the calculated control score. Save Changes: Click this button to save the overridden values. Cancel: Click this button to discard the changes and retain the original score.

Field/List Name	Description
Control Environment <i>(appears only for overall control environment assessment using factors)</i>	<p>Displays the effectiveness rating of the control environment.</p> <p>Note: The control environment effectiveness is available against only the risks that are being assessed.</p> <p>You can override the control environment effectiveness rating by clicking  corresponding to the calculated Control Environment field. When you click Edit icon, the following dialog box appears.</p>  <ul style="list-style-type: none"> • Override Control Score: Provide the new score for the control environment. • Control Effectiveness: Displays the overall effectiveness for the control environment. • Overridden Effectiveness: Displays the control effectiveness value corresponding to the overridden control score. • Overall Control Score: Displays the overall calculated score for the control environment. • Comments: Provide your comments for overriding the calculated control score. • Save Changes: Click this button to save the overridden values. • Cancel: Click this button to discard the changes and retain the original score.
Residual Rating	<p>This field is auto-populated with the residual rating value based on the residual risk assessment performed. The rating is arrived at based on the algorithm used in the system for risk scoring algorithm method and based on risk matrix if the assessment is done using risk matrix configuration methods. The Rating field also displays the corresponding score if enabled.</p> <p>If the assessment is performed using Risk Scoring Algorithm method, the assessor can override the inherent rating for risk, assessable items and / or organizations.</p> <p>You can override the rating by clicking Edit icon corresponding to the calculated inherent rating field.</p>

Field/List Name	Description
	<p>When you click Edit icon, the following screen appears.</p>  <p>Calculated Rating: -</p> <p>Residual Rating: Very Low [3]</p> <p>Override Rating: Very Low ▾</p> <p>Comments *: Modified the residual rating.</p> <p>Save Changes Cancel</p> <ul style="list-style-type: none"> • Calculated Rating: The calculated residual rating is displayed in this field. • Residual Rating: Displays the latest residual rating and the corresponding score. • Override Rating: Click this list to override the calculated residual rating. • Comments: Provide your comments for overriding the calculated residual rating. • Save: Click this button to save the overridden rating and comments. • Cancel: Click this button to discard the changes and retain the rating and score.

Field/List Name	Description
-----------------	-------------

The below explanation is applicable for inherent risk rating, control effectiveness/control environment, and residual risk rating:

If there is no assessment done, the field is displayed as  if the assessment is done using risk algorithm method. For assessment done using all other methods, the field appears as

.

After the inherent risk assessment is done, the rating is displayed along with the score. The rating (and score if applicable) is displayed for risks as well as the assessable items and/or organizations.

Examples:

Rating without score for assessment done using Risk Algorithm method: .

Rating without score for assessment done using Risk Matrix Configuration methods:



Rating with score for assessment done using Risk Algorithm method: .

Rating without score for assessment done using Risk Matrix Configuration methods other than Rating method:



Note: For rating method, scores do not appear.

Adding Ad hoc Risks

While performing the risk assessments, if you want to add some risks that are not part of the original risk assessment plan scope, use  available in this form. You can assess these newly added risks with the other existing risks. This option is made available using the **Add Risks from** field in the **Risk Assessment Plan** form or the **Perspective** form. You can add risks from GRC library or create new risks based on the **Add Risks from** field settings. For more information on this field settings, see [Assessments section of Risk Assessment Plan Form](#) and [Assessment Settings of Perspective Form](#).

You can create new Risks or add risks from GRC Library in the second hierarchical level (Assessable Item level) or first hierarchical level (Organization level) based on the type of risk assessment, as shown below:

- Org-Assessable Item-Risk: Second hierarchical level
- Org-Risk: First hierarchical level
- Assessable Item- Risk: First hierarchical level

To add ad hoc risks, click  corresponding to the organization or assessable item.

The following options appear.

- **Add new Risk:** Click this link to create new risks. For more information on adding new Risks, refer to the [Adding New Risks](#) section.

- **Add Risk from Library:** Click this link to add the risks that are already existing in the GRC Foundation library. For more information on adding new Risks from library, refer to the [Adding New Risks from GRC Library](#) section.

Adding New Risks

To create new Risks, perform the following steps:

1. Click **Add new Risk**.

The following dialog box appears.

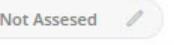
New Risk	
Risk *	Safety
Level *	Level 2
Parent *	* Safety and Hazards Risk
Description	Safety risk
<input type="button" value="Save Changes"/> <input type="button" value="Cancel"/>	

2. Provide the required details.

Field	Description
Risk	Type the name of the risk.
Level	Select the level of the risk. The values appear according to the levels selected in the Add Risks at field in the Perspective or Risk Assessment Plan form. If only one value is selected in the Add Risks at field, the Level field shows the selected level and it is not editable.
Parent <small>(unavailable if Level 1 is selected in the Level field)</small>	Select the parent risks for the child-level risk.
Description	Type description for the risk that is added.

3. Click Save Changes.

The newly added risk appears under the first or second (selected) hierarchical level with  icon associated with it.

 GRC - Compliance	Inherent Rating  Low[1] 	Residual Rating  Low[1] 
 AXYS Portfolio Exchange	Inherent Rating  Low[1] 	Residual Rating  Low[1] 
 Financial Risk	Inherent Rating  Low[1] 	Control Environment  Ineffect... 
 Human Resources Risk	Inherent Rating  Low[1] 	Residual Rating  Low[1] 
 Legal Risk	Inherent Rating  Low[1] 	Control Environment  Ineffect... 
 Safety and Hazards Risk	Inherent Rating  Low[1] 	Residual Rating  Low[1] 
 Safety	 Inherent Rating  Low [1] 	Control Environment  Not Assesed 
		Residual Rating  Low [1] 

Note: The newly created risk is not added to the GRC library.

Adding New Risks from GRC Library

To add risks from GRC Library, perform the following steps:

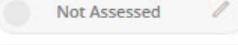
1. Click Add Risk from Library.

The **Risk From Library** dialog box appears.

Note: The risks are filtered based on your user profile and security access rights.

2. Click the corresponding option button to select the required risk, and then click **Done**.

The newly added risk appears under the first or second (selected) hierarchical level with  icon associated with it.

 LOB - Retail Banking	Inherent Rating  High [2500000031] 	Residual Rating  Not Assessed 
 Banking	Inherent Rating  High [2500000031] 	Residual Rating  Not Assessed 
 Fraudulent Transaction	Inherent Rating  Not Assessed 	Control Effectiveness  Not Assessed 
 Theft or robbery	Inherent Rating  Not Assessed 	Residual Rating  Not Assessed 
 Emerging Markets	 Inherent Rating  Not Assessed 	Control Effectiveness  Not Assessed 
		Residual Rating  Not Assessed 

Deleting Risks

While performing assessments, you can delete the risks that you do not want to assess.

To delete a risk, click Delete icon corresponding to the risk.

The risk is marked as deleted. Click Undo icon to add the deleted risk to the assessment.

Note: The deleted risks and controls that are part of the assessment plan will reappear if the **Default to Previous Assessment** check box in the **Perspective** form is selected and the assessment is re-triggered.

Assessment Details Window

The Assessment Details window opens up when the user clicks on the risk name in the **Assessment Summary section**. This window consists of the following section:

- Header Section
- Inherent Rating
- Control Effectiveness or Control Environment

Note: The **Control Effectiveness** section appears if the Individual Controls option is selected in the **Assess Control Framework Based On** field of the **Perspective** form. The **Control Environment** section appears, if the value selected in this field is Overall Environment Based on Factors.

- Residual Rating
- New Risk Information

Note: This section appears only for the newly added ad hoc risk.

- Additional Information

Header section of Assessment Details Window

The header provides a quick overview about the assessment details.

BS GroupGlobal	Fraudulent Transaction
<input checked="" type="radio"/> Not Assessed	<input checked="" type="radio"/> Not Assessed
« » File ▾ Close	

Figure 60 Before Assessment

The following information is displayed:

- **Organization Name:** Displays the name of the organization (for assessment types Org-Risk or Org-Assessable Item-Risk), with the residual risk rating below the name. The rating displayed is the calculated rating if the rating is not overridden or overridden rating if the rating is overridden.

The organization name displays up to 60 characters, after which the characters are truncated. When you move the mouse pointer over the organization name, a tool tip with the full name of the organization appears.

When you move the mouse pointer over the rating, a tool tip displays with rating as well as score, along with the following text: **The rating and score displayed here are based on the current assessment only**

- **Assessable Items:** Displays the name of the assessable item if the assessment type is Assessable Item-Risk / Org-Assessable Item-Risk, with the residual risk rating below the name. The rating displayed is the calculated rating if not overridden or overridden rating if overridden.

Assessable Item name displays up to 60 characters, after which the characters are truncated. When you move the mouse pointer over the assessable item name, the [Hover Cards](#) appears, which provides details such as the full name of the assessable item along with the relationship of the assessable item with other library content.

When you move the mouse pointer over the rating, a tool tip displays with rating as well as score, along with the following text: **The rating and score displayed here are based on the current assessment only.**

- **Risk Names:** Displays the name of the current risk being assessed, with the residual risk rating below the name. The rating displayed is the calculated rating if not overridden or overridden rating if overridden.

Risk Name displays up to 60 characters, after which the characters are truncated. When you move the mouse pointer over the risk name, the [Hover Cards](#) appears, which provided details such as the full name of the risk along with the relationship of the risk with other library content.

Note: Hover card is unavailable for newly added ad hoc risk.

When you move the mouse pointer over the rating, a tool tip displays with Rating as well as score, along with the following text The rating and score displayed here are based on the current assessment only.

Note: The score and rating at the organization and assessable item levels are displayed if the **Show Rolled Up Score for Org. & Assessable Item** check box in the **Perspective** form is selected. However, irrespective of the availability of the scores and ratings in the header, these are considered for the rollup calculation and the results are displayed in all relevant reports.

- **Residual Rating:** Displays the assessment ratings based on the current assessment.
- **Prior Residual Assessment:** Displays the prior assessment ratings and scores, if applicable, for the risk.
- **Action Buttons:** The following action buttons are available:
 - Related Reports: The **Related Reports** list provides a list of reports related to the current Risk being assessed. The following reports are listed:
 - Related Losses report: The report data is based on the relationship with risks.
 - Related Metrics report (Includes Metrics related to as well as tracked for the risk): The report data is based on the relationship with risks or tracked items.
 - Open Issues report: The report data is based on the relationship with risks.
- Previous icon: You can use this button to navigate to the previous combination based on the assessment type selected in the risk assessment plan.
 - If the assessment type selected is Org-Risk, then the previous Org-Risk combination is displayed till all the applicable combinations applicable are shown.
 - If the assessment type selected is Org-Assessable Item-Risk, then the previous Org-Assessable Item-Risk combination is displayed till all the applicable combinations applicable are shown.
 - if the assessment type selected is Assessable Item-Risk, then the previous Assessable Item-Risk combination is displayed till all the applicable combinations applicable are shown.

Notes:

- When you move the mouse pointer over this icon, the tool tip displays the previous combination based on the assessment type selected in the risk assessment plan.
- If no risks are assessed prior to the current assessment, then this button does not appear.

Example:

Consider that the assessment is performed on:

- Org 1
- Process 1
 - Risk 1

- Risk 2
- Risk 3
- Process 2
 - Risk 1
 - Risk 2

Scenario 1:

Current Risk being assessed is Org 1 > Process 1 > Risk 1

Output:  is not displayed as there are no prior assessments.

Scenario 2:

Current Risk being assessed is Org 1 > Process 1 > Risk 2

Output: The tool tip on  reads Org 1 > Process 1 > Risk 1

Scenario 3: Current Risk being assessed is Org 1 > Process 2 > Risk 1

Output: The tool tip on  reads Org 1 > Process 1 > Risk 3

- Next icon  : The navigation button can be used to navigate between the Risks, Assessable Items and Organizations within the **Assessment Details** page. If there are multiple combinations of organizations, assessable items, and risks scoped in the assessment, you can navigate through all of them using the next and previous icons.

Notes:

- When you move the mouse pointer over this icon, the tool tip displays the next combination based on the assessment type selected in the risk assessment plan.
- If no risks are assessed after the current combination, then this button does not appear.

Example:

Consider that the assessment is performed on:

- Org 1
- Process 1
 - Risk 1
 - Risk 2
 - Risk 3
- Process 2
 - Risk 1
 - Risk 2

Scenario 1: Current Risk being assessed is Org 1 > Process 1 > Risk 1

Output: The tool tip on  reads Org 1 > Process 1 > Risk 2

Scenario 2: Current Risk being assessed is Org 1 > Process 1 > Risk 3

Output: The tool tip on  reads Org 1 > Process 2 > Risk 1

Scenario 3: Current Risk being assessed is Org 1 > Process 2 > Risk 2

Output:  is not displayed.

Inherent Rating section of Assessment Details

This section appears only when user clicks on the risk name in the tabular format in the **Assessment Summary** section.

Factor		Assessment	Weighted Sc...	Comments
Impact	?	Very Low	4.00	
Financial	?	High	1	
Reputational	?	Possible	4.00	
Likelihood	?	Medium	3.00	

Figure 61 Inherent Rating Section

Note: In the above figure, the blue color for Medium rating is picked from the heat map range table.

For more information on how to calculate the factor score and rating and the overall inherent risk rating and score, refer to [Calculating Score and Rating of Assessment Factors](#).

The following are the various columns in the inherent section.

Column Name	Description
Factor	<p>The Factors column is pre-populated with the factors for performing the inherent risk assessment.</p> <p>The section displays all active main Factors, hierarchical and sub-factors applicable to the inherent section. The main factors appear as normal links, whereas the hierarchical factors appears with an expansion icon in front of the main factor. When you click expansion icon, the sub factors appears below the hierarchical factor and expansion icon toggles to . If the hierarchical factor do not have any sub-factors, the expansion icon does not appear.</p> <p>If there are sub-factors for the hierarchical factor, then hierarchical factors cannot be assessed directly. Sub-factors are assessed first, and hierarchical factor value is calculated based on the computation logic used in the hierarchical Factor. If there is no sub-factor association, main factors can be assessed directly.</p>
	Click the icon to view the Factor Rating Details window, which displays information on the scores and ratings defined for the factor.

Column Name	Description
<input checked="" type="checkbox"/>	<p>Indicates whether the score and rating of the factor is applicable or not for the overall risk score and for further roll up.</p> <ul style="list-style-type: none"> By default, the check box is selected indicating that the factor is applicable. Clear the check box to mark the factor as not applicable. For example, the inherent formula is defined as the product of all factors in the Risk Scoring Algorithm interface. There are three factors F1, F2, and F3. If the assessor marks F2 as not applicable, then the formula for the Inherent Risk Score is the product of F1 and F3. <p>Notes:</p> <ul style="list-style-type: none"> When you clear the check box, the values associated with the factor in the entire row is cleared. If you want the factor to be made applicable again, you must select the check box and define the values for the factor. When the factor is made not applicable, the value in the Weighting (%) column is not cleared automatically. If the option is not enabled during the factor definition, the icon is displayed in a gray shade <input checked="" type="checkbox"/> in the Risk Assessment form and remains disabled. For more information on enabling or disabling this icon in the Risk Assessment form, refer to Display 'Not Applicable' as a choice to Assessor check box description provided in the List of Values. If the option is enabled in the factor definition, then the icon is displayed as <input checked="" type="checkbox"/> . represents that the factor is applicable. After the Risk Assessment form is loaded, by default, all the factors for which Display 'Not Applicable' as a choice to Assessor check box is selected in the Factor form, are displayed with <input checked="" type="checkbox"/>.
Prior Assessment	The prior inherent score (as specified by the assessor) for the factor is auto populated in this field. The score is picked from the most recent assessment performed and published in the past on the same combination of Org-Risk / Org-Assessable Item-Risk / Assessable Item-Risk as in the current assessment, and using the same perspective. If there is no prior score to display, the field remains blank.
Assessment	<p>This field allows the assessor to select a response or type any text as the assessment response based on the assessment factor type.</p> <ul style="list-style-type: none"> If the assessed factor is of type List of Values, this field allows the assessor to select a response from the various options defined during the factor creation. Based on the response selection, the weighted score value varies as defined in the Factor form. If the assessed factor is of type Rule Based, this field allows assessor to type the assessment response.
Score <i>(appears only when you click Show Additional Columns link on the top-right corner of Inherent Rating.)</i>	This field is auto-populated with the score corresponding to the factor response selected / entered by the assessor. The scores defined in the Factor form are populated in this field.

Column Name	Description
Weighting (%) <i>(appears only when you click Show Additional Columns link on the top-right corner of Inherent Rating.)</i>	<p>The value in the field is populated only for non-standard factors. Also, if the Modify Weight check box is selected in the risk assessment plan or perspective, this field becomes editable, and you will be able to modify the weight that is auto populated from the factor. If Modify Weight check box is not selected in the risk assessment plan, this field remains disabled and non-editable.</p> <p>If this field is in editable mode, you can enter an integer or decimal value. If the you enters a numeric value greater than 100, an alert message which states Please enter weighting value in the range of 1 to 100 is displayed. The value typed in this field is multiplied with the score (arrived at based on factor response provided by the assessor).</p>
Weighted Score	<p>Displays the computed weighted score.</p> <p>Weighted Score = Factor Response (Score) * Value entered in the Weighting (%) column.</p> <p>Note: If no values are specified in the Weighting (%) column, then 100% is taken as the default value.</p>
Rating <i>(appears only when you click Show Additional Columns link on the top-right corner of Inherent Rating.)</i>	<p>This is applicable only for hierarchical factors that have sub factors associated with it and for main and sub factors that are Rules based</p> <p>Based on the sub factor responses and weighting applied, the hierarchical factor score and rating is arrived at, and that rating is displayed in this field.</p> <p>For Rules based main and sub factors the corresponding score is calculated based on the input provided by the assessor. The rating is then computed by applying the weighting.</p>
Comments	<p>Click  to type in your comments. After entering the comments, click the Save button to save the comments and make it appear in the Comments section of the Inherent section tabular format.</p> <p>Note: The column size is adjusted to accommodate the text entered in this field. When you enter more text than the maximum size that can be accommodated in this column, the text appears truncated.</p>

Control Effectiveness section of Assessment Details

This section displays the default individual controls related to the risk that is being assessed. This is based on the selection of the **Default Controls** check box and the relationship provided in the **Default Control Based On** field in the **Perspective** form. This section allows you to add ad hoc controls.

Note: The Control Effectiveness section appears only if the individual control assessment is initiated by selecting the Individual Controls option in the Assess Control Framework Based On field of the Perspective form. For the Overall Environment Based on Factors option, [Control Environment section of Assessment Details](#) section appears.

CONTROL EFFECTIVENESS				
	Add ▾	Delete	Undo	Show Columns >
Control Name	Design Effectiven... * ▾	Operating Effecti... * ▾	Control Assessm... ▾	Override ▾
Audits Transactions with A...	Unlikely [3] ▾	Ineffective [2] ▾	Ineffective [0]	▼
BSA/AML Policy	Unlikely [3] ▾	Ineffective [2] ▾	Ineffective [0]	▼

Figure 62 Control Effectiveness Section - Based on Design and Operating Effectiveness

CONTROL EFFECTIVENESS						
	Add ▾	Delete	Undo	Mitigation		
Control Name	Type	Key Control	Purpose	Mitigation (%) * ▾	Comments	Hide additional columns
Token Security	Related To Risk	Yes	Compensating	Impact; Likelihood		☒

Figure 63 Control Effectiveness Section - Mitigation Method

The following are the various columns in the **Control Effectiveness** Section.

Column Name	Description
Add	The assessor can use this option to add ad hoc controls, while performing assessment. The assessor can either key in new controls or pick active controls defined in the GRC Foundation. The ratings chosen for ad hoc controls impact the residual rating. For more information on adding controls, refer to Adding Controls .
Delete	Use this option to delete controls added on an ad hoc basis.
Undo	Use this option to retrieve the deleted controls.

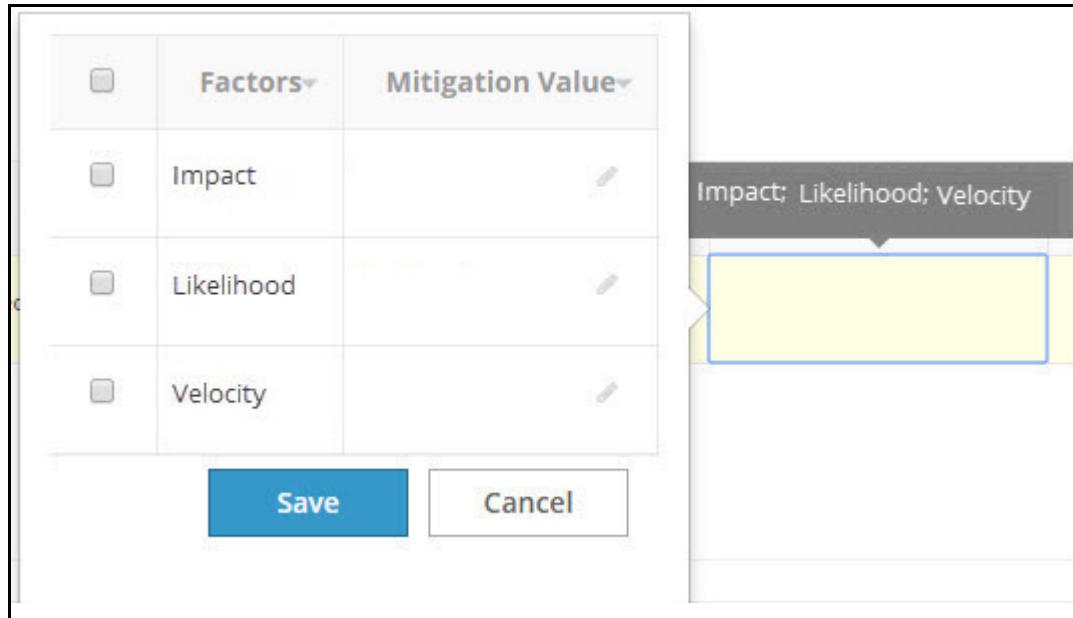
For more details on **Delete** button and **Undo** button, refer to [Deleting Controls](#).

Column Name	Description
Overall Control Effectiveness and Score  Effective [8] 	<p>The overall control effectiveness score and rating is displayed on the top-right corner of the Control Effectiveness section.</p> <p>For Risk Scoring Algorithm, the overall control score is calculated based on the function (average, maximum, minimum, product, or sum) selected in the Risk Scoring Algorithm form. For other methods, the overall control score is calculated based on the Control Score Formula (average, maximum, minimum, sum, or product) selected in the perspective.</p> <p>Note: If the selected function is Average and if Weighting (%) is provided for the control, then the overall control score is calculated as the weighted average of the scores. That is, the Overall Control Score = (Weighted Score of control 1 + Weighted Score of control 2+...)/((Weighting % of control 1+Weighting % of control 2+...)/100).</p>
Select	<p>The Select check box determines whether to mark the controls for deletion or not.</p>
Control Name	<p>The name of the control.</p> <p>The controls populated by default based on the risk relationship, as well as those keyed in and added from the library on an ad hoc basis are displayed here. When you move the mouse pointer over the control name, the Hover Cards appears.</p> <p>Note: Controls that are typed in by the assessor are not hyperlinked.</p>
Control Effectiveness - Based on Design and Operating Effectiveness	
Sub Factor 1 <i>(Displays the name of the design effectiveness factor created in the Quantitative form)</i>	From the drop down list, select the design effectiveness factor.
Sub Factor 2 <i>(Displays the name of the Operating effectiveness factor created in the Quantitative form)</i>	From the drop down list, select the operating effectiveness factor.
Hierarchical Factor <i>(Displays the name of the Hierarchical factor created in the Quantitative form)</i>	Displays hierarchical factor rating corresponding to a particular control based on the selected sub factors.
Override	Overrides the hierarchical factor rating. <p>Note: In the Risk Assessment form Control Effectiveness section, Override column is available only when the user selects the check box Override Control Effectiveness.</p>
Score <i>(this field is displayed only if control mitigation is not used)</i>	Displays the score corresponding to the control effectiveness value selected for the control. <p>Note: The score is populated from the Control Effectiveness data table.</p> <p>For more information on data tables, contact your system administrator.</p>

Column Name	Description
Weighting (%) <i>(this field is displayed only if control mitigation is not used)</i>	<p>This field is populated with the weight value specified in the Control Effectiveness data table. For more information on data tables, contact your system administrator.</p> <p>If Modify Weighting check box in the risk assessment plan or perspective is selected, this field becomes editable.</p>
Weighted Score <i>(this field is displayed only if control mitigation is not used)</i>	<p>The product of value provided in the Score column and the weighting percentage of the control is displayed in this field.</p> <p>Weighted Score = Score * Weighting (%)</p>
Comments	<p>Provide the comments regarding the control in this field.</p> <p>Click  to type in your comments. After entering the comments, click the Save button to save the comments and make it appear in the Comments section of the Inherent section tabular format.</p> <p>Notes:</p> <ul style="list-style-type: none"> - You can enter up to 4000 characters in this field. - The column size is adjusted to accommodate the text entered in this field. When you enter more text than the maximum size that can be accommodated in this column, the text appears truncated.
Key Control	<p>This column specifies whether the control is a key control or not. If the control is specified as a key control during the control creation in the GRC library, the column value is displayed as Yes, otherwise, the column value is displayed as No.</p> <p>You can select a value when you add an ad hoc control.</p>
Purpose	<p>This column displays the purpose of the control. These details are entered during the control creation in the GRC library.</p> <p>For an ad hoc control, you can define the purpose in this field.</p>
Type	<p>Displays whether the control is the one that is related to risk as defined in the GRC library, or whether it is a new control typed in by the assessor. The available options are:</p> <ul style="list-style-type: none"> • Related to Risk: If the control has an established relationship with the risk defined in GRC Foundation, this option is displayed. • New Control: If you add an ad hoc control during the risk assessment, this option is displayed. • Library Control: If you add an existing control from the existing GRC library, this option is displayed.
View Test	<p>Displays . Click this icon to open the Test Execution report. For details on this report, refer to MetricStream Arno Release Spring '21 - Self-Assessment and Testing - User Guide.</p>
Control Effectiveness - Mitigation Method	
Mitigation (%) <i>(this field is displayed only if control mitigation is used)</i>	<p>Specify the mitigation value for the control being assessed for each of the factors by clicking this button. When you click this button, a form opens where you can enter the details.</p>

Column Name	Description
Comments	<p>Provide the comments regarding the control in this field.</p> <p>Click  to type in your comments. After entering the comments, click the Save button to save the comments and make it appear in the Comments section of the Inherent section tabular format.</p> <p>Note: The column size is adjusted to accommodate the text entered in this field. When you enter more text than the maximum size that can be accommodated in this column, the text appears truncated.</p>

The following fields appear when you click on the **Mitigation (%)** column corresponding to a control, as shown below.



Factors	Mitigation Value
Impact	<input type="text"/>
Likelihood	<input type="text"/>
Velocity	<input type="text"/>

Save **Cancel**

Select	Use this column to assign control mitigation for the factors that are selected.
Factors	Use this column to view the list of factors available for mitigation.
Mitigation Value	<p>Use this field to provide percentage mitigation values.</p> <p>Note: This field support positive integers and decimals.</p>
Save	Click the Save button to save the changes done in the window.
Cancel	Click the Cancel button to cancel the values entered in the window.
Overall Mitigation	The overall mitigation icon appears on the top-right corner of the Control Effectiveness section. The overall mitigation percentage of all the applicable factors is displayed on clicking this icon. The overall mitigation is calculated based on the function (average, maximum, minimum, product, or sum) provided in the Risk Scoring Algorithm form.

Adding Controls

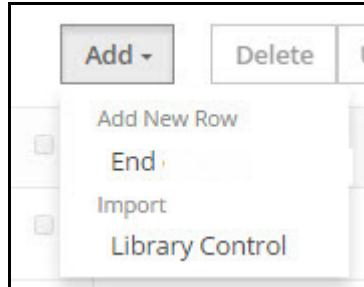
While performing the control Assessments, you can add or create controls over and above what is already available as part of the original scope using the **Add Control** option using the.

The newly added controls also form part of the scope for control assessment.

Adding New Controls

To add /create new Controls, perform the following step:

- To add/Create Control, click the down arrow in and click **End** option as shown below:



When you click this option, new controls are added in the **Control Effectiveness** Section, as shown below.

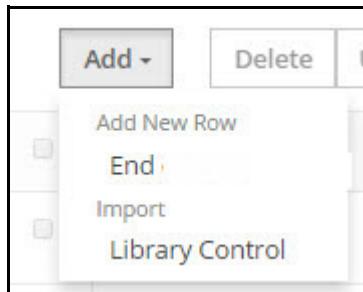
	Control Name	Effectiveness *	Score *	Weighted Score	Comments
<input type="checkbox"/>	A training plan and calendar is p...	Partially Effective	5	5	
<input type="checkbox"/>	Coordination with the line mana...	Ineffective	0	0	
<input type="checkbox"/>	Access security	Effective	10	10	

Figure 64 Adding Ad hoc Controls

Adding GRC Library Controls

To add controls from GRC Library, perform the following steps:

- To add control from GRC library, click the down arrow in **Add ->**, and click **Library Control** option as shown below:



The **Library Control** screen appears.

The screenshot shows a 'LIBRARY CONTROL' interface. On the left, there's a sidebar with a 'Control Name' search input and 'Apply Fil...' and 'Cancel' buttons. The main area is a table with columns: ID, Name, Type, Key, and Purpose. Two rows are visible: one selected (CTRL-00001004) with the name 'Access Security Controls for all Banks' and another row below it (CTRL-00001007) with the name 'Control With 4000 Character'. At the bottom, there are buttons for 'Done' and 'Cancel', along with pagination information: 'Page 1 of 1', 'Records Per Page: 20', and 'Records 1 - 12 of 12'.

	ID	Name	Type	Key	Purpose
<input checked="" type="radio"/>	CTRL-00001004	Access Security Controls for all Banks		YES	Preventive
<input type="radio"/>	CTRL-00001007	Control With 4000 Character		YES	

Figure 65 Adding Controls from GRC Library

2. Select the required Control name.

Notes:

- The controls are populated from the GRC Library. The controls are filters based on the logged-in user profile and security access rights.
- You can add only one control at a time.

3. Click the **Done**.

The newly added control appears in the **Control Effectiveness** section.

Deleting Controls

To delete a control, perform the following steps:

1. Select the check box corresponding to the control that you want to delete.

The selected row is highlighted.

2. Click **Delete**.

When the row is deleted, the is replaced with .

If you want to undo the changes done, click **Undo**.

Control Environment section of Assessment Details

This section is available for assessing the overall control environment based on multiple factors. These factors are defined as quantitative factors. The overall control effectiveness assessment can be performed when these defined factors are selected in the **Perspective** form. The **Control Environment** section appears only if the **Overall Environment Based on Factors** option is selected in the **Assess Control Framework Based On** field of the **Perspective** form. The overall control environment score is calculated based on the function (average, maximum, minimum, product, or sum) provided in the **Overall Score Formula** field of the **Perspective** form.

Factors		Assessment	Scores *	Weighted Score	Comments
Design Effectiveness	?	Ineffective	3	1	
Operating Effectiveness	?	Ineffective	3	1	
Issue Remediation Management	?	Ineffective	3	0.3	
Processes Procedures and Govern...	?	Effective	1	0.1	
Training and Culture	?	Effective	1	0.1	

Figure 66 Control Environment Section

The following table describes various columns in this section.

Column	Description
Factors	Displays the control factors that are created as quantitative factors and selected in the Perspective form.
Assessment	Select the assessment response. The responses are defined as list of values while creating the factors.
Weighting (%)	Displays the weighting of the factor in percentage as provided as Input Type and Weight while creating control factor.
Weighted Score	Displays the weighted score for the response. This is calculated as Score provided for the factor response * value in the Weighting (%) field.
Comments	Provide your comments on the control factor assessment.

Residual Rating

This section appears only when user clicks on the risk name in the tabular format in the **Assessment Summary** section. The following are the various columns in the **Residual Rating** section.

Factors		Assessment *	Weighted Score	Comments
Impact	☒	High	4.00	
Financial	☒	High	4.00	
Reputational	☒	High	4.00	
Likelihood	☒	Certain	5.00	

Figure 67 Residual Rating section, Control Effectiveness - Non Mitigation Method

Note: In the above figure, the red color for Very High rating is picked from the heat map range table.

The screenshot shows a table titled "RESIDUAL RATING" with the following data:

Factors	Mitigation	Assessment *	Weighted Score	Comments
Likelihood	0.92	Medium	5.00	
Velocity	1.82	Medium	6.00	
Impact	1.80		8.00	
Financial Impact		High	8.00	
Reputational Impact		Very Low	3.00	

At the top right, there is a yellow circle icon labeled "Medium [5]" with a pencil icon. Below it is a link "Show additional columns".

Figure 68 Residual Rating section, Control Effectiveness - Mitigation Method

If the **Residual Assessment based Inherent vs Control** check box is selected in the **Risk Assessment Profile**:

- The **Residual Rating** section does not show factor details.
- For all methods, including risk scoring algorithm, the residual score and rating are calculated based on the **Residual Assessment Details** defined in the **Risk Assessment Profile** form.

Column Name	Description
Factors	<p>The Factors column is pre-populated with the factors for performing the residual risk assessment.</p> <p>The section displays all active main Factors, hierarchical and sub-factors applicable to the residual section. The main factors appear as normal links, whereas the hierarchical factors appears with an expansion icon  in front of the main factor. When you click , the sub factors appears below the hierarchical factor and  toggles to . If the hierarchical factor do not have any sub-factors, the expansion icon  does not appear.</p> <p>If there are sub-factors for the hierarchical factor, then hierarchical factors cannot be assessed directly. Sub-factors are assessed first, and the scores aggregates to the hierarchical factors based on the computation logic used in the hierarchical factor.</p> <p>When you click the factor name, a rating guide report is displayed that provides information on the scores and ratings defined for the factor and the factor description.</p>
Applicable?	<p>This icon appears against each assessable factor in the Residual Rating section. The assessor can specify whether the factor is applicable or not for the specific assessment. If this option is not enabled during the factor definition, the icon is presented in a gray shade  in the Risk Assessment form and remains disabled. For more information on enabling or disabling this icon in the Risk Assessment form, refer to Display 'Not Applicable' as a choice to Assessor check box description provided in the List of Values. If the option is enabled in the factor definition, then the icon is displayed as .  represents that the factor is applicable. After the Risk Assessment form is loaded, by default, all the factors for which Display 'Not Applicable' as a choice to Assessor check box is selected in the Factor form, are displayed with . The assessor can make the factor not applicable by clearing the check mark. Then the same icon toggles to .</p> <p>When the factor is marked as not applicable, the score and rating for this factor is not considered to calculate the overall risk score, as well as for further roll up. For example, consider that the inherent formula is defined as the Product of all factors in the Risk Scoring Algorithm interface, and there are three factors such as F1, F2, F3. If the assessor marks F2 as not applicable in the Factor form, the formula used to arrive at the Inherent Risk Score becomes F1 X F3.</p>
Prior Assessment	<p>The prior residual score (as specified by the assessor) for the factor is auto populated in this field. The score is picked from the most recent assessment performed and published in the past on the same combination of Org-Risk / Org-Assessable Item-Risk / Assessable Item-Risk as in the current assessment, and using the same perspective. If there is no prior score to display, the field remains blank.</p>

Column Name	Description
Assessment	<p>This field allows the assessor to select a response or type any text as the assessment response based on the assessment factor type.</p> <p>Note: This option is available only for non-control mitigation method.</p> <ul style="list-style-type: none"> If the assessed factor is of type List of Values, this field allows the assessor to select a response from the various options defined during the factor creation. Based on the response selection, the weighted score value varies as defined in the Factor form. If the assessed factor is of type Rule Based, this field allows assessor to type the assessment response.
Score	<p>This field is auto-populated with the score corresponding to the factor response selected / entered by the assessor. The scores defined in the Factor form are populated in this field.</p>
Weighting (%)	<p>The value in the field is populated only for non-standard factors. You can modify the weighting if the Modify Weighting check box is selected in the risk assessment plan or perspective.</p>
Weighted Score	<p>Displays the computed weighted score.</p> <p>Weighted Score = Factor Response (Score) * Value entered in the Weighting (%) column.</p> <p>Note: If no values are specified in the Weighting (%) column, then 100% is taken as the default value.</p>
Rating	<p>This is applicable only for hierarchical factors that have sub factors associated and for Rules based main and sub factors.</p> <p>Based on the sub factor responses and weighting applied, the hierarchical factor score and rating is arrived at, and that rating is displayed in this field.</p> <p>For rules based main and sub-factors, based on the input provided by the assessor, the corresponding score is arrived at, and after applying the weighting, the rating is computed and displayed in this field.</p>
Comments	<p>Click  to type in your comments. After entering the comments, click Save to save the comments and make it appear in the Comments section of the Residual Rating section</p> <p>Note: The column size is adjusted to accommodate the text entered in this field. When you enter more text than the maximum size that can be accommodated in this column, the text appears truncated.</p>

Assessment Details > New Risk Information

This section appears only for the newly added ad hoc risk. Use this section to edit the details of the new risk.

The screenshot shows a form titled "NEW RISK INFORMATION". The fields and their values are:

- Risk *: Safety
- Level: Level 2
- Parent *: Safety and Hazards Risk
- Description: Safety risk

At the bottom right of the form area, there is a note: (11/4000).

Figure 69 New Risk Information

For details on the fields available in this section, see [Adding New Risks](#).

Additional Information section of Assessment Details

This section describes the additional details in the **Assessment Details** section.

Field/List Name	Description
Trend	<p>Provide your judgment on the trend of the risk based on the current and previous assessment ratings.</p> <p>The available options are:</p> <ul style="list-style-type: none"> • Upwards: If the assessment rating is showing increasing trend, select this option. • Downwards: If the assessment rating is showing decreasing trend, select this option. • Stable: If the trend of assessment rating is stable, select this option. <p>Note: You can select the risk trend only at the last child hierarchical level, that is, the Risk hierarchical level.</p>
Threat or Opportunity	<p>Specify if the assessed risk is a threat or an opportunity to the business unit or any assessable item.</p> <p>The available options are:</p> <ul style="list-style-type: none"> • Threat: Indicates that the risks have negative impact. • Opportunity: Indicates that the risks have positive impact. <p>Note: Positive risks can be considered as opportunities that have a positive impact.</p> <p>The main objective of risk assessment is to increase the probability and impact of positive outcomes and decrease the probability and impact of negative outcomes. Hence, the risks can be positive or negative or viewed as opportunities or threats.</p> <p>Note: You can enter the threat or opportunity details only at the last child hierarchical level, that is, risk hierarchical level.</p>

Field/List Name	Description
Threat or Opportunity Level	<p>Specify the level of threat or opportunity of the assessed Risk on your business unit or assessable item.</p> <p>This column is editable after you select the value in the Threat /Opportunity column. The available options are:</p> <ul style="list-style-type: none"> • High • Medium • Low
Risk Response / Treatment Strategy	<p>Using this column the assessment approver or assessor can record the decision and the treatment that is applied to the threat or opportunity risks.</p> <p>The following options are available if you select the value Threat in the Threat /Opportunity field:</p> <ul style="list-style-type: none"> • Mitigate: If you are implementing a corrective action to eliminate or reduce the Impact or likelihood, select this option. • Accept: If you are ceasing the activity to eliminate the Risk, select this option. • Transfer: If you are shifting the Impact to another item, select this option. • Avoid: If you are not implementing any corrective actions and documenting the rationale on why the Risk should be avoided, select this option. <p>The following options are available if you select the value Opportunity in the Threat /Opportunity field:</p> <ul style="list-style-type: none"> • Enhance: If you have allocated the resources to develop a treatment plan to increase the Likelihood and/or benefit, select this option. • Accelerate: If you have allocated resources to analyze the opportunity, select this option. • Share: If you have allocated the resources to share the benefit with the third parties such as insurance or contract, select this option. • Ignore: If you want to allocate resource and miss the opportunity, select this option.
	<p>Notes:</p> <ul style="list-style-type: none"> - The strategy that you provide in this column is used in the Risk Register report. - The display of column values is configurable. The values in this field are populated from the MS_RSK_THREAT_OPPORTUNITY data table.
Risk Owners	<p>One or more names of the risk owners appear.</p> <p>The values in this field are populated from the corresponding Risk details from the GRC Foundation.</p>
Level 1 Parent Risk	The parent risk at level 1, if any, appears in this field.
Level 2 Parent Risk	The parent risk at level 2, if any, appears in this field.

Risk Assessment Form > Issues Section

Use the **Issues** section to log new issues or associate existing issues during risk assessment. .

The screenshot shows the 'ISSUES' section of the Risk Assessment Form. At the top, there is a message: 'Log new issues or tag to existing issues from the current assessment. You can get updates on the issues that are already triggered by clicking on the issue ids.' Below this is a button labeled 'Add ▾'. To the right of the table, there is a '2 Rows' indicator with a double arrow icon. The table has four columns: Title, Rating, Owner, and Issue Due Date. The first row contains: Title 'Security Software', Rating 'High', Owner 'Warren Wright', and Issue Due Date '09/30/2016'. The second row contains: Title 'Delay in fund transfer', Rating 'Medium', Owner 'Rita Rory', and Issue Due Date '09/15/2016'. Each row has an edit icon (pencil) and a delete icon (trash bin) at the end.

Title	Rating	Owner	Issue Due Date
Security Software	High	Warren Wright	09/30/2016
Delay in fund transfer	Medium	Rita Rory	09/15/2016

Figure 70 Issues Section

Logging New Issues

You can log one or more issues on the risk assessment, and assign specific users to own and manage the issues.

To log an issue:

1. Click **Add**, and then click **Add Issue**.

The **Issue** dialog box appears.

2. Provide the required details, and then click **Done.**

Issue 1 of 1

Details

Title *	Audit inventory records
Description *	Audit the inventory as maintained in the ERM book of account. The physical inventory should be same as book inventory
Disposition *	Reportable
Issue Due Date *	Issue Due Date <input type="button" value="Calendar"/>
Source Type/Linked From Classification	Primary / Risk Assessment
Rating *	Critical
Finding Type *	Control Failure
Exception Type	Design & Operating Exception

Owner and Approver

Owner Organization *	LINE OF BU... FUNCTIONS LOCATIONS LEGAL ENTI... <input type="button" value="Add"/>
	<input type="button" value="User"/> LOB - Sh... <input checked="" type="radio" value="ALL"/> ALL <input checked="" type="radio" value="ALL"/> ALL <input checked="" type="radio" value="ALL"/> ALL <input type="button" value="Edit"/> <input type="button" value="Delete"/>
Owner *	Owner Marshall Martin <input type="button" value="Search"/>
Approver Organization *	LINE OF BU... FUNCTIONS LOCATIONS LEGAL ENTI... <input type="button" value="Add"/>
	<input type="button" value="User"/> MetricSt... <input checked="" type="radio" value="ALL"/> ALL <input checked="" type="radio" value="ALL"/> ALL <input checked="" type="radio" value="ALL"/> ALL <input type="button" value="Edit"/> <input type="button" value="Delete"/>
Roles *	<input type="checkbox"/> ERM Risk Manager <input type="checkbox"/> Risk Approver <input type="checkbox"/> ERM Business User <input type="checkbox"/> ERM Program Manager <input type="button" value="List"/>
Approvers	<input type="checkbox"/> TPM Risk_Approver <input type="button" value="List"/>
Approvals? *	Any

Related to

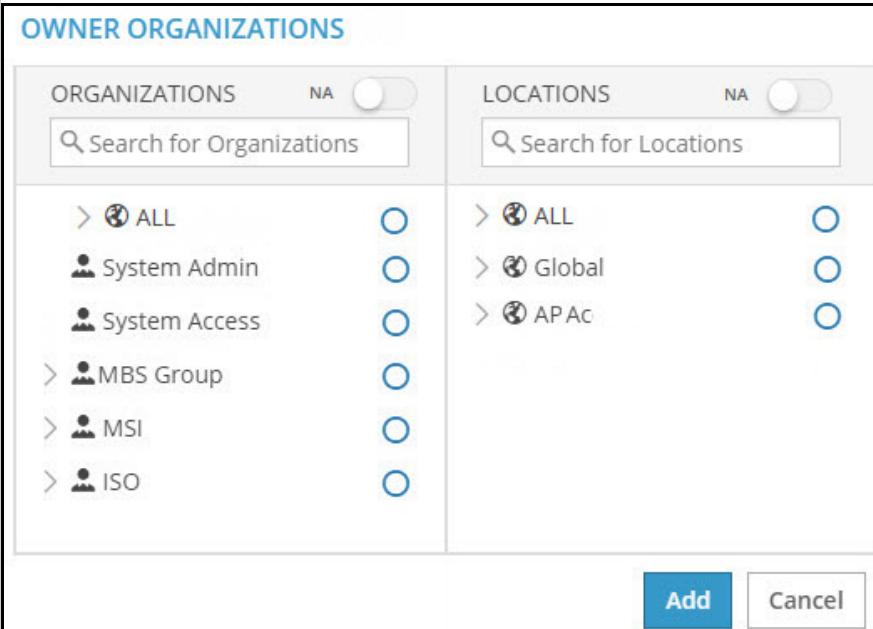
Organizations	LINE OF B... FUNCTIONS LOCATIONS LEGAL EN... <input type="button" value="Add"/>
	<input type="button" value="User"/> MSI <input checked="" type="radio" value="ALL"/> ALL <input checked="" type="radio" value="ALL"/> ALL <input checked="" type="radio" value="ALL"/> ALL <input type="button" value="Edit"/> <input type="button" value="Delete"/>
Assessable Items	Assessable Items <input type="button" value="List"/>
Risks	<input type="checkbox"/> Absence of Online hydrocarbon analyzers / Unreliable Gas meters, to provide an assurance of correct mass balancing <input type="button" value="List"/>
Controls	Controls <input type="button" value="List"/>

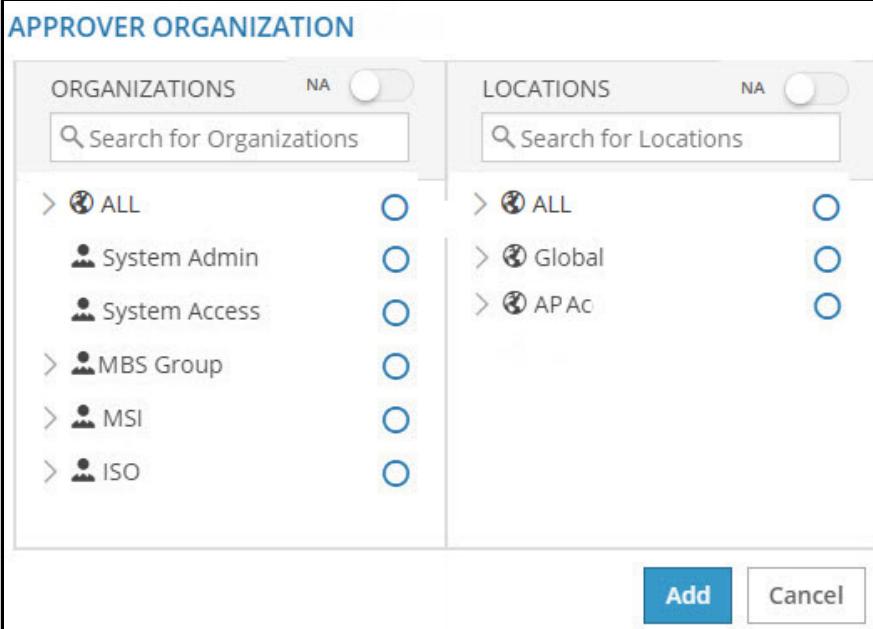
Additional Details

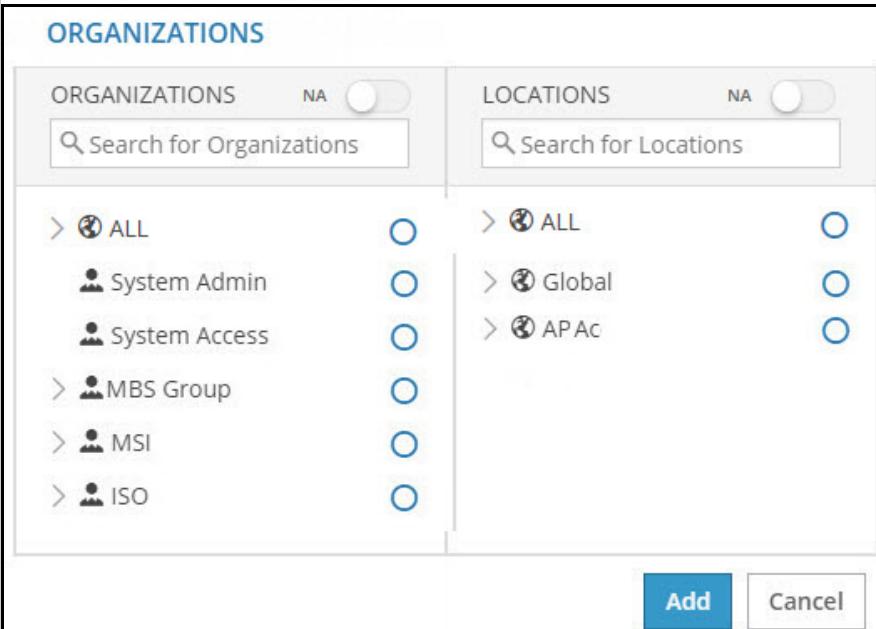
Recommendation	Recommendation <input type="button" value="Edit"/> <input type="button" value="Delete"/>
----------------	--

Figure 71 Risk Assessment Form, Issues

Field/List Name	Description
Details	
Title	Provide a title for the issue or finding.
Description	Provide a detailed description of the issue by clicking  . You can also attach documents and images, if required.
Disposition	<p>Select the nature of the issue being recorded. The available options are:</p> <ul style="list-style-type: none"> Non-reportable (discussion only): Select this option when an issue identified during the assessment and if it needs to be discussed. The issue does not require to be tracked and managed in the next level of the workflow. Consolidated: Select this option when an issue is already raised as part of a previous or current assessment. This avoids duplication of issues. This issue will be closed when the previously logged issue is closed. Reportable: Select this option when the issue is triggered to the next level and is available in the Issue Management for tracking the issue and closing it. Reportable (already addressed): Select this option when an issue was identified during assessment, but has already been resolved. No further actions need to be taken on this issue. <p>For details on Issue Management, refer to MetricStream Arno Release Spring '21 - Issues - User Guide.</p>
Issue Due Date	<p>Enter a due date for addressing the reported issue.</p> <p>Note: You must enter a future date.</p>
Source Type/Linked From	Displays Primary/Risk Assessment. This indicates that the issue is added from the risk assessment by clicking Add Issue .
Classification	
Rating	Select a rating for the issue. You can rate the issue based on the impact that the issue can have on the organization. You can configure the rating values.
Finding Type	Categorize the issue for report and document better. You can choose values that are most appropriate for your organization.
Exception Type	<p>Specify the type of exception. The available options are:</p> <ul style="list-style-type: none"> Design & Operating Exception: If the issue or finding is related to both design and operation exception, select this option. Design Exception: If the issue or finding is related to design exception, select this option. Operating Exception: If the issue or finding is related to operational exception, select this option.
Owner and Approver	

Field/List Name	Description
Owner Organization	<p>Select the organization that is responsible for resolving the issue. This value is mandatory for reportable issues.</p> <p>1. Click  associated with the Owner Organization field. The Owner Organization window appears. This displays the defined single or multidimensional organization structure.</p> 
Owner	<p>Select an owner for handling the reported issue. When you submit the form, the selected issue owner receives an assignment to review the issue. This value is mandatory for reportable issues.</p>

Field/List Name	Description
Approver Organization	<p>Select the organization that should approve the issue and the solution. This value is mandatory for reportable issues.</p> <p>1. Click  associated with the Approver Organization field.</p> <p>The Approver Organization window appears. This displays the defined single or multidimensional organization structure.</p> 
	<p>2. Select the required organization, and then click Add.</p> <p>Notes:</p> <ul style="list-style-type: none"> - Use the ALL option to select all the values in a dimension. - Turn on the NA option if any dimension is not applicable for the organization structure that you want to select.
Approver <i>(Appears only if the User column is enabled in the MS_ISM_APPROVER_CONFIGURATOR data table.)</i>	<p>The user who is responsible for approving the issue details. This value is mandatory for reportable issues.</p>
Roles <i>(Appears only if the Roles or Roles and Users column is enabled in the MS_ISM_APPROVER_CONFIGURATOR data table.)</i>	<p>The business roles that are responsible for approving the issue. If the Approvers field is unavailable (when Roles column is enabled) or if you do not select an approver, users with the selected roles and ISM Approve Issue activity who belong to the approver organization can approve the issue.</p>
Approvers <i>(Appears only if the Users or Roles and Users column is enabled in the MS_ISM_APPROVER_CONFIGURATOR data table.)</i>	<p>The users who are responsible for approving the issue.</p> <ul style="list-style-type: none"> • This is a mandatory field if the Users column is enabled. • When the Roles and Users column is enabled, you can select the users associated with the selected role. If you do not select a user, all users with the selected roles and ISM Approve Issue activity who belong to the approver organization can approve the issue.

Field/List Name	Description
Approvals?	<p>Determines if the issue needs to be approved by all the selected approvers or any approver.</p> <ul style="list-style-type: none"> Any: Selecting this option indicates that the issue is considered as approved when any of the selected approver approves it. All: Selecting this option indicates that the issue is considered as approved only after all the selected approvers approve it.
Related to	
Organizations	<p>Click anywhere in this field to select organizations from the system to correlate with the issues being triggered.</p> <p>If multidimensional organization structure is configured, follow these steps to select the organizations to correlate with the issues being triggered.</p> <ol style="list-style-type: none"> Click  associated with the Organizations field. <p>The Organizations window appears. This displays the defined multidimensional organization structure.</p>
	<ol style="list-style-type: none"> Select the required organization, and then click Add. <ol style="list-style-type: none"> If you want to add more organizations, in the Organizations window, select the Add Another check box. Select the organization that needs to be added, and then click Add to List. After you added all the required organizations, click Done to close the Organizations window.
Assessable Items	<p>Click  or anywhere in this field to select assessable items from the system to correlate with the issues being triggered.</p>

Field/List Name	Description
Risks	Click  or anywhere in this field to select risks from the system to correlate with the issues being triggered. Expand the parent risk to select the child risks.
Controls	Click  or anywhere in this field to select controls from the system to correlate with the issues being triggered. Expand the parent control to select the child controls.
Additional Details	
Recommendation	Provide recommendations on actions to be taken to close the issue and mitigate the risk arising out of this issue.
Done	Click this button to save the changes made in the Issue dialog box.
Cancel	Click this button if you want to cancel the changes made in the Issue dialog box.

Notes:

- Click the Edit icon to modify the details any added issue.
- Click the Delete icon if you want to delete any remove any issue from the risk assessment.

Associating Existing Issues with Risk Assessment

You can associate existing issues in the system with the risk assessment. The issues are available for selection based on the details configured in the **Setup Issues** form. For details on this form, refer to the MetricStream Arno Release Spring '21 - Issues - User Guide.

1. In the **Issues** section of the **Risk Assessment** form, click **Add**, and then click **Choose from Existing Issues**. The **Existing Issues** dialog box appears.

Note: This list does not include the issues that are closed, canceled, and in the initial approval stage.

2. Select the issues and click **Done**.

The issues are associated with the risk assessment and their summary appears in the **Issues** section.

To view the details of the associated issue, click the **View** icon. The **Details** section of the **Issue** dialog box displays **Source Type/Linked From** field as Secondary/Risk Assessment. This indicates the issue is linked from the Existing Issue list.

Details	
Title	Adequate compensating controls do not exist to mitigate risk Theft leading to unauthorized physical access of equipment and sensitive media on Dell Latitude E5404
Issue Due Date	04/15/2019
Source Type/Linked From	Secondary / Risk Assessment
Issue ID	ISSUE-00000237

Note: If a linked issue is modified, the updated details are unavailable in the Issue dialog box and the summary in the Issues section of the **Risk Assessment** form. To view the modified details of the linked issue, click the **Issue ID** link.

Additional Details Section of Risk Assessment Form

Use this section to view a quick summary of the assessment life cycle and key details of the assessment. You can also enter your comments and attach relevant files.

 **ADDITIONAL DETAILS**

Get a quick overview of the history and details of this assessment. You can also attach relevant files which are useful reference approvers.

Assessment

Plan Name	Risk of Theft of Physical Assets by External Party
Assessment Due Date	12/31/2016
Status	Sent For Assessment
Perspective	Scoring Algorithm Method -Org AI Risk Assessment
Assessment Type	Org - Risk
Frequency	Ad-hoc

Comments

Additional Notes / Comments 

Documents

Attach File 

Figure 72 Additional Details Section

Field/List Name	Description
Assessment	
Plan Name	The risk assessment plan name appears in this field.
Assessment Due Date	The assessment due date appears in this field.
Status	The form status based on the current workflow stage of the assignment is displayed in this field.
Perspective	The perspective used for the risk assessment is displayed in this field.
Assessment Type	The assessment type used in the risk assessment is displayed in this field.
Frequency	The scheduling frequency selected for the risk assessment is displayed in this field.
Comments	
Additional Notes/Comments	You can provide additional notes or comments while performing risk assessment by clicking  .
Documents	
Attach Files	<p>To attach a file, perform the following steps:</p> <ol style="list-style-type: none"> 1. Click the Browse... button. 2. Select the file from your local drive. <p>The file is attached, and the name of the file that you attached appears.</p> <p>Note: You may attach one or more files, as required.</p> <p>To delete an attached file, click the Delete icon on the right side of the attached file.</p>

Actions section of Risk Assessment Form

After entering all the details, you can perform the following actions on the risk assessment form.

Action/Button	Description
Save	Click this button to save the changes made in the form. When you click this button, the Form Saved Successfully message is displayed. You can access the form from the My Tasks menu at a later time and continue working on the form.

Action/Button	Description
Submit	<p>Click this button view the actions that are available at this stage. The available actions are:</p> <ul style="list-style-type: none"> • Send for Approval: To send the risk assessment details and result for approval, select this option. • Send to Reviewer: To send the risk assessment details and result to another user for review, select this option. You can select the reviewer in the window that appears when you select this option. • Reassign to User: To assign the risk assessment task to some other user to work on, select this option. You can select the new assignee in the window that appears when you select this option. The new user receives the task for completion. • Cancel: To cancel the risk assessment task, select this option. If you select this option, the risk assessment task will be closed and no assignments are generated. <p>Note: On form submission, the Risk Assessment form is routed to different users based on the action selected. For more information, refer to Risk Assessments Approval Workflow.</p>
Assessor <i>(appears as a mandatory field only when you select the value Reassign To User in Action field)</i>	Select an assessor to reassign the current assessment. After you submit the form, the risk assessment is triggered to the assessor selected in this field. This field displays all the users with RSK - Assess Risks access rights.
Reviewer <i>(appears as a mandatory field only when you select the value Send to Reviewer in Action field)</i>	Select a reviewer for the current assessment. This field displays all the users with RSK - Approve Risk Assessments access rights.
Close	<p>Click this button to close the current form. When you click this button, the Close Form dialog box appears. The available actions are:</p> <ul style="list-style-type: none"> • Save and Close: Click this button to save the form as a working draft and close the form without processing it to the next workflow stage. • Note: You can access the form from the My Tasks menu later and continue working. • Don't Save: Click this button if you do not want to save the changes done in the form. • Cancel: Click this button to close the dialog box and return to the form.

Assignments and E-mails

After you submit the form, the following task assignments and e-mail notifications are generated.

Action Selected	Assigned To	E-Mail Sent To
Send for Review	Reviewer	Reviewer CC: Plan Owner

Action Selected	Assigned To	E-Mail Sent To
Send for Approval	Approver	Approver CC: Plan Owner
Cancel	Not Applicable	Plan Owner

Note: For detailed information on e-mails and notifications, see [E-mail Notifications](#).

Related Reports and Charts

The following reports are available in the related reports in the header section of the Assessment Details window:

- Open Issues

This report displays all the issues that are open (active) for the Risk being assessed.

For more information, refer to the MetricStream Arno Release Spring '21 - Issues - User Guide.

- Metric Breaches

This report displays all the metrics that are breached for the current Risk.

For more information, refer to the MetricStream Arno Release Spring '21 - Metrics - User Guide.

- Related Loss Events

This report displays all the internal loss events that are related to the risks.

For more information, refer to the MetricStream Arno Release Spring '21 - Loss Event Management - User Guide.

The following report is updated when the **Risk Assessment** form is submitted from this stage (initiation stage) to the next workflow stage:

- [Risk Assessment Status Details Report](#)
- [Ongoing Assessments Report](#) if the assessment is of type ongoing.

Note: [Risks Identified During Assessments](#) is updated if new risks and new controls are added during risk assessment.

The following chart is updated when the risk assessment is submitted to the next workflow stage:

- [Risk Assessment Status Chart](#)

The following charts are updated when the risk assessment is published at this stage (initiation stage):

- [Risk Assessment Status Chart](#)
- [Inherent Risk Breakdown by Category Chart](#)
- [Residual Risk Breakdown by Category Chart](#)
- [Residual Risk Exposure Chart](#)
- [Open Issues by Issue Rating Chart](#)
- [Control Effectiveness Chart](#)

Reviewing Risk Assessments

Using the **Risk Assessments** form you can review the findings and risk assessment results. Once you complete the review and submit the form, it is routed back to the assessor.

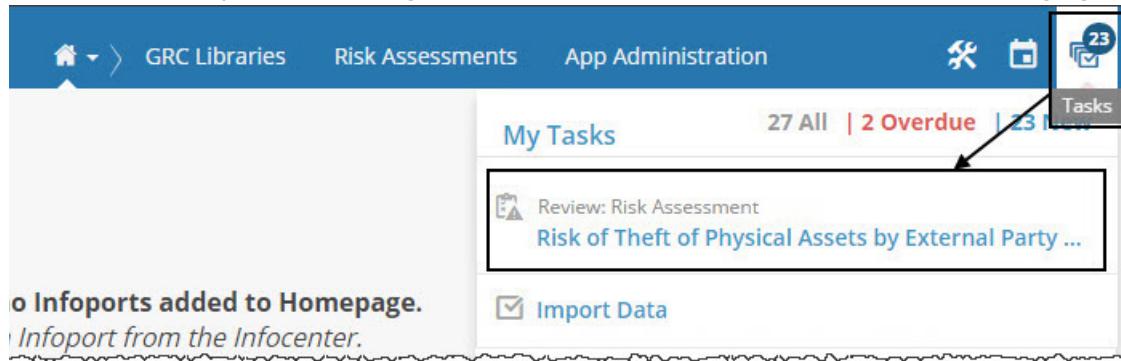
The details in this form are populated from the **Risk Assessments** form while reviewing the risks.

You can access the assignment from the [My Tasks](#) menu.

Accessing Risk Assessment Form at Review Stage

To review risk assessment form:

- Access the required task assignment from **Tasks** inbox, as shown in the following figure.



The **Risk Assessment** form appears.

Workflow Changes

At the review stage, the reviewer can review the form and select the available action and provide relevant comments. At this stage, all sections, and fields of the **Risk Assessment** form are same as that of the assessment stage except for a few field-level changes, which are captured in the following table. For more details on the fields and their descriptions, see [Risk Assessment Form](#).

Field/List Name	Description
Header Section	
Stage Indicator	RISK ASSESSMENT STAGE 2 OF 2
Additional Details	
	Information is displayed in the Assessment fields such as Assessed By and Assessed On , in the History section.
Status	Status of the Risk Assessment form is automatically updated as Pending Review .
Actions	
Save	Click this button to save the changes done in the form. When you click this button, the following message is displayed: Form saved successfully You can access the form from My Tasks menu at a later time and continue.

Field/List Name	Description
Submit	Click this button to send the Assessment form back to the assessor after the review.
Close	<p>Click this button to close the current form.</p> <p>When you click this button, the Close Form dialog box appears.</p> <p>The following actions are available:</p> <ul style="list-style-type: none"> • Save and Close: Click this button to save the form as a working draft and close the form without processing it to the next workflow stage. <p>Note: You can access the form from Tasks menu at a later time and continue working.</p> <ul style="list-style-type: none"> • Don't Save: Click this button if you do not want to save the changes done in the form. • Cancel: Click this button to close the dialog box and return to the form.

Assignments and E-mails

After you submit the current form, the following task assignments and e-mail notifications are generated.

Action Selected	Assigned To	E-Mail Sent To
Submit Review	Assessor	Assessor CC: Plan Owner

Note: For detailed information on e-mails and notifications, see [E-mail Notifications](#).

Related Reports and Charts

After you submit risk assessment:

The following report is updated when the **Risk Assessment** form is submitted from this stage (review stage) to the next workflow stage:

- [Risk Assessment Status Details Report](#)
- [Ongoing Assessments Report](#) if the assessment is of type ongoing

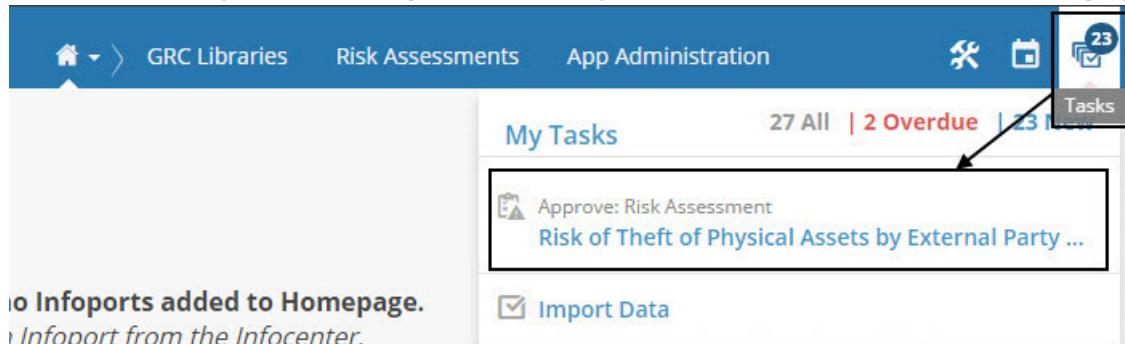
Approving Risk Assessments

When the Risk Assessor sends the assessment for approval, the assessment approver can approve the findings and risk assessments results. If the approver needs any clarification, the approver can send back the form to assessor requesting for clarification. Once the approver approves the assessment, the assessment is published.

Accessing Risk Assessment Form at Approval Stage.

To approve risk assessment form:

- Access the required task assignment from [My Tasks](#) menu, as shown in the following figure:



[Infoports added to Homepage.](#)

[Infoport from the Infocenter.](#)

Figure 74 Approve Risk Assessment

The **Risk Assessment Plan** form appears.

Workflow Changes

At this stage, all the tabs, sections, and fields of the **Risk Assessment** form are the same as that in the initiation stage except for a few field-level changes, which are captured in the following table. For details, see [Risk Assessment Form](#).

Field/List Name	Description
Header Section	
Stage Indicator at approval level	RISK ASSESSMENT STAGE 3 OF 4
Status	Status of the Risk Assessment Plan form is automatically updated as Pending Approval .
Actions	
The following actions are available in the Risk Assessment form while the approver works on it.	
Approve	Select this option to approve the plan. When you select this option, the Approve window is displayed, where you can add your comments and submit the form.
Request Clarification	Select this option to send the form back to the assessor for clarifications on the risk assessment details. When you select this option, the Request Clarification window appears, where you have to add details on your request and submit the form.
Cancel	Select this option to cancel the risk assessment. When you select this option, the Cancel window appears, where you have to add your comments and submit the form.

Note: The value in the **Name** field of **General** section can be modified at this stage.

Assignments and E-mails

After you submit the current form, the following task assignments and e-mail notifications are generated.

Action Selected	Assigned To	E-Mail Sent To
Approve	Plan Owner (Scenario: Final Approver is the Plan Owner)	Plan Owner
Approve	None (Scenario: Final Approver is the Assessment Approver)	Plan Owner

Note: For detailed information on e-mails and notifications, see [E-mail Notifications](#).

Related Reports and Charts

After you submit risk assessment, all reports available in risk assessment (for details, [Click Here](#)) except the following are updated when the **Risk Assessment** form is published at this stage (approval stage):

- [Ongoing Assessments Report](#)
- Set up related reports such as [Quantitative Factors Report](#), [Qualitative Factors Report](#), [Risk Scoring Algorithms Report](#), [Risk Scoring Algorithms Report](#)[Risk Assessment Plans Report](#).

Note: [Risks Identified During Assessments](#) is updated if new risks or new controls are added during risk assessment.

The following chart is updated when the risk assessment is submitted to the next workflow stage:

- [Risk Assessment Status Chart](#)

The following charts are updated when the risk assessment is published at this stage (approval stage):

- [Risk Assessment Status Chart](#)
- [Inherent Risk Breakdown by Category Chart](#)
- [Residual Risk Breakdown by Category Chart](#)
- [Residual Risk Exposure Chart](#)
- [Open Issues by Issue Rating Chart](#)
- [Control Effectiveness Chart](#)

Calculating Score and Rating of Assessment Factors

This chapter provides information on how to calculate the scores and ratings of hierarchical factors, sub factors, and main factors during risk assessment.

Sections:

- [Factors - Calculating Scores and Rating](#)

Factors - Calculating Scores and Rating

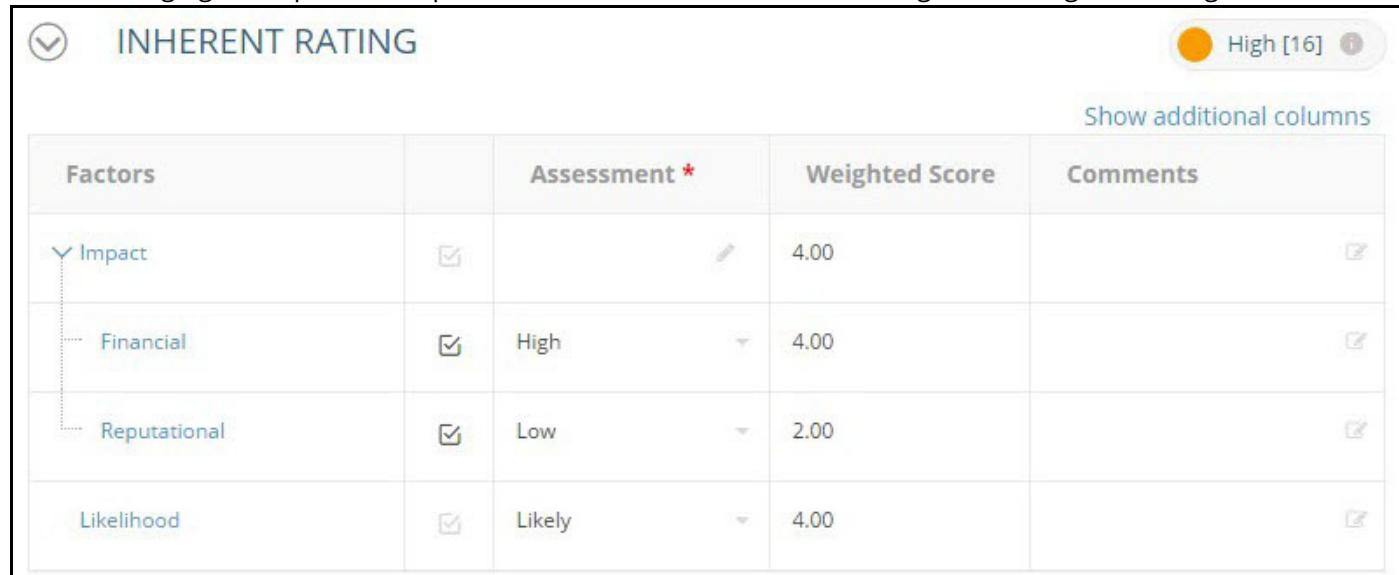
While performing risk assessment, the assessor can enter factor values if the factor type is defined as rules based while creating the factor. The assessor can choose the factor value from the available options if the factor type is defined as 'list of values based' while creating the factor.

The following sections explains the logic for arriving at the scores and rating of sub factors, hierarchical factors, and main factors for assessments done using risk matrix configuration methods (Rating method, Scoring and Rating method, Ranking and Rating method, Scoring Algorithm and Rating method):

- [Sample Risk Assessment](#)
- [How to Arrive at the Rating and Score For Rules Based Sub Factor \(Financial Impact\)](#)
- [How to Arrive at the Rating and Score For List of Values Based Sub Factor \(Reputational Impact\)?](#)
- [How to Arrive at the Rating and Score For Rules Based Hierarchical Factor](#)
- [How to Arrive at the Rating and Score For List of Values Based Main Factor](#)

Sample Risk Assessment

The following figure depicts a sample inherent risk assessment done using the Scoring and Rating Method.



The screenshot shows a software interface for risk assessment. At the top, there's a header with a circular icon containing a checkmark, the text "INHERENT RATING", and a status bar indicating "High [16]". Below this is a table with the following columns: "Factors", "Assessment *", "Weighted Score", and "Comments". The table has four rows. The first row is collapsed under a "Impact" header. The second row, under "Financial", has a checked checkbox, a dropdown set to "High", and a weighted score of 4.00. The third row, under "Reputational", has a checked checkbox, a dropdown set to "Low", and a weighted score of 2.00. The fourth row, under "Likelihood", has a checked checkbox, a dropdown set to "Likely", and a weighted score of 4.00. A "Show additional columns" link is located at the top right of the table area.

Factors	Assessment *	Weighted Score	Comments
Impact			
Financial	High	4.00	
Reputational	Low	2.00	
Likelihood	Likely	4.00	

Figure 75 Assessing Inherent Risk Using Scoring and Rating Method

Note: The logic behind the calculation of scores and ratings of the sub factors, hierarchical factor, and main factor used in the above assessment sample is explained in the below sections.

How to Arrive at the Rating and Score For Rules Based Sub Factor (Financial Impact)

Consider that a rules based sub factor named **Financial Impact** is used in the risk assessment done using the Scoring and Rating method. Rating and score of **Financial Impact** is arrived at based on the rating and score defined for this sub factor during the setup, as shown below. For more information on how the rating and score is defined for factors, refer to [Rules section of Quantitative Factor Form](#).

QUANTITATIVE FACTOR STAGE1OF3
FINANCIAL IMPACT [QNTF-000195]

Segmentation Sub Factor Status Update

Save Send for App

RATING

Rules Display 'Not Applicable' as a choice to Assessor

Input Type Number

Add Delete Undo

	Lower Value *	Upper Value	Score *	Rating *	Default Score and Rating
<input type="checkbox"/>	1	15	1	Very Low	Yes
<input type="checkbox"/>	16	30	2	Low	No
<input type="checkbox"/>	31	45	3	Medium	No
<input type="checkbox"/>	46	60	4	High	No
<input type="checkbox"/>	61	75	5	Very High	No

Figure 76 Arriving at the Score and Rating of Financial Impact (Sub Factor)

While performing risk assessment using the Scoring and Rating method, the assessor entered Financial Impact value as 65, as the Financial Impact factor type is rules based. The value 65 falls in the range of 61-75 as per the ranges defined in the **Rating** section of the **Quantitative Factor** form; the corresponding rating score and rating is 5 and Very High respectively. Therefore, the rating of Financial Impact sub factor is calculated as **Very High**.

How to Arrive at the Rating and Score For List of Values Based Sub Factor (Reputational Impact)

Consider that a list of values based sub factor named **Reputational Impact** is used in the risk assessment done using the Scoring and Rating method. Rating and score of **Reputational Impact** is arrived at based on the rating and score defined for this sub factor during the setup, as shown below. For more information on how the rating and score is defined for factor, refer to [List of Values](#).

Response *	Default Response *	Score *	Guidance	Response Order *
Incidental	Yes	1	Reputational impact is Incidental	1
Minor	No	11	Reputational impact is Minor	2
Moderate	No	21	Reputational impact is Moderate	3
Major	No	32	Reputational impact is Major	4
Catastrophic	No	41	Reputational impact is Catastrophic	5

Displaying records 1-5 of 5 (0 Selected)

Figure 77 Arriving at the Score and Rating of Reputational Impact (Sub Factor)

While performing risk assessment using the Scoring and Rating method, the assessor selected **Reputational Impact** value as Catastrophic. The score corresponding to the rating Catastrophic is 41.

How to Arrive at the Rating and Score For Rules Based Hierarchical Factor

Consider that a rule based hierarchical factor named Impact is used in the Risk Assessment form, which has the sub factors named Financial Impact and Reputational Impact.

When there are sub-factors associated with a hierarchical factor, the score displayed for the hierarchical factor on the assessment form is the computed score from the sub factors. The rating is based on the scores and ratings defined in the **Rating** section of the factor during the setup.

The following is the computation logic defined for calculating the score of the hierarchical factor named Impact.

The screenshot shows the 'GENERAL' tab selected in the top-left corner. Below it, the 'Details' section contains fields for 'Name*' (set to 'Impact') and 'Status' (set to 'New'). A decorative wavy graphic is centered below these fields. In the 'Factor Segmentation*' section, a dropdown menu is open, showing 'Segmentation' and 'Hierarchical Factor'. At the bottom, a box highlights the 'Computation Logic*' field, which is set to 'Maximum'. A note below the form states: 'If there are sub-factors associated with this hierarchical factor, the score displayed for this hierarchical factor on the assessment form will be the computed score from the Sub-Factors. The Rating will be based on what is provided on the hierarchical factor form.'

Figure 78 Computation logic defined for score calculation of hierarchical factor

- Based on the above computation formula, the score of Impact (hierarchical factor) is calculated as the maximum value from all the sub-factor scores.

Maximum: Impact => MAX (Financial Impact, Reputational Impact) = MAX (5,41) = 41

The value 41 falls in the range of 41-50 as per the ranges defined in the **Rating** section of the **Quantitative Factor** form, as shown below. The rating corresponding to the value 41 (which falls between 41 and 50) is Catastrophic and score is 5.

Calculating Score and Rating of Assessment Factors

QUANTITATIVE FACTOR ●○○○ STAGE2OF4
IMPACT [QNTF-000190]
Segmentation
Hierarchical Factor
Status
Pending Approval

RATING

Rules

Display 'Not Applicable' as a choice to Assessor

Input Type*

Number

Add -
Delete
Undo

#	Lower Value*	Upper Value	Score*	Rating*	Default Score and Rating
1	/	10	/	1	Incidental / Yes
11	/	20	/	2	Minor / No
21	/	30	/	3	Moderate / No
31	/	40	/	4	Major / No
41	/	50	/	5	Catastrophic / No

Displaying records 1-5 of 5 (0 Selected)

Figure 79 Arriving at the Score and Rating of Impact (Hierarchical Factor)

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How to Arrive at the Rating and Score For List of Values Based Main Factor

Consider that a list of values based main factor named **Likelihood** is used in the risk assessment done using the Scoring and Rating method. Rating and score of **Likelihood** is arrived at based on the rating and score defined for this main factor during the setup, as shown below. For more information on how the rating and score is defined for factor, refer to [List of Values](#).

Response *	Default Response *	Score *	Guidance	Response Order *
Almost Certain	Yes	30	The event will occur multiple times ...	1
Likely	No	4	The event will occur once (that is, w...	2
Possible	No	3	The event may occur within the for...	3
Unlikely	No	2	The event may occur sometime, bu...	4
Rare	No	1	The event will occur only in excepti...	5

Displaying records 1-5 of 5 (0 Selected)

Figure 80 Arriving at the Score and Rating of Likelihood (Main Factor)

While performing risk assessment using the Scoring and Rating method, the assessor selected **Likelihood** value as **Almost Certain** as the **Likelihood** is a list of values-based factor. The score corresponding to the rating **Almost Certain** is **30**.

Summary

Impact Rating - **Catastrophic**

Likelihood Rating - **Almost Certain**

The final risk assessment rating is calculated based on the configurations defined in the Risk Matrix Configuration (Risk Assessment Profile). The intersection value for **Catastrophic (Impact rating)** and **Almost Certain (Likelihood)** is **Very High**. Hence the overall risk rating is calculated as **Very High** and the score is calculated as **25** since the score and rating is based on the intersection point of two factors.

Notes:

- This calculation logic is applicable for calculation of both inherent and residual risk rating for all methods that uses risk matrix configuration.

Rating Method

This chapter provides information on Rating method configuration, and how to assess risks associated with this method.

Sections:

- [Risk Rating Method](#)
- [Risk Matrix Configuration for Rating Method](#)
- [Assessing Risks - Rating Method](#)

Risk Rating Method

Risk Rating method is one of the simplest risk assessment methodologies, where the user provides a rating for the factors, and the rating do not aggregate to organizations and / or assessable items being assessed for that risk.

You can perform a simple risk assessment by rating the factors. Consider a scenario where **Impact** of a risk is **Catastrophic** and the **Likelihood** is **Almost Certain**, then the Rating becomes **Very High**.

Risk Matrix Configuration for Rating Method

You can perform this assessment by creating a Risk Matrix Configuration profile comprising the factors that contribute to the rating. Also, specify the rating for the risk based on the combination of factor response.

For more information on Risk Matrix Configuration, see [Defining Risk Assessment Profile](#).

Assessing Risks - Rating Method

Using the **Risk Assessment** form, you can assess the risks that are part of the assessment. The factors that are a part of Risk matrix Configuration must be assessed to arrive at the risk rating. To achieve this output, assessing the factors that are part of the Risk Matrix configuration is mandatory. This simple way of risk assessment does not roll up to assessable item or organization since there are no scores associated with the risk. If controls are available for risks, you can provide the control scores in the **Control Effectiveness** section, as required. The overall control score is calculated based on the function (average, maximum, minimum, product, or sum) provided in the **Control Score Formula** field of the **Perspective** form.

Note: For assessments using Risk Rating Method, the Inherent and Residual score fields / columns appear as blank after the assessment is performed.

Risk Assessment Form

Use the Risk Assessment form to perform the Risk assessment and record the details.

Inherent Rating Section of Assessment Details

This section is made available when you click the risk name in the **Assessment Summary** section. After you click the particular risk name, the assessment details section opens up with the provision for the user to perform inherent assessments. The factors are populated based on the chosen risk category.

For more information on how the inherent risk section is organized, refer to the [Inherent Rating section of Assessment Details](#).

The input value that you can provide in this section for different factors vary based on the response type that is defined during the factor creation. Based on the assessment value that you provide in this section, the inherent risk rating is calculated.

Factors		Assessment *	Weighted Score	Comments
Impact	<input checked="" type="checkbox"/>	<input type="text"/>	4.00	<input type="text"/>
Financial	<input checked="" type="checkbox"/>	High	4.00	<input type="text"/>
Reputational	<input checked="" type="checkbox"/>	Low	2.00	<input type="text"/>
Likelihood	<input checked="" type="checkbox"/>	Likely	4.00	<input type="text"/>

Figure 81 Inherent Rating Section of Assessment Details

For more information on calculation of the scores and ratings of factors used in performing risk assessment, refer to [Calculating Score and Rating of Assessment Factors](#).

Controls Effectiveness section of Assessment Details

This section displays all the controls that are related to the risk that you are assessing. By default, controls appear in this section based on the value selected in the **Default Controls Based on** field in the **Perspective** form.

- **Risk Relationship:** If this option is selected, all the controls that are related to the assessed risk irrespective of the assessable item and organization appear.
- **Risk and Organization Relationship:** If this option is selected, only the controls that are related to both the assessed risk and the organization on which the risk is assessed appear.
- **Risk and Assessable Item Relationship:** If this option is selected, only the controls that are related to both the assessed risk and the assessable item appear.

For the controls that are populated from the GRC Library, you can provide control effectiveness rating, modify weighting value, and enter comments. While performing the risk-control assessment, you can add related controls that mitigate the risk being assessed in this section.



The screenshot shows a table titled "CONTROL EFFECTIVENESS" with the following data:

	Control Name	Effectiveness *	Score *	Weighted Score	Comments	Key
<input type="checkbox"/>	A training plan and calend...	Partially Effective	5	5		No
<input type="checkbox"/>	Coordination with the line...	Effective	10	10		No

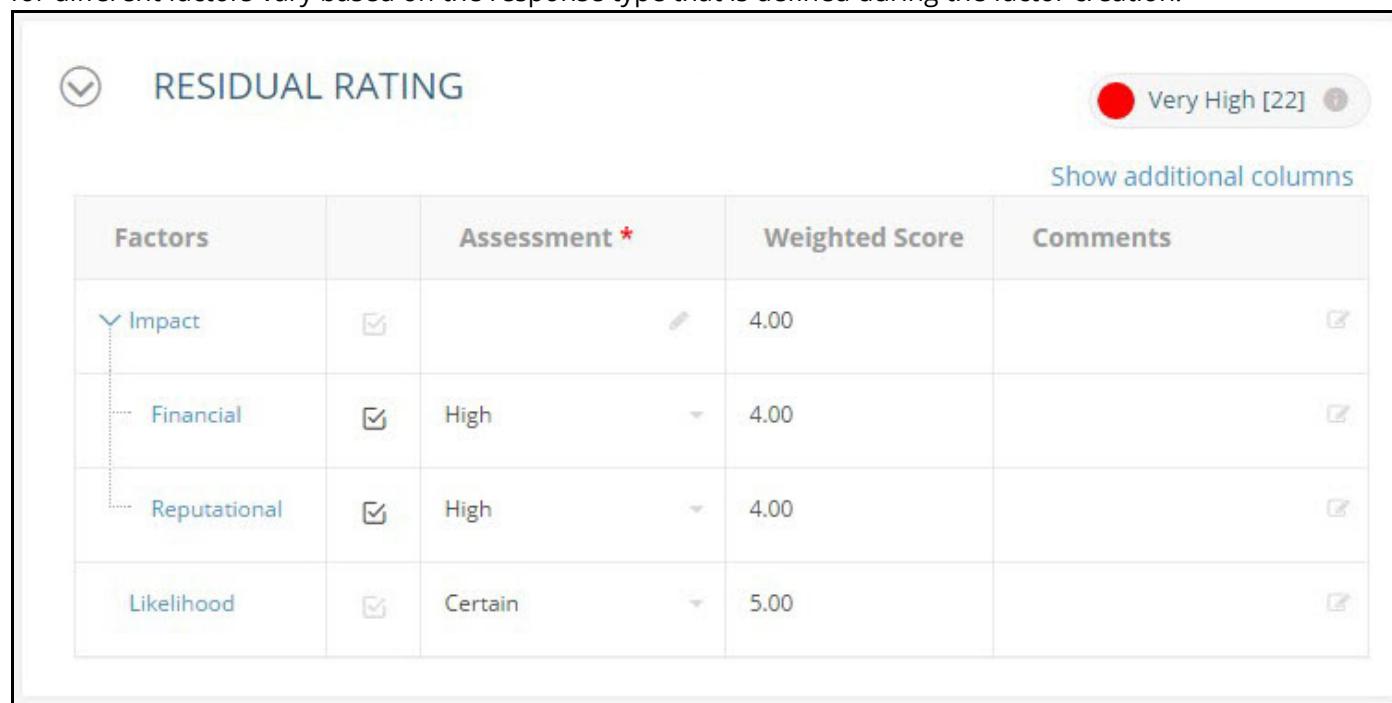
Figure 82 Controls Effectiveness Section

For more information on the fields and their descriptions refer to field description table in the [Control Effectiveness section of Assessment Details](#).

Residual Rating Section of Assessment Details

Residual Risk section appears after Inherent and/or Control Effectiveness sections in the Assessment Details page. After you click the particular risk name for assessment, the Residual Rating section appears displaying all the factors that you need to assess for the selected risk name. The factors are populated based on the risk categories or the factors selected in the perspective.

Based on the assessment value that you provide in this section, the residual risk rating is calculated based on the rating that is defined in the **Risk Assessment Profile** form. The input value that you can provide in this section for different factors vary based on the response type that is defined during the factor creation.



Factors	Assessment *	Weighted Score	Comments
Impact	<input checked="" type="checkbox"/>	4.00	<input type="checkbox"/>
Financial	<input checked="" type="checkbox"/>	4.00	<input type="checkbox"/>
Reputational	<input checked="" type="checkbox"/>	4.00	<input type="checkbox"/>
Likelihood	<input checked="" type="checkbox"/>	5.00	<input type="checkbox"/>

Figure 83 Residual Rating Section

For more information on residual risk section, refer to the [Residual Rating](#).

For more information on calculation of the scores and ratings of factors used in performing risk assessment, refer to [Calculating Score and Rating of Assessment Factors](#).

Scoring and Rating Method

This chapter provides information on Scoring and Rating method configuration, and how to assess risks associated with this method.

Sections:

- [Scoring and Risk Rating Method](#)
- [Risk Matrix Configuration for Risk Scoring and Rating Method](#)
- [Assessing Risks - Scoring and Rating Method](#)

Scoring and Risk Rating Method

The Scoring and Rating method allows you to perform a Risk assessment based on the unique score and rating input for each cell. That is, the intersection point of factor coordinates. The scores and rating is rolled up to the assessable item and organization based on this configuration. You can define the rating, score, background color, and rating font color for each cell in the matrix. For more information on Risk score aggregation, refer to the [Aggregation Logic](#) section.

Risk Matrix Configuration for Risk Scoring and Rating Method

You can create a profile through the risk matrix by choosing factors as X and Y coordinates. You can then enter the unique scores for each cell according to your risk matrix. For example, if three cells have rating as low, then the color can be same for all those three cells. The assessment rating is done based on the intersection of ratings of factors in the X and Y coordinates.

For more information on Risk Matrix Configuration, see [Defining Risk Assessment Profile](#).

Assessing Risks - Scoring and Rating Method

Using the Risk Assessment form, you can assess the risks that are part of the assessment. The rating of the quantitative factors are arrived at based on the factor responses provided during the risk assessment. The risk rating and the risk score are calculated from the intersection of the factor responses in the risk matrix configuration. The score is rolled up to the assessable item or organizations.

If the controls are available for the Risks, you can provide the Control scores in the Control Effectiveness section. The overall control effectiveness is based on the function (average, maximum, minimum, product, or sum) provided in the **Control Score Formula** field of the **Perspective** form.

Risk Assessment Form

Use the Risk Assessment form to perform the Risk assessment and record the details. For more information on Risk Assessment form, refer to [Risk Assessment Form](#).

Inherent Rating Section of Assessment Details

This section is made available when you click the risk name in the **Assessment Summary** section. After you click the particular risk name, the assessment details section opens up with the provision for the user to perform inherent assessments. The factors are populated based on the chosen risk category.

For more information on how the inherent risk section is organized, refer to the [Inherent Rating section of Assessment Details](#).

Based on the assessment value that you provide in this section, the inherent risk rating is calculated. The input value that you can provide in this section for different factors vary based on the response type that is defined during the factor creation.

The inherent risk score and rating is based on the assessment value provided in this section. The inherent risk is arrived at based on the rating and score that is defined in the **Risk Assessment Profile** form. The factor input value is based on the response type defined during factor creation.

Factors		Assessment *	Weighted Score	Comments
Impact	<input checked="" type="checkbox"/>		4.00	
Financial	<input checked="" type="checkbox"/>	High	4.00	
Reputational	<input checked="" type="checkbox"/>	Low	2.00	
Likelihood	<input checked="" type="checkbox"/>	Likely	4.00	

Figure 84 Inherent Rating Section

For more information on calculation of the scores and ratings of factors used in performing risk assessment, refer to [Calculating Score and Rating of Assessment Factors](#).

Control Effectiveness Section of Assessments Tab

This section displays all the controls that are related to the risk that you are assessing.

By default, controls appear in this section based on the value selected in the **Default Controls Based on** field in the **Perspective** form.

- **Risk Relationship:** If this option is selected, all the controls that are related to the assessed risk irrespective of the assessable item and organization appear.
- **Risk and Organization Relationship:** If this option is selected, only the controls that are related to both the assessed risk and the organization on which the risk is assessed appear.
- **Risk and Assessable Item Relationship:** If this option is selected, only the controls that are related to both the assessed risk and the assessable item appear.

For the controls that are populated from the GRC Foundation, you can provide control assessment rating, modify weighting value, and enter comments. While performing the risk-control assessment, you can add related controls that mitigate the risk that you are assessing in this tabular format. For more information on Control tabular format columns, refer to the [Control Effectiveness Section of Assessments Tab](#) section.

	Control Name	Type	Key Control	Purpose	Rating *	Score	Weighting (%) *	Weighted Score
<input type="checkbox"/>	Token Security		Related To Ri...	Yes	Detective	Medium	127	100
<input type="checkbox"/>	Fund Transfer Approval		Related To Ri...	Yes	Detective	Low	0	100
<input type="checkbox"/>	Access Security Controls for all Banks		Related To Ri...	Yes	Preventive	Low	0	100

Figure 85 Control Effectiveness Section

Residual Rating Section of Assessment Details

Residual Risk section appears after Inherent and/or Control Effectiveness sections in the Assessment Details page. After you click the particular risk name for assessment, the Residual Rating section appears, which displays all the factors that you need to assess for the selected risk name. The factors are populated based on the chosen risk category.

Based on the assessment value that you provide in this section, the residual risk rating is calculated. The input value that you can provide in this section for different factors vary based on the response type that is defined during the factor creation.

The screenshot shows a table titled "RESIDUAL RATING" with the following columns: Factors, Assessment*, Score, Weighting (%), Weighted Score, Rating, and Comments. The table contains four rows of data:

Factors	Assessment*	Score	Weighting (%)	Weighted Score	Rating	Comments
Impact		21.00		21.00	Moderate	
Financial Impact	14	1.00		1.00	Very Low	
Reputational Impact	Moderate	21.00		21.00		Overall residual rating is calculated as Low based on the configuration defined in the Risk Matrix Configuration
Likelihood	Unlikely	2.00		2.00		

Annotations in the screenshot include:

- An arrow points from the "Impact" row to a callout box labeled "Standard Factors from Risk Matrix Configuration".
- An arrow points from the "Very Low" rating to another callout box containing the text: "Overall residual rating is calculated as **Low** based on the configuration defined in the Risk Matrix Configuration".
- A button for "Low" is shown in the top right corner of the table header.
- A "Hide additional columns" link is located in the top right corner of the table header.

Figure 86 Residual Rating Section

For more information on residual risk section, refer to the [Residual Rating](#).

For more information on calculation of the scores and ratings of factors used in performing risk assessment, refer to [Calculating Score and Rating of Assessment Factors](#).

Ranking and Rating Method

This chapter provides information on ranking and rating method configuration, and how to assess risks associated with this method.

Sections:

- [Ranking and Rating Method](#)
- [Assessing Risk - Ranking and Rating Method](#)

Ranking and Rating Method

Ranking and Rating method is used to prioritize the top risk when different risks have same score and rating. The Risk ranks can be specified per cell in the Risk Matrix Configuration. For example, if the impact is Catastrophic and the Likelihood is Almost Certain, then the Risk Rating is Very High, Score is 25, and Risk rank is one. This indicates that the risks that are ranked number 1 needs to be addressed.

The scores are rolled up to assessed entity and organization based on the configuration. The ranking is for the risks. For more information on Risk score aggregation, refer to the [Aggregation Logic](#) section.

You can create a profile using the Risk Matrix Configuration interface by choosing factors as X and Y coordinates. You can then enter the unique scores, rating, and rank and specify color for each cell according to your Risk Matrix.

For more information on Risk Matrix Configuration, see [Defining Risk Assessment Profile](#).

Assessing Risk - Ranking and Rating Method

Using the **Risk Assessment** form, you can assess the Risks that are part of the assessment. The rating of the quantitative factors are arrived at based on the factor responses provided during the risk assessment. The risk rating, risk score and risk rank are calculated from the intersection of the factor responses in the risk matrix configuration. The score is rolled up to the assessable item or organizations. This method enables the organization to mitigate the Risks that are highly ranked.

If the controls are available for the Risks, you can provide the Control scores in the Control Effectiveness section. The overall control effectiveness is based on the function (average, maximum, minimum, product, or sum) provided in the **Control Score Formula** field of the **Perspective** form.

Risk Assessment Form

Use the **Risk Assessment** form to perform the Risk assessment and record the details.

For more information, refer to [Risk Assessment Form](#).

Inherent Rating Section of Assessments Details

This section is made available when you click the risk name in the **Assessment Summary** section. After you click the particular risk name, the assessment details section opens up with the provision for the user to perform inherent assessments. The factors are populated based on the chosen risk category.

For more information on how the inherent risk section is organized, refer to the [Inherent Rating section of Assessment Details](#).

The input value that you can provide in this section for different factors vary based on the response type defined during the factor creation. The rating of the quantitative factors are arrived at based on the factor responses provided during the risk assessment. The inherent risk rating is calculated from the intersection of these ratings in the risk matrix configuration matrix. The inherent risk score and the rank are the score and rank defined in the matrix corresponding to this rating.

INHERENT RATING				
Factors	Assessment *	Weighted Score	Comments	
Impact		32		
Financial Impact		35		
Reputational Impact		3		
Likelihood	Major	3	Overall inherent rating is calculated as Very High and ranking as 3 based on the configuration defined in the Risk Matrix Configuration	
	Almost Certain			

Figure 87 Inherent Rating Section

For more information on calculation of the scores and ratings of factors used in performing risk assessment, refer to [Calculating Score and Rating of Assessment Factors](#).

Control Effectiveness Section of Assessments Tab

This section displays all the controls that are related to the risk that you are assessing. The association of Risk with Controls is performed during the Risk creation stage in the GRC Library. If a risk is associated with three controls,

all the three controls are populated in this section. For the Controls that are populated from the GRC Foundation, you can provide control assessment rating, modify weighting value, and enter comments. For more information on Control tabular format columns, refer to the [Control Effectiveness section of Assessment Details](#) section.

CONTROL EFFECTIVENESS						
	Add ▾	Delete	Undo	Show Columns >		
	Control Name	Effectiveness *	Score *	Weighted Score	Comments	Key
<input type="checkbox"/>	A training plan and calend...	Partially Effective	5	5		No
<input type="checkbox"/>	Coordination with the line...	Effective	10	10		No

Figure 88 Controls Effectiveness Section

Residual Rating section of Assessments Details

Residual Risk section appears after Inherent and/or Control Effectiveness sections in the Assessment Details page. After you click the particular risk name for assessment, the **Residual Rating** section appears displaying all the factors that you need to assess for the selected risk name. The factors are populated based on the perspective selected.

Based on the assessment value that you provide in this section, the residual risk rating is calculated. The residual risk rank and the residual score are calculated based on the rating defined in the risk matrix. The input value that you can provide in this section for different factors vary based on the response type that is defined during the factor creation. The risks are ranked based on the overall inherent score.

RESIDUAL RATING						
Standard factors from Risk Matrix Configuration						
Factors	Assessment *	Score	Weighting (%)	Weighted Score	Rating	Comments
Impact		11.00		11.00	Minor	
Financial Impact	13	1.00		1.00	Very Low	
Reputational Impact	Minor	11.00		11.00		
Likelihood	Rare	1.00		1.00		

Figure 89 Residual Rating Section

For more information on residual risk section, refer to the [Residual Rating](#).

For more information on calculation of the scores and ratings of factors used in performing risk assessment, refer to [Calculating Score and Rating of Assessment Factors](#).

Scoring Algorithm and Rating Method

This chapter provides information on scoring algorithm and rating method configuration, and how to assess risks associated with this method.

Sections:

- Scoring Algorithm and Rating Method
- Risk Matrix Configuration for Scoring Algorithm and Rating Method
- Assessing Risks - Scoring Algorithm and Rating Method

Scoring Algorithm and Rating Method

The Scoring Algorithm and Rating method allows you to perform a risk assessment based on the algorithm set up and the Risk Configuration Matrix. For example, the Impact of a Risk is Catastrophic and Likelihood is Almost Certain, then the risk score is 25 (Impact X Likelihood) this is done based on the Risk Scoring Algorithm and the Risk Rating being **Very High** based on intersection of the two factor values on the RMC.

The roll up of scores to the Assessable Item and Organization is based on the 2 factors that are set as X and Y coordinates. This ensures that the Heat Maps remain two dimensional. For more information on Risk score aggregation, refer to the [Aggregation Logic](#) section.

Risk Matrix Configuration for Scoring Algorithm and Rating Method

You can create a risk matrix profile by specifying the risk rating based on the coordinate responses. For example, if the Impact is Catastrophic and Likelihood is Almost Certain, then the Risk Rating is Very High with Heat Map background color to be Red that can be configured using the Risk Matrix Configuration.

You can define the Risk Scoring Algorithm based on your requirement. You can enter the factor responses while doing an assessment, risk scores are calculated based on the scoring algorithm and risk rating is populated based on the Risk Matrix configuration.

For more information on Risk Matrix Configuration, see [Defining Risk Assessment Profile](#).

The following figure depicts the Risk Scoring Algorithm defined using the Risk Scoring Algorithm interface.

Snapshot	
Inherent Score Formula	Impact * Likelihood
Control Score Formula	Average (All Controls)
Residual Score Formula	Inherent Score Formula - Controls

Figure 90 Risk Scoring Algorithm Snapshot

Assessing Risks - Scoring Algorithm and Rating Method

By using the **Risk Assessment** form, you can assess the Risks that are part of the assessment. The score is populated based on the Risk scoring algorithm. The rating is calculated from the intersection of the factor responses in the risk matrix configuration. The score is rolled up to the assessable item and then to an organization while performing the assessment. The risk aggregation is done for the two coordinates that are part of Risk Matrix Configuration and based on this, the risk rating is picked up from Risk Matrix Configuration.

If the controls are available for the Risks, you can provide the Control scores in the Control Effectiveness section. The overall control effectiveness is based on the function (average, maximum, minimum, product, or sum) provided in the **Control Score Formula** field of the **Perspective** form.

Risk Assessment Form

Use the **Risk Assessment** form to perform the Risk assessment and record the details.

Inherent Rating Section of Assessment Details

This section is made available when you click the risk name in the **Assessment Summary** section. After you click the particular risk name, the assessment details section opens up with the provision for the user to perform inherent assessments. The factors are populated based on the chosen risk category.

For more information on how the inherent risk section is organized, refer to the [Inherent Rating section of Assessment Details](#).

Based on the assessment value that you provide in this section, the inherent risk rating is calculated. The overall Inherent score is calculated based on the function (average, maximum, minimum, product, or sum) provided in the Risk Scoring Algorithm form. The rating is populated by comparing the scores of the two factors that are part of the risk matrix. The input value that you can provide in this section for different factors vary based on the response type that is defined during the factor creation.

INHERENT RATING				
Factors	Assessment *	Weighted Score	Comments	
Impact	<input checked="" type="checkbox"/>	4.00		<input checked="" type="checkbox"/>
Financial	<input checked="" type="checkbox"/> High	4.00		<input checked="" type="checkbox"/>
Reputational	<input checked="" type="checkbox"/> Low	2.00		<input checked="" type="checkbox"/>
Likelihood	<input checked="" type="checkbox"/> Likely	4.00		<input checked="" type="checkbox"/>

Figure 91 Inherent Rating Section

For more information on calculation of the scores and ratings of factors used in performing risk assessment, refer to [Calculating Score and Rating of Assessment Factors](#).

Controls Effectiveness section of Assessment Details

This section displays all the controls that are related to the risk that you are assessing. The association of risks with controls is performed during the risk creation stage in the GRC Library. If a risk is associated with three controls, all the three controls are populated in this section. For the controls that are populated from the GRC Library, you can provide control effectiveness rating, modify weighting value, and enter comments.



The screenshot shows a table titled "CONTROL EFFECTIVENESS" with the following data:

	Control Name	Effectiveness *	Score *	Weighted Score	Comments	Key
<input type="checkbox"/>	A training plan and calend...	Partially Effective	5	5		No
<input type="checkbox"/>	Coordination with the line...	Effective	10	10		No

At the top right of the table, there is a button labeled "Effective [8]" with a pencil icon. Below the table, there are buttons for "Add", "Delete", and "Undo". To the right of the table, there is a link "Show Columns >".

Figure 92 Controls Effectiveness Section

For more information on the fields and their descriptions refer to field description table in the [Control Effectiveness section of Assessment Details](#).

- If the scoring algorithm is **Based On Controls Mitigating Standard Factors**, you can provide the mitigated percentage value for each control by selecting the factors that are mitigated using the control.

Residual Rating section of Assessment Details

Residual Risk section appears after Inherent and/or Control Effectiveness sections in the Assessment Details page. After you click the particular risk name for assessment, the Residual Rating section appears displaying all the factors that you need to assess for the selected risk name. The factors are populated based on the perspective selected.

Based on the assessment value that you provide in this section, the residual risk rating is calculated. The overall residual score is calculated based on the function (average, maximum, minimum, product, or sum) provided in the Risk Scoring Algorithm form. The rating is populated by comparing the scores of the two factors that are part of the risk matrix. The input value that you can provide in this section for different factors vary based on the response type that is defined during the factor creation.

The mitigated score and the overall risk score is calculated based on the pre-residual calculation (if the algorithm is **Based On Controls Mitigating Standard Factors**). The risk rating is applicable only if the factors are rated.

For more information on residual risk section, refer to the [Residual Rating](#).

For more information on calculation of the scores and ratings of factors used in performing risk assessment, refer to [Calculating Score and Rating of Assessment Factors](#).

Factors		Assessment *	Weighted Score	Comments
Impact	<input checked="" type="checkbox"/>		4.00	<input type="checkbox"/>
Financial	<input checked="" type="checkbox"/>	High	4.00	<input type="checkbox"/>
Reputational	<input checked="" type="checkbox"/>	High	4.00	<input type="checkbox"/>
Likelihood	<input checked="" type="checkbox"/>	Certain	5.00	<input type="checkbox"/>
Show additional columns				

Figure 93 Residual Rating Section

Risk Scoring Algorithm Method

The following chapter provides information on scoring algorithm method, and how to assess risks associated with this method.

Sections:

- [Risk Algorithm Method](#)
- [Assessing Risks - Risk Algorithm Method](#)

Risk Algorithm Method

The Risk Algorithm method allows you to perform a risk assessment based on the defined algorithm and arrive at a score and rating for standard as well as non-standard factors. The scores and ratings are aggregated to the assessable item and then to organization by averaging the scores. The rating is populated from the heat map range data table. For more information on heat map range data table, contact your system administrator.

The Risk Scoring Algorithm framework allows you to create formulas to calculate:

- Inherent Risk Score and Rating
- Control Effectiveness and Score
- Pre-Residual Risk Score and Rating
- Residual Risk Score and Rating

The following figure depicts the Risk Scoring Algorithm defined using the Risk Scoring Algorithm interface.

Snapshot	
Inherent Score Formula	Impact * Likelihood
Control Score Formula	Average (All Controls)
Residual Score Formula	Inherent Score Formula - Controls

Figure 94 Risk Scoring Algorithm Snapshot

For more information on defining the algorithm, refer to the [Perspectives](#) section.

Assessing Risks - Risk Algorithm Method

Using the **Risk Assessment** form, you can assess the Risks that are part of the assessment. The score is populated based on the Risk scoring algorithm and the rating based on the score range stored in the heat map range table. The score is rolled up to the assessable item and then to organization while performing the assessment. The heat maps are displayed based on the scores and rating arrived at based on aggregation as well as direct assessment.

Risk Assessment Form

Use the Risk Assessment form to perform the Risk assessment and record the details. For more information on Risk Assessment form, refer to [Risk Assessment Form](#).

Inherent Rating Section of Assessment Details

This section is made available when you click the risk name in the **Assessment Summary** section. After you click the particular risk name, the assessment details section opens up with the provision for the user to perform inherent assessments. The factors are populated based on the chosen risk category.

For more information on how the inherent rating section is organized, refer to the [Inherent Rating section of Assessment Details](#).

The input value that you can provide in this section for different factors vary based on the response type that is defined during the factor creation. The score of the quantitative factors are arrived at based on the factor responses provided during the risk assessment. The overall inherent score is calculated based on the function (average, maximum, minimum, product, or sum) provided in the **Risk Scoring Algorithm** form. The rating is populated from the heat map range table, as shown in the below figure.

You can also add ad hoc risks when performing risk assessment using this method. For details on adding ad hoc risks, see [Adding Ad hoc Risks](#).

INHERENT RATING				
Factors	Assessment *	Weighted Score	Comments	Show additional columns
Impact	High	4.00		High [16]
Financial	High	4.00		
Reputational	Low	2.00		
Likelihood	Likely	4.00		

Figure 95 Inherent Rating Section

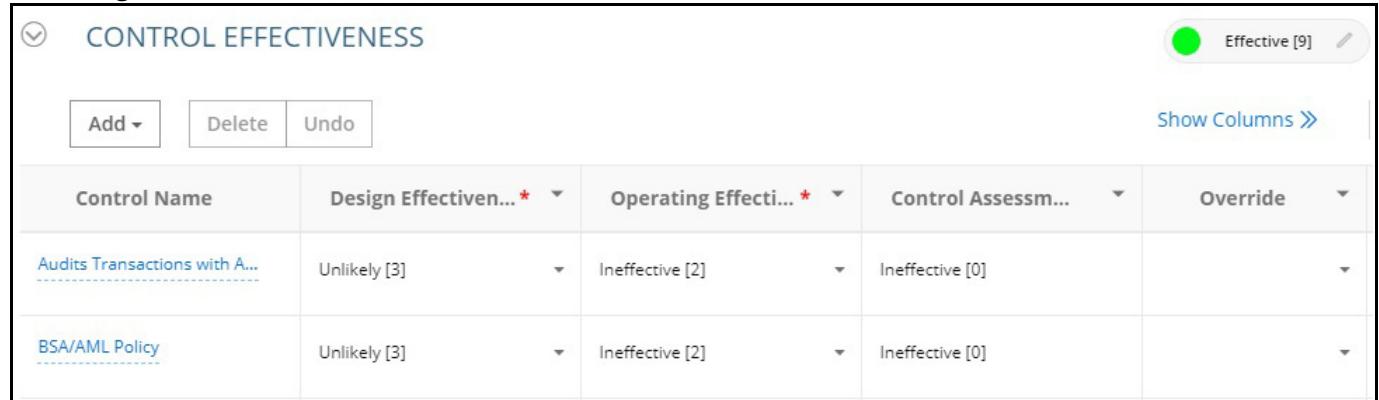
Controls Effectiveness Section of Assessments Tab

This section displays all the controls that are related to the risk that you are assessing. The association of risks with controls is performed during the risk creation stage in the GRC Library. If a risk is associated with three controls, all the three controls are populated in this section. For the controls that are populated from the GRC Library, you can provide control effectiveness rating, modify weighting value, and enter comments. While performing the risk-

control assessment, you can add related controls that mitigate the risk being assessed in this section. The number of columns that are available in this tabular format vary based on Scoring algorithm that is defined for calculating the control scores.

If the scoring algorithm is **Based On Controls Mitigating Standard Factors**, you can provide the mitigated percentage value for each control by selecting the factors that are mitigated using the control.

If the scoring algorithm is **Based On Overall Control Score Reducing Inherent Risk**, this tabular format displays the rating and other score related columns.



The screenshot shows a table titled "CONTROL EFFECTIVENESS". At the top right, there is a green circular icon with the text "Effective [9]" and a pencil icon. Below the title, there are buttons for "Add", "Delete", and "Undo", along with a "Show Columns" link. The table has five columns: "Control Name", "Design Effectiven...", "Operating Effecti...", "Control Assessm...", and "Override". The first row contains the text "Audits Transactions with A..." under "Control Name", and dropdown menus for the other columns. The second row contains the text "BSA/AML Policy" under "Control Name", and dropdown menus for the other columns. All dropdown menus show "Unlikely [3]" or "Ineffective [2]" as options.

Control Name	Design Effectiven...	Operating Effecti...	Control Assessm...	Override
Audits Transactions with A...	Unlikely [3]	Ineffective [2]	Ineffective [0]	
BSA/AML Policy	Unlikely [3]	Ineffective [2]	Ineffective [0]	

Figure 96 Control Effectiveness Section

For more information on the fields and their descriptions refer to field description table in the [Control Effectiveness section of Assessment Details](#).

Residual Rating section of Assessment Details

Residual Risk section appears after Inherent and/or Control Effectiveness sections in the Assessment Details page. After you click the particular risk name for assessment, the Residual Rating section appears displaying all the factors that you need to assess for the selected risk name. The factors are populated based on the perspective selected.

The input value that you can provide in this section for different factors vary based on the response type defined during the factor creation. The score of the quantitative factors are arrived at based on the factor responses provided during the risk assessment. The overall residual score is calculated based on the function (average, maximum, minimum, product, or sum) provided in the **Risk Scoring Algorithm** form. The rating is populated from the heat map range table, as shown in the below figure. The mitigated score and the overall risk score is calculated based on the pre-residual calculation if the control score formula in the risk scoring algorithm is chosen as **Based On Controls Mitigating Standard Factors**. The risk rating is applicable only if the factors are rated.

The screenshot shows a table titled "RESIDUAL RATING". At the top right, there is a status indicator showing "Very High [22]" with a red circular icon. A cursor arrow is positioned above the table. The table has columns: "Factors", "Assessment*", "Weighted Score", and "Comments". There is also a "Show additional columns" link at the top right of the table area.

Factors	Assessment*	Weighted Score	Comments
Impact		4.00	
Financial	High	4.00	
Reputational	High	4.00	
Likelihood	Certain	5.00	

Figure 97 Residual Rating Section

For more information on residual risk section, refer to the [Residual Rating](#).

Heat Map Charts and Reports

This chapter provides information on the heat map charts and reports that are available in **Risk Assessment**.

Section:

- [Heat Map](#)

Heat Map

A heat map is a graphical representation of data, where the individual values contained in a Matrix are represented with various colors. A risk heat map is a tool used for presenting the results of the risk assessment process visually and in a meaningful and concise way. Heat maps are used as a way of representing the resulting evaluations of the probability of risk occurrence and the impact on the organization if a risk is experienced. This helps management prioritizing risk that needs attention.

A heat map report displays the residual/inherent risk ratings in different zones based on the specified filter values. You can view the heat map based on the following criteria:

Notes:

- For Org-Risk and Org-Assessable Item-Risk types of risk assessments, the heat map is available only if the organization structure has a single dimension. For details on organization structure, see [Organization Structure](#).
- Ensure that the score for the factor ratings are unique for the heat map to display correct plotting. For example, Score cannot be same for Low, High, and Medium factors.
- Organizations
- Assessed Items (process, assets, asset class, auditable entity, product, and objective)
- Risks by rolled up score
- Risks directly assessed

The heat map is displayed on the top of the screen and the respective list report is displayed at the bottom. The heat map and the list report show the same data.

By default, heat map is plotted for the default perspective (user-level default perspective if provided; otherwise, system-level default perspective). You can change the perspective in the filters to see the respective heat map.

Note: If the Risk Matrix Configuration settings in the **Risk Assessment Profile** form are changed after assessments are done, the assessment details displayed on the form may become inconsistent with the heat map report. While the assessment form displays rating based on Risk Matrix Configuration settings, the heat map considers the current settings and displays the ratings accordingly.

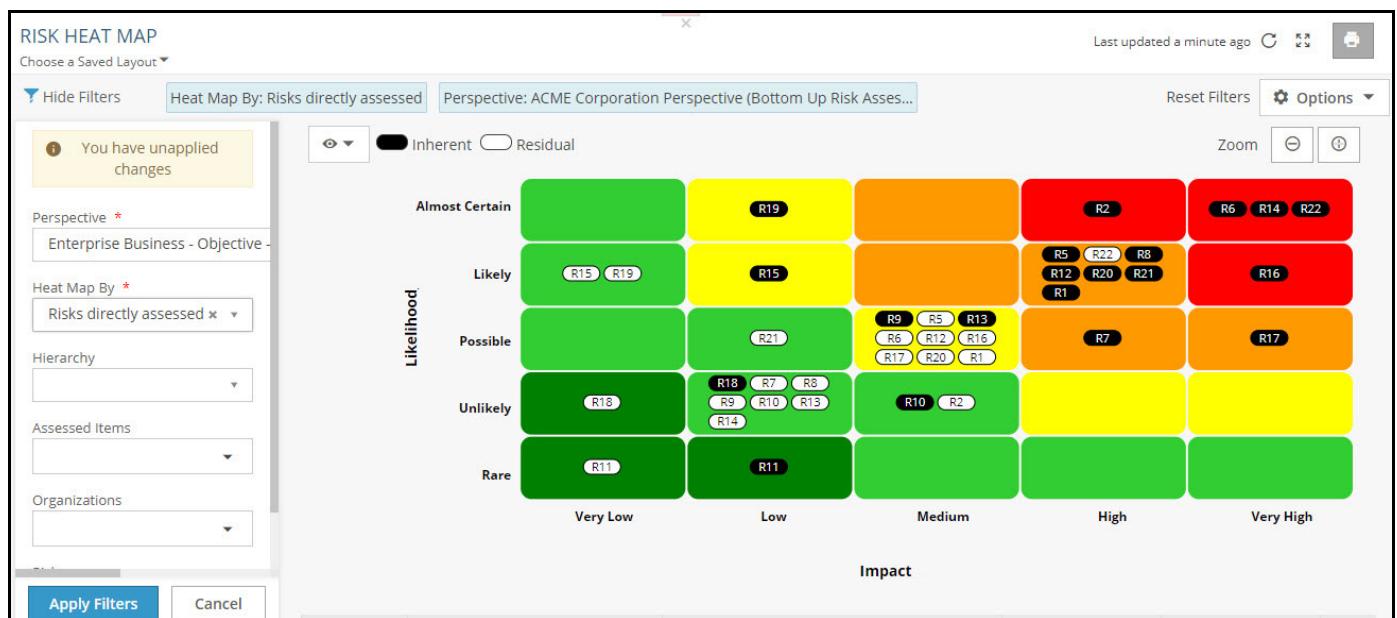


Figure 98 Sample Heat Map



Figure 99 Sample Heat Map for Residual Assessment Based on Inherent vs. Control

Acronym	Organization	Previous Inher...	Inherent Score	Inherent Rating	Inherent Trend	Previous
O1	ACME Corp	13	12		↓	7
O2	LOB - Insurance	9	8	Medium	↓	9
O3	LOB - Manufacturing	20	16	High	↓	5
O4	LOB - MidWest Power	13	13	High	↔	7
O5	LOB - Retail Banking	13	12	High	↓	6
O6	INS - Investments	9	8	Medium	↓	9
O7	MFG - Engineering	20	12	Medium	↓	5
O8	MFG - Assembly	20	20	Very High	↔	5

Figure 100 Sample Heat Map List Report

Mandatory Filters

- Perspective: Select a perspective to plot the respective heat map and display the list report. The user-level or system-level default perspective is selected by default.
- View: Select Inherent to plot the heat map for the assessments based on factors. Select Residual Risk to plot the heat map for the residual assessments performed based on inherent vs. control.
- Heat Map By: Select Organizations, Assessed Items, Risks by rolled up score, or Risks directly assessed to view the respective heat map. The options available in this field vary based on the perspective name that you select in the **Perspective** field. The options are displayed based on the Assessment type that is tagged for the selected perspective. For example, if the assessment type is Assessable Item- Risk, the Organizations option is unavailable in this field.

Note: If you select Residual Risk in the View filter, Heat Map By filter is selected as Risks directly assessed.

- Profile: If the selected perspective is with risk scoring algorithm method and if the value selected in the View filter is Inherent Risk, then you need to select profile to plot the heat map.

Heat Map by Risks Directly Assessed

In the **Heat Map By** filter, select Risks directly assessed to view the scores and ratings of the risks that were individually assessed using factors, based on the perspective chosen.

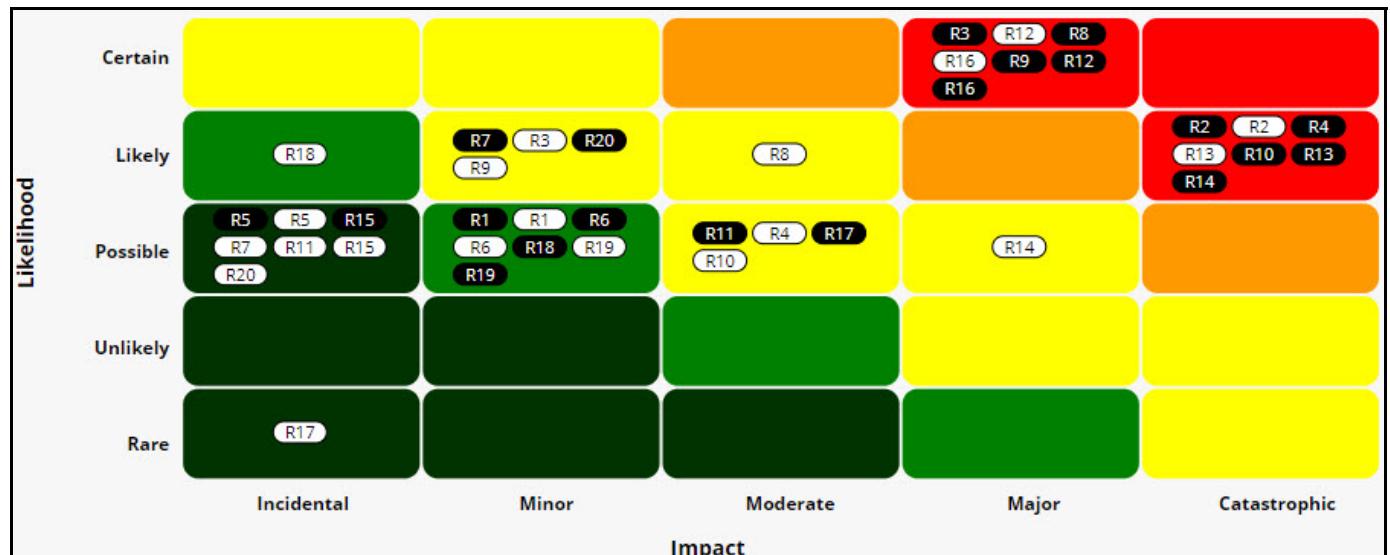


Figure 101 Heat Map by Risks Directly Assessed

Acronym ▾	Organization ▾	Assessed Item	Risk
R1	MWP - Generation	Ensure availability of adequate plant parts at all times	Non availability of Pipe Supports for proper line installation
R2	MWP - Transmission	Prevent hazardous accidents and provide safe working conditions	Loss of containment of H2S and hydrocarbons in the plant may lead to accident, environmental pollution, loss of production and affect the reputation of the company
R3	MWP - Transmission	Prevent hazardous accidents and provide safe working conditions	Non compliance to the defined flaring limits and ambient air norms / limits
R4	MWP - Transmission	Prevent hazardous accidents and provide safe working conditions	Absence of Online hydrocarbon analyzers / Unreliable Gas meters, to provide an assurance of correct mass balancing
R5	RB - Origination	Ensure 100% compliance with regulatory requirements for the respective business Unit	Engaging in Discriminatory Activities

Figure 102 Heat Map by Directly Assessed Risk Report

Key Columns

- Acronym: Displays the acronym used for the risks such as R1, R2, and so on. These acronyms are displayed on the heat map zones.
- Risk: Displays the name of the assessed risk.
Drill down: **Risk form**
For more information on **Risk form**, refer to the MetricStream Arno Release Spring '21 - Governance, Risks, and Compliance Foundation - User Guide.
- Inherent Rating: Displays the inherent rating based on the latest assessment performed on the risk.
- Residual Rating: Displays the residual rating based on the latest assessment performed on the risk.
- View Details: Displays **View** link. Click this link to open the **Risk Register Report**.

Note: For details on aggregation of risk score and rating, see [Aggregation Logic](#).

Heat Map Zones - Risk Scoring Algorithm Method

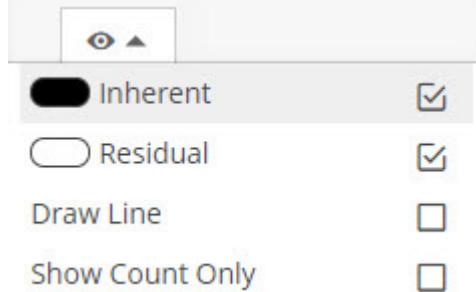
The following table provides the description of sample zones based on the risk severity-liability combination that is configured for Risk Scoring Algorithm method. The zone values can be configured based on organizational needs.

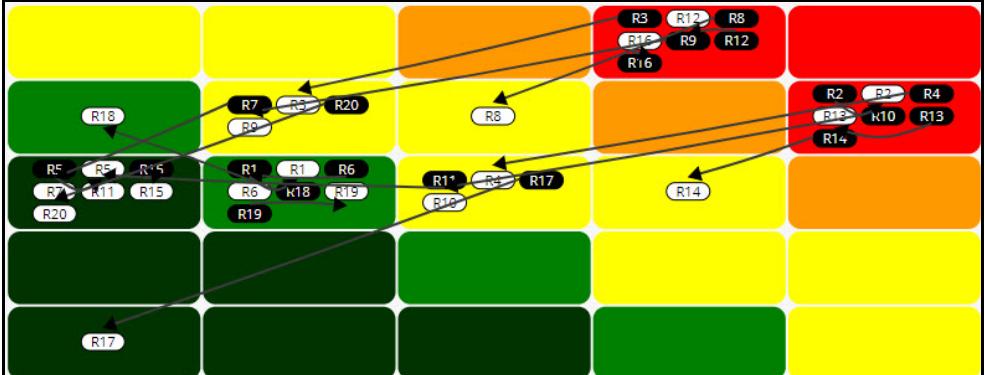
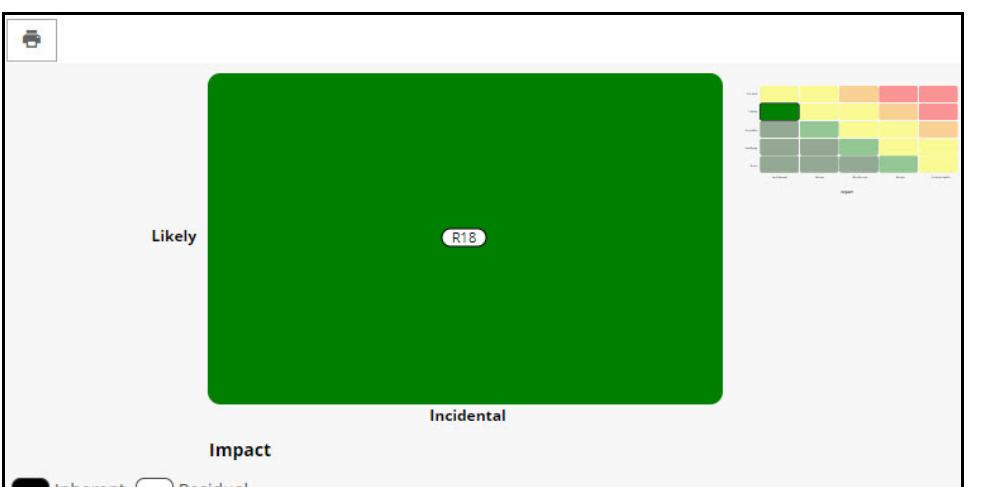
Zones	Description
Very Low	This region displays very-low severity-liability combination. Typically, organizations ignore these risks.
Low	This region displays low Risk severity-liability combination.
Medium	This region displays Risk severity-liability combination. The risks that appear in this region have impact on the organization; you need to address these risks.
High	This region displays high Risk severity-liability combination. The risks that appear in this region have impact on the organization; you need to address these risks immediately.
Very High	This region displays very-high Risk severity-liability combination. The risks that appear in this region have impact on the organization, which need immediate attention.

You can provide color codes to each of these zones and configure the colors, as required. For more information on configuring the colors, contact your system administrator.

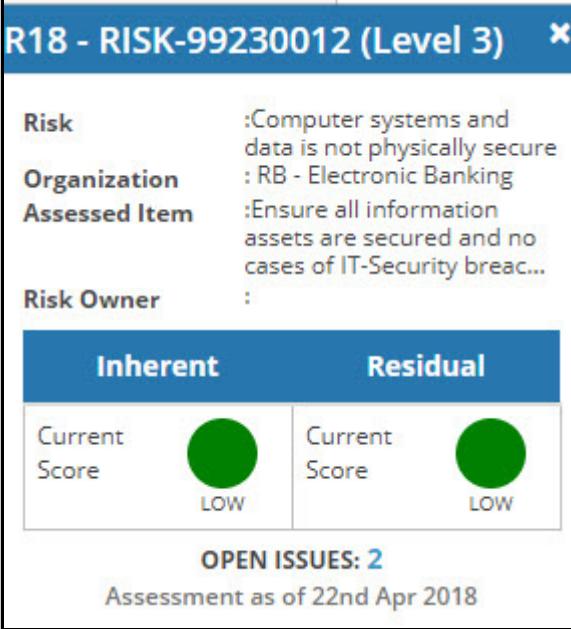
Heat Map Options

The following table describes the various options and icons available on the heat map visualization.

Option/icon/check box	Description
 Inherent	Indicates the inherent risks. Based on the value selected in the Heat Map By filter, O1, O2, R1, R2, C1, C2, and so on are displayed on the heat map zone.
 Residual	Indicates the residual risks. Based on the value selected in the Heat Map By filter, the acronyms O1, O2, R1, R2, C1, C2, and so on are displayed on the heat map zone.
	Click this icon to view the heat map options. 
Inherent	Selecting this check box displays only the inherent details on the heat map and in the list report.
Residual	Selecting this check box displays only the residual details on the heat map and in the list report.

Option/icon/check box	Description
Draw Line	Selecting this check box draws lines from inherent to residual plots. This option enables you to view the risk direction by tracing its movement from inherent to residual.
	
Note:	For drawing line for a separately for each item, click the respective acronym.
Show Count Only	Selecting this check box shows only the count of risks, organizations, or assessed items in the heat map zones.
Zoom  	Use these options to zoom in and zoom out the entire heat map area.
Zoom in heat map zone	Move the mouse pointer on any heat map zone to see the zoom icon, and then click it to zoom the zone.
	
Note:	If a heat map zone has more number of inherent or residual risks, only the count of the items is displayed. You can zoom in the zone to view the names.
Print heat map zone	On the zoomed-in zone, click  to print the heat map zone.

Option/icon/check box	Description
	<p>Use this icon available on the upper-right corner of the heat map to print the heat map and the associated list report.</p> <p>To print:</p> <ol style="list-style-type: none"> 1. Click  . <p>The Comments dialog box appears.</p> <div> <p style="text-align: center;">Comments</p> <p>Comments to be available on the heat map while printing</p> <p style="text-align: right;">945</p> <p style="text-align: right; margin-top: 10px;"> Print Cancel </p> </div> <ol style="list-style-type: none"> 2. Provide your comments. The comments will be printed with the heat map. 3. Click Print. The print preview of the heat map appears. 4. Press CTRL+P. 5. Change the print settings if required, and then click Print.

Option/icon/check box	Description
Card view	<p>Right-click an acronym on the heat map zone to view its card.</p>  <p>The card shows:</p> <ul style="list-style-type: none"> Summary: Name of the risk, name of the selected perspective, name of the organization, and so on. Residual Rating: Current and previous residual score and the corresponding rating Inherent Rating: Current and previous inherent score and the corresponding rating Trend: Click  to view the Historical Trend report. Number of Open Issues: Displays the number of open issues associated with the assessment. Click the number to open the Issues report.

Reports

A report is a tabular representation of meaningful data, which you can use to make informed decisions. It normally consists of multiple columns and most of the reports provide filters. For information on reports, see [About Reports](#).

Using the filters, you can search for specific content and view the report based on the search results. For more information on filters, see [Filters](#). You can also hide or display the columns of your choice in the reports.

If a column appears as a link, click it to view the drill down report or the respective form.

You can create dynamic charts from all the reports by clicking  on the top-right corner of the report.

For more information, refer to MetricStream Arno Release Spring '21 - Platform - Configuration Guide, Dashboards.

Sections:

- [Inherent Risk Breakdown by Category Report](#)
- [Risk Rating Details for Key Risks Report](#)
- [Perspectives Report](#)
- [Quantitative Factors Report](#)
- [Qualitative Factors Report](#)
- [Risk Assessment Profiles Report](#)
- [Risk Scoring Algorithms Report](#)
- [Risk Rating Details Report](#)
- [View Assessments Report](#)
- [Risk Aggregation Report](#)
- [Risk Aggregation Weight](#)
- [Risk Aggregation View](#)
- [Residual Risk Breakdown by Category Report](#)
- [Risk Assessment Status Details Report](#)
- [Risks Identified During Assessments](#)
- [Risk Register Report](#)
- [Risk Assessment Plans Report](#)
- [Risk Assessment Plan Details Report](#)
- [Ongoing Assessments Report](#)
- [Risk Control Assessments Report](#)
- [Control Rating Drill Down Report](#)
- [Comments History Report](#)
- [Change History Report](#)
-

Risk Rating Details for Key Risks Report

Use the **Risk Rating Details for Key Risks** report to view the detailed risk rating information of the key risks, including the risks that are not assessed. This is an aggregated report.

Key Columns:

- Risk: Displays the name of the risk that is being assessed.
- Assessed Organization: Displays the name of the organization on which the risk is assessed.
- Final Residual Score: Displays the final residual score of the risk being assessed.
- Final Residual Rating: Displays the final residual rating of the risk being assessed.
- Prior Residual Score: Displays the prior residual score of the risk being assessed.
- Prior Residual Rating: Displays the prior residual rating of the risk being assessed.
- Residual Trend: Displays the trend of the residual risk score, which shows the difference between the current residual risk score and the prior residual risk score. The displayed icons indicate the following:

 - Latest score is less than the previous score.

 - Latest score is greater than the previous score.

 - Latest score is equal to the previous score.

If there is no prior assessment performed, no symbol is displayed.

- Historical Trend: Displays the trend. Clicking  shows the risk trend chart that plots the residual risk scores, for a period of four quarters starting from the current quarter, for the specific organization. You can configure the threshold values, period type, and number of periods for the historical trend.
- # of Open Issues: Displays the count of issues that are open for the risk being assessed.
- Child Risk Assessments: Displays a **View** link, clicking on which the **Risk Rating Details for Key Risks** report is displayed, which shows the details of the child risks of the risk being assessed.

Perspectives Report

The **Perspectives Report** displays all the perspectives published in the **Risk Assessments** module. Only users with **RSK Manage Setup** activity can view, re-initiate, or modify the Perspectives.

Key Columns:

- Perspective Name: Displays the name of the Perspective
 - Drill down: Perspective form
- Assessment Type: Displays the assessment type of the assessment chosen while creating the Perspective. Examples: Org-Risk, Org-Assessable Item-Risk, Assessable Item-Risk.
- Risk Categories: Displays the risk categories (comma separated values) with which the Perspective is associated.
- Risk Assessment Profile: Displays the risk assessment profiles selected in the perspective.
 - Drill down: Risk Assessment Profile form
- Risk Scoring Algorithm: Displays the name of the risk scoring algorithm interface to which the Perspective is tagged. This field is conditionally shown based on the assessment methodology selected.
 - Drill down: Perspective form

Quantitative Factors Report

The **Quantitative Factors** report displays all the published quantitative factors in the **Risk Assessments** module. Only users with **RSK Manage Risk Factors** activity can view, create, and modify factors in the system.

Key Columns:

- Factor Name: Displays the name of the factor.
 - Drill down: [Quantitative Factors](#).
- Standard Factor: Indicates whether the factor is a standard factor or not.
- List of Values/Rules Based: Indicates if the factor responses are defined as a definite list of values, or is based on rules and ranges defined.
- Factor Segmentation: Indicates whether the factor is a hierarchical factor, main factor, or a sub factor
- Input Type: Displays the type of responses defined for the factor. Displays unit of measurement of the factor value. This is picked from the **Scoring Rules** section of the form. Examples: Number, Percentage, or Amount.
- Risk Categories: Displays all the risk category values separated with commas.

Qualitative Factors Report

The **Qualitative Factors** report displays all the published qualitative assessment factors in the **Risk Assessments** module. Only users with **RSK Manage Risk Factors** activity can view, create, and modify factors in the system.

Key Columns:

- Factor Name: Displays the name of the factor.
 - Drill down: [Qualitative Factors](#).
- Risk Categories: Displays the related risk categories.
- Response Type: Displays the type of response. The response types can be number, amount, date, text, and list of values.

Risk Assessment Profiles Report

The Risk Assessment Profiles report displays the available risk profiles in the system.

Key Columns:

- Name: Displays the name of the risk assessment profile.
 - Drill down: [Risk Assessment Profile](#) form
- Assessment Methodology: Displays the risk assessment methodology selected in the profile.
- Scoring Algorithm: Displays the selected scoring algorithm for the scoring methodology.
- Control Framework Assessment Based On: Displays whether the assessment is based on individual controls or overall control environment.

Risk Scoring Algorithms Report

The **Risk Scoring Algorithms Report** displays all the risk scoring algorithms defined in **Risk Assessments**. Only users with **RSK Manage Setup** activity can view, re-initiate, or modify Risk Scoring Algorithms.

Key Columns:

- Algorithm Name: Displays the name of the risk scoring algorithm.
 - Drill down: [Risk Scoring Algorithm](#)
- Inherent Formula: Displays the inherent formula defined for the risk assessment.
- Control Formula: Displays the control formula defined for the risk assessment.
- Pre-Residual Formula: Displays the pre-residual formula defined for the risk assessment. This column is applicable only if Control Mitigation method is chosen.
- Residual Formula: Displays the residual formula defined for the risk assessment.

Risk Rating Details Report

This report is a drill down from the Risk Exposure chart. Use this report to view the assessment details as well as details of organizations, assessable items and risks on which assessments have been performed. This report is typically viewed by the **risk program managers** and **risk managers**. This report can be used on demand when there is a need to view granular and all associated details of the assessments.

Only users with **RSK View Risk Assessment** or **RSK View All Risk Assessments** activity can view data in this report. For details on the key columns and filters, see [Risk Register Report](#).

You can view this report only if one of the following conditions is satisfied:

- You are part of the owner organization of the risk plan, or at least one of its parent organizations.
- You are part of the assessed organizations for the risk, or at least one of its parent organizations.

View Assessments Report

Use the **View Assessments** report to view the risk assessment details of specific Perspectives. This is a drill down report, which displays the assessment details for the respective perspective.

Only users with **RSK View Risk Assessment** or **RSK View All Risk Assessments** activity can view data in this report.

Key Columns:

- Plan Name: Displays the name of the risk assessment plan.
 - Drill Down: [Risk Assessment Plan Form](#)
- Assessment ID: Displays the ID of the risk assessment.
 - Drill down: [Risk Assessment Plan Form](#)
- Assessor: Displays the name of the risk assessor.
- Completed On: Displays the date on which the risk assessment is completed.
- No. of Total Issues: Displays the count of the total number of issues.
- No. of Open Issues: Displays the count of the total number of open issues.
- No. of Overdue Issues: Displays the count of the issues that are overdue.
- No. of Closed Issues: Displays the count of the closed issues.

Inherent Risk Breakdown by Category Report

Use the **Inherent Risk Breakdown by Category** report to view a split of count of risks by risk category. This report helps to identify risk categories that are at risk most based on inherent assessments performed on risks mapped to these categories.

Only users with **RSK View Risk Assessment** or **RSK View All Risk Assessments** activity can view data in this report.

Key Columns:

- Risk Category: Displays the category of risk.
- Ratings: Displays the set of columns display the unique Inherent Ratings as column headers that has at least one risk rated within them. If there is a rating value configured, but no risks are rated with that value, then the specific rating column will not appear on the report. For example, if the rating values configured are High, Medium, Low, and if there are risks with inherent ratings High and Medium, then the columns visible will be High and Medium. The column with the header Low does not appear as there are no risks rated as Low.
 - Drill down: [Risk Register Report](#)

Note: The column name is not Rating, but displays the various rating values.

Key Filter

- Perspective: Select the Perspective based on which the report details are narrowed down.

Residual Risk Breakdown by Category Report

Use the **Residual Risk Breakdown by Category** report to view the split of count of risks by category and count. This helps the management, typically the consumers of this report, identify risk categories that are at risk most by residual risk rating, monitor, and take necessary actions.

Only users with **RSK View Risk Assessment** or **RSK View All Risk Assessments** activity can view data in this report.

Key Columns:

- Risk Category: Displays the category of risk.
- Ratings: Displays the set of columns display the unique Residual Ratings as column headers that has at least one risk rated within them. If there is a rating value configured, but no risks are rated with that value, then the specific rating column will not appear on the report. For example, if the rating values configured are High, Medium, Low, and if there are risks with residual ratings High and Medium, then the columns visible will be High and Medium. The column with the header Low will not appear as there are no risks rated as Low. Under each rating against each category will be the count of assessed risks applicable.
 - Drill down: [Risk Register Report](#)

Note: The column name is not Rating, but displays the various rating values.

Key Filter

- Perspective: Select the Perspective based on which the report details are narrowed down.

Risk Assessment Status Details Report

Use the **Risk Assessment Status Details** report to view the statuses of different risk assessments that have been triggered in the last X number of days, where X is a configurable filter in the report. By default, the value for number of days is set as 30.

Only users with **RSK View Risk Assessment** or **RSK View All Risk Assessments** activity can view data in this report.

Key Columns:

- Assessment Name: Name of the risk assessment.
 - Drill down: [Risk Assessment Form](#)
- Status: Displays the assessment status.
- Assessor: Displays the name of the risk assessor.
- Due Date: Displays the due date of the risk assessment plan.
- Overdue by: Displays the number of days by which the assessment is overdue.
- Approver: Displays the name of the risk assessment approver.
- Final Approver: Displays the name of the final risk assessment approver.

Note: Displays data when the user configures the **Final Approver for Assessments** as **Assessment Plan Owner** at the form level.

- Plan Name: Displays the name of the risk assessment plan.
 - Drill down: [Risk Assessment Plan Form](#)

Risks Identified During Assessments

Use the **Risks Identified During Assessments** report to view the details of all the risks that are identified and newly added by the assessors while performing different Risk assessments. Only the risks that are added as ad hoc risks are displayed in this report. This report can be used to identify the critical and common risks, if any, and define the same in GRC Library for future use.

Any user having access to this report can view the data in this report.

Key Columns:

- Assessment: Display all the assessment names available in the system.
 - Drill down: [Risk Assessment Form](#)
- Risk: Displays the name of the newly added Risk.
- Final Inherent Risk Rating: Displays the rating value provided as part of inherent assessments for the Risk.
- Final Residual Risk Rating: Displays the rating value provided as part of residual assessments for the Risk.

Risk Register Report

Use the **Risk Register** report to view the assessment details as well as details of organizations, assessable items and risks on which assessments have been performed. This report is typically viewed by the **risk program managers** and **risk managers**. This report can be used on demand when there is a need to view granular and all associated details of the assessments.

Only users with **RSK View Risk Assessment** or **RSK View All Risk Assessments** activity can view data in this report.

Key Columns:

- Assessed Item: Displays the assessable items selected for risk assessment. For example, Process, Asset, Asset Class, Supplier, Product, Objective, and Auditable Entity.
 - Drill down: [Hover Cards](#)
- Risk: Displays the name of the Risk.
 - Drill down: [Risk form](#).

For more information on Risk form, refer to the MetricStream Arno Release Spring '21 - Governance, Risks, and Compliance Foundation - User Guide.

- Final Residual Risk Score: Displays the residual score of the risk being assessed.
- Final Residual Risk Rating: Displays the residual rating of the risk corresponding to the final residual risk score.
- Final Inherent Risk Score: Displays the inherent score of the risk being assessed.
- Final Inherent Risk Rating: Displays the inherent rating of the risk corresponding to the final inherent risk score.
- Final Overall Control Effectiveness: Displays the overall control score based on assessment and the scoring algorithm defined for the Controls.
- Residual Trend: Displays the residual trend of the risk being assessed.

The displayed icons indicate the following:

 - Latest score is less than the previous score.

 - Latest score is greater than the previous score.

 - Latest score is equal to the previous score.

If there is no prior assessment performed, no symbol is displayed.

- No. of Issues Raised: Displays the number of issues raised during risk assessment.
 - Drill down: [Issues](#) report
- No. of Open Issues Raised: Displays the number of open issues that are raised during risk assessment and related to the risks.
 - Drill down: [Issues](#) report
- Tracked Metrics: Displays the number of metrics that are tracked for the risk.
 - Drill down: [Metric Responses](#) report
- Metric Breaches: Displays the number of metric breaches out of the total number of tracked metrics.
 - Drill down: [Metric Responses](#) report

For more information on **Metrics Responses** report, refer to the MetricStream Arno Release Spring '21 - Metrics - User Guide.

- Related Loss Events: Displays the number of internal loss events related to the risk.
 - Drill down: [Internal Loss Events](#) report
- Gross Amount: Displays the total of the gross loss amounts of the related internal loss events.
 - Drill down: [Internal Loss Events](#) report
- Net Amount: Displays the total of the net loss amounts of the related internal loss events.

- o Drill down: **Internal Loss Events** report

For more information on **Internal Loss Events** report, refer to the MetricStream Arno Release Spring '21 - Loss Event Management - User Guide.

- No. of Open Issues Related to Risk: Displays the number of open issues that are related to the selected risk.
 - o Drill down: **Issues** report

For more information on **Issues** report, refer to the MetricStream Arno Release Spring '21 - Issues - User Guide.

- Child Risk Assessments: Displays the **View** link.
 - o Drill down: When you click this link, the report details are narrowed down to child-level risk details.
- Risk Categories: Displays one or more categories of the Risk.
- Risk Hierarchy: Displays the level of the Risk. The possible values are:
 - o Level 1
 - o Level 2
 - o Level 3
 - o Level 4

Note: The values are configurable.

- Residual Rank: Displays the residual rank of the risk being assessed.
- Inherent Rank: Displays the inherent rank of the risk being assessed.
- Prior Residual Score: Displays the previous residual score of the risk being assessed.
- *Factor Name; for example, Impact, Likelihood* (Inherent Rating): Displays the inherent rating of the standard factor.
- *Factor Name; for example, Impact, Likelihood* (Inherent Score): Displays the inherent score of the standard factor.
- *Factor Name; for example, Impact, Likelihood* (Residual Rating): Displays the residual rating of the standard factor.
- *Factor Name; for example, Impact, Likelihood* (Residual Score): Displays the residual score of the standard factor.

Notes:

- The factor name appears in the column header.
- By default, details of two factors are displayed in the report and the maximum number of factors that can be displayed is five. The factor details are derived from the data table **MS_RSK_LAND_CONFIG_SF**. However, the report derives only the column values from the data table and not the column headers. The column headers (factor names) must be typed manually.
- Contact your system administrator to know more about data tables and editing report column headers.
- Assessment Details: Displays the details of the risk assessment.
 - o Drill down: [Risk Assessment Form](#)
- Perspective: Displays the name of the Perspective on which the assessment is performed.

Click **Export** to download the **Risk Register** report into an Excel sheet. The details are exported based on the value selected in the **Export Risk Register with** field in the [Perspectives](#).

Risk Assessment Plans Report

Use the **Risk Assessment Plans** report to view all the assessment plans that you are authorized to access.

Only users with **RSK View Risk Assessment Plan** or **RSK View All Risk Assessment Plans** activity can view Plans in the system. Only users with **RSK Edit Risk Assessment Plan** or **RSK Edit All Risk Assessment Plans** activity can create or modify a Plan.

Users with **RSK View Risk Assessment Plan** and/or **RSK Edit Risk Assessment Plan** can view this report with the list of plans owned by the organizations they belong to, or their child organizations. They can also view plans owned by other organizations for which **Restrict Access to** value is set as **No Restriction**.

Users with **RSK View All Risk Assessment Plans** and/or **RSK Edit All Risk Assessment Plans** can view this report with all the plans defined in the system irrespective of the access restriction configuration.

Users with **RSK Edit Risk Assessment Plan** can open assessment plans owned by their organizations or their parent organizations from the report and modify the plans, while users with **RSK Edit All Risk Assessment Plans** can open any plans and make modifications.

Key Columns:

- Plan Name: Displays the full name of the plan
 - Drill down: [Risk Assessment Plan Form](#). Only the authorized users with **RSK Edit Risk Assessment Plan** and **RSK Edit All Risk Assessment Plans** are allowed to edit and re-initiate the plan.
- Perspectives: Displays the name of the selected perspective for the risk assessment plan.
- Assessment Type: Displays the type of assessment selected such as Org-Risk, Assessable Item-Risk, or Org-Assessable Item-Risk.
- Owner Organizations: Displays the name of the organizations that own the risk assessment plan.
- Owners: Displays the names of all responsible owners of the plan.
- Assessments: Displays the [View](#) link. Click this link to open the [Risk Assessment Status Details Report](#).
- Plan Detail: Displays the [View](#) link. Click this link to open the [Risk Assessment Plan Details Report](#).

Risk Assessment Plan Details Report

Use this report to view all the details of a selected risk assessment plan.

Key Columns:

- Assessable Items: Displays the assessable items that are part of the risk assessment plan.
- Risks: Displays the risks that are selected for the assessment in the plan.
- Assessment: Displays the **View** link. Click this link to open the [Risk Register Report](#).
- Owner Organizations: Displays the name of the organizations that own the risk assessment plan.
-

Ongoing Assessments Report

Use the **Ongoing Assessments** report to view and work on the ongoing risk assessment assignments.

This report shows records only if the logged-in user is the assessor for the assessments displayed.

Key Columns:

- Assess: Displays the ongoing assignment text as specified in the **Risk Assessment Plan** form and the identifier link to access the **Risk Assessment** form.
 - Drill down: [Risk Assessment Form](#)
- Risks: Name of the risk that is assessed.
- Additional Comments: Displays the **Additional Notes/Comments** provided in the **Additional Details** section of the **Risk Assessment** form.
- Inherent Rating: Displays the inherent rating of the risk being assessed. For example, the values can be High, Medium, and Low.

Note: The values and the color coding that is used for each of these values are configurable.

- Residual Rating: Displays the residual rating of the risk being assessed. The possible values are High, Medium, and Low.

Note: The color coding that is used for each of these values is configurable.

- Assessors: Displays the name of the assessors.
- Residual Trend: Displays the icon to indicate the trend.
 - Drill down: Click the icon to open **Historical Trend** window.
- Previous Assessment: Displays the **Show Prior** link if any assessment was performed before.
 - Drill down: Click the **Show Prior** link to view the Ongoing Assessment report for the previous assessment.

Risk Control Assessments Report

Use the **Risk Control Assessments Report** to view the details of control rating done as part of the risk assessments performed within a chosen perspective.

Only users with **RSK View Risk Assessment** or **RSK View All Risk Assessments** activity can view data in this report.

Key Columns:

- Risk Name: Displays the name of the risk.
 - Drill down: **Risk** form

For more information on **Risk** form, refer to the MetricStream Arno Release Spring '21 - Governance, Risks, and Compliance Foundation - User Guide.

- Control Name: Displays the name of the control.
 - Drill down: **Control** form

For more information on **Control** form, refer to the MetricStream Arno Release Spring '21 - Governance, Risks, and Compliance Foundation - User Guide.

- Key Control: Displays the value Yes or No.
- Control Score: Displays the computed control score.
- Control Mitigation: Individual scores for each of the mitigant factors associated with the risk that is assessed.

Control Rating Drill Down Report

Use the **Control Rating Drill Down** report to review the effectiveness of the controls on the assessed risks.

Key Columns:

- Control: Displays the name of the control as provided in the GRC library.
 - Drill down: **Control** form

For more information on **Control** form, refer to the MetricStream Arno Release Spring '21 - Governance, Risks, and Compliance Foundation - User Guide.

- Control Effectiveness: Displays the effectiveness of the control on the risk. For example, Partially Effective.
- Control Score: Displays the computed control score.
- Assessed Risk: Display the name of the assessed risk on which the control is applied.
 - Drill down: **Risk** form

For more information on **Risk** form, refer to the MetricStream Arno Release Spring '21 - Governance, Risks, and Compliance Foundation - User Guide.

- Assessment Details: Displays a clickable link named **View Assessment Details**.
 - Drill down: [Risk Assessment Plan Form](#)

Risk Aggregation Report

Use the **Risk Aggregation Report** to view the aggregated score and ratings for different dimensions in business hierarchies to analyze the impact of risk based on multiple dimensions such as functions, business unit or location.

Mandatory Filters:

- Perspective: Select the Perspective based on which the report details are narrowed down.
- Aggregate By: Select the option based on which the report details are grouped and aggregated.

Key Columns:

- Acronym: Displays the acronym used for the aggregation such as OR1, OAR1 or AR1. Acronyms are based on assessment types and these acronyms are displayed on the heat map zones.
- Dimension: Based on the user access, displays the highest dimension value based on the value selected in 'Aggregate By' filter.
- Inherent Rating: Displays the aggregated inherent score and its corresponding rating for the dimension value selected in 'Aggregate By' filter.
- Control Rating: Displays the aggregated Control score and its corresponding rating for the dimension value selected in 'Aggregate By' filter.
- Residual Rating: Displays the aggregated Residual score and its corresponding rating for the dimension value selected in 'Aggregate By' filter.

Comments History Report

The **Comments History** report is a standard tabular report that displays the entry of the form submission comments provided by various users during the approval workflow process. You can view the comments history by clicking  available in the upper-right corner of the form and selecting the **Comment History** link.

Key Columns:

- User Name: Displays the name of the user who has entered the comments.
- Comments: Displays the comments entered by the users.
- Comments Date: Displays the date on which the comments are entered.

Change History Report

The **Change History** report displays the list of changes made by the user during the approval workflow transition process. You can view the change history report by clicking  available in the upper-right corner of the form and selecting the **Change History** link.

Key Columns:

- Modified on: Displays the date on which the field is modified.
- Modified by: Displays the name of the user who modified the field.
- Type of Activity: Displays the activities such as update, deletion, and modification done on the forms.
- Section: Displays the name of the section that is updated by the previous user.
- Field Name: Displays the field that was modified.

Risk Aggregation Weight

Use the **Risk Aggregation Weight Report** to view the perspective assessment weight. Columns displayed in the report are based on the perspective Assessment type.

Mandatory Filters:

- Perspective: Select the Perspective based on which the report details are narrowed down.

Key Columns:

- Assign Weights To: Displays the combination of entities for which weights are assigned to.
- Assessed Item: Displays the Assessed Item for the
- Risk: Displays the Risk if present in the Assign Weight To.
- Weight: Displays the weight score specified for the assessments
- Active: Displays if the assessment is active or not.
- Actions: Displays **Edit** option, Click **Edit** to modify the weight assessment.

Risk Aggregation View

Use the **Risk Aggregation View Report** to view the list of all registrations for the Aggregation Views that are maintained in the system.

Key Columns:

- Registration Name: Displays the registration name for view you created.
- View Name: Displays the name for the view you created.
- Aggregate By: Displays the aggregated by value selected while creating the view.
- Apply Security: Displays if the view has security enabled or not.

Charts

A chart is a graphical representation of data, which allows you to view the interpretation of the data to understand and predict current and future data. The charts are available in the form of bar, line, and pie.

For more information on charts and dashboards, see [About Charts](#).

- [Risk Assessment Status Chart](#)
- [Inherent Risk Breakdown by Category Chart](#)
- [Residual Risk Breakdown by Category Chart](#)
- [Residual Risk Exposure Chart](#)
- [Open Issues by Issue Rating Chart](#)
- [Control Effectiveness Chart](#)
- [Residual Risk Trend Chart](#)

Risk Assessment Status Chart

The **Risk Assessment Status** chart is a bar chart.

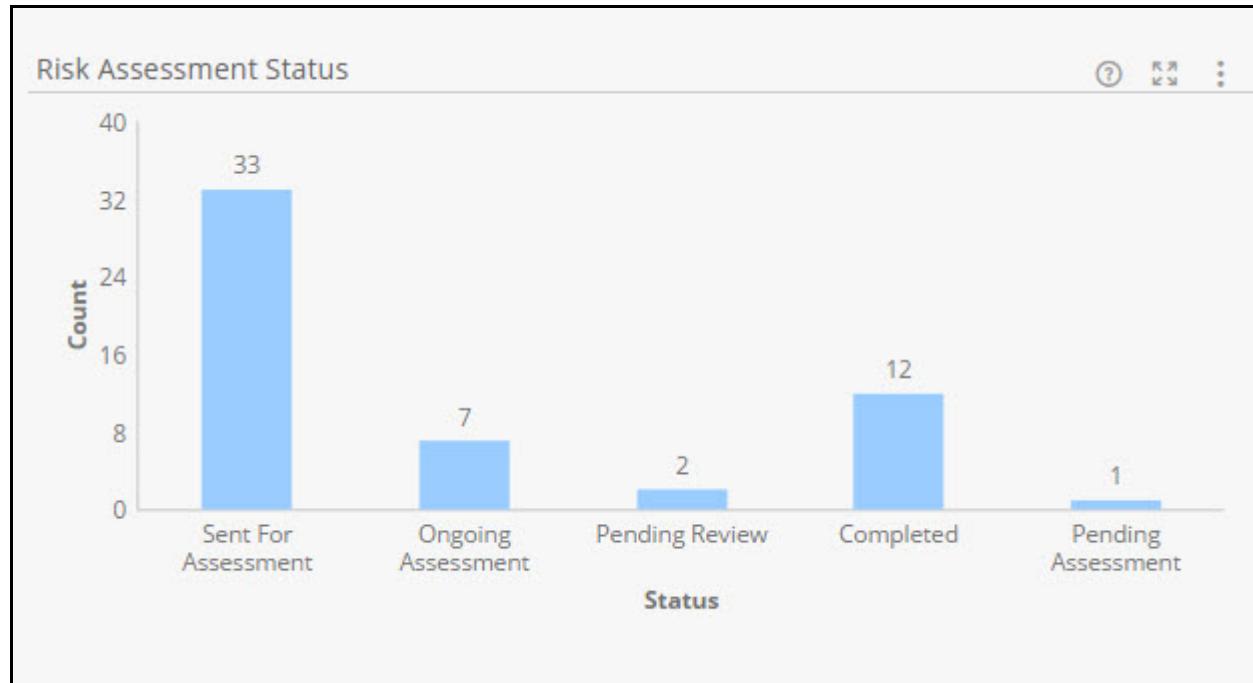


Figure 103 Risk Assessment Status Chart

Description	Drill down
This chart displays the count of assessments by status. Each data bar represents the number of risk assessment tasks in a particular status. Click the data bar to view the Risk Assessment Status Details Report. The report displays details of all the assessments based on the status.	Risk Assessment Status Details Report

Inherent Risk Breakdown by Category Chart

The **Inherent Risk Breakdown by Category** chart is a bar chart.

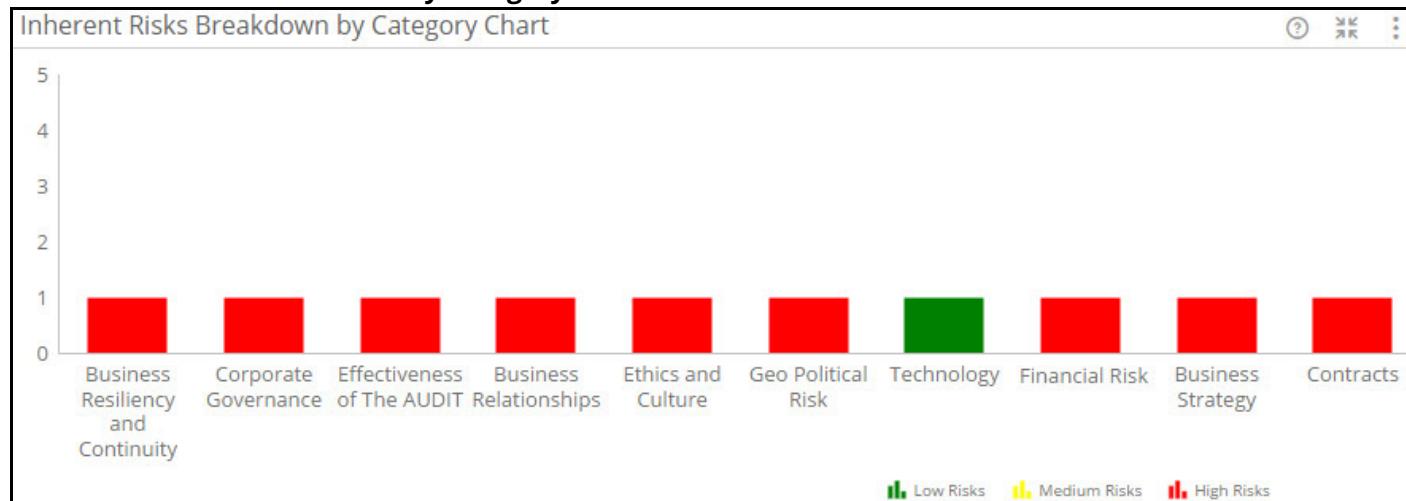


Figure 104 Inherent Risks Breakdown by Category Chart

Description	Drill down
<p>Each data bar represents the number of risks that fall into a particular inherent risk rating based on the risk category. The chart has information based on assessments performed using default perspectives. By looking at the dashboard, you can ascertain the number of Risks that fall into the low, medium, and high residual ratings.</p> <p>The ratings are color-coded. Red represents high-priority inherent risk rating, yellow represents medium inherent risk rating, and green represents low inherent risk rating. However, the ratings and the color coding are configurable.</p> <p>The axes represent the following:</p> <ul style="list-style-type: none"> X-axis: Risk categories Y-axis: Number of Risks 	Not applicable

Residual Risk Breakdown by Category Chart

The **Residual Risk Breakdown by Category** chart is a bar chart.

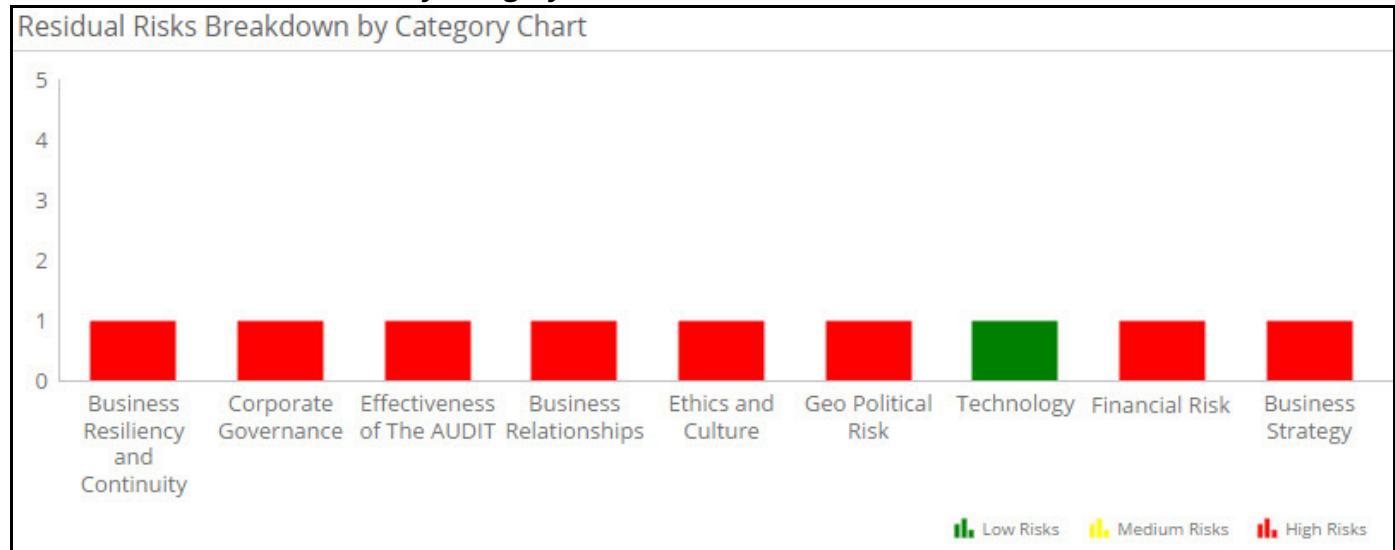


Figure 105 Residual Risk Breakdown by Category Chart

Description	Drill down
<p>Each data bar represents the number of risks that fall into a particular residual risk rating based on the risk category. The chart has information based on assessments performed using default perspectives. By looking at the dashboard, you can ascertain the number of risks that fall into the low, medium, and high residual ratings.</p> <p>The ratings are color-coded. Red represents high-priority inherent risk rating, yellow represents medium residual risk rating, and green represents low residual risk rating. However, the ratings and the color coding are configurable.</p> <p>The axes represent the following:</p> <ul style="list-style-type: none"> X-axis: Risk categories Y-axis: Number of Risks 	Not applicable

Residual Risk Exposure Chart

The **Residual Risk Exposure** chart is a bar chart.

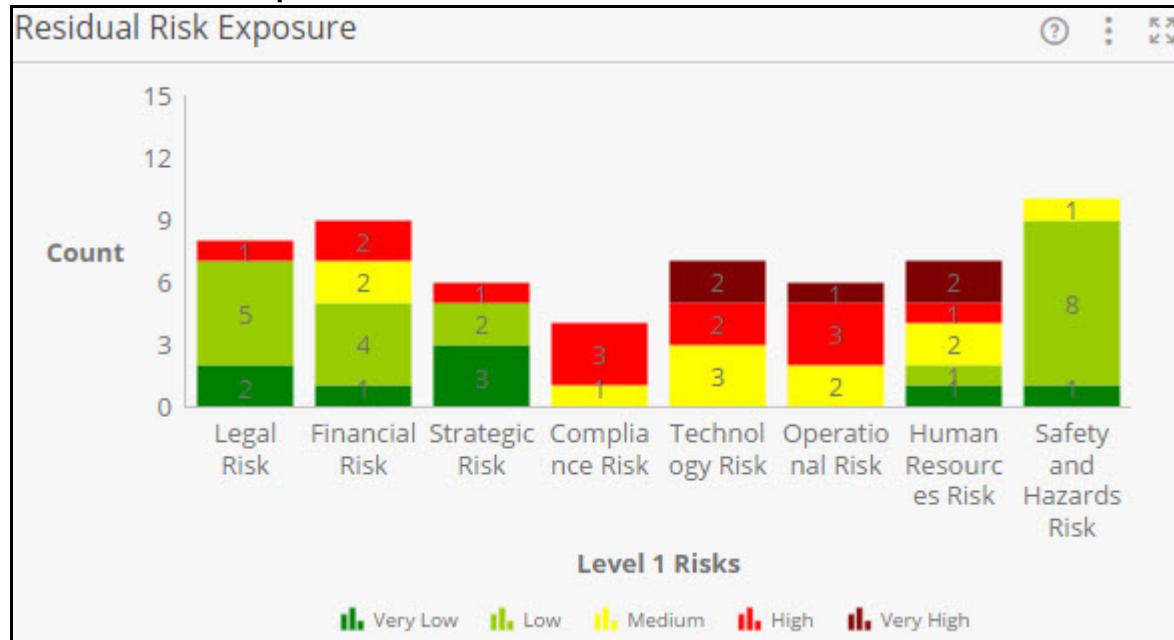


Figure 106 Risk Exposure Chart

Description	Drill down
Each data bar represents the count of the ratings of the child risks of each Level 1 Risk for a default perspective.	Risk Rating Details Report
<p>The risk ratings are color-coded. You can configure the color coding as per your requirement. The following are the color-coding representations:</p> <ul style="list-style-type: none"> Green - Risk ratings that are rated very low Light green - Risk ratings that are rated low Yellow - Risk ratings that are rated medium Red - Risk ratings that are rated high Dark red - Risk ratings that are rated very high 	
<p>The axes represent the following:</p> <ul style="list-style-type: none"> X-axis: Level 1 Risk Y-axis: Count of risks assessed for each rating within each Level 1 Risk 	

Open Issues by Issue Rating Chart

The **Open Issues by Issue Rating** chart is a bar chart.

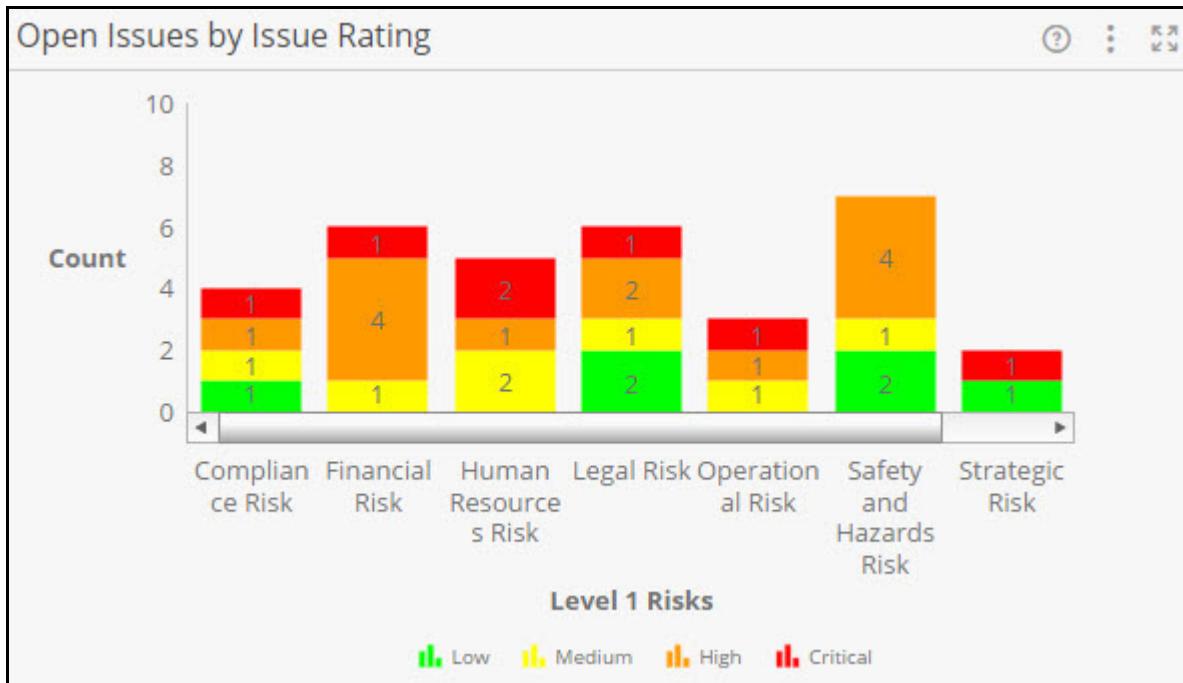


Figure 107 Open Risk Issues by Rating

Description	Drill down
<p>Each data bar represents the number of issue-risk combinations within that Level 1 Risk hierarchy. If a risk has multiple parents, the counts up equally to all its parents.</p> <p>The issue ratings are color-coded. You can configure the color coding and the rating according to your requirement. The following are the color-coding representations used in the preceding chart:</p> <ul style="list-style-type: none"> • Red - Issues that are rated critical. • Yellow - Issues that are rated high. • Orange - Issues that are rated medium. • Green - Issues that are rated low. <p>The axes represent the following:</p> <ul style="list-style-type: none"> • X-axis: Level 1 Risk • Y-axis: split of Open Issues related to the child level risks 	Issue Details report

Control Effectiveness Chart

The **Control Effectiveness** chart is a bar chart.

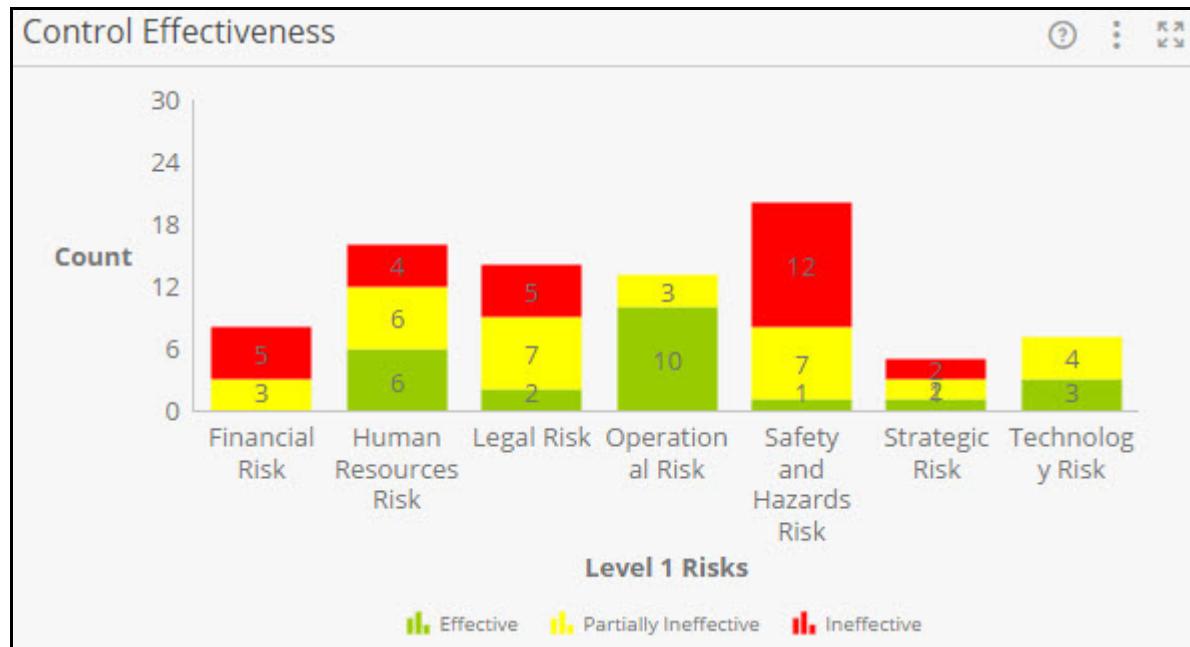


Figure 108 Control Effectiveness

Description	Drill down
<p>Each data bar represents the count of controls and effectiveness as per the level 1 risk. Only Library controls are considered. Ad hoc controls are not considered.</p> <p>The effectiveness of the control are color-coded. You can configure the color coding as per your requirement. The following are the color-coding representations:</p> <ul style="list-style-type: none"> • Green - Control is effective • Yellow - Control is partially effective • Red - Control is not effective <p>The axes represent the following:</p> <ul style="list-style-type: none"> • X-axis: Level 1 Risk • Y-axis: Count of controls by different rating that were rated as part of the child risk assessments. 	Control Rating Drill Down Report

Residual Risk Trend Chart

The **Residual Risk Trend** chart is a line chart.

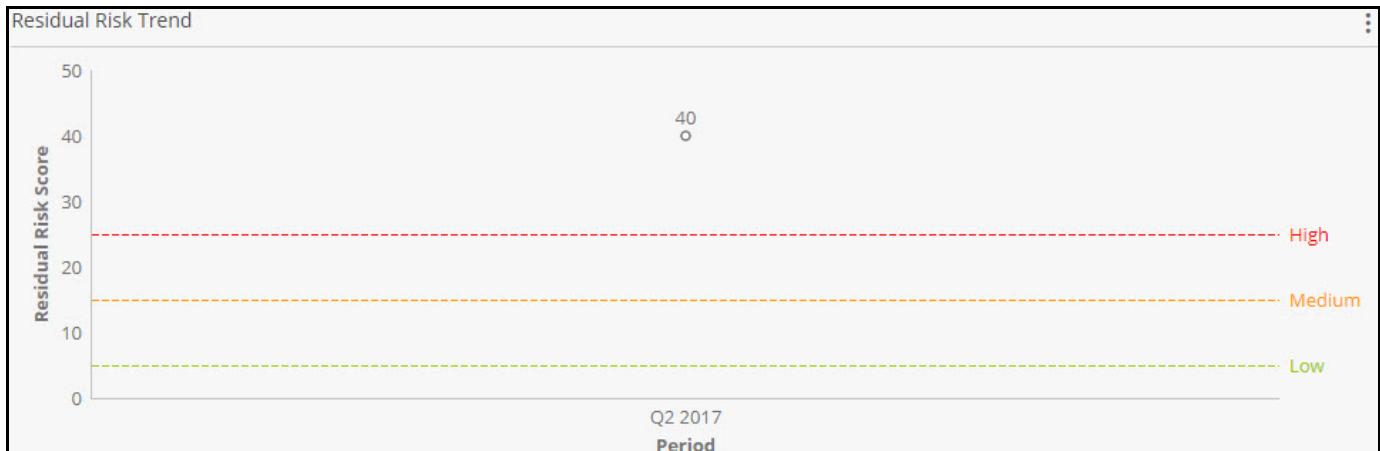


Figure 109 Residual Risk Trend

Description	Drill down
<p>The chart shows the trend of the residual risk scores for a period.</p> <p>The thresholds (configurable) are color-coded. You can configure the color coding. The following are the color-coding representations:</p> <ul style="list-style-type: none"> • Green - Low • Orange - Medium • Red - High <p>The axes represent the following:</p> <ul style="list-style-type: none"> • X-axis: Residual risk score • Y-axis: Period 	Not applicable

Appendix

This section provides information about additional features of **Risk Assessments**.

Sections:

- [Organization Structure](#)
- [My Tasks](#)
- [Clarification Assignments](#)
- [Data Browser and Explorer](#)
- [Hover Cards](#)
- [About Reports](#)
- [About Charts](#)
- [Activities](#)
- [Aggregation Logic](#)
- [Risk Aggregation Logic \(MDOS Roll-up report\)](#)
- [E-mail Notifications](#)
- [Field Types](#)
- [Restricted Special Characters](#)

Organization Structure

An organization structure can be single dimensional or multidimensional based on business units, geographical locations, lines of business, legal entities, accounts, projects or any other dimension.

Sample Organization Structure and Security Model

Consider an organization structure with two dimensions, organization and location.

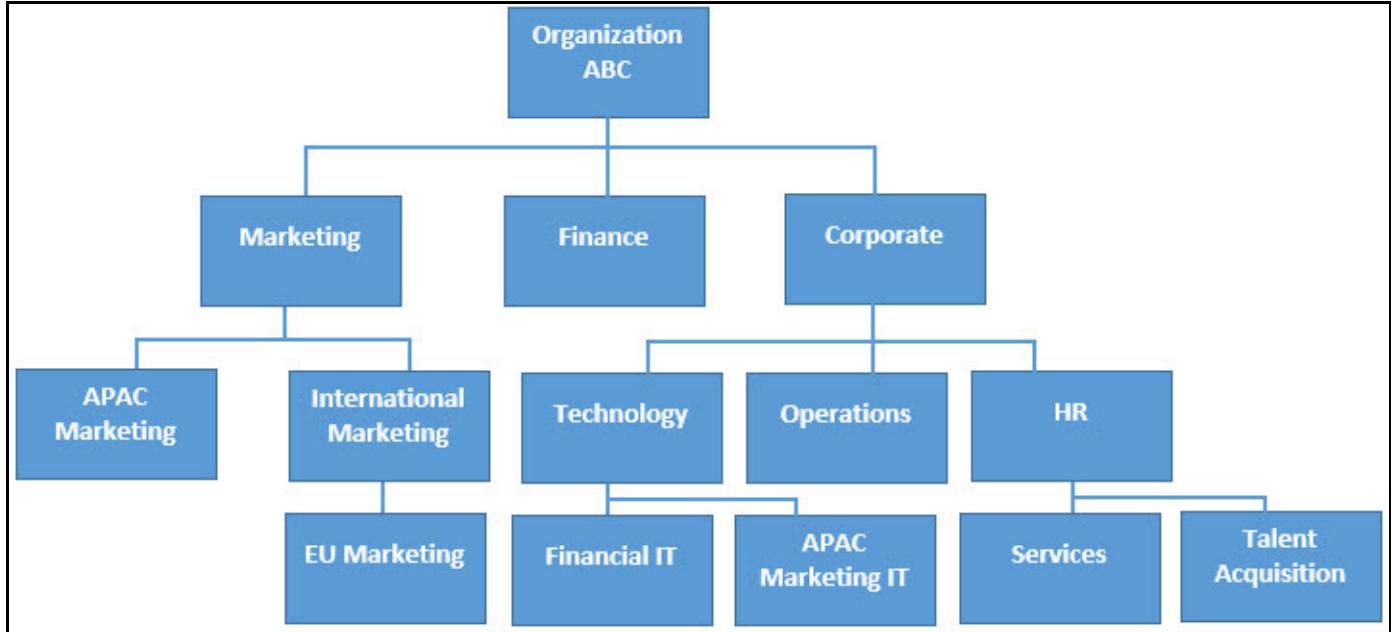


Figure 110 Sample Organization Function Structure

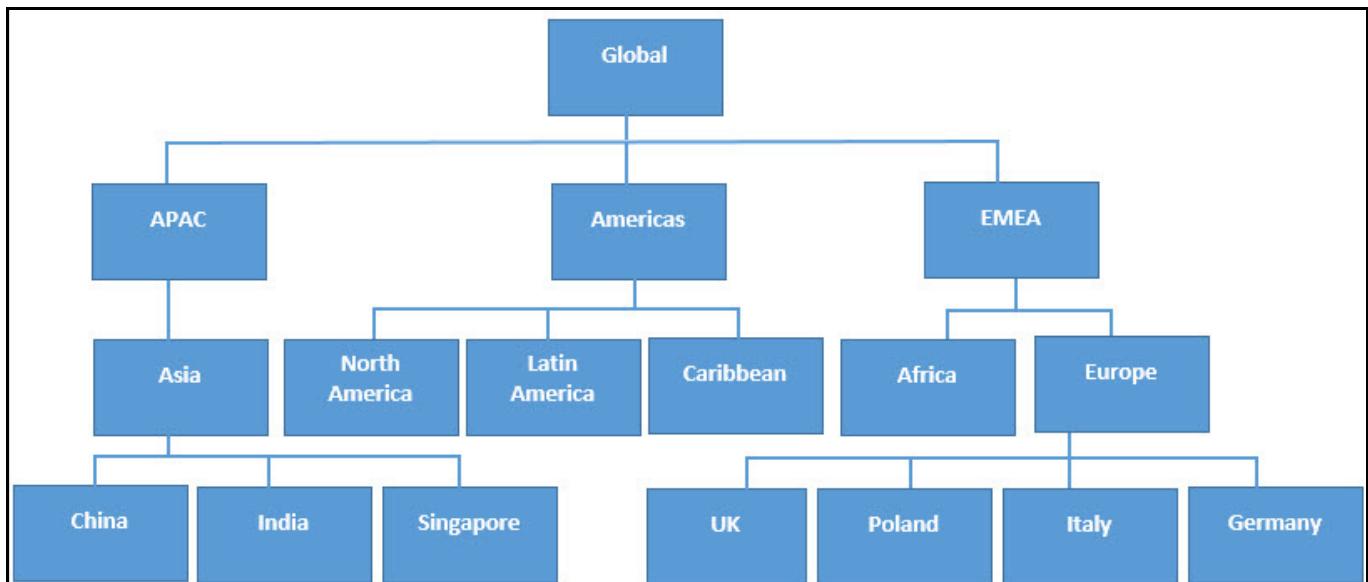


Figure 111 Sample Location Structure

Scenario 1:

Consider these:

1. Risk assessment is performed on the processes applicable to EU Marketing organization function for the location Germany.
2. Risk assessment plan is owned by Operations organization function, which is mapped to Europe location.
3. In the **Ownership and Security** section, the value selected in the **Restrict Access To** field is No Restriction.

Then:

- Users in the Operations - Europe organization with RSK Edit Risk Assessment Plan or RSK Edit All Risk Assessment Plans activity can be the owner of the risk assessment plan.
- Additionally, users with RSK Edit All Risk Assessment Plan or RSK Edit Risk Assessment Plans activity in the following organizations can be the owner of the risk assessment plan: Operations - EMEA, Operations - Global, Corporate - Europe, Corporate - EMEA, Corporate - Global, Organization ABC - Europe, Organization ABC - EMEA, and Organization ABC - Global.
- All users with RSK View All Risk Assessment Plan or RSK View Risk Assessment Plans activity for the risk assessment plan can view the plan irrespective of the organization they belong to.
- Users with RSK Assess Risks activity in the EU Marketing - Germany organization can perform the risk assessment.
- Additionally, users with RSK Assess Risks activity in the following organizations can perform the risk assessment: EU Marketing - Europe, EU Marketing - EMEA, EU Marketing - Global, International Marketing - Germany, International Marketing - Europe, International Marketing - EMEA, International Marketing - Global, Marketing - Germany, Marketing - Europe, Marketing - EMEA, Marketing - Global, Organization ABC - Germany, Organization ABC - Europe, Organization ABC - EMEA, and Organization ABC - Global.
- Users with RSK Approve Risk Assessments activity in the EU Marketing - Germany organization can approve the assessment.
- Additionally, users with RSK Approve Risk Assessments activity in the following organizations can approve the assessment: EU Marketing - Europe, EU Marketing - EMEA, EU Marketing - Global, International Marketing - Germany, International Marketing - Europe, International Marketing - EMEA, International Marketing - Global, Marketing - Germany, Marketing - Europe, Marketing - EMEA, Marketing - Global, Organization ABC - Germany, Organization ABC - Europe, Organization ABC - EMEA, and Organization ABC - Global.
- Users with RSK View All Risk Assessments or RSK View Risk Assessment activity in the plan owner's organization (Operations - Europe), its parent hierarchies, the assessed organization (EU Marketing - Germany), or its parent hierarchies can view the assessment.

Scenario 2:

Consider these:

1. Risk assessment is performed on the processes applicable to EU Marketing organization function for the location Germany.
2. Risk assessment plan is owned by Operations organization function, which is mapped to Europe location.
3. In the **Ownership and Security** section, the value selected in the **Restrict Access To** field is Owner Organization.

Then:

- Only users with RSK View Scheduled Risk Assessment activity in the following organizations can view the risk assessment plan: Operations - Europe, Operations - EMEA, Operations - Global, Corporate - Europe, Corporate - EMEA, Corporate - Global, Organization ABC - Europe, Organization ABC - EMEA, and Organization ABC - Global.

Note: The security model for the **Risk Assessment** form is same as that of Scenario 1.

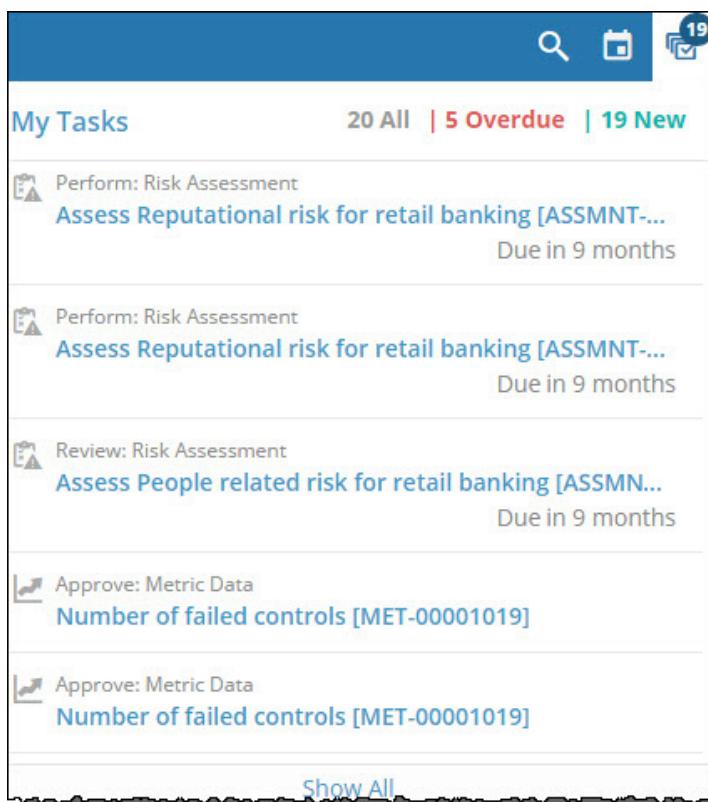
My Tasks

The **My Tasks** list displays all the tasks that are assigned to you for further action.

To access a task:

1. Move the mouse pointer over  at the upper-right corner of the page.

The **My Tasks** list appears with the tasks that are assigned to you.



My Tasks		
	20 All 5 Overdue 19 New	
	Perform: Risk Assessment Assess Reputational risk for retail banking [ASSMNT-...] Due in 9 months	
	Perform: Risk Assessment Assess Reputational risk for retail banking [ASSMNT-...] Due in 9 months	
	Review: Risk Assessment Assess People related risk for retail banking [ASSMN...] Due in 9 months	
	Approve: Metric Data Number of failed controls [MET-00001019]	
	Approve: Metric Data Number of failed controls [MET-00001019]	
Show All		

Figure 112 My Tasks List

The **My Tasks** list displays the following:

- Count of all the tasks appear in black. In the preceding figure, the total number of tasks are 20.
 - Count of tasks that have passed the due date appear in red. In the preceding figure, the total number of tasks that have passed the due date are 5.
 - Count of tasks that are new appear in blue. In the preceding figure, the total number of newly assigned tasks are 19.
 - All the tasks in an appropriate syntax for easy identification of the nature of task. These task assignments are clickable.
2. Click the task link.

The relevant form appears. You can review the details and perform the required action on the form.

If you want to view all the tasks, click the **Show All** link at the bottom of the **My Tasks** list.

You can search for the required task. You can also apply filters and narrow down the task based on the filter parameters.

For more information on My Tasks, refer to the MetricStream Arno Release Spring '21 - Platform - User Guide, My Tasks section.

Clarification Assignments

While working on the risk assessment forms, at most of the stages in the workflow, a user may send the form back for clarification/rework. The form is usually assigned to the previous user for rework. However, the user to whom the assignment is sent is based on the workflow defined in the product.

Sample assignment syntax:

The assignment syntax may vary according to the context and stage in which the form is sent for clarification.

Clarification Assignment Text	Clarified Assignment Text
Clarify: Risk Assessment Plan <i>Name of risk assessment Plan</i> [ID] Example: Clarify: Risk Assessment Plan Mitigation Assessment [SCHAMT-00001195]	Clarified: Risk Assessment Plan "Name of risk assessment Plan" [ID] Example: Clarified: Risk Assessment Plan Mitigation Assessment [SCHAMT-00001195]

When you access a task assignment for providing clarifications, the following options are available in the action tool bar:

- **Save:** Click this button to save the records of the form as a working draft without processing it to the next workflow stage
- **Submit Clarification:** Click this button to submit the clarified form to the next workflow stage.
- **Close:** Click this button to close the form.

Data Browser and Explorer

A data browser displays records in a hierarchical order. It enables you to navigate from one record to the other related records easily and perform actions assigned to these records.

The data explorer provides an organized mind-map data visualization. It allows you to quickly explore the records and understand the underlying relationship between these records.

Accessing Data Browser and Explorer

When you log on to the product, the data explorer icon and the data browser panel are available on the left side as a collapsed side bar widget. By default, the interactive Data Browser pane is always visible on the left side of all the navigated pages as shown in the following figure.

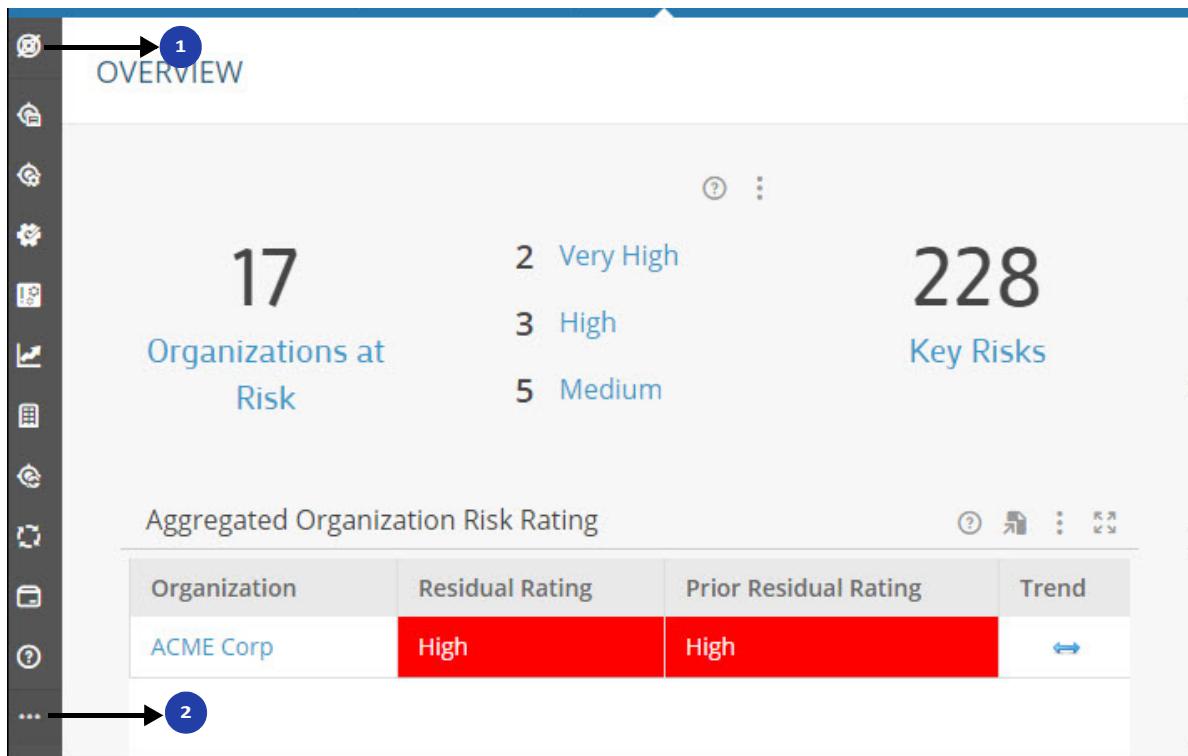


Figure 113 Accessing Data Browser and Explorer

The numbered callouts identify the following:

1. Data Explorer icon - Click to get started with the visualization of the data explorer.

Note: The data explorer can also be launched from the hover card. For more information on hover cards, see [Hover Cards](#).

2. Data Browser Panel - Click to expand the data browser and view the available content icons along with their names.

Viewing and Editing Records

You can navigate to the required forms and reports by clicking the links in the data browser and data explorer, and edit the record details, as required.

Data Explorer

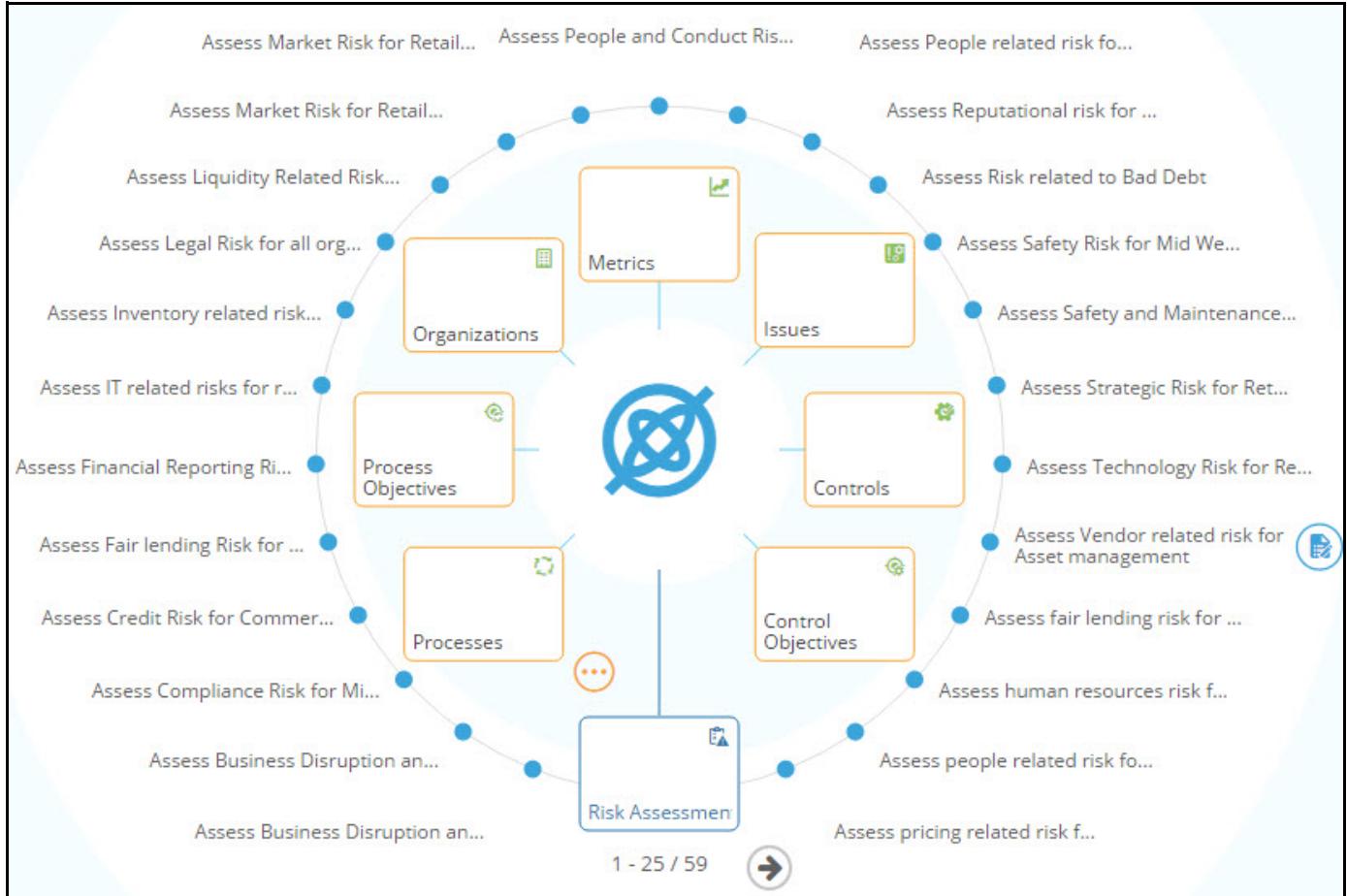
To view and edit a record using the data explorer:

1. Click  to launch the data explorer.



Figure 114 Data Explorer Home

2. Click the required item; for example, Risk Assessments.

**Figure 115** Data Explorer - Risk Assessment Records**Notes:**

- If an item is not visible, click and select content from the list.
 - The record is visible based the access right provided to you.
 - Risk Assessments option can be accessed through Organizations and assessable items such as Process, Auditable Entity, and so on also.
- 3. Click an item to further narrow down the view.**

The information provided in the view of data explorer is narrowed down to display the relationship framework options associated with that specific risk assessment record.

For example, assessments associated with 'Assess Technology Risk for Retail Banking' are shown in the following figure.



4. Move the mouse pointer over an item, and then click to open the respective form.

For more information on Data Explorer, refer to the MetricStream Arno Release Spring '21 - Platform - User Guide, Data Explorer section.

Data Browser

To view and edit records using the data browser:

1. Click to expand the data browser and view the available content icons along with their names.

The screenshot shows the MetricStream Arno interface. On the left, a dark sidebar titled "DATA BROWSERS" lists various categories with corresponding icons: Assets, Business Objectives, Control Objectives, Controls, Issues, Organization Weightage, Organizations, Process Objectives, Processes, Products, Qualitative Assessment Factors, Quantitative Assessment Factors, Risk Assessments (which is highlighted with a mouse cursor), and Risks. On the right, the "ENTERPRISE RISK OVERVIEW" section displays two charts: "Top Organizations at Risk (By Rolled Up Score)" and "Inherent Risks Breakdown by Category Chart".

2. Click Risk Assessments.

The risk assessment records in the system appear.

Note: Risk Assessments option can be accessed through Organizations and assessable items such as Process, Auditable Entity, and so on also.

The screenshot shows the MetricStream Risk Assessments module interface. On the left, there is a sidebar with various icons for navigation. The main area is divided into two sections: "RISK ASSESSMENTS" and "OVERVIEW".

RISK ASSESSMENTS:

- Count: 59 Items
- Filter: Reset Filters
- List of items:
 - > Assess Compliance Risk for Mid West Power
 - > Assess Credit Risk for Commercial Banking
 - > Assess Fair lending Risk for all sub organizations
 - > Assess Financial Reporting Risk for MidWest Power
 - > Assess IT related risks for retail banking
 - > Assess Inventory related risk for manufacturing industry
 - > Assess Legal Risk for all organizations in retail banking
 - > Assess Liquidity Related Risk for Retail

OVERVIEW:

Aggregated Organization Risk Rating

Organization	Residual Rating
ACME Corp	High

3. Click > to expand a record and view the related records.

The screenshot shows the MetricStream Arno Risk Assessments interface. On the left, there's a sidebar with various icons. The main area has two tabs: "RISK ASSESSMENTS" (selected) and "OVERVIEW".

RISK ASSESSMENTS Tab:

- Header: "RISK ASSESSMENTS" with a close button.
- Count: "59 Items".
- Filter: "Reset Filters".
- List of items:
 - Assess Compliance Risk for Mid West Power
 - ASSMNT-0000000023[21-MAR-17]
 - ASSMNT-0000000093[31-MAR-17]
 - Review the authorization and overall access security
 - Define process to record AR within one week
 - Review CRM system and ensure customer transaction data is recorded correctly
 - Cash receipts are not recorded to the correct customer account or are recorded in the wrong...
 - Assess Compliance Risk for Mid West Power

OVERVIEW Tab:

- Header: "OVERVIEW" with a close button.
- Key Metrics:
 - 17 Organization at Risk
 - 2 Very High
 - 3 High
 - 5 Medium
- Section: "Aggregated Organization Risk Rating"
- Table:

Organization	Residual Rating
ACME Corp	High

4. Click the required item to view and edit the details according to your requirements, and then submit the form. For more information on Data Explorer, refer to the MetricStream Arno Release Spring '21 - Platform - User Guide, Data Browser section.

Hover Cards

Hover cards are advanced data type fields that provides additional details about the field values that includes the full name, related items, related reports and a navigation button to data explorer. Using the hover cards, you can view context-specific information without opening multiple forms. In addition, you can launch the data explorer through hover cards.

Hover cards are displayed when you move the mouse pointer over certain fields.

Example:

The following figure shows a hover card that appears when you move the mouse pointer over the plan name in a report.

The screenshot shows a table titled "Risk Assessment Plans" with a header "Choose a Saved Layout". The table has two columns: "Plan ID" and "Plan Name". The "Plan Name" column contains three entries, each with a blue link: "Assess Legal Risk for all organizations in retail banking". A mouse cursor is hovering over the first link, which triggers a detailed "hover card" overlay. The overlay is divided into sections: "RISK ASSESSMENT PLAN" with the title "Assess Legal Risk for all organizations in retail banking", "RELATIONSHIPS" with two associated items ("ASSMNT-0000000011[21-MAR-17]" and "ASSMNT-0000000072[31-MAR-17]"), and a "View" button followed by descriptive text: "Enterprise Business Unit - Risk (Scoring Algorithm and Rating Method)".

For more information on hover cards, refer to MetricStream Arno Release Spring '21 - Governance, Risk, and Compliance Foundation - User Guide.

About Reports

A report is a tabular representation of meaningful data, which you can use to make informed decisions. It normally consists of multiple columns.

Most of the reports provide filters. Using the filters, you can search for specific records and view the report based on the search results.

The following reports can be viewed by:

- Users who are part of the assessed organization and its parent organizations with RSK View Risk Assessment activity.
- User with RSK View All Risk Assessments activity irrespective of their organizations.
 - [Risk Assessment Status Details Report](#)
 - [Inherent Risk Breakdown by Category Report](#)
 - [Residual Risk Breakdown by Category Report](#)
 - [Risk Register Report](#)
 - [Risk Control Assessments Report](#)
 - [Heat Map by Risks Directly Assessed](#)
 - Drill-down reports from the preceding reports

Note: This security logic is applicable only for Org-Assessable Item-Risk and Org-Risk assessment types. For Assessable Item-Risk assessment type, the report security is based on the RSK View Risk Assessment activity.

Accessing Reports

You can access the reports by clicking specific links within an infoport or forms. However, some reports are directly displayed in the infoport. To access such reports, navigate to the required infocenter, infoport. Example: You can access the **Risks Assessment Plans** report by clicking **Enterprise Risk, Risk Assessments**.

Accessing Reports Through Links Within Infoports

Click **Enterprise Risk Overview, Reports (Key Reports)** and click any Report Link as shown in the following figure.

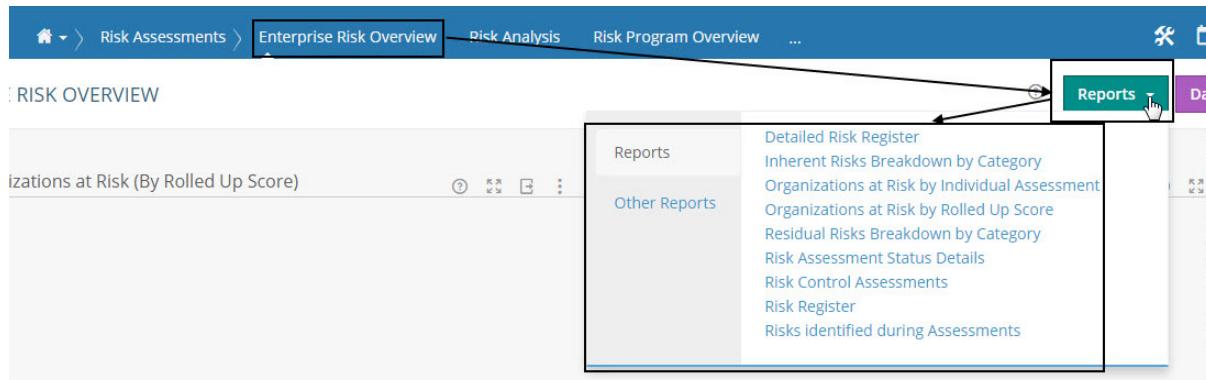


Figure 116 Accessing Reports Through Links Within Infoports

The selected report appears.

Accessing Reports Through Links Within Forms

Click  and click any Report Link in the required form, as shown in the following figure.

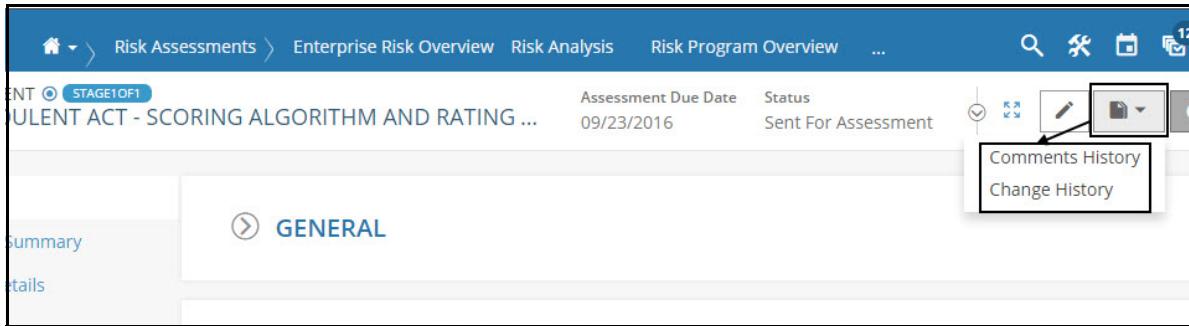


Figure 117 Accessing Reports Through Links Within Forms

The selected report appears.

Filters

Use the report filters to display only the required data in the report. These filters help you narrow down your search and refine the output of reports. By default, the filters are displayed on the left side of a report as shown in the following figure.

RISK REGISTER

Choose a Saved Layout ▾

Hide Filters

! Filter(s) marked in red are mandatory

Perspectives *

Assessed Item Type

Assessable Items

Risk Hierarchy

Organizations

Risks

Apply Filters **Cancel**

Figure 118 Report Filters

Note: If the report consists of any mandatory filters, the filters window appears along with the report. The report appears blank. Otherwise, the filters window is hidden and the report appears with details. You can access the filters window by clicking the **Show Filters** button.

1. Enter the required data in one or more filters.

The following types of parameters are available in the filters:

- Mandatory filters: You must provide data in mandatory filters.
- Optional filters: You can provide data in the optional filters or leave them blank, as required.

Notes:

- You can enter search criteria in all the filters or just a few of them, as required. The product applies an "AND" condition to all the filter criteria that you enter.
- If you click the **Apply Filters** button without entering any data in any of the filters, provided there are no mandatory filters, the report retrieves one or more existing records from the product.
- Click the **Cancel** button to clear the entered data.

2. Click the **Choose a Saved Layout** link to save the details in to an existing saved layout or save the details in to a new layout.
3. Type a name for your search and click **Save** to the save the filter data in to a new layout.
The next time you open the filters, the saved layout name is available for selection in the saved layouts list.
4. Click the **Apply Filters** button to submit the filters.
The report retrieves the records based on the data entered in the filters.

Display/Hide Columns in Reports

You can also filter the columns that you want to view or hide in the reports.

To view or hide columns:

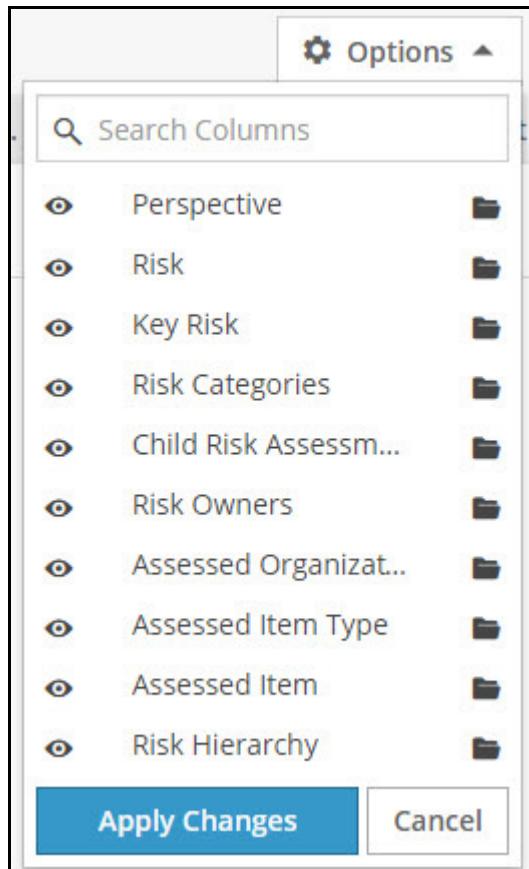
1. Click **Options** button in the report.

The list of columns appears. The list of columns appears based on the current report.



A screenshot of the 'RISK REGISTER' report interface. At the top left, there's a 'Choose a Saved Layout' dropdown. On the right side, there are various report controls: a timestamp ('4 minutes ago'), a refresh icon, and icons for print and download. Below these controls is a large 'Options' button with a gear icon and a dropdown arrow. The main content area shows a table with several columns. The first column has dropdown arrows for 'Perspective' and 'Risk'. The second column contains the value 'AUDPerspective' and 'AUDRisk'. The third column has dropdown arrows for 'Key Risk' and 'Assessed Item...'. The fourth column has dropdown arrows for 'Auditable Entity' and 'Assessed Item'. The fifth column has dropdown arrows for 'Risk Hi...' and 'Level'. The sixth column is partially visible.

The list of columns appears based on the current report, as shown in the following figure. The **Options** list in the **Risk Register** report is shown as an example here.



By default, all column names are listed in the **Options** list.

2. Click to hide the required column in the report. Then toggles to .
3. Click to make the column appear again in the report.

Note: You can hide any number of columns as per your requirement.

4. Click the **Apply Changes** button to apply the changes.

For more information on report options, column options, report views, export options, and pagination, refer to MetricStream Arno Release Spring '21 - Platform - User Guide, Reports.

About Charts

A chart is a graphical representation of data in which the data is represented by symbols, such as bars in a bar chart, lines in a line chart, or slices in a pie chart.

The following chart details can be viewed by:

- Users who are part of the assessed organization and its parent organizations with RSK View Risk Assessment activity.
- User with RSK View All Risk Assessments activity irrespective of their organizations.
 - [Risk Assessment Status Chart](#)
 - [Inherent Risk Breakdown by Category Chart](#)
 - [Residual Risk Breakdown by Category Chart](#)
 - [Residual Risk Exposure Chart](#)
 - [Control Effectiveness Chart](#)
 - Drill-down reports from the preceding charts

Note: This security logic is applicable only for Org-Assessable Item-Risk and Org-Risk assessment types. For Assessable Item-Risk assessment type, the chart security is based on the RSK View Risk Assessment activity.

Charts enable you to make informed decisions.

- You can access chart by clicking **Enterprise Risk Overview**, click **Dashboards** and click any Chart Link as shown in the following figure.

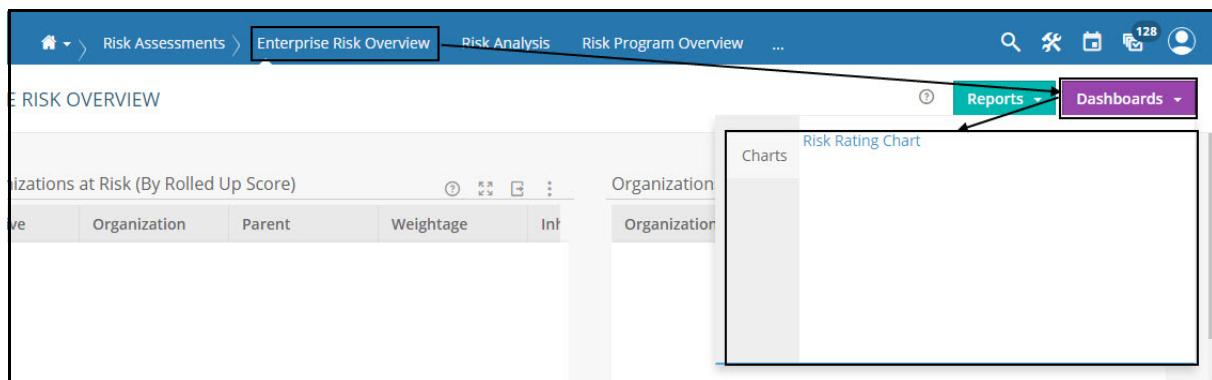


Figure 119 Accessing Charts Through Links

and/or

- You can access charts from the infocenter as shown in the following figure.

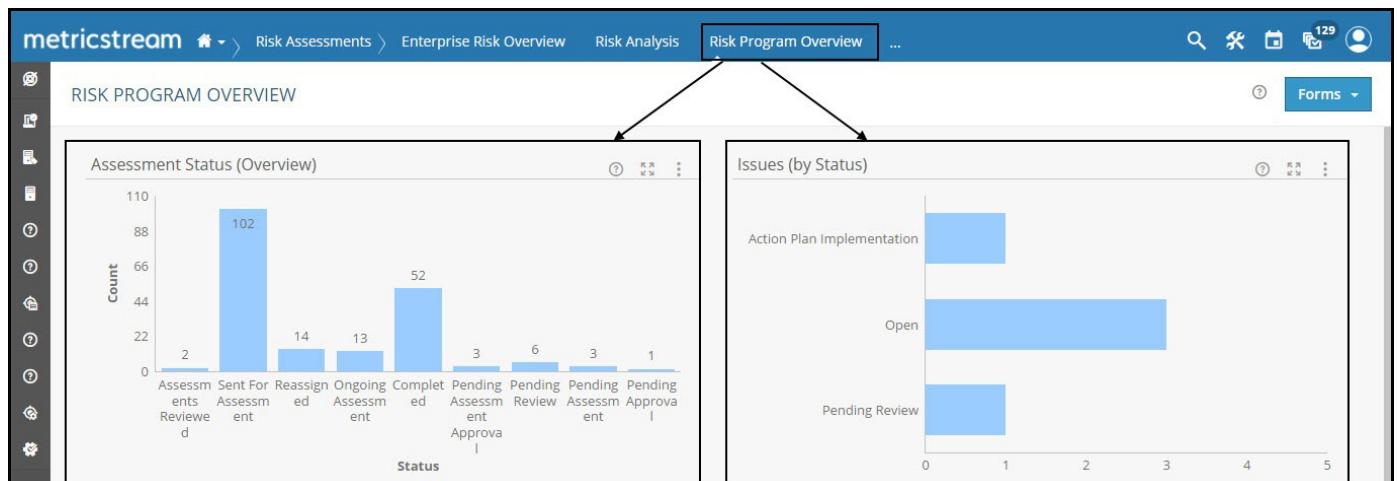


Figure 120 Accessing Charts Through Infocenter

Chart Drill Downs

The drill-down option enables you to view associated charts and reports from the current chart. Move the pointer over the data in the chart. If the pointer changes to a hand symbol, it is an indication that there is a drill-down available. When you click, the drill-down chart or report appears.

For more information on report options, column options, report views, export options, and pagination, refer to MetricStream Arno Release Spring '21 - Platform - User Guide, Dashboards.

Activities

An activity is a privilege provided to users to perform specific actions. The following table provides the list of activities along with their description.

Activity Name	Users with This Activity Can
RSK Manage Setup	Users with this activity can view, create, and edit all the risk assessment setup forms such as risk assessment profile, perspective, scoring algorithm.
RSK Manage Risk Factors	Users with this activity can view, create, and edit all the qualitative and quantitative assessment factors.
RSK View All Risk Assessment Plans	Users with this activity can view all the risk assessment plans in the system.
RSK View Risk Assessment Plan	Users with this activity can view all the non-restricted Risk Assessment Plans and those that belong to the user's own organization and its child organizations.
RSK Edit All Risk Assessments Plans	Users with this activity can edit the non-restricted Risk Assessment Plans and the ones that belong to the user's own organization and its child organizations.
RSK Edit Risk Assessment Plan	Users with this activity can edit all the Risk Assessment Plans.
RSK Approve Risk Assessment Plan	Users with this activity can approve risk assessment plans assigned to them.
RSK Assess Risks	Users with this activity can assess risk assessments assigned to them.
RSK Approve Risk Assessments	Users with this activity can approve risk assessments assigned to them.
RSK View Risk Assessment	Users with this activity can view all the risk assessments that belong to the user's own organization and its child organizations.
RSK View All Risk Assessments	Users with this activity can view all the risk assessment plans in the system.

Aggregation Logic

This section describes the aggregation logic for assessing risks. During aggregation, if the final score is in decimal format, it should be rounded off based on the decimal configuration. Consider the value as 10.248 and if the decimal configuration is set to 2 then the value, then based on the decimal configuration the value will be 10.25. Similarly, if the decimal configuration is set to 0 then values will display as 10.

The following table describes the individual assessment and rollup logic for different methodologies.

Methodology	Individual Assessment Logic	Rollup Logic
Risk Scoring Algorithm	Risk score is calculated based on the risk scoring algorithm (formula) and the rating is based on the score range defined in the Heat Map Scale of Profile form.	<ul style="list-style-type: none"> If the Risk Assessment form has only one risk, then same score is rolled up to its Assessable Item and Org. If the Risk Assessment form has multiple risks, then the score is calculated by taking the average of all the risks and it is rolled up to its Assessable Item and Org. If there are multiple Assessable Items, then the scores of each assessable item is calculated, and the average score of all assessable items is calculated and this score is rolled up to Org.
Rating	Rating is based on the intersection of factor response in the risk matrix configuration section of profile form.	Not applicable
Scoring and Rating	The risk rating and the risk score are calculated from the intersection of the factor responses in the risk matrix configuration section of profile form.	<ul style="list-style-type: none"> If the Risk Assessment form has only one risk, then the same score is rolled up to its Assessable Item and Org. If the Risk Assessment form has multiple risks, then the score is calculated by taking the average of the two factors across all the risks. Rating is based on the coordinates intersection in the risk matrix configuration section of profile form. The score and rating are rolled up to Assessable Item and Org. Similarly, when there are multiple Assessable Items, then rollup of each assessable item is calculated. For organization level rollup, all the risks in assessable items are considered and the average of the factors is calculated. The rating is based on risk matrix configuration.

Methodology	Individual Assessment Logic	Rollup Logic
Ranking and Rating	The risk rating and the risk score are calculated from the intersection of the factor responses in the risk matrix configuration section of profile form.	<ul style="list-style-type: none"> If the Risk Assessment form has only one risk, then the same score is rolled up to its Assessable Item and Org. If the Risk Assessment form has multiple risks, then the score is calculated by taking the average of the two factors across all the risks. Rating is based on the coordinates intersection in the risk matrix configuration section of profile form. The score and rating are rolled up to Assessable Item and Org. Similarly, when there are multiple Assessable Items, then rollup of each assessable item is calculated. For organization level rollup, all the risks in assessable items are considered and the average of the factors is calculated. The rating is based on risk matrix configuration section of profile form.
Scoring Algorithm and Rating	Score is based on the risk scoring algorithm and the rating is based on intersection of the two factor responses in the risk matrix configuration section of profile form.	<ul style="list-style-type: none"> If the Risk Assessment form has only one risk, then the same score is rolled up to its Assessable Item and Org. If the Risk Assessment form has multiple risks, then the score is calculated by taking the average of all the risks and same is rolled up to its Assessable Item and Org. Rating is calculated by taking the average of the two factors across all the risks. The score and rating are rolled up to the Assessable Item and Org. If there are multiple Assessable Items, the scores of each assessable item is calculated, and then the average score of all assessable items is calculated. This score is rolled up to Org. Rating is calculated by taking the average of the two factors across all the risks in all the assessable items.

Note: In the examples and calculations provided in this section, Average is used as the logic.

Logic for Score Aggregation

- The aggregation logic applies to all assessable items.
- The child risks aggregates (by average logic) only to those parent risks that are active and have not expired.

- Risk scores and rating aggregate to the organizational hierarchy based on the weight given to each of them.
- If an organization is inactive, then all the scores applicable for that organization and its children, including those for processes and risks have to be excluded. In this case, aggregation must not consider the scores of those risks and assessable items that are related to the inactive organizations.
- If the assessable item is inactive, then all the scores applicable for the assessable item and its children, for example, risks for that assessable item, and its children must be excluded. In this case, aggregation must not consider the scores of those risks that are related to the inactive assessable Items.
- For Org-Assessable Item-Risk type of risk assessment, when the assessable item is inactive, or has no score, then the score must not move up to the organization level.
- If the assessed risk has multiple parent risks, and if one of the parents is inactive, then the score is aggregated only to the active parent risks.
- The assessed risk score does not aggregate to the parent risk if all parent risks are inactive.
- When risk score is overridden, overridden scores are considered for aggregation.
- When the assessable item or organization score is overridden in the assessment, the overridden scores are not considered in the score aggregation of assessable item/organization. The score aggregated from the risk are considered at assessable item and org levels.
- If a parent risk is directly assessed, and also has aggregated scores from the child risks, then the system considers the combination of the aggregated score and the directly assessed score. Average of the child risks is calculated first, and then averaged with the directly assessed score of the parent risk.
- If there is weight provided for organizations, then the weight is also considered at the time of score aggregation. The score aggregation logic is as follows: Average of weighted scores of the child organizations and the actual score of the parent organization. Then the parent organization weight is applied on top of the calculated score to arrive at the final weighted aggregation score for the parent organization.
- If an ad hoc library risk is added from GRC Library during assessment, then the actual hierarchy of the risk is considered. The aggregation happens based on the hierarchy. The score of the newly added library risk is considered for aggregation to the assessable item and organization levels.
- If an ad hoc risk is added, but not from the GRC Library during the assessment, then it is considered as a level 1 risk by default. The score of the newly added risk is considered for roll up to assessable item and organization levels.

Note: Score aggregation is unavailable if the selected organization structure has multiple dimensions or if the residual assessment is based on inherent vs. control.

Roll Up Logic-All Risk Hierarchy Levels Active

The following scenarios explain the score aggregation logic when the risks at all hierarchy levels are active.

- [Case 1: Risk with Multiple Parents - Using Risk Matrix Configuration](#)
- [Case 2: Risk with Multiple Parents - Using Risk Scoring Algorithm](#)

Case 1: Risk with Multiple Parents - Using Risk Matrix Configuration

The following figure showing the expected behavior while rolling up the risk hierarchy when a risk has multiple parents. This shows an example of assessment done using Risk Assessment Matrix.

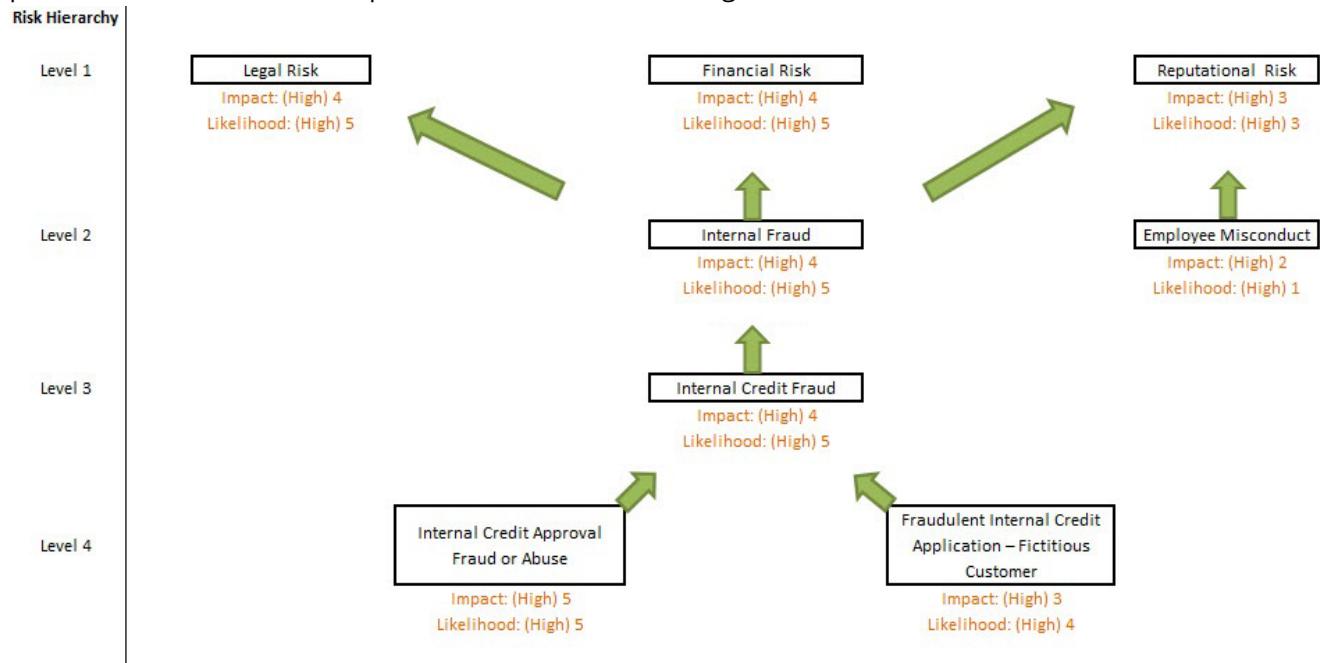


Figure 121 Expected behavior while rolling up the risk hierarchy based on risk matrix configuration methods when a risk has multiple parents

The following table describes the risk at various hierarchical levels.

Risk Name	Level	Status	Assessment Details
Internal Credit Approval Fraud or Abuse	Level 4	Active	Directly assessed as it is the lowest level child risk
Fraudulent Internal Credit Application-Fictions Customer	Level 4	Active	Directly assessed as it is the lowest level child risk
Internal Credit Fraud	Level 3	Active	Average of risks that are directly assessed at level 4 (Internal Credit Approval Fraud or Abuse and Fraudulent Internal Credit Application-Fictions Customer) rolls up to risk at level 3 (Internal Credit Fraud)
Internal Fraud	Level 2	Active	Risk score at level 3 (Internal Credit Fraud) rolls up to level 2 (Internal Fraud) as Internal Credit Fraud is the only child of Internal Fraud
Employee Misconduct	Level 2	Active	Directly assessed as it is the lowest level child risk
Legal	Level 1	Active	Risk score at level 2 (Internal Fraud) rolls up to level1 (Legal Risk) as Internal Fraud is the only child of Legal Risk
Financial	Level 1	Active	Risk score at level 2 (Internal Fraud) rolls up to level1 (Financial Risk) as Internal Fraud is the only child of Financial Risk

Risk Name	Level	Status	Assessment Details
Reputational	Level 1	Active	Average of risk scores at level 2 ('Internal Fraud' that has rolled up score and 'Employee Misconduct' that has directly assessed score) rolls up to risk at level 1 (Reputational Risk).

Score Aggregation Logic - Methodologies Based on Risk Matrix Configuration

For methodologies based on Risk Matrix Configuration, the score aggregation is based on the factors in the inherent and residual sections.

- Final impact score is the average of Impact scores of risks/assessable items/organization at the child levels
- Final likelihood score is the average of likelihood scores of risks/assessable items/organization at the child levels
- Final Inherent Score and Rating is the intersection of the factor responses (arrived using final impact score and final Likelihood score) in the risk matrix configuration of Profile form
- Final Residual Score and Rating is the intersection of the factor responses (arrived using final impact score and final Likelihood score) in the risk matrix configuration.

The aggregation of score occurs only when there are scores; it cannot happen based on rating or rank alone. The aggregation of score starts from the lowest hierarchical level and moves up to the parent level till the top-level parent is reached.

Calculation logic:

Consider the child risks at the lowest hierarchical levels. The scores of the child risks are arrived at based on the direct assessment done on the child risks.

Score for Internal Credit Approval Fraud or Abuse (child risk at level 4) from direct assessment

- Impact score of **Internal Credit Approval Fraud or Abuse** = 5
- Likelihood score of **Internal Credit Approval Fraud or Abuse** = 5
- Residual score of **Internal Credit Approval Fraud or Abuse** = 25

Score for Fraudulent Internal Credit Application - Fictitious Customer (level 4 risk) from direct assessment

- Impact score of **Fraudulent Internal Credit Application - Fictitious Customer** = 3
- Likelihood score of **Fraudulent Internal Credit Application - Fictitious Customer** = 4
- Residual score of **Fraudulent Internal Credit Application - Fictitious Customer** = 12

Score for Internal Credit Fraud (level 3 risk)

The child risks for **Internal Credit Fraud (level 3 risk)** are **Internal Credit Approval Fraud or Abuse** and **Fraudulent Internal Credit Application - Fictitious Customer**. No direct assessment is done on **Internal Credit Fraud** (level 3 risk).

The aggregated score for the parent risk is calculated by averaging the scores of the active child risks.

Aggregated Impact/Likelihood/Residual scores for **Internal Credit Fraud** (level 3 risk) = Rounded off average score values of Impact/Likelihood/Residual of **Internal Credit Approval Fraud or Abuse** (child risk at level 4) and **Fraudulent Internal Credit Application - Fictitious such as Customer** (child risk at level 4).

- Aggregated Impact score of **Internal Credit Fraud** = $(5+3)/2=4$

- Aggregated Likelihood score of **Internal Credit Fraud** = $(5+4)/2=4.5$, which is rounded off to 5.
- Aggregated Residual score of **Internal Credit Fraud** = $(25+12)/2=18.5$, which is rounded off to 19.

Summary

The final risk score of **Internal Credit Fraud** (level 3 risk) is rolled up from the child risks' scores as no direct assessment is done on **Internal Credit Fraud** (level 3 risk).

Scores for Internal Fraud (level 2 risk)

The only child risk for **Internal Fraud** (level 2 risk) is **Internal Credit Fraud** (level 3 risk) and no direct assessment is done on **Internal Fraud** (level 2 risk). Hence the score of **Internal Credit Fraud** for Impact/Likelihood/Residual is carried to **Internal Fraud**.

- Impact score of **Internal Fraud** =4
- Likelihood score of **Internal Fraud** = 5
- Residual score of **Internal Fraud**=19

Scores for Employee Misconduct (level 2 risk)

Employee Misconduct is another risk at level 2, which does not have any child risks and is assessed directly. The direct assessment scores are as follows:

- Impact score of **Employee Misconduct** =2
- Likelihood score of **Employee Misconduct**= 1.
- Residual score of **Employee Misconduct** =2.

Now, let us consider the parent risks at the highest level.

Legal Risk, **Financial Risk**, and **Reputational Risk** are the parent risks at the highest level.

Score of Legal Risk (Level 1 Risk)

Legal Risk (level 1 risk) has only one child risk called **Internal Fraud** (level 2risk); no direct assessment is done on **Legal Risk**. Hence the score of **Internal Fraud** (level 2risk) is carried to **Legal Risk**.

- Impact score of **Legal Risk** =4
- Likelihood score of **Legal Risk** = 5
- Residual score of **Legal Risk** =19

Scores for Legal Financial Risk (level 1 Risk)

Financial Risk (level 1 risk) has only one child risk called **Internal Fraud** (level 2risk); no direct assessment is done on **Financial Risk**. Hence the score of **Internal Fraud** (level 2risk) is carried to **Financial Risk**.

- Impact score of **Financial Risk** =4
- Likelihood score of **Financial Risk** = 5
- Residual score of **Financial Risk** =19

Score for Reputational Risk (level 1 Risk)

Reputational Risk (level 1 risk) has two child risks called **Internal Fraud** (level 2risk) and **Employee Misconduct** (level 2risk); no direct assessment is done on **Reputational Risk** (level 1 risk).

The aggregated score for the parent risk is calculated by averaging the scores of the active child risks.

Aggregated Impact/Likelihood/Residual scores for **Reputational Risk** (level 1 risk) = Rounded off average score values of Impact/Likelihood/Residual of **Internal Fraud** (level 2 risk) and **Employee Misconduct** (level 2 risk).

Aggregated Impact score of Reputational Risk = $(4+2)/2=3$

Aggregated Likelihood score of Reputational Risk = $(5+1)/2=3$

Aggregated Residual score of Reputational Risk = $(19+2)/2=10.5$, which is rounded off to 11.

The final risk score of **Reputational Risk** (level 1 risk) is rolled up from the child risks' scores as no direct assessment is done on **Reputational Risk** (level 1 risk).

The following figure shows the expected behavior while rolling up the organization hierarchy. This shows an example of assessment using one of the methodologies from Risk Assessment Matrix.

Corporate		Impact: (High) 4 Likelihood: (High) 5 Residual: 13	Average of Impact, Likelihood, Inherent and Residual Scores from BU 1 and BU 2
	BU 1	Impact: (High) 3 Likelihood: (High) 3 Residual: 11	Average of Impact, Likelihood, Inherent and Residual Scores from BU 1.1 and BU 1.2
	BU 1.1	Impact: (High) 4 Likelihood: (High) 5 Residual: 19	
	BU 1.2	Impact: (High) 2 Likelihood: (High) 1 Residual: 2	
BU 2		Impact: (High) 4 Likelihood: (High) 4 Residual: 15	Average of Impact, Likelihood, Inherent and Residual Scores from BU 2.1 and BU 2.2
	BU 2.1	Impact: (High) 5 Likelihood: (High) 5 Residual: 25	
	BU 2.2	Impact: (High) 2 Likelihood: (High) 2 Residual: 4	

Figure 122 Expected behavior while rolling up the organization hierarchy when risks at all hierarchy levels are active

Case 2: Risk with Multiple Parents - Using Risk Scoring Algorithm

The following figure shows the expected behavior while rolling up the risk hierarchy when a risk has multiple parents. This shows an example of assessment done using risk scoring algorithm.

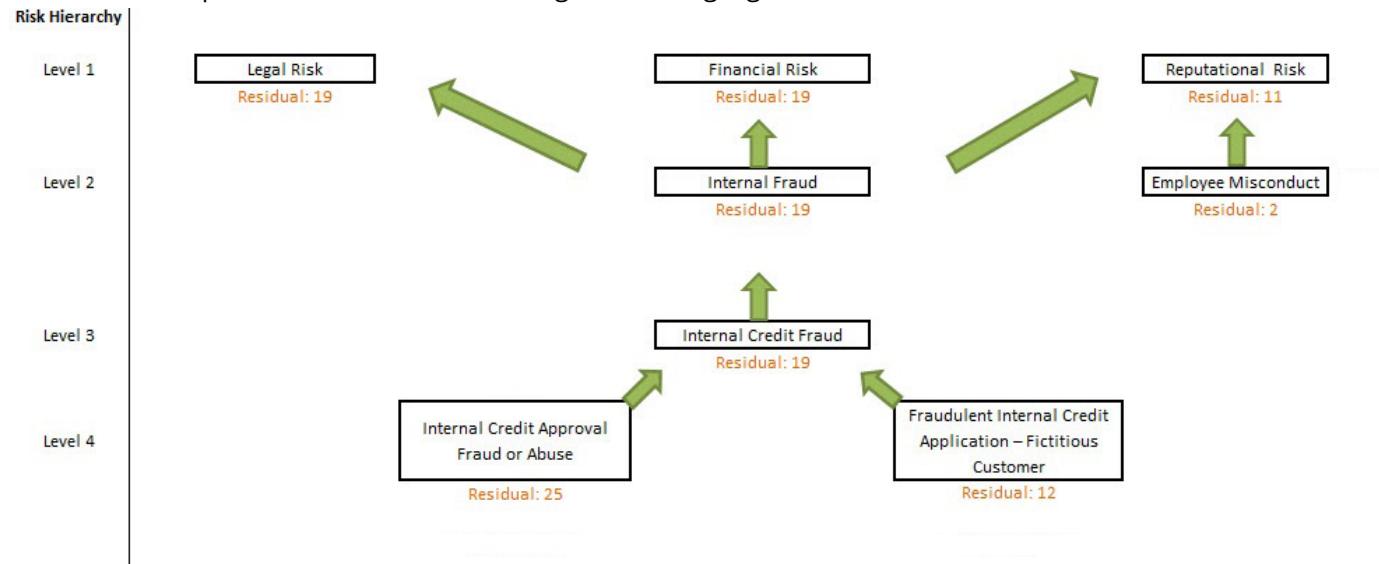


Figure 123 Expected behavior while rolling up the risk hierarchy based on risk scoring algorithm method when a risk has multiple parents.

The following table describes the risk at various hierarchical levels.

Risk Name	Level	Status	Assessment Details
Internal Credit Approval Fraud or Abuse	Level 4	Active	Directly assessed as it is the lowest level child risk
Fraudulent Internal Credit Application-Fictions Customer	Level 4	Active	Directly assessed as it is the lowest level child risk
Internal Credit Fraud	Level 3	Active	Average of residual scores at level 4 (Internal Credit Approval Fraud or Abuse and Fraudulent Internal Credit Application-Fictions Customer) rolls up to level 3 (Internal Credit Fraud)
Internal Fraud	Level 2	Active	Residual risk score at level 3 (Internal Credit Fraud) rolls up to level 2 (Internal Fraud) as Internal Credit Fraud is the only child of Internal Fraud
Employee Misconduct	Level 2	Active	Directly assessed as it is the lowest level child risk
Legal	Level 1	Active	Residual risk score at level 2 (Internal Fraud) rolls up to level1 (Legal Risk) as Internal Fraud is the only child of Legal Risk
Financial	Level 1	Active	Residual risk score at level 2 (Internal Fraud) rolls up to level1 (Financial Risk) as Internal Fraud is the only child of Financial Risk
Reputational	Level 1	Active	Average of residual risk scores at level 2 ('Internal Fraud' that has rolled up score and 'Employee Misconduct' that has directly assessed score) rolls up to risk at level1 (Reputational Risk).

Score Aggregation Logic - Methodologies Based on Risk Scoring Algorithm

For methodologies based on Risk Scoring Algorithm, the aggregation occurs based on the average of inherent scores and average of residual scores and not averages for each factors. For Scoring Algorithm and Rating based method, rating is calculated from the risk matrix, which is based on two factors and scores is calculated from the Risk Scoring Algorithm.

Example shown below is for calculating residual score, but the same logic applies for calculating inherent score as well.

Score for Internal Credit Fraud = Rounded off values of the average scores (Inherent and Residual) of 'Internal Credit Approval Fraud or Abuse' and 'Fraudulent Internal Credit Application - Fictitious Customer'.

Since only residual scores are considered for the above scenario, only residual scores are calculated.

Residual score of Internal Credit Fraud = $(25+12)/2=18.5$, which is rounded off to 19.

Internal Fraud is the only parent for Internal Credit Fraud. Hence the same scores are rolled up to Internal Fraud.

There are three parents for Internal Fraud. They are Legal Risk, Financial Risk, and Reputational Risk. Reputational Risk is the parent for another risk named Employee Misconduct as well.

In this scenario, the scores from Internal Fraud rolls up to Legal Risk, Financial Risk as such. For Reputational Risk, since it has two child risks (Internal Fraud and Employee Misconduct), the average risk scores of the child risks are rolled up.

Score for Reputational Risk = Rounded off values of the average scores (Impact, Likelihood, and Residual) of 'Internal Fraud' and 'Employee Misconduct'.

Residual score of Reputational Risk = $(19+2)/2=10.5$, which is rounded off to 11.

The following figure shows the expected behavior while rolling up the organization hierarchy. This shows an example of assessment using risk scoring algorithm.

Corporate		Residual: 13	Average of Residual Scores from BU 1 and BU 2
BU 1	Residual: 11		Average of Residual Scores from BU 1.1 and BU 1.2
	BU 1.1	Residual: 19	
BU 2		Residual: 2	Average of Residual Scores from BU 2.1 and BU 2.2
BU 2	BU 2.1	Residual: 15	
	BU 2.2	Residual: 25	
		Residual: 4	

Figure 124 Expected behavior while rolling up the organization hierarchy.

Roll Up Logic-Risks at Some Hierarchy Levels Inactive

The following scenarios explain the score aggregation logic when risks at some hierarchy levels are inactive.

- Case 3: Level 1 Risk (Legal Risk) Is Inactive - Risk Matrix Configuration
- Case 4: Level 1 Risk (Financial Risk) Is Inactive - Risk Matrix Configuration
- Case 5: Level 2 Risk (Internal Fraud) Is Inactive - Risk Matrix Configuration
- Case 6: Level 4 Risk (Internal Credit Approval Fraud or Abuse) Is Inactive - Risk Matrix Configuration
- Case 7: Level 4 Risk (Internal Credit Approval Fraud or Abuse) Is Inactive - Risk Scoring Algorithm

Case 3: Level 1 Risk (Legal Risk) Is Inactive - Risk Matrix Configuration

The following figure shows the expected behavior when Legal Risk is inactive, which is a Level 1 Risk. If the assessed risk has multiple parent risks, and if one of the parents is inactive, then the score roll up happens only for the active parent risks.

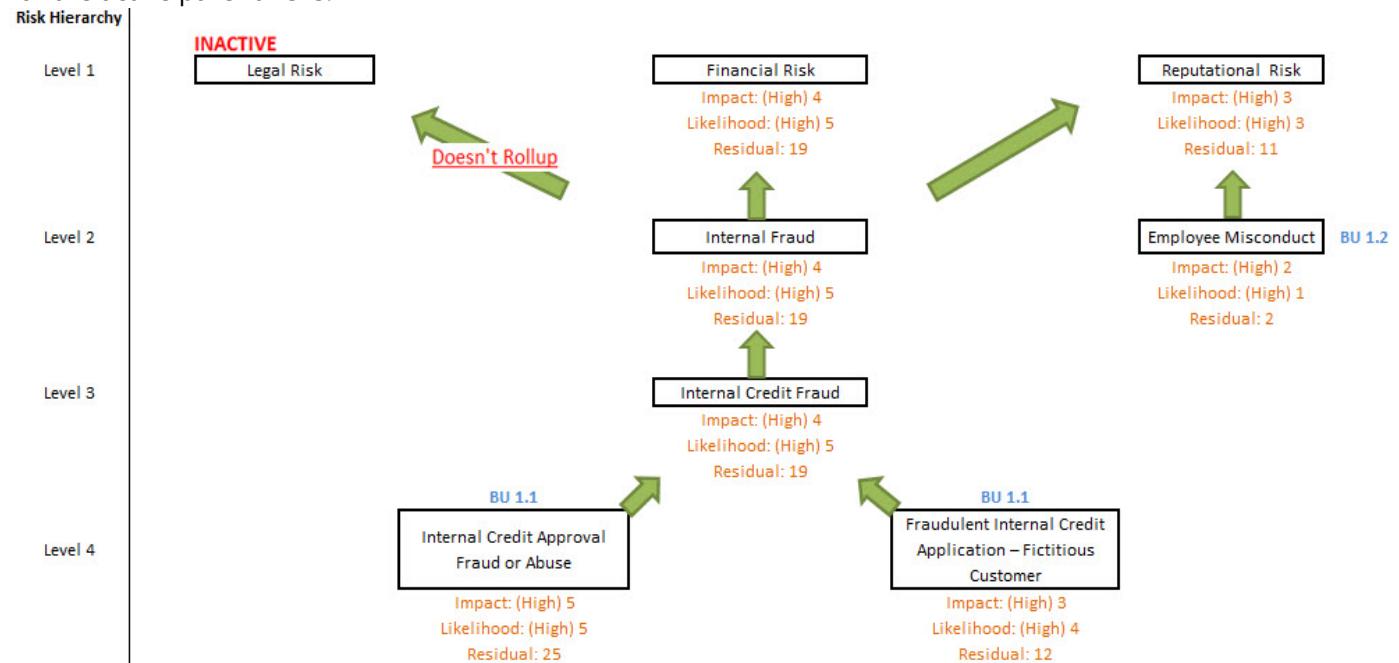


Figure 125 Expected behavior when Legal Risk at level 1 is inactive

The following table describes the risk at various hierarchical levels.

Risk Name	Levels	Status	Assessment Details
Internal Credit Approval Fraud or Abuse	Level 4	Active	Directly assessed as it is the lowest level child risk
Fraudulent Internal Credit Application-Fictions Customer	Level 4	Active	Directly assessed as it is the lowest level child risk
Internal Credit Fraud	Level 3	Active	Average of risks that are directly assessed at level 4 (Internal Credit Approval Fraud or Abuse and Fraudulent Internal Credit Application-Fictions Customer) rolls up to risk at level 3 (Internal Credit Fraud)
Internal Fraud	Level 2	Active	Risk score at level 3 (Internal Credit Fraud) rolls up to level 2 (Internal Fraud) as Internal Credit Fraud is the only child of Internal Fraud
Employee Misconduct	Level 2	Active	Directly assessed as it is the lowest level child risk
Legal	Level 1	Inactive	Risk at level 2 (Internal Fraud) does not roll up to level 1 (Legal Risk) since Legal Risk is inactive.
Financial	Level 1	Active	Risk score at level 2 (Internal Fraud) rolls up to level1 (Financial Risk) as Internal Fraud is the only child of Financial Risk

Risk Name	Levels	Status	Assessment Details
Reputational	Level 1	Active	Average of risk scores at level 2 ('Internal Fraud' that has rolled up score and 'Employee Misconduct' that has directly assessed score) rolls up to risk at level 1 (Reputational Risk).

For details on the score calculation, see [Score Aggregation Logic - Methodologies Based on Risk Matrix Configuration](#).

The following figure shows the expected behavior while rolling up the organization hierarchy when Legal Risk (level 1 risk) is Inactive.

Corporate		Impact: (High) 4 Likelihood: (High) 5 Residual: 13	Average of Impact, Likelihood, Inherent and Residual Scores from BU 1 and BU 2
BU 1		Impact: (High) 4 Likelihood: (High) 5 Residual: 11	Average of Impact, Likelihood, Inherent and Residual Scores from BU 1.1 and BU 1.2
	BU 1.1	Impact: (High) 4 Likelihood: (High) 5 Residual: 19	
	BU 1.2	Impact: (High) 2 Likelihood: (High) 1 Residual: 2	
BU 2		Impact: (High) 4 Likelihood: (High) 4 Residual: 15	Average of Impact, Likelihood, Inherent and Residual Scores from BU 2.1 and BU 2.2
	BU 2.1	Impact: (High) 5 Likelihood: (High) 5 Residual: 25	
	BU 2.2	Impact: (High) 2 Likelihood: (High) 2 Residual: 4	

Figure 126 Expected behavior while rolling up the organization hierarchy when Legal Risk at level 1 is inactive.

Case 4: Level 1 Risk (Financial Risk) Is Inactive - Risk Matrix Configuration

The following figure showing the expected behavior when the **Financial Risk** is inactive, which is a level1 risk. If the assessed risk has multiple parent risks, and if one of the parents is inactive, then the score roll up does not happen only for the inactive parent risks.

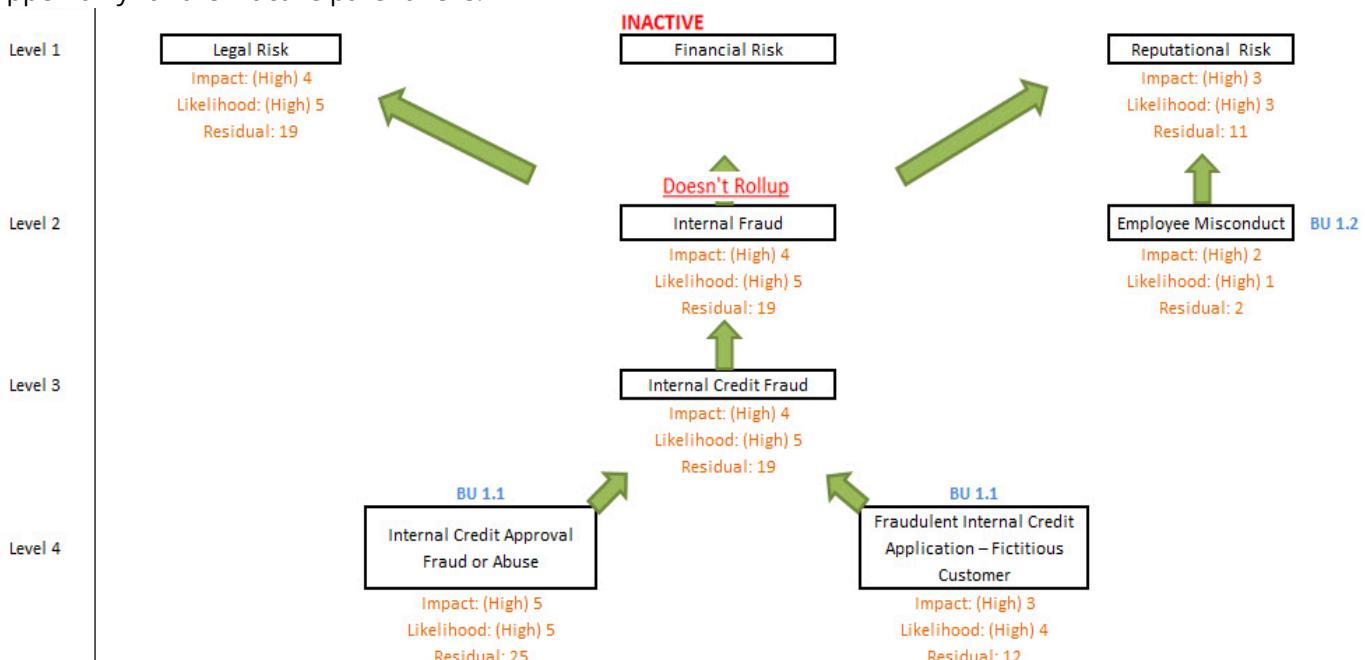


Figure 127 Expected behavior when Financial Risk at level 1 is inactive

The following table describes the risk at various hierarchical levels.

Risk Name	Levels	Status	Assessment Details
Internal Credit Approval Fraud or Abuse	Level 4	Active	Directly assessed as it is the lowest level child risk
Fraudulent Internal Credit Application-Fictions Customer	Level 4	Active	Directly assessed as it is the lowest level child risk
Internal Credit Fraud	Level 3	Active	Average of risks that are directly assessed at level 4 (Internal Credit Approval Fraud or Abuse and Fraudulent Internal Credit Application-Fictions Customer) rolls up to risk at level 3 (Internal Credit Fraud)
Internal Fraud	Level 2	Active	Risk score at level 3 (Internal Credit Fraud) rolls up to level 2 (Internal Fraud) as Internal Credit Fraud is the only child of Internal Fraud
Employee Misconduct	Level 2	Active	Directly assessed as it is the lowest level child risk
Legal	Level 1	Active	Risk score at level 2 (Internal Fraud) rolls up to level1 (Legal Risk) as Internal Fraud is the only child of Legal Risk
Financial	Level 1	Inactive	Risk at level 2 (Internal Fraud) does not roll up to level1 (Financial Risk) since Financial Risk is inactive.
Reputational	Level 1	Active	Average of risk scores at level 2 ('Internal Fraud' that has rolled up score and 'Employee Misconduct' that has directly assessed score) rolls up to risk at level 1 (Reputational Risk).

For details on the score calculation, see [Score Aggregation Logic - Methodologies Based on Risk Matrix Configuration](#).

The following figure shows the expected behavior when Financial Risk at level 1 is inactive.

Corporate		Impact: (High) 4 Likelihood: (High) 5 Residual: 13	Average of Impact, Likelihood, Inherent and Residual Scores from BU 1 and BU 2
BU 1	BU 1.1	Impact: (High) 4 Likelihood: (High) 5 Residual: 11	Average of Impact, Likelihood, Inherent and Residual Scores from BU 1.1 and BU 1.2
	BU 1.2	Impact: (High) 4 Likelihood: (High) 5 Residual: 19	
	BU 2	Impact: (High) 2 Likelihood: (High) 1 Residual: 2	
BU 2		Impact: (High) 4 Likelihood: (High) 4 Residual: 15	Average of Impact, Likelihood, Inherent and Residual Scores from BU 2.1 and BU 2.2
BU 2	BU 2.1	Impact: (High) 5 Likelihood: (High) 5 Residual: 25	
	BU 2.2	Impact: (High) 2 Likelihood: (High) 2 Residual: 4	

Figure 128 Expected behavior while rolling up the organization hierarchy when Financial Risk at level 1 is inactive.

Case 5: Level 2 Risk (Internal Fraud) Is Inactive - Risk Matrix Configuration

The following figure showing the expected behavior when the **Internal Fraud** risk at level 2 is inactive. If the assessed risk has multiple parent risks, and if one of the parents is inactive, then the score roll up does not happen for the inactive parent risks.

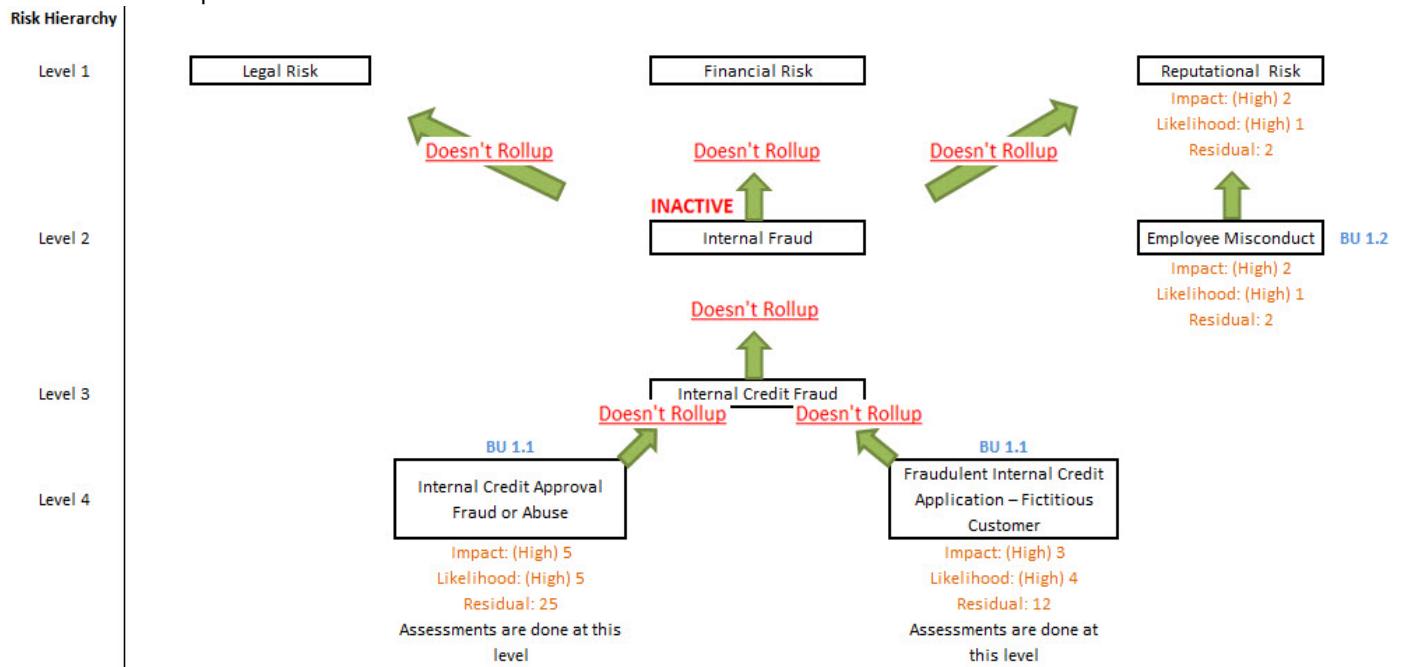


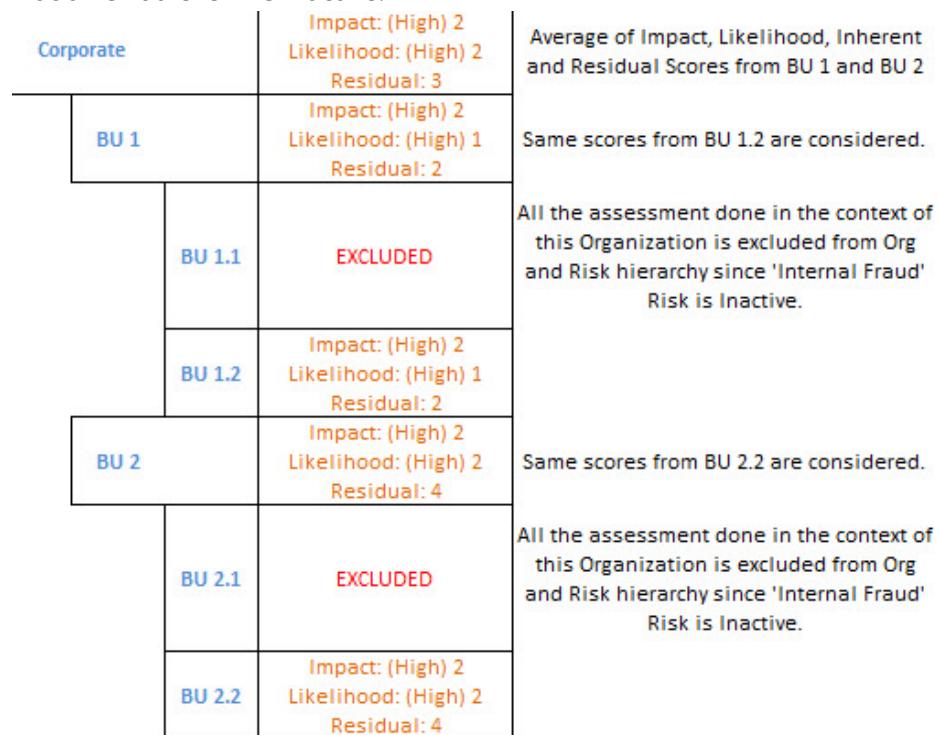
Figure 129 Expected behavior when Internal Fraud risk at level 2 is inactive

The following table describes the risk at various hierarchical levels.

Risk Name	Levels	Status	Assessment Details
Internal Credit Approval Fraud or Abuse	Level 4	Inactive	No scores as the level 3 parent risk (Internal Credit Fraud) is inactive.
Fraudulent Internal Credit Application-Fictions Customer	Level 4	Inactive	No scores as the level 3 parent risk (Internal Credit Fraud) is inactive.
Internal Credit Fraud	Level 3	Inactive	No scores as the level 2 parent risk (Internal Fraud) is inactive.
Internal Fraud	Level 2	Inactive	No scores as this risk is inactive.
Employee Misconduct	Level 2	Active	Directly assessed as it is the lowest level child risk of another business unit.
Legal	Level 1	Inactive	No score since risk at level 2 (Internal Fraud), which is the only child risk of Legal risk, is inactive.
Financial	Level 1	Active	No score since risk at level 2 (Internal Fraud), which is the only child risk of Financial risk, is inactive.
Reputational	Level 1	Active	Score of level 2 risk (Employee Misconduct) rolls up to Reputational risk as it is the only child risk.

For details on the score calculation, see [Score Aggregation Logic - Methodologies Based on Risk Matrix Configuration](#).

The following figure showing the expected behavior while rolling up the organization hierarchy when Internal Fraud risk at level 2 is inactive.



Note: Assuming exactly the same Risks as in BU 1.1 and BU 1.2 were assessed for BU 2.1 and BU 2.2 as well.

Figure 130 Expected behavior when Internal Fraud risk at level 2 is inactive

Case 6: Level 4 Risk (Internal Credit Approval Fraud or Abuse) Is Inactive - Risk Matrix Configuration

The following figure showing the expected behavior when the Internal Credit Approval Fraud or Abuse risk at level 4 is inactive. If the assessed risk has multiple parent risks, and if one of the parents is inactive, then the score roll up does not happen for the inactive parent risks.

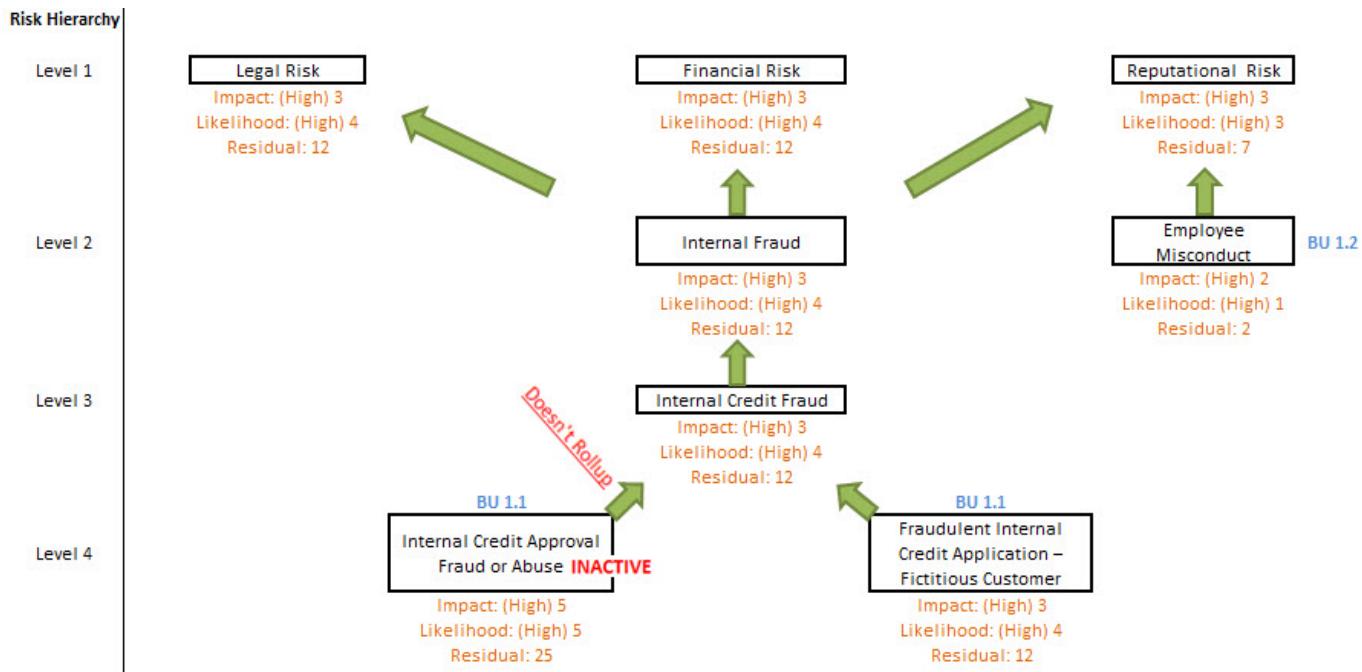


Figure 131 Expected behavior when Internal Credit Approval Fraud or Abuse risk at level 4 is inactive

The following table describes the risk at various hierarchical levels.

Risk Name	Level	Status	Assessment Details
Internal Credit Approval Fraud or Abuse	Level 4	Inactive	Directly assessed as it is the lowest level child risk
Fraudulent Internal Credit Application-Fictions Customer	Level 4	Active	Directly assessed as it is the lowest level child risk
Internal Credit Fraud	Level 3	Active	Only the score of level 4 risk (Fraudulent Internal Credit Application-Fictions Customer) rolls up to level 3 risk (Internal Credit Fraud). Score from level 4 risk (Internal Credit Approval Fraud or Abuse) does not roll up to its parent – 'Internal Credit Fraud' as 'Internal Credit Approval Fraud or Abuse' is inactive.
Internal Fraud	Level 2	Active	Risk score at level 3 (Internal Credit Fraud) rolls up to level 2 (Internal Fraud) as Internal Credit Fraud is the only child of Internal Fraud
Employee Misconduct	Level 2	Active	Directly assessed as it is the lowest level child risk

Risk Name	Level	Status	Assessment Details
Legal	Level 1	Active	Risk score at level 2 (Internal Fraud) rolls up to level1 (Legal Risk) as Internal Fraud is the only child of Legal Risk
Financial	Level 1	Active	Risk score at level 2 (Internal Fraud) rolls up to level1 (Financial Risk) as Internal Fraud is the only child of Financial Risk
Reputational	Level 1	Active	Average of risk scores at level 2 ('Internal Fraud' that has rolled up score and 'Employee Misconduct' that has directly assessed score) rolls up to risk at level 1 (Reputational Risk).

For details on the score calculation, see [Score Aggregation Logic - Methodologies Based on Risk Matrix Configuration](#).

The following figure showing the expected behavior while rolling up the organization hierarchy when Internal Credit Approval Fraud or Abuse risk at level 4 is inactive.

Corporate		Impact: (High) 4 Likelihood: (High) 4 Residual: 13	Average of Impact, Likelihood, Inherent and Residual Scores from BU 1 and BU 2
	BU 1	Impact: (High) 3 Likelihood: (High) 3 Residual: 11	Average of Impact, Likelihood, Inherent and Residual Scores from BU 1.1 and BU 1.2
	BU 1.1	Impact: (High) 4 Likelihood: (High) 5 Residual: 19	
	BU 1.2	Impact: (High) 2 Likelihood: (High) 1 Residual: 2	
BU 2		Impact: (High) 4 Likelihood: (High) 4 Residual: 15	Average of Impact, Likelihood, Inherent and Residual Scores from BU 2.1 and BU 2.2
	BU 2.1	Impact: (High) 5 Likelihood: (High) 5 Residual: 25	
	BU 2.2	Impact: (High) 2 Likelihood: (High) 2 Residual: 4	

Figure 132 Expected behavior when Internal Credit Approval Fraud or Abuse risk at level 4 is inactive

Case 7: Level 4 Risk (Internal Credit Approval Fraud or Abuse) Is Inactive - Risk Scoring Algorithm

The following figure showing the expected behavior when the Internal Credit Approval Fraud or Abuse risk at level 4 is inactive. This shows an example of assessment done using risk scoring algorithm.

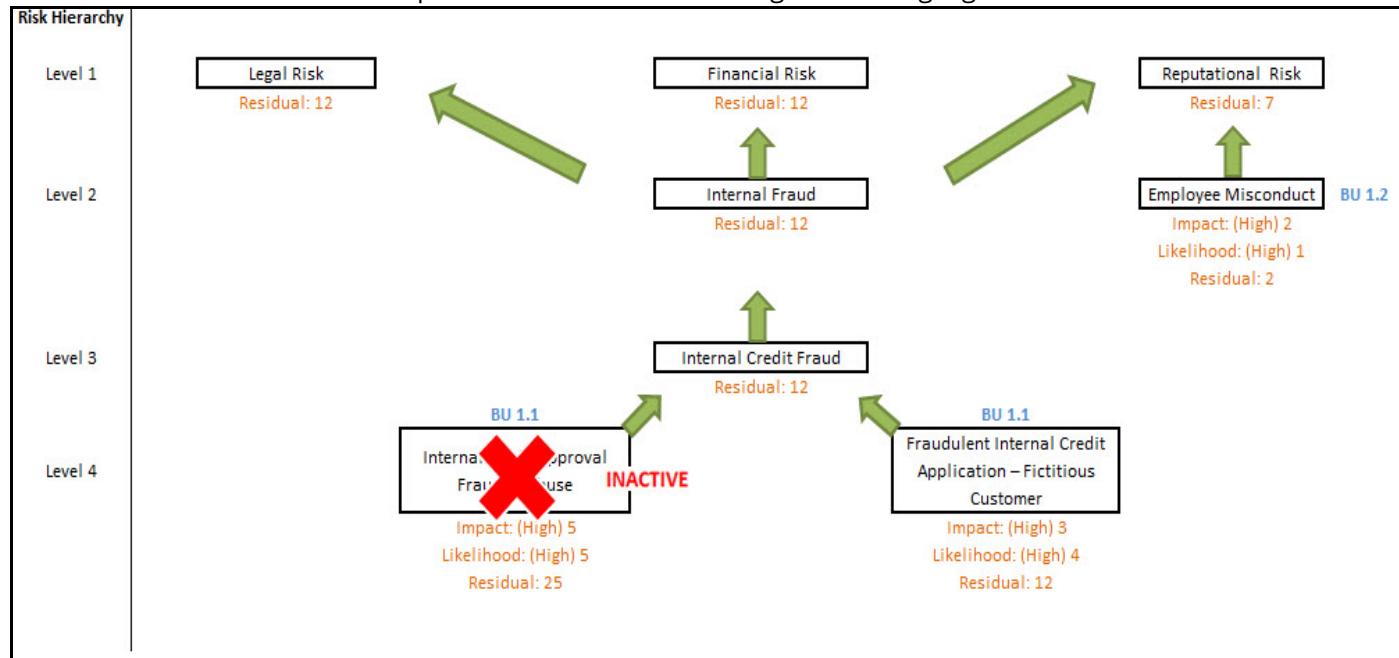


Figure 133 Expected behavior while rolling up the risk hierarchy (based on risk scoring algorithm method) when Internal Credit Approval Fraud or Abuse risk at level 4 is inactive

For details on the score calculation, see [Score Aggregation Logic - Methodologies Based on Risk Scoring Algorithm](#).

The following table describes the risk at various hierarchical levels

Risk Name	Levels	Status	Assessment Details
Internal Credit Approval Fraud or Abuse	Level 4	Inactive	Directly assessed as it is the lowest level child risk
Fraudulent Internal Credit Application-Fictions Customer	Level 4	Active	Directly assessed as it is the lowest level child risk
Internal Credit Fraud	Level 3	Active	Since one of the level 4 risks, Internal Credit Approval Fraud or Abuse, is inactive, the residual risk score of Fraudulent Internal Credit Application-Fictions Customer alone is considered for roll up to level 3 (Internal Credit Fraud)
Internal Fraud	Level 2	Active	Residual risk score at level 3 (Internal Credit Fraud) rolls up to level 2 (Internal Fraud) as Internal Credit Fraud is the only child of Internal Fraud
Employee Misconduct	Level 2	Active	Directly assessed as it is the lowest level child risk
Legal	Level 1	Inactive	Residual risk s at level 2 (Internal Fraud) does not roll up to level 1 (Legal Risk) since Legal Risk is inactive.
Financial	Level 1	Active	Residual risk score at level 2 (Internal Fraud) rolls up to level1 (Financial Risk) as Internal Fraud is the only child of Financial Risk
Reputational	Level 1	Active	Average of residual risk scores at level 2 ('Internal Fraud' that has rolled up score and 'Employee Misconduct' that has directly assessed score) rolls up to risk at level 1 (Reputational Risk).

The following figure shows the expected behavior while rolling up the organization hierarchy when the Internal Credit Approval Fraud or Abuse at level 4 is inactive. This shows an example of assessment done using risk scoring algorithm.

Corporate		Residual: 11	Average of Residual Scores from BU 1 and BU 2
BU 1		Residual: 7	Average of Residual Scores from BU 1.1 and BU 1.2
BU 2		Residual: 15	Average of Residual Scores from BU 2.1 and BU 2.2
	BU 1.1	Residual: 12	
	BU 1.2	Residual: 2	
	BU 2.1	Residual: 25	
	BU 2.2	Residual: 4	

* The example shown above considers only Residual but the logic will apply to Inherent as well.

Figure 134 Expected behavior while rolling up the organization hierarchy when the Internal Credit Approval Fraud or Abuse at level 4 is inactive.

Calculation of Score Aggregation Across Risk Assessments

The following figure shows the risks applicable for various organization levels that are assessed on different dates.

Assessment 1

Publish Date: 1st Jan 2015

Org 1.1	Impact	Likelihood	Inherent Score	Inherent Rating
Risk 1.1	1	5	5	
Risk 1.2	2	4	8	
Risk 1.3	4	2	8	
Risk 1.4	4	5	20	

Assessment 2

Publish Date: 20th Jan 2015

Org 1.1	Impact	Likelihood	Inherent Score	Inherent Rating
Risk 1.5	4	4	16	

Assessment 3

Publish Date: 2nd April 2015

Org 1.1	Impact	Likelihood	Inherent Score	Inherent Rating
Risk 1.2	1	5	5	

Assessment 4

Publish Date: 5th May 2015

Org 1	Impact	Likelihood	Inherent Score	Inherent Rating
Risk 1	1	5	5	

Assessment 5

Publish Date: 8th May 2015

Org 1.2	Impact	Likelihood	Inherent Score	Inherent Rating
Risk 1.1	4	4	16	
Risk 1.2	3	4	12	

Figure 135 Risks applicable for various organization levels

Org 1 is the parent organization

Org 1.1 and Org 1.2 are the child organizations

Risk 1.1, 1.2, 1.3, and 1.4 are the child risks assessed in Org 1.1 and published on Jan 1, 2015.

Risk 1.5 is the child risk assessed in Org 1.1 and published on Jan 20, 2015.

Risk 1.2 is the child risk assessed in Org 1.1 and published on April 2, 2015.

Risk 1 is directly assessed in Org 1 and published on May 5, 2015.

Risk 1.1 and 1.2 are the child risks assessed in Org 1.2 and published on May 8, 2015

The following are the various scenarios for calculating risk score aggregation across risk assessments:

- Scenario 1: Calculating organization scores when both Org 1.1 and Org 1.2 are active
- Scenario 2: Calculating risk scores when both Org 1.1 and Org 1.2 are active
- Scenario 3: Calculating organization scores when Org 1.1 is active and Org 1.2 is inactive
- Scenario 4: Calculating risk scores when Org 1.1 is active and Org 1.2 is inactive
- Scenario 5: Calculating organization scores when risk 1.1 is inactive in both Org 1.1 and Org 1.2
- Scenario 6: Calculating risk scores when risk 1.1 is inactive in both Org 1.1 and Org 1.2
- Scenario 7: Calculating risk scores when Org 1 is inactive

Scenario 1: Calculating organization scores when both Org 1.1 and Org 1.2 are active

	Prior Impact	Impact	Prior Likelihood	Likelihood	Prior Inherent Score	Inherent Score	Inherent Rating	Assessment Date
Org 1		3		5		9		
Org 1.1		3		4		11		
Risk 1.1		1		5		5		1st Jan 2015
Risk 1.2		1		5		5		2nd April 2015
Risk 1.3		4		2		8		1st Jan 2015
Risk 1.4		4		5		20		1st Jan 2015
Risk 1.5		4		4		16		20th Jan 2015
Org 1.2		4		4		14		
Risk 1.1		4		4		16		8th May 2015
Risk 1.2		3		4		12		8th May 2015

In the above scenario, both Org 1 and Org 2 are child organizations of Org 1. Hence the factor scores and inherent scores from both the child organizations as well as the direct assessment done on Org 1 should be considered for arriving at the factor scores and inherent scores of Org 1.

Impact Scores of Child Organizations

Impact Score for Org 1.1 = Average of impact scores of Risks 1.1 to Risks 1.5 = $(1+1+4+4+4)/5 = 2.8$ rounded off to 3

Impact Score for Org 1.2 = Average of impact scores of Risks 1.1 to Risks 1.2 = $(4+3)/2 = 3.5$ rounded off to 4

Likelihood Score of Child Organizations

Likelihood Score for Org 1.1 = Average of likelihood scores of Risks 1.1 to Risks 1.5 = $(5+5+2+5+4)/5 = 4.2$ rounded off to 4

Likelihood Score for Org 1.2 = Average of impact scores of Risks 1.1 to Risks 1.2 = $(4+4)/2 = 4$

Inherent Score of Child Organizations

Individual inherent scores of risks is calculated using the formula Impact*Likelihood

Inherent Score for Org 1.1 = Average of inherent scores of Risks 1.1 to Risks 1.5 = $(5+5+8+20+16)/5 = 10.8$ rounded off to 11

Inherent Score for Org 1.2 = Average of inherent scores of Risks 1.1 to Risks 1.2 = $(16+12)/2 = 14$

Final Score of Org 1

Final factor scores and risk scores for Org 1(parent org) is calculated by considering the roll up from child organizations such as Org 1.1 and Org 1.2 as well as the individual assessment done on Org 1, as shown below:

Impact Score of Org 1

Aggregated impact scores from child orgs = Average of Impact scores of Org 1.1 and Org 1.2 = $(3+4)/2 = 3.5$ rounded off to 4.

Impact Score of Org 1 from individual assessment = 1

Final impact score of Org 1 = Average[(Aggregated impact score from child organizations (Org 1.1 and Org 1.2) and (Impact Score of Org 1 from individual assessment)] = $[4+1]/2=2.5$ rounded off to 3

Likelihood Score of Org 1

Aggregated likelihood scores from child orgs = Average of Likelihood scores of Org 1.1 and Org 1.2 = $(4+4)/2 = 4$. Likelihood Score of Org 1 from individual assessment = 5.

Final likelihood score of Org 1 = Average (Aggregated likelihood scores from child organizations (Org 1.1 and Org 1.2) and likelihood score of Org 1 form individual assessment] = $(4+5)/2=4.5$ rounded off to 5

Inherent Score of Org 1

Aggregated inherent scores from child orgs = Average of inherent scores of Org 1.1 and Org 1.2 = $(11+14)/2 = 25/2 = 12.5$ rounded off to 13.

Inherent Score of Org 1 from individual assessment = 5

Final inherent score of Org 1 = Average[(Aggregated inherent score from child organizations (Org 1.1 and Org 1.2) and (inherent score of Org 1 from individual assessment)] = [13+5]/2=9.

Scenario 2: Calculating risk scores when both Org 1.1 and Org 1.2 are active

	Prior Impact	Impact	Prior Likelihood	Likelihood	Prior Inherent Score	Inherent Score	Inherent Rating
Risk 1		2		5		9	
Risk 1.1		3		5		11	
Risk 1.2		2		5		9	
Risk 1.3		4		2		8	
Risk 1.4		4		5		20	
Risk 1.5		4		4		16	

In the above scenario, Risk 1.1 and Risk 1.2 are part of both Org 1.1 and Org 1.2. Hence the score from both Org 1.1 and Org 1.2 should be considered while calculating the factor scores and inherent scores of Risk 1.1 and Risk 1.2.

Risk 1.3, Risk 1.4, and Risk 1.5 exist only in Org 1.1. Hence the score from only Org 1 should be considered while calculating the factor scores and inherent scores of Risk 1.3, Risk 1.4, and Risk 1.5.

Below are the risk scores when org 1 is directly assessed.

Org 1	Impact	Likelihood	Inherent Score	Inherent Rating
Risk 1	1	5	5	

Final Impact Score of Risk 1

Impact score of Risk 1.1 = Average of [(Impact score of Risk 1.1 belonging to Org 1.1) and (Impact score of Risk 1.1 Belonging to Org 1.2)] = $(1+4)/2 = 2.5$ rounded off to 3

Impact score of Risk 1.2 = Average of [(Impact score of Risk 1.2 belonging to Org 1.1) and (Impact score of Risk 1.2 belonging to Org 1.2)] = $(1+3)/2 = 2$

Impact score of Risk 1.3, 1.4, and 1.5 are 4, 4, and 4 respectively (scores as specified for Org 1.1, as these risks exist only in Org 1.1)

Score for Risk 1 = Average of (Risk 1 Impact that is directly assessed and Average of (Risk 1.1 to Risk 1.5)

$$= \text{Average of } [1 \text{ and } (3+2+4+4+4)/5] = \text{Average of } (1 \text{ and } 3 \text{ (3.4 rounded off to 3)}) = (1+3)/2 = 2$$

Final Likelihood Score of Risk 1

Likelihood score of Risk 1.1 = Average of [(Likelihood score of Risk 1.1 belonging to Org 1.1) and (Likelihood score of Risk 1.1 belonging to Org 1.2)] = $(5+4)/2 = 4.5$ rounded off to 5

Likelihood score of Risk 1.2 = Average of [(Likelihood score of Risk 1.2 belonging to Org 1.1) and (Likelihood score of Risk 1.2 belonging to Org 1.2)] = $(5+4)/2 = 4.5$ rounded off to 5.

Likelihood score of Risk 1.3, 1.4, and 1.5 are 2, 5, and 4 respectively (scores as specified for Org 1.1, as these risks are assessed only in Org 1.1)

Likelihood score of Risk 1 = Average of (Likelihood score of Risk 1 Likelihood that is directly assessed

and Average of (Likelihood score of Risk 1.1 to Risk 1.5)

= Average of (Likelihood score of Risk 1 Likelihood that is directly assessed and

Average of Likelihood score of (Risk 1.1 to Risk 1.5)

= Average of [5 and (5+5+2+5+4)/5] = Average of (5 and 4 (4.2 rounded off to 4))

= (5+4)/2 = 4.5 rounded off to 4.

Final Inherent Score of Risk 1

Inherent score of Risk 1.1 = Average of [(Inherent score of Risk 1.1 belonging to Org 1.1) and (Inherent score of Risk 1.1 belonging to Org 1.2)] = (5+16)/2 = 10.5 rounded off to 11.

Score for Risk 1.2 = Average of [(Inherent score of Risk 1.2 of Org 1.1) and (Inherent score of Risk 1.2 of Org 1.2)] = (5+12)/2 = 8.5 rounded off to 9.

Inherent score of Risk 1.3, 1.4, and 1.5 are 8, 20, and 16 (scores as specified for Org 1.1, as these risks are assessed only in Org 1.1)

Inherent score of Risk 1 = Average of (Inherent score of Risk 1 that is directly assessed

and Average of (Inherent score of Risk 1.1 to Risk 1.5)

= Average of (Inherent score of Risk 1 that is directly assessed and

Average of Inherent score of (Risk 1.1 to Risk 1.5)

= Average of [5 and (11+9+8+20+16)/5] = Average of (5 and 13 (12.8 rounded off to 13))

= (5+13)/2 = 9.

Scenario 3: Calculating organization scores when Org 1.1 is active and Org 1.2 is inactive

Report when rollup infolet ran on 4th June 2015

Note: Org 1.2 became Inactive on 3rd June 2015

	Prior Impact	Impact	Prior Likelihood	Likelihood	Prior Inherent Score	Inherent Score	Inherent Rating	Assessment Date
Org 1	3	2	5	5	9	8		
Org 1.1	3	3	4	4	11	11		
Risk 1.1	1	1	5	5	5	5		1st Jan 2015
Risk 1.2	1	1	5	5	5	5		2nd April 2015
Risk 1.3	4	4	2	2	8	8		1st Jan 2015
Risk 1.4	4	4	5	5	20	20		1st Jan 2015
Risk 1.5	4	4	4	4	16	16		20th Jan 2015
Org 1.2	4		4			14		
Risk 1.1	4	4	4		16			8th May 2015
Risk 1.2	3	3	4	4	12	12		8th May 2015

In the above scenario, since Org 1.2 is inactive, the risk scores of Org 1.2 is not considered for arriving at the final score for Org 1.

The final impact, likelihood, and inherent scores for Org 1 is calculated by averaging the scores (Impact, Likelihood and Inherent) for Org 1.1 and the individual assessment scores (Impact, Likelihood and Inherent) from Org 1 (assessed directly)

Final Impact Score of Org 1

Impact score of Org 1.1 = Average of impact scores of Risk 1.1 to Risk 1.5 = $(1+1+4+4+4)/5 = 14/5 = 2.8$ rounded off to 3.

Impact of Org 1 (directly assessed) = 1

Final Impact score for Org 1 = Average of [(Impact of Org 1.1) and Impact of Org 1 (assessed directly)] = $(3+1)/2 = 2$

Final Likelihood Score of Org 1

Likelihood of Org 1.1 = Average of likelihood scores of Risk 1.1 to Risk 1.5 $(5+5+2+5+4)/5 = 21/5 = 4.2$ rounded off to 4

Likelihood of Org 1 (directly assessed) = 5

Final Likelihood score for Org 1 = Average of [(Likelihood of Org 1.1) and Likelihood of Org 1 (assessed directly)]
 $= (4+5)/2 = 4.5$ rounded off to 5

Final Inherent Score of Org 1

Inherent score of Org 1.1 = Average of inherent scores of Risk 1.1 to Risk 1.5 $(5+5+8+20+16)/5 = 54/5 = 10.8$ rounded off to 11.

Inherent score of Org 1 (directly assessed) = 5

Final Inherent Score for Org 1 = Average of [(Inherent Score for Org 1.1) and (Inherent Score for individual assessment score from Org 1)] $= (11+5)/2 = 8$

Scenario 4: Calculating risk scores when Org 1.1 is active and Org 1.2 is inactive

	Prior Impact	Impact	Prior Likelihood	Likelihood	Prior Inherent Score	Inherent Score	Inherent Rating
Risk 1	2	2	5	5	9	8	
Risk 1.1	3	1	5	5	11	5	
Risk 1.2	2	1	5	5	9	5	
Risk 1.3	4	4	2	2	8	8	
Risk 1.4	4	4	5	5	20	20	
Risk 1.5	4	4	4	4	16	16	

In the above scenario, Org 1.2 is inactive. Hence the factor scores and inherent scores of Risk 1.1 to Risks 1.5 come from only Org 1.1

Below are the risk scores when org 1 is directly assessed.

Org 1	Impact	Likelihood	Inherent Score	Inherent Rating
Risk 1	1	5	5	

Final Impact score of Risk 1

Final Impact score of Risk 1 = Average of (Average of (impact scores of Risk 1.1 to Risk 1.5) and the impact score of Risk 1 that is directly assessed)

$= \text{AVERAGE}[(3+2+4+4+4)/5 \text{ and } 2] = \text{Average } (3 \text{ (3.4 rounded off to 3)} \text{ and } 1) = (3+1)/2 = 2$

Final likelihood score of Risk 1

Final likelihood score of Risk 1 = Average of (Average of (likelihood scores of Risk 1.1 to Risk 1.5) and the likelihood score of Risk 1 that is directly assessed)

$= \text{AVERAGE}[(5+5+2+5+4)/5 \text{ and } 2] = \text{Average } (4 \text{ (4.2 rounded off to 4)} \text{ and } 5) = (4+5)/2 = 4.5$ rounded off to 5.

Final inherent score of Risk 1

Final inherent score of Risk 1 = Average of (Average of (inherent scores of Risk 1.1 to Risk 1.5) and the inherent score of Risk 1 that is directly assessed)

$= \text{AVERAGE}[(5+5+8+20+16)/5 \text{ and } 5] = \text{Average } (11 \text{ (10.8 rounded off to 11)} \text{ and } 5) = (11+5)/2 = 16/2 = 8.$

Scenario 5: Calculating organization scores when risk 1.1 is inactive in both Org 1.1 and Org 1.2

Report when rollup infolet ran on 6th June 2015

Note: Org 1.2 became active on 5th June 2015 but Risk 1.1 becomes inactive

	Prior Impact	Impact	Prior Likelihood	Likelihood	Prior Inherent Score	Inherent Score	Inherent Rating	Assessment Date
Org 1	2	2	5	5	8	9		
Org 1.1	3	3	4	4	11	12		
INACTIVE Risk 1.1	1	1	5	5	5	5		1st Jan 2015
Risk 1.2	1	1	5	5	5	5		2nd April 2015
Risk 1.3	4	4	2	2	8	8		1st Jan 2015
Risk 1.4	4	4	5	5	20	20		1st Jan 2015
Risk 1.5	4	4	4	4	16	16		20th Jan 2015
Org 1.2	4	3	4	4	14	12		
INACTIVE Risk 1.1	1	1	1	1	10	10		8th May 2015
Risk 1.2	3	3	4	4	12	12		8th May 2015

In this scenario, the scores (Impact, Likelihood, and Inherent) of Risk 1.1 is not considered as Risk 1.1 is inactive.

Final Org 1 score for impact, likelihood, and inherent score = Average of [Aggregated score (impact, likelihood, and inherent score) from child organizations (Org 1.1 and Org 1.2)] and [individual assessment score (impact, likelihood, and inherent score) from Org 1]

Final impact score of Org 1

Impact of Org 1.1 = $(1+4+4+4)/4 = 13/4 = 3.25$ rounded off to 3

Impact of Org 1.2 = 3

Average of org 1.1 impact and org 1.2 impact = $(3+3)/2 = 3$

Org 1 impact = Average of [Average of org 1.1 impact and org 1.2 impact] and impact of org 1 that is directly assessed = $(3+1)/2 = 2$

Final inherent score of Org 1

Likelihood of Org 1.1 = $(5+2+5+4)/4 = 16/4 = 4$.

Likelihood of Org 1.2 = 4

Average of org 1.1 likelihood and org 1.2 likelihood = $(4+4)/2 = 4$

Org 1 likelihood = Average of [Average of org 1.1 likelihood and org 1.2 likelihood] and likelihood of org 1 that is directly assessed = $(4+5)/2 = 4.5$ rounded off to 5

Final Inherent score of Org 1

Inherent score of Org 1.1 = $(5+8+20+16)/4 = 49/4 = 12.25$ rounded off to 12

Inherent score of Org 1.2 = 12

Average of org 1.1 Inherent score and org 1.2 Inherent score = $(12+12)/2 = 12$

Org 1 Inherent score = Average of [Average of org 1.1 Inherent score and org 1.2 Inherent score] and Inherent score of org 1 that is directly assessed = $(12+5)/2 = 17/2 = 8.5$ rounded off to 9.

Scenario 6: Calculating risk scores when risk 1.1 is inactive in both Org 1.1 and Org 1.2

	Prior Impact	Impact	Prior Likelihood	Likelihood	Prior Inherent Score	Inherent Score	Inherent Rating
Risk 1	2	3	5	5	12	9	
INACTIVE	Risk 1.1	1	1	5	5	5	
	Risk 1.2	1	2	5	5	5	
	Risk 1.3	4	4	2	2	8	
	Risk 1.4	4	4	5	5	20	
	Risk 1.5	4	4	4	4	16	

In this scenario, since Risk 1.1 is inactive in both Org 1.1 and Org 1.2, it is not considered in the overall risk calculation.

Risk 1.2 exists in both Org 1.1 and Org 1.2. Hence the score from both Org 1.1 and Org 1.2 should be considered while calculating the factor scores and inherent scores of Risk 1.2.

Below are the risk scores when Risk 1 is directly assessed at org level.

Org 1	Impact	Likelihood	Inherent Score	Inherent Rating
Risk 1	1	5	5	

Final Impact Score of Risk 1

Impact score of Risk 1.2 = Average of [(Impact score of Risk 1.2 belonging to Org 1.1) and (Impact score of Risk 1.2 belonging to Org 1.2)] = $(1+3)/2 = 4/2 = 2$.

Impact score of Risk 1.3, 1.4, and 1.5 are 4, 4, and 4 (scores as specified for Org 1.1, as these risks exist only in Org 1.1)

Score for Risk 1 = Average of (Risk 1 Impact that is directly assessed and Average of (Risk 1.2 to Risk 1.5)

= Average of [1 and $(2+4+4+4)/4$] = Average of (1 and 4 (3.5 rounded off to 4)) = $(1+4)/2 = 2.5$ rounded off to 3.

Final Likelihood Score of Risk 1

Likelihood score of Risk 1.2 = Average of [(Likelihood score of Risk 1.2 of Org 1.1) and (Likelihood score of Risk 1.2 of Org 1.2)] = $(5+4)/2 = 4.5$ rounded off to 5

Likelihood score of Risk 1.2 = Average of [(Likelihood score of Risk 1.2 of Org 1.1) and Likelihood score of (Risk 1.2 of Org 1.2)] = $(5+4)/2 = 4.5$ rounded off to 5

Likelihood score of Risk 1.3, 1.4, and 1.5 are 2, 5, and 4 respectively (scores as specified for Org 1.1, as these risks are assessed only in Org 1.1)

Likelihood score of Risk 1 = Average of (Likelihood score of Risk 1 Likelihood that is directly assessed and Average of (Likelihood score of Risk 1.2 to Risk 1.5)

= Average of (Likelihood score of Risk 1 Likelihood that is directly assessed and Average of Likelihood score of (Risk 1.2 to Risk 1.5))
= Average of [5 and $(5+2+5+4)/4$] = Average of (5 and 4 (4.2 rounded off to 4))
= $(5+4)/2 = 4.5$ rounded off to 5.

Final Inherent Score of Risk 1

Inherent score of Risk 1.2 = Average of [(Inherent score of Risk 1.2 of Org 1.1) and (Inherent score of Risk 1.2 of Org 1.2)] = $(5+12)/2 = 17/2 = 8.5$ rounded off to 9.

Inherent score of Risk 1.3, 1.4, and 1.5 are 8, 20, and 16 respectively (scores as specified for Org 1.1, as these risks are

assessed only in Org 1.1)

Inherent score of Risk 1 = Average [(Inherent score of Risk 1 that is directly assessed

and) and Average (Inherent score of Risk 1.2 to Risk 1.5)] = Average of [5 and $(5+8+20+16)/4 = 12.25$ rounded off to 12] = Average (5 and 12) = $(5+12)/2 = 8.5$ rounded off to 9.

Scenario 7: Calculating risk scores when Org 1 is inactive

Report when rollup infolet ran on 8th June 2015

Note: Org 1 became inactive on 7th June 2015

	Prior Impact	Impact	Prior Likelihood	Likelihood	Prior Inherent Score	Inherent Score	Inherent Rating	Assessment Date
Org 1 INACTIVE	2	2	5	5	9	9		
Org 1.1	3	3	4	4	12	11		
Risk 1.1	1	1	5	5	5	5		1st Jan 2015
Risk 1.2	1	1	5	5	5	5		2nd April 2015
Risk 1.3	4	4	2	2	8	8		1st Jan 2015
Risk 1.4	4	4	5	5	20	20		1st Jan 2015
Risk 1.5	4	4	4	4	16	16		20th Jan 2015
Org 1.2	3	4	4	4	12	14		
Risk 1.1	4	4	4	4	16	16		8th May 2015
Risk 1.2	3	3	4	4	12	12		8th May 2015

Risk score is not applicable as the parent organization (Org 1) is inactive.

For examples on aggregation, refer to the attachments named 'Aggregation example' and 'Residual Calculation based on risk matrix configuration and Risk Scoring Algorithm - Controls reducing Standard Factors'

You can view the attachments by clicking  on the left side of the pdf.

Risk Aggregation Logic (MDOS Roll-up report)

This section describes the aggregation logic for assessing risks. During aggregation, if the final score is in decimal format, it should be rounded off based on the decimal configuration. Consider the value as 10.248 and if the decimal configuration is set to 2 then the value, then based on the decimal configuration the value will be 10.25. Similarly, if the decimal configuration is set to 0 then values will displays as 10.

The following table describes the individual assessment and rollup logic for different methodologies.

Methodology	Individual Assessment Logic	Rollup Logic
Risk Scoring Algorithm	Risk score is calculated based on the risk scoring algorithm (formula) and the rating is based on the score range defined in the Heat Map Scale of Profile form.	<ul style="list-style-type: none"> If the Risk Assessment form has only one risk, then same score is rolled up to its Assessable Item and Org. If the Risk Assessment form has multiple risks, then the score is calculated by taking the average of all the risks and it is rolled up to its Assessable Item and Org. If there are multiple Assessable Items, then the scores of each accessible item is calculated, and the average score of all assessable items is calculated and this score is rolled up to Org.
Rating	Rating is based on the intersection of factor response in the risk matrix configuration section of profile form.	Not applicable
Scoring and Rating	The risk rating and the risk score are calculated from the intersection of the factor responses in the risk matrix configuration section of profile form.	<ul style="list-style-type: none"> If the Risk Assessment form has only one risk, then the same score is rolled up to its Assessable Item and Org. If the Risk Assessment form has multiple risks, then the score is calculated by taking the average of the two factors across all the risks. Rating is based on the coordinates intersection in the risk matrix configuration section of profile form. The score and rating are rolled up to Assessable Item and Org. Similarly, when there are multiple Assessable Items, then rollup of each assessable item is calculated. For organization level rollup, all the risks in assessable items are considered and the average of the factors is calculated. The rating is based on risk matrix configuration.

Methodology	Individual Assessment Logic	Rollup Logic
Ranking and Rating	The risk rating and the risk score are calculated from the intersection of the factor responses in the risk matrix configuration section of profile form.	<ul style="list-style-type: none"> If the Risk Assessment form has only one risk, then the same score is rolled up to its Assessable Item and Org. If the Risk Assessment form has multiple risks, then the score is calculated by taking the average of the two factors across all the risks. Rating is based on the coordinates intersection in the risk matrix configuration section of profile form. The score and rating are rolled up to Assessable Item and Org. Similarly, when there are multiple Assessable Items, then rollup of each assessable item is calculated. For organization level rollup, all the risks in assessable items are considered and the average of the factors is calculated. The rating is based on risk matrix configuration section of profile form.
Scoring Algorithm and Rating	Score is based on the risk scoring algorithm and the rating is based on intersection of the two factor responses in the risk matrix configuration section of profile form.	<ul style="list-style-type: none"> If the Risk Assessment form has only one risk, then the same score is rolled up to its Assessable Item and Org. If the Risk Assessment form has multiple risks, then the score is calculated by taking the average of all the risks and same is rolled up to its Assessable Item and Org. Rating is calculated by taking the average of the two factors across all the risks. The score and rating are rolled up to the Assessable Item and Org. If there are multiple Assessable Items, the scores of each assessable item is calculated, and then the average score of all assessable items is calculated. This score is rolled up to Org. Rating is calculated by taking the average of the two factors across all the risks in all the assessable items.

Note: In the examples and calculations provided in this section, Average is used as the logic.

Logic for Score Aggregation

- The aggregation logic applies to all assessable items.
- The child risks aggregates (by average logic) only to those parent risks that are active and have not expired.

- If an organization is inactive, then all the scores applicable for that organization and its children, including those for processes and risks have to be excluded. In this case, aggregation must not consider the scores of those risks and assessable items that are related to the inactive organizations.
- If the assessable item is inactive, then all the scores applicable for the assessable item and its children, for example, risks for that assessable item, and its children must be excluded. In this case, aggregation must not consider the scores of those risks that are related to the inactive assessable Items.
- For Org-Assessable Item-Risk type of risk assessment, when the assessable item is inactive, or has no score, then the score must not move up to the organization level.
- If the assessed risk has multiple parent risks, and if one of the parents is inactive, then the score is aggregated only to the active parent risks.
- The assessed risk score does not aggregate to the parent risk if all parent risks are inactive.
- When risk score is overridden, overridden scores are considered for aggregation.
- When the assessable item or organization score is overridden in the assessment, the overridden scores are not considered in the score aggregation of assessable item/organization. The score aggregated from the risk are considered at assessable item and org levels.
- If a parent risk is directly assessed, and also has aggregated scores from the child risks, then the system considers the combination of the child risk score and the directly assessed score.
- If an ad hoc risk is added from GRC Library during assessment, then the actual hierarchy of the risk is considered. The aggregation happens based on the hierarchy. The score of the newly added library risk is considered for aggregation to the assessable item and organization levels.

Case 1: Risk Aggregation with Multiple Parents

The following figure showing the expected behavior while rolling up the risk hierarchy when a risk has multiple parents. This shows an example of assessment done using Risk Assessment.

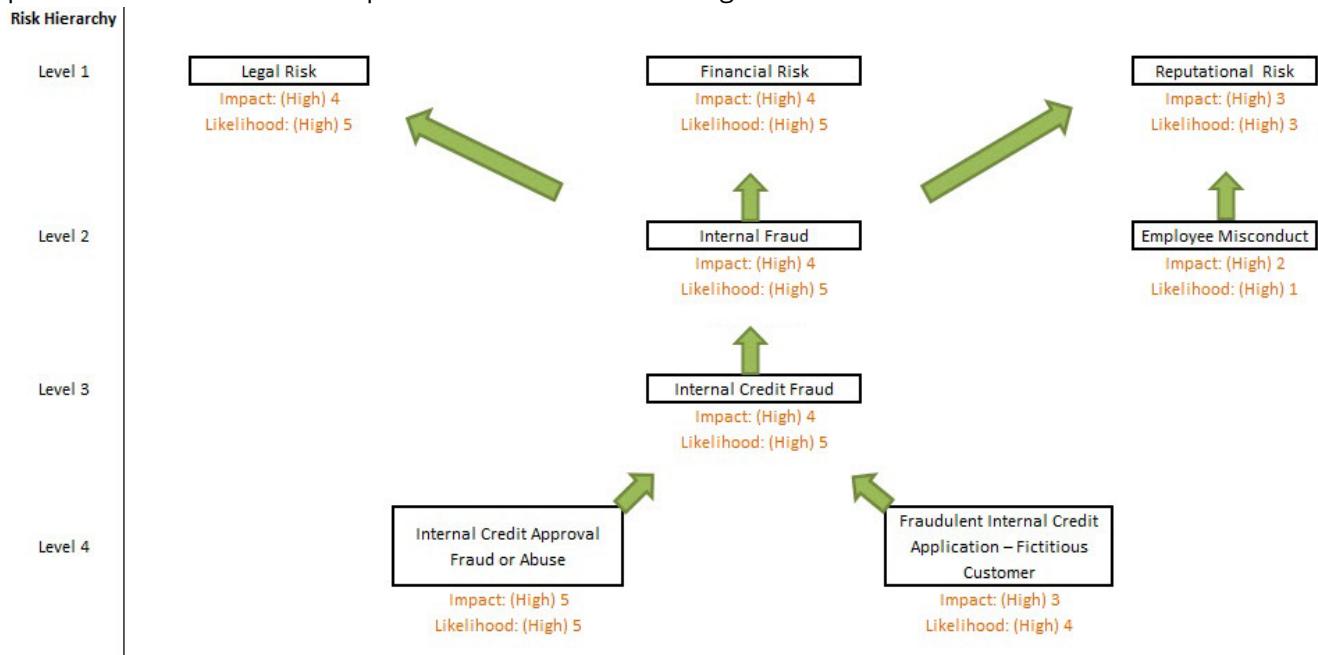


Figure 136 Expected behavior while rolling up the risk hierarchy based on risk matrix configuration methods when a risk has multiple parents

Consider the following three risks assessed for above give example, Employee Misconduct, Internal Credit Approval Fraud or Abuse, and Fraudulent Internal Credit Application-Fictions Customer

The following table describes the risk at various hierarchical levels.

Risk Name	Level	Status	Assessment Details
Internal Credit Approval Fraud or Abuse	Level 4	Active	Directly assessed as it is the lowest level child risk
Fraudulent Internal Credit Application-Fictions Customer	Level 4	Active	Directly assessed as it is the lowest level child risk
Internal Credit Fraud	Level 3	Active	Average of risks that are directly assessed at level 4 (Internal Credit Approval Fraud or Abuse and Fraudulent Internal Credit Application-Fictions Customer) rolls up to risk at level 3 (Internal Credit Fraud)
Internal Fraud	Level 2	Active	Average of risks that are directly assessed at level 4 (Internal Credit Approval Fraud or Abuse and Fraudulent Internal Credit Application-Fictions Customer) as these are the only child risks assessed.
Employee Misconduct	Level 2	Active	Directly assessed as it is the lowest level child risk
Legal	Level 1	Active	Average of risks that are directly assessed at level 4 (Internal Credit Approval Fraud or Abuse and Fraudulent Internal Credit Application-Fictions Customer) as these are the only child risks assessed.
Financial	Level 1	Active	Average of risks that are directly assessed at level 4 (Internal Credit Approval Fraud or Abuse and Fraudulent Internal Credit Application-Fictions Customer) as these are the only child risks assessed.
Reputational	Level 1	Active	Average of risks that are directly assessed at level 4 (Internal Credit Approval Fraud, Abuse and Fraudulent Internal Credit Application-Fictions Customer) and another child Employee Misconduct.

Score Aggregation Logic - Methodologies Based on Risk Matrix Configuration

For methodologies based on Risk Matrix Configuration, the score aggregation is based on the factors in the inherent and residual sections.

- Final impact score is the average of Impact scores of risks/assessable items/organization at the child levels
- Final likelihood score is the average of likelihood scores of risks/assessable items/organization at the child levels
- Final Inherent Score and Rating is the intersection of the factor responses (arrived using final impact score and final Likelihood score) in the risk matrix configuration of Profile form
- Final Residual Score and Rating is the intersection of the factor responses (arrived using final impact score and final Likelihood score) in the risk matrix configuration.

The aggregation of score occurs only when there are scores; it cannot happen based on rating or rank alone. The aggregation of score starts from the lowest hierarchical level and moves up to the parent level till the top-level parent is reached.

Calculation logic:

Consider the child risks at the lowest hierarchical levels. The scores of the child risks are arrived at based on the direct assessment done on the child risks.

Score for Internal Credit Approval Fraud or Abuse (child risk at level 4) from direct assessment

- Impact score of **Internal Credit Approval Fraud or Abuse** = 5
- Likelihood score of **Internal Credit Approval Fraud or Abuse** = 5

Score for Fraudulent Internal Credit Application - Fictitious Customer (level 4 risk) from direct assessment

- Impact score of **Fraudulent Internal Credit Application - Fictitious Customer** = 3
- Likelihood score of **Fraudulent Internal Credit Application - Fictitious Customer** = 4

Score for Internal Credit Fraud (level 3 risk)

The child risks for **Internal Credit Fraud** (level 3 risk) are **Internal Credit Approval Fraud or Abuse** and **Fraudulent Internal Credit Application - Fictitious Customer**. No direct assessment is done on **Internal Credit Fraud** (level 3 risk).

The aggregated score for the parent risk is calculated by averaging the scores of the active child risks.

Aggregated Impact/Likelihood scores for **Internal Credit Fraud** (level 3 risk) = Rounded off average score values of Impact/Likelihood of **Internal Credit Approval Fraud or Abuse** (child risk at level 4) and **Fraudulent Internal Credit Application - Fictitious such as Customer** (child risk at level 4).

- Aggregated Impact score of **Internal Credit Fraud** = $(5+3)/2=4$
- Aggregated Likelihood score of **Internal Credit Fraud** = $(5+4)/2=4.5$, which is rounded off to 5.

Summary

The final risk score of **Internal Credit Fraud** (level 3 risk) is rolled up from the child risks' scores as no direct assessment is done on **Internal Credit Fraud** (level 3 risk).

Scores for Internal Fraud (level 2 risk)

The only child risk for **Internal Fraud** (level 2 risk) is **Internal Credit Fraud** (level 3 risk) and no direct assessment is done on **Internal Fraud** (level 2 risk). Hence the score of **Internal Credit Fraud** for Impact/Likelihood is carried to **Internal Fraud**.

- Impact score of **Internal Fraud** = 4
- Likelihood score of **Internal Fraud** = 5

Scores for Employee Misconduct (level 2 risk)

Employee Misconduct is another risk at level 2, which does not have any child risks and is assessed directly. The direct assessment scores are as follows:

- Impact score of **Employee Misconduct** = 2
- Likelihood score of **Employee Misconduct** = 1.

Now, let us consider the parent risks at the highest level.

Legal Risk, Financial Risk, and Reputational Risk are the parent risks at the highest level.

Score of Legal Risk (Level 1 Risk)

Legal Risk (level 1 risk) has only one child risk called **Internal Fraud** (level 2risk); no direct assessment is done on **Legal Risk**. Hence the score of **Internal Fraud** (level 2risk) is carried to **Legal Risk**.

- Impact score of **Legal Risk** =4
- Likelihood score of **Legal Risk** = 5

Scores for Legal Financial Risk (level 1 Risk)

Financial Risk (level 1 risk) has only one child risk called **Internal Fraud** (level 2risk); no direct assessment is done on **Financial Risk**. Hence the score of **Internal Fraud** (level 2risk) is carried to **Financial Risk**.

- Impact score of **Financial Risk** =4
- Likelihood score of **Financial Risk** = 5

Score for Reputational Risk (level 1 Risk)

Reputational Risk (level 1 risk) has two child risks called **Internal Fraud** (level 2risk) and **Employee Misconduct** (level 2risk); no direct assessment is done on **Reputational Risk** (level 1 risk).

The aggregated score for the parent risk is calculated by averaging the scores of the active child risks.

Aggregated Impact/Likelihood scores for **Reputational Risk** (level 1 risk) = Rounded off average score values of Impact/Likelihood of **Internal Fraud** (level 2 risk) and **Employee Misconduct** (level 2risk).

- Aggregated Impact score of Reputational Risk = $(4+2)/2=3$
- Aggregated Likelihood score of Reputational Risk = $(5+1)/2=3$

The final risk score of **Reputational Risk** (level 1 risk) is rolled up from the child risks' scores as no direct assessment is done on **Reputational Risk** (level 1 risk).

Case 2: Risk Aggregation with Multiple Parents

The following figure showing the expected behavior while rolling up the risk hierarchy when a risk has multiple parents. This shows an example of assessment done using Risk Assessment.

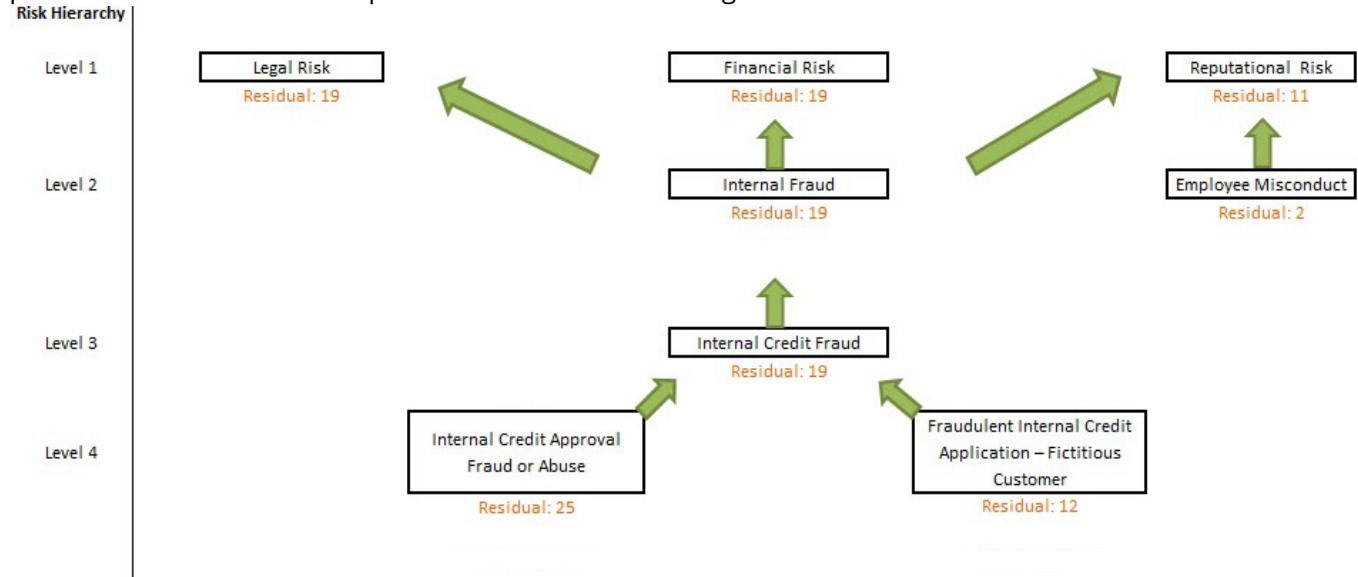


Figure 137 Expected behavior while rolling up the risk hierarchy based on risk matrix configuration methods when a risk has multiple parents

Consider the following three risks assessed for above give example, Employee Misconduct, Internal Credit Approval Fraud or Abuse, and Fraudulent Internal Credit Application-Fictions Customer

The following table describes the risk at various hierarchical levels.

Risk Name	Level	Status	Assessment Details
Internal Credit Approval Fraud or Abuse	Level 4	Active	Directly assessed as it is the lowest level child risk
Fraudulent Internal Credit Application-Fictions Customer	Level 4	Active	Directly assessed as it is the lowest level child risk
Internal Credit Fraud	Level 3	Active	Average of risks that are directly assessed at level 4 (Internal Credit Approval Fraud or Abuse and Fraudulent Internal Credit Application-Fictions Customer) rolls up to risk at level 3 (Internal Credit Fraud)
Internal Fraud	Level 2	Active	Average of risks that are directly assessed at level 4 (Internal Credit Approval Fraud or Abuse and Fraudulent Internal Credit Application-Fictions Customer) as these are the only child risks assessed.
Employee Misconduct	Level 2	Active	Directly assessed as it is the lowest level child risk
Legal	Level 1	Active	Average of risks that are directly assessed at level 4 (Internal Credit Approval Fraud or Abuse and Fraudulent Internal Credit Application-Fictions Customer) as these are the only child risks assessed.

Risk Name	Level	Status	Assessment Details
Financial	Level 1	Active	Average of risks that are directly assessed at level 4 (Internal Credit Approval Fraud or Abuse and Fraudulent Internal Credit Application-Fictitious Customer) as these are the only child risks assessed.
Reputational	Level 1	Active	Average of risks that are directly assessed at level 4 (Internal Credit Approval Fraud, Abuse and Fraudulent Internal Credit Application-Fictitious Customer) and another child Employee Misconduct.

Score Aggregation Logic - Methodologies Based on Risk Scoring Algorithm

For methodologies based on Risk Scoring Algorithm, the aggregation occurs based on the average of inherent scores and average of residual scores and not averages for each factors. For Scoring Algorithm and Rating based method, rating is calculated from the risk matrix, which is based on two factors and scores is calculated from the Risk Scoring Algorithm.

Example shown below is for calculating residual score, but the same logic applies for calculating inherent score as well.

Score for Internal Credit Fraud = The average scores (Inherent and Residual) of 'Internal Credit Approval Fraud or Abuse' and 'Fraudulent Internal Credit Application - Fictitious Customer'.

Since only residual scores are considered for the above scenario, only residual scores are calculated.

Residual score of Internal Credit Fraud = $(25+12)/2=18.5$.

Internal Fraud is the only parent for Internal Credit Fraud. Hence the same scores are rolled up to Internal Fraud.

There are three parents for Internal Fraud. They are Legal Risk, Financial Risk, and Reputational Risk. Reputational Risk is the parent for another risk named Employee Misconduct as well.

In this scenario, the scores from Internal Fraud rolls up to Legal Risk, Financial Risk as such. For Reputational Risk, since it has two child risks (Internal Fraud and Employee Misconduct), the average risk scores of the child risks are rolled up.

Score for Reputational Risk = The average scores (Impact, Likelihood, and Residual) of 'Employee Misconduct, Fraudulent Internal Credit Application-Fictitious Customer and Internal Credit Approval Fraud or Abuse'.

Residual score of Reputational Risk = $(19+2)/3=7$.

The following figure shows the expected behavior while rolling up the organization hierarchy. This shows an example of assessment using risk scoring algorithm.

Corporate		Residual: 13	Average of Residual Scores from BU1+BU 1.1+BU1.2+BU2+BU2.1+BU2.2
BU 1		Residual: 11	Average of Residual Scores from BU 1.1 and BU 1.2
BU 1.1	BU 1.1	Residual: 19	Average of Residual Scores from BU 2.1 and BU 2.2
	BU 1.2	Residual: 2	
BU 2		Residual: 15	
BU 2.1	BU 2.1	Residual: 25	
	BU 2.2	Residual: 4	

Note: Expected behavior while rolling up the organization hierarchy.

E-mail Notifications

As a part of the risk assessments workflow, e-mail notifications are generated and sent to the appropriate users. To see the e-mail notification details, do one of the following:

- Double-click this attachment (paper clip)  icon.
- In the left pane of this PDF, click  to view the attachment, and then double-click to open it.

Note: If the e-mail notifications attachment is not accessible on browser, download and open this PDF guide in Adobe Acrobat.

Field Types

The following table describes the most common types of fields available on the forms.

Field Type	Description
Free-text entry	<p>Allows you to type text without a specific structure and format. It accepts up to 4000 characters.</p> <p>Example: Name field</p>
Rich Text Format (RTF)	<p>Allows you to type lengthy descriptions. This field is displayed along with the Rich Text Format (RTF) icon. You need to click this icon to open the RTF editor and type the details. This type of field accepts more than 4000 characters. You can also attach documents and images in the form of attachments.</p> <p>Example: Purpose/Scope field</p>
List	<p>Lists the available options as a drop-down and allows you to select the required value.</p> <p>Example: Perspective field</p>
List of Values (LoV)	<p>Lists the available options in a pop-up window. This field is displayed with the LOV icon  . You need to click this icon to select the required option from the options window. The options window allows you to select a single value or multiple values based on the requirement and functionality.</p> <p>Example: Owners field for selection of multiple-values selection window, Approver field for single-value selection window.</p>
Date picker	<p>Allows you to pick a date or type the date within the space provided.</p> <p>This field is displayed along with the date picker icon  . You need to click this icon to choose a date. The accepted format is MM/DD/YYYY. However, the format is configurable.</p> <p>Example: Dates field</p>
Attachment	<p>Allows you to attach documents and images. This field is displayed along with the browse icon  . You need to click this icon to select a file from your local drive and attach it. The attached file name is provided as a link to the next-level user. The attachments can be deleted, if required.</p> <p>Example: Attach Files field</p> <p>The file types are configurable.</p>

Restricted Special Characters

The following table provides the special characters that are not allowed in the specified form fields and in the template used for data upload.

Field	Restricted special character combinations					
• Perspective form → Name Field	^&^	, and ~	#_#	@@	@@<-	>@@
• Qualitative form → Name and Values fields	\$^^\$	\\ \\ \\	\$##		@#@	\$_\$
• Quantitative form -	\$\$\$	%#%	&#&	;#~	;#,	#~#
o General section → Name field	[]	@^	^	!^()^!	^	<~>
o Rating → Response and Rating fields	!	<!>	<::>	<*>	?	#
• Risk Assessment Profile -						
o General section → Name field,						
o Risk Assessment section → Risks Rating field,						
o Control Effectiveness section → Control Effectiveness and Overall Effectiveness fields.						
o Residual Assessment Details section → Risk Rating field						
o Heat Map Configuration section → Profile Name field						
• Risk Assessment Plan form -						
o General Section → Name field						
o Assessment section → Name field						
• Risk Assessment Task form → Assessment section → Name field						
• Risk Assessment form →						
o General section → Name field						
o Assessment Summary section → Add New Risk → Risk field						
o Control Effectiveness section → Control Name field						
o Issues section → Add Issue → Title field						

For more details on special characters, refer to the MetricStream Arno Release Spring '21 - Platform - Configuration Guide.

Glossary

Chart

A graphical representation of data

GRc

Governance, Risk, and Compliance

Infocenter

A common and user specific page that appears to users after they login to the MetricStream product. The individual items in the infocenter, such as user forms, assignments, and reports appear on this page.

Infoport

All related user objects, which are grouped in a single section of the infocenter, that facilitate work.

PID

Process instance identification number (which is an internal system identifier).

Relationship Framework Options

The organization and GRC Foundation library contents are together known as relationship framework options.

Reports

A tabular representation of data.

Dashboards

A dashboard is a page that displays one or more charts.

Initiator

A user who creates the plan and determines the owners and approvers.

Level 1 plan approver

A user who approves the plan at the first level.

Level 2 plan approver

A user who approves the at the second level.

Plan owner

A user who manages and maintains plan.

Responsible plan owner

If no owners are explicitly selected, then the assignment is sent to all users with the '**RSK Edit Risk Assessment Plan**' activity from the selected owner organizations and their parents. The user who responds to the assignment becomes the responsible owner.

If there are no users with the '**RSK Edit Risk Assessment Plan**' activity, then the initiator becomes the responsible owner. The assignment does not go back to initiator, but gets published assuming the initiator as the responsible owner.

Assessor

Assessor is a user who assesses the risk, records the assessment results, and report issues or findings, if any.

Inherent Risks

The probabilities of loss arising out of circumstances or existing in an environment, in the absence of any action to control or modify the circumstances are called as inherent risks.

Perspectives

Perspectives help to do various Risk assessments using different scoring algorithms and also to allow different set of user to assess the same risks using different perspectives and maintain the scores in the perspective buckets.

Quantitative Factor

These factors can be scored in on any scale (1-10 or 50 to 100 and so on). These factors can have factor choices which user can select the appropriate score. This will enforce standard approach for scoring the factors.

Quantitative factors scores will be rolled up to the risk based on the specific algorithm applied (Default).

Qualitative Factor

Qualitative factors are nothing but the questions with specific responses such as text, number, date and so on.

The qualitative factors defined for risk will be displayed during the risk assessment. These factors are not scored in case any numeric number is entered as response which will not be considered for roll up score.

Residual Risks

Exposure to loss remaining after other known risks have been countered, factored in, or eliminated.

Reports

A tabular representation of data.

Residual Risks

Exposure to loss remaining after other known risks have been countered, factored in, or eliminated.

Risk

Risks are the internal and external factors that introduce uncertainty into an organization's ability to achieve its objectives.

Standard Factors

Standard factors are specific questions used for conducting traditional risk assessment methodology with specific responses that each correspond to a score that is then added up & rolled-up to arrive at an overall score for the risk assessment. Commonly observed set of Standard Factors for conducting risk assessments are Impact, Likelihood, Consequence, Velocity, Dollar Exposure, Control Effectiveness, and so on.

References

You can refer to the following documents:

- MetricStream Arno Release Spring '21 - Platform - User Guide
- MetricStream Arno Release Spring '21 - Governance, Risk, and Compliance Foundation - User Guide
- MetricStream Arno Release Spring '21 - Issues - User Guide
- MetricStream Arno Release Spring '21 - Platform - Configuration Guide

Feedback

MetricStream welcomes feedback from you on the quality and usefulness of this document. If you have any documentation-related comments and suggestions, write to [TechPubs](#).