

Application portfolio management workspace for IBM Rational Focal Point

Deployment guide

Table of contents

Application portfolio management workspace.....	4
Prerequisites to customize workspaces.....	4
Configuring predefined expressions and home pages.....	5
Activating predefined expressions.....	5
Updating the LinkInfo business rule.....	5
Updating the ListAttributeSum business rule.....	6
Reorganizing home pages.....	13
Structure of the application portfolio management workspace.....	17
Modules in the application portfolio management workspace.....	17
Module relationships.....	20
Roles in the application portfolio management workspace.....	21
Home pages in the application portfolio management workspace.....	23
Views in the application portfolio management workspace.....	29
All member views.....	29
Application business owner and application architect views.....	30
Enterprise architect views.....	32
Portfolio analyst views.....	32
Project management office views.....	34
Steering committee views.....	35
Adding new views.....	38
Customizing calculated scorecards.....	39
Scorecards for high-level assessments.....	40
Total business alignment score.....	40
Total IT alignment score.....	42
Scorecards for deep investigations.....	45
Deep business value score.....	45
Deep IT score.....	47
Scorecards for investment management.....	50
Business efficiency score.....	51
Ability for growth score.....	52
Notices.....	55
Trademarks.....	57

Note: Before using this information and the product it supports, read the information in the Notices.

Application portfolio management workspace

When workspace administrators set up the application portfolio management workspace for their organizations, they can use this guide to customize the workspace. This guide contains instructions for the actions that are required after creating or importing a workspace. The guide also provides an overview of modules, roles, views, home pages, and the implementation of scorecards.

Prerequisites to customize workspaces

Before you customize your workspace, you must be familiar with the application portfolio management workspace in IBM® Rational® Focal Point™. You must understand the use cases that this workspace supports.

You must also be familiar with customizing Rational Focal Point.

Configuring predefined expressions and home pages

Important: This section contains instructions for users of Rational Focal Point, Version 6.5.0 only. If you use version 6.5.1 or later, you do not need to follow these instructions unless expressions and home page views are broken and you need to troubleshoot.

After you create an application portfolio management workspace from the workspace template or import a workspace that was built from the template, you must fix a few predefined expressions and home pages.

Activating predefined expressions

The application portfolio management workspace contains several predefined expressions and business rules. Because the expressions and business rules contain database IDs that are unique for your environment, you must refresh the expressions and business rules. Refresh the business rules and expressions once for every imported or instantiated workspace. The following sections contain information about which IDs must be modified in which expressions, and about how you can find the database IDs for your environment.

Restriction: To activate predefined expressions, you must enable the status bar for your browser. The following table includes the steps to enable the status bar in FireFox and Microsoft® Internet Explorer.

Table 1. Enabling the status bar in a browser

Browser	Steps
FireFox 4	1. Click View . 2. Select Status Bar .
Internet Explorer 9	1. Click View . 2. Click Toolbars . 3. Select Status Bar .

Updating the LinkInfo business rule

The LinkInfo business rule is used to calculate the value for the Variance per Application attribute in the Portfolios module. Because the Member ID parameter in the LinkInfo business rule differs for each database, you must refresh that parameter. Use the ID for an administrator in the workspace. For more information, see the “LinkInfo business rule” topic in the Rational Focal Point help system.

To identify the elementID and update the LinkInfo business rule:

1. Identify the Member ID parameter:
 - a. Click **Members > Members**, and select the workspace administrator to use.
 - b. In the upper-right corner of the attribute list, hover your cursor over the **Edit** icon. The status bar in the lower-left corner displays

javascript:editElement (xxx), where xxx is the member ID. Make a note of the value shown.

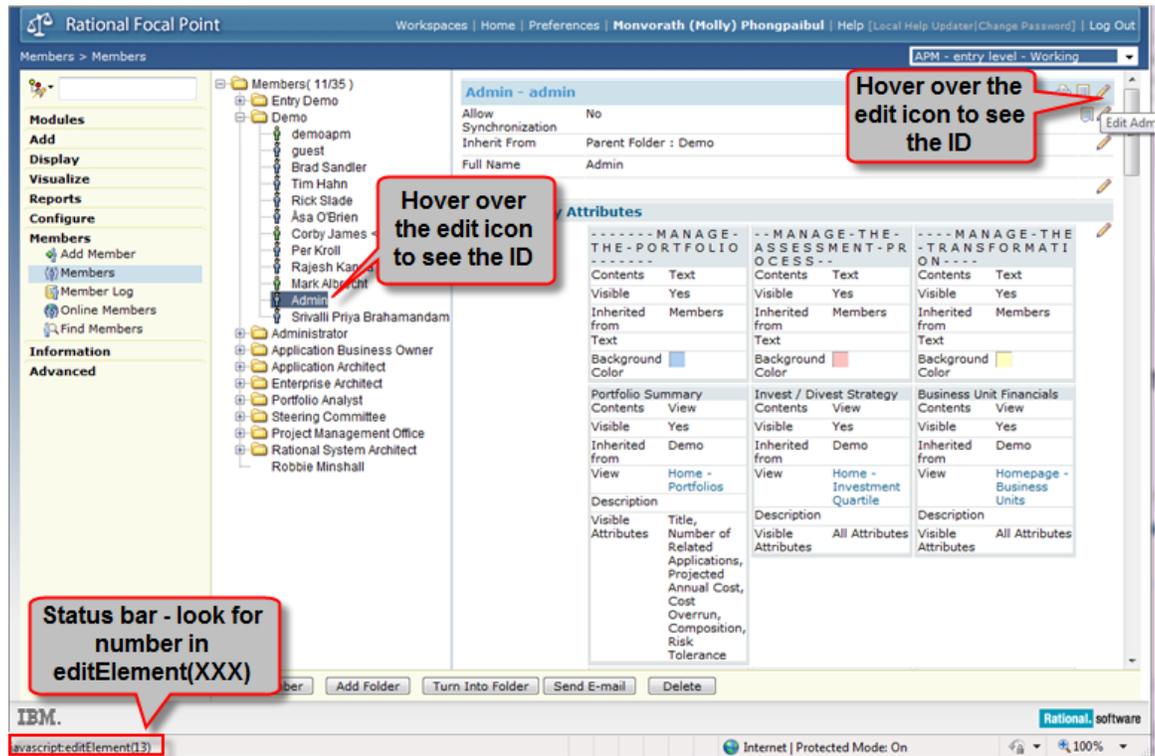


Figure 1: Screen to identify the memberId

2. Click **Configure > Attributes**.
3. Select the **Portfolios** module and edit the Variance per Application attribute. The business rule is displayed in the Default Value attribute. For example:

```
=LinkInfo("Applications",",Cost Variance,Planned Cost up til Now,Total Actual Costs to Now,Current Variance", "13", 'Applications')
```

4. Replace the third parameter with the member ID number from step 1. The third parameter is the numerical value, which in the example is 13.
5. Click **Copy Default Value To All Elements**.
6. Click **OK** to complete the updates.

Updating the ListAttributeSum business rule

The syntax for ListAttributeSum business rule is in the following format:

```
ListAttributeSum("List Attribute ID", "View ID", "Attribute ID", "User ID", 'List Attribute Name', "listen_to=Source Attribute Name", "listen_to=View Rule Attribute Name")
```

ListAttributeSum returns the sum of Integer or Float attributes for elements in a view in a list attribute. The parameters of ListAttributeSum use the values that are shown in the following table.

Table 2. Parameters to update for the ListAttributeSum business rule

Parameter	Description
List Attribute ID	The ID of the target attribute, which is an incoming links or link list attribute. This attribute links to elements in the source module that contains the attribute to summarize.
View ID	The ID of the view that determines which elements to include in the calculation.
Attribute ID	The ID of the source attribute to summarize.
User ID	The global user ID of the member who can access the view that is used for ListAttributeSum.

For example, the Number of Related Applications attribute in the Portfolios module uses the ListAttributeSum business rule to sum the number of applications that are associated with a portfolio.

Other attributes also contain the ListAttributeSum business rule. Those attributes are mentioned later in this section.

To update the Number of Related Applications attribute in the Portfolios module, use the following instructions. The steps to update other attributes are similar.

In the procedure, as an example, the user is Admin and the Number of Related Applications attribute has the following value:

```
=ListAttributeSum("232","299","407","13",'Applications',"listen_to=List Size")
```

1. Click **Configure > Attributes**.
2. Select the **Portfolios** module and then select the **Number of Related Applications** attribute. Replace the parameters as described in the following table.

Table 3. Steps to replace parameters

Parameter	Steps to replace the parameters
-----------	---------------------------------

"List Attribute ID"	<ol style="list-style-type: none"> 1. Click Configure > Attributes and select Portfolios. 2. Click Configuration Overview. A window opens. 3. Scroll to the Applications section, where the attribute type is Incoming Links. Note the attribute ID for the Applications attribute. 4. Replace the first parameter with the ID. In this example, the first parameter is 232.
"View ID"	<ol style="list-style-type: none"> 1. Click Configure > Views. 2. Expand All members > Configuration views > Helper views > Applications. 3. In the upper-right corner of the attribute list, hover your cursor over the Edit icon. The status bar displays <code>javascript:editElement (xxx)</code>, where <code>xxx</code> is the ID. 4. Replace the second parameter with the ID. In this example, the second parameter is 299.
"Attribute ID"	<ol style="list-style-type: none"> 1. Click Configure > Attributes and select Applications 2. Click Configuration Overview. 3. Note the attribute ID for the List Size attribute. 4. Replace the third parameter with the ID. In this example, the third parameter is 407.
"User ID"	<ol style="list-style-type: none"> 1. Click Members > Members, and select a global user. 2. In the upper-right corner of the attribute list, hover your cursor over the Edit icon. The status bar in the lower-left corner displays <code>javascript:editElement (xxx)</code>, where <code>xxx</code> is the ID. 3. Replace the fourth parameter with the ID. In this example, the ID is 13.

3. After you replace the parameters, click **Copy Default Value to All Elements**.
4. Click **OK** to complete the update.

Repeat this procedure to update the values for the ListAttributeSum business rules. The following table contains the attributes that use the ListAttributeSum business rule.

Tip: The User ID is generally the same for the following business rules.

Table 4. Attributes that use the ListAttributeSum business rule

Attribute	Location of ListAttributeId	Location of view ID	Location of attribute ID
Portfolio module			
Number of Related Applications	Attribute ID of the Applications attribute. Click Configure > Attributes > Portfolios.	Element ID of the view on the Applications page. To open the Applications page, click Configure > Views > All Members > Configuration Views > Helper Views > Applications.	Attribute ID of the List Size attribute. Click Configure > Attributes > Applications > Configuration Overview.
Business Risks and Issues			Attribute ID of the M-BusRisk attribute. Click Configure > Attributes > Applications > Configuration Overview.
IT Risks and Issues			Attribute ID of the M-IT-Risk attribute. Click Configure > Attributes > Applications > Configuration Overview.
Business Strategy Alignment			Attribute ID of the M-BusAlign attribute. Click Configure > Attributes > Applications > Configuration Overview.
Business Criticality			Attribute ID of the M-BusCrit attribute. Click Configure > Attributes > Applications > Configuration Overview.
IT Strategy Alignment			Attribute ID of the M-IT-Align attribute. Click Configure > Attributes > Applications > Configuration Overview.

Attribute	Location of ListAttributeId	Location of view ID	Location of attribute ID
Projected Annual Cost	Attribute ID of the Applications attribute. Click Configure > Attributes > Portfolios.	Element ID of the view on the Applications page. To open the Applications page, click Configure > Views > All Members > Configuration Views > Helper Views > Applications.	Attribute ID of the Projected Annual Cost attribute. Click Configure > Attributes > Applications > Configuration Overview.
Total Sum of Calculated Funding Changes			Attribute ID of the Calculated Annual Cost attribute. Click Configure > Attributes > Applications > Configuration Overview.
Total Sum of Proposed Funding Changes			Attribute ID of the Proposed Annual Cost attribute. Click Configure > Attributes > Applications > Configuration Overview.
Gold Classification Total Score			Attribute ID of the Gold Classification Score attribute. Click Configure > Attributes > Applications > Configuration Overview.
Aggregated Cost Variance			Attribute ID of the Cost Variance Calculation attribute. Click Configure > Attributes > Applications > Configuration Overview.
Number of Gold	Attribute ID of the Gold Applications attribute. Click Configure > Attributes > Portfolios > Configuration	Element ID of the view on the Gold Applications page. To open the Gold Applications page, click Configure > Views > All Members >	Attribute ID of the Classification attribute. Click Configure > Attributes > Applications > Configuration Overview.

Attribute	Location of ListAttributeId	Location of view ID	Location of attribute ID
	Overview.	Configuration Views > Helper Views > Gold Applications.	
Number of Active Applications	Attribute ID of the Active Applications attribute. Click Configure > Attributes > Portfolios > Configuration Overview.	Element ID of the view on the Active Applications page. To open the Active Applications page, click Configure > Views > All Members > Configuration Views > Helper Views > Active Applications	Attribute ID of the List Size attribute. Click Configure > Attributes > Applications > Configuration Overview.
Number of Retired Applications	Attribute ID of the Retired Applications attribute. Click Configure > Attributes > Portfolios > Configuration Overview.	Element ID of the view on the Retired Applications page. To open the Retired Applications page, click Configure > Views > All Members > Configuration Views > Helper Views > Retired Applications	Attribute ID of the List Size attribute. Click Configure > Attributes > Applications > Configuration Overview.
Criteria module			
Attribute	Location of ListAttributeId	Location of view ID	Location of attribute ID
# of Applications	Attribute ID of the Applications attribute. (Configure > Attributes > Criteria > Configuration Overview)	Element ID of the view on the Applications page. To open the Applications page, click Configure > Views > All members > Configuration Views > Helper Views > Applications.	Attribute ID of the List Size attribute. Click Configure > Attributes > Applications > Configuration Overview.
# of Projects	Attribute ID of the Projects attribute. Click Configure >	Element ID of the view on the Projects page. To open the Projects	Attribute ID of the List Size attribute. Click Configure >

Attribute	Location of ListAttributeId	Location of view ID	Location of attribute ID
	Attributes > Criteria > Configuration Overview.	page, click Configure > Views > All members > Configuration Views > Helper Views > Projects.	Attributes > Projects > Configuration Overview.

Tip: When you update business rules on the Attributes page of the **Configure** menu, you can also refer to the Administrator Notes about the attribute.

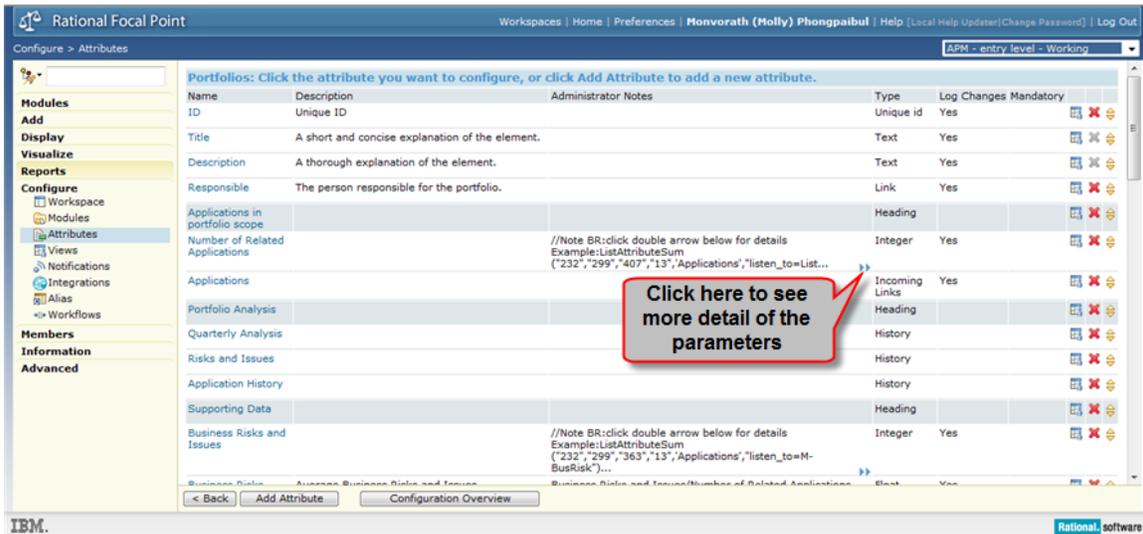


Figure 2: Administrator Notes

Reorganizing home pages

When you set up your application portfolio management workspace, the order of the home page windows for different roles might change. You must reorganize the home pages.

To reorganize a home page:

1. Click **Members > Members**.
2. Select the folder that represents the role, and then edit the My Home attribute.
3. Use the arrow keys to reorganize the windows for each role, as shown in the following table, and click **OK**.

Table 5. Arrangement of windows for each role

Role	Left	Middle	Right
Entry Demo	Portfolio Overview	Application by Classification	
	# of Application by Business Alignment	Applications Failing SLAs	
	Application Lifecycle Distribution	Application / Business Strategy Alignment	
	Strategic Objectives		
Demo	Manage the Portfolio	Manage the assessment process	Manage the transformation
	Portfolio Summary	Invest / Divest Strategy	Business Unit Financials
	Financial Trends	# of Applications for each Investment Category	Project Lifecycle Distribution
	Applications Fail SLA	Investment Rating	Project / Business Strategy Alignment
	Application Lifecycle Distribution	Assessment Status	
	Application / Business Strategy Alignment	# of Applications by Proposed Disposition	

Role	Left	Middle	Right
Application business owner	Manage the Portfolio	Manage the assessment Process	Manage the Transformation
	My Portfolios Summary	My Applications per Investment Category	Project related to my applications
	My Application Summary	Investment Rating of My Applications	
	Financial Trends of My Applications	Assessment Status of My Applications	
	My Applications Failing SLAs	Applications Requiring My Actions	
	My Application Lifecycle Distribution	My Applications by Proposed Disposition	
	Strategic Objectives		
	Application Alignment to Objectives		
Application architect	Manage the Portfolio	Manage the assessment Process	Manage the Transformation
	My Applications Summary	Investment Rating of My Applications	Project Related to My Applications
	My Applications Failing SLAs	Assessment Status of My Applications	
	My Applications Lifecycle Distribution	Applications Requiring My Actions	
	Strategic Objectives	# of Applications by Proposed Disposition	
	Applications Alignment to Objectives		

Role	Left	Middle	Right
Enterprise architect	Manage the Portfolio	Manage the Assessment process	Manage the transformation
	Financial Trends	# of Applications for each Investment Category	Project Lifecycle Distribution
	Applications Fail SLA	Investment Rating	Project Alignment to Objectives
	Application Lifecycle	Assessment Status	
	Distribution	# of Applications by Proposed Disposition	
	Strategic Objectives		
	Active Application		
	Alignment to Objectives		
Portfolio analyst	Manage the Portfolio	Manage the assessment Process	Manage the Transformation
	My Portfolios Financial Summary	# of Applications in My Portfolio per Investment Category	My Project Lifecycle Distribution
	My Portfolios Financial Trends	Investment Distribution for My Portfolios	Project Alignment to Objectives
	Applications in My Portfolios Failing SLAs	Investment Rating of Applications in my Portfolios	
	Lifecycle Distribution of Application in My Portfolio	Assessment Status of Applications in My Portfolios.	
	Strategic Objectives	Applications Requiring My Actions	
	Active Application Alignment to Objectives	# of Applications in My Portfolios by Proposed Disposition.	

Role	Left	Middle	Right
Project management office (PMO)	Manage the Transformation.		
	Business Unit Financials		
	Project Lifecycle Distribution		
	Project Alignment to Objectives.		
Steering committee	Manage the Portfolio	Manage the assessment process	Manage the transformation
	Portfolio Summary	Invest / Divest Strategy	Business Unit Financials
	Financial Trends	Investment Distribution by Portfolio	Project Lifecycle Distribution
	Applications Failing SLAs	Application per Investment Category	Project Alignment to Objectives
	Application Lifecycle Distribution	Investment Rating	
	Strategic Objectives	Application Assessment Status	
	Active Application Alignment to Objectives	# of Applications by Proposed Disposition	

Structure of the application portfolio management workspace

Modules in the application portfolio management workspace

The application portfolio management workspace contains several predefined modules.

Table 6. Modules in the application portfolio management workspace

Modules	Description
Applications	<p>This module is the central entity in the workspace, and contains all of the applications. Attributes capture the following information:</p> <ul style="list-style-type: none"> • Overview information • Financial information • Business-related information, such as business value and criticality • Technical information • Various scorecards <p>To determine investment levels and consolidation and modernization targets, analyze the data in this module.</p> <p>The application module contains a workflow for the application lifecycle and another workflow for the application assessment process.</p> <p>Each element in this module represents one application.</p>
Portfolios	<p>This module aggregates groups of applications into a set of portfolios. Attributes capture overview information and aggregated financials and scores that are related to portfolio composition, value, and risk.</p> <p>Each element in this module represents one portfolio.</p>
Weights	<p>This supporting module contains the weights that are assigned to specific application attributes. These weights are used to calculate different scorecards and investment levels.</p> <p>Each entity in this module represents one profile for determining organizational priorities and investment models. You can have one or several of these profiles.</p>
Criteria	<p>This supporting module defines the criteria to be used for prioritization and visualization views for the Applications and Projects modules. The criteria represent attributes that can be selected as dimensions (x-axis, y-axis, bubble size, and so on) in</p>

Modules	Description
	<p>views.</p> <p>The criteria also include the strategic objectives that are defined for an organization.</p> <p>Folders are used to group the criteria. Each element in the folder is a single criterion or objective.</p>
Projects	<p>This module contains projects. Projects are created based on the application assessments and Application Portfolio Management initiatives to execute identified changes.</p> <p>The information that is collected includes planning data, business cases, risk information, and scorecards to determine which projects to fund. The Projects module provides workflow support.</p> <p>This module has one element for each project.</p> <p>Tip: For more rigorous project portfolio management to support your application portfolio management efforts, use the IT Portfolio workspace. That workspace contains a more complete set of attributes and supporting modules and views.</p>
Business Units	<p>This module includes the business units in the organization. Projects are linked to business units so that the project status and financials can be tracked at a business unit level.</p>
Risks	<p>This module includes risks for the portfolio, projects, and application.</p> <p>Note: The risk module is currently not linked to the modules for portfolio, projects, and applications. After the risk module is linked to those modules, the risk module can be used for a more comprehensive treatment of risks within the workspace.</p>
Images	<p>This module includes the images that are in the workspace.</p>

To view the modules in the workspace, click **Configure > Modules**. You can add, delete, or modify the modules as needed.

Attention: If you delete a module, you might break dependencies and links. The modules each have predefined attributes that you can also modify, delete or supplement.

Each view is associated with a module, as indicated by the view icon. On the Views page of the **Configure** menu, views are sorted by role and view type.

To sort the views by module:

1. In the workspace, click **Preferences**.
2. Click **Miscellaneous Settings**.
3. Under the **View Sort** field, click **By Attribute**, and select **View definition**.
4. Click **OK**.

Module relationships

The following diagram shows how the modules in the application portfolio management template are related.

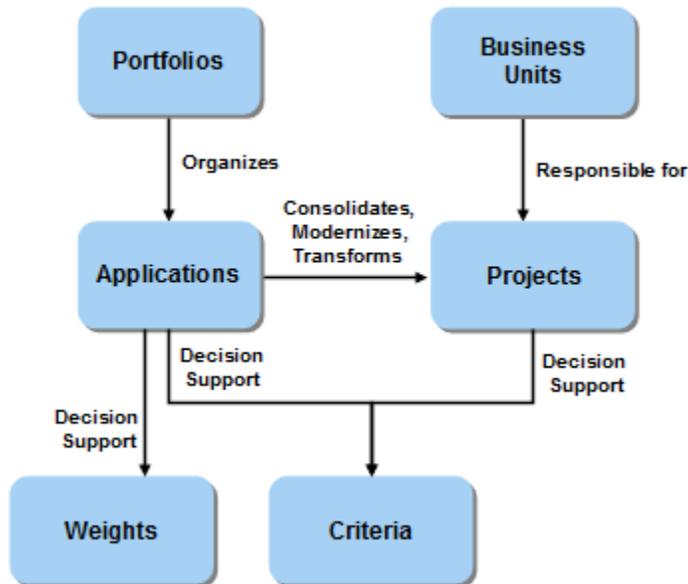


Figure 3: Relationships between modules in the APM template

A portfolio contains one or more applications that are related. Each application belongs in only one portfolio. An application has weights, which are used calculate the scorecards that support decision-making.

A business unit is responsible for one or more projects. A project represents a consolidation, modernization, or transformation project. One or more applications that impact the project are assigned to the project.

The criteria module provides evaluation criteria for applications and projects to prioritize the elements in the module.

The information model does not include information about relationships with these modules:

- The Members module, which defines the users who can access the workspace and their roles. For example, the Members module links to the application owner and application architect.
- Standard modules that support configuration, such as Images, Views, Checkpoints, Saved Charts, Generated Reports, Resource Types, Releases, Saved Plans, and Baselines.

Roles in the application portfolio management workspace

The application portfolio management template defines several roles, such as application business owner, portfolio analyst, and project management office. You can modify the roles and define your own roles.

To view and manage roles and workspace members, click **Members > Members**.

Table 7. Roles in the application portfolio management template

Role	Description
Application business owner	This role has business responsibility for one or more applications. The application business owner understands the business context of an application. This role is responsible for maintaining business-related information for the application, such as financials, strategic alignment, criticality, and growth potential. The application business owner relies on an application architect for the technical information about the application.
Application architect	This role has technical responsibility for one or more applications. The application architect understands the technical context of an application and is responsible for maintaining technical information for the application, such as IT alignment, dependencies, and code complexity.
Enterprise architect	This role is responsible for the technical solutions, architecture, and technology standards that are used across a set of applications, within one or more portfolios. The enterprise architect is the technical counterpart to the portfolio analyst.
Portfolio analyst	This role is responsible for one or more application portfolios, and is responsible for the overall application portfolio management process. The portfolio analyst represents the execution arm of the steering committee and coordinates the other roles in executing portfolio assessment and management.
Project management office (PMO)	This role is responsible for project proposals and execution, and owns the project portfolio management process. This workspace template defines a basic project portfolio workflow. The IT Portfolio Management template provides a more complete project portfolio management solution. If you need more project-related capabilities, use the IT Portfolio Management workspace with the application portfolio management workspace. Alternatively, you can copy elements from the IT Portfolio Management into application portfolio management workspace.
Steering committee	This role makes decisions about the application portfolio, including determining investment levels, identifying applications requiring action, and approving proposals for

Role	Description
	application disposition and projects. The steering committee also monitors the portfolio health and reviews the strategic alignment of applications and projects.

Home pages in the application portfolio management workspace

Each role has a home page that is displayed when the workspace is accessed. A home page consists of one or more windows that contain information that is relevant to users in that role. The following table shows the home pages for each role. The roles for entry level demo and demo are not included in this table because those roles are typically not customized, but removed before production usage.

Table 8. Home page windows for each role

Roles	Home page windows
All users	<ul style="list-style-type: none"> • MANAGE-THE-PORTFOLIO: This column contains the reports that are used to manage the portfolio. <ul style="list-style-type: none"> ◦ Strategic Objectives: This report displays all of the strategic objectives and their weights. • MANAGE-THE-ASSESSMENT-PROCESS: This column contains the reports that are used to manage the application assessments. • MANAGE-THE-TRANSFORMATION: This column contains the reports that are used to manage the transformation projects.
Application business owner	<ul style="list-style-type: none"> • MANAGE-THE-PORTFOLIO <ul style="list-style-type: none"> ◦ My Portfolios Summary: This view shows a summary of portfolio information, including financials information. The view displays only the portfolios that contain applications in which the current user is the application business owner. ◦ My Application Summary: This view shows a summary of information about applications in which the current user is the application business owner. ◦ Financial Trends of My Applications: This view shows the trend line of the accumulated costs of applications in which the current user is the application business owner. ◦ My Application Failing SLAs: For applications in which the current user is the application business owner, this view shows the applications that failed SLAs at level 4 and 5. ◦ My Application Lifecycle Distribution: This statistic view shows the number of applications, distributed by application state, in which the current user is the application business owner. ◦ Application Alignment to Objectives: This view shows the distribution of applications across strategic objectives. The view displays only the strategic objectives that are related to applications in which the current user is the application business owner. • MANAGE-THE-ASSESSMENT-PROCESS <ul style="list-style-type: none"> ◦ # My Applications per Investment Category: This statistic view shows the number of applications, distributed by

Roles	Home page windows
	<p>investment category, in which the current user is the application business owner.</p> <ul style="list-style-type: none"> ○ Investment Ration of My Applications: This statistic view shows the number of applications, distributed by start rating score, in which the current user is the application business owner. ○ Assessment Status of My Applications: This statistic view shows the number of applications, distributed by assessment state, in which the current user is the application business owner. ○ Applications Requiring My Actions: This view shows a list of the applications in which the current user must take action as the application business owner. ○ # of Applications by Proposed Disposition: This statistic view shows the number of applications, distributed by recommended disposition methods, in which the current user is the application business owner. <ul style="list-style-type: none"> • MANAGE-THE-TRANSFORMATION <ul style="list-style-type: none"> ○ Project Related to My Applications: This view shows a list of all of the projects that impact the applications where the current user is the application business owner.
Application architect	<ul style="list-style-type: none"> • MANAGE-THE-PORTFOLIO <ul style="list-style-type: none"> ○ My Application Summary: This view shows a summary of the applications in which the current user is an application architect. ○ My Application Failing SLAs: This view shows the list of the applications that failed SLAs at level 4 and 5. The view displays only the applications in which the current user is an application architect. ○ My Application Lifecycle Distribution: This statistic view shows the number of applications, distributed by application state, in which the current user is an application architect. ○ Application Alignment to Objectives: This view shows the distribution of active applications across strategic objectives. The view displays only the strategic objectives that are related to applications in which the current user is an application architect. • MANAGE-THE-ASSESSMENT-PROCESS <ul style="list-style-type: none"> ○ Investment Ration of My Applications: This statistic view shows the number of applications, distributed by start rating score, in which the current user is an application architect. ○ Assessment Status of My Applications: This statistic view shows the number of applications, distributed by assessment state, in which the current user is an application architect.

Roles	Home page windows
	<ul style="list-style-type: none"> ○ Applications Requiring My Actions: This view shows a list of the applications in which the current user must take action. ○ # of Applications by Proposed Disposition: This statistic view shows the number of applications, distributed by recommended disposition methods, in which the current user is an application architect. ● MANAGE-THE-TRANSFORMATION <ul style="list-style-type: none"> ○ Project Related to My Applications: This view shows a list of the projects that impact the applications in which the current user is an application architect.
Enterprise architect	<ul style="list-style-type: none"> ● MANAGE-THE-PORTFOLIO <ul style="list-style-type: none"> ○ Portfolios Summary: This view shows a summary of information about all of the portfolios, including financials information. ○ Financial Trends: This view shows the trend line of the accumulated costs of all of the portfolios over time. ○ Application Lifecycle Distribution: This statistic view shows the number of applications distributed by application state. ○ Active Application Alignment to Objectives: This view shows the distribution of all of the active applications across the strategic objectives. ● MANAGE-THE-ASSESSMENT-PROCESS <ul style="list-style-type: none"> ○ Application Assessment Status: This statistic view shows the number of all of the applications distributed by assessment state. ○ Applications Requiring My Actions: This view shows a list of the applications that require action from the enterprise architect. ○ # of Applications by Proposed Disposition: This statistic view shows the number of all of the applications distributed by recommended disposition methods. ● MANAGE-THE-TRANSFORMATION <ul style="list-style-type: none"> ○ Project Lifecycle Distribution: This statistic view shows the number of all of the projects distributed by project state. ○ Project Alignment to Objectives: This view shows the distribution of all of the projects across the strategic objectives.
Portfolio analyst	<ul style="list-style-type: none"> ● MANAGE-THE-PORTFOLIO <ul style="list-style-type: none"> ○ My Portfolios Financial Summary: This view shows a summary of the financial information for portfolios in which the current user is an owner. ○ My Portfolios Financial Trends: This view shows the trend line of accumulated costs for portfolios in which the

Roles	Home page windows
	<p>current user is an owner.</p> <ul style="list-style-type: none"> ○ Applications in My Portfolios Failing SLAs: This view shows the list of applications that failed SLAs at level 4 and 5. The view displays only the applications that are in portfolios in which the current user is an owner. ○ Lifecycle Distribution of Application in My Portfolio: This statistic view shows the number of applications distributed by application state. The view displays only the applications that are in portfolios where the current user is an owner. ○ Active Application Alignment to Objectives: This view shows the distribution of active applications across the strategic objectives. The view displays only the strategic objectives that are related to applications in portfolios where the current user is an owner. <ul style="list-style-type: none"> • MANAGE-THE-ASSESSMENT-PROCESS <ul style="list-style-type: none"> ○ # Applications in My Portfolios per Investment Category: This statistic view shows the number of applications distributed by investment category. The view displays only the active applications that are in portfolios where the current user is an owner. ○ Investment Distribution for My Portfolio: This static view compares the targeted funding for next year with the projected annual cost for the current year. The view also compares the calculated funding for next year based on the investment model, and the funding for next year that the application owner proposed. The portfolio analyst uses this view to decide the proposed investment level for next year. ○ Investment Ration of Applications in My Portfolios: This statistic view shows the number of applications distributed by start rating score. The view displays only the active applications that are in portfolios where the current user is an owner. ○ Application Assessment Status of Applications in My Portfolios: This statistic view shows the number of applications distributed by assessment state. The view displays only the active applications that are in portfolios where the current user is an owner. ○ Application Requiring My Actions: This view shows the list of applications for which the portfolio analyst must validate assessment data. ○ # of Applications in My Portfolios by Proposed Disposition: This statistic view shows the number of applications distributed by recommended disposition methods. The view displays only the active applications in portfolios where the current user is an owner.

Roles	Home page windows
	<ul style="list-style-type: none"> • MANAGE-THE-TRANSFORMATION <ul style="list-style-type: none"> ○ My Project Lifecycle Distribution: This statistic view shows the number of projects distributed by project state. The view displays only the projects that are in portfolios where the current user is an owner. ○ Project Alignment to Objectives: This view shows the distribution of projects across the strategic objectives. The view displays only the strategic objectives that are related to projects in portfolios where the current user is an owner.
Project management office (PMO)	<ul style="list-style-type: none"> • MANAGE-THE-TRANSFORMATION <ul style="list-style-type: none"> ○ Business Unit Financials: This view shows the trend line of aggregated costs for projects. ○ Project Lifecycle Distribution: This statistic view shows the number of all of the projects distributed by project state. ○ Project Alignment to Objectives: This view shows the distribution of all of the projects across the strategic objectives.
Steering committee	<ul style="list-style-type: none"> • MANAGE-THE-PORTFOLIO <ul style="list-style-type: none"> ○ Portfolios Summary: This view shows a summary of the information about all of the portfolios, including financials information. ○ Financial Trends: This view shows the trend line of the accumulated costs of all of the portfolios over time. ○ Application Failing SLAs: This view shows the list of all of the applications that failed SLAs at level 4 and 5. ○ Application Lifecycle Distribution: This statistic view shows the number of all of the applications distributed by application state. ○ Active Application Alignment to Objectives: This view shows the distribution of all of the active applications across strategic objectives. • MANAGE-THE-ASSESSMENT-PROCESS <ul style="list-style-type: none"> ○ Invest / Divest Strategy: This view shows the investment quartile chart. This chart represents the level of investment for all of the applications in your organization. ○ Investment Distribution by Portfolio: This static view compares the targeted funding for next year with the projected annual cost for the current year. The view also compares the calculated funding for next year that is based on the investment model and the funding for next year that the application owner proposed. The steering committee uses this view to decide the proposed investment level for next year ○ # Applications per Investment Category: This statistic view shows the number of active applications distributed by

Roles	Home page windows
	<p>investment category.</p> <ul style="list-style-type: none"> ○ Investment Rating: This statistic view shows the number of active applications distributed by start rating score. ○ Application Assessment Status: This statistic view shows the number of all of the applications distributed by assessment state. ○ # of Applications by Proposed Disposition: This statistic view shows the number of all of the applications distributed by recommended disposition methods. <ul style="list-style-type: none"> ● MANAGE-THE-TRANSFORMATION <ul style="list-style-type: none"> ○ Business Unit Financials: This view shows the trend line of aggregated costs for projects. ○ Project Lifecycle Distribution: This statistic view shows the number of all of the projects distributed by project state. ○ Project Alignment to Objectives: This view shows the distribution of all of the projects across strategic objectives.

Views in the application portfolio management workspace

The application portfolio management workspace has predefined views that are based on roles. The views are divided into folders that reflect the roles in the Members view. Members of a given Members folder can access the views for that role.

The views for each role are grouped into subfolders. The subfolders reflect the navigation menu, the General Access and Configuration views to support linking and calculations, the Criteria views to use for visualizations, and the Home Page views.

The roles for entry level demo and demo are not included in this section because the views for those roles are typically not customized, but removed before production usage.

All member views

The following table contains the views that all members can access.

Table 9. Views that all members can access

Subfolder	View name	Description
Add views	Application	Adds a new application.
	Project	Adds a new project proposal.
Display views	Applications	Shows all applications. This view can be filtered to show the business scorecard, technical scorecard, and active application only. This view is read-only.
	Projects I submitted	Shows all of the projects that the current user has submitted. This view is read-only except for comments.
	Portfolios	Shows all portfolios. This view is read-only.

Application business owner and application architect views

The following table includes the views that the application business owner and application architect roles can access.

Table 10. Views that the application business owner and application architect can access

Subfolder	View name	Description
Add views	Application Bulk Loading	Adds many applications by spreadsheet import.
Display views	My Applications	<p>Shows all of the applications where the current user is the Application Business Owner or the Application Architect.</p> <p>This view has filters for both business and technical attributes to show this information:</p> <ul style="list-style-type: none"> ◆ Applications requiring Assessment ◆ Applications requiring Investment Assessment ◆ Applications requiring Investigation <p>Both business and technical attributes can be changed in this view, including financials.</p> <p>This view uses the Assessment State workflow.</p>
	Application Roadmap	Shows a road map of applications over time. This view includes all states except retired and rejected. The view can be filtered to show My Applications, which are applications where the current user is either the application business owner or the application architect. The view is read-only except for risks, issues, and comments.
	Project Roadmap	Shows a road map of accepted and implementing projects over time. This view can be filtered to show submitted projects that are related to My Applications. The view can also be filtered to show submitted projects that are related to Projects I submitted.. This view is read-only except for comments.

Enterprise architect views

In addition to the views that all members can see, the enterprise architect can access the views that are in the following table.

Table 11. Views that the enterprise architect can access

Subfolder	View name	Description
Display views	Applications under Investigation	Contains applications that are in the Investigation state. The disposition, rationale, decommission date, risks, issues, and comments are editable.
	Application Roadmap	Shows a road map of applications over time. This view is read-only except for risks, issues, and comments.
	Project Roadmap	Shows a road map of accepted and implementing projects over time. This view can be filtered to show My Applications and Projects I submitted. This view is read-only except for comments.

Portfolio analyst views

In addition to the views that all members can see, the portfolio analyst can access the views that are in the following table.

Table 12. Views that the portfolio analyst can access

Subfolder	View name	Description
Add views	Portfolio	Adds a new portfolio.
	Application Bulk Loading	Adds many applications by spreadsheet import.
	Strategic Objective	Adds new a strategic objective, or criterion.
Display views	My Portfolios	Shows all portfolios where the current user is responsible. This view is read/write.
	Applications in My Portfolios	Shows all applications that belong to portfolios where the current user is responsible. This view can be filtered to show the assessment required and the investigation required. This view uses the Assessment State workflow. In this view, applications are changed to the Assess state to start the assessment process. Some attributes, such as owner, assessment state, and strategy, are read/write.

Display views	Applications for My Action	Shows applications from current user's portfolio that are in the Info Gathered and Investigation Done states so that the analyst can validate the information and transition to the applications to the Ready to Review state. This view uses Assessment State workflow. This view can be filtered to show Initial info gathered, Investigation done, and Investment review. This view is read-only except for assessment state, proposed investment change, risks, issues, and comments. To sum new projected costs and investment change percentages, you can use the Statistic view for investment analysis.
	Application Roadmap	Shows a road map of applications over time. Includes all states except retired and rejected. This view can be filtered to show Applications in My Portfolios. This view is read-only except for risks, issues, and comments.
	Project Roadmap	Shows a road map of the accepted and implementing projects over time. This view can be filtered to show Applications in My Portfolio and Projects I submitted. This view is read-only except for comments.
	Strategic Objective	Displays all of the criteria under the Strategic Objectives folder. The Title, Description, Weight and Objective attributes are editable.
	Calculation Weightings	Displays the weightings that are used in the various calculations. This view is read/write.
	Investment Quartile Image	Shows the image of the investment quartile for update.
Visualize Only Views	Strategic Objectives	Displays the results of business objective prioritization. Except for the priority values, this view is read/write.

Project management office views

In addition to the views that all members can see, the project management office (PMO) role can access the views in the following table.

Table 13. Views that the PMO can access

Subfolder	View name	Description
Add views	Business Unit	Adds a new business unit.
Display views	Business Units	Shows all of the business units for an update. This view is read/write.
	My Projects to Detail	Shows the proposed projects where the current user is the owner, so that the owner can provide the necessary details and business case. This view is read/write and uses the Project State workflow.
	Projects to be Implemented	Shows all of the projects that the steering committee accepted and that must be implemented. The PMO can complete additional planning and transition to the Implementing state. This view can be filtered to show My projects. This view uses the Project State workflow. For implementation-related attributes, such as start and end dates, this view is read/write.
	Projects in Implementation	Shows all of the projects that are being executed. This view can be filtered to show My projects. This view uses the Project State workflow. The view is partially read/write so that start and end dates, financials, and other information can be updated. Projects in this view are eventually transitioned to the Delivered state.
	Project Roadmap	Shows a road map of accepted and implementing projects over time. This view can be filtered to show My Projects and Implementing projects only. This view is read-only except for comments and start, end, and benefits dates.
	Application Roadmap	Shows a road map of applications over time. This view includes all states except retired and rejected. The view is read-only except for risks, issues, and comments.

Steering committee views

In addition to the views that all members can access, the steering committee can access the views that are in the following table.

Table 14. Views that the steering committee can access

Subfolder	View name	Description
Add views	Portfolio	Adds a new portfolio.
	Strategic Objective	Adds a new strategic objective, or criterion.
Display views	Portfolio Investment	Shows all of the portfolios, including the targets for investment change and proposed investment change level attributes. This view can be filtered to show the financial information of the portfolio only.
Display views	Investment Analysis	Shows all of the active applications that are ready for assessment or investigation review, specifically in respect to investment change and supporting scores. You can apply the Scorecard filter in the table display format to show a scorecard that is related to investment analysis. Use the statistics display format to summarize percentages and annual costs. This view uses the Assessment State workflow. States, proposed investment changes, ratings, and classifications are editable.
	Application Roadmap	Shows a road map of applications over time. This view includes all states except retired and rejected. This view can be filtered to show Active applications, Ready for review, and Ready for Review 2. This view is read-only except for risks, issues, and comments.
	Project Roadmap	Shows a road map of proposed, accepted, and implementing projects over time. This view can be filtered to show Accepted and Implementing projects, New projects, and Alternative-groups. This view uses the Project State workflow. Dates and comments are editable.
	Projects	Shows all of the projects that are not rejected or proposed. This view can be filtered to show Accepted and Implementing and Delivered projects. This view is read-only except for risks and comments.

Subfolder	View name	Description
Prioritize/Visualize Views	Strategic Objectives	Prioritizes and visualizes strategic objective criteria based on which objective is higher priority. This view is read/write.
Visualize only views	Investment Assessment	Shows a visualization of the values for attributes and scores that support investment change in applications that are ready for initial or second review. The steering committee uses this view to make decisions about proposed investment change and the assessment state.
	Application Improvement Potential	Shows a visualization of the values for attributes and scores to support the initial assessment of applications that are ready to review. Data in this view supports decisions about which applications to investigate further. In this view, applications can be transitioned to the Assessment State.
	Application Deep Investigation	Shows a visualization of the values for attributes and scores to support the review of investigation and proposed disposition of applications that are ready for second review. Data in this view supports decisions about application disposition, such as retirement and modernization. In this view, applications can be transitioned to the Assessment State and possibly to the application lifecycle state.
	Project Assessment	Shows a visualization of the values for attributes that are related to project business cases. The information in this view can support accept or reject decisions. In this view, the Project state can be transitioned accordingly, primarily to accept or reject.
	Project Bubblechart	Shows a visualization of the values for attributes that are related to project business cases in an x/y chart. The information in this view can support accept or reject decisions. In this view, the Project state can be transitioned accordingly, primarily to accept or reject.

Administrator views

The administrator role also has specific views, primarily to facilitate workspace and demo customization.

Table 15. Views that an administrator can access

Subfolder	View name	Description
Add views	Risk	Adds a risk that is related to the workspace
Display views	Change roles	Administrators can use this view to assume a different user role and see the views and filters for that role. This view is used in workspace and view development. To assume a user role, drag your user name to the desired role folder.
	Risks	Shows all risks.
	Applications (r/w)	Shows all of the applications. In this view, all application attributes are read/write. Use this view for development and to update sample data. For production use, delete this view.
	Projects (r/w)	Shows all of the projects. In this view, all application attributes are read/write. Use this view for development and to update sample data. For production use, delete this view.
	Portfolios (r/w)	Shows all of the portfolios. In this view, all portfolio attributes are read/write. Use this view for development and to update sample data. For production use, delete this view.

Adding new views

In addition to the predefined views, you can add new views that are based on roles. Before you add a view, determine the roles that can access the view. Consider which attributes are visible to and editable by the roles. If the requirements differ by role, you might need to define different views.

- If the view is accessed by all members, create the view in the appropriate subfolder in the **All Members/System Views** folder.
- If the view is accessed by only one role, create the view in the subfolder for that role.
- If the view is accessed by more than one role, but not all members, create a view for each role and place the views in the corresponding subfolders.
- If the view is accessed by only certain people, create a folder in the view structure for Views Assigned to Individuals. Create a view for each person and place the views in the new folder. To track work more easily, avoid assigning views to individuals and assign views to roles instead.

If you place a view in a folder under a role, members with that role can automatically access the view. This process is a best practice. If you create a different folder hierarchy, you must click the **Share View** button to assign the view to a role (member folder) or individual users. Then, click the **Delete from My Own Views** button so that you inherit the view based on your role, not based on the fact that you created the view.

Customizing calculated scorecards

The application module contains attributes that calculate qualitative scores that are based on the data provided by other attributes. The scores are used for three main purposes:

Scorecards for first-level assessments:

- **Total business alignment score:** This score is calculated based on the weighted values for the Business Alignment, Business Criticality, and Business Risk attributes. Weights are assigned in the Weights module.
- **Total IT alignment score:** This score is calculated from the weighted values for the IT alignment and IT risk attributes.

Scorecards for deep investigations:

- **Deep business value score:** This score is calculated from seven application attribute values that are assigned during the investigation stage. The score is analogous to the total business alignment score, but the deep business value score considers more attributes.
- **Deep IT score:** This score is calculated based on eight application attribute values that are assigned during the investigation stage. It is analogous to the total IT alignment score, but considers more attributes.

Scorecards for investment management:

- **Business efficiency score:** This value indicates the business effectiveness of the application. The purpose of this score is to assess what this application is doing for the business today.
- **Ability for growth score:** This value indicates the potential of an application to grow the company in the future and the technical or business factors that might prevent growth.

Each attribute that is used in a score calculation is weighted based on the values that are entered in the Weights module. The score calculation is self-calibrating to provide a score between 0 and 100, regardless of the values of the weights.

For more guidance about how scorecards are used, see the Assess applications and determine application dispositions section in the user guide for the application portfolio management workspace.

Scorecards for high-level assessments

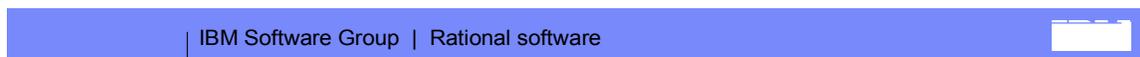
The purpose of these scores is to enable a high-level assessment through the collection of a minimum set of qualitative data. You can use scorecards to identify the applications that require a deeper investigation, at which stage the organization can invest to collect more attributes about the data.

These calculated score values might be too simple for your purposes. Your organization might need to add attributes to the scores, or additional score attributes.

Total business alignment score

The total business alignment score is the sum of the weighted business criticality score, the weighted business alignment score, and the weighted business risk score. The total business alignment score represents the rating of business value versus business risk. The business criticality score represents how critical the application is to running the business. The business alignment score represents how well the application aligns with business needs. The business risk score represents how much business risk the application poses to business.

The following image shows the attributes that are used in the total business alignment scorecard.



Total Business Alignment Score Card (0-100)



Figure 4. Attributes in the total business alignment score

The total business alignment attributes have the following predefined weights:

- Business criticality weight: 3
- Business alignment weight: 3
- Business risk weight: 1
- Minimum weight: 7. This value is calculated and is used to calibrate the scorecard to always be 0 – 100.
- Maximum weight: 28. This value is calculated and is used to calibrate the scorecard to always be 0 – 100.

You can adjust these weights based on the priorities of your organization. Alternatively, you can add new business score attributes into the formula.

The next image shows the formula and weights that are used for the total business alignment score. The yellow box contains instructions to modify the formula and weights.

IBM Software Group | Rational software

Calculating Total Business Alignment Score

Formula and weights

To update the score card

- If you want to include additional attributes in formula
 - Translate attribute to numeric value using "M-<name>" attribute
 - Add attribute weight to Weight module
 - Update MIN and MAX variables in the Weight module to consider added attribute (see next slide)
 - Update formula for the score card attribute in the application module to include the new attribute. Remember to do (<max value +1> - <attribute>) in cases where scale for attribute has 1 as best value.)
- Change weights in weight module.
 Note: Setting weight to 0 is the same as removing an attribute.

Modules

- Portfolios
- Applications
- Opportunities
- Projects
- Criteria
- Weights**
- Images
- Risks

Total Business Alignment Attribute Weights	
BW-BusAlign	3
BW-BusCrit	3
BW-BusRisk	1
BW-MIN	7
BW-MAX	28

The variables "M-<name>" are used to convert a choice attribute to a float, so it can be used in a formula.

Total Business Alignment Score=
 =Round(((Weights!W1!BW-BusAlign' * 'M-BusAlign') +
 ('Weights!W1!BW-BusCrit' * 'M-BusCrit') +
 ('Weights!W1!BW-BusRisk' * (6 - 'M-BusRisk')) -
 'Weights!W1!BW-MIN') * 100 / 'Weights!W1!BW-MAX')

Used to calibrate so always a score 0-100

Figure 5. Formula and weights for the total business alignment score

The MIN weight is the minimum possible score you for the total business alignment. The MAX weight is the maximum possible score for the total business alignment. The MIN weight is calculated by assuming that the business criticality, business alignment, and business risk scores are set to the minimum value of 1. The MAX weight is calculated by assuming that the business criticality, business alignment, and business risk scores are set

to maximum value of 5. These two weights calibrate the total business alignment score to be value between 0 and 100.

The next image describes how the MIN and MAX parameters work and how the formula compensates for the direction of “goodness” for attributes in the scorecard. The direction of “goodness,” indicates whether a number has good or bad implications. For example, for business criticality (M-BusCrit), 1 represents low business criticality, which is bad. The number 5 represents high business criticality, which is good. For business risk (M-BusRisk), 1 represents low business risk, which is good, and 5 represents high business risk, which is bad.

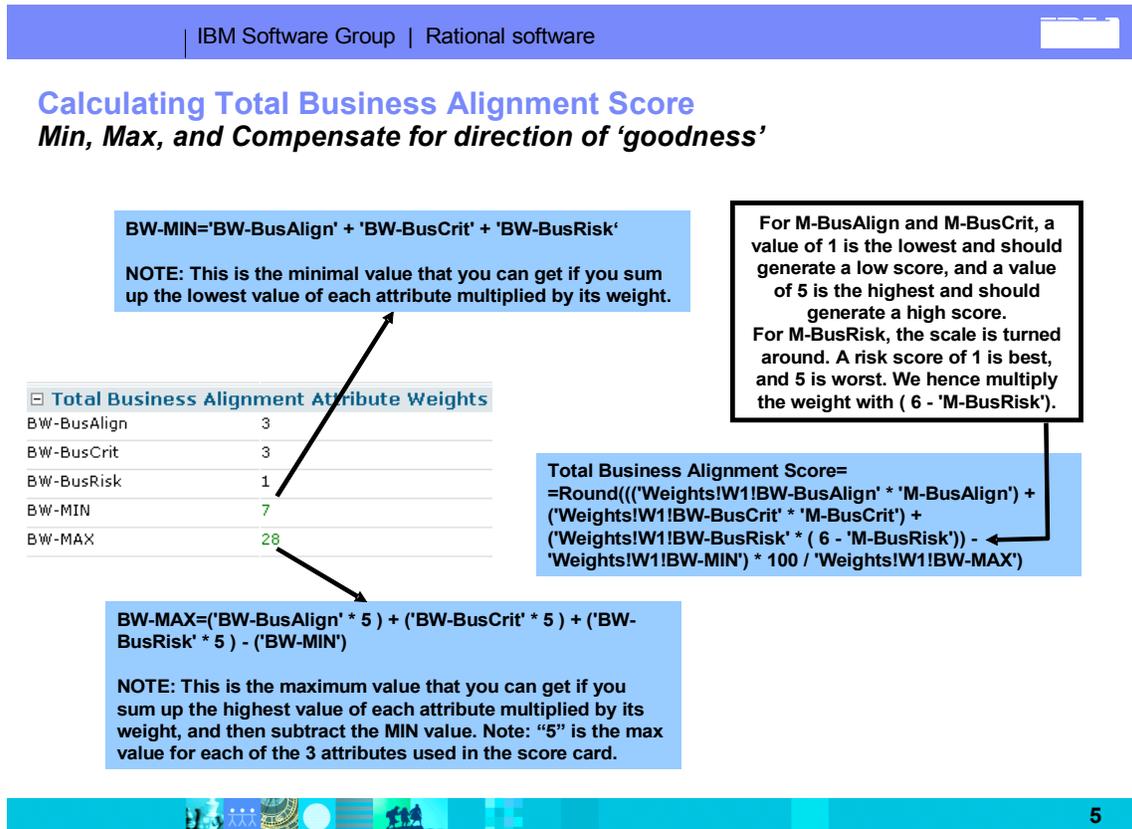


Figure 6. MIN and MAX parameters and compensating for the direction of “goodness”

Total IT alignment score

The total IT alignment score is the sum of the weighted IT alignment score and the weighted IT risk score. The total IT alignment represents the rating of how well an application aligns with target IT strategies versus risk. The IT alignment score represents how well the application aligns with target IT requirements and technologies. The IT risk represents how much risk the application poses to IT success.

The following image shows the attributes that are used in the total IT alignment scorecard.

Total IT Alignment Score Card (0-100)

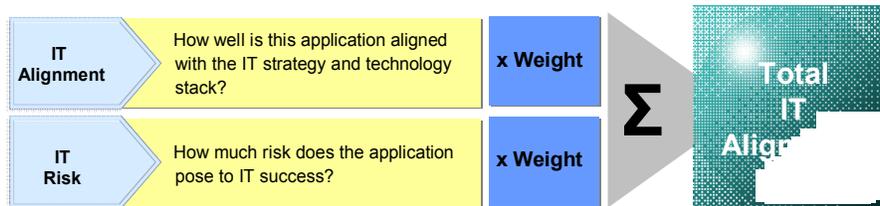


Figure 7. Attributes for the total IT alignment score

The total IT alignment attributes have the following predefined weights:

- IT alignment weight: 1
- IT risk weight: 1
- Minimum weight: 2. This value is calculated and is used to calibrate the scorecard to always be 0 - 100.
- Maximum weight: 8. This value is calculated and is used to calibrate the scorecard to always be 0 - 100.

You can adjust these weights based on their priority in your organization. Alternatively, you can add new IT score attributes into the formula. The next image shows the formulas and weights that are used for the scorecards. The yellow box contains instructions to modify the formula and weights.

Calculating Total IT Alignment Score

Formula and weights

- Modules**
- Portfolios
 - Applications
 - Opportunities
 - Projects
 - Criteria
 - Weights**
 - Images
 - Risks

- To update the score card
1. If you want to include additional attributes in formula
 - a. Translate attribute to numeric value using "M-<name>" attribute
 - b. Add attribute weight to Weight module
 - c. Update MIN and MAX variables in the Weight module to consider added attribute (see next slide)
 - d. Update formula for the score card attribute in the application module to include the new attribute. Remember to do (<max value +1> - <attribute>) in cases where scale for attribute has 1 as best value.)
 2. Change weights in weight module.
 Note: Setting weight to 0 is the same as removing an attribute.

Total IT Alignment Attribute Weights

TW-Align	1
TW-Risk	1
TW-MIN	2
TW-MAX	8

The variables "M-<name>" are used to convert a choice attribute to a float, so it can be used in a formula.

$$\text{Total IT Alignment Score} = \text{Round}(((\text{'Weights!W1!TW-Align'} * \text{'M-IT-Align'}) + (\text{'Weights!W1!TW-Risk'} * (6 - \text{'M-IT-Risk'})) - \text{'Weights!W1!TW-MIN'}) * 100 / \text{'Weights!W1!TW-MAX'})$$

Used to calibrate so always a score 0-100



Figure 8: Formula and weights for the total IT alignment score

For information about the MIN and MAX parameters and how the formula compensates for the direction of “goodness” for the attributes in the scorecard, see the “Total business alignment score” section.

Scorecards for deep investigations

Typically, after an initial assessment of a broad set of applications, you flag a subset of those applications for further investigation. For those applications, you spend more time collecting and analyzing a wider set of data. You can use several calculated score attributes to assist with deeper analysis. These score attributes are like the attributes that are used for high-level analysis, but the attributes for deeper analysis incorporate more information by including a larger set of attributes in the calculations.

Deep business value score

The deep business value score represents the business value versus the business risk of an application. The deep business value score is the sum of the following scores:

- Weighted business criticality score
- Weighted business alignment score
- Weighted business risk score
- Weighted user base score
- Weighted revenue generating score
- Weighted customer facing score
- Weighted revenue growth potential score

For an explanation about the business criticality, business alignment, and business risk scores, see the “Total business alignment score” section. The following image shows the attributes that are used in the deep business value scorecard.

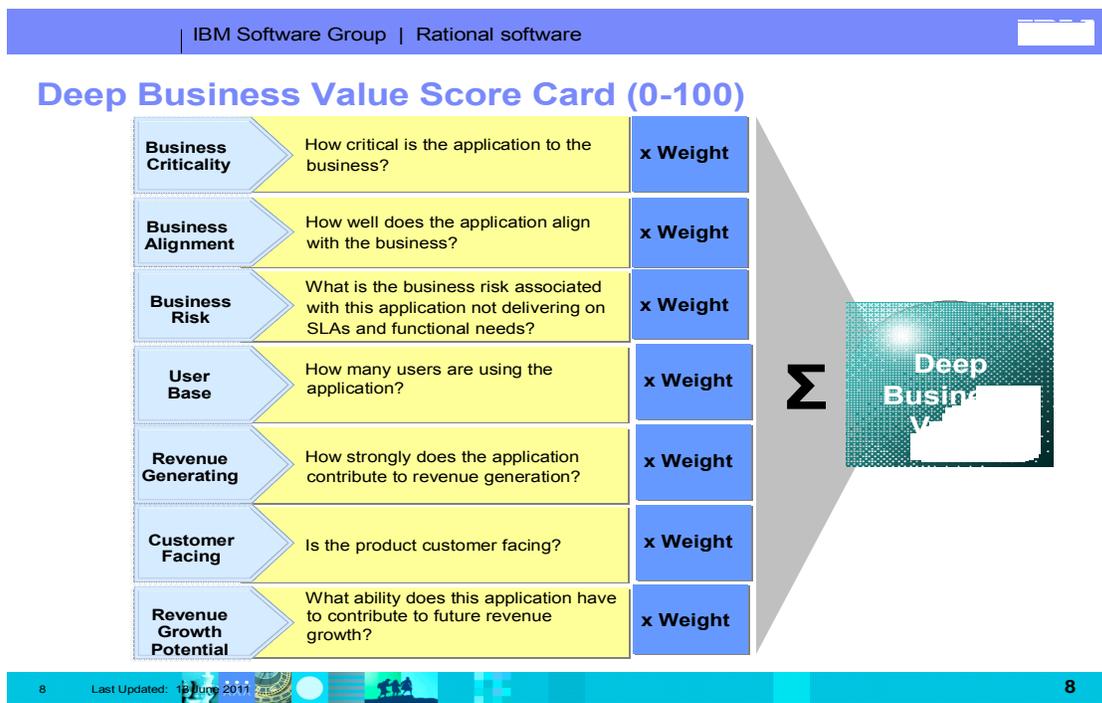


Figure 9. Attributes for the deep business value score

In the deep business value score, the user base score represents the number of active users of the application. The revenue generating score represents how strongly the application contributes to revenue generation. The customer facing score captures whether the application is customer facing or not. The revenue growth potential represents the extent of the ability of the application to contribute to revenue growth.

The deep business value attributes (have the following predefined weights:

- Business alignment weight: 3
- Business criticality weight: 1
- Business risk weight: 1
- User base weight: 1
- Revenue generation weight: 1
- Revenue growth weight: 3
- Customer facing weight: 3
- Minimum weight: 13. This value is calculated and is used to calibrate the scorecard to always be 0 - 100.
- Maximum weight: 52. This value is calculated and is used to calibrate the scorecard to always be 0 - 100.

You can adjust these weights based on the priorities of your organization. Alternatively, you can add new deep business score attributes into the formula. The next image shows the formulas and weights that are used for the scorecards. The yellow box contains the instructions to modify the formula and weights.

IBM Software Group | Rational software

Calculating Deep Business Value Formula and weights

Modules

- Portfolios
- Applications
- Opportunities
- Projects
- Criteria
- Weights**
- Images
- Risks

Deep Business Value Attribute Weights

BAW-BusAlign	3
BAW-BusCrit	1
BAW-BusRisk	1
BAW-UserBase	1
BAW-RevGen	1
BAW-RevGrowth	3
BAW-CustFacing	3
BAW-MIN	13
BAW-MAX	52

To update the score card

- If you want to include additional attributes in formula
 - Translate attribute to numeric value using "M-<name>" attribute
 - Add attribute weight to Weight module
 - Update MIN and MAX variables in the Weight module to consider added attribute (see next slide)
 - Update formula for the score card attribute in the application module to include the new attribute. (Remember to do <max value +1> - <attribute> in cases where scale for attribute has 1 as best value.)
- Change weights in weight module.
Note: Setting weight to 0 is the same as removing an attribute.

The variables "M-<name>" are used to convert a choice attribute to a float, so it can be used in a formula.

Deep Business Value Score=

$$\text{=Round}(((\text{'Weights!W1!BAW-BusAlign'} * \text{'M-BusAlign'}) + (\text{'Weights!W1!BAW-BusCrit'} * \text{'M-BusCrit'}) + (\text{'Weights!W1!BAW-BusRisk'} * (\text{6} - \text{'M-BusRisk'}))) + (\text{'Weights!W1!BAW-UserBase'} * \text{'M-UserBase'}) + (\text{'Weights!W1!BAW-RevGen'} * \text{'M-RevGen'}) + (\text{'Weights!W1!BAW-RevGrowth'} * \text{'M-RevGrowth'}) + (\text{'Weights!W1!BAW-CustFacing'} * \text{'M-CustFacing'}) - \text{'Weights!W1!BAW-MIN'}) * 100 / \text{'Weights!W1!BAW-MAX'})$$

Used to calibrate so always a score 0-100

Figure 10. Formula and weights for the deep business value score

For information about the MIN and MAX parameters and how the formula compensates for the direction of “goodness” for the attributes in the scorecard, see the “Total business alignment score” section.

Deep IT score

The deep IT score represents the IT performance of an application. The deep IT score is a sum of the following scores:

- IT alignment score
- IT risk score
- Defect density
- Dependency factor score
- SLA compliance score
- Skills risk score
- Code complexity score
- Maintainability score

For an explanation about the IT alignment and IT risk scores, see the “Total IT alignment score” section. The following image shows the attributes that are used in the deep IT scorecard.

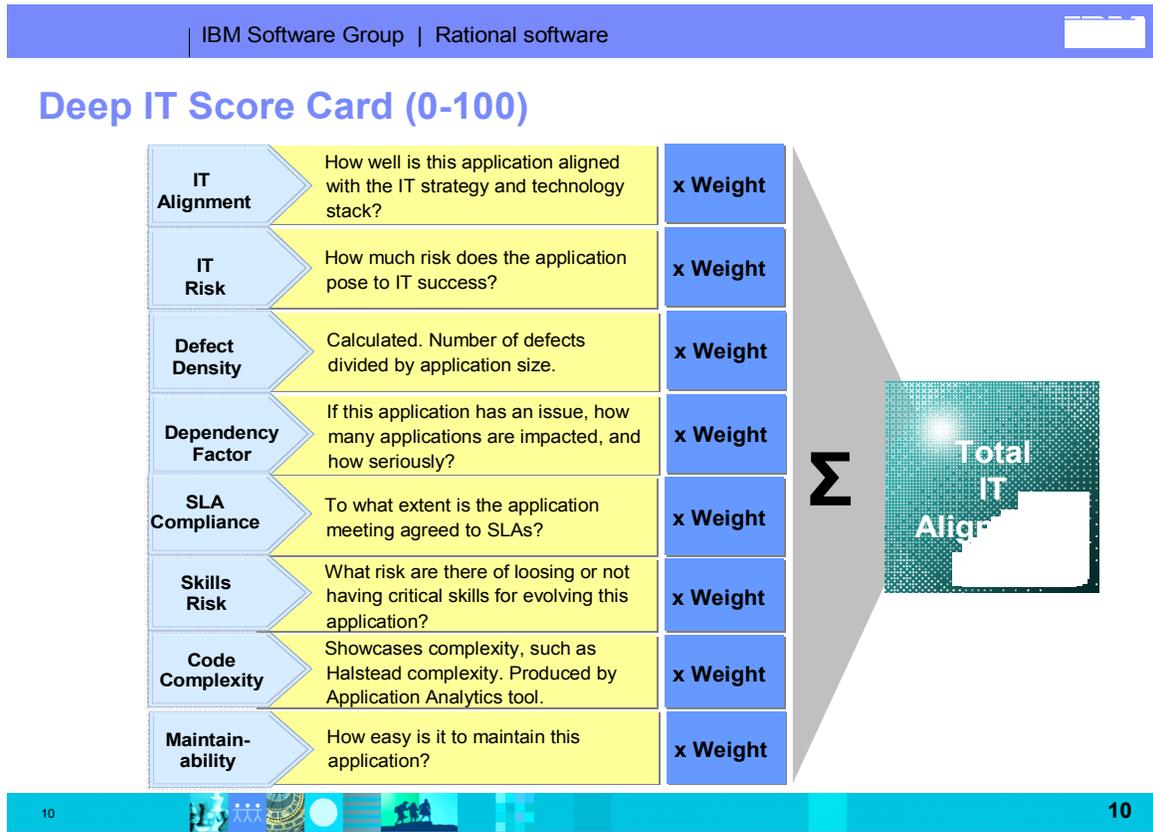


Figure 11. Attributes for the deep IT score

In the deep IT score, the defect density is calculated by dividing the number of defects for the application by the application size. The dependency factor represents the level of upstream dependencies. That factor indicates how strong the impact is if the application has an issue or is removed. The SLA compliance score represents how well this application meets its service level agreements (SLAs).

The skills risk score indicates the magnitude of the risk that is associated with skills and resources. High risk means that critical skills are lacking or likely to be lost in the near future.

The code complexity indicates the complexity of the code that is written for an application. Typically, this score can be produced by an application analytics tool. The maintainability score represents the rating of how easy it is to maintain the application.

The deep IT attributes have the following predefined weights:

- IT alignment weight: 1
- IT risk weight: 1
- Defect density weight: 0. The defect density attribute does not impact the deep IT score.
- Dependency factor weight: 1
- SLA compliance weight: 1
- Skills risk weight: 3
- Code complexity weight: 0. The code complexity attribute does not impact the deep IT score.
- Maintainability weight: 3
- Minimum weight: 10. This value is calculated and is used to calibrate the scorecard to always be 0 - 100.
- Maximum weight: 37. This value is calculated and is used to calibrate the scorecard to always be 0 - 100.

You can adjust these weights based on the priorities of your organization. Alternatively, you can add new IT score attributes into the formula. The next image shows the formulas and weights that are used for the scorecards. The yellow box contains the instructions to modify the formula and weights.

Calculating Deep IT Formula and weights

Modules

- Portfolios
- Applications
- Opportunities
- Projects
- Criteria
- Weights**
- Images
- Risks

Deep IT Attribute Weights

TAW-Align	1
TAW-Risk	1
TAW-DefDens	0
TAW-DepFact	1
TAW-SLA	1
TAW-SkillRisk	3
TAW-Complexity	0
TAW-Maintainability	3
TAW-MIN	10
TAW-MAX	37

Used to calibrate so always a score 0-100

- To update the score card**
- If you want to include additional attributes in formula
 - Translate attribute to numeric value using "M-<name>" attribute
 - Add attribute weight to Weight module
 - Update MIN and MAX variables in the Weight module to consider added attribute (see next slide)
 - Update formula for the score card attribute in the application module to include the new attribute. (Remember to do <max value +1> - <attribute> in cases where scale for attribute has 1 as best value.)
 - Change weights in weight module.

Note: Setting weight to 0 is the same as removing an attribute.

The variables "M-<name>" are used to convert a choice attribute to a float, so it can be used in a formula.

$$\text{Deep IT Score} = \text{Round}((('Weights!W1!TAW-Align' * 'M-IT-Align') + ('Weights!W1!TAW-Risk' * (6-'M-IT-Risk')) + ('Weights!W1!TAW-DepFact' * (6-'M-DepFact')) + ('Weights!W1!TAW-SLA' * (6-'M-SLA')) + ('Weights!W1!TAW-SkillRisk' * (6-'M-SkillRisk')) + ('Weights!W1!TAW-Complexity' * 'M-Complexity') + ('Weights!W1!TAW-Maintainability' * 'M-Maintainability') - 'Weights!W1!TAW-MIN') * 100 / 'Weights!W1!TAW-MAX')$$



Figure 12. Formula and weights for the deep IT score

For information about the MIN and MAX parameters and how the formula compensates for the direction of "goodness" for the attributes that are used in the scorecard, see the "Total business alignment score" section.

Scorecards for investment management

To determine the right investment level, an organization needs a transparent process with clearly defined guidelines to prioritize investments. A company must determine the best guidelines for itself.

In the workspace, two scorecards are used to determine investment levels:

- The business efficiency score indicates the current value of an application.
- The ability for growth score indicates the potential that the application has for business.

By viewing these scores on an x/y axis, you can target the level of investment based on where the application falls on the grid. In the following example, the guideline is to increase investments by 15% for applications that score in the top quartile for both score attributes, and to reduce spending by 25% for applications that are in the bottom quartile for attributes.

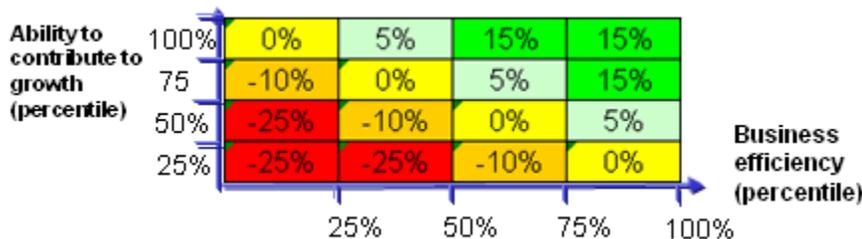


Figure 13. Proposed changes in investment level based on the quartile that an application is in

Important: Investment decisions cannot be based on mathematical formulas alone. The calculated investment level is only a proposal. A separate, manually set attribute represents the actual investment level that is proposed by weighing other factors outside the scope of the scorecards. Those other factors include additional business insight and special circumstances.

The application portfolio management workspace template provides a generic approach to investment management. Organizations can customize this approach in three ways to meet their specific needs:

1. Modify the attributes that are included to calculate each of the two main scorecards, which are the business efficiency score and the ability for growth score. The instructions to customize these attributes are in the next two sections of this guide.
2. Modify the weights for each of those attributes as scores are calculated for each of the scorecards. This process is described in the “Update Weights Contributed to Business Efficiency and Ability to Contribute to Growth” use case in “Section 4 - Manage the Investment Model” of the workspace user guide.
3. Modify the target investment level based on the score for each of the scorecards. This process is described in the “Determine Appropriate Investment Levels” use case in “Section 4 – Manage the Investment Model” of the workspace user guide.

Business efficiency score

The business efficiency score indicates how efficiently an application contributes to business strategies. The business efficiency score is a sum of the following scores:

- Business criticality score
- User base score
- Revenue generating score
- Customer facing score
- SLA compliance score

Explanations of these scores are in earlier sections of this document. The following image shows the attributes that are used in the business efficiency scorecard.

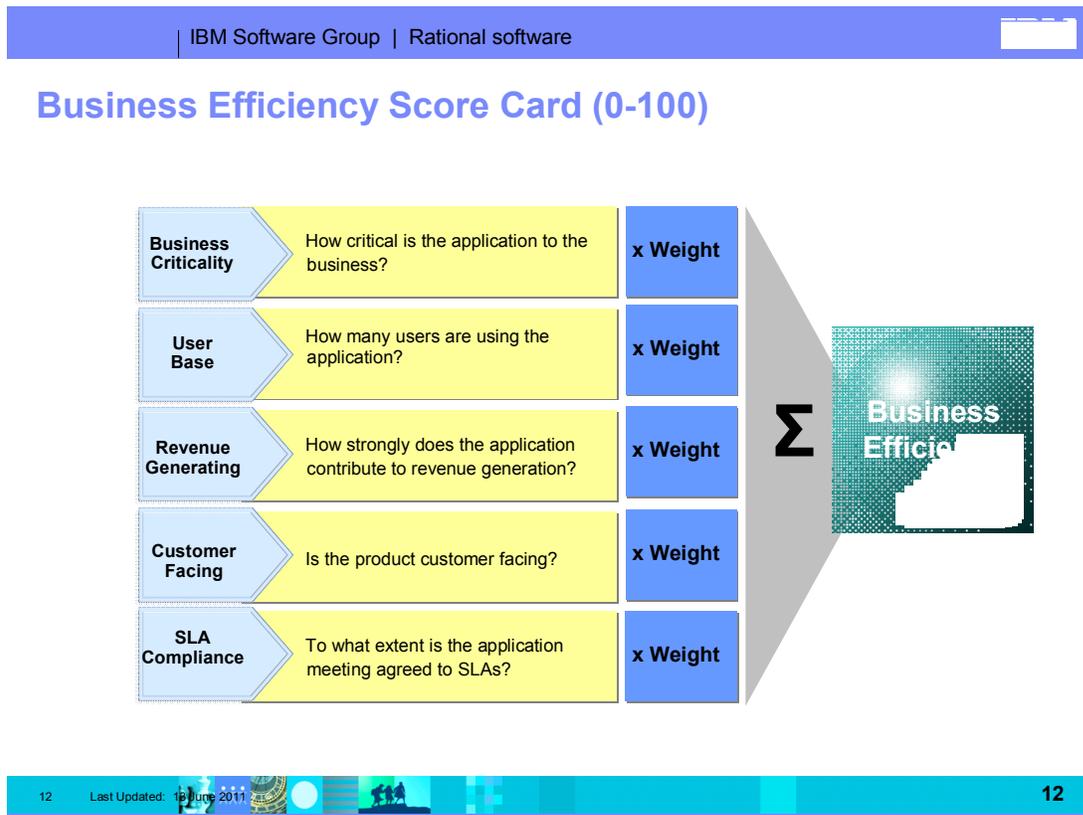


Figure 14. Attributes for the business efficiency score

The business efficiency attributes have the following predefined weights:

- Business criticality weight: 3
- User base weight: 1
- Revenue generation weight: 2
- Customer facing weight: 2
- SLA compliance weight: 3
- Minimum weight: 11. This value is calculated and is used to calibrate the scorecard to always be 0 – 100.

- Maximum weight: 44. This value is calculated and is used to calibrate the scorecard to always be 0 - 100.

You can adjust these weights based on their priority in your organization. Alternatively, you can add a new business score attribute into the formula. The next image shows the formulas and weights that are used for the scorecards. The yellow box contains the instructions to modify the formula and weights.

Calculating Business Efficiency Formula and weights

Modules

- Portfolios
- Applications
- Opportunities
- Projects
- Criteria
- Weights**
- Images
- Risks

Business Efficiency Weights	
BE-BusCrit	3
BE-UserBase	1
BE-RevGen	2
BE-CustFacing	2
BE-SLA	3
BE-MIN	11
BE-MAX	44

Used to calibrate so always a score 0-100

To update the score card

- If you want to include additional attributes in formula
 - Translate attribute to numeric value using "M-<name>" attribute
 - Add attribute weight to Weight module
 - Update MIN and MAX variables in the Weight module to consider added attribute (see next slide)
 - Update formula for the score card attribute in the application module to include the new attribute. (Remember to do <max value +1> - <attribute> in cases where scale for attribute has 1 as best value.)
- Change weights in weight module.
Note: Setting weight to 0 is the same as removing an attribute.

The variables "M-<name>" are used to convert a choice attribute to a float, so it can be used in a formula.

Deep Business Value Score=

$$=Round(((Weights!W1!BE-BusCrit * 'M-BusCrit') + (Weights!W1!BE-UserBase * 'M-UserBase') + (Weights!W1!BE-RevGen * 'M-RevGen') + (Weights!W1!BE-CustFacing * 'M-CustFacing') + (Weights!W1!BE-SLA * (6 - 'M-SLA')) - 'Weights!W1!BE-MIN') * 100 / 'Weights!W1!BE-MAX')$$

Figure 15. Formula and weights for the business efficiency score

For information about the MIN and MAX parameters and how the formula compensates for the direction of “goodness” for the attributes in the scorecard, see the “Total business alignment score” section.

Ability for growth score

The ability for growth score captures the ability of the application to have a positive impact on the growth and strategic initiatives of the company. The ability for growth score is a sum of the following scores:

- Business alignment score
- Revenue growth potential score
- Business risk score
- IT alignment score
- Maintainability score

- Skills risk score

Explanations of these scores are available in earlier sections of this document. The following image shows the attributes that are used in the ability for growth scorecard.

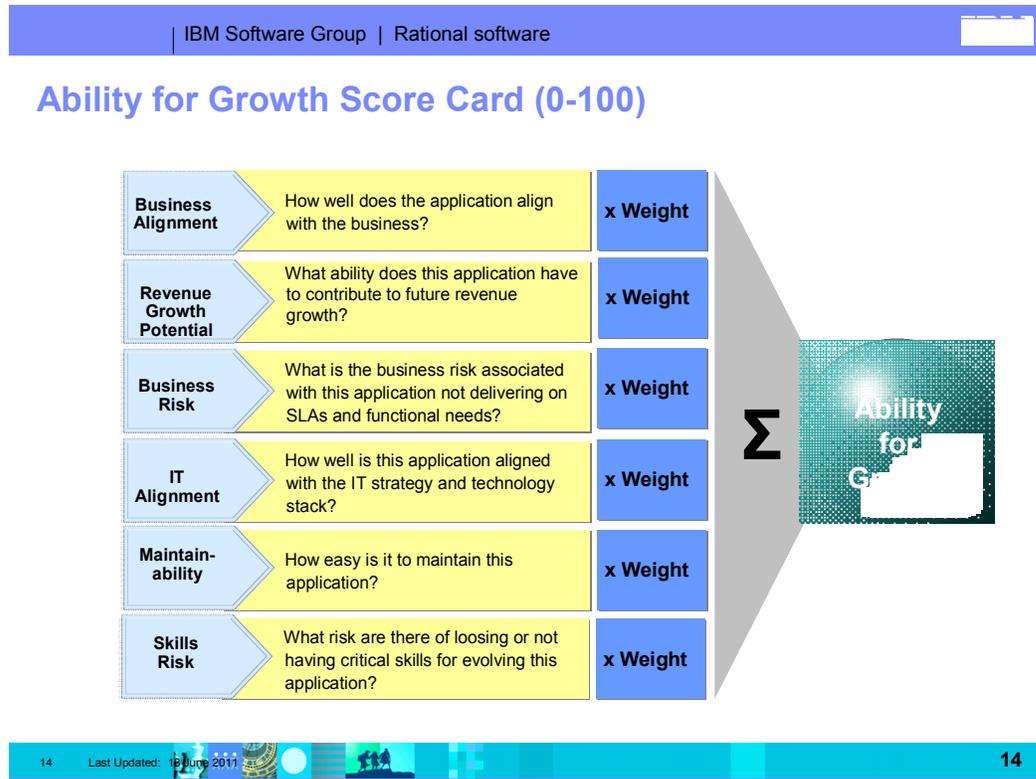


Figure 16. Attributes for the ability for growth score

The ability for growth attributes have the following predefined weights:

- Business alignment weight: 2
- Revenue growth potential weight: 4
- Business risk weight: 1
- IT alignment weight: 1
- Maintainability weight: 2
- Skills risk weight: 2
- Minimum weight: 12. This value is calculated and is used to calibrate the scorecard to always be 0 - 100.
- Maximum weight: 46. This value is calculated and is used to calibrate the scorecard to always be 0 - 100.

You can adjust these weights based on the priorities of your organization. Alternatively, you can add a new IT score attribute into the formula. The next image shows the formulas and weights that are used for the scorecards. The yellow box contains the instructions to modify the formula and weights.

Calculating Ability for Growth Formula and weights

Modules

- Portfolios
- Applications
- Opportunities
- Projects
- Criteria
- Weights**
- Images
- Risks

Ability for Growth Weights

GRO-BusAlign	2
GRO-RevGrowth	4
GRO-BusRisk	1
GRO-ITAlign	1
GRO-Maintainability	2
GRO-SkillRisk	2
GRO-Min	12
GRO-MAX	46

Used to calibrate so always a score 0-100

To update the score card

- If you want to include additional attributes in formula
 - Translate attribute to numeric value using "M-<name>" attribute
 - Add attribute weight to Weight module
 - Update MIN and MAX variables in the Weight module to consider added attribute (see next slide)
 - Update formula for the score card attribute in the application module to include the new attribute. (Remember to do <max value +1> - <attribute> in cases where scale for attribute has 1 as best value.)
- Change weights in weight module.
Note: Setting weight to 0 is the same as removing an attribute.

The variables "M-<name>" are used to convert a choice attribute to a float, so it can be used in a formula.

$$\text{Ability for Growth Score} = \text{Round}(((\text{Weights!W1!GRO-BusAlign}' * \text{'M-BusAlign}') + (\text{Weights!W1!GRO-BusRisk}' * (6 - \text{'M-BusRisk'}))) + (\text{Weights!W1!GRO-RevGrowth}' * \text{'M-RevGrowth}') + (\text{Weights!W1!GRO-ITAlign}' * \text{'M-IT-Align}') + (\text{Weights!W1!GRO-Maintainability}' * \text{'M-Maintainability}') + (\text{Weights!W1!GRO-SkillRisk}' * (6 - \text{'M-SkillRisk'})) - (\text{Weights!W1!GRO-Min}') * 100 / \text{Weights!W1!GRO-MAX}')$$

Figure 17. Formula and weights for the ability for growth score

For information about the MIN and MAX parameters and how the formula compensates for the direction of "goodness" for the attributes in the scorecard, see the "Total business alignment score" section.

Notices

This information was developed for products and services offered in the U.S.A. IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan, Ltd.
1623-14, Shimotsuruma, Yamato-shi
Kanagawa 242-8502 Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM websites are provided for convenience only and do not in any manner serve as an endorsement of those websites. The materials at those websites are not part of the materials for this IBM product and use of those websites is at your own risk.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

Intellectual Property Dept. for Rational Software
IBM Corporation
5 Technology Park Drive
Westford, MA 01886
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any

similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

Trademarks

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at www.ibm.com/legal/copytrade.html.

Other company, product, or service names may be trademarks or service marks of others.