

# Focal Point<sup>®</sup>

## APM Workspace Deployment Guide

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# 1 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.

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## Prerequisites to customize workspaces

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

You must also be familiar with customizing Focal Point.

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## Configuring predefined expressions and home pages

**Note** This section contains instructions for users of 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.

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## 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.

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.

Browser	Steps
FireFox 4	Click View.  Select Status Bar.
Internet Explorer 9	Click View.  Click Toolbars.  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 Focal Point help system.

To identify the elementID and update the LinkInfo business rule:

- 1 Identify the Member ID parameter by clicking **Members > Members**, and selecting the workspace administrator to use.
- 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 `javascript:editElement (xxx)`, where `xxx` is the member ID. Make a note of the value shown.
- 3 Click **Configure > Attributes**.
- 4 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')
```
- 5 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.
- 6 Click **Copy Default Value To All Elements**.
- 7 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.

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.

Parameter	Steps to replace the parameter
List Attribute ID	<p>Click <b>Configure &gt; Attributes</b> and select <b>Portfolios</b>.</p> <p>Click <b>Configuration Overview</b>. A window opens.</p> <p>Scroll to the Applications section, where the attribute type is Incoming Links. Note the attribute ID for the Applications attribute.</p> <p>Replace the first parameter with the ID. In this example, the first parameter is 232.</p>
View ID	<p>Click <b>Configure &gt; Views</b>.</p> <p>Expand <b>All members &gt; Configuration views &gt; Helper views &gt; Applications</b>.</p> <p>In the upper-right corner of the attribute list, hover your cursor over the <b>Edit</b> icon. The status bar displays <code>javascript:editElement (xxx)</code>, where <code>xxx</code> is the ID.</p> <p>Replace the second parameter with the ID. In this example, the second parameter is 299.</p>
Attribute ID	<p>Click <b>Configure &gt; Attributes</b> and select <b>Applications</b></p> <p>Click <b>Configuration Overview</b>.</p> <p>Note the attribute ID for the List Size attribute.</p> <p>Replace the third parameter with the ID. In this example, the third parameter is 407.</p>
User ID	<p>Click <b>Members &gt; Members</b>, and select a global user.</p> <p>In the upper-right corner of the attribute list, hover your cursor over the <b>Edit</b> icon. The status bar in the lower-left corner displays <code>javascript:editElement (xxx)</code>, where <code>xxx</code> is the ID.</p> <p>Replace the fourth parameter with the ID. In this example, the ID is 13.</p>

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. Unless specified, the location of each parameter is as detailed in the previous table.

**Note** The User ID is generally the same for the following business rules.

**Portfolio module**

<b>Attribute</b>	<b>Location of ListAttributeId</b>	<b>Location of view ID</b>	<b>Location of attribute ID</b>
Number of Related Applications	Attribute ID of the Applications attribute	Element ID of the view on the Applications page	Attribute ID of the List Size attribute
Business Risks and Issues	Attribute ID of the Applications attribute	Element ID of the view on the Applications page	Attribute ID of the M-BusRisk attribute
IT Risks and Issues	Attribute ID of the Applications attribute	Element ID of the view on the Applications page	Attribute ID of the M-IT-Risk attribute
Business Strategy Alignment	Attribute ID of the Applications attribute	Element ID of the view on the Applications page	Attribute ID of the M-BusAlign attribute
Business Criticality	Attribute ID of the Applications attribute	Element ID of the view on the Applications page	Attribute ID of the M-BusCrit attribute
IT Strategy Alignment	Attribute ID of the Applications attribute	Element ID of the view on the Applications page	Attribute ID of the M-IT-Align attribute
Projected Annual Cost	Attribute ID of the Applications attribute	Element ID of the view on the Applications page	Attribute ID of the Projected Annual Cost attribute
Total Sum of Calculated Funding Changes	Attribute ID of the Applications attribute	Element ID of the view on the Applications page	Attribute ID of the Calculated Annual Cost attribute
Total Sum of Proposed Funding Changes	Attribute ID of the Applications attribute	Element ID of the view on the Applications page	Attribute ID of the Proposed Annual Cost attribute
Gold Classification Total Score	Attribute ID of the Applications attribute	Element ID of the view on the Applications page	Attribute ID of the Gold Classification Score attribute
Aggregated Cost Variance	Attribute ID of the Applications attribute	Element ID of the view on the Applications page	Attribute ID of the Cost Variance Calculation attribute



<b>Attribute</b>	<b>Location of ListAttributeId</b>	<b>Location of view ID</b>	<b>Location of attribute ID</b>
Number of Gold Applications	Attribute ID of the Gold Applications attribute	Element ID of the view on the Gold Applications page.  Click <b>Configure &gt; Views &gt; All Members &gt; Configuration Views &gt; Helper Views &gt; Gold Applications.</b>	Attribute ID of the Classification attribute
Number of Active Applications	Attribute ID of the Active Applications attribute	Element ID of the view on the Active Applications page.  Click <b>Configure &gt; Views &gt; All Members &gt; Configuration Views &gt; Helper Views &gt; Active Applications</b>	Attribute ID of the List Size attribute
Number of Retired Applications	Attribute ID of the Retired Applications attribute	Element ID of the view on the Retired Applications page.  Click <b>Configure &gt; Views &gt; All Members &gt; Configuration Views &gt; Helper Views &gt; Retired Applications</b>	Attribute ID of the List Size attribute

**Criteria module**

<b>Attribute</b>	<b>Location of ListAttributeId</b>	<b>Location of view ID</b>	<b>Location of attribute ID</b>
# of Applications	Attribute ID of the Applications attribute.	Element ID of the view on the Applications page.  Click <b>Configure &gt; Views &gt; All members &gt; Configuration Views &gt; Helper Views &gt; Applications.</b>	Attribute ID of the List Size attribute.  Click <b>Configure &gt; Attributes &gt; Applications &gt; Configuration Overview.</b>

<b>Attribute</b>	<b>Location of ListAttributeId</b>	<b>Location of view ID</b>	<b>Location of attribute ID</b>
# of Projects	Attribute ID of the Projects attribute.	Element ID of the view on the Projects page.	Attribute ID of the List Size attribute.
	Click <b>Configure &gt; Attributes &gt; Criteria &gt; Configuration Overview.</b>	Click <b>Configure &gt; Views &gt; All members &gt; Configuration Views &gt; Helper Views &gt; Projects.</b>	Click <b>Configure &gt; Attributes &gt; Projects &gt; Configuration Overview.</b>

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

## 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 tables, and click **OK**.

### Entry Demo

<b>Left</b>	<b>Middle</b>	<b>Right</b>
Portfolio Overview	Application by Classification	
# of Application by Business Alignment	Applications Failing SLAs	
Application Lifecycle Distribution	Application / Business Strategy Alignment	
Strategic Objectives		

**Demo**

<b>Left</b>	<b>Middle</b>	<b>Right</b>
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	

**Application business owner**

<b>Left</b>	<b>Middle</b>	<b>Right</b>
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 architects**

<b>Left</b>	<b>Middle</b>	<b>Right</b>
Manage the Portfolio	Manage the assessment	Manage the
My Applications Summary	Process	Transformation
My Applications Failing SLAs	Investment Rating of My	Project Related to My
My Applications Lifecycle	Applications	Applications
Distribution	Assessment Status of My	
Strategic Objectives	Applications Requiring My	
Applications Alignment to	Actions	
Objectives	# of Applications by Proposed	
	Disposition	

**Enterprise architect**

<b>Left</b>	<b>Middle</b>	<b>Right</b>
Manage the Portfolio	Manage the Assessment	Manage the
Financial Trends	process	transformation
Applications Fail SLA	# of Applications for each	Project Lifecycle
Application Lifecycle	Investment Category	Distribution
Distribution	Investment Rating	Project Alignment to
Strategic Objectives	Assessment Status	Objectives
Active Application	# of Applications by Proposed	
Alignment to Objectives	Disposition	

**Portfolio analyst**

<b>Left</b>	<b>Middle</b>	<b>Right</b>
Manage the Portfolio	Manage the assessment	Manage the
My Portfolios Financial Summary	Process	Transformation
My Portfolios Financial Trends	# of Applications in My	My Project Lifecycle
Applications in My Portfolios	Portfolio per Investment	Distribution
Failing SLAs	Category	Project Alignment to
Lifecycle Distribution of	Investment Distribution for	Objectives
Application in My Portfolio	My Portfolios	
Strategic Objectives	Investment Rating of	
Active Application Alignment to	Applications in my Portfolios	
Objectives	Assessment Status of	
	Applications in My Portfolios.	
	Applications Requiring My	
	Actions	
	# of Applications in My	
	Portfolios by Proposed	
	Disposition.	

**Project management office (PMO)**

<b>Left</b>	<b>Middle</b>	<b>Right</b>
Manage the Transformation.		
Business Unit Financials		
Project Lifecycle Distribution		
Project Alignment to Objectives.		

**Steering committee**

<b>Left</b>	<b>Middle</b>	<b>Right</b>
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	

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## Structure of the application portfolio management workspace

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### Modules in the application portfolio management workspace

The application portfolio management workspace contains several predefined modules

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"><li>▪ Overview information</li><li>▪ Financial information</li><li>▪ Business-related information, such as business value and criticality</li><li>▪ Technical information</li><li>▪ Various scorecards</li></ul> <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 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>

Modules	Description
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><b>Note</b> 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><b>Note</b> 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.

**Note** 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:

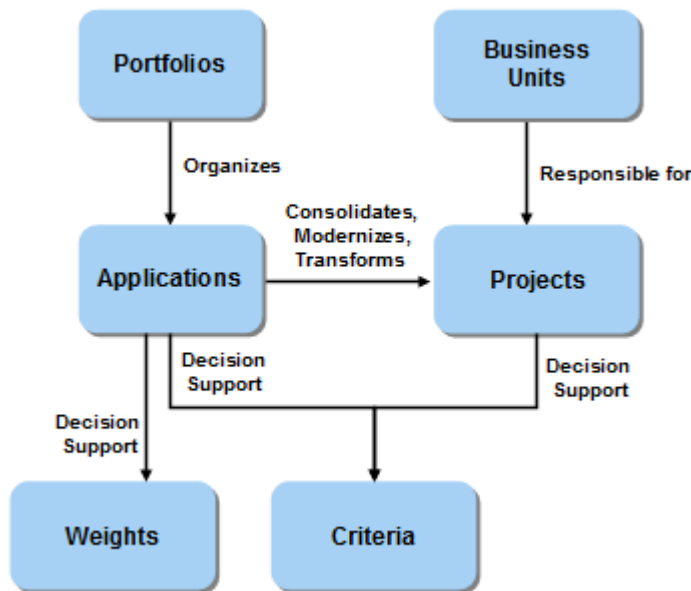
- 1 In the workspace, click **Preferences**.
- 2 Click **Miscellaneous Settings**.
- 3 Under the **View Sort** field, click **By Attribute**, and select **View definition**.
- 4 Click **OK**.



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## Module relationships

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



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.

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## 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**.

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

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## 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 sections detail the default content of 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.

### All users

- **MANAGE-THE-PORTFOLIO:** This column contains the reports that are used to manage the portfolio.
- **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

#### MANAGE-THE-PORTFOLIO

- **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

- **# My Applications per Investment Category:** This statistic view shows the number of applications, distributed by investment category, in which the current user is the application business owner.

- **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.

#### MANAGE-THE-TRANSFORMATION

- **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

#### MANAGE-THE-PORTFOLIO

- **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

- **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.
- **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

- **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

### MANAGE-THE-PORTFOLIO

- **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

- **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

- **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

### MANAGE-THE-PORTFOLIO

- **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 current user is an owner.
- **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.

#### MANAGE-THE-ASSESSMENT-PROCESS

- **# 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.

#### MANAGE-THE-TRANSFORMATION

- **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)

#### MANAGE-THE-TRANSFORMATION

- **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

### MANAGE-THE-PORTFOLIO

- **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

- **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 investment category.
- **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.

### MANAGE-THE-TRANSFORMATION

- **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 the projects across strategic objectives

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## 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.

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

Subfolder	View name and description
Add views	<b>Application Bulk Loading:</b> Adds many applications by spreadsheet import.

---



Subfolder	View name and description
Display views	<p><b>My Applications:</b> 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 the following information:</p> <ul style="list-style-type: none"> <li>▪ Applications requiring Assessment</li> <li>▪ Applications requiring Investment Assessment</li> <li>▪ Applications requiring Investigation</li> </ul> <p>Both business and technical attributes can be changed in this view, including financials.</p> <p>This view uses the Assessment State workflow.</p> <p><b>Application Roadmap:</b> 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.</p> <p><b>Project Roadmap:</b> 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.</p>

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## Enterprise architect views

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

Subfolder	View name and description
Display views	<p><b>Applications under Investigation:</b> Contains applications that are in the Investigation state. The disposition, rationale, decommission date, risks, issues, and comments are editable.</p> <p><b>Application Roadmap:</b> Shows a road map of applications over time. This view is read-only except for risks, issues, and comments.</p> <p><b>Project Roadmap:</b> 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.</p>

---

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## Portfolio analyst views

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

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

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Subfolder	View name and description
Display views	<p><b>Applications for My Action:</b> Shows applications from the current user 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.</p> <p>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.</p> <p>To sum new projected costs and investment change percentages, you can use the Statistic view for investment analysis.</p> <p><b>Application Roadmap:</b> 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.</p> <p><b>Project Roadmap:</b> 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.</p> <p><b>Strategic Objective:</b> Displays all of the criteria under the Strategic Objectives folder. The Title, Description, Weight and Objective attributes are editable.</p> <p><b>Calculation Weightings:</b> Displays the weightings that are used in the various calculations. This view is read/write.</p> <p><b>Investment Quartile Image:</b> Shows the image of the investment quartile for update.</p>
Visualize Only Views	<p><b>Strategic Objectives:</b> Displays the results of business objective prioritization. Except for the priority values, this view is read/write.</p>

### Project management office views

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

Subfolder	View name and description
Add views	<b>Business Unit:</b> Adds a new business unit.

Subfolder	View name and description
Display views	<p><b>Business Units:</b> Shows all of the business units for an update. This view is read/write.</p> <p><b>My Projects to Detail:</b> 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.</p> <p><b>Projects to be Implemented:</b> 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.</p> <p><b>Projects in Implementation:</b> 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.</p> <p><b>Project Roadmap:</b> 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.</p> <p><b>Application Roadmap:</b> 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.</p>

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### Steering committee views

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

Subfolder	View name
Add views	<p><b>Portfolio:</b> Adds a new portfolio.</p> <p><b>Strategic Objective:</b> Adds a new strategic objective, or criterion.</p>

---

Subfolder	View name
Display views	<p data-bbox="491 286 1465 398"><b>Portfolio Investment:</b> 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.</p> <p data-bbox="491 439 1465 551"><b>Investment Analysis:</b> Shows all of the active applications that are ready for assessment or investigation review, specifically in respect to investment change and supporting scores.</p> <p data-bbox="491 591 1465 703">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.</p> <p data-bbox="491 743 1465 810">This view uses the Assessment State workflow. States, proposed investment changes, ratings, and classifications are editable.</p> <p data-bbox="491 851 1465 1008"><b>Application Roadmap:</b> 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.</p> <p data-bbox="491 1048 1465 1205"><b>Project Roadmap:</b> 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.</p> <p data-bbox="491 1245 1465 1357"><b>Projects:</b> 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.</p>
Prioritize/Visualize Views	<p data-bbox="491 1397 1417 1464"><b>Strategic Objectives:</b> Prioritizes and visualizes strategic objective criteria based on which objective is higher priority. This view is read/write.</p>

Subfolder	View name
Visualize only views	<p><b>Investment Assessment:</b> 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.</p> <p><b>Application Improvement Potential:</b> 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.</p> <p><b>Application Deep Investigation:</b> 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.</p> <p><b>Project Assessment:</b> 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.</p> <p><b>Project Bubblechart:</b> 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.</p>

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### Administrator views

The administrator role also has specific views, primarily to facilitate workspace and demo customization, as specified in the following table.

Subfolder	View name and description
Add views	<b>Risk:</b> Adds a risk that is related to the workspace

Subfolder	View name and description
Display views	<p><b>Change roles:</b> 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.</p> <p><b>Risks:</b> Shows all risks.</p> <p><b>Applications (r/w):</b> 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.</p> <p><b>Projects (r/w):</b> 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.</p> <p><b>Portfolios (r/w):</b> 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.</p>

---

## 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 scorecards are used for three main purposes:

- **Scorecards for high-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.

For more information, see *'Scorecards for high-level assessments' on page 32*.

- **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.

For more information, see *'Scorecards for deep investigations' on page 34*.

- **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.

For more information, see *'Scorecards for investment management' on page 37*.

You can update the scorecard by adding additional attributes, removing existing attributes, or changing the weighting of an attribute. For more information, see *'Adding additional attributes to a formula' on page 40*.

For more guidance about how scorecards are used, see the 'Assess applications and determine application dispositions' section in the *APM Workspace User Guide*.

---

## 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 you might 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 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 value such that it is always between 0 - 100, see *'MIN and MAX parameters' on page 41*.
- Maximum weight: 28. This value is calculated and is used to calibrate the scorecard value such that it is always between 0 - 100, see *'MIN and MAX parameters' on page 41*.

You can adjust these weights based on the priorities of your organization.

The following formula is used to calculate the 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')
```

For information about aligning the “goodness” of attributes in the formula, see *'Direction of “goodness” on page 41*.

You can also add additional business score attributes into the formula, see *'Adding additional attributes to a formula' on page 40*.

---

## 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 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 value such that it is always between 0 - 100, see *'MIN and MAX parameters' on page 41*.
- Maximum weight: 8. This value is calculated and is used to calibrate the scorecard value such that it is always between 0 - 100, see *'MIN and MAX parameters' on page 41*.

You can adjust these weights based on the priorities of your organization.

The following formula is used to calculate the Total IT Alignment Score:

```
=Round(((Weights!W1!TW-Align' * 'M-IT-Align') +
('Weights!W1!TW-Risk' * ( 6 -'M-IT-Risk')) -
'Weights!W1!TW-MIN') * 100 / 'Weights!W1!TW-MAX')
```

For information about aligning the “goodness” of attributes in the formula, see *'Direction of “goodness” on page 41*.

You can also add additional business score attributes into the formula, see *'Adding additional attributes to a formula' on page 40*.

## 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 (how critical is the application to the business?)
- Weighted business alignment score (how well does the application align with the business?)
- Weighted business risk score (what is the business risk associated with this application not delivering on SLAs and functional needs?)
- Weighted user base score (how many users are using the application?)
- Weighted revenue generating score (how strongly does the application contribute to revenue generation?)
- Weighted customer facing score (is the application customer facing?)

- Weighted revenue growth potential score (what ability does the application have to contribute to future revenue growth?)

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 value such that it is always between 0 - 100, see *'MIN and MAX parameters' on page 41*.
- Maximum weight: 52. This value is calculated and is used to calibrate the scorecard value such that it is always between 0 - 100, see *'MIN and MAX parameters' on page 41*.

You can adjust these weights based on the priorities of your organization.

The following formula is used to calculate the Deep Business Value Score:

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

For information about aligning the “goodness” of attributes in the formula, see *'Direction of “goodness” on page 41*.

You can also add additional business score attributes into the formula, see *'Adding additional attributes to a formula' on page 40*.

---

## 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 (how well is the application aligned with the IT strategy and technology stack?)
- IT risk score (how much risk does the application pose to IT success?)
- Defect density (number of defects divided by application size)
- Dependency factor score (if the application has an issue, how many applications are impacted and how seriously?)
- SLA compliance score (to what extent is the application meeting agreed SLAs?)
- Skills risk score (what is the risk of not having the critical skills necessary for evolving the application?)
- Code complexity score (how complex is the application code? Assessed by using the Application Analytics tool)
- Maintainability score (how easy is it to maintain the application?)

For an explanation about the IT alignment and IT risk scores, see *'Total IT alignment score'* on [page 33](#).

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 value such that it is always between 0 - 100, see *'MIN and MAX parameters' on page 41*.
- Maximum weight: 37. This value is calculated and is used to calibrate the scorecard value such that it is always between 0 - 100, see *'MIN and MAX parameters' on page 41*.

You can adjust these weights based on the priorities of your organization.

The following formula is used to calculate the Deep IT Score:

```
=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')
```

For information about aligning the “goodness” of attributes in the formula, see *'Direction of “goodness” on page 41*.

You can also add additional business score attributes into the formula, see *'Adding additional attributes to a formula' on page 40*.

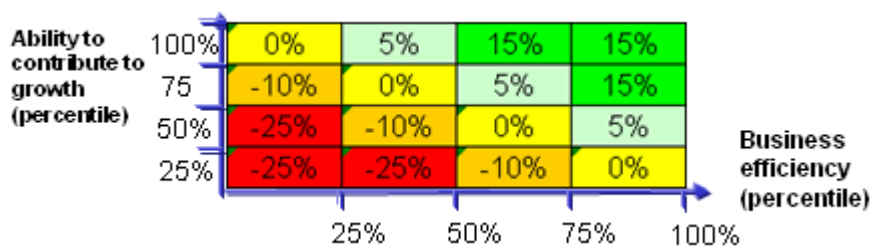
## Scorecards for investment management

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.



**Note** 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:

- 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.
- 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 User Guide.
- 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 (how critical is the application to the business?)
- User base score (how many users are using the application?)
- Revenue generating score (how strongly does the application contribute to revenue generation?)
- Customer facing score (is the application customer-facing?)
- SLA compliance score (to what extent is the application meeting agreed SLAs?)

Explanations of these scores are in earlier sections of this document.

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 value such that it is always between 0 - 100, see *‘MIN and MAX parameters’ on page 41*.

- Maximum weight: 44. This value is calculated and is used to calibrate the scorecard value such that it is always between 0 - 100, see *'MIN and MAX parameters' on page 41*.

You can adjust these weights based on the priorities of your organization.

The following formula is used to calculate the Business Efficiency 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')
```

For information about aligning the “goodness” of attributes in the formula, see *'Direction of “goodness” on page 41*.

You can also add additional business score attributes into the formula, see *'Adding additional attributes to a formula' on page 40*.

---

## 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 (how well does the application align with the business?)
- Revenue growth potential score (what ability does the application have to contribute to future revenue growth?)
- Business risk score (what is the business risk that is associated with the application not delivering on SLAs and functional needs?)
- IT alignment score (how well is the application aligned with the IT strategy and technology stack?)
- Maintainability score (how easy is the application to maintain?)
- Skills risk score (what is the risk of not having the critical skills to evolve the application?)

Explanations of these scores are available in earlier sections of this document. 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 value such that it is always between 0 - 100, see *'MIN and MAX parameters' on page 41*.
- Maximum weight: 46. This value is calculated and is used to calibrate the scorecard value such that it is always between 0 - 100, see *'MIN and MAX parameters' on page 41*.

You can adjust these weights based on the priorities of your organization.

The following formula is used to calculate the Ability for Growth Score:

```
=Round(((Weights!W1!GRO-BusAlign' * 'M-BusAlign') +
('Weights!W1!GRO-BusRisk' * ( 6 -'M-BusRisk')) +
('Weights!W1!GRO-RevGrowth' * 'M-RevGrowth') +
('Weights!W1!GRO-ITAlign' * 'M-IT-Align') +
('Weights!W1!GRO-Maintainability' * 'M-Maintainability') +
('Weights!W1!GRO-SkillRisk' * ( 6-'M-SKillRisk')) -
'Weights!W1!GRO-Min') * 100 / 'Weights!W1!GRO-MAX')
```

For information about aligning the “goodness” of attributes in the formula, see *'Direction of “goodness” on page 41*.

You can also add additional business score attributes into the formula, see *'Adding additional attributes to a formula' on page 40*.

---

## Adding additional attributes to a formula

You can add or remove attributes from the scorecard.

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

After you have added an attribute, you must update the scorecard formula by completing the following steps:

- 1 Translate the attribute to a numeric value that uses an *M-name* attribute.

*M-name* variables are used to convert a choice attribute to a float value so that the attribute can be used in a formula.

- 2 Add the attribute weight to the Weight module.

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.

- 3 Consider whether the attribute requires the formula to compensate for direction of “goodness”, see *'Direction of “goodness” on page 41*.
- 4 Update the MIN and MAX variables in the Weight module to take account of the new attribute, see *'MIN and MAX parameters' on page 41*.



- Update the formula for the scorecard attribute in the Application module to include the new attribute.

Remember to check whether you need to compensate for the direction of “goodness” in the formula, see *‘Direction of “goodness” on page 41.*

---

## Direction of “goodness”

The direction of “goodness,” indicates whether a number has good or bad implications. For example, for business criticality, 1 represents low business criticality, which is bad and 5 represents high business criticality, which is good. However, for business risk the values are reversed, 1 represents low business risk, which is good, and 5 represents high business risk, which is bad.

To ensure that a total score treats all attributes in the same way, the formula compensates by reversing the scores of attributes which do not have the same direction of “goodness”.

For example, in the following formula for Total Business Alignment Score, instead of `M-BusRisk`, the formula includes `(max-value + min-value) - M-BusRisk` so, if business risk scores are always between 1 and 5, a value of 1 (good) translates to a value of 5 in the formula, a value of 2 translates to a value of 4, and so on.

```
=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')
```

---

## MIN and MAX parameters

The MIN and MAX weights calibrate the scorecard score so that it is always between 0 and 100.

The MIN weight is calculated by adding together the minimum value of each attribute multiplied by its weighting.

The MAX weight is calculated by adding together the maximum value of each attribute multiplied by its weighting and then subtracting the MIN weight.

For example, the following values are the default attribute weights on the Total business alignment scorecard:

BW-BusAlign: 3

BW-BusCrit: 3

BW-BusRisk: 1

Each attribute can have a minimum value of 1 and a maximum value of 5.

BW-MIN is calculated as

```
BW-BusAlign * 1 + BW-BusCrit * 1 + BW-BusRisk * 1
```

that is

$$3 + 3 + 1 = 7$$

BW-MAX is calculated as

$$\text{BW-BusAlign} * 5 + \text{BW-BusCrit} * 5 + \text{BW-BusRisk} * 5 - \text{BW-MIN}$$

that is

$$3 * 5 + 3 * 5 + 1 * 5 - 7 = 28$$

Then, in the following formula for the Total Business Alignment Score:

$$\begin{aligned} &=\text{Round}(((\text{'Weights!W1!BW-BusAlign'} * \text{'M-BusAlign'}) + \\ &(\text{'Weights!W1!BW-BusCrit'} * \text{'M-BusCrit'}) + \\ &(\text{'Weights!W1!BW-BusRisk'} * (6 - \text{'M-BusRisk'})) - \\ &\text{'Weights!W1!BW-MIN'}) * 100 / \text{'Weights!W1!BW-MAX'}) \end{aligned}$$

if, after compensating for the direction of “goodness” (see *Direction of “goodness” on page 41*), all the attributes have the minimum value of 1, the formula resolves to 0:

$$(3 + 3 + 1 - 7) * 100 / 28 = 0$$

If all the attributes have the maximum value of 5, the formula resolves to 100.

$$(15 + 15 + 5 - 7) * 100 / 28 = 100$$

Therefore, if attributes have any other values, the formula must resolve to a number between 0 and 100.



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