CORDYS academy

Business Activity Monitoring

Exercises

Contents

1. Module

1.1 Objectives

After completing this course module, you will be able to:

- Explain the concept of Business Activity Monitoring with Cordys
- Create a user interface using the standard monitoring controls
- Implement a KPI (Key Performance Indicator) directly in a business process model

1.2 Overview

With business activity monitoring, you can monitor your processes and related data to make decisions at the operational level of your organization as well as at the strategic level and for the coming months and years.

2. About Business Activity Monitoring

2.1 Introduction

This module introduces you to the concept and usage of Business Activity Monitoring. In this module you will see and use the components of business activity monitoring that are available out of the box.

Next to this BAM offers process monitoring objects, business measures, etc to configure and implement monitoring to your needs.

2.2 References

More information about this subject is available

- Cordys Online Documentation
  Working with Business Models → Working with Business Activity Monitoring
- http://community.cordys.com

3. Exercises

3.1 Prerequisites

Before you start with this module please note the following prerequisites, the exercises are written based on their successful completion.

You must have completed the following modules

- Application Management
- Developing User Interfaces
- Workflow

You must have ONLY the following roles assigned to yourself

- Administrator
- Analyst
- Cordys Fundamentals Trainee
- Developer

Starting the required service container

1. Make sure *Cordys Services* (service container) in your organization:

3.2 Configure Design and Deployment Structure

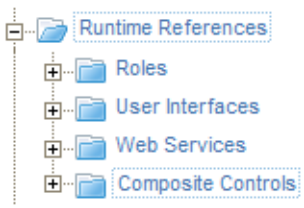
In this exercise you will setup the folder structure for the design time and deployment time components for BAM.

For detailed information see the module Application Management.

3.2.1 Creating Design Folder Structure

Here you will setup the design folder structure for modeling data according to the standard for this training (See Application Management).

1. Open the *Workspace Documents*.
2. Open the *Fundamentals training* workspace.
3. Navigate to *My Application Project → Runtime References*.
4. Right click the *Runtime References* folder and select *New → Folder*.
5. Provide the name: **Composite Controls**.

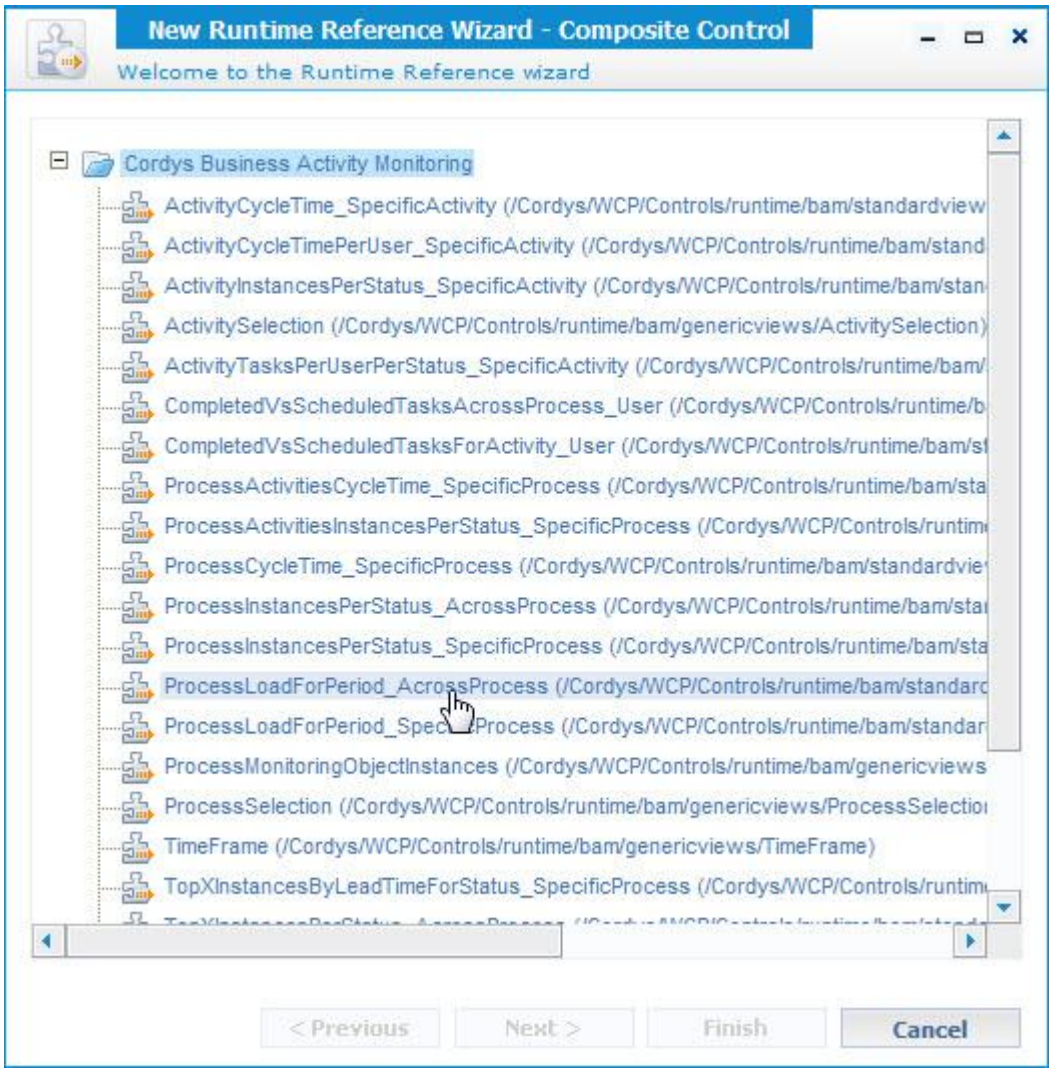


3.2.2 Adding Standard BAM Controls

Here you will add some of the default BAM composite controls to your project to be able to monitor your business processes.

1. In your workspace navigate to *My Application Project → Runtime References → Composite Controls*.
2. Right click the *Composite Controls* folder and select *Add Runtime Reference → Other*.
3. Select *Composite Control* (

).
4. Expand the application folder *Cordys Business Activity Monitoring*.
5. Select the *ProcessLoadForPeriod_AcrossProcess*.



6. Click **Finish**.

> **NOTE**
> The process load for period across process shows the number of processes started per period for all processes.

7. In the same way add the following two BAM controls:

BAM Control	Explanation
ProcessInstancesPerStatus_AcrossProcess	Shows the number of processes for a process status for all processes. E.g. Waiting, Completed, etc
TimeFrame	Control to allow the end user to select a time frame for showing the BAM data. E.g. day, week, month, etc.

3.3 Creating a Monitoring Dashboard

In this exercise you will create a user interface to display overall process information.

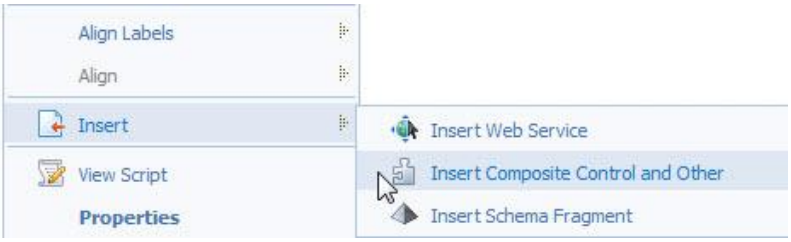
3.3.1 Creating a Process Monitoring Dashboard

In this part you will create a user interface showing the process load for all processes.

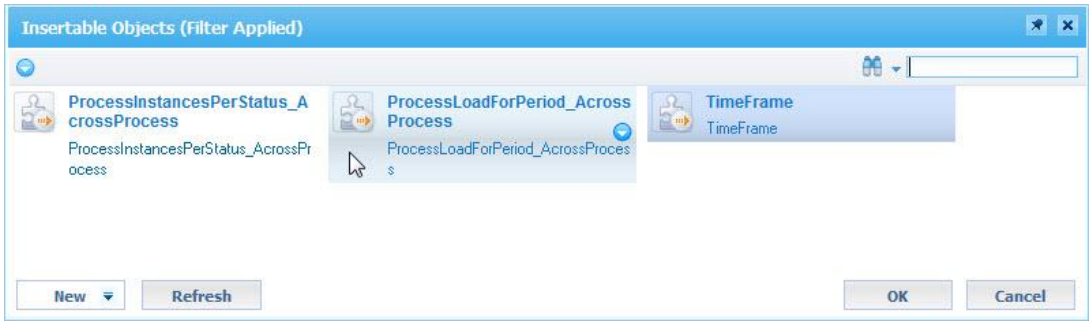
1. If closed, open the *Workspace Documents*.
2. Create a new document of type *User Interface* with the following details:

Field	Values
Name	Process Monitoring
Description	Process Monitoring
Location	My Application Project/User Interfaces/com/companyX/myapplication

3. Right click on the form and select *Insert → Insert Composite Control and Other*:

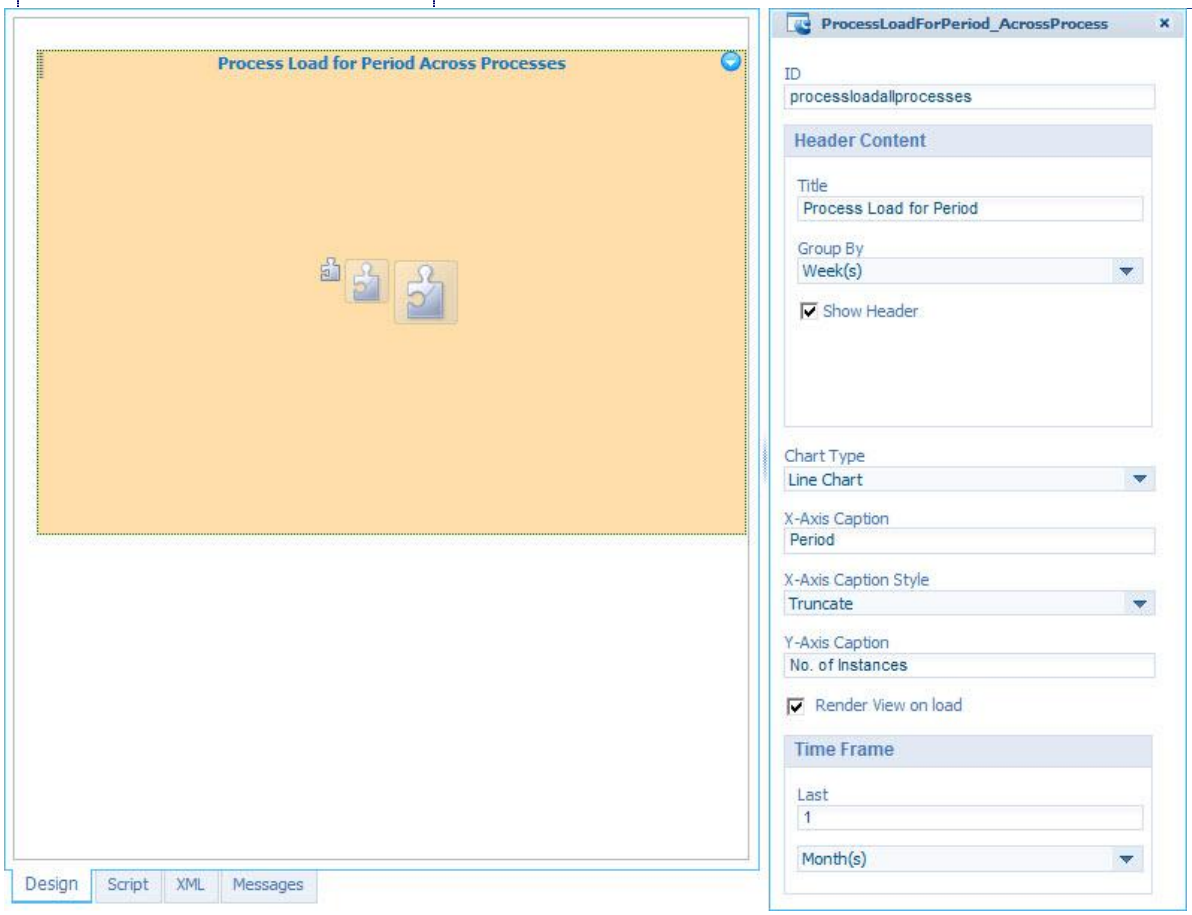


4. Select the *ProcessLoadForPeriod_AcrossProcess* control:



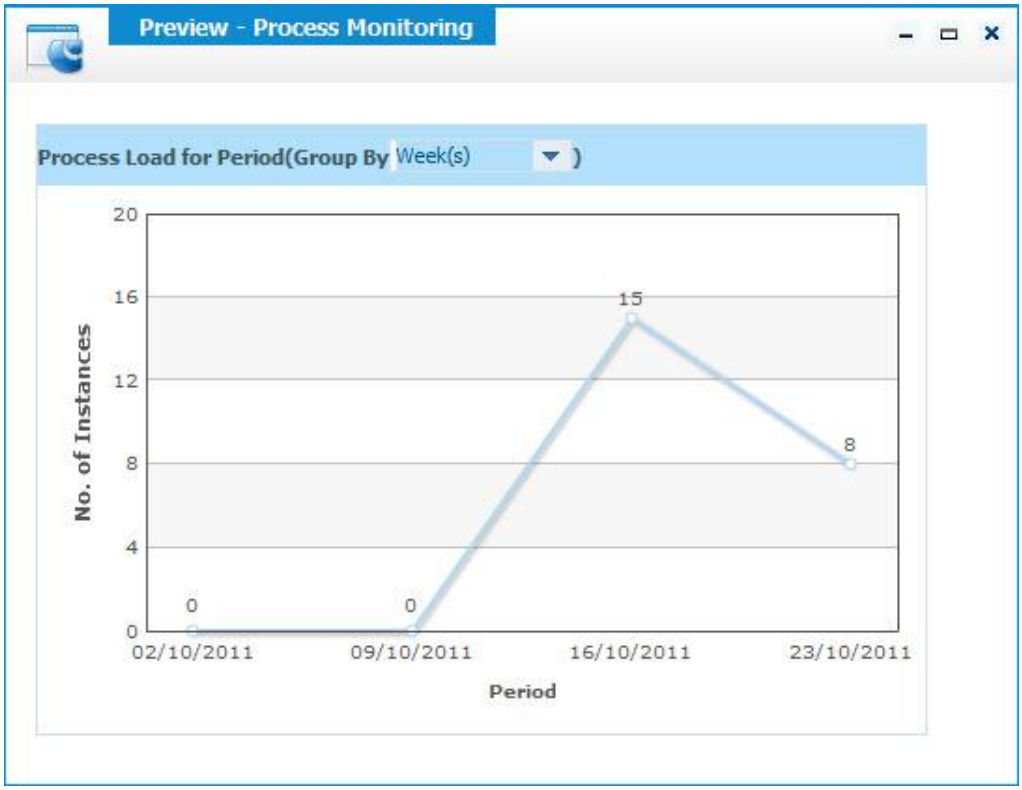
5. Open the properties for the inserted control and provide the following values:

Field	Values
Id	processloadallprocesses
Header Content	
Title	Process Load for Period
Group by	Week(s)
Time Frame	
Last	1 Month(s)



6. Save the user interface.

7. Preview your form, which looks similar to this:

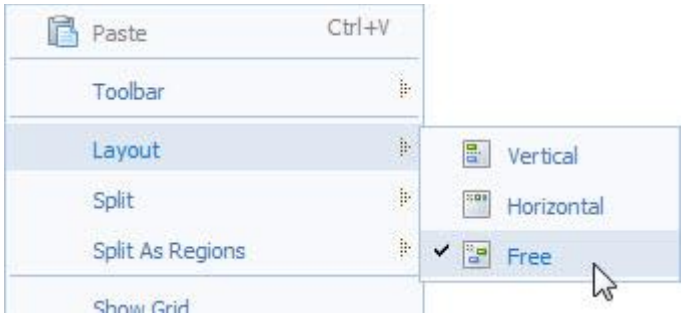


8. Try out some of the different *Group By* options, e.g. *Day(s)*, and change the Time Frame, e.g. *1 Week(s)*.

3.3.2 Completing the User Interface

In this part you will complete the user interface by adding more controls to the dashboard.

1. If closed, open the *Process Monitoring* user interface.
2. Right click in the form and select *Layout → Free*:



3. Add the *TimeFrame* composite control to the form.
4. Add the *ProcessInstancesPerStatus_AcrossProcess* composite control to the form.

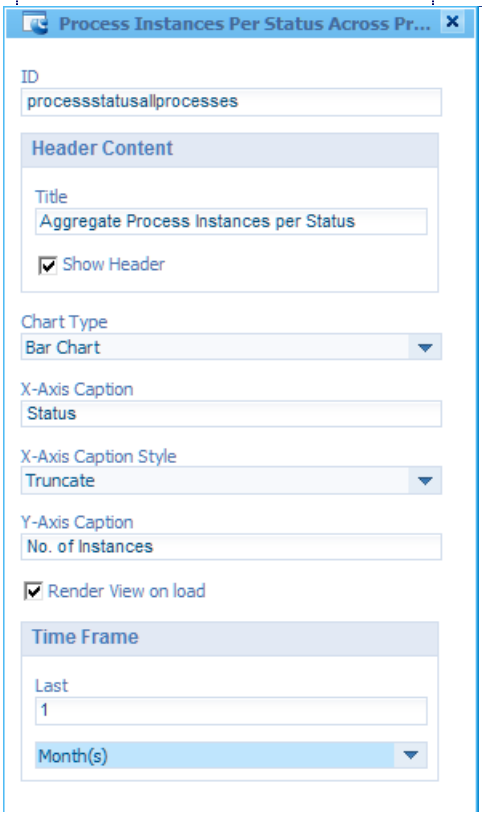
5. Move and size the controls so your form looks similar to this:

6. Open the properties of the *Time Frame* control and provide the following values:

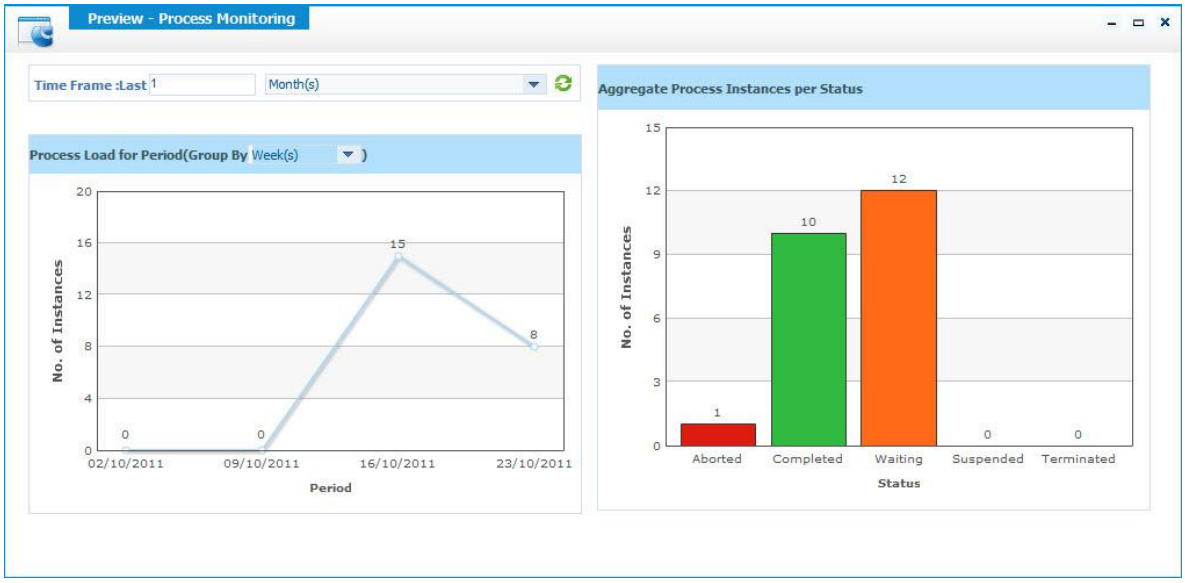
Field	Values
Id	timeframeallprocesses
Rolling Time Frame	
Period	1
Range	Month(s)

7. Provide the following property values for the *Process Instances Per Status Across Processes*:

Field	Values
Id	processstatusallprocesses
Chart Type	Bar Chart
Time Frame	
Last	1 Month(s)



8. Save and preview the user interface, which should look similar to this:

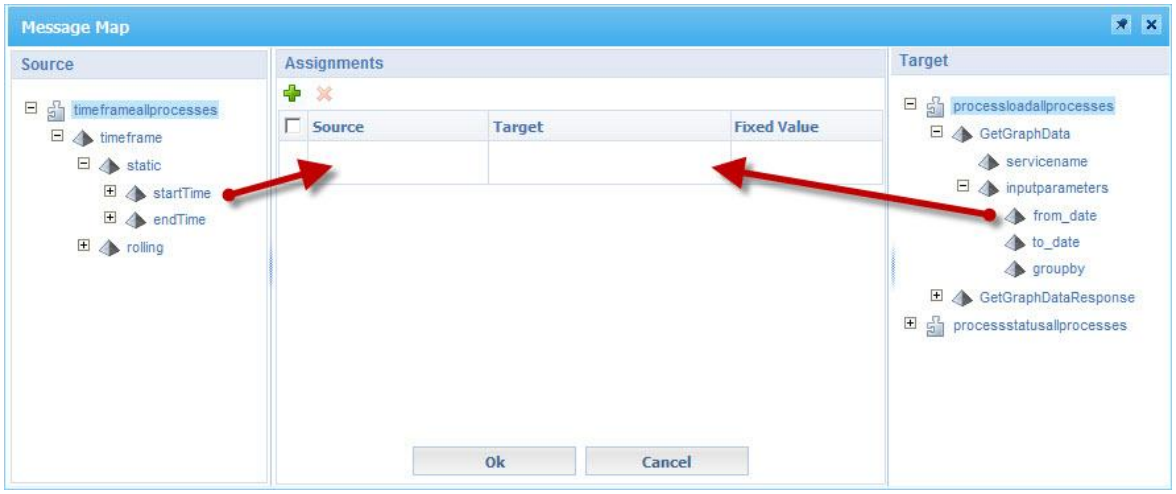


> **NOTE**
> The time frame is currently not working because nothing is configured for that.

3.3.3 Configure Drill Down between Controls

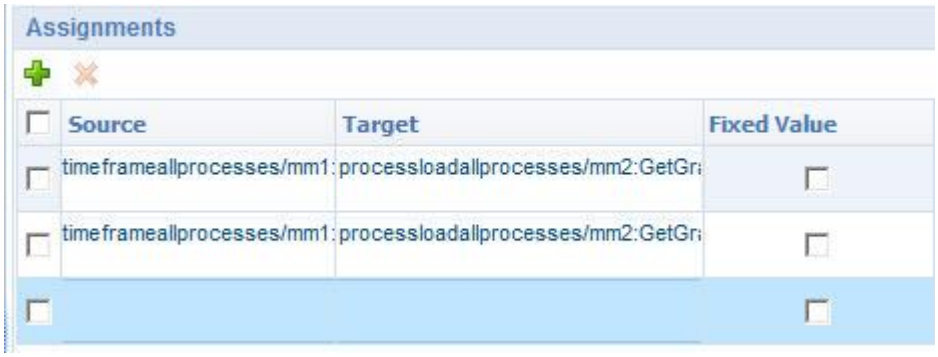
In this part you will implement the actions between the time frame and the other controls.

1. If closed, open the *Process Monitoring* user interface.
2. Right click the *Time Frame* control and select *Configure Drill Down*.
3. In the *Source* box navigate to *timeframeallprocesses → timeframe → static*.
4. Drag and drop the *startTime* element in the source part of the assignment:

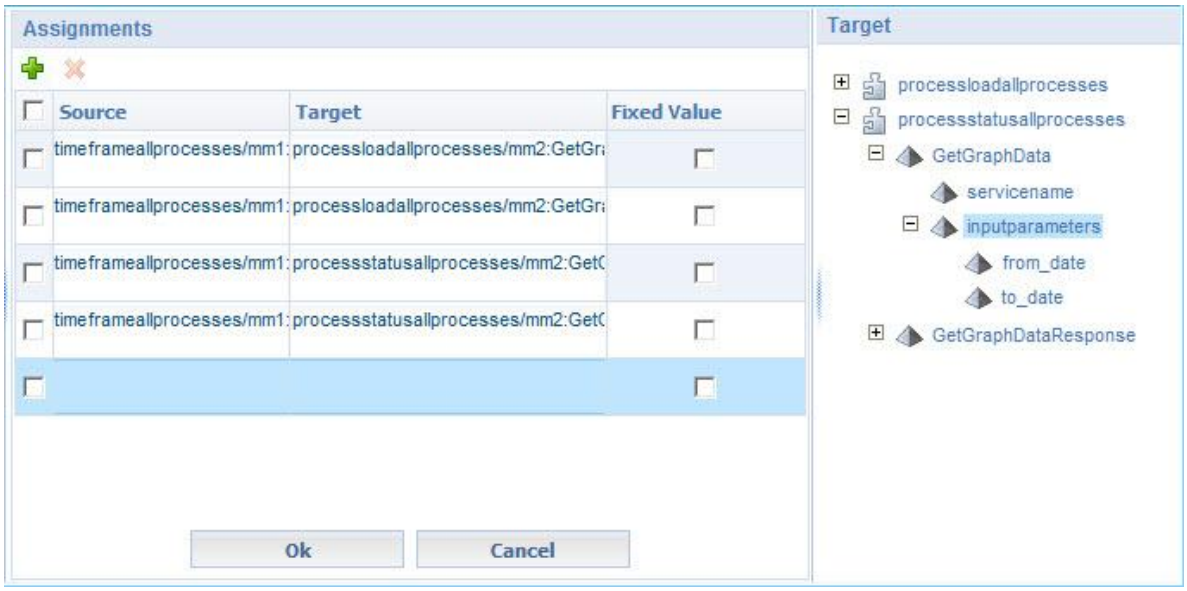


5. In the *Target* box, navigate to *processloadallprocesses → GetGraphData → inputparameters*.
6. Drag and drop the *from_date* element in the target part of the assignment.

7. Create another assignment between *endTime* and *to_date* element.



8. In the *Target* box, navigate to *processstatusallprocesses → GetGraphData → inputparameters*.
9. Create similar assignments for the *from_date* and *to_date* elements of the status control:



10. Click **OK** to save the assignments.
11. Save and preview the user interface.
12. Test out proper functioning of the *Time Frame* control by changes the relevant values:

3.4 Creating a KPI in a Business Process Model

In this exercise you will create a custom KPI (Key Performance Indicator) to monitor the load for a specific task. You will create the KPI directly in the business process model.

3.4.1 Setup the BAM Service Container

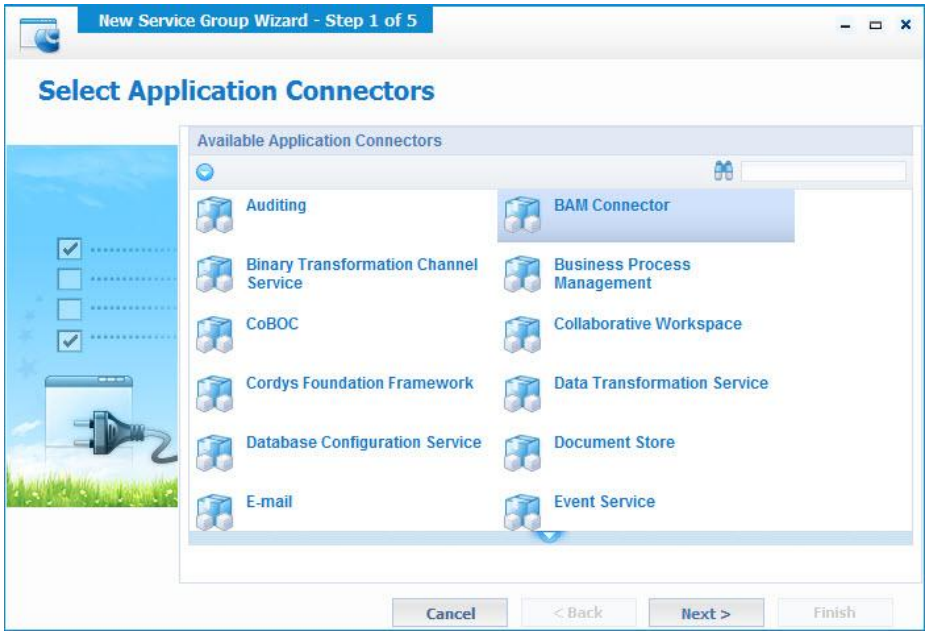
In this part you will create a BAM service group that is required to create and run custom BAM related components.

1. Open the *System Resource Manager*.

2. Click **New** ( ).

Application Connector

3. Select the *BAM Connector* application connector:

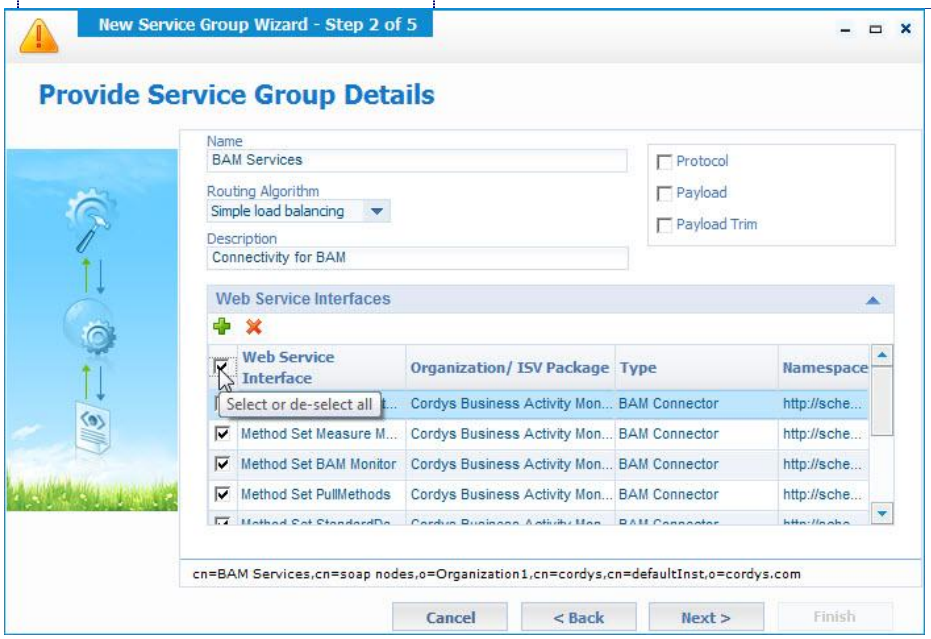


4. Click **Next**.

Service Group

5. Provide the following values for the Service Group:

Field	Value
Name	BAM Services
Routing algorithm	Simple load balancing
Description	Connectivity for BAM
Web Service Interfaces	**Check** Select All

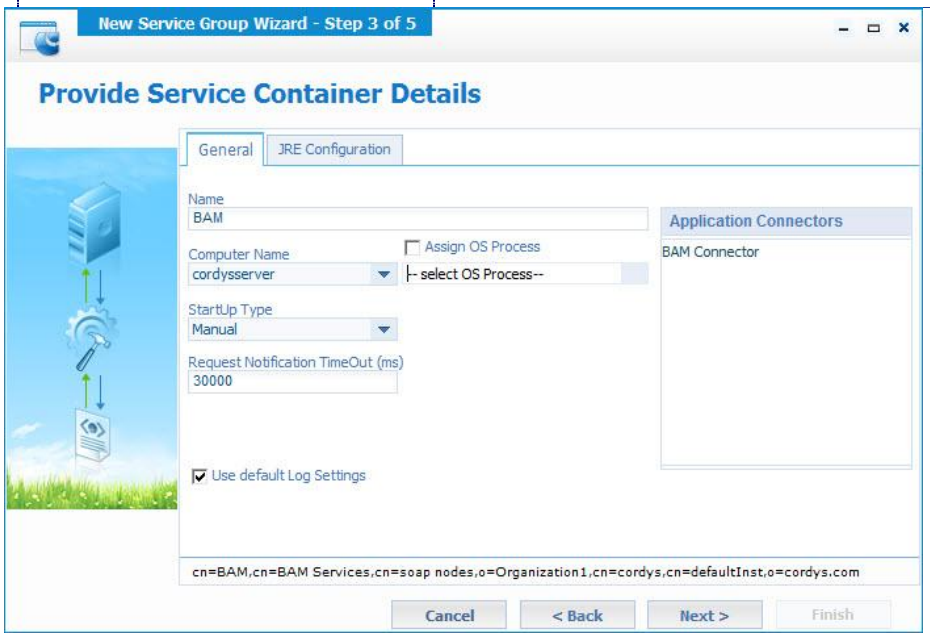


6. Click **Next**.

Service Container

7. Provide the following values for the Service Container:

Field	Value
Name	BAM
Startup Type	Manual

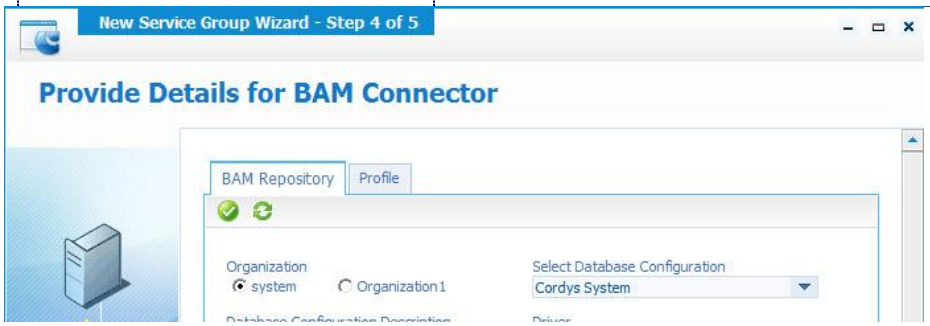


8. Click **Next**.

Application Connector Properties

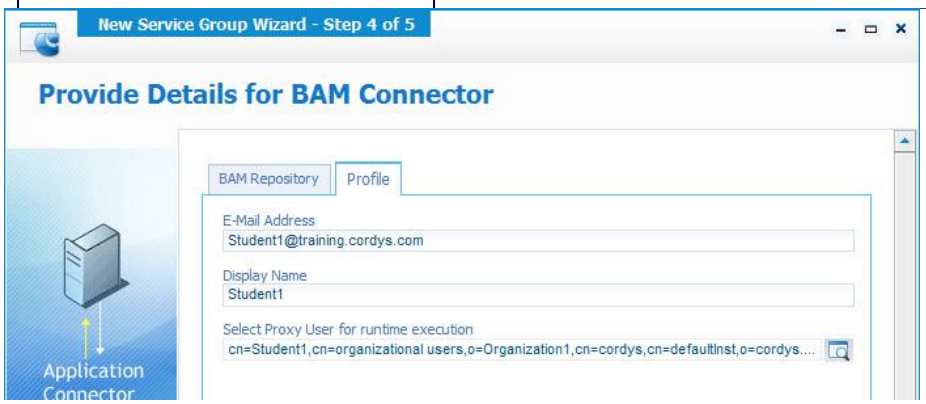
9. Provide the following values for the Application Connector *BAM Repository* tab:

Field	Value
Organization	System
Database Configuration	Cordys System



At the *Profile* tab, provide:

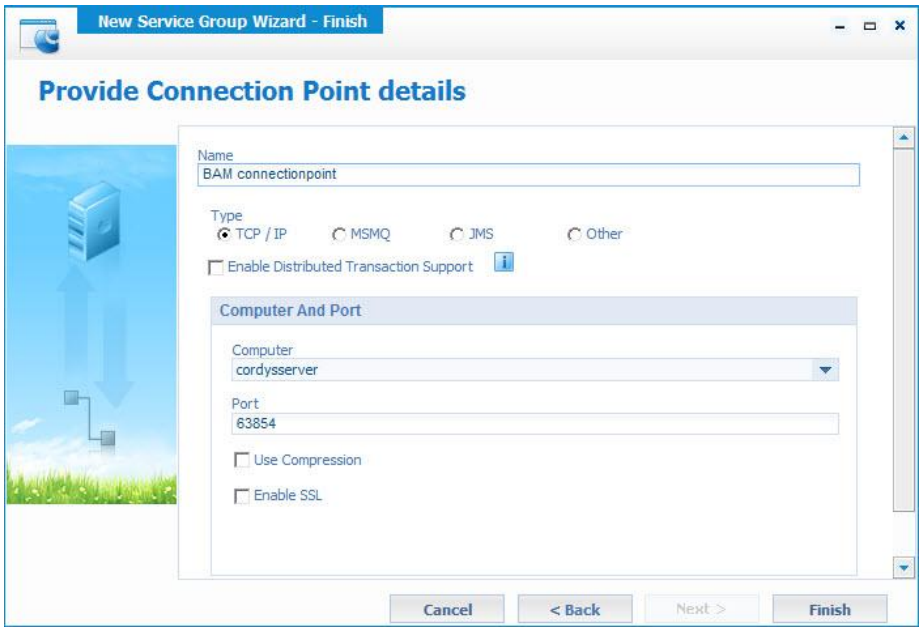
Field	Value
E-Mail Address	StudentX@training.cordys.com
Display Name	StudentX
Select Proxy User	Your user



10. Click **Next**.

Connection point

11. Provide the name: **BAM connectionpoint**.
12. Accept the random *TCP/IP* port for this training:



13. Click **Finish**.
14. Start the *BAM* service container.

3.4.2 Creating a KPI in a BPM

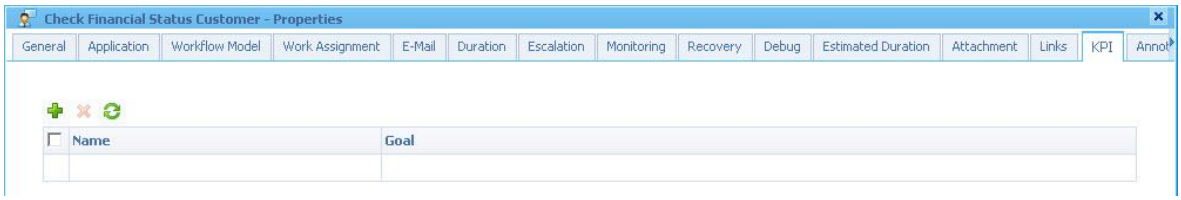
In this part you will create the KPI to monitor a financial task by measuring the number of financial tasks that are in waiting state.

1. In the *My Application Project*, navigate to *Business Process Models → com → companyX → myapplication*.
2. Open the *SalesOrderHandling* process.

3. In the toolbar click **Menu** → **Save As**.
4. Provide the following details:

Field	Value
Name	SalesOrderWithKPI
Description	Process sales order request with financial KPI
Location	Prefilled with: My Application Project/Business Process Models/com/companyX/myapplication

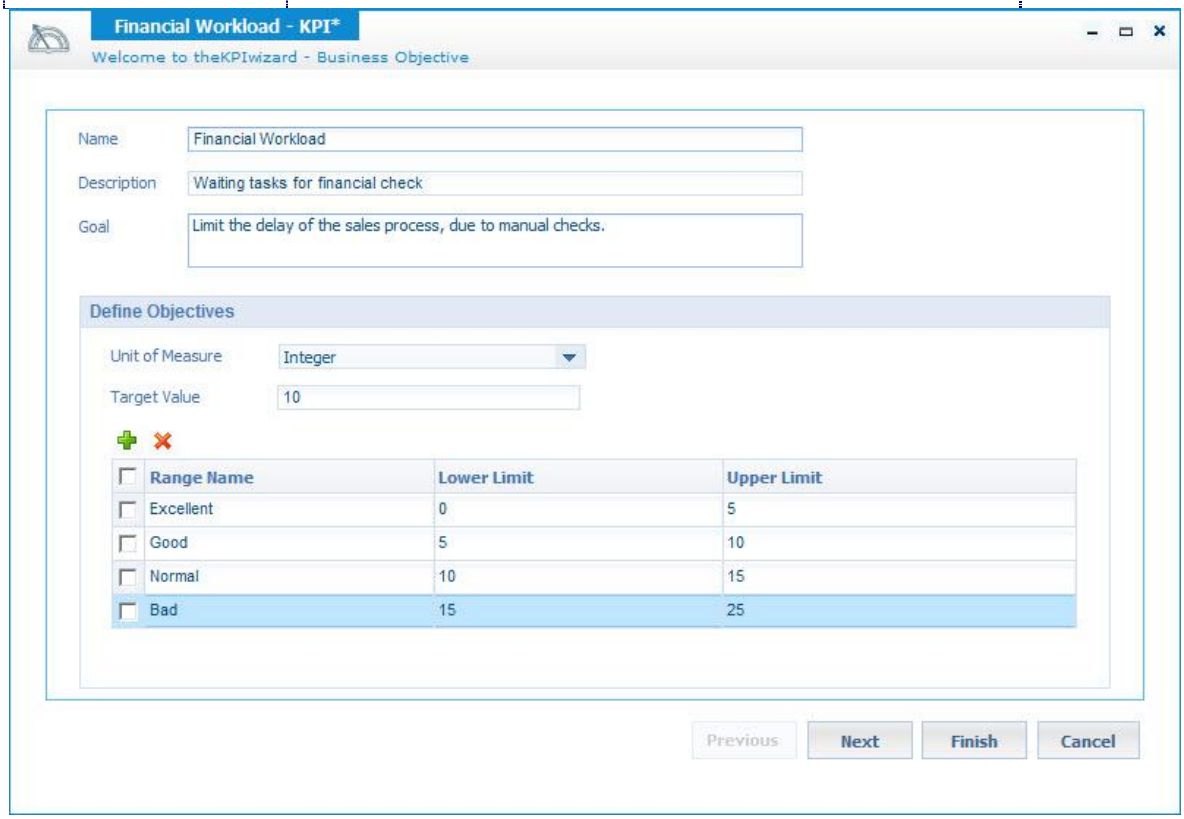
5. Click **Save**.
6. Open the properties of the *Check Financial Status Customer* task.
7. Go to the *KPI* tab:



8. Click **Insert**.

9. Provide the following *Business Objective* values:

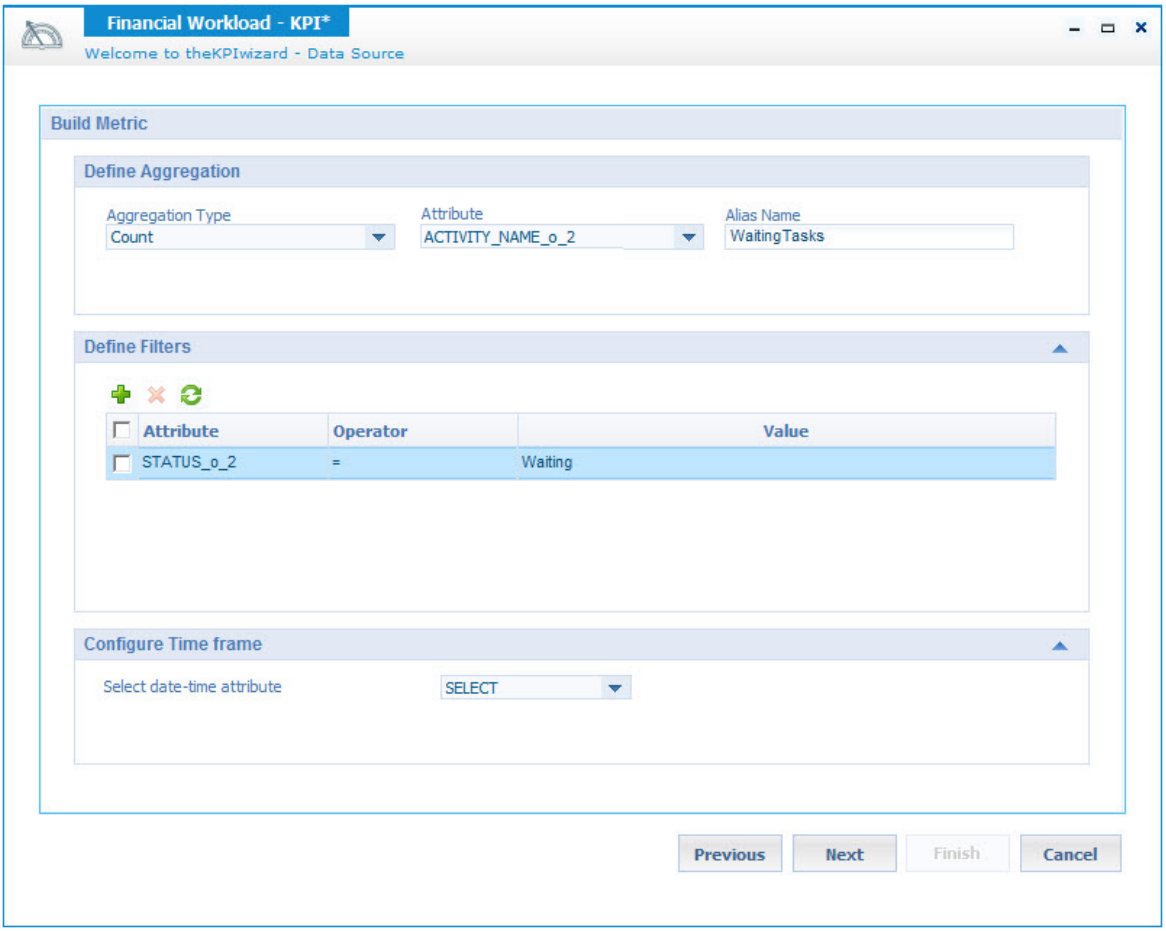
Field	Value
Name	Financial Workload
Description	Waiting tasks for financial check
Goal	Limit the delay of the sales process, due to manual checks.
Unit of Measure	Integer
Target Value	10
Ranges	
Excellent	0 - 5
Good	5 – 10
Normal	10 -15
Bad	15 - 25



10. Click **Next**.

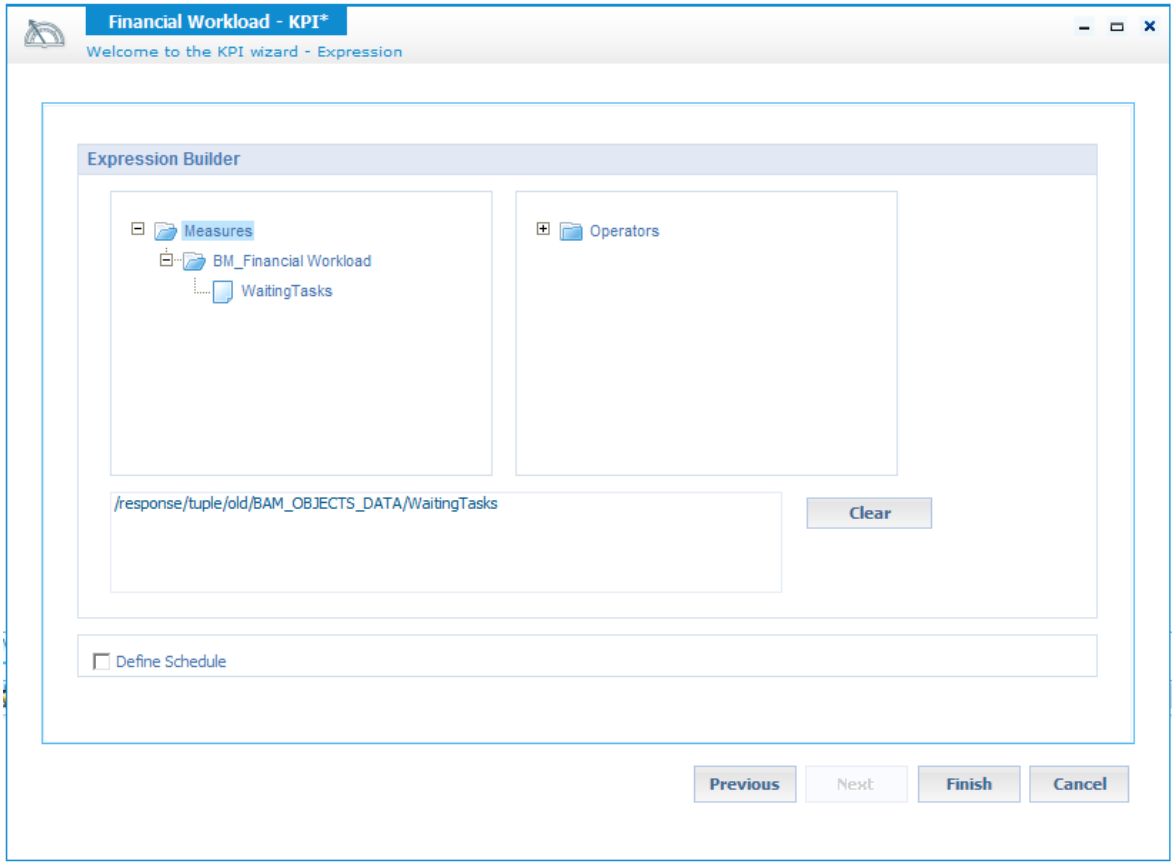
11. Provide the following *Data Source* values:

Field	Value
Aggregation	
Aggregation Type	Count
Attribute	Activity_NAME_o_2
Alias	WaitingTasks
Filters	
Attribute	STATUS_o_2
Operator	=
Value	Waiting
Time Frame	
Date-time	<none>



12. Click **Next**.

13. Accept the default *Expression* values.



14. Click **Finish**.

15. Save, validate and publish the BPM.
16. Run the process model twice.

3.4.3 Creating a Dashboard for the KPI

In this part you will create a user interface showing the KPI you have created.

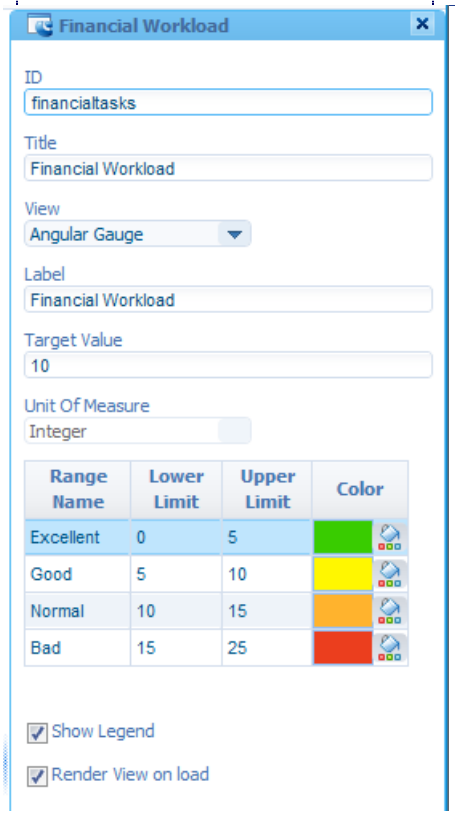
1. Create a new document of type *User Interface* with the following details:

Field	Values
Name	Sales Dashboard
Description	Sales Dashboard
Location	My Application Project/User Interfaces/com/companyX/myapplication

2. Right click in the form and select *Insert → Insert Composite Control and Other*.

3. Select the *Financial Workload* (KPI) you have created.
4. Open the properties of the inserted control and provide the following values:

Field	Values
Id	financialtasks
Header Content	
Title	Financial Workload
Range colors	Select colors as you look for the ranges
Show Legend	Checked



5. Save the user interface.

6. Preview the user interface:

3.5 Make Changes Available to SCM

In this exercise you will make your developed content/changes available to your team members by sending the changes to the SCM application.

You should only make changes available after you have tested these to work correctly. This is to ensure that your team members' work is not affected when they incorporate your changes.

> **NOTE**
> This only applies when your workspace was created using an SCM application.

1. If closed open the Workspace Documents.
2. Click **Make Changes Available to Others** () in the toolbar.
3. Review the modified content.
4. Provide as comment **Business Activity Monitoring**.
5. Click **Make Available**.

4. Learning Report

Achievements

- ❑ I know the concept of business activity monitoring.
- ❑ I can user the standard business activity monitoring controls.
- ❑ I can implement a KPI directly in a business process model.

Notes