Interstage Business Process Manager Analytics V11.0

Studio Guide

Windows/Solaris/Linux

About this Manual

This document describes how to use the Analytics Studio to configure the parameters to enable Interstage BPM Analytics features.

Intended Audience

This manual is intended for use by the system administrator. It assumes that the reader has a working knowledge of the following:

- Eclipse operations
- Database administration

This Manual Contains:

Chapter	Title	Description
1	Interstage BPM Analytics Studio Overview	How Analytics Studio works in the overall configuration of Interstage BPM Analytics.
2	Using Interstage BPM Analytics Studio	How to start and operate the Interstage BPM Analytics Studio.
3	Interstage BPM Studio Integration	Setting-up the integration with Interstage BPM and Interstage BPM Analytics on Interstage BPM Studio.
4	Interstage BPM Analytics Wizard	How to use the Interstage BPM Analytics Wizard

Typographical Conventions

The following conventions are used throughout this manual:

Example	Meaning
command	Text, which you are required to type at a command line, is identified by Courier font.
screen text	Text, which is visible in the user interface, is **bold**.
Reference	Reference material is in *italics*.
Parameter	A command parameter is identified by Courier font.

Reference Materials

The following reference materials for Interstage BPM Analytics are also available:

- *Release Notes*

  Contains an overview of Interstage BPM Analytics, and late-breaking information that could not make it into the manuals.

- *Overview*

  Describes the Interstage BPM Analytics Architecture and features.

- *Installation Guide*

  Explains how to install Interstage BPM Analytics.

- *Dashboard / Output Guide*

  Explains how to use the Dashboard to display Analytical data.

- *Administration Guide*

  Contains Administration tools and tips, Message references and Troubleshooting.

- *Management Console Guide*

  Explains how to use Management Console and Management Commands to configure the core parameters, how to start/stop the Interstage BPM Analytics service and how to display the Interstage BPM Analytics status.

Abbreviations

The following references for BPM Analytics are also available:

Formal name	Abbreviation
Microsoft(R) Windows Server(TM) 2003, Standard Edition Microsoft(R) Windows Server(TM) 2003, Enterprise Edition Microsoft(R) Windows Server(TM) 2003 R2, Standard Edition Microsoft(R) Windows Server(TM) 2003 R2, Enterprise Edition	Windows Server
Microsoft(R) Windows Server(TM) 2003, Standard x64 Edition Microsoft(R) Windows Server(TM) 2003, Enterprise x64 Edition Microsoft(R) Windows Server(TM) 2003 R2, Standard x64 Edition Microsoft(R) Windows Server(TM) 2003 R2, Enterprise x64 Edition	Windows Server 2003(x64), or Windows Server 2003
Microsoft(R) Windows Server(R) 2008, Standard Edition Microsoft(R) Windows Server(R) 2008, Enterprise Edition Microsoft(R) Windows Server(R) 2008 R2 Standard Microsoft(R) Windows Server(R) 2008 R2 Enterprise	Windows Server
Microsoft(R) Windows(R) XP Professional operating system Microsoft(R) Windows(R) XP Home Edition operating system	Windows XP, or Windows
Microsoft(R) Windows Vista(R) Business Microsoft(R) Windows Vista(R) Enterprise Microsoft(R) Windows Vista(R) Ultimate	Windows Vista, or Windows
Microsoft(R) Windows(R) 7 Home Premium Microsoft(R) Windows(R) 7 Professional Microsoft(R) Windows(R) 7 Ultimate	Windows 7, or Windows
Microsoft(R) Internet Information Server Microsoft(R) Internet Information Services	IIS
Microsoft(R) Internet Explorer 6.0 Microsoft(R) Internet Explorer 7.0 Microsoft(R) Internet Explorer 8.0	Internet Explorer
Microsoft(R) Excel	Excel
Solaris(TM) 10 operating system	Solaris 10, or Solaris
Red Hat Enterprise Linux AS Red Hat Enterprise Linux ES Red Hat Enterprise Linux 5	Linux
Interstage Application Server Enterprise Edition Interstage Application Server Standard-J Edition	Interstage Application Server
Interstage Studio Enterprise Edition Interstage Studio Standard-J Edition	Interstage Studio, or Studio
Interstage Business Process Manager	IBPM
Oracle Database 10g Enterprise Edition R10.1.0/R10.2.0 Oracle Database 10g Standard Edition R10.1.0/R10.2.0 Oracle Database 10g Standard Edition One R10.1.0/R10.2.0	Oracle10g, or Oracle
Oracle Database 11g Enterprise Edition Oracle Database 11g Standard Edition Oracle Database 11g Standard Edition One Oracle Database 11g R2 Enterprise Edition Oracle Database 11g R2 Standard Edition Oracle Database 11g R2 Standard Edition One	Oracle11g, or Oracle

Formal name	Abbreviation
Microsoft SQL Server 2005 Standard Edition Microsoft SQL Server 2005 Enterprise Edition	SQL Server 2005, or SQL Server
Microsoft SQL Server 2008 Standard Edition Microsoft SQL Server 2008 Enterprise Edition	SQL Server 2008, or SQL Server

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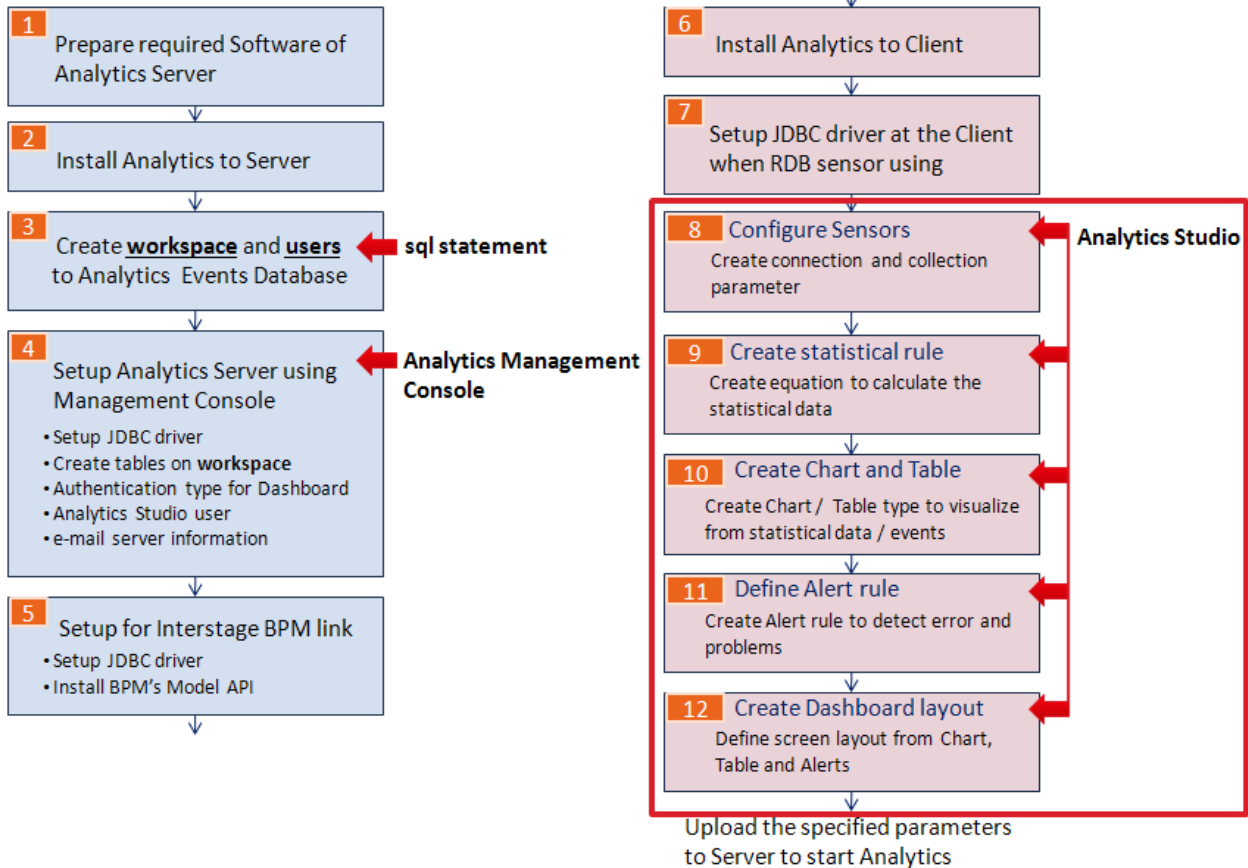
Copyright

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December 2009 First Edition
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Contents

Chapter 1 Interstage BPM Analytics Studio Overview

The red outline in following graphic shows the processes that IBPM Analytics Studio performs in the overall configuration of IBPM Analytics:

Setup / Configuration flowchart

1 Prepare required Software of Analytics Server	**6** Install Analytics to Client
2 Install Analytics to Server	**7** Setup JDBC driver at the Client when RDB sensor using
3 Create **workspace** and **users** to Analytics Events Database ← sql statement	**8** Configure Sensors — Create connection and collection parameter ← Analytics Studio
4 Setup Analytics Server using Management Console ← Analytics Management Console • Setup JDBC driver • Create tables on **workspace** • Authentication type for Dashboard • Analytics Studio user • e-mail server information	**9** Create statistical rule — Create equation to calculate the statistical data
	10 Create Chart and Table — Create Chart / Table type to visualize from statistical data / events
5 Setup for Interstage BPM link • Setup JDBC driver • Install BPM's Model API	**11** Define Alert rule — Create Alert rule to detect error and problems
	12 Create Dashboard layout — Define screen layout from Chart, Table and Alerts

Upload the specified parameters to Server to start Analytics

IBPM Analytics Studio is a tool for defining the information required for monitoring operations, i.e. to set event collection settings, as well as the presentation of the resulting data, e.g. the visualization methods

It is also where the internal data analysis calculations are defined and configured.

The setup operations using the Analytics Studio broadly consist of the following four tasks:

1. **Set up the Event collection**

   Make settings for the behavior of sensors so that general events can be collected from monitored systems and stored in the Events Database.

   Set the following in the event collection settings:

   - Sensor (information for connecting to the systems being monitored, etc.)

   - Collection tasks (data to be collected, deal with events to be stored in the Events Database, etc.)

   - Sensor operation schedule

2. **Set up the Event processing**

Make settings for the behavior of the Analytics Server so that calculations can be performed on the events collected by sensors and alerts can be evaluated.

Set the following in the event processing settings:

- Simple statistical rules (event statistics rules, format of statistical events that store statistical results, etc.)

- Alert assessment and Action (assessment conditions, messages to be output, etc.)

3. **Set up the Presentation**

Make Dashboard settings for making business processes visible, and escalation settings for executing actions when alerts occur.

Set the following in the visualization and action settings:

- Dashboard

- Reporting

- Role and Access control for users

4. **BPM Studio Integration**

Make settings for the behavior of workflow sensors so that workflow events can be collected from business process using the BPM Studio and stored in the Events Database.

Set the following in the event collection settings:

- Sensor (information for connection to BPM Server where monitored business processes are registered)

- Collection tasks (data to be collected, deal with events to be stored in the Events Database, etc)

- Sensor operation schedule

Chapter 2 Using Interstage BPM Analytics Studio

Analytics Studio is a plug-in application developed by Fujitsu for the Eclipse Integrated Development Environment (IDE).

When the Analytics Studio Perspective is opened, the standard Analytics Studio workbench appears. This workbench is the proprietary tool-kit for developing IBPM Analytics' front services, that is the Dashboard, Alerts and other output. The general layout and contents of the workbench are fixed and cannot be altered.

The elements of each definition are stored in the Definition View Tree. While the Definition View Tree appears to be a file system, the element types are defined by the Perspective and cannot be changed.

Select an element in the Definition View Tree to edit it in the other panels in the Editor View work area.

2.1 Open an Analytics Studio Definition

Use the following procedure to start Analytics Studio and open a Definition for editing:

Open the Perspective

1. Start Interstage Studio (Eclipse) on the PC on which Analytics Studio was installed. Otherwise Start from Windows Start menu.

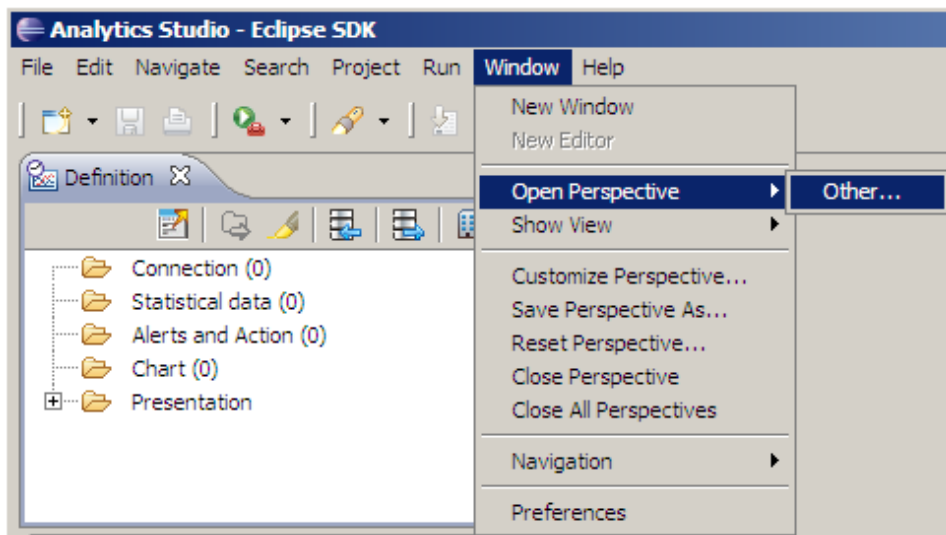   [All Programs] -> [Interstage Business Process Manager Analytics] -> [Analytics Studio]

2. Open the Analytics Studio Perspective.
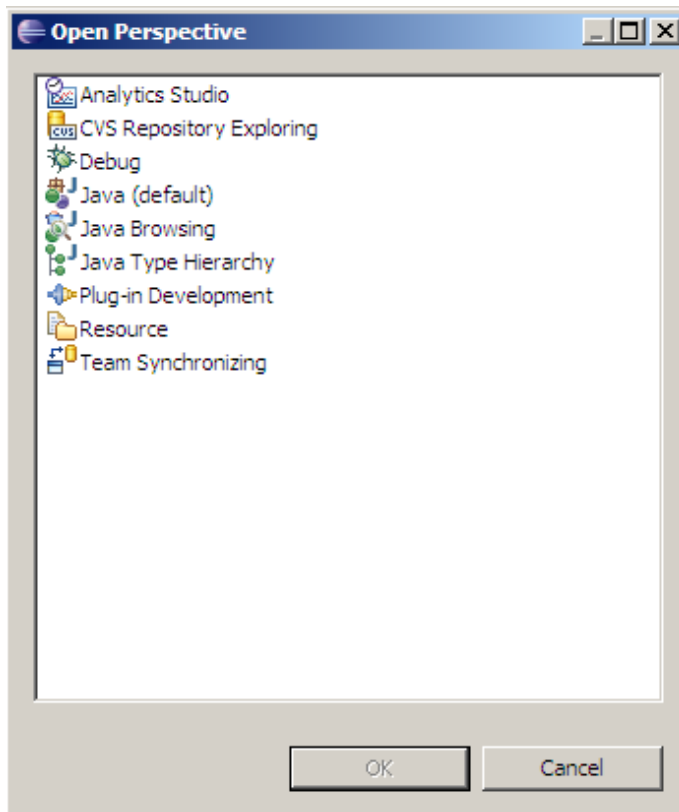
   - Using the Interstage BPM Studio

     [**Windows**] -> [**Open Perspective**] -> [**Analytics Studio**]

   - Using the Interstage Studio (Eclipse)

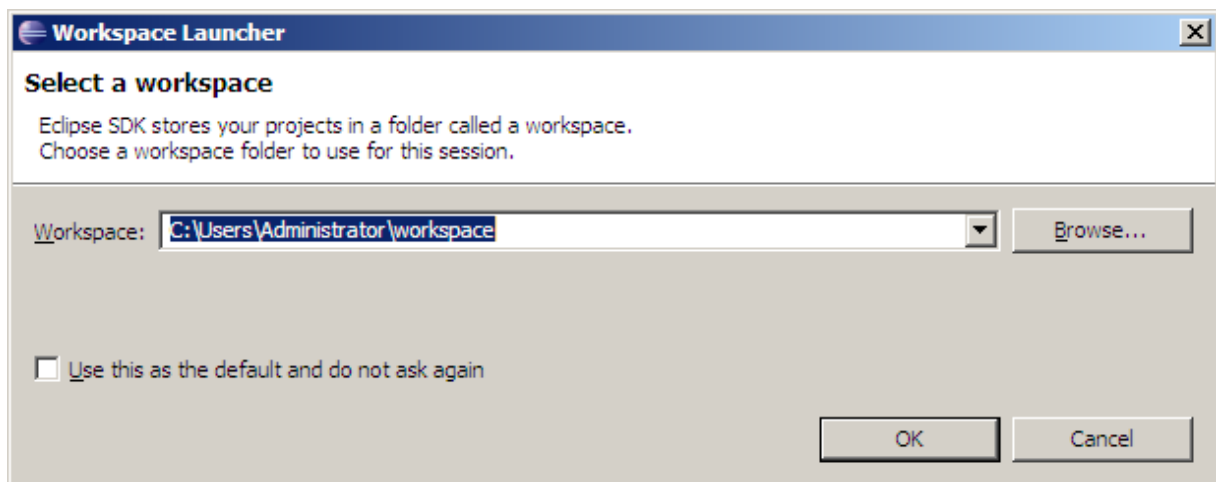   [**Windows**] -> [**Open Perspective**] -> [**Other**]

The **Open Perspective** dialog box appears, select **Analytics Studio**:

Once the Analytics Studio perspective is open, the **Definition** work area will be populated with the BPM tree, however the "folders" in the tree will be empty.
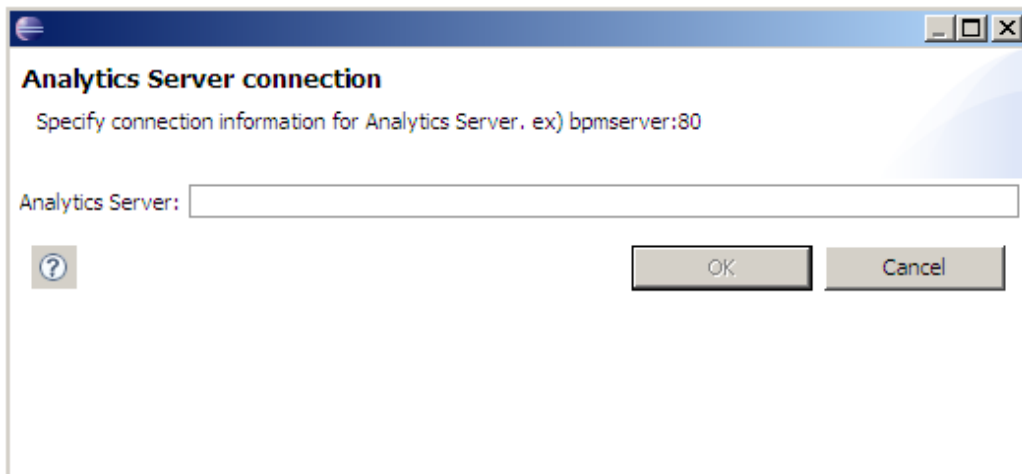
 Note

. . . .

・ The following dialog box appears when Analytics Studio starts up:

Use this dialog to specify the **workspace** folder in which the locally edited Analytics’ Definitions (Configuration files) will be stored.

・ At the first start-up of Analytics Studio, the Analytics Server Connection dialog box appear:


Use this dialog to specify the Analytics Server address such as IP address, HOST name, etc. The HTTP port number can also be specified if the Analytics Server's port number has changed to a number that is not the default.

・ The Analytics Server address can be changed from the Configuration/Launch command in the Definition work area's toolbar.
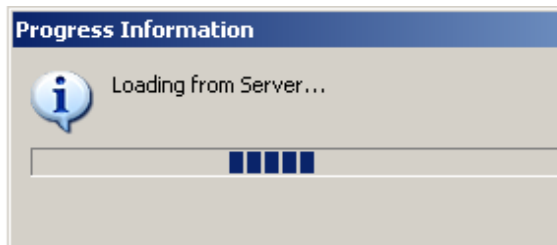
Open the Definition

To populate the tree, click on the **Open the Definition** command in the **Definition** work area's toolbar:
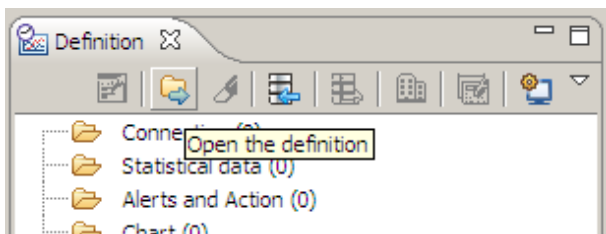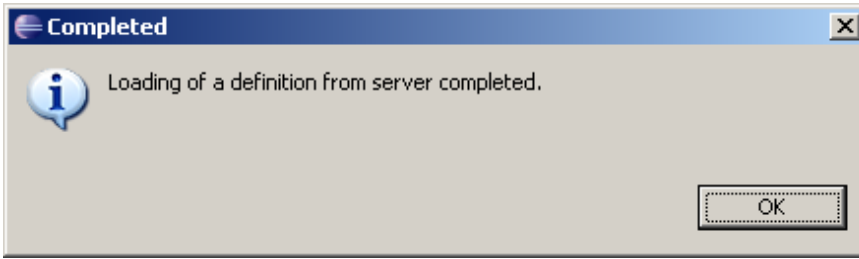

The Authentication dialog box will appear, use it to log in to the Analytics Server. Enter the User and Password which were previously defined in the Management Console.

The **Loading from Sever...** dialog will display while the Definition is being loaded:
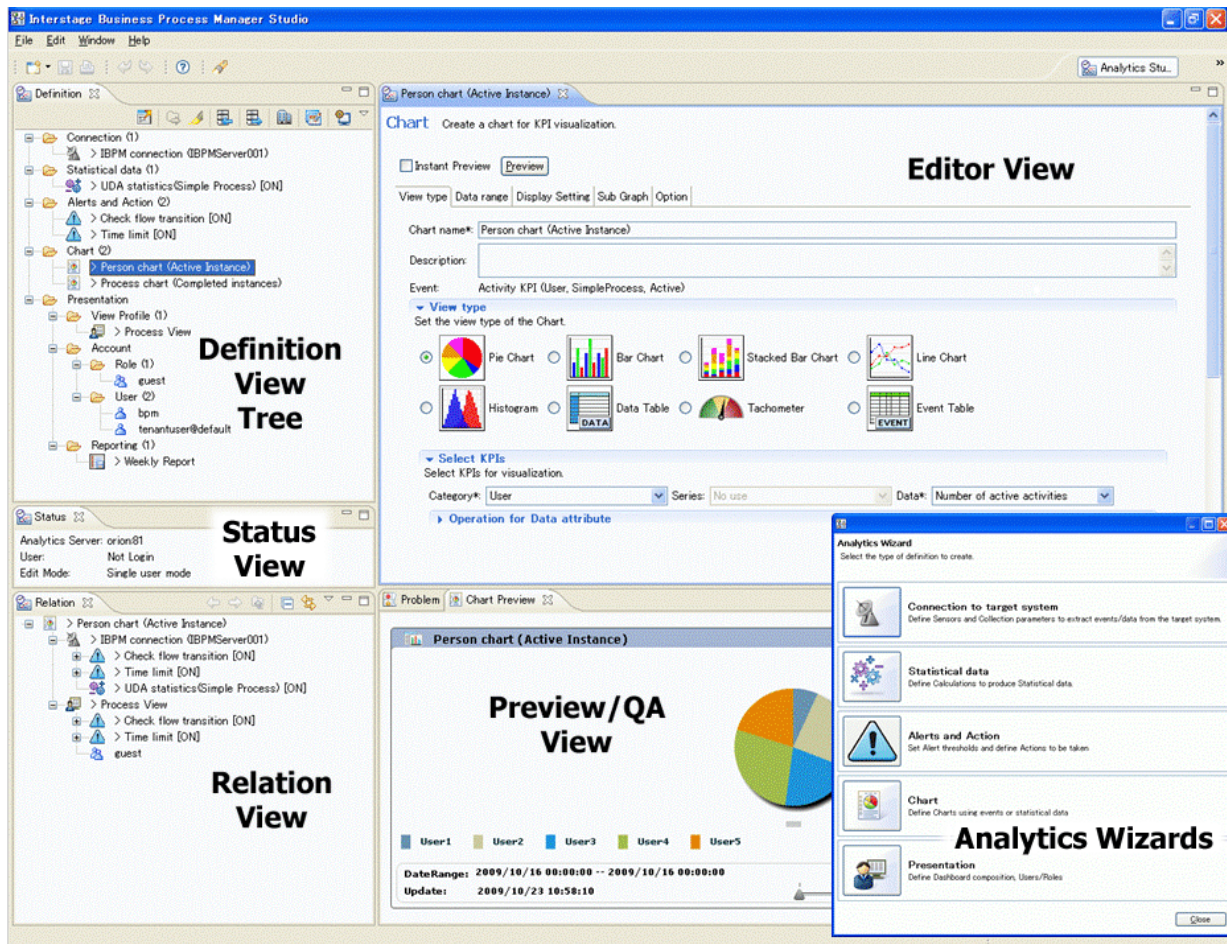

This process may take a minute or two.

When the download is completed, a confirmation message will display:

2.2 Analytics Studio Workbench

A Workbench consists of five Views.

Creation of definitions is initiated by the Analytics Wizard which opens in a separate dialog box that floats above the workbench.

Workbench Views

A View is a visual component within the Workbench. It is typically used to navigate a list or hierarchy of information, such as the elements in the **Definition View** tree at the center-left. All of the components of the definition are arranged in an expandable navigation tree.

Immediately above, in the top left corner, is the **Status View**. It contains information about the current definition: the Analytics Server's name, the current User and the Edit Mode.

The **Editor View** is typically used to review a resource's parameters and settings and to make any necessary changes. Select an element from the Definition View Tree and double click to open it in the Editor View on the right.

Elements that are referenced by the item currently being edited are its related elements are displayed in the **Relation View** in the lower left of the screen.

The **Preview/Quality Assurance View** allows charts to be previewed and for any errors or warnings to be displayed.

The **Status View** shows information which are Connecting Analytics Server name, logged in User name and Edit mode.
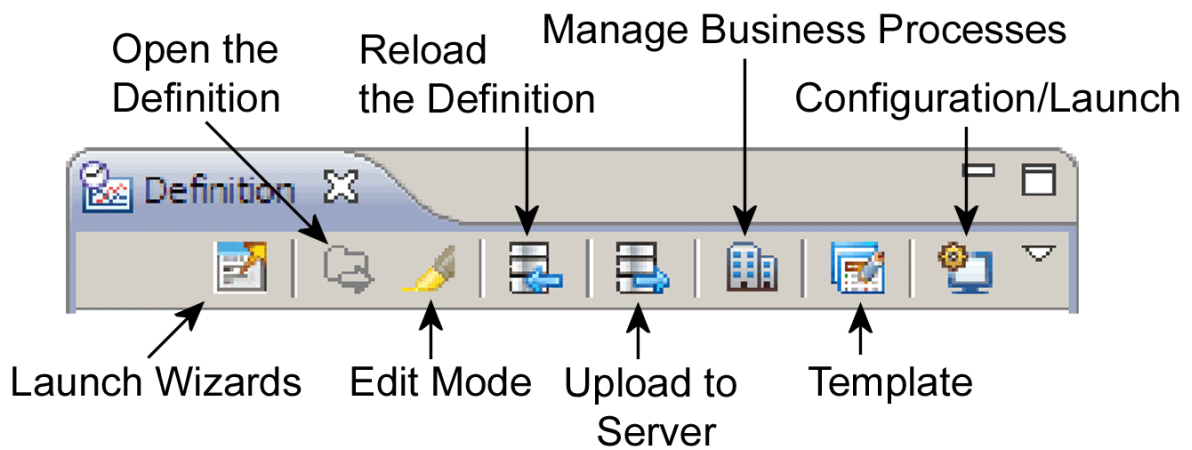
Wizards

The Analytics Wizard is used to begin creating individual definitions. There are five Wizards. Each type contains the initial steps for creating different types of definitions. After the definitions are created, additional settings and parameters can be set or adjusted in the Editor View.

Refer to the next section of this Guide for a full explanation of the Wizards.
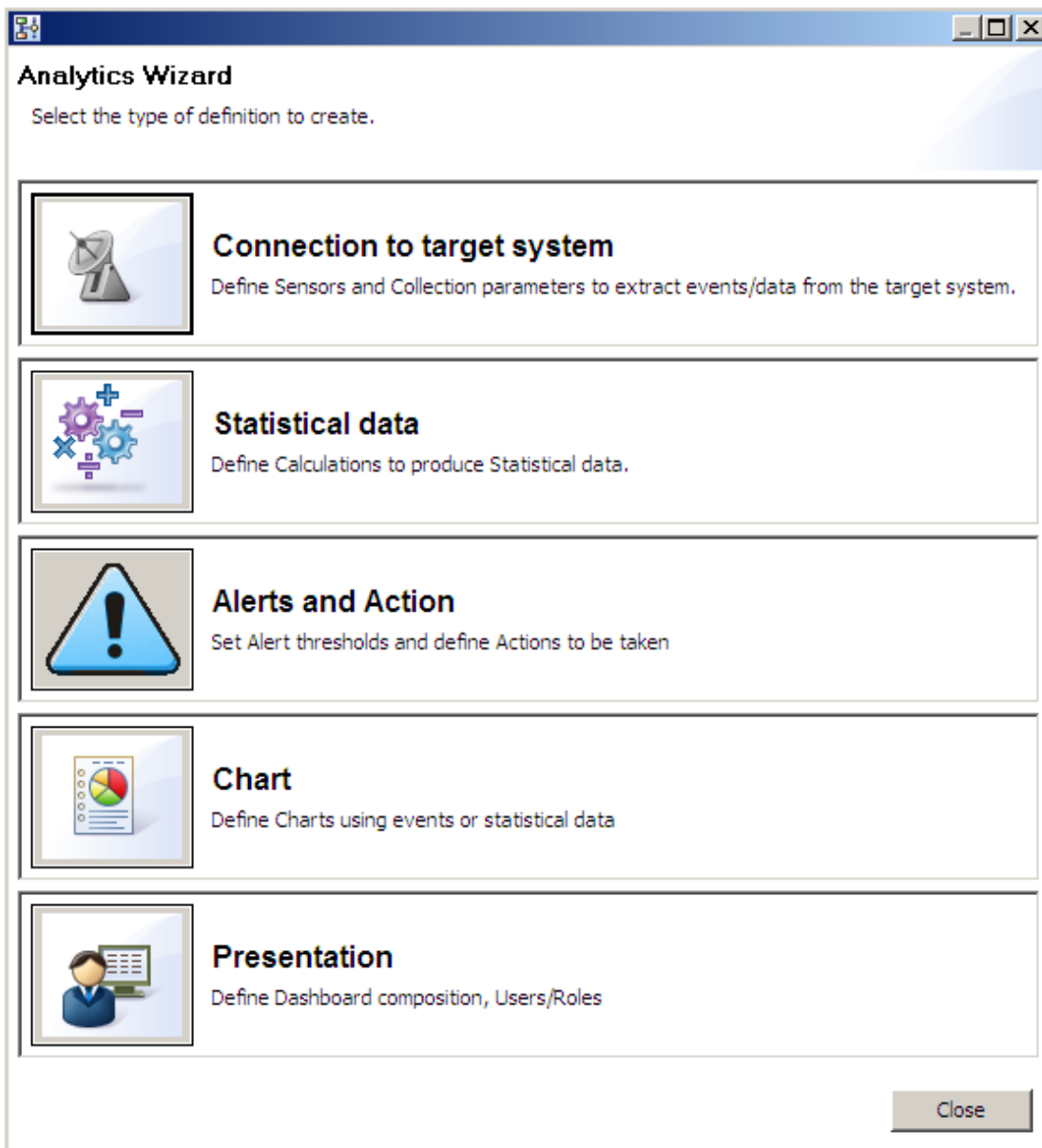
Definition Toolbar

Once a Definition is loaded, the Definition View Tree is populated. Elements in this tree can be managed using the commands in the toolbar:

Wizard Launcher button

To open the Wizard selection dialog, click on the Launch Wizards command in the Definition View's tool bar.

The Analytics Wizard selection dialog box will open:

It contains links to each of the five Wizards along with a short description of each.

Note

The **Wizard Launcher** button is only available in the Single-user mode which is one of the editing modes for definition configuration.
The Single-user mode can be changed from the Multi-user mode by toggling the Edit Mode button in the Toolbar, see description below.

Open the definition button

Select a definition in the Definitions View tree and click this command to open its details in the Editor view in the pane on the right. In the Edit View you can edit or update the definitions.

All the parameters of each Definition can be adjusted using the editor.

Edit Mode button

There are two editing modes: Single-user mode or Multi-user mode.

The current **Edit Mode** is indicated in the **Status** view:

Status

Analytics Server: localhost
User: bpm
Edit Mode: Single user mode
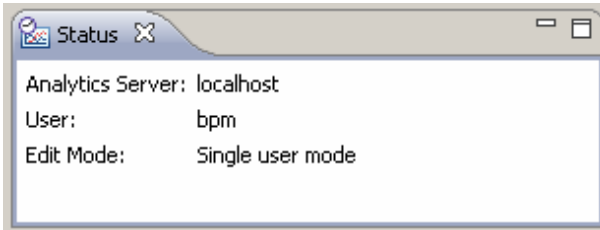
In the Single-user mode, only one user can operate Analytics Studio and create new elements using the Wizard menu. Other users can only view existing definitions while someone else is in this mode. When you change from Multi to Single user mode, you are reminded that when you change to Single user mode, current definitions will be refreshed.

Many users can update existing elements concurrently in the Multi-user mode. When you change from Single to Multi user mode, you are reminded that current definitions not uploaded will be lost.
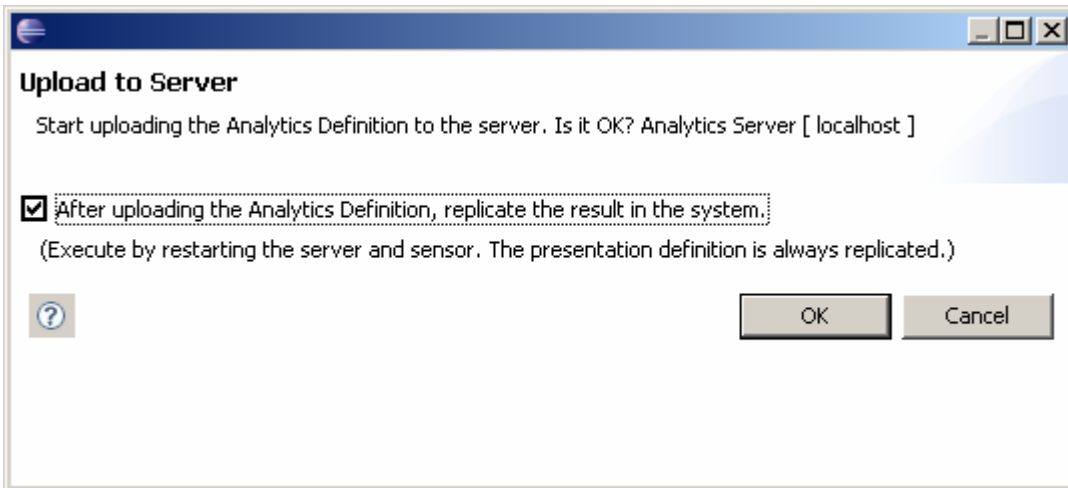
Reload Definition button

Click this command button to load a Definition from the Server into Eclipse.

Upload to Server button

Once a Definition has been created or changed using the Analytics Studio, it must be uploaded to the IBPM Analytics Server to integrate with the IBPM system.

Click the **Upload to Server** button to begin this process.

The **Upload to Server** dialog will open:

Upload to Server

Start uploading the Analytics Definition to the server. Is it OK? Analytics Server [localhost]

☑ After uploading the Analytics Definition, replicate the result in the system.

(Execute by restarting the server and sensor. The presentation definition is always replicated.)

OK   Cancel

Check the **After uploading the analytics definition, replicate the result in the system** checkbox if you want to immediately begin running the new Definition in the IBPM Analytics Server.

Manage Business Processes button

Business Processes are used to group Events associated with related business activities. Business Processes are defined in the Wizard "Connection to target system".

Business Processes are not displayed in Definition View Tree. Users can only view defined Business Process from this button.

Click this command button to manage Business Process for the following two purposes:

- Restrict the display items in the Definition View Tree according to the Business Process selected in the menu.

- Delete a defined Business Process from Definitions.

Template button

Import Definitions created in other projects for use in this instance, or Export Definitions created in this project for use in another project.

Click the **Template** button to open the **Template Management** dialog:
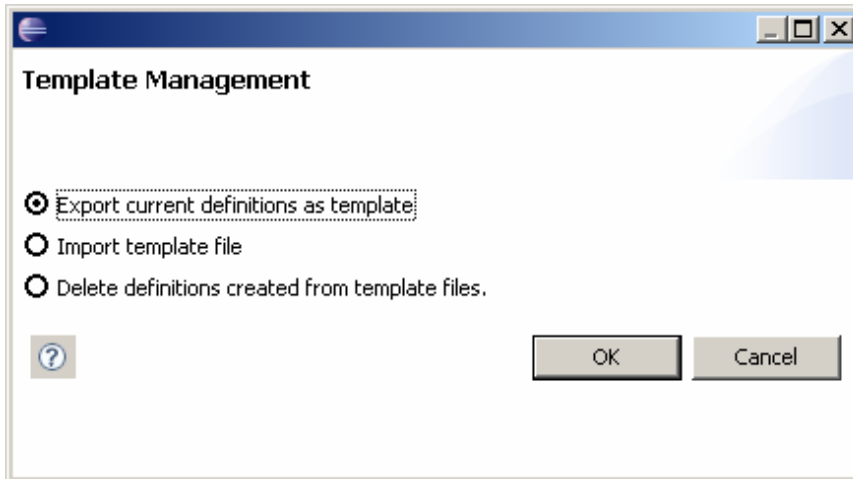
Export current definitions as template

Saves current Definitions in the specified directory so that they can be used in other projects.

Import template file

Create Definitions from template files which were created by Export operation. Imported Definition items are added into the existing Definitions View tree.

Delete Definitions created from template files

Delete Imported Definitions items. Imported items have unique ID, User can delete specific Definitions using this ID.

Configuration/Launch button

Click this command button to enable the Configuration environment and to Launch corresponding programs from Analytics Studio.

Use this button to Configure/Launch the following items:

- Analytics Server address

- Install JDBC driver to Client

- Launch Management Console and Dashboard from Analytics Studio

Chapter 3 Interstage BPM Studio Integration

Interstage BPM can be monitored by linking Interstage Analytics Studio with Interstage BPM Studio.

This section provides an overview of the settings for configuring an Interstage BPM Studio Integration.

Prepare for configuration

To correctly configure a process definition for monitoring by Interstage BPM Analytics, it must first be deployed to the monitor server.

The Business Calendar which is defined in Interstage BPM is used for calculating lead time alerts in Interstage BPM Analytics. You must prepare the calendar definition in BPM Studio before using it in Interstage BPM Analytics.

Start configuration

Select Show View and then Navigator from the Window view, and then switch to the Interstage BPM Studio window. If you installed Analytics Studio on your machine, you will see the Analytics folder in Navigator of Interstage BPM Studio.
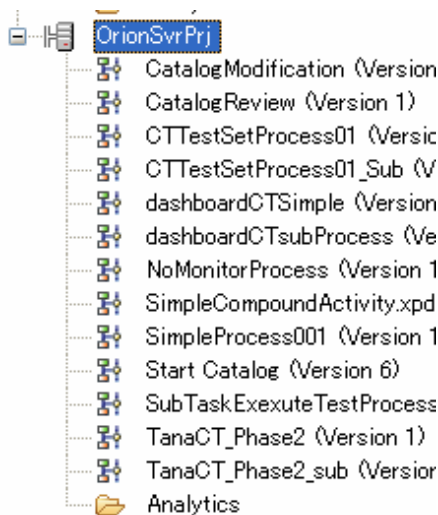
Select start edit menu on the Analytics definition using Analytics Studio. And set Single user mode.

Right-click on the Analytics folder in the Navigator view of Interstage BPM Studio, and then select the **Download Process Definitions list** command from the popup menu displayed.
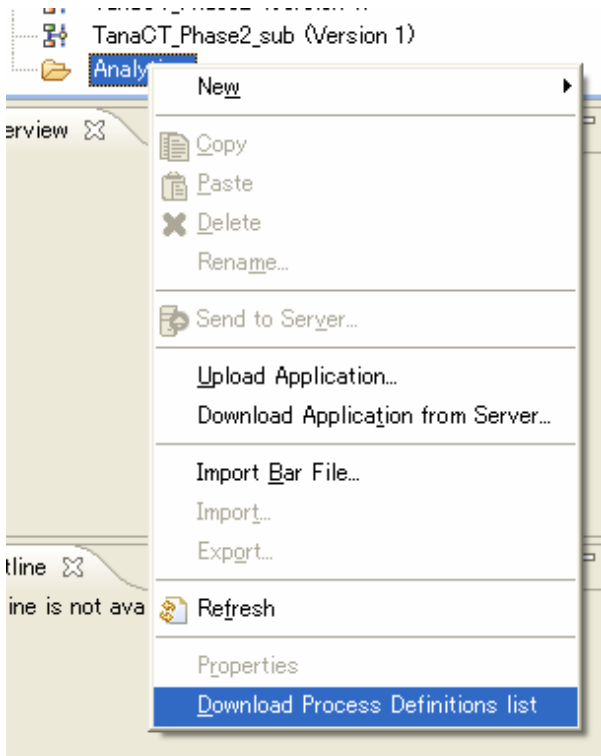
Select this menu, open Select Interstage BPM Server dialog.

If you select IBPM Server, Analytics Studio get Process Definitions list from Interstage BPM Server. The tree view will vary depending on the status of the process definition.
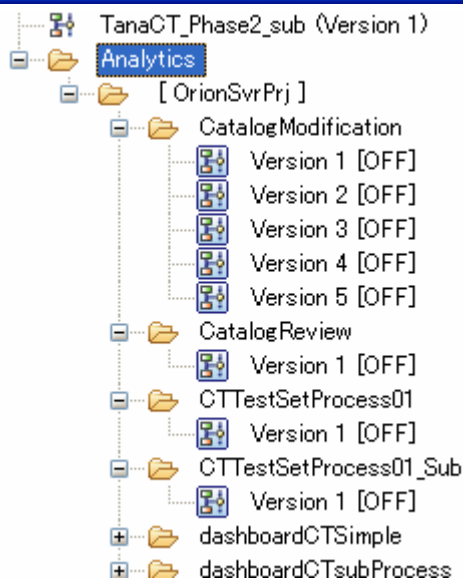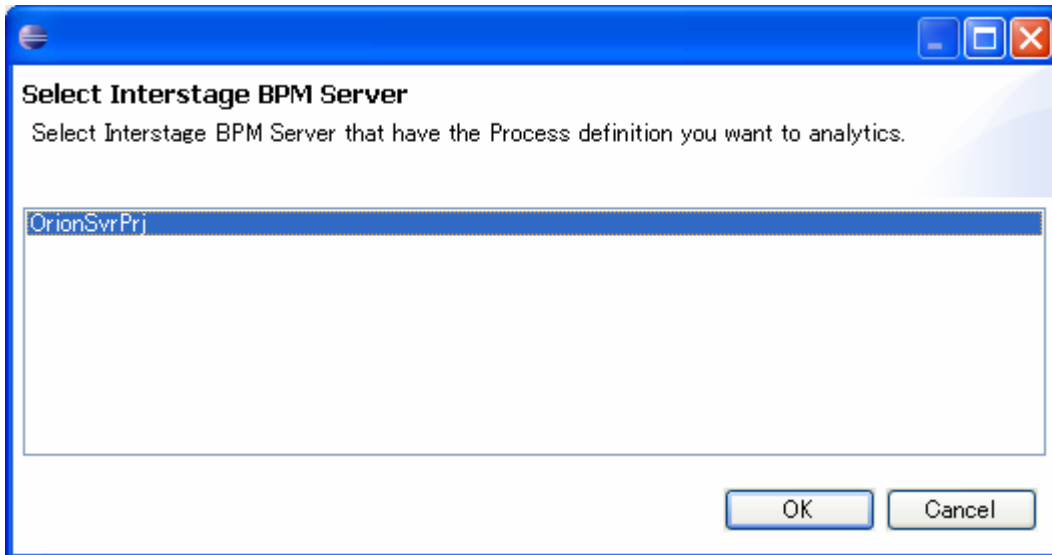
The structure under Analytics folder is as follows:

```
Analytics > [ IBPM Server name] > Process definition name > Version [OFF or ON]
```

OFF means the process definition has been deployed to the Interstage BPM but that Analytics settings have not been created.

ON means that the Analytics settings have been created.

Add Analytics settings

Right-click on the version item, then select **Add Analytics settings** from the popup menu displayed.

Connection Wizard (Interstage BPM)

The Connection Wizard (Interstage BPM) Wizard has three or four steps.

Step 1 - Select Create connection for Interstage BPM and basic setting
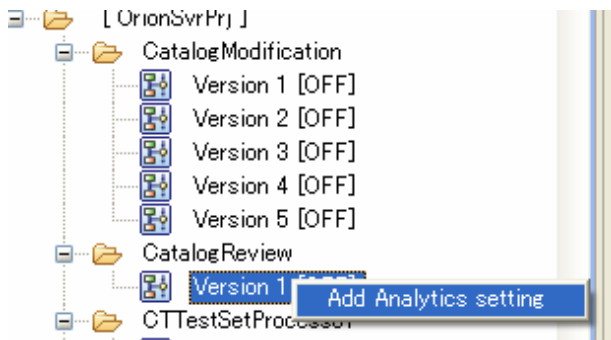
The first step is to set up the basic settings (select business process, start date), and configure the connection settings for Interstage BPM.

Select business process

Select the business process that the event definitions will be managed under.

Select the "Create Business Process and manage definitions under it" checkbox to create a new business process definition.

Start date

Specify a start time in the future. Analytics will then collect data from the target system which is stored after that specified time.

The data which is accrued before this specified time is excluded from collection by Analytics.

Connection for Interstage BPM

Interstage BPM server name

Displays the Interstage BPM server name deployed in this Process definition.

Sensor

Select sensor defined connection for Interstage BPM using in this wizard.

Connection

- Use a created connection

  Select this option to use an existing connection's settings to create a new one.

- Create a new connection

  Select this option to create a new connection for the selected target system type

Step 2 - Select UDA for analytics

Select a User Defined Attribute (UDA) in the Process Definition.

An event attribute will be created from the selected UDA.

Event name

Input an event name for a process definition.

Select UDA

Configure to attribute for event definition. Display the attribute created UDA in Process definition automatically.

Step 3 - Analytics KPI Statistics (Optional)

Select the **dimension** or **measure about UDA** buttons on Interstage BPM Studio, to display this page.

Activity

Select Activity name executed this KPI statistics rule.

Select Dimension

Select group attribute for a statistical data. The value of the attribute used in grouping will be output.

Select Measure

Select calculation methods such as totals, averages for a statistical data. The value calculation this method about select attribute.

Step 4 - Set Presentation

Define the View Profile for this process definition visualization.

Select View profile

Select a View profile that already exists.

Create View profile

Create a new View Profile definition for this process definition.

Chapter 4 Interstage BPM Analytics Wizards

The Analytics Studio Perspective's Definitions View contains a number of "folders" for each type of definition that can be used to create a analysis system.

For each business, different types of individual definitions will have to be produced.

These in turn are used, depending on their type and settings, in a number of different roles. For instance, as connections to populate the Events Database, perform calculations, trigger Alerts and are the components that are assembled into the dashboard displays, reports, etc. that are output by IBPM Analytics, etc.

In order to quickly get started creating new definitions of elements and categories for use in IBPM Analytics, five definition Wizards are provided.

Each Wizard contains many of the more commonly used settings and parameters used to create definitions.

Once created, users can view the details of the definitions in the Definition View. From this window, select a definition so that its settings and parameters can be altered in the Editor. In some cases, the Editor contains more detailed settings than were provided in the Wizard.

To open the Wizard selection dialog, click on the Start Launcher command in the Definition View's tool bar:
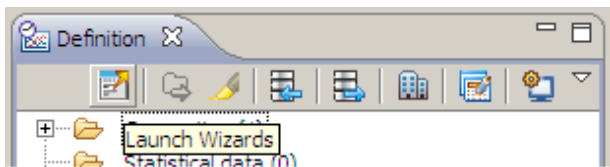
The Analytics Wizard selection dialog box contains links to each of the five Wizards:
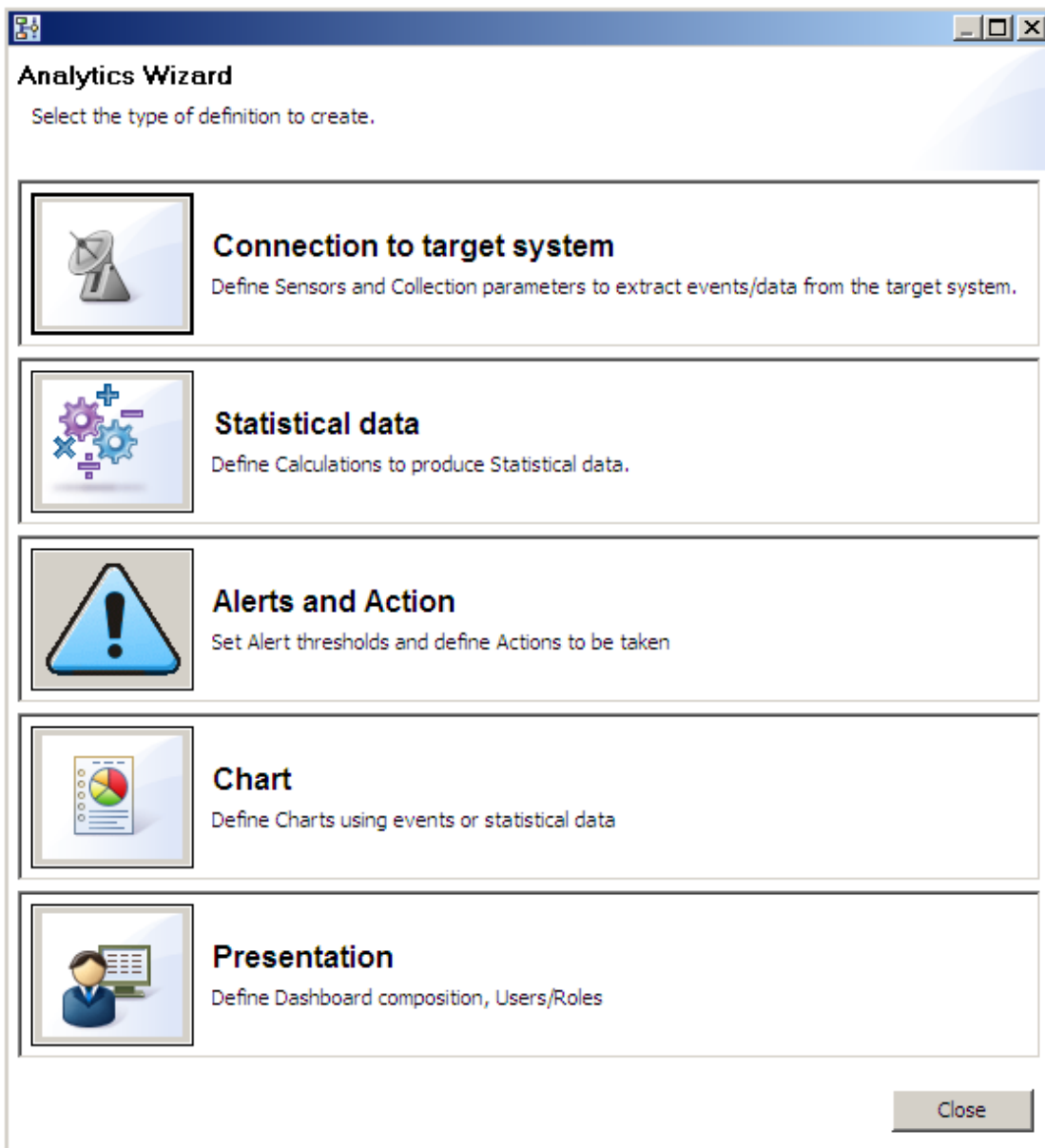
Use the Wizard to step through the initial stages of creating an element. Then use the Editor to make the final settings.

For example, The Chart Editor view contains 5 tabbed pages. The Create Chart Wizard steps through the requirements for the contents of the first tabbed page, the View Type tabbed page. The remaining details are added into each of the other tabbed pages using the Editor view.

4.1 Connection Wizard

Connections rely on sensors, set up in the IBPM **Analytics Studio**, to link between the target data being produced by the business and the IBPM Analytics Events Database.

They determine the type, parameters, frequency of communications between a target data and the Events Database.

The last step in the Connection Wizard defines an event that is associated with the connection.

4.1.1 Event Collection Settings

Sensors are components for collecting events from monitored systems.

Events are collected from monitored systems according to the collection schedules and specified conditions, and then stored in the Events Database.

Sensor

A sensor is installed when IBPM Analytics is installed.

Use Analytics Studio to set up the information required for communication between the sensor and the Analytics Server.

Connection Information

Connection Information can be added freely for separate monitored systems or monitoring units, according to the business activities being monitored.

Depending on the system being monitored, chose between the three types of sensors:

・ RDB Sensor

・ CSV, Flat Text file Sensor

・ Interstage Business Process Manager Sensor

Then make sensor settings, such as the information for connecting to the monitoring system.

Collection Condition

Define the conditions for collecting from monitored systems to create the Event data.

For example, conditions can include the RDB table name, the columns in this table, the position of CSV Data and UDA name in Process Definition of Interstage BPM, etc..

Events

The definitions for the format and attributes of event data are referred to as "event definitions".

Event definitions are closely related to collection tasks, and must be defined before collection tasks are set up.

General Events

Events collected from monitored systems are also referred to as "general events".

Calculation Events

As well as general events, there are also "calculation events".

Calculation events are created by performing calculations on the events managed by IBPM Analytics.

General Event Definitions

Create tables for storing events in the Events Database by defining the attributes (data format) of events.

Schedules

Define two types of schedule. One is the Connection schedule, the other is the Collection schedule.

If the **Run type** for the sensor is set to "**Schedule**", the Sensor runs according to the Schedule definition specified below:

Collection Schedules

Collection schedules are for scheduling the times that collection conditions should operate. The types of Schedules are as follows:

- Interval
- Daily
- Weekly
- Monthly
- Yearly

Business Process Settings

Create "Business Process" for logically grouping the events being monitored so that they can be managed.
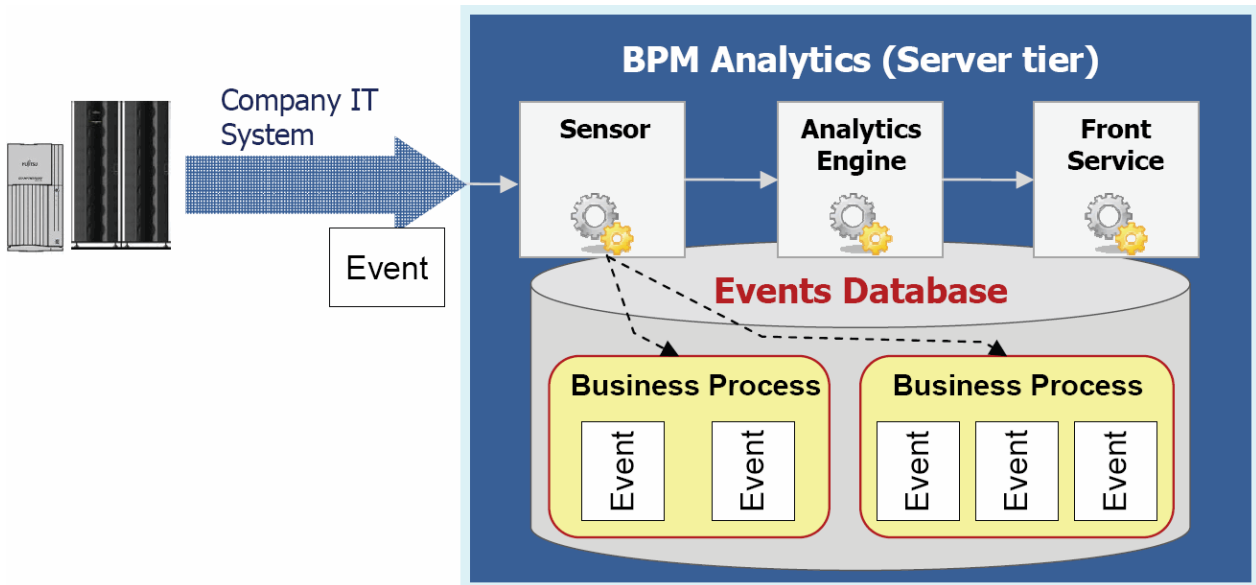
To monitor business activities, create Business Processes for logically grouping the events being monitored so that they can be managed.

4.1.2 Connection Wizard Sequence

The **Connection Wizard** has seven steps.

A green bar indicates which step you are currently completing.

Some of the steps are required to be completed before you can proceed to the next stage.

Step 1 - Target system type

Three target system types are available.

The type selected must match the target. Events created by the connection will produce data of the selected type.

Available types

RDB

Select to create a connection with a relational data base (RDB).

CSV, Flat text file

Select to create a connection with a target system that outputs .csv (comma separated value) or flat text files.

Interstage Business Process Manager

Select to create a connection to an existing Interstage BPM value, i.e. a value that is calculated by the Interstage BPM function itself.

Sensor

Sensors on the Analytics Server and Remote Sensors are listed this drop-down menu.

Users select from the existing Sensors listed in the drop-down menu.

🗒 Note

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Note -The default Sensor's name is assigned a machine name by the installer.
Its name can changed using the Management Console.

· ·

Step 2 - Create a Connection

The second step in the Wizard is largely the same for all three Target system types.

All three prompt the user to select either an existing connection, or create a new connection.

The RDB type has the additional requirement that the connection method be specified.

Use a created connection

Select this option to use an existing connection's settings to create a new one.

The drop-down menu will list all the currently defined connections configured for the selected target system type (RDB Text or IBPM data) from the **Connection(for target systems)** group in the **Definition** view.

Create new connection

Select this option to create a new connection for the selected target system type (RDB Text or IBPM data).

After finishing this Wizard, the newly defined connection will be included in the **Connection (for target systems)** group in the **Definition** view.

Note

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When entering a name [see Step 3 of this Wizard], it is advisable that the name chosen indicates the target system type that the connection is being created for, e.g. *DB2_MonthlySales* indicates that it is an RDB type connection.

. . . .

Connection Method

When the RDB target system type is selected, the query method to be used by the connection [either SQL or Stored Procedure] must be specified.

Older versions of Analytics only supported SQL. In version 11 both SQL and Stored procedures can be used to extract data.

Step 3 - Input Connection Parameter

The parameters required to be entered at this step will vary depending on the target system type (RDB, CSV or IBPM) selected in step 1 of this Wizard.

Only the Connection name function, see the following section, is the same for all three data types. All other parameters are specific to each type.

Connection name

For existing connections, the name of the selected sensor will appear.

For new connections, enter a descriptive name. It is advisable that the name chosen indicates the target system type that the connection is being created for. For example, an RDB connection might be called "OracleMonthlySalesNo1". Any character, number and spaces can be used, but the name must not exceed 64 characters in length.

Connection Details

For each target system type of connection, a different group of connection details will be required and a different array of text entry fields will be displayed.

Depending on the target system type selected in Step 1, the following different parameters will be required:

New RDB Connections

For RDB type connections the following details are required.

- JDBC Classpath

  Select from the drop-down list the driver appropriate for establishing a connection with the target database.

- JDBC URL

  The URL of the remote target database that the connection will be communicating with.

- User name and Password

The User name and Password that will enable access to the remote database.

Connection Test

All RDB connections, regardless of their type or whether new or existing, should be tested at this point.

Click the **Connection Test** button to make sure the connection is configured correctly and operating properly.

New CSV Flat Text file connections

New Text file connections only require the **Connection name** to be entered.

A unique name is required for this connection. The name entered will be displayed in the Management Console.

New Interstage Business Process Manager System Connections

New Interstage Business Process Manager type connections require information that allows the connection to communicate with the Interstage BPM.

Interstage BPM Analytics communicates with the Interstage BPM Server using JDBC and RMI. Interstage BPM Analytics extracts the Interstage BPM's process logs which are stored in its historical database. Interstage BPM Analytics uses JDBC to extract the latest logs. RMI methods are used for extracting past logs which were stored before the Interstage BPM Analytics installation.

The required settings parameters are as follows:

Parameter	Explanation of setting value
IBPM System basic information	
Server host name	Specify the IBPM Server name Confirm the Server host name by accessing the following URL using management account: http://<HostName>:<Port>/fujitsu-ibpm-config-webapp/ IBPMConfigServlet
Console host name	This parameter can be omitted. This parameter is for using in the future as the IBPM Console's IP address or computer name which is registered in DNS.
Tenant ID	Set the Tenant ID Confirm the available Tenant ID by accessing the following console URL: http://<HostName>:<Port>/console/TenantManager.page
Super user name / Password	Enter the User name and Password that is required to access the IBPM database. This user name and password is set by the IBPM Deployment tool during installation.
IBPM DB type	From the drop-down list, pick the type of JDBC connection that was initially used when the IBPM database was created.
Naming service vender	From the drop-down list, pick the type of Application Server type to create the RMI connection with the IBPM.
JDBC connection configuration	
JDBC connection URL	Enter the JDBC connection URL corresponding to the database used by the IBPM.
User name / Password	Enter the User name and Password that are required to access the IBPM database. The user name and password are set in the IBPM Deployment tool as an IBPM Database User during installation.
Connection setting for maintenance	

Parameter	Explanation of setting value
JMS Connection URL	Enter the JMS Connection URL. An example of the setting value for each application server is as follows: ・ <HOST_NAME> (Interstage) ・ iiop://<HOST_NAME> (WebSphere) ・ t3://<HOST>:49950 (WebLogic) ・ jnp://<HOST>:1099 (JBOSS)
Naming Service Connection URL	Enter the Naming Service Connection URL. (This setting may be same as JMS Connection URL)
User / Password	Enter the User name and Password for JMS connection if needed.

Step 4 - Schedule

All connections, regardless of the target system type, will have a Schedule for their data collection defined.

Collection interval

The schedule will prescribe a **Collection interval**, that is how often the connection sensor attempts to retrieve information.

Analytics start time

It will also set an Analytics start time.

Analytics collect data which stored after specified time from target system. The data which stored before this specified time are excluded collection by Analytics. You can specify the time in the future according to system schedule.

Step 5 - Select a Target Resource (system type)

Select the location where the connection will deposit the data that it has retrieved.

RDB (SQL)

Table

Select an RDB table from the target system.

Current tables that are compatible with the selected target system type will be listed in this drop-down menu.

Management Type

Select a management type. Selectable types are as follows:

- Master Data

   Select if data is updated regularly, like a stock management.

- Transaction Data

   Select if data stores additional sales record, etc.

RDB (Stored Procedure)

Stored Procedure

Select a stored procedure from the target system.

Current stored procedures that are compatible with the selected target system type will be listed in this drop-down menu.

After selecting a stored procedure, the schema with the selected stored procedure, the stored procedure name and IN or INOUT type argument with selected stored procedure are automatically filled.

As a next step, the value of the argument must be set. Click the right mouse button on each argument, and select Edit.

Management type

The Master Data Management type is the only type which RDB (Stored Procedure) type connections can deal with. Therefore, the Master Data is automatically set as the Management type.

CSV, Flat text file

Create definition from a header file

This feature simplifies the creation of Element List definitions by creating the attributes used in the Event from the Header File.

Extraction Method

The following Extraction Methods are listed in this drop down menu:

- Specify the file name

  Use to collect objects with a fixed file name.

- Specify the partial file name

  Use to collect files whose name can change to create multiple files.

- Specify just the directory

  Use to collect all the files within a specified directory.

- Specify file name to update

  Enter the exact name of the file to be updated.

Directory

Specify the directory to be monitored using its absolute path.

Key Word (a part of file name)

Specify either the name of the file to be monitored, or some of the characters contained within it.

🗝 Note

This item cannot be specified when **Directory** is specified in **Extraction method**.

File format

Select the file format from the following types:

- CSV

  Data in these files is separated by commas. If the data is enclosed within double quotation marks ("), it will be treated as the whole data.

- FLAT

  Data in these files has a fixed start position, size and number of data items. This means that the record length is also fixed. (Linefeeds and other information that is used to divide records are also included in the record length.)

- Comma(,)

  Data in these files is delimited by commas (,).(*1)

- Dot(.)

  Data in these files is delimited by dots (.).(*1)

- Semicolon(;)

  Data in these files is delimited by semicolons (;).(*1)

- Colon(:)

  Data in these files is delimited by colons (:).(*1)

- Tab

  Data in these files is delimited by tabs. (*1)

- Space

    Data in these files is delimited by spaces. (*1)

    *1 -   Data will not be correctly parsed if it contains delimiters.

Note

File formats other than the FLAT format use linefeed codes to delimit event lines, so if the final event line does not contain a linefeed code, that event will not be collected.

Character Set

Select the character set from the following types:

- UTF-8

- US-ASCII

- ISO-8859-1

- Shift_JIS

- EUC-JP

Size of record

Specify the record size when the file format is FLAT.

Step 6 - Connection setting for Target system

At this step the exact data that is collected by the sensor from the Target resource is defined.

An Event Attribute is an identifiable data element e.g. one field in a row in a table.

For Interstage Business Process Manager target system types, these event attributes are set in the Interstage BPM Studio and not in this Wizard.

The event attributes for RDB and CSV target system types will be set at this step in the Wizard. However, each type has slightly different processes for defining these target locations.

If you require to modify the Event Attribute, select the target Event Attribute and click the right mouse button, and select **Edit**.

Attribute Mapping Table

Multiple event attributes can be created.

Attribute	Define the attribute name for IBPM Analytics. The attribute name use Alerts, Statistical data, Chart setting.
Data type	Define the attribute data type. The data type have 7 type. ・ String ・ Integer ・ Real ・ Datetime ・ Date ・ Time ・ Boolean
Size of Scale	Define the attribute data size.

	This parameter can be set only as String or Real. If the data type is String, set the length of target data value. If the data type is Real, set the arithmetic point.

Type	Define the attribute of data type.
	
	・ RDB (SQL)
	
	  - Monitor
	
	  Select this type to obtain monitoring data from a monitored system.
	
	  - Constant
	
	  Select this type to set any user-defined constant as the attribute value.
	
	・ RDB (Stored Procedure)
	
	  - Monitor
	
	  Select this type to obtain monitoring data from a monitored system.
	
	  There are two monitor types as follows:
	
	  Column:
	
	    This parameter means that the value of table column with the select statement which is defined in the stored procedure is monitored.
	
	  Argument:
	
	    This parameter means that the value of OUT or INOUT type argument defined in the stored procedure is monitored.
	
	  - Constant
	
	  Select this type to set any user-defined constant as the attribute value.
	
	・ CSV, Flat text file
	
	  - Element
	
	  Text-based element targeted for extraction.
	
	  - Fixed Value
	
	  A fixed value newly defined by a sensor. This is used in the creation of joint elements.
	
	  - Joint Element
	
	  An element defined by joining a text element and a fixed value element.
	  When **Join Element** is selected, the **Join Element** window will be displayed.
	
	・ Interstage Business Process Manager
	
	  - Monitor
	
	  Select this type to obtain monitoring data from a monitored system.
	
	  - Constant
	
	  Select this type to set any user-defined constant as the attribute value.

Settings of mapping value	・ RDB (SQL)
	
	Column name or Constants value:
	
	  This field display the Column name in RDB table of target system.
	
	・ RDB (Stored Procedure)
	
	Column name, Attribute or Constants value:
	
	  This field displays the Column name or the Attribute in Stored Procedure of target RDB system.

	・ CSV, Flat text file Text data information or Fixed value: This field displays collection condition for files. For example, CSV data set element number. Flat data set record range. Format: When the data type is "Date", "Time" or "Datetime", specify the format. ・ Interstage Business Process Manager UDA or Constants value: This field displays the UDA defined in the target business process. Version: This field displays the version of the target business process.

Step 7 - Event Information

At this step the newly created Events is given a name.

For every event you will have a different sensor.

All three target system types use the same settings when naming events, except that the RDB type has an additional setting: Monitor type.

Event name

This is the name of the event that will be referenced to retrieve data from the Events Database. Add any name that has not already been used.

Business

"Business" is used to categorize an event, this is especially important when associating an event with a role.

Select exist Business

When using a currently defined business, select one from this drop-down menu.

Create new business

When creating a new business, enter the new business name.

Monitor type

When using the connection wizard of RDB (SQL), this setting parameter appears.

- Add difference records

Only the newly added data is collected.

Specify when data is not updated.

- Easy mirroring

  Mirror the business data except deleted data.

  Both the newly added and the updated data are collected.

- All history

  Both the newly added and the updated data are collected (the latter is collected as new data).

- None

  Specify this in case of not matching above three monitor types.

 Note
....
When using RDB (Stored Procedure) type connection, **All history** is automatically selected.
....

Finish

After the **Finish** button is clicked, the connection will be added to the **Connection(for target systems**) group in the **Definition** view tree.

Each connection will be indicated by the connection icon:

4.1.3   Additional Connection Settings in the Editor

While the Wizard contains many of the commonly used settings, and is a good way to quickly create a new Connection, all of the settings made in the Wizard can be altered in the Editor.

In addition, the Editor contains some additional settings for Connections.

The Editor is also used to delete Connections.

4.1.3.1   Connection

Event Registration Interval

Sets the interval for sending events to the Analytics Server.

Any integer between 0 and 10800 (seconds) can be specified. If 0 is specified, events will be sent whenever they occur.

Run type

Manual

The connection will not start automatically.

Users will have to start the connection from the Management Console.

Auto start

The connection will start automatically. Start the Sensor(J2EE container).

Schedule

The connection start according to a pre-defined schedule.

JDBC

For RDB type connections, the following details can be set if needed:

・ Max Active:

  Specifies the maximum number of active connections in the connection pool used to connect to the RDBMS that can be allocated at any one time.

The value must be an integer between 1 and 64.

・ Max Idle:

Specifies the maximum number of active connections in the connection pool used to connect to the RDBMS that can remain in an idle state without being released.

The value must be an integer between 0 and 64.

When 0 is specified as the maximum number, a connection will be released each time a connection is established.

・ Wait Time (second(s))

Specifies, in seconds, the maximum waiting time when there are no usable connections.

The value must be an integer between 0 and 86400.

・ Transaction level

Specifies the RDBMS transaction isolation level of the monitored system.

The following values can be specified.

- DEFAULT

- READ_COMMITTED

- READ_UNCOMMITTED

- REPEATABLE_READ

- SERIALIZABLE

Select **DEFAULT** to use the standard transaction isolation level of the RDBMS.

The supported isolation level differs depending on which RDBMS is used. Refer to the RDBMS manual for details. If an unsupported isolation level is selected, an error will occur when the sensor starts up.

The following levels are not supported under Oracle, so they should not be selected if Oracle is being used:

- TRANSACTION_READ_COMMITTED

- TRANSACTION_REPEATABLE_READ

Timezone

Turn the timezone function on or off and set it to the appropriate timezone for the target.

4.1.3.2 Event

Attribute

If the Attribute requires modification, select the target Attribute, click the right mouse button, and select **Edit**.

Attribute management type

The management types for each Attribute can be determined for simple operation of Chart settings.

The following are three types of attribute management types:

・ Time

The checked attribute is regarded as the Time attribute, and preferentially displayed at the Event Category selection in the Chart settings.

・ Group

The checked attribute is regarded as the Group attribute, and preferentially displayed at the Event Series selection in the Chart settings.

・ KPI

The checked attribute is regarded as the data attribute, and preferentially displayed at the Event Data selection in the Chart settings.

Manage table script

This section specifies and generates the index script to the Events Database.

Alert Rule Parameters

Sets parameters for Alert rules.

A parameter for an alert rule is an operational parameter used by a rule engine in the "Pair event determination" alert rule determination process. Schema parameter settings are performed for each event.

A schema parameter setting relates to an event for which the pair event alert rule is set, and is not related to events for which only a single event is set.

4.1.3.3   Condition

Active

Enables or disables the operation of the Collection Condition.

4.1.3.3.1   RDB

Collection Condition settings

RDB (SQL)

For RDB (SQL) type connections, the following details can be set, if needed:

- Table

    Specifies the name of a table to be searched in the monitored system.

    This table must contain information collected as General Events.

- Condition

    Specifies search conditions to ensure that only the required information is retrieved when General Events are searched.

    When detailed conditions are specified, they will be added as a WHERE clause to an SQL statement.

- Column used for the Event generated date

    If information about when a record was added or updated exists as a column within the record, it is possible to specify the date and time information column of the record to be collected as the "event occurrence time".

    If this item is omitted, the time that the RDB sensor executed a Collection Condition is collected as the "event occurrence time" of a general event.

RDB (Stored Procedure)

For RDB (Stored Procedure) type connections, the following details can be set if needed:

- Check Collection

    In order to verify the parameters for executing the target stored procedure, the "Check Collection" button must be selected before uploading to the Analytics Server.

- Argument

    If modification of the Argument is required, select the target Argument, click the right mouse button, and select Edit.

- Column or Argument used for the Event generated date

    If information about when a record was added or updated exists as a column or a argument within the record, it is possible to specify the date and time information column of the record to be collected as the "event occurrence time".

    If this item is omitted, the time that the RDB sensor executed a Collection Condition is collected as the "event occurrence time" of a general event.

Attribute and Sensor condition mapping setting

If modifications to the Attribute are required, select the target attribute, click the right mouse button, and select **Edit**.

RDB (SQL)

For RDB (SQL) type connections, the Check Collection button to simulate collection condition will be displayed, it is recommended to select this button before uploading to the Analytics Server.

RDB (Stored Procedure)

For RDB (Stored Procedure) type connection, pay attention to following points:

The specification for monitor each database type is as follows:

SQL Server

OUT type parameters of the stored procedure argument and the result set of the select statement which is defined in the stored procedure are available for event generation.

Only the single select statement which was defined in the stored procedure is available. (Multiple select statement is NOT supported.)

Oracle, DB2

OUT type parameters of stored procedure are available for event generation.

Difference collection setting

Specifies a column that will be used to compare the time that a task was previously executed and the current execution time and use this information as a condition for filtering the records to be collected.
When the **Column used for difference collection** is selected, conditions for filtering the records to be collected will be set automatically, as shown in the following example.

This setting can be applied for new record column and update record column respectively.

Example: When the column specified for this item is "Purchase time":

```
Previous execution time <= Purchase time AND Purchase time < Current execution time
```

Difference extraction type

Specifies the incremental extraction key column type to use when performing an incremental extraction. The following types are available:

- Event stored data

  Incremental collection will be performed based on the column specified in **Column used for difference collection**.

- Sequential data

  Incremental collection will be performed based on the column specified in **Column used for difference collection**.

Column used for difference collection

Specifies the key column for incremental extraction that will be used in incremental collection. Different column data types can be set for different extraction types, as follows:

- Event registration time: Datetime type

- Sequential data: Real number type, integer type, string type

Data type for stored date

Select the data type for Column used for reference collection.

This item is normally set to DEFAULT.

📑 Note
. . . .

When Oracle 10g is used as the business database and the data type of **Record registration datetime data item** is one of the following, the data type must be specified:

- DEFAULT

- TIMESTAMP WITH LOCAL TIMEZONE

- TIMESTAMP WITH TIMEZONE

This item need not be specified if Oracle 9i or another database system is used.

. . . .

Key for update record

This setting is used as additional information of "*Update record column*".

The events are specified as target update record using attributes in the update events.

Note

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Select attributes that can uniquely identify collected events, otherwise multiple records are updated with the same data.

. . . .

Collection delay time setting

When a Collection Condition is executed, the search will go back the specified interval into the past when conducting a search. Business data is not always registered with a business database in accordance with its time stamp. By setting a delay time, it is possible to reduce the risk of missing records that should be collected.

This setting can be performed only when **Difference extraction type** in "*New record column*" and "*Update record column*" is set to **Event stored date**.

・ Delay time

This item sets the delay time and unit.

If **Difference extraction type** is set to **Event stored date**, then when the Collection Condition is executed, the search will use the current time minus the interval specified here as the **Current Execution Time**. The **Current Execution Time** will then become the **Previous Execution Time** of the next execution.

Collection start record setting

This section can be used to specify conditions for filtering out business records during the initial operation.

・ ALL

This option collects all the data targeted for extraction.

・ Specified date

This option collects target data that is dated no earlier than the specified date and time. It can be set only when **Difference extraction type** in "*New record column*" is set to **Event stored date**.

・ Sequential data

This option collects target data that exceeds than a specified sequential data value. It can be set only when **Difference extraction type** in "*New record column*" is set to **Sequential data**.
For example, specify "1000" to commence collection from "1001". Note that if the specified key does not exist, collection will commence from the subsequent key.
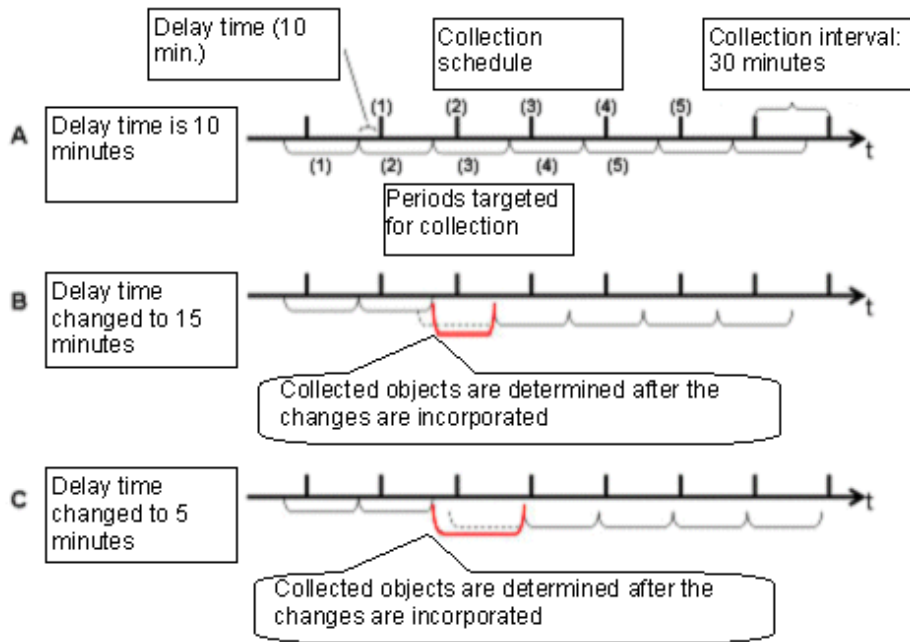
Figure A above shows how a Collection Condition operates when the collection interval is 30 minutes and the delay time is 10 minutes.

Using collection schedule (2) as an example, one can see that when no delay time is specified, the period targeted for collection extends from the immediately preceding collection schedule (1) through to collection schedule (2).

When a delay time is specified, the period targeted for collection is shifted backwards by the delay time, and the collection period (2) becomes the target.

Figures B and **C** show what happens when the specified delay time of an active task is changed. Even when the delay time is made longer or shorter, the collection targets are adjusted immediately after the change so that event duplication or loss is avoided.

Information
. . . .

Attribute Types in Oracle

If Oracle is used as the Business Process database, then use the table below as a guide for type conversion.

For details on the attribute data types of the Events DB used to hold general events, refer to the appendix of the Installation Guide. For details on data formats, refer to the specifications provided by each RDBMS.

Data types of Business Process database		Data types of general event attributes
CHARACTER / CHAR	Fixed-length string	String type (standard) Integer type
CHARACTER VARYING / CHAR VARYING / VARCHAR	Variable-length string	Real number type Boolean type Datetime type Date type Time type
LONG	String up to 2 GB in length	
CLOB	Variable-length string	
NCHAR	Fixed-length multi-byte string	
NVARCHAR2	Variable-length multi-byte string	
NUMERIC	Precision: 38 digits	Integer type (standard) Real number type Boolean type
DECIMAL	Entity: NUMBER type	
INTEGER / INT	Entity: NUMBER type	

Data types of Business Process database		Data types of general event attributes
SMALLINT	Entity: NUMBER type	
NUMBER	Precision: 38 digits	
REAL	Precision: 63 digits	Real number type (standard) Integer type Boolean type
FLOAT	Precision: 126 digits	
DATE	Default format: DD-MON-YY Time can be specified to the second.	Date type (standard) Datetime type
TIMESTAMP	**Time stamp** Decimal fractions of seconds (6 places by default) can be set.	Datetime type (standard) Date type Time type
TIMESTAMP WITH TIMEZONE	**TIMESTAMP type that includes time zone substitution value** This data type cannot be used in Oracle 9i.	
TIMESTAMP WITH LOCAL TIME ZONE	**TIMESTAMP type that includes time zone substitution value** This is normalized to the time zone of the database. The time zone substitution value cannot be stored as column data. This data type cannot be used in Oracle 9i.	

Attribute Types in SQL Server

If SQL Server is used as the Business Process database, then use the table below as a guide to type conversion.

For details on the attribute data types of the Events DB used to hold general events, refer to the appendix of the Installation Guide. For details on data formats, refer to the specifications provided by each RDBMS.

Data types of Business Process database		Data types of general event attributes
CHARACTER / CHAR	Fixed-length string	String type (standard) Integer type Real number type Boolean type Datetime type Date type Time type
CHAR VARYING / VARCHAR	Variable-length string	
TEXT	Variable-length string	
NCHAR / NATIONAL CHAR / NATIONAL CHARACTER	Fixed-length multi-byte string	
NVARCAHR / NATIONAL VARCHAR / NATIONAL CHARACTER VARYING	Variable-length multi-byte string	
NTEXT / NATIONAL TEXT	Variable-length multi-byte string	
NUMERIC	Precision: 38 digits	Integer type (standard) Real number type Boolean type
DECIMAL	Precision: 38 digits	

Data types of Business Process database		Data types of general event attributes
INTEGER / INT	Precision in binary: 31 digits	
SMALLINT	Precision in binary: 15 digits	
BIGINT	Precision in binary: 63	
TINYINT	Integer between 0 and 255	
DOUBLE PRECISION	Precision in binary: 53	Real number type (standard) Integer type Boolean type
REAL	Precision in binary: 24	
FLOAT	Precision in binary: REAL when precision is between 1 and 24 digits and DOUBLE PRECISION when precision is between 25 and 53 digits	
DATETIME	Time stamp Precision is to 1/300 second	Datetime type (standard) Date type Time type
SMALLDATETIME	Time stamp Precision is to the minute	

4.1.3.3.2   CSV, Flat text file

Attribute and Sensor condition mapping setting

If modifications to the Attribute are required, select the target attribute, click the right mouse button, and select **Edit**.

Extraction Option

・ Event generation date

The data values of the elements set here are stored in the Events Database as the event occurrence time.

Note that if this item is omitted, the event occurrence time will be the time that the sensor collects an event.

・ Header use

Select this checkbox to ignore the header (the first line).

Condition

Select the target parameter, click the right mouse button. The following operations are available:

・ Edit

・ Create (AND Condition)

・ Create (OR Condition)

・ Create (Condition Value)

・ Delete

4.1.3.3.3   Interstage Business Process Manager

Attribute and Sensor condition mapping setting

If modifications to the Attribute are required, select the target attribute, click the right mouse button, and select **Edit**.

The setting to get the past events

When using maintenance sensors, specify the following items.

・ Collect the past event

Select **ON** to enable the collection of past events.

Select **OFF** to disable the function.

When the collection of past events has completed, the status will be displayed as **DONE**.

・ Retrieval period

Specifies the period for collecting past events:

- Specify start and end

- Specify start

・ Start date

Specifies the Start date for the retrieval period.

・ End date

Specifies the End date for the retrieval period.

4.1.4 Deleting Connections

Existing Connections can be deleted from the Definition by right-mouse clicking on the connection in the Connection (for target systems) group in the Definition view tree and then selecting the Delete command from the pop-up menu.

4.2 Statistical data Wizard
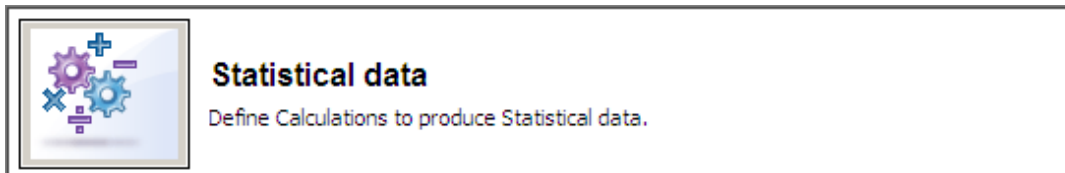
The **Statistical data** group in the **Definition** tree view contains components created using the **Statistical data** wizard.

These settings retrieve data stored in the Events database, called an event. Each event was originally defined using the **Connection Wizard**.

Each event corresponds to a row of data in the Events database. The fields in each row are defined by the connection to a sensor.

For event processing settings, define the calculation rules for events. Also, define the calculation events for storing the events that are calculated. Edit these definitions from the Analytics Server settings even when editing general event definitions that have been defined as part of the **Connection** settings.

For calculation rule settings, set up calculation rules such as "the average value of weekly sales".

The results of these calculations are stored in the Events Database as events that store the results of calculations (that is, calculation events).

4.2.1 Statistical data Wizard Sequence

The Statistical data Wizard has four steps.
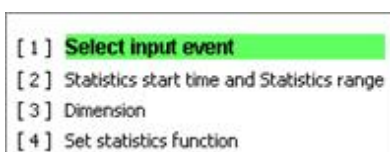
A green bar will indicate which step you are currently completing.

Some of the steps are required to be completed before you can proceed to the next stage.

Step 1 - Select input event
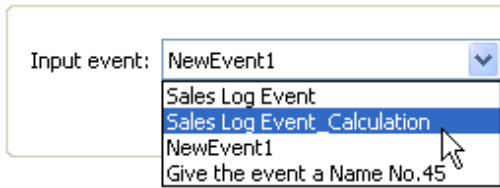
The first step in the calculation process is to retrieve data stored an the Events Database, called an Event, which has been collected by the sensor.

Input event

The Input event drop down list contains a list of the events which have been defined in the Events Database.

These have previously been created using the **Connection to Target System** Wizard.

Each row of data in the Events Database is an Event, the fields in each row are defined by the connection to a sensor.

Select from the list of Tables to include its data in the calculation.

Step 2 - Statistics range

Next a time frame of the data used in the calculation will be set.

The Analytics Server calculates the statistical data per each period.

Start Time of Statistical

Set the exact date and time from which the Statistical data will be collected.

Statistical Period

Use the four fields to define the Calculation Period.

Daily, **Weekly** and **Monthly** will calculate the Statistical Data at the end of each interval.

Use **Customize** to set a retroactive Calculation Period. Its intervals are **Minutes(s)**, **Hours(s)**, **Day(s)**, and **Month(s)**

Step 3 - Dimension

The Dimension is the list of fields in each event that are used in the calculation.

The Analytics Server calculates the statistical data per unit of the selected attributes (dimensions).
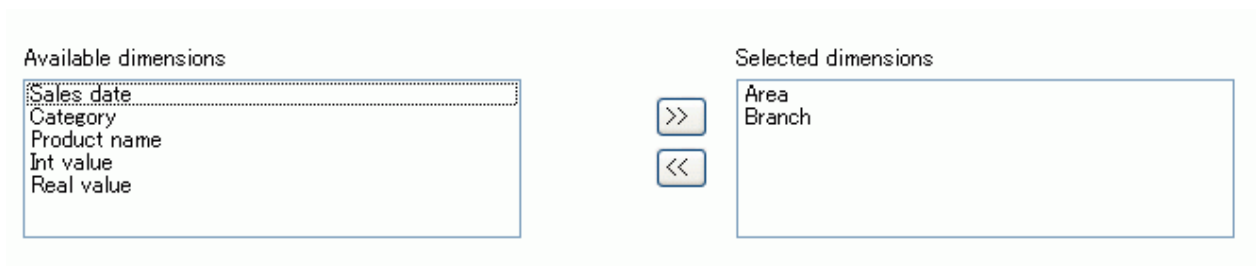
Add / Remove buttons

The attributes of the Event specified at Step1 are listed in box on the left.

Select an attribute in the **Available attribute** box on the left and click the [>>] button to move it into the **Selected attribute** box on the right.

Likewise, to remove a attribute from the calculation, select it in the **Selected attribute** box on the right and click [<<] to remove it from the group of dimensions selected for use in the calculation.

Step 4 - Set statistics function

At this step, define the Calculation rules that will be used to calculate the statistical data. Each Calculation Rule uses a Calculation Method (formula function).

Click **Add** button to enter a new Calculation rule. A new window opens when the **Add** button clicked. Specify the target attribute to calculate from drop-down menu on the left. Integer and real type attributes which are elements of the Events specified in Step1 are listed this field.

Note

If this drop-down menu does not contain any data, please check the Event data type.

Statistics table name

Specify a unique name to store the calculated statistical data.

Target Attribute Name

Click this field to enable editing and specify a meaningful name in this field. Calculated statistical data is stored in this field.

These Target Attributes will be used when creating Charts, Alert settings and Dashboards.

Statistical Method

Click on a field in the Statistical Method column to enable editing and select a formula function from drop-down list.

The Target Attribute Name field item is calculated using the selected formula function per unit of the selected Attributes (dimensions) which were specified in Step 3, see above.

Finish

After the **Finish** button is clicked, the Calculation Table will be added to the **Statistical data** group in the **Definition** view tree.

Each Calculation Table will be indicated by the following icon:

4.2.2 Additional Calculation Table Settings in the Editor

While the Wizard contains many of the commonly used settings, and is a good way to quickly create new **Statistical data**, all of the settings made in the Wizard can be altered in the Editor and the Editor contains some additional settings for Statistical data.
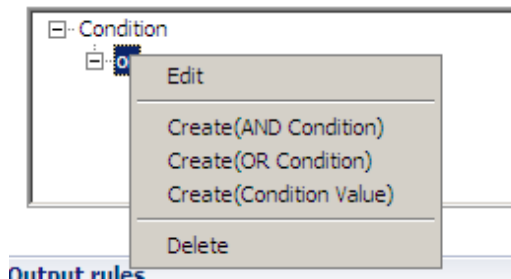
Input

Input Condition

The following window is the Condition Assemble section with displaying conditions in a tree structure.

How to set a detailed condition

Right-click an element in the **Condition Assembly** section to display the pop-up menu below:
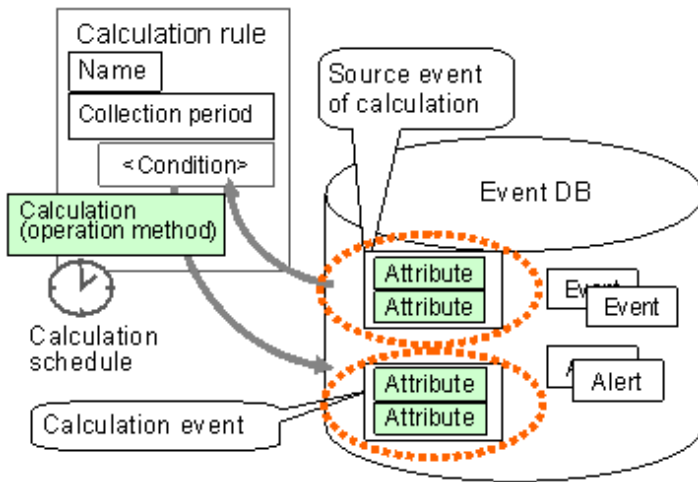

Item	Explanation
Edit	Edit the selected Condition.
Create(AND Condition)	Appends an "AND" condition to the selected element.
Create(OR Condition)	Appends an "OR" condition to the selected element.
Create(Condition Value)	Appends a conditional expression to the selected element.
Delete	Deletes the selected Condition.

Output rules

The defined Calculation Rule and Statistical data are displayed in a table. Define Output rules for statistical data. These tables were initially created at Step 4 in the **Statistical data Wizard**.

The settings can be changed in the Editor using these tools. Right click to start editing.

Edit KPI

You can edit Attribute for statistics rule. This setting is a same as "Attribute" in "Event" section.

Edit Rule

Sets the calculation method to be used on attributes. Click in the selected cell in this column to display the Statistical Method Setting dialog box. Select one of the following calculation methods:

Statistical Method

- Statistical function Setting

  Sets calculation methods such as totals, averages, and arithmetic operations by free format.

- Constant Value Setting

  Outputs fixed data values to attributes.

- Event Counting

  Outputs the number of source events that occurred within the calculation period.

- Grouping by Attribute

  Sets grouping attributes to enable calculations to be performed on custom groups. The value of the attribute used in grouping will be output.

- Delete statistical method

  Delete statistical method for Target Attribute.

Statistics Period Settings

Set the period that will be used in the event calculation.

Start Time of Statistical

Displays the calculation start time specified for the event.

Statistical Cycle Time

Displays the calculation cycle at which each event calculation unit starts.

Statistical Period

Displays the calculation unit specified for the event.

Number of Statistical Units

To specify how far back into the past information is to be calculated, enter the number of calculation units as an integer. If there is a lag between the time that all the general events to be used in the calculation are available and the time that the calculation is to be performed, increase this value to raise the accuracy of the calculation result.

Refer to Example of How to Set the Calculation Target Period, below for details.

Execute rule by short term

When this check box is checked, the Statistical Rule is executed by short term.

When "0" is set as the "Number of Statistical Units", this function is required to turn on.

Refer to Example of How to Set the Calculation Target Period, below for details.

Example of How to Set the Calculation Target Period

This section provides sample configurations to explain the calculation target period specified in the **Define Calculation Rules** window.

Case1: Calculations on events occurring within the calculation period

Item	Value
Starting time	01-Apr-2006 09:00
Calculation unit	14 hours
Calculation cycle time	1 day
Collection time	01-May-2006 14:00

When the calculation period is configured as above, calculation will be performed on events that occur within the periods indicated by bars in the diagram below:
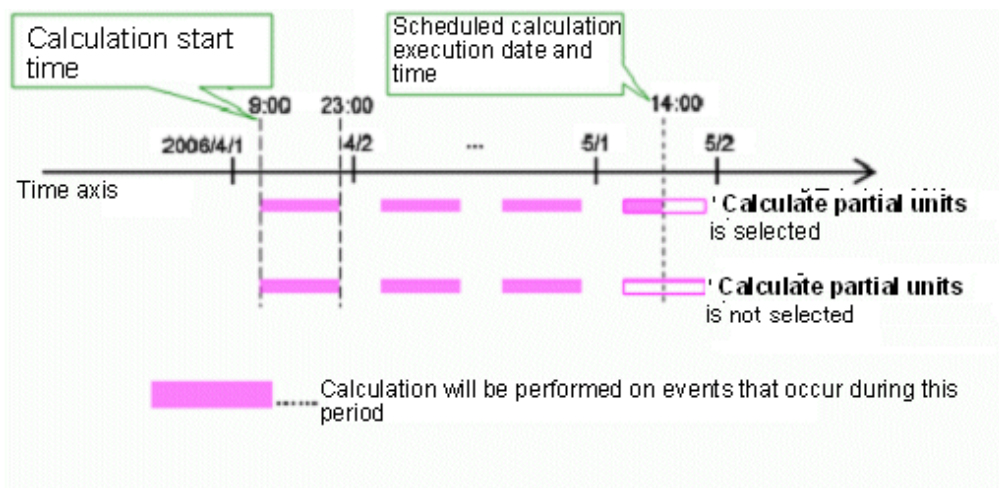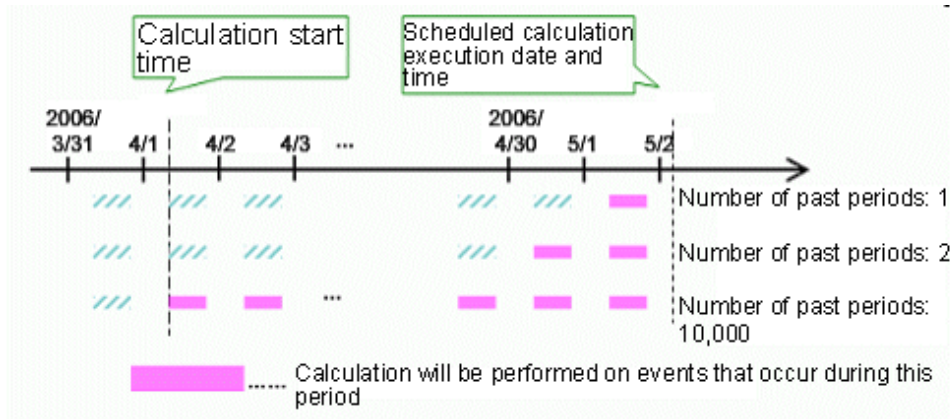

In this example, a calculation will be performed at 14:00 on May 1 - events between 9:00 and 14:00 on May 1 will be included in the calculation only if **Calculate partial units** is selected in the **Calculation Rules** window.

Case 2: Calculating daily sales between 9:00 and 12:00 over the previous month

Item	Value
Starting time	01-04-2006 09:00

Item	Value
Calculation unit	14 hours
Calculation cycle time	1 day
Collection time	02-May-2006 02:00

When the calculation period is configured as above, calculation will be performed on events that occur within the periods indicated by bars in the diagram below:

In this example, a calculation will be performed at 2:00 on May 2, and will produce different results according to the values for the **Number of Calculation Units** in the **Calculation Rules** window:

- If value is 1:

  Only events occurring up to the final calculation period (9:00 to 23:00 on May 1) will be included in the calculation.

- If value is a sufficiently large number:

  Events occurring during all calculation periods after **Start time of calculation** will be included in the calculation.

Manage Table Script

This section specifies and generates the index script to the Events Database.

Alert Rule Parameters

These are operational parameters used by a rule engine in the "Pair event determination" alert rule determination process. Schema parameter settings are performed for each event. A schema parameter setting relates to an event for which the pair event alert rule is set, and is not related to events for which only a single event is set. The default value can be used for calculations.

4.2.3 Deleting Statistical Data

Existing Statistical Data can be deleted from the Definition by right-mouse clicking on the table in the **Statistics** group in the **Definition** view tree and then selecting the **Delete** command from the pop-up menu.
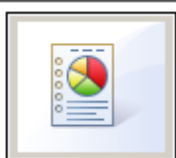
4.3 Chart Wizard

The **Chart** group in the **Definition** tree selection area contains chart templates defined using the **Create Chart** wizard.

The Wizard sets up the basic parameters of the chart. After the initial chart is created using basic parameters, go into the **Editor** to change its detailed settings.

The Editor has five tabbed pages. The first tab, **View type**, contains the settings applied in the Wizard, the other four tabs contain the other, more detailed, parameters.

These chart templates can later be included in dashboard views.

Step 1 - Create Chart
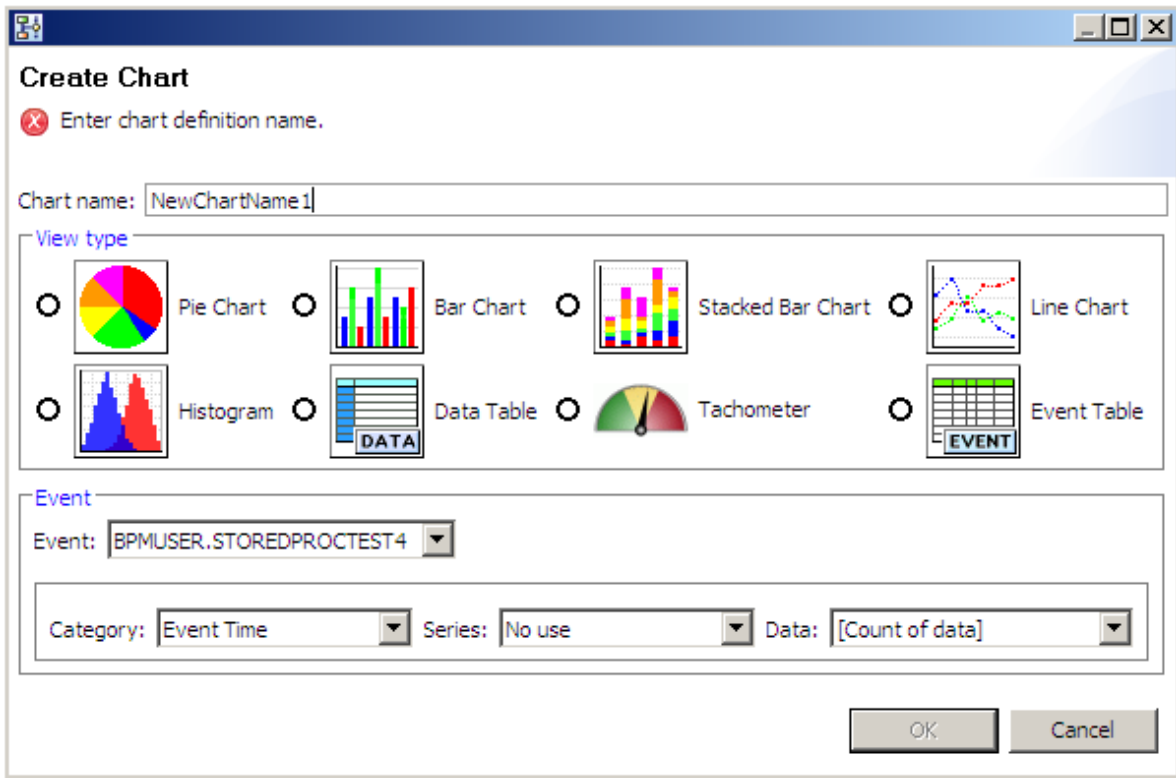
Chart name

    Enter a new chart name.

View Type

    There are nine view types. Select the one that is most appropriate for the type of event that will be displayed.

    For example, for data in a tabular format or information in chronological order, an Event Table may be more appropriate, whereas volumetric data, for example monthly sales, may be more appropriately displayed in a pie chart.

Event

    The Events that can be selected are the same as those located in the **Connection** tree and **Statistics** tree of the **Definition** selection area and the Workflow Statistics Event.

    Refer "About Workflow Event" about details of the Workflow Statistics Event.

    The Events are created using the **Create Calculation table** Wizard, see above.

    The number of Events used to create a chart depends on the type of chart being made.

    Pie, Bar, Stacked Bar, Line Charts, Histograms and Data Tables use all three event settings.

    The Tachometer uses only the Data Event.

   The Event table does not use and Event data.

OK Button

After the **OK** button is clicked, the Chart will be added to the **Chart** group in the **Definition** view tree.

Each Chart will be indicated by the following icon:

Creating Drilling Chart

To create a Drilling Chart, following procedures are required:

1. Click the right mouse button on a previously defined Chart in the Definition Tree View and select "Create Drilling chart" from the pop-up menu.

2. Define the Chart configuration for the Drilling Chart. (The configuration parameters for drilling charts are the same as above in Step 1 - Create Chart.)

 Note

. . . .
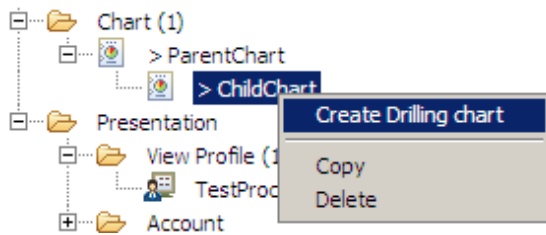
The Workflow Statistics Event cannot be configured as a Drilling Chart.

. . . .

4.3.1 Additional Chart Settings in the Editor

While the Wizard is a good way to quickly create a new Chart, and all of the settings made in the Wizard can be altered in the Editor, the Editor contains many additional settings for Charts.

The Editor is also used to delete Charts.

Tab 1 - View Type

Essentially this tabbed page contains all the settings found in Step 1 of the Chart Wizard.

All settings can be altered.

One additional Attribute Group is included in this tabbed page, its content depends on whether a chart or event table is being displayed:

Charts - Operation for Data attribute

For charts the Operation for data attribute group will be displayed.

The operation for Data attribute can be one of the following operators: +. -, * or /, followed by a text box in which an operand can be inserted.

The default operator is multiply (*) and the default operand is 1.0.

The operation type for same category values are the operators: sum, average, maximum or minimum.

Event Table - Active attribute for event table

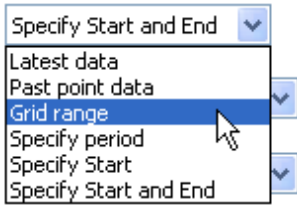When Event Table is the selected View type, the Active attribute for event table group will be displayed:

・ Attribute Display

Select an Attribute on the left and click **Add** to include it in the displayed table.

Tab 2 - Data Range

Specify a **Data Range** using the drop down menu.

The drop down menu has the following options:

Latest data has no options, the others have a variety of options at which the start and end period of the data range can be specified.

Normally these are Chronologically set by date.

Grid range is a time period that includes the time of onset. Past term is an option to go back to past.

Date Time Attribute

The Date Time Attribute is the base time for data range. The Date time attribute can be either:

Event Time, meaning the time that the event occurred.

A datetime attribute defined by user, e.g. Sales Date.

Calculation by Time Series

When the attribute data type on category is not Datetime/Date/Time, the calculated result by selected operation type is displayed.

Tab 3 - Display Setting

The **Display Settings** tab consists of two groups of settings.

The top group, **View Detail Settings**, is the same for all types of chart and event table.

The content of the lower group, **Graph style**, varies depending on what type of chart or table is selected in the View type tab.

View Detail Settings

Graph style

For all the Charts, Signals or Tachometers View types, the display is controlled by the **Graph Style** section.

It contains visual display controls such as label and legend display, horizontal and vertical axis controls, direction of the plot, display range, etc.

Note

When the Chart type is line chart, then data values are not displayed at Dashboard Chart screen whether the "Display data value" in the tab "Display Setting" is checked or not.

Threshold

The threshold line is drawn at the chart area.

Data Table style

For the Data Table and Event Table View types, the display is controlled by the **Data Table Style** section.

It contains visual display controls such as background, foreground, font colors, etc. as well as the Numeric format display.

Tab 4 - Sub Graph

This parameter enables to display the several Charts as overlay.

Share Vertical axis

Select the **Share** checkbox to share the vertical axes of the sub graph and the base graph.

Active

If this parameter is the active, the sub chart is drawn at the chart.

Sub Graph

Display the sub graph name.

📑 Note

. . . .

Data values of Sub graph of Chart are not displayed at Dashboard Chart screen whether the "Display data value" in the tab "Sub graph" is checked or not.

. . . .

Tab 5 - Option

Sort Setting

This section is used to set the sorting method. Refer to "Sorting" below for details on the different sort settings.

Active

Select this checkbox to perform a sort.

Sort Key

The sort will be performed using any single attribute selected from among all the attributes of other events.

Sort Order

Select the sort direction.

Event Condition

This section specifies the conditions for filtering the events to be visualized.

Control plot volume

Correct the number of plot by max value. 0 is unrestraint.

Max number of plots for category

- for date value on Category

  To become the number of plots below the specified upper bound, the grain degree is adjusted.

- for string or number value on Category

  Narrow the Category only to the item that is a high-ranking data value.

Max number of plots for Series

- for date value on Series

  Don't correct the Series.

- for string or number value on Series

  Narrow the Series only to the item that is a high-ranking data value.

Compare by time series

Arrange the longitudinal data divided at a constant cycle.

・ Comparison cycle

Specify the cycle time for dividing time series. Ex. : 1 year, 1 day

・ Display scope

Specify the time size for horizontal display range. Ex. : 3 months, 14 days

Sub-Chart Tab - Drilling

This tabbed page contains tools to define the Drill down chart.

Parameters from parent means an attribute from parent to child when drilling down.

Drill down function supports two cases:

・ 1st is drill down to same Event area.

・ 2nd id drill down to other Event area.

Received Attribute assigned same value of Parameters from parent at 1st case.

Received Attribute can change at 2nd case. Because each KEY name may different .

4.3.2 Deleting Charts

Existing Charts can be deleted from the Definition by right-mouse clicking on the chart in the **Charts** group in the **Definition** view tree and then selecting the **Delete** command from the pop-up menu.

4.4 Alerts and Action Wizard
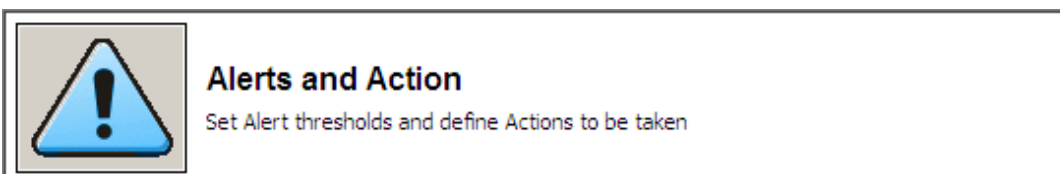
For alert rule settings, create alert settings such as "Issue an alert if stock levels drop below a certain level." The results of alert evaluations are stored in the Events DB.

The following is the procedure for setting up all alerts and actions:

1. Create an Alert by using **Create Alert** wizard.

2. Adjust alert settings in the **Editor.**

3. If necessary, add actions to an alert to perform e-mail delivery or starting IBPM process.

Note

· After creating an alert, you must upload it to the server.

· The Analytics Server must be restarted for the changes to the settings of Alerts and Actions to take effect.

4.4.1 Create Alert Wizard

Click the **Alerts and Action** command in the Analytics Wizard window to open the **Create Alert** dialog box.

The Wizard's dialog box opens, it contains the following entry fields:

Alert Rule name

Give the Alert a unique name.

Rule Type

Select the type of event that will cause the Alert to trigger.

Check Parameters

For example "sales no more than 5 million dollar.".

Check Behavior of Workflow

For example The Process instance stays an Activity more than three days.

Check Relation of Pair Events

For example, the lead time of a business activity is more than 5 hours by checking sequence between a start and an end event.

Check Parameters between Pair Events

For example, to check change of amount between an order and a delivery bill.

Check Performance of Workflow

For example, "Number per hour"

Rule Detail

The types of Rule Details available in the drop down menu depends on the Rule Type selected in the previous drop-down menu.

The relation of the types and target event is as follows:

Selected Rule type	Available Rule Detail	Available Target Event
Check Parameters	**General Event** **Workflow Event**	**Target Event for Alert**
Check Behavior of Workflow	**Time limit** **Waiting time** **Occurrence of a specific event**	**Target Event for Alert**
Check Relation of Pair Events	**General Event**	**Base Event and Other Event**

Selected Rule type	Available Rule Detail	Available Target Event
Check Parameters between Pair Events	**General Event**	**Base Event and Other Event**
	Workflow Event	**Target Event for Alert**
Check Performance of Workflow	**Unit of Process** **Unit of Activity**	**Target Event for Alert**

General Event

A General Event is universal event data other than Workflow Events in Analytics Server. This includes RDB connections, Text file connections and calculation tables.

You can use attributes of General Events to trigger alerts.

Workflow Event

A Workflow Event is event data generated automatically when creating a Workflow connection.

Time Limit

Check due date of Workflow Event.

Waiting Time

Check a lead time of Workflow Event.

Occurrence of a specific Event

Check activities of Workflow Event. For example, a starting process, an ending activity, making a choice, and so on.

Unit of Process

Check Workflow performance by process definition.

Unit of Activity

Check Workflow performance by each activity.

Information

About Workflow Event

Some Workflow Events are automatically generated when integrating with the Interstage BPM. The meaning of these events are as follows:

Type	Event name
Workflow Event	[Event name]
Workflow Event	Dynamic BPM Event [Server host name]
Workflow Statistics Event	Process KPI([Classification name],[Mode])
Workflow Statistics Event	Process KPI([Classification name],[Classification target name],[Mode])
Workflow Statistics Event	Activity KPI（[Classification name],[Event name],[Version],[Mode]）

Mode type and explanation

Active	Calculate for activating processes. Calculated data with this Mode type are displayed on the Process Performance view of the Monitor mode in the Dashboard.
Analytics	Calculate for completed processes per day. Calculated data with this Mode type are displayed on the Process Performance view of the Analysis mode in the Dashboard.

| ActiveSnap | Snap shot of values that calculated with Active Mode per hour. |
| | Calculated data with this Mode type are displayed at the Chart on the Process Performance view of the Monitor mode in the Dashboard. |

Explanation each Event

・ [Event name]

Meaning	This event manage workflow execution data based Process Definition.
	This event is created per Process Definition.
Timing of creation	When the Process Definition is newly linking to Analytics Server
Business Process	Specified Business Process
Example	-

・ Dynamic BPM Event [Server host name]

Meaning	This event manage execution data of Dynamic Process event.
	This event is created per IBPM System.
Timing of creation	When creating the IBPM Sensor.
Business Process	System
Example	Dynamic BPM Event [Server A]
	: The event of the Dynamic Process at the IBPM System on the Server A

・ Process KPI([Classification name],[Mode])

Meaning	This event manage data classified statistical values regarding Process each [classification name].
	Following Mode types are used.
	・ Active
	・ Analytics
Timing of creation	When creating the IBPM Sensor.
Business Process	System
Event	Process KPI（Business process, Active）
	Process KPI（Business process, Analytics）
	Process KPI（Application, Active）
	Process KPI（Application, Analytics）
Example	Process KPI（Business process, Active）
	: The event that classified statistical values of activating Process each Business Process.

・ Process KPI([Classification name],[Classification target name],[Mode])

Meaning	This event manage data classified statistical values regarding Process each [classification name] in [Classification target name].
	Following [Classification target name] are used.

	・ Business Process name
	・ Process Definition name
	Following Mode types are used.
	・ Active
	・ Analytics
	・ ActiveSnap
Timing of creation	When adding new Process Definition.
Business Process	Specified Business Process
Event	Process KPI（Process, [Business Process name], Active）
	Process KPI（Process, [Business Process name], Analytics）
	Process KPI（Process, [Business Process name], ActiveSnap）
	Process KPI（Version, [Process Definition name], Active）
	Process KPI（Version, [Process Definition name], Analytics）
	Process KPI（Version, [Process Definition name], ActiveSnap）
Example	Process KPI（Version, SampleProcess, Active）
	: The event that classified statistical values of activating Process each Version in the SampleProcess.

・ Activity KPI（[Classification name],[Event name],[Version],[Mode]）

Meaning	This event manage data classified statistical values regarding Activity each [classification name] in [Version] of [Event].
	Following Mode types are used.
	・ Active
	・ Analytics
	・ ActiveSnap
Timing of creation	When adding new Process Definition.
	or
	When adding new Version of registered Process Definition.
Business Process	Specified Business Process
Event	Activity KPI（Aggregation, [Event name], [Version], Active）
	Activity KPI（Aggregation, [Event name], [Version], Analytics）
	Activity KPI（Aggregation, [Event name], [Version], ActiveSnap）
	Activity KPI（User, [Event name], [Version], Active）
	Activity KPI（User, [Event name], [Version], Analytics）
	Activity KPI（User, [Event name], [Version], ActiveSnap）
Example	Activity KPI（Aggregation,SampleProcess,2.0,Active）
	: The event that classified statistical values of activating Process each Aggregation in the Version 2 of SampleProcess.
	('Aggregation' is called 'Team' in the Interstage BPM.)

Target Event

After selecting Rule Detail, the drop down list of target events will appear in the dialog.

These Events are created in Step 7 of the Create Connection Wizard.

Target Event for Alert

Pick an Event from the drop down list.

Base Event and Other Event

Pick two Events from the drop down list.

Base Event

Base Event is a leading event to check a pair of events.

Other Event

Other Event is a following event to check a pair of events.

📒 Note

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When you set an alert rule which detects the specific event occurrence of the System Activity and Arrow of the Workflow, you can use following types:

・ System Activity

 - Start node

 - Exit node

 - Conditional node

・ Arrow

 - The Arrow which is executed by User

Other types except above System Activity and Arrow cannot be used as an alert rule , even if you set.

. . . .

OK Button

After the **OK** button is clicked, the Alert will be added to the **Alert** group in the **Definition** view tree.

Each Alert will be indicated by the following icon: ⚠️

4.4.2 Adjust Alert Settings in the Editor

The Wizard begins the initial steps in creating an Alert. Once the Wizard is finished, the alert and action definition is still incomplete.

To complete the definition and produce a fully operational Alert or Action, open the Alert in the Editor and make the necessary settings.

Once all the settings have been made, the server must be restarted for changes to take effect.

Alert Details

The following general details, which were added by the Alerts Wizard, are displayed at the top of the Editor page:

Alert Rule name

Displays the current Alert Rule name. This field can be edited.

Description

Insert a meaningful description of the Alert.

Active Checkbox

Select the check-box to activate the alert.

Rule Type

Displays the current Rule Type for this Alert. This field cannot be edited.

Rule Detail

Displays the current Rule Type for this Alert. This field cannot be edited.

Condition

Define the condition for the event data. It consists of Boolean logical operations. Its elements can be comparisons between attributes, fixed values and expressions.

Alert View Style

Use this setting to specify additional information that can be displayed when the Alert is generated.

Alert type

From the drop-down list, select Critical, Warning, Information or Unknown.

Alert level

Specify a number from 1-100 to indicated the level of alert.

Alert Message

This controls the message that is output to Alert view.

The contents of the message can contain data values from the Events Database. This can be used to present more meaningful information in the Alert message.

Related Chart

This related chart is displayed at the alerts details screen.

Select a related chart from the Drop-down menu.

A related chart can be added as reference information for the alert generated. The chart definitions must be created in advance.

External URL

This external URL allows users to open other web pages from the alert details screen by specifying an external URL that can be called when the Alert is triggered.

Add a meaningful **Label** and insert the **URL**.

Up to five URL addresses can be specified.

Input Parameter

Click on the **Input Parameter** button to open the **Set Alert variable** dialog box. Here users can embed optional parameters into the external URL.

Frequency Control

These settings control the number of times that the Alert occurs.

Frequency of Statistics Gathering

Set the count and the Statistics Period.

Key to Control Alerts

For alert suppression, specify a key to judge whether an alert is the same as the one to be suppressed. The target is only the alert whose attribute value is the same as that of the alert specified here.

Action

An Action is a function which can be set to automatically deliver mail or start an IBPM process when a particular alert occurs.

To create a new Action, click the **Add** button in the Editor to open the **Add Action** dialog box.

Add Action dialog

Enter the following details and parameters to create a new action:

Name

Give the action an unique name.

Action Type

From the drop-down list, select either **Start Process** (Interstage BPM) or **Mail Delivery**.

Action Detail

The following general details are displayed:

Action name

Displays the current name of the Action. This field can be edited.

Description

Insert a meaningful description of the Action.

Active checkbox

When the Active check-box is selected, the server executes this action after generating the alerts.

Result Message

Displays the current Result Message which is displayed in the Alert View informing whether the action is a success or failure.

Mail

The following settings are set to compose an e-mail:

Subject

The content of the **Subject** heading in an e-mail is entered here. This will display in the Subject line at the beginning of the e-mail.

If you want to put Alert parameters into the Subject, click the **Insert Subject** button and select a parameter.

Body

Displays the body of text that will be included in the body of the e-mail..

If you want to put Alert parameters into the body, click the **Insert Body** button and select a parameter.

Encode

From the drop-down list, select **ISO-2022-JP** or **UTF-8**

Mail Address

The list of e-mail address which will receive an e-mail when the alert occurs.

Click **add** button to add a new mail address to the list, and click the **delete** button to delete it from the list.

Action Template

Set the alert parameters to be sent to the Interstage BPM server. The server will forward them to a new process instance to start.

Message Destination Setting

Set the system parameters (Address, Port Number, Detailed result display, IBPMTenant, Application, Called Process, Version, Execute User, Password) to connect to the Interstage BPM server.

4.4.3 Deleting Alerts and Actions

Existing Alerts can be deleted from the Definition by right-mouse clicking on the alert in the **Alerts** group in the **Definition** view tree and then selecting the **Delete** command from the pop-up menu.

To delete an Action, click **Delete** button in the **Editor** of Alert page.

4.5 Presentation Wizards

The Presentation Wizard contains links to five other wizards, effectively sub-wizards, all of which create components that are required to effectively deploy an IBPM Analytics Dashboard.

Click the Presentation button from the Analytics Wizard and the following dialog will open:
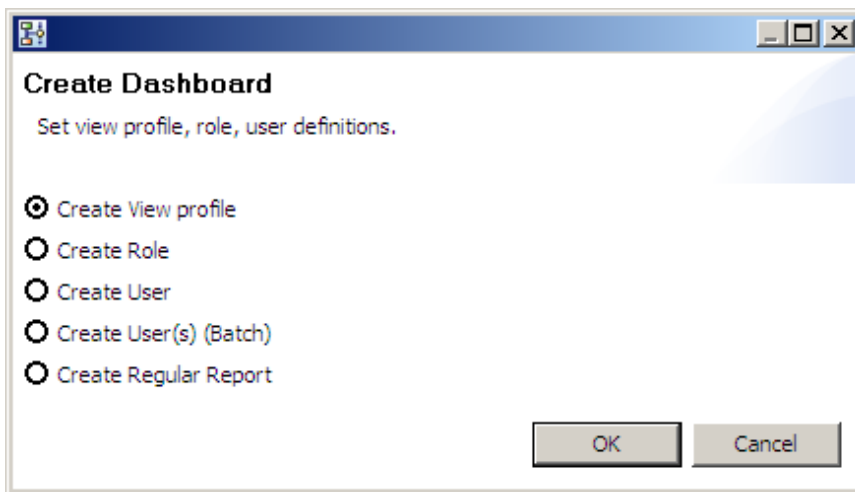
While the View Profile Wizard is the tool most directly affecting the look and contents of the Dashboard, the other components - Roles, Users and Reports - will also be required to be created and configured in order for the Dashboard to function.

4.5.1 Create View Profile - Wizard
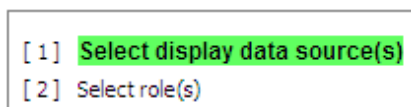
The Create View profile selection leads to a two-sequence Wizard.

These steps are the heart of defining what the Dashboard display will actually look like.

In these three steps the data sources to be used are selected, then the display types and finally the roles that have access to the view are defined.

Step 1 - Select display data source(s)

The first step is to give the **View Profile** a name.

This name is displayed in the Definition View tree as follows:
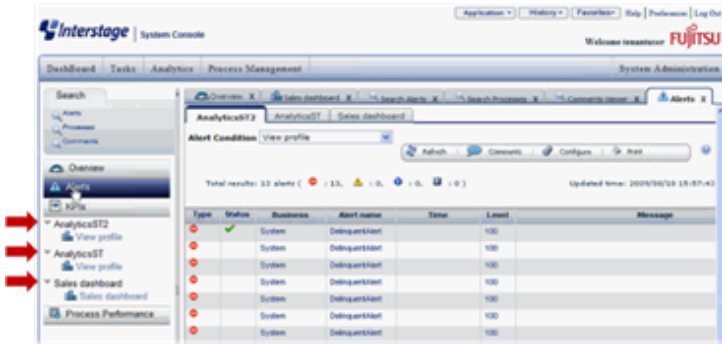
Scope for view
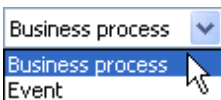
Next, specify the scope of the view to be displayed.

A **Business Process** is an event group which is created by IBPM Analytics Studio's Connection Wizard. A Business Process can be comprised of several events.

Please select **Event** from this box when filtering the view data according to Role.

Select Process or Event

Depending on which Specification type is used, select **Business Process** or **Event** from the **Available** group in the center of the dialog, click [>>] to include the process or event in the list at the right.

Those processes or events in the list on the right will be included in the display or output.

Step 2 - Select role(s)

Select roles that can access this View Profile.

Roles have users associated with them.

Selecting a Role will allow all users associated with that role to access the View Profile.

More than one Role can be associated with each View profile.

Finish

After the **Finish** button is clicked, the new View Profile will be added to the **View Profile** sub-group of the **Presentation** group in the **Definition** view tree.

Each **View Profile** will be indicated by the following icon:

4.5.1.1   Additional View Profile settings in the Editor View

Once the **View Profile** has been created using the editor, its settings can be reviewed and adjusted in the **Editor View** work area.

- 56 -
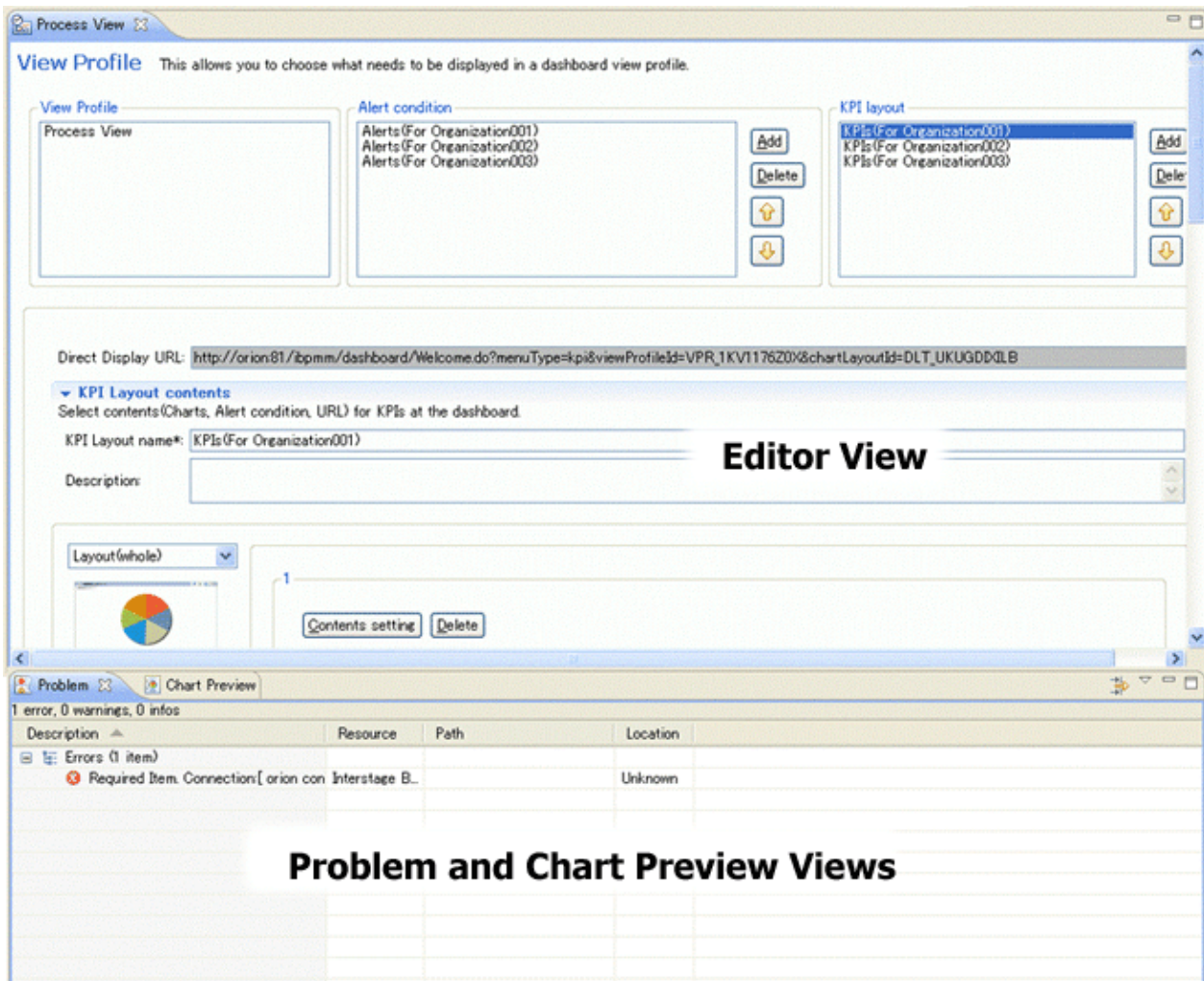
The work area has two parts, the **Editor View** area and the **Problem/Chart Preview View** area.

Editor View Area

The **View Profile**, **Alert Condition** and **KPI layout** boxes are displayed in the Editor View.

Alert Condition and **KPI layout** settings were previously set automatically using the Wizard. This created each settings name as the same as the View Profile's name. Click an item in one of the boxes and its details will appear in the Editor View where all the details can be edited.

The **Alert Condition** and **KPI layout** are used in the Dashboard as follows:
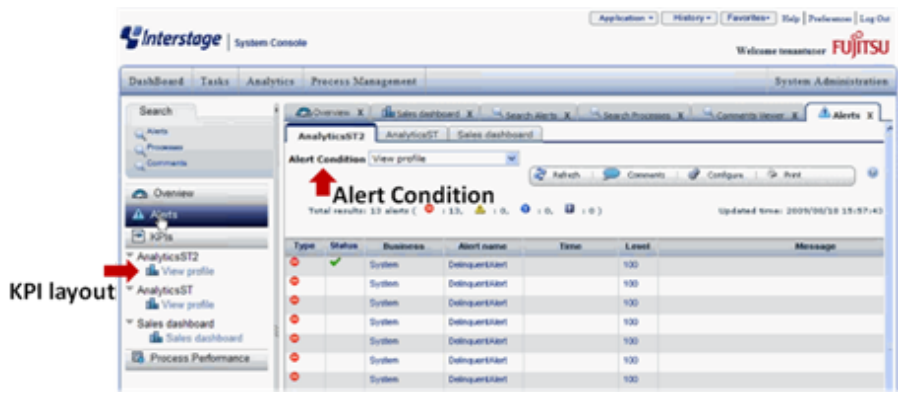
View Profile Details

The **View Profile** name can be changed in this view, and a **Description** of the View Profile can be added.

Scope for view

In Step 1 of the **View Profile Wizard**, the **Scope** of the view (either **Business Process** or **Event**) had been set, and Business Processes or Events (depending on which type was specified) were designated to be included in or excluded from the **View Profile**.

The results of those selections are displayed here, where the elements can be managed.

Change Elements

To change the array of elements available for display, select an element click **Add** or **Remove** to move the **Business Process** or **Events** to or from the **Selected** group (on the right) and the **Available** group (on the left).

Elements in the **Selected** group will be included in the **View Profile**, elements in the **Available** group will not be included, but can be included if required.

Change Specification Type

The Specification Type restricts the Available elements which could be included in the View Profile to those available for that type.

To include those elements in the View Profile, change the **Specification Type** and then use the same **Add** or **Remove** procedure to make the required elements available in the View Profile.

Performance view

This setting area only appears when the "Scope for View" is selected as "Business Process".

The Process Performance menu is displayed on the Dashboard when Analytics Dashboard is integrated with IBPM Console. This Process Performance menu have two sub-menus: Monitor and Analysis. Refer to following figure.

Layout

Assign the existing KPI layout to the Monitor and/or Analysis screen of Process Performance.

The assigned KPI layout can be displayed when the View Report button is selected.

Display Range

Specify the data range to analyze for business performance. This setting is enabled in the Analysis mode.

Related schedule

Specify the calculation schedule to display the data to improve the business process.

This schedule can specify several for Monitor and/or Analysis mode.

Search view

This setting area only appears when monitor the IBPM Business Process processes are defined in IBPM Studio. This settings will be displayed when click to Search - Process menu in Dashboard LHS.

Search Key

Specify the UDA of the business process defined in IBPM Studio and /or select pre-defined conditions from the **Common Parameter** box.

The selected items are displayed as Search conditions on the Dashboard.

Search Result display format

Specify the parameters and attributes for the results display on the Search result screen.

Alert condition Details

These settings have default values which are initially assigned by the Wizard. These settings can subsequently be changed in the Editor view.

To add or delete an Alert condition to Dashboard Alert screen, select one and press the **Add/Delete** buttons.

Direct Display URL

The Direct Display URL is Alert view's location when this page is set to be directly accessed from a Web browser.

Alerts

Specify the displayed items at the Alerts screen.

Select Alert

Specify which Alert rules, defined in the Alerts and Action Wizard, are to be displayed in the Alerts list.

Active checkbox

Select the check-box to active the Alert condition. Alerts are displayed corresponding to this check-box value.

Select a defined Alert rule from the **Available** group in the center of the dialog, the click [>>] to include the Alert rule in the list at the right, or select and click [<<] to remove it.

Alert display condition

Specify the conditions to be displayed in the Alert list.

Alert Status Signal

This setting controls the display of summaries of Alert status (count) using simple symbol at Dashboard Overview screen.

Alert number for Yellow

Specifies the minimum number of Alerts for which the summary symbols will flash yellow.

Alert number for Red

Specifies the minimum number of Alerts for which the summary symbols will flash red.

KPI layout Details

These settings have default values which were initially assigned by the Wizard. These settings can subsequently be changed in the Editor view.

To add or delete an Alert condition to the KPI menu, select one and press the **Add/Delete** buttons.

Direct Display URL

The Direct Display URL is the KPI view's location when this page is set to be directly accessed from a Web browser.

To integrate this page on portal site, select the **Compact screen (for Portal)** check-box.

Layout type selection

Select the layout type to display the KPIs from this box. The screen on the right side will be changed to show the specified layout. Press the **Contents Setting** button to add a Chart, Alert or URL.

4.5.1.2 Delete View Profile

Existing View Profiles can be deleted from the Definition by right-mouse clicking on the alert in the **View Profile** sub-group in the **Definition** view tree and then selecting the **Delete** command from the pop-up menu.

4.5.2 Create Role Wizard

Roles are definitions of permissions and abilities. The following screen appears when Create Role is selected.
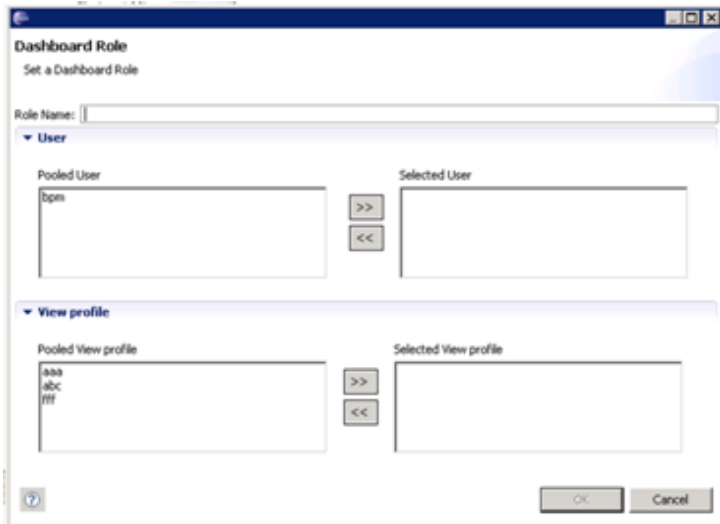
After the **OK** button is clicked, the Role will be added to the **Role** sub-group in the **Account** sub-group of the **Presentation** group in the **Definition** view tree.

Each **Role** will be indicated by the following icon:

Role Name

Enter a Role name.

User

Select a registered User from the **Pooled** group in the center of the dialog, click [>>] to include the User in the list at the right. Selected Users become members of the specified Role.

Listed users in Pooled group ware created in Create User or Create User(s) Wizard.

View Profile

Select defined View Profile from the **Pooled** group in the center of the dialog, click [>>] to include the View Profile in the list at the right. Roles are assigned to each View Profile by this setting.

Users who are members of the selected Roles have access to view the View Profile.

4.5.2.1 Additional Role Settings in the Editor

To define the Role's parameters, change its name and click on it to open it in the **Editor**.

The following items can be edited:

Role Name

User

View Profile

Overview

This setting defines the Dashboard's top page called the **Overview** screen. This top page is always displayed first when a user logs in.

The operation of these settings are the same as for the KPI layout. Please refer to the KPI layout section (see above) to set up this parameter.

Permission

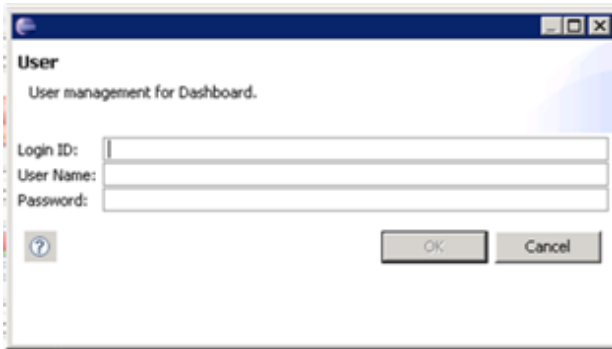Role have following three permissions.

Update for Alert Status

Users can update the Alert status from the Alert View when this checkbox is enabled.

4.5.3 Create User Wizard

Users are assigned to individual Roles.

Each User can be assigned to one or any number of Roles.

The following screen appears when Create User is selected in the Presentation Wizard:

After the **OK** button is clicked, the User will be added to the **User** sub-group in the **Account** sub-group of the **Presentation** group in the **Definition** view tree.

Each **User** will be indicated by the following icon:

Login ID

Analytics Dashboards have a Login screen. This parameter uses this screen to log in to Dashboard.

 Note

If you configure the Process monitoring, set the Login ID using the following format:

```
IBPM User ID@tenant name
```

Specify "Default" as the tenant name if Non-SaaS mode is used.

User Name

Enter a meaningful name to this field. This name will be displayed on the Dashboard.

Password

This password is corresponds to the Login ID.

4.5.4 Create User(s) (Batch) Wizard

Batch is used to retrieve a CSV filled with a large number of User Names, Passwords and IDs. The file is retrieved and used to populate the User List.

The Wizard will ask if the file is in CSV or LDIF format.

Select one and click OK to open a file selector dialog box.

Select the file containing the batch information and click Open.

Then users which defined in CSV or LDIF file are registered in IBPM Analytics.

File format of original CSV file

・ File Format

```
Operation type, Login ID, password, user name
```

    - Operation type : A(Add), U(Update), D(Delete)

・ Example

```
A,tanaka,tan123,,Tanaka
D,sato,sato123,Sato
U,ito,ito123,saito
```

4.5.5 Regular Reports Wizard

The Wizard creates a Report and assigns it a sequential number, thereafter more details can be added using the Editor.

OK Button

After the **OK** button is clicked, the User will be added to the **Reporting** sub-group in the **Presentation (Dashboard)** group in the **Definition** view tree.

Each **Report** will be indicated by the following icon:

4.5.5.1 Additional Reports Settings in the Editor

Double click on the Report to view its properties in the Editor.

Regular Report name

Enter a meaningful name to replace the sequential number assigned at time of creation by the Wizard.

Description

Enter a description of the report.

Active checkbox

Select the check-box to activate the Report.

The server must be restarted for changes to this setting to take effect.

Reporting Schedule

Schedule type

This parameter is corresponding to above "Schedule type". This menu is changed by specified Schedule type. For example "Daily" selected at Schedule type, User can specify the day and time. Analytics create the report as file at specified day and time.

Reporting KPI layout

Select the KPI layout(s) that define the KPI chart(s) to include in the report to be produced as a file.

Add Defined chart layouts to Selected chart layouts when the report is generated. The report will not be created when this parameter is omitted.

Reporting Alert list

Select the View profile that includes the Alert list to include in the report to be output as file.

Add the **Defined View profile** to **Selected View profile** for reporting Alert list when output report. The report will not be created when this parameter is omitted.

Reporting Chart layout

Select the Chart layout(s) that define the KPI chart(s) to output this Regular Report.

Add the Defined chart layouts to the output chart layouts.

4.5.5.2 Reporting folder

The generated reports are accumulated in the following folders with the index reference file.

- [Installation working directory]/ibpmm_data/report/dest

Example

On Windows:

C:/ibpmm_data/report/dest

On Linux or Solaris:

/var/opt/FJSVibpma/report/dest

- Index reference file (RSS 2.0 format)

    - File name : reportList.xml

    - File composition:

        - Report title

        - Link to show Reports

        - Generated Date

        - Description