Interstage Business Process Manager Analytics V12.0

Management Console Guide

Windows/Linux

About this Manual

This document describes how to use the Management Console and Management Commands to configure the core parameters, how to start/stop the service of the Analytics Server and how to display it's status.

Intended Audience

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

- Operating system administration

- Application server administration

- Database administration

This Manual Contains:

Chapter	Title	Description
1	Management Console	Summary of the Management Console.
2	Management Console User Interface	How to use the Web based user interface of the Management Console.
3	Server Management	How to use the console to start, stop and view the status of the Analytics Server.
4	Sensor Management	How to use the console to start, stop and view the status of the Sensors.
5	System Setting	Configuration of the core parameters.
6	Management Command Line User InterfaceUI	How to use the Command Line based user interface of the Management Console.

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 this software are also available:

- *Release Notes*

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

- *Overview*

    Describes the Architecture and features of the software.

- *Installation Guide*

    Explains how to install the software.

- *Dashboard / Output Guide*

    Explains how to use the Dashboard to display Analytical data.

- *Administration Guide*

    Contains Administration tools and tips, Message references and Troubleshooting.

- *Analytics Studio Guide*

    Explains how to use the Analytics Studio to configure the parameters to enable features of the software.

- *Process Discovery Guide*

    Explains Process Discovery overview and how to use Process Discovery.

Abbreviations

The following abbreviations are used throughout this document:

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 Explorer 7.0 Microsoft(R) Internet Explorer 8.0 Microsoft(R) Internet Explorer 9.0	Internet Explorer
Oracle Solaris 10	Solaris 10, or Solaris
Red Hat Enterprise Linux AS Red Hat Enterprise Linux ES Red Hat Enterprise Linux 5 Red Hat Enterprise Linux 6	Linux
Interstage Application Server Enterprise Edition Interstage Application Server Standard-J Edition	Interstage Application Server
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	Oracle11g, or Oracle

Formal name	Abbreviation
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	
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

Export Regulations

Our company's documents may include special technology regulated by foreign exchange and foreign trade regulation laws. If special technology is included, permission must be obtained under these laws before exporting a document or providing it to a non-resident.

Trademarks

- Microsoft, Windows, and Windows Server are trademarks or registered trademarks of Microsoft Corporation in the United States and other countries.

- Oracle and Java are registered trademarks of Oracle and/or affiliates. Other names may be trademarks of their respective owners.

- Sun, Sun Microsystems, the Sun Logo, Solaris and all Solaris based marks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries, and are used under license.

- Linux is a registered trademark or trademark of Linus Torvalds in the United States and other countries.

- Red Hat is a trademark or registered trademark of Red Hat Inc. in the United States and other countries.

- Java and all Java-related trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries.

- Oracle is a registered trademark of Oracle Corporation (USA).

- SQL Server is a Microsoft Corporation (USA) product.

-

- "DB2" is a registered trademark of IBM Corporation (USA).

- All other company and product names referred to in this document are general trademarks or registered trademarks of their respective owners.

Requests

- This document may be revised without notice.

- Do not pass on this document to other parties without permission.

- Our company bears no responsibility for third-party infringements of patent or other rights arising out of use of the data contained in this document.

Copyright

Contents

Chapter 1 Management Console

The Management Console is a Web-based tool used to configure the Analytics Server and to manage the Interstage BPM Analytics operations.

Note
....

The related product, Interstage Business Process Manager server, also has this console functionality. Interstage BPM allows detailed management of business processes and workflows.
....

Management Commands

The management commands allow the user to perform the Management Console operations in the operating system's command shell.

The management commands provide additional functionality not offered by the Management Console.

Refer to chapter "Management Command Line User Interface" for details.

1.1 Common Uses of the Management Console

1.1.1 After Installation

Note for Windows Server 2003 or 2008

In case "Internet Explorer Enhanced Security Configuration" is active on Windows Server 2003 or 2008, Management Console or Analytics Console may not work correctly since script execution is not permitted.

To avoid this, please change configuration by registering host as "Trusted site" or change configuration of IE ESC in server manager.

Add JDBC driver and setup the Events Database connection

Add the JDBC driver to connect the Events Database and configure the connections to the Events Database.

```
Analytics System > System Settings > Database Management > JDBC Driver settings
```

```
Analytics System > System Settings > Database Management > Event DB
```

Note
....

Restart the application server if a JDBC driver is added.

This operation is not required when using bundled database.
....

Create tables for the Events Database

To start the Analytics Server, a system table must be created in the specified RDBMS. Access the following menu to create tables.

```
Analytics System > System Settings > Database Management > Table Management
```

Note
....

This operation is not required when using bundled database.
....

Start the Analytics Server

Start the Analytics Server.

```
Analytics System > Server Management > BPM Analytics Server > Server Status
```

Create users and groups

Create users for the Dashboard, Process Analyzer Tool, Process Generator Tool, Analytics Studio, and other features. Also create groups as necessary.

```
Analytics System > System Settings > User Management > User
```

Configure user authentication

Determine the type of user authentication to be used.

The default setting is "Built-in Authentication". Do not change the settings while the server is operating.

```
Analytics System > System Settings > User Management > Authentication Type
```

Security settings

Determine the security settings. These include whether to allow users to change their passwords, or to allow the Analytics Console to remember login credentials.

```
Analytics System > System Settings > User Management > Security Settings
```

Create connection information

Configure the physical connections to the data source where the data is collected. The configurations made here are used as Collection Rules in Analytics Studio.

```
Analytics System > Sensor Management > [Sensor Name] > Connection Status
```

Configure Process Discovery

Setup event extraction schedules if Process Discovery is to be used.

```
Analytics System > System Settings > Process Discovery
```

Configure the UI Customize

Configure the UI customize as necessary.

```
Analytics System > System Settings > UI Management
```

Add Integration Module to the Analytics Server

Add Integration Module as necessary. Do this to add the required JAR files when linking to the Interstage Business Process Manager server, or to distribute the JDBC driver to sensors.

```
Analytics System > System Settings > Integration Module Management
```

📑 Note

Restart the application server if a Integration Module is added.

Mail server setup

Enter information for the mail server that the Analytics Server will access to enable the e-mail functionality used by Escalation.

```
Analytics System > System Settings > Mail
```

1.1.2 Regular Maintenance

Managing Sensor connections

Sensors can be stopped and started as necessary.

Use this if a connection to an RDBMS needs to be stopped for maintenance. Event collection from the Analytics Server can be stopped temporarily.

```
Analytics System > Sensor Management > [Sensor Name] > Connection Status
```

Data migration rules

This allows the volume of data in the Events Database to be controlled, and to maintain redundant data and records, by migrating Event Data from the Events Database to the Analysis DB.

```
Analytics System > System Settings > Data Migration > Archive Rules
```

Database cleanup

This keeps the volume of data in the Events Database under control by deleting old Event Data regularly.

```
Analytics System > System Settings > Database Management > Table Management
```

Managing the Events Database, Analysis DB, and Process Discovery Database

This updates changes to the RDBMS (used as the Events Database, Analysis DB, or Process Discovery Database), such as changes to the user passwords or JDBC driver connection.

```
Analytics System > System Settings > Database Management > Event DB
Analytics System > System Settings > Database Management > Analysis DB
Analytics System > System Settings > Database Management > Process Discovery Database
```

View logs

View the logs to check on the results of using operation definitions.

```
Analytics System > Server Management > BPM Analytics Server > Server Status > View Log
```

logging

Configure log file settings to fit in an operation situation.

```
Analytics System > Server Management > BPM Analytics Server > Server Status > Logging
```

Start and stop the Analytics Server

Use the following when the Analytics Server needs to be stopped because, for example, the RDBMS being used for the Events Database has to be stopped for maintenance.

```
Analytics System > Server Management > BPM Analytics Server > Server Status > Status
```

Chapter 2 Management Console User Interface

The Management Console user interface is a browser window divided into three parts.
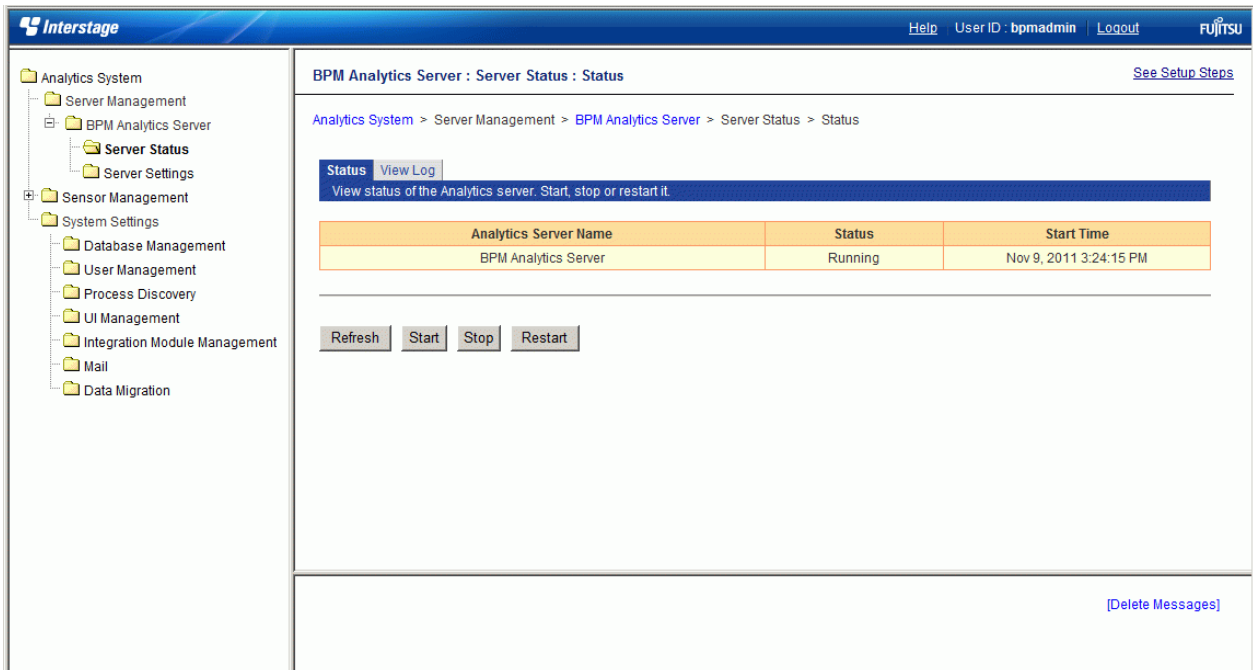
The above shows how the Analytics Management Console appears when it is first opened. To the right is the navigation pane, on the left is the workspace showing the "Welcome" message, and to the bottom right is the message area.

Resize the areas by dragging their borders.

Navigation pane (left)

The menus for the Management Console are displayed in the navigation pane.

The root item is "Analytics System".

Items with submenus have a plus sign in front of them.

Click the plus sign to see additional options for the item.

Click on items to see the available settings in the workspace to the right.

Hide the options again by clicking the minus sign.

Workspace (right)

Available settings for the items selected in the navigation pane appear here.

Most of the workspaces include tabs.

The leftmost tab is displayed when the workspace is opened.

Click any other tab to show other options.

Message area (bottom right)

This shows messages about operations performed in the Management Console, as well as errors and warnings.

Refer to the *Interstage Business Process Manager Analytics Administration Guide* for information on the message meanings and what should be done. Delete any messages currently displayed by clicking the **Delete Messages** link.

2.1 Analytics Management Console: Login, Logout, and Welcome

Login page

Analytics URL

Enter the following URL into the address bar of a browser to start the Analytics Management Console.

Enter the address in the following format:

```
http://server:port/ibpmm/admintool/BPMAdminTool
```

- Server name:

  Specify the host name or IP address of the Analytics Server.

- Port Number:

  Specify the port number of the Web server.

  The value will be 43350 when you select Built-in Application Server.

Login

The login window appears when the address is entered in the address bar.

Enter the administrator password and click **Login**.

Logout

After logging in, a **Logout** button will appear in the top right of the window.

Click **Logout** to exit the Analytics Management Console.

2.2 Current Status

The Current Status page appears as the first page when the Analytics Management Console is first opened.

The Current Status workspace has two tabs, one showing the status of the data being treated by BPMA and the other showing the status of the various processes that are run with BPMA.

- Execution Status

- Data Status

2.2.1 Execution Status

The Execution Status workspace shows the error occurrence by the process type. Panel for each process type is displayed and you are able to see the detail by clicking each process type panel.

The following table shows the process types and their roles.

Process type	Role
Data Collection	Data collected from the monitored system by the sensors
Data Storage	Data collected by the sensor is passed to the BPMA server and stored in the Events database
Data Processing	One of the following processes performed in the BPMA server on the collected data Statistical Calculation Alerts Reports
Data Search	Searches for data stored in the Events database using an interface such as the dashboard

The numbers next to "ERROR", "WARNING", and "INFORMATION" are the total of the messages occurring for the definitions in detail screen of each process type panel. The limit on the number displayed depends on the number of definitions. Each definition is limited to 10 messages, so the maximum is the total number of definitions multiplied by 10.

The number of "Error", "Warning" and "Information" displayed in process type panel is calculated from result of message shown in detail screen shown as follows.

type	"result" type target for calculation
Error	error
Warning	warning
Information	information executed occurrence active

Click on a process type panel to show the following status page.

Click the [History] link next to the name to show the following page.

The history page shows the 10 most recent processes.

2.2.2 Data Status

The Data status tab has the following information about the data dealt with by BPMA.

- Events

- Alerts

The upper section shows a summary of data accumulation. The following table shows the information shown.

Item	Description
Event Group	Name of the event group to which the data belongs
Data name	Name allocated to the data
Data Type	There are two types of data Events Alerts
Count	A count of the data stored in the Events database
Latest Updated Date	The date for the most recent data
Next Execution Date	The date schedule for processing of the data (for collection or generation)

The lower section shows information about the data accumulated in the system and about data waiting to be received.

Item	Description
Number of files ready to be stored	Events received by the BPMA server. This is the amount of data that is waiting to be stored in the Events database.
Number of files that failed to be stored	The amount of data that failed to be stored for some reason. Please refer to chapter "Management Command Line User Interface" for the detail of how to register failed data.
Number of files ready for delivery to the server	The amount of data that is has been collected by the sensor system and is waiting to be received by the server. Details are shown for each sensor system.

The following **Details** tab is displayed when you click an event's link.

Data Status Details
View Data Status details.

Details

Meta data	Info	Description
Event Group	System	The name of the Event Group to which the data belongs.
Data Name	Alert Count System Statistics Event	The name of the data requested.
Data Type	EVENT	The type of the data requested.
Count	23	Amount of the data which is stored in the event database.
Latest Updated Date		The date when the data was last updated.
Definition's last published date		The date when the definition was last published.
Newest data date	Dec 14, 2011 12:00:00 AM	The date when the latest data was generated.
Oldest data date	Dec 1, 2011 12:00:00 AM	The date when the oldest data was generated.
Last data migration date		The date when the data was last migrated.
Amount of data generated during last one hour	0	The number of events generated in the past one hour.
Error data ratio	17.391304347826086	The ratio of alerts detected amongst the generated data.
Amount of flow statistics data	0	The total number of statistics records generated by this flow event.

Related Collection Rules

Definition Name	Next Execution Date
Alert Count System Event Modifier	Dec 15, 2011 11:00:00 AM

Table Name	B_ASCount

Column Info of B_ASCount

Column Name	Attribute Name	Data Type	Restriction
B_EID	-------	varchar (14)	
B_MID	-------	varchar (14)	
B_OT	-------	datetime (23)	
B_ET	-------	datetime (23)	
B_SID	-------	varchar (14)	
B_RID	-------	varchar (14)	
B_EventGroup	EventGroup	varchar (256)	
B_EventName	EventName	varchar (256)	
B_AlertName	AlertName	varchar (256)	
B_Severity	Severity	varchar (20)	
B_Priority	Priority	numeric (18)	
B_Status	Status	varchar (20)	
B_AlertCount	AlertCount	numeric (18)	
B_TenantName	-------	varchar (256)	

Back

Detailed information about the data accumulated appears in the "Details" section. The following table lists some of the key fields of this section.

Item	Description
Event Group	Name of the event group to which the data belongs
Data Name	Name allocated to the data
Data Type	There are two types of data Events Alerts
Count	A count of the data stored in the Events database
Last Updated Date	The date when the data was last updated.
Definitions last Published Date	The last date that the definition was published
Newest data date	The date when the latest data was generated.

Oldest data date	The date when the oldest data was generated.
Amount of data generation during last one hour	The volume of data in the past hour
Last data migration date	The last time data was migrated
Error data ratio	The percentage of data where errors have occurred. This is displayed if the data type is Event.
Amount of flow statistics data	The amount of related statistical data. This is displayed if the data was acquired from IBPM.

The following information is shown in "Related Collection Rules" section.

Item	Description
Definition Name	The name of the definition
Next Execution Date	The date when the process for the definition are scheduled next

If the data type is Event, information about the table for that event in the Events database is shown.

Item	Description
Table Name	Table name in the Events database
Column Name	Column name in the Events database
Attribute Name	Attribute name in the event definition that corresponds to the column name
Data Type	Data type in the Events database
Restriction	Constraints on the Events database specified in the column

2.3 Change Password

Select the **Change Password** tab to change the password for the Administrator.

First enter the existing password in the **Current Password** field. Next, enter the new password in the **New Password** field.

Finally, enter the new password again in the **Confirm New Password** field. Click the **Modify** button to make the changes.

Enter 1 to 64 characters for the password.

Manage passwords based on a security policy.

Chapter 3 Server Management

The following settings are available from the Server Management sub-menu of the Management Console:

- Server Status
    - Status
    - View Log
- Server Settings
    - Settings
    - Server URL
    - Logging
    - Machine Restrictions

3.1 Status

The **Status** tab shows the operational status of the Analytics Server. The server can also be started and stopped in this workspace.

Click **Status** to open the tab.

The **Status** tab shows the name of the Analytics Server, its operational status, and the time and date that it was started.

Status

Status can be "Running", "Stopped", or "Not Connected".

Click the Start button to start the Analytics Server (the status changes to "Running").

Click the Stop button to stop the Analytics Server (the status changes to "Stopped").

"Not Connected" indicates that the status of the server could not be determined (due to incorrect connection settings or a network problem, for example).

Click **Refresh** to update the Status field.

Click **Restart** to stop the server and then start it again. It stops first, then starts.

🛈 Note

. . . .

Start and stop can also be performed with the management commands.

Refer to chapter "Management Command Line User Interface" for details.

. . . .

3.2 View Log

This workspace presents the latest log records from definitions configured in the Analytics Studio.

3.2.1 Latest results

The latest results from the operation log are shown here along with the definition name.

Update to latest information

Click the Refresh button to see the most recent status.

3.2.2 Operation log and Access log

The View Log tab displays the logs under the Operation log and Access log tabs. These are output by the Analytics Server for each of these activities while the server is operating.

Analytics System > Server Management > BPM Analytics Server > Server Status > View Log > Operation Log

Status | **View Log**

View the Log information for the Analytics server.

Latest results | **Operation Log** | Access Log

View the Operation Log.

```
information [---------------] mainmessage:BTSK0001: Schedule [ Salesinformation ] was
executed.
2011/12/08 21:00:12,015+GMT+09:00 INFO  mainID:BSDK0404 subID:-------- sensor
executing  [---------------] mainmessage:BSDK0404: Collection
[Salesinformation:Salesinformation] was executed.
2011/12/08 21:00:13,031+GMT+09:00 INFO  mainID:BSDK0405 subID:-------- sensor
executed   [---------------] mainmessage:BSDK0405: The collection [Salesinformation]
(connection information : [Salesinformation]) ended.( 1 data is notified.)
2011/12/08 21:00:42,234+GMT+09:00 INFO  mainID:BTSK0001 subID:-------- engine
information [---------------] mainmessage:BTSK0001: Schedule [ Salesinformation ] was
executed.
2011/12/08 21:00:42,234+GMT+09:00 INFO  mainID:BSDK0404 subID:-------- sensor
executing  [---------------] mainmessage:BSDK0404: Collection
[Salesinformation:Salesinformation] was executed.
2011/12/08 21:00:43,265+GMT+09:00 INFO  mainID:BSDK0405 subID:-------- sensor
```

Refresh | Download

Update to latest information

Click the Refresh button to see the most recent log information.

Download

Click the Download button to download logs.

Downloaded files also contain information older than the log information displayed in the workspace.

3.3 Server Settings

The **Settings** tab contains settings for the selected Analytics Server.

Click **Settings** to open the tab.

Analytics Server ID and Analytics Server Name

Analytics Server ID and Analytics Server Name are shown. Analytics Server ID cannot be changed.

The Analytics Server Name is used in menus and lists to indicate and select this server. This name can be changed. Enter a name between 1 and 64 characters and click the Modify button to change the name.

Max Number of Sessions

The current setting for the **Max Number of Sessions** is displayed.

A "session" is started when a user logs into the Analytics Server, and this field defines the maximum number of concurrent sessions.

Enter a number in the field and click the Modify button to change the maximum.

Note

Please don't modify this parameter. Please contact support personnel to estimate number of sessions.

Searching for Events and Alerts

Select "Use" to allow users to search for events and alerts. Select "Not Use" to disable searches.

Event Calculation

Select "Use" to allow users to use Event Calculation. Select "Not Use" to disable.

The administrator can decide whether to allow Event Calculation.

Event Calculation uses data from the Events Database to present analysis results for use in business processes, such as inventory control.

Event Registration

Select "Use" to allow users to use Event Registration. Select "Not Use" to disable.

Event Registration accepts events data from sensors and stores it.

3.4 Server URL

Enter the current URL address of the Analytics Server in the Server URL tab.

Click the Server URL tab to open this workspace.

Modify URL

The URL address can be changed in this field.

The host name is the host name or IP address of the machine running the Analytics Server.

Specify the URL using the following format:

```
http://host name:port number
```

Specify the port number of the Web server. This is optional. Default port number will be 40330 when you select Built-in Application Server on install.

Enter the URL correctly and click the Modify button.

> **Note**
> ....
> This Server URL information is also used by remote sensors. Use names that can be resolved by the remote sensor machines.
> ....

3.5 Logging

Configure log file settings in the Logging tab.

Set the maximum size of log files, the maximum number of backup log files, and the level of logging.

Click **Logging** to open the tab to see the workspace where logs can be configured.

Analytics System > Server Management > BPM Analytics Server > Server Settings > Logging

| Settings | Server URL | **Logging** | Machine Restrictions |

Modify the Logging settings for the Analytics Server.

Operation Log

Capacity of Log File	1MB
Max Number of Backup Files *	5 file(s)

Access Log

Log Level	INFORMATION and higher levels
Capacity of Log File	1MB
Max Number of Backup Files *	5 file(s)

Alert Log [Open/Close]

Active	☐
Capacity of Log file	1MB
Max number of backup files *	5 file(s)

Support Log [Open/Close]

[Modify]

3.5.1 Operation Log

The Operation log records the behavior of the Analytics Server and sensors.

Operation log is stored in followings:

[ibpmm.war location of the Web application]/log/operation/operation.log

🔔 Note

In case of Built-in Application Server, deployment path is as followings.

[workspace directory]/tomcat6/webapps/ibpmm

C:\ibpmm_data\tomcat6\webapps\ibpmm

3.5.2 Access Log

The Access log records access to the Analytics Server from sensors and the Management Console.

Access log is stored in followings:

[ibpmm.war location of the Web application]/log/access.log

3.5.3 Alert Log

The Access log records the alerts occurred.

Alert content will be recorded to log file by checking "Active" check box on.

Alert log is stored in followings:

[ibpmm.war location of the Web application]/log/alert/alert.log

Alert Log message format

Alert log will be outputted by following order.

Name	Meaning
Log output date	The date log is outputted.
Alert Type	Type of Alert.
Event name	Event name of the alert
Alert occur date	The date alert occurred.
Level	Shows alert severity.
Message	messages.

3.5.4 Support Log

The Support log records the behavior of the Analytics Server.

The Support log is not used under normal circumstances. This log is used by support personnel investigating problems.

Support log is stored in followings:

[ibpmm.war location of the Web application]/log/server.log

Record Log Level

Records in logs are divided into levels by importance. Enter the log level to output to the log file.

The following shows the log levels in descending order of importance.

- 1. Fatal

    Logs for fatal errors are output.

- 2. Error

    This setting logs errors that require intervention. Logs for errors and fatal errors are output.

- 3. Warning

    This settings logs warnings that require attention. Logs for warnings, errors, and fatal errors are output.

- 4. Detailed Information

    These are status logs. These are output along with the warning, error, and fatal error logs above.

- 5. Debugging Information

    This logging level is for support personnel to output debugging information.

Note

Note that setting the level to 5 will mean records from all logs will be output, which can lead to a very large amount of information.

Select the level from the drop down menu and click the Modify button to apply it.

3.6 Machine Restrictions

The **Machine Restrictions** tab has settings which allow the administrator to restrict the machines that can register events.

Click **Machine Restrictions** to open the tab.

Analytics System > Server Management > BPM Analytics Server > Server Settings > Machine Restrictions

| Settings | Server URL | Logging | **Machine Restrictions** |
Set Machine Restrictions for Event Registration from remote Sensors.

Machine Restrictions

Restriction Address

◉ Disabled ○ Enabled

IP Address [ ]

Address List [ ]

[Add] [Delete]

[Modify]

Disabled

Select Disabled if no restrictions are to be applied to events being collected by the Analytics Server.

All events collected by sensors will be sent to the Analytics Server.

The Add and Delete buttons are disabled when this option is selected.

Enabled

Select Enabled and enter the IP addresses of the machines allowed access in the field below.

This means that the administrator can restrict the machines that can send events to the Analytics Server.

Add button

Enter the IP address of a permitted machine in the entry field.

Specify as follows:

```
10.22.33.44
```

Click the Add button to add the IP address to the Address List.

Delete button

Select an address in the list and click the Delete button to delete it from the list.

Note

Restrictions apply only to remote sensors of the Analytics Server.

Sensors on the same machine as the Analytics Server cannot have their event registration restricted.

Sensors on the same machine as the Analytics Server are automatically allowed access so there is no need to enter the IP address of the Analytics Server machine.

There is an exception to this. When event registration is not to be accepted from any other sensor, that is, when sensors that are on the same machine as the Analytics Server are to given exclusive access to register events, enter only the IP address of the Analytics Server machine.

Chapter 4 Sensor Management

The **Sensor Management** workspace is used to display the status of registered sensors, and to start and stop them.

The **Sensor Status** displays all registered sensors.

Click one of the sensor names to open the **Connection Status** tab. The status of the sensor is shown here, and can be started or stopped as required.

4.1 Sensor Status

Select **Sensor Management** from the navigation pane.

A list of all registered sensors is displayed. One sensor has been registered in the example above.

The **Status** column shows whether the status of a sensor is "Running" or "Stopped".

Click the **Refresh** button to update the list to see if a sensor has been added or if the status of existing sensors has changed.

Click the sensor names to open the **Connection Status** tab. **Connection Status** shows details about the sensors.

4.2 Connection Status

Click a sensor name in **Sensor Status** to open the **Connection Status** tab.

The first section of the **Connection Status** tab shows the sensor name and its current status (running or stopped).

Analytics System > Sensor Management > MYSENSOR > Connection Status

Connection Status | Create Connection

View the status of Connections. Start, Stop or Delete them. Modify the Sensor Settings.

Sensor Name	Status
MYSENSOR	Running

	Connection Name	Connection Type	Status
☐	Process Discovery Connection	BPME	Stopped
☐	BPMConnection	BPMFlow	Stopped
☐	BPMConnection	MaintenanceBPMFlow	Stopped
☐	Salesinformation	Text	Stopped

[Refresh] [Select All] [Clear All] [Start] [Stop] [Delete]

Sensor Settings

Sensor Id	AID_0000000000
Sensor Name *	MYSENSOR
Max number of Events per WEF *	10
Sensor URL *	http://MYSENSOR:40330

[Modify] [Delete Sensor]

The second section shows a list of the connections for the sensor, along with the connection type and status.

The third section is where the sensor can be configured. There are some very advanced settings in this section. Do not change them without first seeking the advice of support personnel.

Sensor Name

Name of the registered Sensor.

Connection Name

Displays the names of the connections.

To control the status of the sensor, select the checkboxes and click the **Start** or **Stop** button.

The **Start** and **Stop** buttons are disabled if none of the checkboxes are selected.

Connection Type

Connection Type indicates the type of resource from which the sensor collects event information. The following types are available.

- RDB

- Text

- BPMFlow

- MaintenanceBPMFlow

- BPME

BPMFlow, MaintainanceBPMFlow, BPME type connection is predefined. These type of connections cannot be deleted.

Status

The status is either **Running** or **Stopped**.

Select the checkboxes on the left and click the **Start** button to change the status to **Running**.

Select the checkboxes and click the **Stop** button to change the status to **Stopped**.

To change the status of all the connections, click the **Select All** button and then click the **Start** button to start all the connections or the **Stop** button to stop all the connections.

Refresh button

The information in this workspace is not automatically updated, even though the Analytics Server is constantly monitoring the activities of the sensors.

Information may have changed since opening the workspace. Click the **Refresh** button to see the most recent information.

🛈 Note

. . . .

- The **Start** and **Stop** buttons cannot be used with Windows Service Edition text file sensors. To start or stop this type of sensor, start or stop the "Analytics Text File Sensor" service on the machines where the sensor is installed.
When the Work Unit for the monitoring server is restarted, the status of Windows Service Edition text file sensors may not be up to date. Wait a while, and then check the status of these sensors again.

. . . .

Sensor Settings

Displays sensor settings information. There are following fields.

Parameters	Explanations
Sensor Id	Unique ID to identify sensor. You cannot edit this.
Sensor Name	Name of the Sensor.
Max number of Events per WEF	Specifies max number of WEF notified by sensor
Sensor URL	URL of the sensor.

Modify button

Click the **Modify** button to apply any changes made in the **Sensor Settings** text fields (**Sensor Name**, **Max number of Events per WEF**, and **Sensor URL**).

None of these settings need to be changed under normal circumstances. Apply changes only after receiving advice from support personnel.

Delete Sensor button

Click the **Delete Sensor** button to delete unused sensors. Delete all of the sensors connections before deleting the sensor itself.

4.3 Creating Connections

Click Create Connection tab to open the tab to create new connections.

The information entered depends on the system to be monitored.

The following information needs to be entered for all systems.

Parameters	Values
Connection Name	Specify a name to identify the connection using up to 64 characters.
Connection Type	Specify the type of system from the following options: - RDB - Text
Description	Enter a description of the connection. This is not required.
Sensor system	Select the sensor system of the connection.

Parameters	Values
Pushing Event intervals (secs)	Specifies number of interval to send to Monitoring Server from 0-10800 by second. If 0 is specified, event will be sent occasionally.
Starting mode	Select Connection operation mode. There are following options. - AUTOMATIC…Start connection automatically. - MANUAL…Start connection manually. - SCHEDULE…Start connection according to specified schedule. Specify [AUTOMATIC] in case you wish to run connection all of the time.

4.3.1 RDB

Parameters	Values
JDBC Connections	
Database Type	Specify the type of RDB system database from the following options: - Oracle - DB2 - SQL Server 2000 - SQL Server 2005/2008
JDBC URL	Specify the JDBC URL using the appropriate format for the selected database type.
Username	Specify the username for accessing the database.
Password	Specify the password for accessing the database.

Parameters	Values
Advanced JDBC Options	
Max active	Specify an integer between 1 and 64 as the maximum number of active connections that can be used by the RDBMS at a time.
Max Idle	Specify an integer between 0 and 64 as the maximum number of connections that can be used by the RDBMS while remaining in an idle state without being released. Connections are released every time a connection is made if 0 is specified.
Wait Time (secs)	Specify an integer between 0 and 86400 as the maximum number of seconds to wait if there are no available connections.
Transaction level	Specifies the RDBMS transaction isolation level of the monitored system. Select one of the following: Default (default setting) READ_COMMITTED (committed reads) READ_UNCOMMITTED (uncommitted reads) REPEATABLE_READ (repeatable reads) SERIALIZABLE (serializable) Specify "Default" to operate using the standard RDBMS transaction isolation level. Supported isolation levels depend on the RDBMS. Refer to the RDBMS manual for details. An error occurs when the sensor is started if an unsupported isolation level is selected. The following levels are not supported under Oracle and should not be selected if Oracle is being used: TRANSACTION_READ_COMMITTED TRANSACTION_REPEATABLE_READ When using Symfoware, the sensor will operate under the isolation level of the Symfoware database environment if that level is stricter than the level chosen here.
Advanced Options	
Timezone	Specify timezone which business server is running. If "LOCAL_TIMEZONE" is selected, timezone which sensor is running will be used. Examples: Japan Standard Time(JST): "Asia/Tokyo" or "Japan" Greenwich mean time(GMT): "Europe/London"
Replace NULL values with empty strings when sending data	You are able to prepare an alert condition by treating NULL value of column as empty strings. Alert settings can be done on Analytics Studio. Check if you require to do such operation.

4.3.2 Text

There are no items that are specific to text file systems.

4.4 Updating a Connection

To update a connection, click the connection in the **Connection Status** tab and update the information as necessary.

4.4.1 BPMFlow

Parameters	Values
IBPM System Settings	
Server Host Name	Enter the Server Host Name of the connected IBPM. The Server Host Name can be checked by accessing the following URL and logging on as the administrator. http://<hostname>:<port number>/fujitsu-ibpm-config-webapp/IBPMConfigServlet
Superuser name/Password	Enter the superuser name and password. The superuser name and password are set with the IBPM deployment tool during installation.
Naming Service Vendor	Select the type of application server used to connect to IBPM and RMI from the drop down menu.
JDBC Connections	
Database Type	Select from the drop down menu the database type of the JDBC connection used when the IBPM database was first created.

Parameters	Values
URL	Enter the JDBC URL for the database that IBPM will use.
Username/Password	Enter the username and password for accessing the IBPM database. The username and password are set as the IBPM database user with the IBPM deployment tool during installation.
Maintenance Settings	
JMS Connection URL	Enter the JMS Connection URL. The settings for the application servers are as follows: <hostname> (Interstage) iiop://<hostname> (WebSphere) t3://<hostname>:49950 (WebLogic) jnp://<hostname>:1099 (JBOSS)
Naming Service Connection URL	Enter the Naming Service Connection URL. (This is the same as the JMS connection URL.)
Username/Password	Enter the username and password for the JMS connection if necessary.

4.4.2 MaintenanceBPMFlow

Detail information is not available for this type.

Only Start/Stop operation is available.

4.4.3 BPME

There are no items that are specific to BPME.

4.5 Deleting a Connection

To delete a connection, select the connection to be deleted in the **Connection Status** tab and click the **Delete** button.

Note that data collection will be stopped when a connection is deleted.

Following types of connection cannot be deleted.

- BPMFlow

- MaintenanceBPMFlow

- BPME

4.6 Test Connection

You can confirm the connection to monitoring system by this feature. Click Test Connection button in creation or update screen.

This feature is available when connection type is as RDB or BPMFlow.

Chapter 5 System Settings

Sub-menus for **System Settings** are displayed in the navigation pane of the Analytics Management Console.

The sub-menus link to the following workspaces:

- Database Management

- User Management

- Process Discovery

- UI Management

- Integration Module Management

- Mail

- Data Migration

Each of these windows has a number of tabbed pages containing settings and data.

5.1 Database Management

The **Database Management** workspace has tabs to operate and maintain the Events database:

- JDBC driver settings

- Events DB

- Archive DB

- Process Discovery DB

- Table Management

- Connection Pooling

5.1.1 JDBC Driver Settings

JDBC driver settings contain Java Database Connectivity (JDBC) settings to connect the Analytics Server and databases.

Note

Restart the application server where the Analytics Server is running if a JDBC driver is added.

5.1.2 Events Database Settings

Events DB shows the type of database environment being used (Oracle, SQL Server, etc.).

Only one Events database may be connected at a time.

If a JDBC driver is selected from the drop-down list, the fields in the **Events DB Connection** table change to suit the selected database type.

The following JDBC compliant databases can be used:

- Oracle

- SQLServer 2005/2008

- Symfoware

To use Built-in RDB, please specify "Symfoware".

The following example shows Oracle as the selected database type:

The example shows that the **Table Space Name** field is displayed because an Oracle database has been selected.

Note

To update value other than password, check off "Set new password". Password input will be required if you check this checkbox.

5.1.3 Archive DB

Open the **Archive DB** tab to configure an Archive Database.

The Archive Database is used to archive events from the Events database to free up space and improve performance.

The Archive Database can also be used to store archive events in a separate database so that they can be analyzed at a later date, thereby freeing up the Events database for day-to-day operations.

The fields in **Archive DB Connection** are identical to the fields in **Events DB Connection**. Refer to "Events DB Connection" for details.

5.1.4 Process Discovery DB

Use this tab to configure the Process Discovery Database.

The fields in **Process Discovery DB Connection** are identical to the fields in **Events DB Connection**. Refer to "Events DB Connection" for details.

Note

Only Oracle can be specified as Process Discovery DB.

5.1.5 Table Management

Once the Events, Archive, and Process Discovery databases have been defined and registered, their Database tables can be created using the tools in the **Table Management** tab.

The **Table Management** tab displays details for the databases.

This tab also enables you to create system tables and delete (or initialize) data.

Tables contain the data from the events, it is a common a maintenance task to clean out unwanted information from the Events database.

Click the **Table Management** tab in the **Database Management** window to access the table management tools:

There are two sections and a variety of controls in the tab.

The upper section shows details about registered databases. The lower section allows obsolete data to be deleted.

Type of database

This field displays the status of the databases. An Events database is required, but Archive DBs and Process Discovery DBs are optional.

Status

This field displays the status of the system tables of the databases.

The statuses are "Created", "Not defined", and "Error".

"Created" means the system table has been created, registered, and is working correctly.

"Error" means that the table has been created but there is a problem with it.

"Not defined" means that a database has not been created.

Create Table

The **Create Table** button is enabled if the status is "Undefined".

Click the button to create the table used by the databases to manage events.

Clean up Table

Click the **Delete Data** button to clean up the Events DB.

Type

Specify the type of data to be deleted.

Initialize

Deletes all event data and alert data.

If a time range is not specified, the differential collection information for the event is initialized.

Select Event

Select an event definition name to limit the data to be deleted.

Select an event definition from the drop-down list. The alerts for the selected event are deleted along with the data.

If a time range is not specified, the differential collection information for the event is initialized.

Select Alert

Select an alert definition from the drop-down list to delete alerts.

Time Range

Specify a period for the data to be deleted. This is not required.

The **End time** is not included in the range.

So if "18:00" is specified, for example, data from 18:00 on the end date is not deleted.

- If the connection information is not modified in Analytics Studio between the time the clean up is performed and when the connection is restarted

••

Password

Enter the password of Administrator when you create during install to confirm the operation.

5.1.6 Connection Pooling

Connection Pooling is a way of maintaining performance by keeping a pool of JDBC connections open. The connections are closed when the JDBC connection is no longer required.

Configure Connection Pooling in this tab. The administrator can decide how many connections to have in a pool and how long they are to remain open when not being used.

Click **Connection Pooling** to open the tab.

Usage of Pooling

Shows the types of Connection Pooling and has entries for how many times an available connection can be used.

There are three types:

・Searching for Events and Alerts

・Event Calculation

・Event Registration

Please set appropriate value according to actual operation since setting parameters will affect above processing if parameter exceeds max connections or max wait time.

Searching for Events and Alerts

These connections are used to search for business events, calculation events, and alert data when charts and alerts are displayed in the Dashboard.

Event Calculation

These connections are used to search for general events during event calculations and to store statistics events as part of the Event Calculation processing.

Event Registration

These connections are used to store business events sent from sensors to the Events database.

Modify button

Click the **Modify** button to apply the changes. Restart the Analytics Server for the changes to take effect.

5.2 User Management

User Management is where you manage the users and groups used by the dashboard. Analytics Studio, Process Analyzer, and Process Generator. Users and groups can be created, modified, and deleted here. There are also settings for authentication and security.

5.2.1 User Management

Create, modify, and remove users in the **User** tab.

5.2.1.1 User List

Users available in the system are listed in the User List tab.

The user IDs are those specified in the **Create User** tab. Refer to the next section for details.

The list also shows other details about the user.

Click the user ID link to see more details about the user and to modify their details.

Remove

To remove a user, select the checkbox and click the **Remove** button.

5.2.1.2 Creating Users

Click the **Create User** tab to create new users.

User ID

Enter a new Analytics user ID. Specify a user ID of 64 characters or less.

User Name

Type a name for the Analytics user.

E-mail Address

Enter the user's e-mail address.

Password

Enter a new password for the user ID.

Password (confirm)

Specify the new password again.

Assigned Groups

Assign the user to a group.

Description

Enter a description for the user.

Create button

Click the **Create** button to save the new user.

The new user will be added to the **User List** tab and can now be used in Analytics.

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.
....

Note
....

Changes to user information and permissions will be available during user login.
....

5.2.1.3 Import Users

Users can also be added by importing them in CSV or IBPM import compliant LDIF files.

File formats

Specify CSV or IBPM import compliant LDIF.

Please specify in a plain text format when you are importing password information in LDIF file. Password information cannot be extracted if encrypted.

Format according to IBPM import LDIF file is supported.

Please refer to IBPM "Server and Console Installation Guide" for detail.

CSV file format

- file format

```
Operation type, user 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
```

File name

Specify the file to be imported.

Import

Click the **Import** button to save the new users based on the data in the file.

The new user will be added to the **User List** tab and can now be used in Analytics.

🖙 Note

. . . .

Please note that user created in import is not assigned to any groups. Assign to appropriate group after creation.

. . . .

5.2.2 Managing Groups

Create, modify, and delete groups in the **Group** tab.

5.2.2.1 Group List

Groups available in the system are listed in the Group List tab.

This tab also has the descriptions of the groups.

Click the group link to see more details about the group and to modify its details.

The following table shows the default groups:

No.	Group name	Description
1	Dashboard User	This is the group for general users of the Dashboard. They have permissions to view the Dashboard.
2	Dashboard Power User	This is the group for power users of the Dashboard. Along with the permissions of the Dashboard User, they also have permissions to configure Dashboard menus.
3	Process Analyzer User	This is a group for users that can navigate in the Process Analyzer. They have permissions to view the Process Analyzer.
4	Process Analyzer Power User	In addition to Process Analyzer User permissions, users in this group also have permissions to create chart and alert definitions in Analytics Studio.
5	Process Generator User	This is a group for users that can control Process Generator tool.
6	Data Analyst	Users in this group determine the data to be collected and analyzed in Analytics Studio. They have permissions to create collection rules and create events.
7	Presentation Designer	Users in this group determine how data is presented in Analytics Studio. They have permissions to create charts and layouts.
8	Studio Super User	Users in this group have permissions to change any of the elements in Analytics Studio.
9	Publisher	Users in this group have permissions to publish in Analytics Studio.

No.	Group name	Description
10	Administrator User	Users in this group have administrator permissions. This user has all permissions other than those reserved for the superuser.

Apart from the above users, there is a superuser that is created when the software is installed. The permissions granted to this user cannot be created in this tab.

The superuser has the same permissions as the Administrator User and also has the permissions to start and stop the Analytics Server.

Remove

To remove a group, select the checkbox and click the **Remove** button.

The default groups cannot be removed.

Note

Please note that if you remove group, user who was assigned to only that group will not have any permission.

5.2.2.2
Creating Groups

Click the **Create Group** tab to create new groups.

Analytics System > System Settings > User Management > Group > Create Group

User | **Group** | Authentication Type | Security Settings
View options related to Analytics User Groups.

Group List | **Create Group**
Create a new Analytics Group.

Analytics Group Definition

Group Name *	GenericUser
Description	

Assign Users

Available Users
bpm
john
paul

Assigned Users
ringo
george

->
<-

Permissions [Open/Close]

Tool	Permission	Permission Target	Assign
Studio	Editing Permission		
	Publishing Permission		☐
	Unlocking		☐
Process Analyzer	Process Analyzer Navigation		☐
Process Generator	Process Generator Navigation		☐
Dashboard	Dashboard Navigation		☐
	Dashboard Configuration		☐

Create

Group name

Enter a group name. Specify a user ID of 64 characters or less.

The default groups cannot be renamed.

Description

Enter a description for the group.

Assign Users

Assign users to the group. Users can be members of more than one group.

Permissions

Specify the permissions that members of the group will have.

The permissions of the default groups cannot be changed.

No.	Tools	Operations	Tool element
1	Analytics Studio	Editing	Event Modifiers
2			Collection Rule, Event Groups & Events

No.	Tools	Operations	Tool element
3			Alerts
4			Alert Filters
5			Charts
6			Layout
7			Dashboard Profiles
8			Dashboard Groups
9			Reports
10		Publishing	-
11		Unlocking	-
12	Process Analyzer	Use of the Process Analyzer	-
13	Process Generator	Use of the Process Generator	-
14	Dashboard	Navigate in the Dashboard	-
15		Configuring in the Dashboard	-

🈁 Note

Changes to user information and permissions will be available during user login.

5.2.3 Authentication Type

Determine the type of authentication to be used.

User | Group | **Authentication Type** | Security Settings
View options related to Analytics User Authentication.

User Authentication | Login Module List | Create a new Login Module
Modify the Authentication type.

Authentication Type for the Dashboard

Built-in Authentication ▾

Modify

After modification, restart the Analytics Server to apply the changes.

Authentication Type

This is list of the authentication types. (Including the option to use no authentication at login.)

If a user-defined LoginModule is defined, it will be added to the list. Select an authentication type from the following:

Built-in

The authentication provided by this product is used, without accessing an external authentication server.

Do not authenticate

No authentication is performed at login.

LDAP (authentication server)

Authentication is performed via an LDAP server.

Active Directory Service (authentication server)

Authentication is performed via an Active Directory Service.

Native Windows (authentication server)

Windows account management is used for authentication.

Interstage SSO (authentication server)

Authentication is performed via Interstage SSO. In **Option**, specify the business system name using the format "business-system-name=<business system name>".

For example: business-system-name="Business001"

User-defined LoginModule

Authentication is performed against a custom Login Module.

Modifying the settings

Each authentication type has different requirements.

No items need to be changed for "Built-in" and "Do not Authenticate".

There are a variety of fields and options displayed when "LDAP", "Active Directory Service", or "Native Windows" is selected.

Modify button

Click the **Modify** button to apply the changes.

🅖 Note
. . . .

Restart the Analytics Server for changes to take effect..
. . . .

🅖 Note
. . . .

If Interstage SSO is to be selected as the authentication type, first setup Interstage Single sign-on on the Interstage Application Server. Also confirm that the following items are set correctly on the system where the Dashboard is running.

- Ensure a sign off URL is requested

- Ensure the single sign-on JavaAPI is used

- Ensure session management is used

- Set "/ibpmm/dashboard/" as the protection path.
. . . .

Login Module List and Create a new Login Module

These two tabs are used to manage user-defined LoginModules.

Use this tab to develop LoginModules that extend the functionality of Dashboard authentication.

5.2.4 Security Settings

Set up the security for the system in the **Security Settings** tab.

Remember Me

Select whether to enable users to save their user ID in the login window.

The default is "Disable".

The "Remember Me" checkbox will not be shown in the login window when "Disable" is selected.
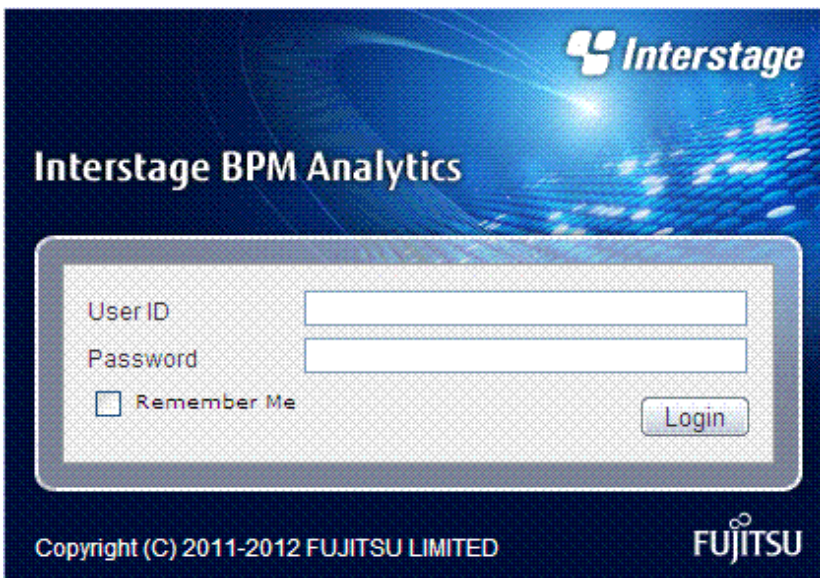
Enable User to Change Password

Select whether to enable users to change their passwords.

The default is "Yes".

Users can change their own login passwords for their user definition from the **User** Profile tab.

5.3 Process Discovery

Specify settings to integrate Process Discovery and Analytics.

5.3.1 Fixed-point Monitoring Settings

A unit of analysis called a "model" is generated for each general event with Process Discovery's flow generation tool.

Each model requires collection definitions, which are necessary when fixed point analysis is to be performed on business processes. Allocate the definitions to the models in the **Fixed-point Monitoring Settings** tab.

5.3.1.1 Event definition information

Model Name

This shows a list of models created with the flow generation tool that have been generated correctly.

Select a model from this list when allocating an Analytics collection definition.

System sensor

This shows a list of system sensors configured in Analytics.

The flow information generated by Process Discovery is saved as data so that it can be analyzed in Analytics when performing fixed point analysis on business processes. Data collection uses "Process Discovery Sensor Connection" to do this.

"Process Discovery Sensor Connection" operates under the system sensor specified here.

Event Group

This shows a list of event groups configured in Analytics.

The Analytics collection definition is generated under the Event Group specified here.

Event Name

Specify a name for the Analytics event definition.

Scheduler

Specify **Enabled** if fixed point analysis of business processes is to be performed according to a schedule. Specify **Disabled** if not.

Schedule Type

Specifies how to save process information generated in business fixed-point monitoring.

If you specify "Accumulate Data", add new process information to existing process information.

If you specify "Update Data", existing process information will be deleted and save only create process information.

Execution Schedule

Set up the schedule if fixed point analysis of business processes is to be performed according to a schedule. The default is every day at 00:00.

5.3.1.2 Operations

Add button

An Analytics collection definition is generated according to the event definition.

Modify button

An Analytics collection definition is modified according to the event definition.

Delete button

An Analytics collection definition is deleted according to the event definition.

5.3.2 IBPM Integration Settings

Set the information required for Process Discovery to integrate with Interstage BPM/Wily events in the **IBPM Integration Settings** tab.

5.3.2.1 Generating Data

Scheduler

Select Enabled to have the data generated according to a schedule. Specify **Disabled** if not.

Execution Schedule

Setup a schedule to generate Interstage BPM event data for use in Process Discovery. The default is every day at 00:00.

5.3.2.2 Integration Data

Preservation Type

Select how the data will be stored. Select **Persistence** to accumulate the data in Process Discovery. Select **Temporary** to discard the data.

5.3.2.3 Operations

Modify button

Once the changes have been entered, click the **Modify** button to enter the changes.

5.4 UI Management

The following operations are available from the **UI Management** sub-menu of the Management Console:

- UI Customize

- Label Substitution

Click the sub-menu to show the options in the workspace.

Tabs in each of the workspaces open pages with different settings.

5.4.1 UI Customize

The **UI Customize** tab has settings for customizing the dashboard's header and navigation pane.

Customized titles are displayed even if the locale of the browser is changed.

5.4.1.1 Customizing UI Parts

The **UI Parts Customize** tab allows the logo displayed in the dashboard's header to be customized.

Setting the Window Title

You can specify browser window title up to 1024 characters.

The name of this product is displayed in default.

Select **Customize** for **Customize Window Title** and enter the new title in **Title String**.

The name of this product is displayed when **Use Default** is selected.

Setting the Product Logo Image

You can change the product logo in Upper left of dashboard.

The logo of this product is displayed in default.

To change the product logo, select **Customize** for **Customize Product Logo**. Next, browse to the image file in **Add Image File** and click **Add to List** to upload the file. Finally, select the image to be displayed in the list of image files.

To remove a file from the list, click the **Remove** button.

The logo of this product is displayed when **Use Default** is selected. Select **Do not Display** if a logo is not to be displayed.

Setting the Corporate Logo Image

You can change the corporate logo in Upper right of dashboard.

The logo of FUJITSU is displayed in default.

To change the corporate logo, select **Customize** for **Customize Corporate Logo**. Next, browse to the image file in **Add Image File** and click **Add to List** to upload the file. Finally, select the image to be displayed in the list of image files.

To remove a file from the list, click the **Remove** button.

The logo of this product is displayed when **Use Default** is selected. Select **Do not Display** if a logo is not to be displayed.

Modifying the settings

Click the **Modify** button at the bottom of the screen to save the settings.

Settings are not saved if the tab or workspace is changed without clicking the button.

5.4.1.2 Dashboard Menu

The Dashboard Menu tab has settings for customizing the dashboard's navigation pane.

The following table describes the items in the tab.

Item Name	Description
Overview	Specify settings for the Overview display in this section.
Alerts	Specify settings for the Alerts display in this section.
KPIs	Specify settings for the KPIs display in this section.
Search	Specify settings for the Search display in this section.
Process Performance	Specify settings for the Process Performance display in this section.

Modifying the settings

Click the **Modify** button at the bottom of the screen to save the settings.

Settings are not saved if the tab or workspace is changed without clicking the button.

Restore Default

Click **Restore Default** to restore the settings to the default.

Default value is as following:

Parameters	Japanese Name	English Name
Overview	オーバービュー	Overview
Alert	アラート	Alert
KPIs	KPIs	KPIs
Search	検索	Search
Process Performance	プロセスパフォーマンス	Process Performance

5.4.2 Label Substitution

This workspace is where you can control how event data is displayed. It shows lists of the values and their substitutions, and allows you to modify and delete the items.

5.4.2.1 List of Registered Charts

A list of custom labels is shown in the **Label Substitution List** tab.

The following table describes the items in the tab.

Item Name	Description
Definition Name	Displays the name of the label substitution definition. these names must be unique. click the name to modify the label substitution definition.
Register Type	Displays the registration type of the label substitution definition. The registration to mapping table changes depending on the type.
Activated	Displays whether the related label substitution definition can be used.
Description	Displays a description of the label substitution definition. The descriptions are taken from registered resources. If the resources for the language cannot be found or if undefined in the resource, this is not displayed.
Action	Downloads the current label substitution table. It is saved in CSV format.

Deleting charts

To delete a chart, select its checkbox and click the **Remove** button.

5.4.2.2 Creating New Label Substitution Definitions

Open the **Create a Label Substitution Definition** tab to create new label substitution definitions.

The following table describes the items in the tab.

Item Name	Description
Definition Name	The name of the label substitution definition. Names should be unique.
Register Type	The registration type of the definition. CSV: Upload a CSV file to update the mapping table.
Activated	Select either "Deactivated " or "Activated" to disable or enable the definition
Description	A description of the definition.
Upload File	Select a CSV file to register in the mapping table.

Note

The CSV consists of keys and their corresponding value.

Keys (the values on the left) must be unique.

Character other than alphabet or number must be UTF-8 encoded.

Examples

"0001","Orange"

"0002","Apple"

"0003","Banana"

. . . .

Registering label substitution definitions

To upload a new label substitution definition, specify the files in the fields and then click the **Create** button.

The new definition is added to the list of definitions and can be select in Analytics Studio.

5.4.2.3 CSV Upload

From the **Label Substitution List** tab, select an existing label to display the **CSV Upload** tab.

This allows you to update the mapping table of a label substitution definition.

This has a similar function to the file upload feature in the **Create a Label Substitution Definition** tab to select a CSV file to register in the mapping table.

![Note icon] Note

. . . .

Using this feature deletes the previous table. Download the table to keep a copy if necessary.

. . . .

5.4.2.4 Modify Settings

This updates the label substitution definitions.

The items are the same as those in the **Create a Label Substitution Definition** tab.

5.5 Integration Module Management

Integration Module Management is used to manage the integrated modules necessary for the Analytics Server and its sensors to work.

The major uses for these modules are:

 - As JDBC drivers to access the Administrative database

 - As JDBC drivers used by RDB sensors to access the business database

 - As client JAR files for workflow sensors to access the Analytics server

View a list of modules and add new modules in the **Integration Module Management** tab.

5.5.1 Add Integrated Modules

Add JAR file(s)

Enter the path of the file to be added as a module in this field.

Enter the correct path or click the **Browse** button and find the file.

Add button

Click **Add** to add the file to the server.

![Note icon] **Note**

. . . .

Restart the application server for the changes to take effect.

. . . .

5.5.2 List of Files

This shows a list of the files added to the Analytics Server.

The files are in .JAR format. JAR format is the format for Java archives. These files include the Java classes that implement interfaces in databases and systems.

5.6 Mail

The Analytics Server detects alerts based on the definitions in the Analytics Studio and transmits them as e-mail messages. The following settings allow these messages to be transmitted.

There are three tabs in the **Mail** workspace.

- SMTP Server

- SMTP Authentication

- POP before SMTP Authentication

5.6.1 SMTP Server

Set the addresses of the SMTP (Simple Mail Transfer Protocol) server and sender in the **SMTP Server** tab.

The current SMTP Server settings are shown when the **SMTP Server** tab is opened. All of the settings in this tab can be modified.

These are the settings that can be made:

SMTP Server Address

Specify the host name (FQDN) or IP address of the SMTP Server used to transmit the messages.

SMTP Port Number

Specify the SMTP port number using an integer between 1 and 65535. Specify "25" under normal circumstances.

Sender Address

Enter the address to be used as the sender when transmitting the messages. This can be a string of up to 256 characters.

Retry Count

Specify the number of retries to be attempted when the mail server cannot be connected, using an integer between 0 and 10.

Retry Interval

Specify the number of seconds between retries when the mail server cannot be connected, using an integer between 0 and 20. There is no interval between retries when "0" is specified.

5.6.2 SMTP Authentication

The current SMTP Authentication settings are shown.

Mail : SMTP Authentication

See Setup Steps

Analytics System > System Settings > Mail > SMTP Authentication

| SMTP Server | **SMTP Authentication** | POP before SMTP Authentication |

Modify the SMTP Authentication settings.

SMTP Authentication

SMTP Authentication	⊙ Disable ○ Enable
Account Name	
Password	☐ Set new password

Modify

SMTP Authentication

Select whether to enable SMTP authentication.

The rest of the fields in this tab are grayed out and disabled if "Disable" is selected.

The settings are enabled when "Enable" is selected.

Account Name

Enter the account name of the SMTP server.

This can be a string of up to 256 characters long.

Password

Select the **Set new password** check-box and enter the new password in the field to set a new password or change the existing one.

This can be a string of up to 256 characters long.

Modify button

Enter the changes and click the **Modify** button.

Restart the Analytics server for changes to take effect.

Note

To change items other than **Password**, cancel the **Set new password** check box. If the **Set new password** check box is selected, the password will have to be entered if other items are changed.

5.6.3 POP before SMTP Authentication

Enter the address and account name of the POP-before-SMTP type authentication POP (Post Office Protocol) server.

- 53 -

POP before SMTP Authentication

Select whether to enable or disable POP before SMTP authentication.

The rest of the fields in this tab are grayed out and disabled if "Disable" is selected.

The settings are enabled when "Enable" is selected.

POP Server Address

Specify the address of the POP server used for authentication. This can be a string of up to 256 characters.

POP Port Number

Specify the number of the port used for POP. Specify an integer between 1 and 65535.

Specify "110" under normal circumstances.

Account Name

Specify the account name used by the POP server. This can be a string of up to 256 characters long.

Password

Select the **Set new password** check-box and enter the new password in the field to set a new password or change the existing one.

This can be a string of up to 256 characters long.

Modify button

Once the changes have been entered, click the **Modify** button to enter the changes.

Note

To change items other than **Password**, cancel the **Set new password** check box. If the **Set new password** check box is selected, the password will have to be entered if other items are changed.

5.7 Data Migration

Archive rules are used to maintain the Events database and Archive DB.

Archive rules act as the data path between the Events database and Archive DB.

Rules are created by the administrator to delete obsolete data from the Events database or move it to the Archive DB.

A variety of rules can be set for migrating data. For example, important historical data can be migrated to the Archive DB, while obsolete data can be deleted.

The **Data Migration** workspace has two tabs.

- Archive Rules

- Create an Archive Rule

5.7.1 Archive Rules

A list of archive rules is shown in the **Archive Rules** tab, these rules are used to migrate data to the Archive DB.

Each rule name is shown with its **Execution Schedule**.

Create new rule names and schedules in the **Create an Archive Rule** tab. Refer to "Create an Archive Rule" for details.

To delete a rule, select its check-box and click the **Delete** button.

To delete all the rules, click the **Select All** button and then click the **Delete** button.

Click a check-box to deselect the associated rule. Click the **Clear All** button to clear all the check-boxes.

5.7.2 Create an Archive Rule

Click the **Create an Archive Rule** tab to create new archive rules.

Enter a new rule name in the **Migration Definition Name** field and set the following parameters.

Migration Definition Name

Enter a name for the rule.

Schedule Setting

Set a schedule for the execution of the data migration rules.

The default is to execute the rules at 00:00 on the first day of every month.

Migration Type

Select whether to migrate the data to the Archive DB or to delete from the Events database.

Migration Target

Select the event data to be migrated.

Select one of the following:

- Event Group

- Events

- Alerts

Range for leaving Events DB

Events within the period specified are excluded from migration and left on the Events database. The following units of time are available.

・Years

・Months

・Days

Migration of uncompleted process instance

These options are effective on work flow events to be deleted. Work flow events are made up of a chain of processes in progress ("start", "order", "approval", "dispatch", "end", for example).

Analytics Server will not delete the chain of events that has not yet finished. If this option is selected, however, Analytics Server will delete such events.

Add to List button

A variety of conditions can be set in the data migration rules.

Click the **Add to List** button to add the newly define condition to the bottom of the list.

List of conditions

A list of migration conditions associated with a data migration rule is shown. A variety of conditions can be set in each of the data migration rules. Details about the conditions are shown in the list.

To delete a condition from the list, click the **Delete** button.

Create button

Click the **Create** button to save the rule.

The new archive rule will now appear in the list in the **Archive Rules** tab. Refer to "Archive Rules" for details.

Chapter 6 Management Command Line User Interface

Some of the functionality of this software can also be achieved by running commands.

Some are offered as alternatives to using the Management Console, while others can only be achieved by using commands.

To use the commands, enter them in the interface provided by the operating system.

The results of the commands are either shown through commands or as messages on the screen of the terminal.

6.1 Management Commands

The following commands are available:

bpmstart

Starts the Analytics Server.

bpmstop

Stops the Analytics Server.

bpmstat

Displays the operating status of the Analytics Server.

bpmregisterwef

Re-registers event information that failed to be registered in the Events Database.

bpmescalateaction

Use to repeat Escalation when failures occur in the Event Database.

bpmupdatesensorconf

Displays and updates connections to the Analytics Server used by sensors.

Use to adjust the Analytics Server connection parameters (IP address, server name, and port number of the Web server, etc.), for example, if they were entered incorrectly when the sensors were installed.

6.2 CSV Output Command

This command outputs data (such as general events and statistics events in the Event Database) so it can be analyzed or used to link to other systems.

6.2.1 Output Types

The following output types are available:

- General event output

- Statistics event output

- Workflow event output

6.3 Using Management Commands

bpmstart

Description

Starts the Analytics Server.

Command name

bpmstart

Syntax

bpmstart -p AdminPassword

Option/parameter explanation

-p AdminPassword

Specify the password of the Analytics super user.

Example

The Analytics Server starts when the command is successful. The results of this command are displayed in the following format:

```
> bpmstart -p XXX
BADC0101: The Analytics Server has started.
```

This message is output to the standard output.

Return values

Normal: 0

Error: An integer other than 0 is returned.

bpmstop

Description

Stops the Analytics Server.

Command name

bpmstop

Syntax

bpmstop -p AdminPassword

Option/parameter explanation

-p AdminPassword

Specify the password of the Analytics super user.

Example

The Analytics Server stops when the command is successful. The results of this command are displayed in the following format:

```
> bpmstop -p XXX
BADC0103: The Analytics Server has been stopped.
```

This message is output to the standard error output.

Return values

Normal: 0

Error: An integer other than 0 is returned.

bpmstat

Description

Displays the operating status of the Analytics Server.

Command name

bpmstat

Syntax

bpmstat -p AdminPassword

Option/parameter explanation

-p AdminPassword

Specify the password of the Analytics super user.

Example

If the command is successful, the status of the Analytics Server will be output to the standard output using the following format:

```
> bpmstat -p XXX
Server ID              : Server Name        : Status
MON_0000000000    : BPM Analytics Server    : RUNNING
```

Server ID

The ID of the Analytics Server.

Server Name

The name of the Analytics Server.

Status

The status of the Analytics Server. The status can be one of the following:

RUNNING: The server is running.

STOPPED: The server is stopped.

UNKNOWN: The status of the server is unknown.

An error message is output to the standard error output when the command fails.

Return values

Normal: 0

Error: An integer other than 0 is returned.

bpmregisterwef

Description

Re-registers event information that failed to be registered in the Events Database.

Command name

bpmregisterwef

Syntax

bpmregisterwef -p AdminPassword -r ReceivedID[-q] [-y]

Option/parameter explanation

-p AdminPassword

Specify the password of the Analytics super user.

-r ReceivedID

Enter the ReceivedID of the file with the event data to be re-registered. To enter more than one ReceivedID, separate with a comma.

-q

Specify this option if message output is not required.

-y

Specify this option to accept all confirmation messages.

Example

If the command is successful, the execution format will be output to the standard output using the following format:

```
> bpmregisterwef -p XXX -r 9999999999999999AID_XXXXXXXXXX
The processing for re-registering event data has started.
The following reception ID will be re-registered. Is this OK?
[ y/n ][ Reception ID: 9999999999999999AID_XXXXXXXXXX ]
y
Reception ID | Status | Details
9999999999999999AID_XXXXXXXXXX | OK |
The processing for re-registering event information has completed.
>
```

Return values

Normal: 0

Error: An integer other than 0 is returned.

Note

The Analytics Server must be running when this command is executed.

Example re-registration of event data

Events that failed to register due to a lack of event data can be re-registered on the machine running the Analytics Server by executing this command.

An event data re-registration file, which consists of the event data that failed to register and the error that caused the failure, is output to the following folder:

```
<work folder>\event\eventcollection\errorWEF
```

The name of the file becomes the ReceivedID used in the command. Note that the ReceivedID does not include the extension (.xml).

The following describes the steps to re-register an event using the file output to this folder.

Refer to the output file and the following logs to find out what caused the error.
[ibpmm.war location of the Web application]\log\bpmeventcollectorerror.log

Edit the value of the event in a text editor according to the error details.
Refer to Adiministration Guide and the vendor manuals for information on how the value should be adjusted.
A parse error may occur while re-registering the event if information other than the value is adjusted. Re-edit the file based on the error details if this occurs.

Example file

```
<?xml version="1.0" encoding="UTF-8"?>
<Header>
<RegistrationInfo ReceivedId="1149072189187003AID_EN43RST301(*1)" AgentAppId="AID_EN43RST301"
TransactionType="WEF"/>
<ErrorInfo>
<ErrorData DataIndex="1"(*2)>
<ErrorDetail ErrorCode="BECS3018" ErrorMessage="BECS3018: An attribute value for the event is
illegal. [Attribute name:Turnover][ Attribute type:xs:integer ][  Attribute
value:StringValue_NG ]"/>(*3)</ErrorData>
</ErrorInfo>
</Header>
```

```
<Body>
<bpmm-s-fmt:BusinessEvents>
<bpmm-s-fmt:BusinessEvent>(*4)<bpmm-s-fmt:EventStatus BusinessName="Turnover information
collection" EventType="BUSINESS"/>
<bpmm-s-fmt:GeneralData Name=" Turnover event 01" ReferenceTime="2006-05-11T18:00:00.000+09:00">
<bpmm-s-fmt:Data Name="Region name(*5)" Type="xs:string" Value="Kanto(*6)"/>
<bpmm-s-fmt:Data Name="Turnover (*5)"Type="xs:integer" Value="StringValue_NG(*6)"/>
</bpmm-s-fmt:GeneralData>
</bpmm-s-fmt:BusinessEvent>(*7)<bpmm-s-fmt:BusinessEvent>(*4)
</bpmm-s-fmt:BusinessEvent>(*7)
</bpmm-s-fmt:BusinessEvents>
</Body>
```

*1: ReceivedId

*2: Location in the file of the event that caused the error
This is not output if the error concerns the entire file, for example a parse error.

*3: Error detail

*4: Start of the event

*5: Attribute name

*6: Attribute values

*7: End of the event

One event is encompassed in the information between *4 and *7.

Log output example:

```
2006/05/31 19:43:20,046+JST ERROR [Thread-31]
 BPM.EVENTREGISTERERROR - BECS6002: [ Reception ID:1149072189187003AID_EN43RST301(*1) ]
[Error index:1(*2) ][ Error code:BECS3018 ]
[Error message:BECS3018: An attribute value for the event is illegal. [Attribute name: Turnover]
[ Attribute type:xs:integer ][  Attribute value:StringValue_NG ](*3) ]

2006/05/31 19:55:40,203+JST ERROR [Thread-25]
 BPM.EVENTREGISTERERROR - BECS6001: [Reception ID:1149072189187003AID_EN43RST301(*1) ]
[Error code:BECS3012 ]
[Error message:BECS3012: An error occurred while the WEF was being analyzed. ( Details:cvc-
complex-type.4: Attribute 'Type' must appear on element 'bpmm-s-fmt:Data'. )(*3) ]
```

*1: ReceivedID of the file that contains the event where the error occurred.

*2: Location in the file of the event that caused the error

This is not output if the error concerns the entire file, for example a parse error.

*3: Error details

Execute the command.

Note

Registration of event data may fail when the command is used. Repeat the event re-registration procedure if this occurs. The actual behavior depends on the conditions that caused the error.

If an error occurs because the connection to the database or rule engine failed:

Re-registration is terminated at the point the error occurs.

If an error occurred due to a problem in the event that was adjusted:

The information in the file containing the re-registration information is overwritten with the new error information. The event where the error occurred and any other events contained in the same file will not be re-registered.

If more than one ReceivedID was specified, then only the file where the error occurred is affected. Re-registration continues for other events.

bpmescalateaction

Description

Repeats Escalation when environmental failures occur.

The command can do the following:

Show the status of Escalation when an alert occurs

Re-execute Escalation

Command name

bpmescalateaction

Syntax

bpmescalateaction { -s | -e } -i ActionID -p Password

Option/parameter explanation

-s

Status check.

The status of the specified ActionID is checked.

-e

Run Mode

Escalation of the specified ActionID is re-executed. If the status of the specified ActionID is "Successful" or "Running", then the command will end without repeating Escalation.

-i ActionID

Specify the ActionID. Get this ID from "???アクション実行結果???" in the alert view.

-p Password

Specify the password of the Analytics super user.

Example

The content that is displayed when this command is successful depends on which option was specified.

If the -s option is specified:

```
> bpmescalateaction -s -i 00000000000824000000000000615 -p bpm
(When the command terminates normally)
The status check for escalation execution has completed.
STATUS: Executing
 (When the command terminates abnormally)
The status check for escalation execution has failed.
[Detailed message]
```

If the -e option is specified:

```
> bpmescalateaction -e -i 00000000000824000000000000615 -p bpm

(When the command terminates normally)
Re-executing the escalation has completed.
STATUS: Successful

(When the command terminates abnormally)
Re-executing the escalation has failed.
[Detailed message]
```

Return values

Normal: 0

Error: An integer other than 0 is returned.

Message output

There is an error in the specified syntax.

There is an error in the password.

There is an error in the ActionID.

The status of the Escalation is either "Success" or "Running".
(Only if the -e option has been specified)

Re-execution failed.
(Only if the -e option has been specified)

Status check failed.
(Only if the -s option has been specified)

Other

bpmupdatesensorconf

Description

Displays and updates the connections to the Analytics Server used by sensors.

If information about the Analytics Server (such as the IP address, server name, or Web server port number) was specified incorrectly when the sensor was installed, then use this command to change the information.

Command name

bpmupdatesensorconf

Syntax

bpmupdatesensorconf { -d | -s ServerName }

Option/parameter explanation

-d

Displays the current Analytics Server connection.

-s ServerName

Updates the Analytics Server connection. For ServerName, specify the host name or IP address of the machine where the Analytics Server is running. If the Web server port number for the specified machine is anything other than "80", specify the port number after the host name/IP address, separated by a colon (":").

Example:

bpm.fujitsu.com:8080

Example

The content that is displayed when this command is successful depends on which option was specified.

If the -d option is specified:

```
> bpmupdatesensorconf -d
Connection destination monitoring server: bpm.fujitsu.com
>
```

If the -s option is specified:

```
> bpmupdatesensorconf -s bpm.fujitsu.com
Do you want to update the connection destination monitoring server?
To update the connection destination monitoring server, enter "y" or "yes".
```

```
The update processing has completed.
>
```

The message when the command is successful is output to the standard output (either an INFO or WARN message).

The message when the command fails is output to the standard error output (either an INFO or WARN message).

Return values

Normal: 0

Error: An integer other than 0

Message output

There is an error in the specified syntax.

Updating the repository client connection information file has failed.

CSV Output Command

Description

Outputs the event data specified by a search condition definition file to a CSV file.

Command name

bpmexport2csv

Syntax

bpmexport2csv -u AdminUserName -p AdminPassword -o outputFile -e searchConditionFile

Option/parameter explanation

-p AdminPassword

Specify the password of the Analytics super user.

-o outputFile

Specify the path of the CSV output file.

-e searchConditionFile

Specify the path to the search condition definition file.

Execution result

If the command is successful, data matching the search conditions is output to a CSV file.

If the command fails, an error message is output to the standard error output or a CSV file.

Return values

Normal 0

Error An integer other than 0 is returned.

Note

The Analytics Server must be running when this command is executed.

The attributes output are determined by the event definitions when the command is executed.

If attributes have not been defined in the database then the database may be empty.

Attributes that are not defined in the database are not output.

Search Condition Definition Files

Use the CSV output command to specify a search condition definition file to specify the range of events to be output, and to select the output format of the data.

Search condition definition files are text files with the following format:

Parameter name = Parameter value

Create search condition definition files with a text editor. Enter the required search and output parameters, with one parameter per line. The following table shows the parameters that can be specified in the search condition definition files.

Parameter name	Parameter value	Description	Required/Optional
targetDB	EventDB or ArchiveDB	Specifies the database to be searched. EventDB: Event Database ArchiveDB: Archive Database The default is "ArchiveDB".	Optional
businessName	Business process name	Specifies the name of the business process to be output.	Required
eventName	Event Name	Specifies the name of the event to be output.	Required
startTime and finishTime	Date and time	Specifies the period for which data is to be output. startTime: Start date and time. finishTime: End date and time. Specify dates and times using the following format: "YYYY-MM-DD HH24:MI:SS". To output all data: Do not specify either startTime or finishTime. To output all data after a certain time: Specify startTime only. To output all data before a certain time: Specify finishTime only.	Optional
dateFormat	1 or 2	Specifies the output format for date/time data. 1: Data is output using the "YYYY-MM-DD" format. 2: Data is output using the "YYYY-MM-DD [time]" format. The default is "2". The time in option 2 depends on the format selected in "timeFormat".	Optional
timeFormat	1, 2, or 3	Specifies the output format of the time for the time and date output. 1: Output format is "HH24:MI" 2: Output format is "HH24:MI:SS", which includes seconds. 3: Output format is "HH24:MI:SS.FF", which includes milliseconds. The default is "3".	Optional
labelConversion	on , off or both	Specify whether activate label substitution. on: Activate label substitution. off: Do not activate label substitution. both: Output both value before substituted and after.	Optional

Parameter name	Parameter value	Description	Required/Optional
		default: off If "both" is specified with no label substitution defined, only value before substitution will be displayed.	

Information

· ·

If the following parameters are specified in the search condition definition file, an additional file for linking to Process Discovery is output.

- BPMEInteg = true

· ·

CSV output format

Output rules:

Strings are enclosed in double quotes and separated by commas.

Data is separated into columns using commas (",") and separated into rows with new lines.

String data items are entirely enclosed in double quotes (").

If a data item includes a double quote ("), the entire data will be enclosed in double quotes and the double quote within the data will be doubled ("").

If a column entry is empty (NULL), there will be consecutive commas, with nothing output for the empty column entry.

Column headings are output in the first row and record data is output starting at the second row.

Output format for general events

Column heading	Data type	Description
BusinessName	String	The name of the business system.
EventName	String	The name of the business event.
OccurrenceTime	String	Date and time of the event The output format follows the format specified in the dateFormat parameter of the search condition definition file.
Attribute name	String	Attribute values The output format for date and time follows the formats specified in dateFormat and timeFormat in the search condition definition file.

Output format of statistics events

Column heading	Data type	Description
BusinessName	String	The name of the business system.
EventName	String	The name of the business event.
OccurrenceTime	String	Date and time of the event and the date and time when calculation started Specify the output format with the dateFormat parameter.
EndTime	String	Date and time when calculations ended. Specify the output format with the dateFormat parameter.
Attribute name	String	Attribute values.

Column heading	Data type	Description
		Specify the output format of the date and time with the dateFormat and timeFormat parameters.

Output format of Workflow events

Activities of completed process are output in columns.

(System activities and transitions are not included)

Column heading	Data type	Description
TopParentProcessInstanceID	String	Identifier of the top parent process instance. If a parent process instance does not exist, the identifier of this process instance itself is output.
ParentProcessInstanceID	String	Identifier of the parent process instance. If a parent process instance does not exist, the identifier of this process instance itself is output.
ParentActivityID	String	Identifier of the parent activity. If a parent activity does not exist, the identifier of this activity itself is output.
ParentActivityInstanceID	String	Identifier of the parent activity instance. If a parent activity instance does not exist, the identifier of this activity instance itself is output.
ProcessInstanceID	String	Identifier of the process instance.
ActivityID	String	Identifier of the activity instance.
ActivityName	String	Activity Name.
ActivityInstanceID	String	Identifier of the activity instance.
StartEID	String	Start event identifier.
StartEOT	String	Start date and time of the activity event. The output format follows the format specified in the dateFormat parameter of the of the search condition definition file.
EndEID	String	End event identifier.
EndEOT	String	End date and time of the activity event. The output format follows the format specified in the dateFormat parameter of the of the search condition definition file.
ActivityInstanceNamePath	String	The path string that leads from the parent activity to this activity.
LowEndActivity	String	Flag that indicates whether this is the lowest activity. 0: Not lowest 1: Lowest
Assignee	String	Name of a person to whom a task is assigned in this activity.
AlertFlag	String	Flag that indicates whether an alert occurred in this activity. 0: No alert

Column heading	Data type	Description
		1: Alert
ProcessInstanceName	String	Process instance name.
TenantName	String	Tenant name.
Attribute name	String	Attribute values.