

Working with the Business Process Dashboards

Version 9.6

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This document applies to IBO Version 9.6 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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About this Guide

This guide is an introduction to Software AG business process dashboards. It contains information to help business analysts who want to use these dashboards to monitor their business environments and react to conditions that are detected. It also contains configuration information for setting up the business process dashboards.

Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
Narrowfont	Identifies storage locations for services on webMethods Integration Server, using the convention <i>folder.subfolder:service</i> .
UPPERCASE	Identifies keyboard keys. Keys you must press simultaneously are joined with a plus sign (+).
<i>Italic</i>	Identifies variables for which you must supply values specific to your own situation or environment. Identifies new terms the first time they occur in the text.
Monospace font	Identifies text you must type or messages displayed by the system.
{ }	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols.
	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the symbol.
[]	Indicates one or more options. Type only the information inside the square brackets. Do not type the [] symbols.
...	Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis (...).

Documentation Installation

You can download the product documentation using the Software AG Installer. The documentation is downloaded to a central directory named `_documentation` in the main installation directory (SoftwareAG by default).

Online Information

You can find additional information about Software AG products at the locations listed below.

If you want to...	Go to...
Access the latest version of product documentation.	Software AG Documentation website http://documentation.softwareag.com
Find information about product releases and tools that you can use to resolve problems. See the Knowledge Center to:	Empower Product Support website https://empower.softwareag.com
<ul style="list-style-type: none">■ Read technical articles and papers.■ Download fixes and service packs (9.0 SP1 and earlier).■ Learn about critical alerts. See the Products area to:	
<ul style="list-style-type: none">■ Download products.■ Download certified samples.■ Get information about product availability.■ Access older versions of product documentation.■ Submit feature/enhancement requests.	

If you want to...	Go to...
<ul style="list-style-type: none">■ Access additional articles, demos, and tutorials.■ Obtain technical information, useful resources, and online discussion forums, moderated by Software AG professionals, to help you do more with Software AG technology.■ Use the online discussion forums to exchange best practices and chat with other experts.■ Expand your knowledge about product documentation, code samples, articles, online seminars, and tutorials.■ Link to external websites that discuss open standards and many web technology topics.■ See how other customers are streamlining their operations with technology from Software AG.	<p>Software AG Developer Community for webMethods</p> <p>http://communities.softwareag.com/</p>

1 Getting Started with the Business Process dashboards

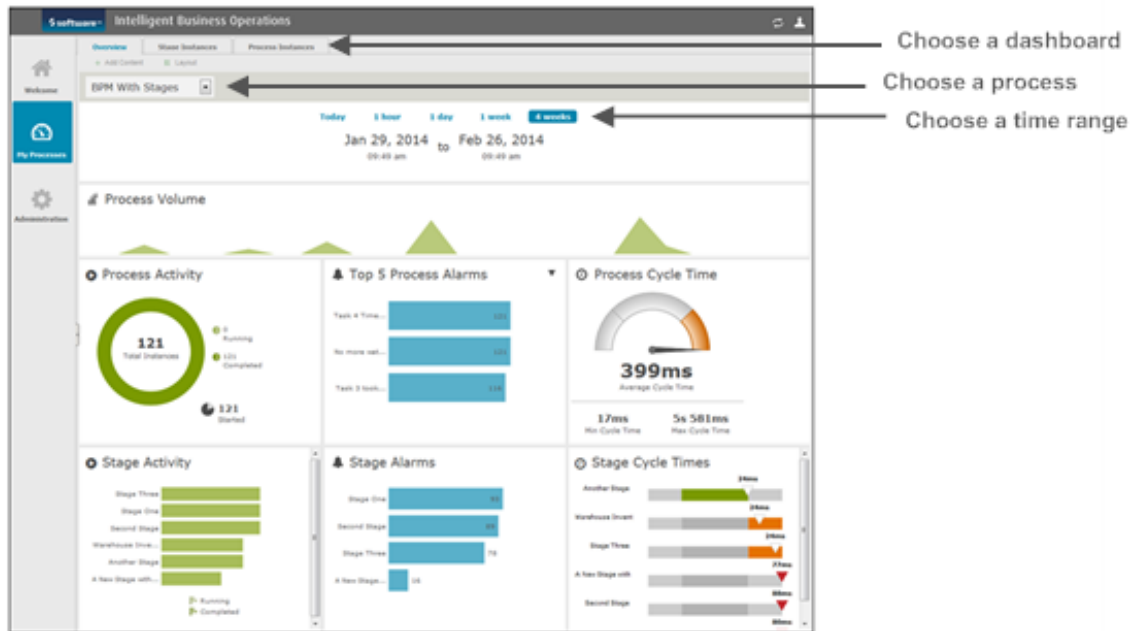
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The Business Process dashboards

The Business Process dashboards display summary metrics, instance detail, and other performance information about business processes that are under analysis by Optimize. These dashboards are rendered by an application that runs on the Presto Server, and you must have licensed copy of Presto installed to use them.

The list of available dashboards is as follows.

- **Process Overview Dashboard:** This dashboard provides high-level information about a selected process including intrinsic metrics, historical views, and normality comparisons across a specified time range. This dashboard helps users to quickly identify potential issues, obtain information about alarms and stage activity, and use email actions to share findings with others.
- **Stage Instances Dashboard:** This dashboard shows stage activity and performance for a process across a specified time range. The top of the page shows metrics about each stage, including information about activity, cycle time, and alarms. Selecting one or more table rows reveals information about individual stage instances and enables users to send email notifications for individual stage instances.
- **Process Instances Dashboard:** This dashboard shows process activity and performance across a specified time range. A chart at the top of the page displays historical information about process volume activity and cycle time performance. A table at the bottom of the page shows individual process instances and enables users to send email notification for individual process instances.



Before you begin

To use the Business Process dashboards, make sure that:

- Presto is installed and running.
- The Business Process dashboards application has been deployed to Presto as described in [“Post-installation configuration steps for the Business Process dashboards” on page 26](#) (The deploy process must be performed by a Presto administrator.)
- You have a user account on Presto.
- Optimize for Process is installed and configured appropriately.

Displaying the dashboards

Use the following procedure to display the Business Process dashboards.

To display the dashboards

- 1 In your browser, point to the following URL:

`http://host:port/ibo`

<i>host</i>	The name or IP address of the machine on which Presto is running.
<i>port</i>	The port where Presto Server is listening for HTTP requests. The default port is 8080.

Example

`http://MyPrestoServer:8080/ibo`

- 2 Enter your Presto user ID and password if prompted to do so.
- 3 When the user interface opens, click the **My Processes** icon.
- 4 From the tabs at the top of the page, select the dashboard you want to view.

Dashboard	Description
Overview	Displays performance metrics for a selected process for a specified time range. For more information about this dashboard, see “Understanding the Overview dashboard” on page 16 .
Stage Instances	Displays details about the stage instances that were active during a selected time range. For more information about this dashboard, see “Understanding the Stage Instances dashboard” on page 21 .

Dashboard	Description
Process Instances	Displays details about the processes instances that were active during a selected time range. For more information about this dashboard, see “Understanding the Process Instances dashboard” on page 22.

- 5 From the drop-down box, select the process you want to examine.

Note: The drop-down list displays processes that are “enabled for analysis” in Optimize. If a process is not enabled for analysis, it will not appear in the list.

- 6 From the choices listed above the dashboard, select the time range you want to examine.

Interval	Displays data...
Today	From 12:00 AM to the current time
1 hour	From the last hour
1 day	From the last 24 hours
1 week	From the last week
4 weeks	From the last four weeks

Note: The caption beneath the time-range options displays the exact start and end time of the time range you have selected.

General behavior of the dashboards

The following are general behaviors of the dashboards:

- Dashboards usually display additional details about a graphic element through the use of tool tips. For example, you can display the actual measurement for a given data point in a line graph by hovering over the point with your cursor.
- For space considerations, a dashboard might truncate the labels or names in a graph. To see the full label, hover over it with your cursor.
- The times and dates shown in a dashboard are expressed in the timezone of the machine where your browser is running.
- Some panels include a button or icon that enables you to email information from the dashboard to other interested parties. When you use this feature, the “From” field is filled automatically based on the email address associated with your Presto user account.

- When a dashboard reports an “average” value for a measurement, the value represents the *arithmetic mean*.

2 Understanding the Dashboards

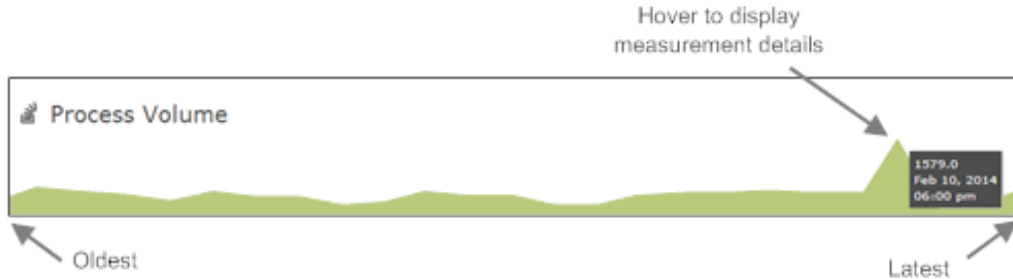
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Understanding the Overview dashboard

The Overview dashboard displays performance metrics for the selected process.

Process Volume

The Process Volume panel plots the number of process instances that completed during the selected time range.



When viewing with this panel, be aware that:

- The graph plots measurements from left (the first measurement in the selected time range) to right (the most recent measurement) for the selected time range.
- A measurement represents the number of process instances that *completed* during a given interval within the time range.
- The length of an interval varies as follows according to the selected time range.

Selected range	Length of each interval
Today	One minute (if range is less than 12 hours) One hour (if range is greater than 12 hours)
1 hour	One minute
1 day	One hour
1 week	Four hours
4 weeks	One day

- You can display the time and exact measurement for a given data point by hovering over the point with your cursor.
- The time displayed for a data point represents the end of the interval. For example, if you are viewing the graph for a 1 day time range (which reports measurements at hourly intervals), the data point at 2:00 represents the measurement for the interval 1:00:00:001 to 2:00:00:000 (inclusive).

Process Activity

The Process Activity panel reports the following metrics for the selected process:

This measurement..	Represents..
Running instances	The number of instances still in progress at the end of the time range.
Completed instances	The number of instances that finished processing (successfully or not) during the time range.
Total instances	The total number of instances that were active during the time range. (This value represents the sum of <i>Running Instances</i> and <i>Completed Instances</i> .)
Started instances	The number of new instances of this process that began during the time range.

Top Five Alarms

The Top Five Alarms panel displays the five *error types* that occurred most frequently during the selected time range. An error type represents a system-defined or user-defined condition that Optimize tracks. When the condition occurs (i.e., when the condition is “true”), Optimize reports it.

Typically an error type represents a problem or an error condition you want to know about. However, error types can report positive events too. For more information about defining error types, see the “Configuring Business Processes” chapter in *Administering webMethods Optimize*.

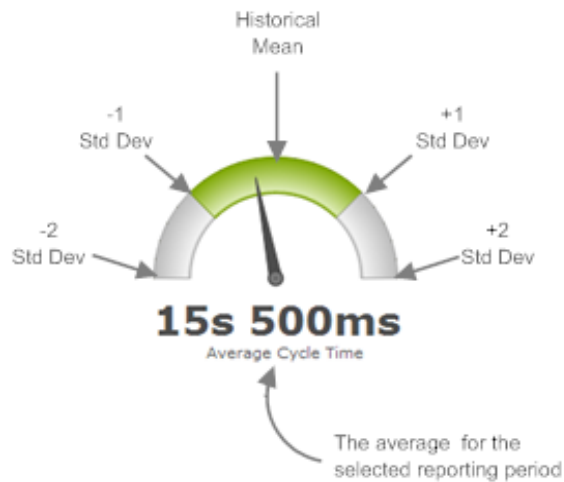
This panel includes the email action, which enables you to send the alarm information to other interested parties. To use this action, click the drop-down icon ▼, select **Forward as Email**, and complete the email form.

Note: The panel will display fewer than five error types if fewer than five types of error conditions occurred during the selected time range.

Process Cycle Time

The Process Cycle Time panel displays the average cycle time for the selected time range relative to the normal cycle time for this process. This panel also reports the minimum and maximum cycle times for the time range.

Note: *Cycle time* refers to the total time required for a process to run from beginning to end, including the time spent waiting to be processed and the process execution time.



When viewing with this panel, be aware that:

- The gauge represents the normal cycle-time distribution for the process. The midpoint on the gauge represents the historical mean. The marks on either side of the midpoint represent one standard deviation from the historical mean. The ends of the gauge are two standard deviations from the historical mean. (You can hover over the gauge to display the exact values.)
- The needle position represents the average cycle time for the process instances that completed during the selected time range.

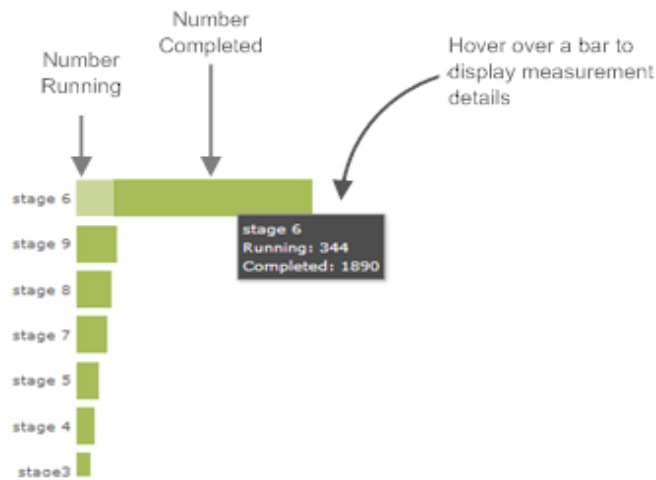
Note: Process instances in the canceled or suspended state do not contribute to the cycle-time measurement. If a suspended process resumes and completes successfully, it will contribute to the cycle time less the time spent suspended.

- If the average cycle time is in the normal range (that is, within one standard deviation of the historical mean for this process), the center segment of the gauge displays in green. If the average cycle time moves beyond the normal range, the segment beneath the needle turns orange.
- When the needle moves to the very end of the gauge, it indicates that the average cycle time is at or beyond two standard deviations from normal.
- The gauge does not become fully functional until Optimize has collected enough performance data to produce valid baseline statistics for the process. Until then, the gauge is gray, the needle remains in the center position, and the “normal” statistics are absent from the tool tip that displays when you hover over the gauge.

Stage Activity

The Stage Activity panel lists the *stages* associated with the process and, for each stage, reports the number of running instances and the number or completed instances.

Note: A *stage* is a sequence of process steps that you want to monitor as a unit. You identify stages when you define your process model. For additional information about defining stages in a process, see the section on working with stages in *webMethods BPM Process Development Help*.



This count...	Represents...
Running	The number of stage instances that were still in progress at the end of the time range.
Completed	The number of stage instances that finished processing (successfully or not) during the time range.

Note: This count will include any stage instances that Optimize marked as complete because the parent process completed before the stage instance did. This can happen, for example, when the parent process takes a path that does not include the end of the stage.

When viewing this panel, be aware that:

- You can hover over a bar in the graph to display the exact number of running and completed instances for the stage.
- You can use the buttons at the bottom of the graph to hide or show the segments in the bar graph.

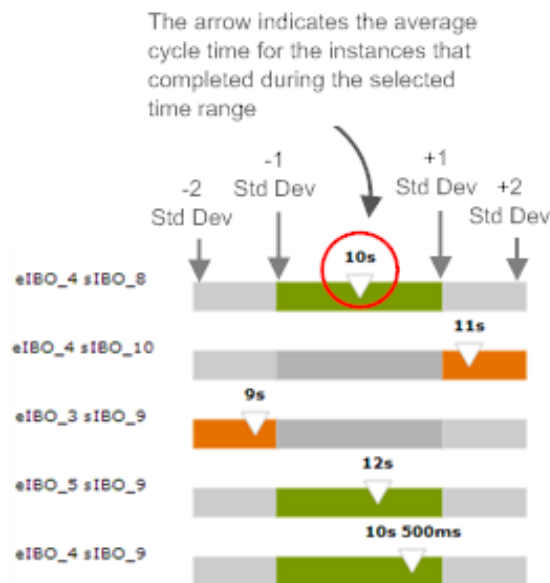
Stage Alarms

The Stage Alarms panel reports the number of *breaches* that occurred during the selected time range by stage.

Note: A breach represents a violation of a condition that is specified for the stage. For example, a condition might specify that a given stage is expected to run in less than 5 minutes. If the stage takes longer than specified, the stage is breached. For more information about specifying the conditions for a stage, see *webMethods BPM Process Development Help*.

Stage Cycle Times

The Stage Cycle Times panel shows the average cycle time for each stage during the selected time range relative to the normal cycle time for the stage.



Note: Cycle time refers to the time from the beginning of a stage instance to the end of the instance.

When viewing this panel, be aware that:

- The bar represents the normal cycle-time distribution for the stage. The midpoint on the bar represents the historical mean for the stage. The marks on either side of the midpoint represent one standard deviation from the historical mean. The ends of the bar are two standard deviations from the historical mean. (You can hover over the arrow to display the exact values for these statistics.)
- The arrow position represents the average cycle time for the stage instances that completed during the selected time range.

Note: Stage instances that have been marked complete because their parent process ended prior to the completion of the stage do not contribute to the cycle-time measurement.

- The position of the arrow and the color of the bar indicate whether the average cycle time for the selected time range is within the normal range.



The bar is green when the average cycle time is within one standard deviation of the historical mean.



The bar turns orange when the average cycle time is beyond one standard deviation from the historical mean.



The arrow turns red when the average cycle time is beyond two standard deviations from the historical mean.

- A graph for a given stage does not become fully functional until Optimize has collected enough performance data to produce valid baseline statistics for that stage. Until then, the graph is gray, the arrow remains in the center position of the bar, and the “normal” statistics are absent from the tooltip that displays when you hover over the arrow.

Understanding the Stage Instances dashboard

The Stage Instances dashboard displays detailed information about stage instances that were active during the selected time range.

Stages

The Stages table displays the stages associated with the selected process and reports summary statistics for each.


This column...	Reports...
Stage	The name of the stage.
Started	The number of instances that began during the time range.
Running	The number of instances that were still in progress at the end of the time range.
Completed	The number of instances that completed (successfully or not) during the time range.
Alarms	The number of instances that breached a condition of the stage.
Cycle Time	The average cycle time for instances that completed during the time range.
Details	Metadata about the stage.

Stages Instances



The Stage Instances table displays detailed information about the stage instances that were active during the selected time range.

To display data in this table, select one or more stages in the Stages table.

Note: The table can display details for up to 2000 instances. If your selection produces more than 2000 results, try reducing the number of selected stages in the Stages table or adjusting the time range.

Column	Description
SID	The stage instance ID.
Start date and time	Time when the instance began.
End date and time	Time when the instance ended.
PID	The ID of the process instance to which this stage instance belongs.
Cycle Time	The duration of the instance (for completed instances only).
Actions	<p>Actions you can take for this instance.</p> <ul style="list-style-type: none"> Click the email icon  and complete the provided email form to send details about the stage instance to other interested parties.

The controls below the table enable you to search the table and change the column display.

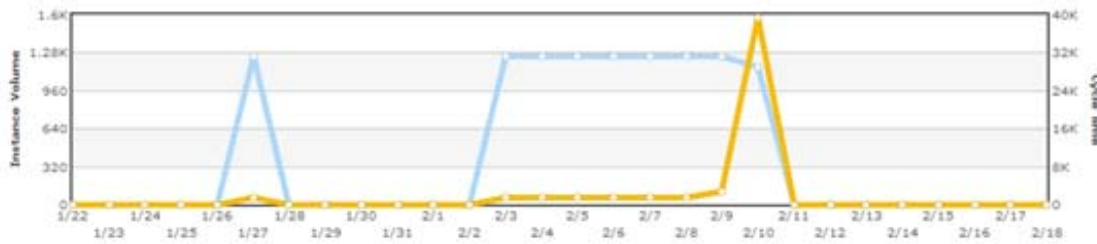
Select...	To...
	Search for instances in the results table that match criteria you specify.
	Select the columns you want to display in the table.

Understanding the Process Instances dashboard

The Process Instances dashboard displays detailed information about the instances of the process that were active during the selected time range.

Process Volume and Cycle Time

The graph in this panel plots process volume and average cycle time for the selected time range.



When viewing this panel, be aware that:

- Each point in the **Instance Volume** series reports the number of process instances that *completed* during the given interval.
- Each point in the **Cycle Time** series reports the average cycle time for the given interval.
- You can toggle the graphs on and off individually by clicking the series name in the legend.
- You can display the time and exact measurement for a given data point by hovering over the point with your cursor.
- The time displayed for a data point represents the end of the interval. For example, if you are viewing the graph for a 1 day time range (which reports measurements at hourly intervals), the data point at 2:00 represents the measurement for the interval 1:00:00:001 to 2:00:00:000 (inclusive).

Process Instances


The **Process Instances** table displays detailed information about instances that were active during the selected time range.

You can use the filtering options above the table to choose the set of process instances you want to view.



Select...	To display...
All	All instances in the time range (in any state).
Started	All instances that began during the time range.
Running	All instances that were still in progress at the end of the time range.
Completed	All instances that ended (successfully or not) during the time range.

Note: The table can display details for up to 2000 process instances. If your selection produces more than 2000 results, try filtering the instances using the buttons above the table or adjusting the time range.

Column	Description
Instance ID	The process instance ID.

Column	Description
Ver.	The deployment version of the model that defines this process.
Start date and time	Time when the instance began.
Last Updated	Time of the last process-control event for the instance (for example, step start, step end, stage start, stage end).
State	The state of the instance at the end of the time range. This column displays: <ul style="list-style-type: none"> ■ Running if the instance was in progress at the end of the time range. ■ Completed if the instance ended (successfully or not) during time range.
Cycle Time	The duration of the instance (shown for completed instances only).
Actions	Actions you can take for this instance. <ul style="list-style-type: none"> ■ Click the email icon  and complete the provided email form to send details about the stage instance to other interested parties.

The controls below the table enable you to search the table and change the column display.

Select...	To...
	Search for instances in the result table that match criteria you specify.
	Select the columns you want to display in the table.

3 Configuring the Business Process dashboards

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Post-installation configuration steps for the Business Process dashboards

The Business Process dashboards are installed with Presto. However, to make the dashboards operational, an administrator must deploy them as described in [“Deploying the Business Process dashboards” on page 26](#).

Deploying the Business Process dashboards

Use the following procedure to deploy the Business Process dashboards that are installed with Presto.

To perform this procedure:

- The Apache Ant build utility must be installed on the machine where Presto is installed. If you do not already have a copy of Apache Ant on this machine, install it using the procedure in [“Installing Apache Ant” on page 30](#).
- Presto must be running.
- You must have a Presto user account that belongs to the Presto_Administrator group.
- You must know the host name and port number for the Optimize Analytic Engine’s web services.
- You must know the authentication credentials (user ID and password) that the dashboards will use to connect to the web services on the Optimize Analytic Engine. For more information about the authentication credentials used by the dashboards, see [“Specifying authentication credentials for the Business Process dashboards” on page 28](#).

To deploy the Business Process dashboards

- 1 On the machine where Presto is installed, locate the following file and make a copy of it:

```
SAGInstallDirectory\Presto\ibo-dashboards\build.properties-template
```

- 2 Rename your copy of the file to:

```
build.properties
```

- 3 Place your file in the *SAGInstallDirectory*\Presto\ibo-dashboards directory if it is not already there.

- 4 Using a text editor, open the `build.properties` file and specify the following properties:

For this property...	Specify...
<code>presto.username</code>	Your user ID (or other valid administrative ID). The ID you specify must belong to the <code>Presto_Administrator</code> group.
<code>presto.password</code>	The password associated with the user ID specified in <code>presto.username</code> .
<code>presto.hostname</code>	The host name or IP address and port number for Presto. Example <code>presto.hostname=localhost:8080</code>
<code>presto.install.dir</code>	The path to the Software AG installation directory. Note: If Presto is running on Windows, use double backslashes in the path name as shown in the example below. Example <code>presto.install.dir=C:\\SoftwareAG</code>
<code>optimize.server</code>	The URL for the Optimize Analytic Engine web services. Example <code>optimize.server=http://myOptimizeServer:12503</code>
<code>optimize.user</code>	The user ID that the dashboards will use to connect to the Optimize Analytic Engine.
<code>optimize.password</code>	The password associated with the user ID specified in <code>optimize.user</code> .

- 5 Save your changes and close the `build.properties` file.

- 6 From the command line, do the following:

- a Navigate to the following directory:
`SAGInstallDirectory\Presto\ibo-dashboards`

- b Execute the following command:

```
ant
```

This command will deploy and configure the artifacts associated with the dashboards. The process will take a few minutes to complete.

Note: If you need to change the server, user, or password settings after you import the dashboards, you can do so using the procedure in [“Changing configuration settings for the Business Process dashboards”](#) on page 28.

Specifying authentication credentials for the Business Process dashboards

The Business Process dashboards obtain data from web services running on the Optimize Analytic Engine. To access these services, the dashboards must submit a set of authentication credentials (user ID and password) that correspond to a valid user entry in the access control list (ACL) on the Analytic Engine.

When you deploy the dashboards to Presto, you have to specify the user ID and password the dashboards will use to connect to the Analytic Engine. If you do not know the credentials to use, ask the administrator of the Optimize Analytic Engine. If you are the administrator of the Analytic Engine, refer to *“Changing the Optimize Authentication Credentials”* in the *Administering webMethods Optimize* guide for information about defining user credentials in the Analytic Engine ACL.

Changing configuration settings for the Business Process dashboards

If, after deploying the Business Process dashboards, you need to change the URL for the Optimize Analytic Engine or the authentication credentials that the dashboards use to connect to the Analytic Engine, you can do so by editing the following Presto global attributes in the Presto Admin Console.

- `optimize-server`
- `optimize-user`
- `optimize-password`

For information about setting global attributes in Presto, see *“Managing Presto Global Attributes”* in the Presto product documentation.

A Installation Instructions for Apache Ant

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Installing Apache Ant

Use the following procedure to install Apache Ant if it is not already installed on the machine where Presto is installed.

Note: The following is an abbreviated set of installation instructions that is sufficient to run the build process that imports the Business Process dashboards. If you want to use Ant for other purposes, you should perform all of the installation and configuration steps described in the Ant user documentation.

Note: The following instructions were written for Ant version 1.9.3. If you are installing a later version, refer to the Apache web site for installation instructions.

To install Apache Ant

- 1 Download Apache Ant from <http://ant.apache.org/> and uncompress the downloaded file.
- 2 Add the *AntHome/bin* directory to your path.

Example

```
set PATH=%PATH%;C:\apache-ant-1.9.3\bin
```