
Integrate Business Process Insight Data Into Business Availability Center

This chapter describes how to integrate Business Process Insight (BPI) data into Business Availability Center.

This chapter describes:	On page:
Concepts	
Business Process Insight Overview	2
KPIs and Rules	3
Data Sample for Business Process Insight (BPI)	4
Tasks	
View Business Process Insight Data in Business Availability Center	5
Access the Business Process Insight Application from Business Availability Center	13
Upgrade From Version 6.x to Version 6.8	13

Business Process Insight Overview

Business Process Insight provides:

- ▶ Simple definition of health and performance metrics along with associated thresholds, allowing you to automatically track and escalate against business process level objectives
- ▶ Simplified graphical modeling of only the key milestones in a business process, therefore reducing implementation time and complexity
- ▶ Automatic representation of business process health and performance information in a graphical web-based console for use by IT or business users, delivering complete visibility into what is going on in your processes
- ▶ Powerful business impact information to indicate when and to what extent, a problem with the computing infrastructure or applications has affected the health of a business process
- ▶ Ability to interoperate with OpenView Internet Services, HP Operations Manager, Service Navigator component, HP Operations Manager for Windows, HP Service Desk, or any third party source to obtain information about infrastructure or application problems.

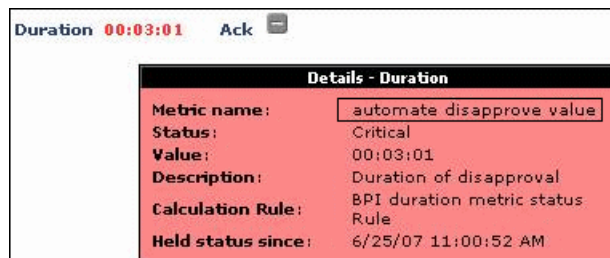
KPIs and Rules

KPIs and rules are used to display the statuses.

KPIs

The following KPIs are attached to the BPI Monitor CI and propagated to the BPI Business Process CI.

- **Backlog.** Displays the backlog information of the Business Process from the HP Business Process Insight application. For example, how many flights took place in the last hour.
- **Duration.** Displays the duration metrics of the BPI monitor (hh:mm:ss at the level of the BPI Monitor CI or status at the level of the Business Process CI) from the HP Business Process Insight application. A tooltip indicates which metric is involved.



- **Throughput.** Displays the number of calls to the item per minute.

Rules

The **BPI Metric Status** rule populates the Backlog, and Throughput KPIs for the BPI Business Process CIs.

The rule parameter is: **No data timeout** which represents the timeout period for a KPI. Defines the number of seconds from the time the last sample was received for the KPI, until the KPI is timed out - at which point the KPI changes to decay status (gray). The default value for this property should be changed with caution. Note that a different default value may actually be used for Business Process Monitor transaction CIs.

Data Sample for Business Process Insight (BPI)

The BPI sample (bpi_t) contains data from the Business Process Insight application.

Field	Display Name	Data Type	Units	Description
bac_kpi_type	BAC KPI ID for reporting data	INT		The ID of the Business Availability Center KPI, as displayed in the Repositories page (Admin > Dashboard > Repositories > KPIs).
customer_name	Customer Name	STRING		Customer name to which the sample belongs (for HP Managed Software Solutions, otherwise Default client).
metric_id	BPI Metric ID	STRING		The ID of the Business Process Insight Metric.
sampletype		STRING		The name of the sample
status	BPI Calculated Status for BAC Dashboard	INT		The Business Process Insight calculated status displayed in Business Availability Center Dashboard.
time_stamp		DOUBLE	seconds since Jan 1 1970	Time stamp in seconds since Jan 1 1970 (this sample has aggregated values of 5 minutes)
TUID		STRING		Internal ID
unit_desc	Unit description of value field	STRING		The units of the value field.
value	Calculated value	DOUBLE		The calculated value of the bac_kpi_type field. It can corresponds to the Backlog, Throughput, or Duration KPIs.

View Business Process Insight Data in Business Availability Center

Business Process Insight data can be displayed in Business Availability Center. The hierarchy of the Business Process flow and its steps is imported into Business Availability Center using an XML File source adapter. Real-time data (samples) is sent to Business Availability Center using the WDE (Web Data Entry) mechanism which receives data from Business Process Insight for processing before it enters the data loader. Data about each BPI Monitor CI and its KPIs is sent to Business Availability Center every two minutes (this period can be altered in Business Process Insight).

This task includes the following steps:

- “Pre-requisite Steps” on page 5
- “Modify the Infrastructure Settings to Provide Connection Information to the Business Process Insight Machine” on page 6
- “Set Up the BPI_entities.xml Source Adapter” on page 6
- “Create a New XML File Source Adapter” on page 7
- “View Business Process Insight Data in the Business Process View and Enrich the View” on page 11

Pre-requisite Steps

Consult Business Process Insight documentation for the steps to be performed on the Business Process Insight server before the integration with Business Availability Center can take place.

Modify the Infrastructure Settings to Provide Connection Information to the Business Process Insight Machine

To provide connection information to the Business Process Insight machine, select **Admin > Platform > Setup and Maintenance > Infrastructure Settings**, choose **Applications**, select **Dashboard Application**, and in the Dashboard Application - Business Process Insight Integration table, locate the following settings:

- ▶ **Business Process Insight Host.** Enter the Business Process Insight host name or IP address.
- ▶ **Business Process Insight Port.** Enter the Business Process Insight HTTP port number (named **Servlet Engine HTTP** as a parameter within Business Process Insight).

Set Up the BPI_entities.xml Source Adapter

The steps to follow to work with the BPI_entities.xml source adapter are:

- ▶ In the Business Process Insight application, export the XML entities file to Business Availability Center, and save it as **BPI_entities.xml** in the following location:
<Business Availability Center processing server root directory>\BPI\

Note: This is the path you enter in the **Path** box in the adapter definition.

The XML entities file contains all the Business Process Insight entities needed for the integration. The following XML entities files are available:

- ▶ An XML entities file that includes all flows/business processes. This file enables you to represent the complete set of Business Process Insight flows/business processes in Business Availability Center.
- ▶ An XML entities file that includes a single flow/business process. The single flow/business process XML file enables you to represent a sub-set of Business Process Insight flows/business-processes in Business Availability Center.

If you want to import two flows, then you can either create two XML entities files (one per each flow) or you can import and edit the XML entities file that includes all flows (recommended).

For details about the XML entities file, see Business Process Insight documentation.

- ▶ Create a new XML File source adapter called BPI adapter. For details, see “Create a New XML File Source Adapter” on page 7.

The XML File source adapter template file is also generated by Business Process Insight at the same time as the XML entities files.

Create a New XML File Source Adapter

To create a new XML File source adapter called BPI adapter, select **Admin > Universal CMDB > Source Manager**, and click the **New Source** button to open the New Source dialog box. In the **Type** list, select XML File. In the **Name** box, enter BPI Source Adapter. In the **Path** box enter the path to the BPI_entities.xml file as described in “Set Up the BPI_entities.xml Source Adapter” on page 6. Click **Edit Template**. The dialog box expands to display the adapter template in the **Template** box.

Note: In the **Template** box, use the dialog box scrollbar and the **Template** box scrollbar to display the areas of the template you want to modify. You can also highlight the text, copy it to a text editor, make the appropriate changes and copy the text back into the **Template** box.

Replace the text in the **Template** box with the template provided below.

Integrate Business Process Insight Data Into Business Availability Center

```
<?xml version="1.0" encoding="UTF-8"?>
<autoMappingEntities bac-version="BAC 7.0">
  <entity id="business_process">
    <basicEntity>Mercury:bpi_business_process</basicEntity>
    <contextmenu>BPIMenu</contextmenu>
    <dimensions>
      <dimension>
        <id>400</id>
        <logics>
          <logic>
            <id>1</id>
          </logic>
        </logics>
        <removeDimensionIfObsolete>true</removeDimensionIfObsolete>
        <dnodeAwareDimension>false</dnodeAwareDimension>
      </dimension>
      <dimension>
        <id>600</id>
        <logics>
          <logic>
            <id>1</id>
          </logic>
        </logics>
        <removeDimensionIfObsolete>true</removeDimensionIfObsolete>
        <dnodeAwareDimension>false</dnodeAwareDimension>
      </dimension>
      <dimension>
        <id>601</id>
        <logics>
          <logic>
            <id>1</id>
          </logic>
        </logics>
        <removeDimensionIfObsolete>true</removeDimensionIfObsolete>
        <dnodeAwareDimension>false</dnodeAwareDimension>
      </dimension>
      <dimension>
        <id>602</id>
        <logics>
          <logic>
            <id>1</id>
          </logic>
        </logics>
      </dimension>
    </dimensions>
  </entity>
</autoMappingEntities>
```



```

        <removeDimensionIfObsolete>true</removeDimensionIfObsolete>
        <dnnodeAwareDimension>false</dnnodeAwareDimension>
    </dimension>
</dimensions>
</entity>
<entity id="bpi_monitor">
    <basicEntity>Mercury:bpi_monitor</basicEntity>
    <contextmenu>BPIMenu</contextmenu>
    <dimensions>
        <dimension>
            <id>400</id>
            <logics>
                <logic>
                    <id>600</id>
                </logic>
            </logics>
            <selectors type="AND">
                <selector dataType="String" key="sampleType" operator="EQ" readOnly="true" reference="false"
                    referencedProperty="sampleType" value="bpi_t"/>
                <selector dataType="String" key="metric_id" operator="EQ" readOnly="false" reference="true"
                    referencedProperty="metric_id"/>
                <selector dataType="Integer" key="bac_kpi_type" operator="EQ" readOnly="false"
                    reference="false" referencedProperty="bac_kpi_type" value="400"/>
            </selectors>
            <removeDimensionIfObsolete>true</removeDimensionIfObsolete>
            <dnnodeAwareDimension>false</dnnodeAwareDimension>
        </dimension>
        <dimension>
            <id>600</id>
            <logics>
                <logic>
                    <id>600</id>
                </logic>
            </logics>
            <selectors type="AND">
                <selector dataType="String" key="sampleType" operator="EQ" readOnly="true" reference="false"
                    referencedProperty="sampleType" value="bpi_t"/>
                <selector dataType="String" key="metric_id" operator="EQ" readOnly="false" reference="true"
                    referencedProperty="metric_id"/>
                <selector dataType="Integer" key="bac_kpi_type" operator="EQ" readOnly="false"
                    reference="false" referencedProperty="bac_kpi_type" value="600"/>
            </selectors>
            <removeDimensionIfObsolete>true</removeDimensionIfObsolete>
            <dnnodeAwareDimension>false</dnnodeAwareDimension>
        </dimension>
    </dimensions>
</entity>

```

```

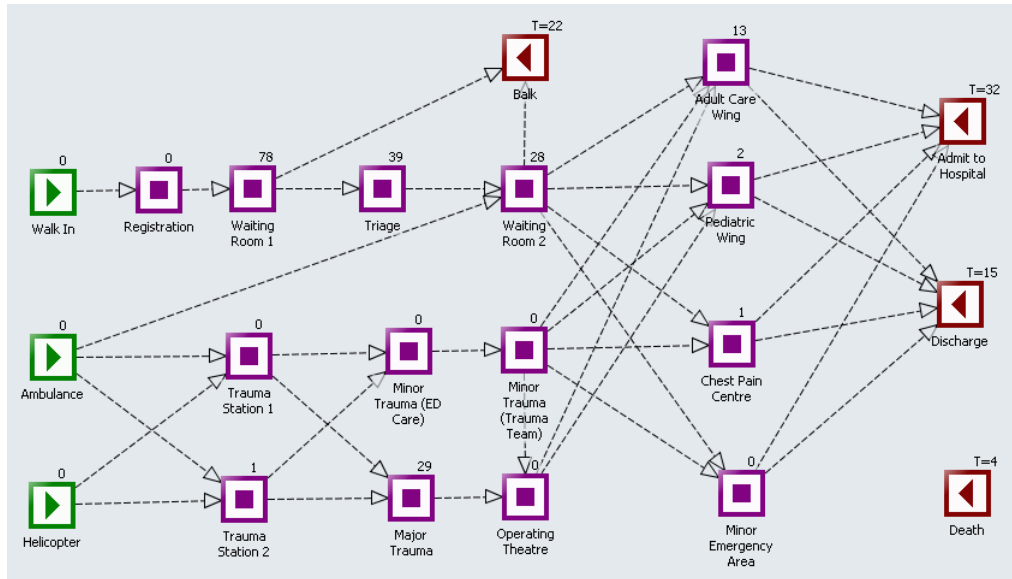
<dimension>
  <id>601</id>
  <logics>
    <logic>
      <id>601</id>
    </logic>
  </logics>
  <selectors type="AND">
    <selector dataType="String" key="sampleType" operator="EQ" readOnly="true" reference="false"
      referencedProperty="sampleType" value="bpi_t"/>
    <selector dataType="String" key="metric_id" operator="EQ" readOnly="false" reference="true"
      referencedProperty="metric_id"/>
    <selector dataType="Integer" key="bac_kpi_type" operator="EQ" readOnly="false"
      reference="false" referencedProperty="bac_kpi_type" value="601"/>
  </selectors>
  <removeDimensionIfObsolete>true</removeDimensionIfObsolete>
  <dnodeAwareDimension>false</dnodeAwareDimension>
</dimension>
<dimension>
  <id>602</id>
  <logics>
    <logic>
      <id>602</id>
    </logic>
  </logics>
  <selectors type="AND">
    <selector dataType="String" key="sampleType" operator="EQ" readOnly="true" reference="false"
      referencedProperty="sampleType" value="bpi_t"/>
    <selector dataType="String" key="metric_id" operator="EQ" readOnly="false" reference="true"
      referencedProperty="metric_id"/>
    <selector dataType="Integer" key="bac_kpi_type" operator="EQ" readOnly="false"
      reference="false" referencedProperty="bac_kpi_type" value="602"/>
  </selectors>
  <removeDimensionIfObsolete>true</removeDimensionIfObsolete>
  <dnodeAwareDimension>false</dnodeAwareDimension>
</dimension>
</dimensions>
</entity>

<entity id="bpi_step">
  <basicEntity>Mercury:bpi_step</basicEntity>
  <contextmenu>BPIMenu</contextmenu>
  <dimensions/>
</entity>
</autoMappingEntities>
<autoMappingLinks bac-version="BAC 7.0">
  <link dest_obj_type="bpi_monitor" src_obj_type="bpi_business_process" type="Mercury:monitored_by"
    weight="1"/>
  <link dest_obj_type="bpi_step" src_obj_type="bpi_business_process" type="Mercury:depends_on" weight="1"/>
</autoMappingLinks>

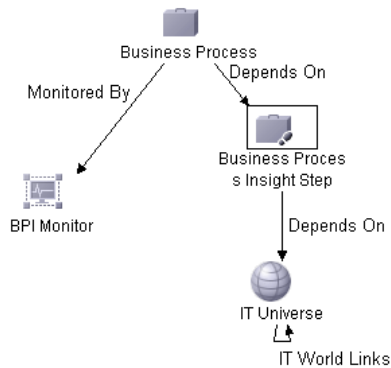
```

View Business Process Insight Data in the Business Process View and Enrich the View

A Business Process Insight business process flow includes only the nodes that you need to monitor to obtain meaningful impact data about the health of your business. Nodes (square boxes) may represent one or more business activities and arcs (arrows) display the direction of the business process flow. For example, a business flow can have the following structure:



In Business Availability Center, the Business Process view has the following structure:



The BPI Business Process CI, in Dashboard, corresponds to the Business Process flow in Business Process Insight.

The BPI Step CI, in Dashboard, corresponds to an activity in the Business Process flow in Business Process Insight.

The BPI Monitor CIs are children of the BPI Business Process CIs. All the sample information sent by Business Process Insight is displayed by the **Backlog**, **Throughput**, and **Duration** KPIs attached to the BPI Monitor CI and propagated to the BPI Business Process CI. The **BPI Metric Status Rule** calculate the statuses of those KPIs based on data from Business Process Insight.

The IT Universe CI represents the Business Availability Center CI the BPI Step CI depends on, such as: database, host, CPU, and other information provided by SiteScope, Business Process Monitor, Real User Monitor, or Diagnostics monitors.

To enrich the view, you attach IT Universe CIs to the appropriate BPI Step CI. For example, if the BPI Step CI depends on a specific host, then you attach a Host CI to the BPI Step CI. The KPIs of the IT Universe CI are then propagated to the BPI Step CI and displayed by the KPIs you assigned to the IT Universe CIs.

For details about attaching KPIs to a CI, see “Attach KPIs to CIs” in *Using Dashboard*.

For details about the SiteScope, Business Process Monitor, Real User Monitor, or Diagnostics monitors, see “Source Adapters” in *IT World Model Management* .

For details about the KPIs and the rules, see “KPIs and Rules” on page 3.

Access the Business Process Insight Application from Business Availability Center

From the Business Process view, you can connect to the Business Process Insight application using the **Go to BPI** context menu option from the Business Process, BPI Monitor, and BPI Step CIs in the Business Process view. For details, see “Dashboard Menu Options” in *Using Dashboard*.

Upgrade From Version 6.x to Version 6.8

You must load the new repository KPIs and rules, and the new BPI sample type from the file system to the database.

Load the New Repository KPIs and Rules

- 1 Access the JMX console on the Center server.
- 2 Select **service=repositories-manager**.
- 3 Scroll down to the **cleanDefaultRepositories** operation and click **Invoke**.

Load the New BPI Sample Type

- 1 Access the JMX console on the Center server.
- 2 Go back to the main page and select **service=Meta-Data Manager**.
- 3 Scroll down to the **updateMetaData** operation and click **Invoke**.

Restart All Servers

You must restart all the servers.

