



# BEA WebLogic Integration™

## Using the BPM Command Line Administration Tool

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### *Using the BPM Command Line Administration Tool*

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# About This Document

This document explains how to use the WebLogic Integration BPM Command Line Administration Tool.

The document is organized as follows:

- Chapter 1, “BPM Command Line Administration Tool,” provides information about the command line options and syntax.
- Chapter 2, “Command Line Examples,” contains examples for using the BPM Command Line Administration Tool.
- Appendix A, “Sample Output Document,” shows an example of a archived workflow instance.
- Appendix B, “Workflow Instance XSD,” shows the workflow instance schema.

## What You Need to Know

This document is intended for users who want to administer a deployed system without using WebLogic Integration Studio.

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## Related Information

The following WebLogic Integration documents contain information that is relevant to using this product.

- *Learning to Use BPM with WebLogic Integration*
- *Using the WebLogic Integration Studio*

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- Your name, e-mail address, phone number, and fax number
- Your company name and company address
- Your machine type and authorization codes
- The name and version of the product you are using
- A description of the problem and the content of pertinent error messages

# Documentation Conventions

The following documentation conventions are used throughout this document.

Convention	Item
Ctrl+Tab	Indicates that you must press two or more keys simultaneously.
<i>italics</i>	Indicates emphasis or book titles.

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<b>Convention</b>	<b>Item</b>
monospace text	<p>Indicates code samples, commands and their options, data structures and their members, data types, directories, and filenames and their extensions. Monospace text also indicates text that you must enter from the keyboard.</p> <p><i>Examples:</i></p> <pre>#include &lt;iostream.h&gt; void main ( ) the pointer psz chmod u+w * \tux\data\ap .doc tux.doc BITMAP float</pre>
<i>monospace italic text</i>	<p>Identifies variables in code.</p> <p><i>Example:</i></p> <p>String <i>expr</i></p>
UPPERCASE TEXT	<p>Indicates device names, environment variables, and logical operators.</p> <p><i>Examples:</i></p> <pre>LPT1 SIGNON OR</pre>
{ }	<p>Indicates a set of choices in a syntax line. The braces themselves should never be typed.</p>
[ ]	<p>Indicates optional items in a syntax line. The brackets themselves should never be typed.</p> <p><i>Example:</i></p> <pre>buildobjclient [-v] [-o name] [-f file-list]... [-l file-list]...</pre>
	<p>Separates mutually exclusive choices in a syntax line. The symbol itself should never be typed.</p>

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Convention	Item
...	<p>Indicates one of the following in a command line:</p> <ul style="list-style-type: none"> <li>■ That an argument can be repeated several times in a command line.</li> <li>■ That the statement omits additional optional arguments.</li> <li>■ That you can enter additional parameters, values, or other information.</li> </ul> <p>The ellipsis itself should never be typed.</p> <p><i>Example:</i></p> <pre>buildobjclient [-v] [-o name] [-f file-list]... [-l file-list]...</pre>
. . .	<p>Indicates the omission of items from a code example or from a syntax line. The vertical ellipsis itself should never be typed.</p>

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# 1 BPM Command Line Administration Tool

The BEA BPM Command Line Administration Tool allows you to administer a deployed system without using WebLogic Integration Studio. It offers the following capabilities:

- Activate and deactivate templates definitions.
- Delete templates.
- Import and export Templates, Template Definitions, Business Operation Definitions, Repository Entities, Users, Roles, and Organizations.

Additionally, the BPM Command Line Administration Tool offers a new capability: Instance Data Archiving, which allows you to remove completed Workflow instances from a database and write all instance data to files in XML format. For more information about Instance Data Archiving, see “Instance Data Archiving” on page 2-5.

This section includes the following:

- Command Line Options
- Command Line Syntax

# Command Line Options

The BPM Command Line Administration Tool consists of the command line options listed in Table 1-1.

**Note:** The WebLogic Integration server must be running before the command line options are operational.

**Table 1-1 Command Line Options**

<b>Option</b>	<b>Description</b>
<b>Global Options</b>	
These options are mandatory. If any of these options are omitted, you will be prompted to enter them.	
-user <i>username</i>	Username for connection to server.
-pwd <i>password</i>	Password for username.
-url t3:// <i>url</i>	t3 URL of the server.
<b>Template Options</b>	
Use these options to manage templates.	
Use only one of the following <i>required</i> options:	
-name <i>name</i>	Name of template to process.
-defId	Specify the specific template definition ID to activate, deactivate, or delete.
Use only one of the following <i>optional</i> options:	
-activate	Activate the template definition.
-deactivate	Deactivate the template definition.
-delete	Delete a template and all of its template definitions.
-list	List template definitions for a template.

Option	Description
<b>Import Options</b>	
Use these options to import workflow entities.	
Use either of the one of the following <i>required</i> options:	
-file <i>filename</i>	Package jar file name to import.
-dir <i>directoryname</i>	Name of the directory for package jar files to import.
Additional options:	
-org <i>orgid</i>	Organization name to import templates into. (Required)
-activate	Activates all imported template definitions. (Optional)
-replace	Replaces an already existing imported entity. (Optional)
-pkgPwd <i>password</i>	Password to unlock the import package. (Optional)
<b>Export Options</b>	
Use these options to export workflow entities.	
-file <i>filename</i>	Package jar file name to export. (Required)
-org <i>orgid</i>	Organization name of templates to export. (Required)
-pkgPwd <i>password</i>	Password used to lock the export package. (Optional)
<b>Instance Options</b>	
Use these options to delete and/or archive completed instance data.	
<b>Note:</b> To limit the processing of instances that have been completed within a given time frame, use the <i>-from</i> and <i>-to</i> options. Otherwise, all completed instances that match any of the other input criteria are processed.	
-delete	Delete the instance data. (Can be used alone or in conjunction with the <i>-archive</i> option.)
-archive <i>directoryname</i>	Archive the data to the named directory. (Can be used alone or in conjunction with the <i>-delete</i> option.)
-org <i>orgid</i>	Organization name of instances to process. (Optional, all templates are processed if not input.)

# 1 BPM Command Line Administration Tool

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Option	Description
-template <i>name</i>	Name of the template. (Optional, all templates are processed if not input.)
-relFrom <i>hours</i>	Process instances that have completed prior to the present time. Uses decimal hours. For example, to process the instances that have completed within the last six and one half hours, use -relFrom 6.5. (Optional)  <b>Note:</b> You cannot use relFrom and absFrom at the same time.
-relTo <i>hours</i>	Excludes completed instances from processing prior to the present time. Uses decimal hours. For example, to process all instances except those that have completed in the last four hours, use -relTo 4.0. (Optional)  <b>Note:</b> You cannot use relTo and absTo at the same time.
-absFrom	Process all instances completing after an absolute date and time. The format is yyyy-MM-dd HH:mm:ss. For example, 2002-11-01 15:30:00. (Optional)
-absTo	Process all completed instances prior to an absolute date and time. The format is yyyy-MM-dd HH:mm:ss. For example, 2002-11-01 15:30:00. (Optional)
-references	Archive entities referenced by the instance data such as OrganizationInfo, UserInfo, RoleInfo, TemplateDefinitionInfo, and so on. (Optional)

## Command Line Syntax

The syntax for using the command line options are listed in Table 1-2.

**Note:** The format for Command Line Options are *not* case sensitive.

**Table 1-2 Command Line Syntax**

Option	Syntax
<b>Import</b>	<pre>bpmadmin IMPORT [-user user] [-pwd pwd] [-url url] {-file file   -dir dir} -org org [-pkgPwd pwd] [-activate] [-replace]</pre>
<b>Export</b>	<pre>bpmadmin EXPORT [-user user] [-pwd pwd] [-url url] -file file -org org [-pkgPwd pwd]</pre>
<b>Template</b>	<pre>bpmadmin TEMPLATE [-user user] [-pwd pwd] [-url url] {Name   DefId}</pre> <p>where</p> <ul style="list-style-type: none"> <li>■ Name = -name name {-activate   -deactivate   -delete   -list}</li> <li>■ DefId = -defId id {-activate   -deactivate   -delete}</li> </ul>
<b>Instance</b>	<pre>bpmadmin INSTANCE [-user user] [-pwd pwd] [-url url] {-delete   Archive   -delete Archive} Options</pre> <p>where</p> <ul style="list-style-type: none"> <li>■ Archive = -archive directory [-references]</li> <li>■ Options = [-org org] [-template name ] [-relFrom hours -relTp hours  -absFrom date time -absTo date time]</li> </ul>



# 2 Command Line Examples

This section shows a number of examples for using the BPM Command Line Administration Tool. It includes the following sections:

- Before Using the Examples
- Running the Script
- Import, Export, and Template Examples

## Before Using the Examples

To use these examples, you must first do the following:

- Start the WebLogic Integration server. If you need information on starting WebLogic Integration, see [Starting, Stopping, and Customizing](#).
- Run the `bpadmin` script.
- Have templates and package `.jar` files that you can use for importing, exporting, deleting, and so on. For more information on creating templates and packages, see *Learning to Use BPM with WebLogic Integration*.

# Running the Script

Before using these examples, first run the `bpadmin` script.

**Note:** To use the examples, the WebLogic Integration Server must be running.

To run the `bpadmin` script, take the following steps:

1. On a Windows system, open a command window.
2. In both Windows and UNIX, go to the following directory:

```
BEA_HOME\weblogic700\integration\bin
```

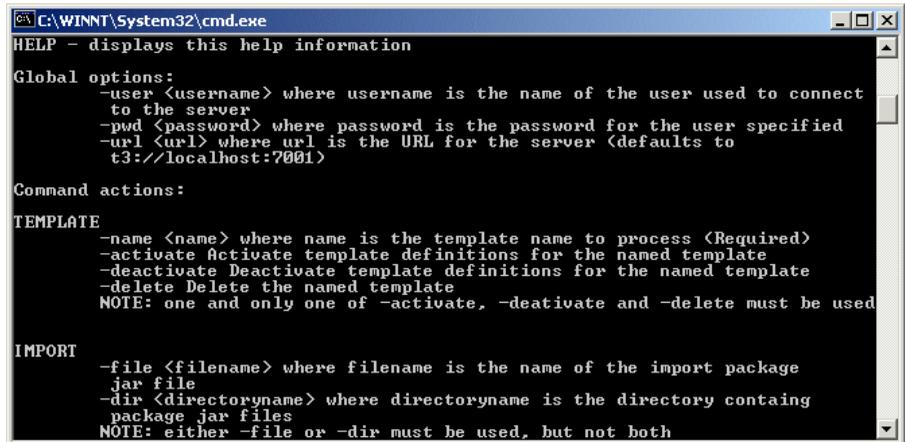
In the preceding line, `BEA_HOME` represents the WebLogic Platform home directory.

3. Execute the `bpadmin` script by entering:

```
bpadmin.cmd
```

After the `bpadmin` script finishes, the window shows the available options, as shown in Figure 2-1.

**Figure 2-1 Command Line Help**



```
C:\WINNT\System32\cmd.exe
HELP - displays this help information

Global options:
-user <username> where username is the name of the user used to connect
to the server
-pwd <password> where password is the password for the user specified
-url <url> where url is the URL for the server (defaults to
t3://localhost:7001)

Command actions:

TEMPLATE
-name <name> where name is the template name to process (Required)
-activate Activate template definitions for the named template
-deactivate Deactivate template definitions for the named template
-delete Delete the named template
NOTE: one and only one of -activate, -deactivate and -delete must be used

IMPORT
-file <filename> where filename is the name of the import package
jar file
-dir <directoryname> where directoryname is the directory containg
package jar files
NOTE: either -file or -dir must be used, but not both
```

**Note:** To display help at anytime, type “`bpadmin help`” in the window.

# Import, Export, and Template Examples

The examples have the following attributes:

- The user's name is `joe`.
- The password is `password`.
- The default URL for the server is `t3://localhost:7001`.

## Import Examples

From the command line, `import` is done for the organization level rather than for individual entities. These examples demonstrate how to import package jar files.

### Example 1

To import a package jar file into `ORG1` and activate the template definitions to a server at the default url (`t3://localhost:7001`), use the following command line:

```
bpmadmin IMPORT -user joe -pwd password -url t3://host:port -file  
test.jar -org ORG1 -activate
```

### Example 2

To import several package jar files in a directory, use the following command line:

```
bpmadmin IMPORT -user joe -pwd password -url t3://host:port -dir  
c:\temp -org ORG1
```

### Example 3

To import a package jar file and replace existing entities, use the following command line:

```
bpmadmin IMPORT -user joe -pwd password -url t3://host:port -file  
test.jar -org ORG1 -replace
```

### Export Example

From the command line, export is done for the organization level rather than for individual entities. This example demonstrates how to export a package jar file.

#### Example

To export the entities associated with a particular organization, use the following command line:

```
bpmadmin EXPORT -user joe -pwd password -url t3://host:port -file  
org1.jar -org ORG1
```

### Template Examples

These examples demonstrate deleting, activating, deactivating, and listing templates.

**Note:** Only one template can be specified at a time.

#### Example 1

To delete a template and all its related data, use the following command line:

```
bpmadmin TEMPLATE -user joe -pwd password -url t3://host:port  
-name TestTemplate -delete
```

#### Example 2

To activate all template definitions for a template, use the following command line:

```
bpmadmin TEMPLATE -user joe -pwd password -url t3://host:port  
-name "Test Template" -activate
```

#### Example 3

To deactivate all template definitions for a template, use the following command line:

```
bpmadmin TEMPLATE -user joe -pwd password -url t3://host:port  
-name TestTemplate -deactivate
```

## Example 4

To list all template definitions for a template, use the following command line:

```
bpadmin TEMPLATE -user joe -pwd password -url t3://host:port  
-name TestTemplate -list
```

## Example 5

To activate a specific template definition for a template, use the following command line:

```
bpadmin TEMPLATE -user joe -pwd password -url t3://host:port  
-defId 12003 -activate
```

# Instance Data Archiving

The Command Line Administration Tool adds the capability to BEA WebLogic Integration for archiving workflow instance data. This new capability solves the problem of managing the large amount of data that accumulates from completed workflow instances. The Command Line Administration Tool can remove instance data from the database or archive it as a series of XML documents.

## Archiving Output

The XML documents generated by the archiving process contain all the data associated with each instance. The output XML conforms to the workflow instance schema. For more information, see Appendix B, “Workflow Instance XSD.”

The XML instance document is titled by a combination of the template name and the instance ID (assigned by the system), as shown in the following example:

```
PurchaseOrderProcessing-11234.xml
```

The XML document contains all the information in the `InstanceInfo` class including basic instance data, task information, and variable values.

## 2 Command Line Examples

---

For XML variables, the value is contained in a separate file named with the template name, instance ID, and variable name, as shown in the following example:

```
PurchaseOrderProcessing-11234-PO.xml
```

Instance Data Archiving also provides the option to export referenced external data, such as users, roles, organizations, and business calendars using the `-references` parameter. Table 2-1 provides examples of how these documents are titled.

**Table 2-1 Archiving Naming Examples**

Directory	Sample Title
organization	CDEpress.xml
templatedefinitions	PurchaseOrderProcessing-9.xml
templates	PurchaseOrderProcessing.xml
users	joe.xml
roles	shipping.xml

**Note:** To view an example of an XML instance document, see Appendix A, “Sample Output Document.”

## Database Schema

For information on the WebLogic Integration database schema, see “[Database Schema](#)” in *Programming BPM Client Applications*.

## Archiving Examples

These examples demonstrate instance data archiving functionality and syntax.

## Example 1

To delete all instances that completed in the past 24 hours, use the following command line:

```
bpmadmin INSTANCE -user joe -pwd password -url t3://host:port  
-delete -relFrom 24
```

## Example 2

To delete all completed instances of a particular template for a particular organization, use the following command line:

```
bpmadmin INSTANCE -user joe -pwd password -url t3://host:port  
-delete -template TestTemplate -org ORG1
```

## Example 3

To archive all completed instances of a particular template, use the following command line:

```
bpmadmin INSTANCE -user joe -pwd password -url t3://host:port  
-archive c:\archivedir -template TestTemplate
```

## Example 4

To archive and delete instances that completed in the last 24 hours excluding those that completed within the last 12 hours and include referenced entities, use the following command line:

```
bpmadmin INSTANCE -user joe -pwd password -url t3://host:port  
-delete -archive c:\archivedir -relFrom 24 -relTo 12 -references
```

## Example 5

To archive all instances that completed between October 1 2002 and October 15 2002, use the following command line:

```
bpmadmin -user joe -pwd password -url t3://host:port -archive  
c:\archivedir -absFrom 2002-10-01 00:00:00 -absTo 2002-10-15  
23:59:59
```

## **2** *Command Line Examples*

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# A Sample Output Document

This appendix shows an example of an XML instance document.

## Listing A-1 Archive Sample Document

---

```
<?xml version="1.0" encoding="UTF-8" ?>
<workflowinstance xmlns:xi="http://www.w3.org/2001/XInclude"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:noNamespaceSchemaLocation="workflowinstance.xsd">
  <instanceid>2008</instanceid>
  <templateid>26</templateid>
  <templatename>Order Fulfillment</templatename>
  <templatedefinitionid>26</templatedefinitionid>
  <orgid>CDExpress</orgid>
  <initiator>admin</initiator>
  <parent>
    <instanceid>2006</instanceid>
    <templatedefinitionid>27</templatedefinitionid>
  </parent>
  <started>2002-12-18T16:32:09.0</started>
  <completed>2002-12-18T16:37:51.0</completed>
  <idstring>Order 2</idstring>
  <comment />
  <state>ACTIVE</state>
  <tasks>
    <task>
      <taskid>2</taskid>
      <taskname>Ship Order</taskname>
      <started>2002-12-18T16:32:09.0</started>
      <completed>2002-12-18T16:37:51.0</completed>
      <due xsi:nil="true" />
      <assignee isRole="true">Shipping</assignee>
    </task>
  </tasks>
</workflowinstance>
```

## A Sample Output Document

---

```
<comment>Ship to John Doe 3126 Blue Street Anytown CA 96822</comment>
<status>COMPLETE</status>
<priority>MEDIUM</priority>
<permissions>
  <markdone>>false</markdone>
  <reexecute>>false</reexecute>
  <unmarkdone>>false</unmarkdone>
  <modifiable>>false</modifiable>
  <reassignable>>false</reassignable>
</permissions>
</task>
<task>
  <taskid>963511775400</taskid>
  <taskname>Generate Invoice</taskname>
  <started>2002-12-18T16:32:09.0</started>
  <completed>2002-12-18T16:35:48.0</completed>
  <due xsi:nil="true" />
  <assignee isRole="true">Accounting</assignee>
  <comment />
  <status>COMPLETE</status>
  <priority>MEDIUM</priority>
  <permissions>
    <markdone>>false</markdone>
    <reexecute>>false</reexecute>
    <unmarkdone>>false</unmarkdone>
    <modifiable>>false</modifiable>
    <reassignable>>false</reassignable>
  </permissions>
</task>
</tasks>
<variables>
  <variable>
    <name>CustomerAddress</name>
    <type>string</type>
    <value>3126 Blue Street Anytown CA 96822</value>
  </variable>
  <variable>
    <name>CustomerName</name>
    <type>string</type>
    <value>John Doe</value>
  </variable>
  <variable>
    <name>ItemID</name>
    <type>integer</type>
    <value>236</value>
  </variable>
  <variable>
    <name>ItemQuantity</name>
    <type>integer</type>
```

---

```
<value>2</value>
</variable>
<variable>
  <name>OrderBeanReference</name>
  <type>session</type>
  <value>wlpi.tour.POBean:t3://192.168.11.112:7001#null</value>
</variable>
<variable>
  <name>OrderID</name>
  <type>integer</type>
  <value>2</value>
</variable>
<variable>
  <name>OrderTotalPrice</name>
  <type>double</type>
  <value>364.35</value>
</variable>
<variable>
  <name>ShipToState</name>
  <type>string</type>
  <value>MA</value>
</variable>
</variables>
</workflowinstance>
```

---



---

# B Workflow Instance XSD

This appendix contains the workflowinstance.xsd. This XSD is distributed as part of WebLogic Integration 7.0 SP2.

## Listing B-1 workflowinstance.xsd

---

```
<?xml version="1.0" encoding="UTF-8"?>
  <xsd:schema xmlns:xi="http://www.w3.org/2001/XInclude"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified">
    <xsd:import namespace="http://www.w3.org/2001/XInclude"
      schemaLocation="xinclude.xsd"/>
    <xsd:element name="assignee">
      <xsd:complexType>
        <xsd:simpleContent>
          <xsd:extension base="xsd:string">
            <xsd:attribute name="isRole" type="xsd:boolean"
              use="required"/>
          </xsd:extension>
        </xsd:simpleContent>
      </xsd:complexType>
    </xsd:element>
    <xsd:element name="comment" type="xsd:string"/>
    <xsd:element name="completed" type="xsd:dateTime" nillable="true"/>
    <xsd:element name="due" type="xsd:dateTime" nillable="true"/>
    <xsd:element name="idstring" type="xsd:string"/>
    <xsd:element name="initiator" type="xsd:string"/>
    <xsd:element name="instanceid" type="xsd:long"/>
    <xsd:element name="markdone" type="xsd:boolean"/>
    <xsd:element name="modifiable" type="xsd:boolean"/>
    <xsd:element name="name" type="xsd:string"/>
    <xsd:element name="orgid" type="xsd:string"/>
    <xsd:element name="permissions">
```

## B Workflow Instance XSD

---

```
<xsd:complexType>
  <xsd:sequence>
    <xsd:element ref="markdone"/>
    <xsd:element ref="reexecute"/>
    <xsd:element ref="unmarkdone"/>
    <xsd:element ref="modifiable"/>
    <xsd:element ref="reassignable"/>
  </xsd:sequence>
</xsd:complexType>
</xsd:element>
<xsd:element name="priority">
  <xsd:simpleType>
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="LOW"/>
      <xsd:enumeration value="MEDIUM"/>
      <xsd:enumeration value="HIGH"/>
    </xsd:restriction>
  </xsd:simpleType>
</xsd:element>
<xsd:element name="reassignable" type="xsd:boolean"/>
<xsd:element name="reexecute" type="xsd:boolean"/>
<xsd:element name="started" type="xsd:dateTime" nillable="true"/>
<xsd:element name="state">
  <xsd:simpleType>
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="SUSPENDED"/>
      <xsd:enumeration value="ACTIVE"/>
    </xsd:restriction>
  </xsd:simpleType>
</xsd:element>
<xsd:element name="status" type="xsd:string"/>
<xsd:element name="task">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="taskid"/>
      <xsd:element ref="taskname"/>
      <xsd:element ref="started"/>
      <xsd:element ref="completed"/>
      <xsd:element ref="due"/>
      <xsd:element ref="assignee"/>
      <xsd:element ref="comment"/>
      <xsd:element ref="status"/>
      <xsd:element ref="priority"/>
      <xsd:element ref="permissions"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="taskid" type="xsd:long"/>
<xsd:element name="taskname" type="xsd:string"/>
```

---

```

<xsd:element name="tasks">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="task" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="templatedefinitionid" type="xsd:long"/>
<xsd:element name="templateid" type="xsd:long"/>
<xsd:element name="templatename" type="xsd:string"/>
<xsd:element name="type">
  <xsd:simpleType>
    <xsd:restriction base="xsd:string">
      <xsd:enumeration value="boolean"/>
      <xsd:enumeration value="date"/>
      <xsd:enumeration value="double"/>
      <xsd:enumeration value="integer"/>
      <xsd:enumeration value="string"/>
      <xsd:enumeration value="xml"/>
      <xsd:enumeration value="object"/>
      <xsd:enumeration value="session"/>
      <xsd:enumeration value="entity"/>
    </xsd:restriction>
  </xsd:simpleType>
</xsd:element>
<xsd:element name="unmarkdone" type="xsd:boolean"/>
<xsd:element name="value">
  <xsd:complexType mixed="true">
    <xsd:choice minOccurs="0" maxOccurs="unbounded">
      <xsd:element ref="xi:include"/>
    </xsd:choice>
  </xsd:complexType>
</xsd:element>
<xsd:element name="variable">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="name"/>
      <xsd:element ref="type"/>
      <xsd:element ref="value"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
<xsd:element name="variables">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="variable" minOccurs="0" maxOccurs="unbounded"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>

```

## **B** *Workflow Instance XSD*

---

```
<xsd:element name="workflowinstance">
  <xsd:complexType>
    <xsd:sequence>
      <xsd:element ref="instanceid"/>
      <xsd:element ref="templateid"/>
      <xsd:element ref="templatename"/>
      <xsd:element ref="templatedefinitionid"/>
      <xsd:element ref="orgid"/>
      <xsd:element ref="initiator"/>
      <xsd:element ref="started"/>
      <xsd:element ref="completed"/>
      <xsd:element ref="idstring"/>
      <xsd:element ref="comment"/>
      <xsd:element ref="state"/>
      <xsd:element ref="tasks"/>
      <xsd:element ref="variables"/>
    </xsd:sequence>
  </xsd:complexType>
</xsd:element>
</xsd:schema>
```

---

---

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