



# CX Process

Aurea® CX Process Business Manager:  
Migration Guide



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# Notices

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For details, see the following topics:

- [Notices](#)
- [Third-party acknowledgments](#)

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# Preface

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For details, see the following topics:

- [About this documentation](#)

## About this documentation

This guide is part of the documentation set for Aurea® CX Process Business Manager 2016 R2.





# Supported Aurea® CX Process Business Manager Migrations

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The following table lists which all migration tools needs to be executed, to migrate from a particular source SBM (Aurea® CX Process Business Manager) version to a particular target SBM version. It also lists, in what order you can achieve data migration from that particular source SBM version to that particular target SBM version.

Table 1: Supported Business Manager Migrations

Source	Target							
	7.0.2	7.5.0	7.5.2	7.6.1	7.6.2, 7.6.3, 7.6.4	8.0.0	Savvion 2013 (Savvion 2013)	Savvion 2015 SP1 / CX Process 2016 R2 (10.0.x)
6.5.2	Not possible as no tool provided.	6.5.2 to 7.5.0	6.5.2 to 7.5.0, 7.5.0 to 7.5.2	6.5.2 to 7.5.0, 7.5.0 to 7.5.2, 7.5.2 to 7.6.1	6.5.2 to 7.5.0, 7.5.0 to 7.5.2, 7.5.2 to 7.6.1, Apply Incremental Upgrade, further migration not required. No incremental upgrade required if 7.6.4 complete installer is used.	6.5.2 to 7.5.0, 7.5.0 to 7.5.2, 7.5.2 to 7.6.1, 7.6.x to 8.0	6.5.2 to 7.5.0, 7.5.0 to 7.5.2, 7.5.2 to 7.6.1, 7.6.x to Savvion 2013	6.5.2 to 7.5.0, 7.5.0 to 7.5.2, 7.5.2 to 7.6.1, 7.6.x to 10.0.x
7.0.2		7.0.2 to 7.5.0	7.0.2 to 7.5.0, 7.5.0 to 7.5.2	7.0.2 to 7.5.0, 7.5.0 to 7.5.2, 7.5.2 to 7.6.1	7.0.2 to 7.5.0, 7.5.0 to 7.5.2, 7.5.2 to 7.6.1, Apply Incremental Upgrade, further migration not required. No incremental upgrade required if 7.6.4 complete installer is used.	7.0.2 to 7.5.0, 7.5.0 to 7.5.2, 7.5.2 to 7.6.1, 7.6.x to 8.0	7.0.2 to 7.5.0, 7.5.0 to 7.5.2, 7.5.2 to 7.6.1, 7.6.x to Savvion 2013	7.0.2 to 7.5.0, 7.5.0 to 7.5.2, 7.5.2 to 7.6.1, 7.6.x to 10.0.x

Source	Target							
	7.0.2	7.5.0	7.5.2	7.6.1	7.6.2, 7.6.3, 7.6.4	8.0.0	Savvion 2013 (Savvion 2013)	Savvion 2015 SP1 / CX Process 2016 R2 (10.0.x)
7.5.0			7.5.0 to 7.5.2	7.5.0 to 7.5.2, 7.5.2 to 7.6.1	7.5.0 to 7.5.2, 7.5.2 to 7.6.1, Apply Incremental Upgrade, further migration not required. No incremental upgrade required if 7.6.4 complete installer is used.	7.5.0 to 7.5.2, 7.5.2 to 7.6.1, 7.6.x to 8.0	7.5.0 to 7.5.2, 7.5.2 to 7.6.1, 7.6.x to Savvion 2013	7.5.0 to 7.5.2, 7.5.2 to 7.6.1, 7.6.x to 10.0.x
7.5.1			7.5.0 to 7.5.2	7.5.0 to 7.5.2, 7.5.2 to 7.6.1	7.5.0 to 7.5.2, 7.5.2 to 7.6.1, Apply Incremental Upgrade, further migration not required. No incremental upgrade required if 7.6.4 complete installer is used.	7.5.0 to 7.5.2, 7.5.2 to 7.6.1, 7.6.x to 8.0	7.5.0 to 7.5.2, 7.5.2 to 7.6.1, 7.6.x to Savvion 2013	7.5.0 to 7.5.2, 7.5.2 to 7.6.1, 7.6.x to 10.0.x

Source	Target							
	7.0.2	7.5.0	7.5.2	7.6.1	7.6.2, 7.6.3, 7.6.4	8.0.0	Savvion 2013 (Savvion 2013)	Savvion 2015 SP1 / CX Process 2016 R2 (10.0.x)
7.5.2				7.5.2 to 7.6.1	7.5.2 to 7.6.1, Apply Incremental Upgrade, further migration not required. No incremental upgrade required if 7.6.4 complete installer is used.	7.5.2 to 7.6.1, 7.6.x to 8.0	7.5.2 to 7.6.1, 7.6.x to Savvion 2013	7.5.2 to 7.6.1, 7.6.x to 10.0.x
7.6.0				No migration tool needed. Only manual steps for application migration are provided.	No migration tool needed. Only manual steps for application migration are provided. Apply Incremental upgrade. No incremental upgrade required if 7.6.4 complete installer is used.	7.6.x to 8.0	7.6.x to Savvion 2013	7.6.x to 10.0.x

Source	Target							
	7.0.2	7.5.0	7.5.2	7.6.1	7.6.2, 7.6.3, 7.6.4	8.0.0	Savvion 2013 (Savvion 2013)	Savvion 2015 SP1 / CX Process 2016 R2 (10.0.x)
7.6.1					Migration tool and manual migration steps not required. Apply Incremental Upgrade.	7.6.x to 8.0	7.6.x to Savvion 2013	7.6.x to 10.0.x
7.6.2, 7.6.3, 7.6.4						7.6.x to 8.0	7.6.x to Savvion 2013	7.6.x to 10.0.x



## Business Manager Migration from 6.5 SP2 to 7.5

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This document contains hints, useful tips, and suggestions about migrating SBM applications from Aurea® CX Process Business Manager (henceforth referred to as Business Manager) 6.5 SP2 to Business Manager 7.5.

For details, see the following topics:

- [Executing Migration Tool](#)
- [Instructions for Migrating Applications from Business Manager 6.5 SP2 to Business Manager 7.5](#)

### Executing Migration Tool

To execute migration tool:

1. In this chapter, 'source' SBM installation refers to SBM 6.5 SP2 installation and 'target' SBM installation refers to SBM 7.5 installation.
2. This migration tool does not provide support for migration of SBM users from 'File based storage of user data' (PAKRealm). However, you can use `populateJDBCRealm.bat/sh` command available in 'bin' folder of SBM 6.5 SP2 installation to populate JDBC Realm tables with user and group data from PAKRealm. And using the migration tool, the JDBC Realm data gets migrated to SBM 7.5. This way you can use JDBC Realm for User Management with SBM 7.5 after migration.
3. It is mandatory to execute the migration tool on the machine where SBM 7.5 is installed. In the case of cluster, you can execute the migration tool on any one node of the SBM 7.5 cluster.

4. As a result of migration tool execution, default dashboard permissions will be given to all SBM users.
5. The database type of the database associated with SBM 6.5 SP2 should be same as the one with SBM 7.5.
6. The migration utility does not migrate artifacts like BizSQL reports. They need to be migrated manually.

## Prerequisites

Context for the current task

1. Before starting Migration activity, ensure that BizStore and BizPulse has processed all the events and thus the values for last event Id in BIZSTOREEVENTCOUNTER and BIZPULSEEVENTCOUNTER tables should match with maximum value of event Id in BIZEVENT table.
2. When installing SBM 7.5, please specify the same admin user name and password that is used in SBM 6.5 installation. If you want to specify a different admin user than SBM 6.5 one, then after SBM 7.5 installation is complete, go to 'User Configuration Tool' and specify the SBM 6.5 admin user and password for 'Business Manager Admin Credentials'.
3. It is assumed that both SBM 6.5 SP2 and SBM 7.5 are configured with the same User Management Realm. If SBM 7.5 uses a different User Management Realm than SBM 6.5 SP2, then all the SBM users will not be migrated by this migration tool. It needs to be carried out by SBM Administrator.
4. Take a full database backup of SBM 6.5 database. Also take a full backup of file system of SBM installation folder (in cluster, backup SBM installations on all nodes). Also take a back up the folder where document dataslots are stored (pointed by 'sbm.docservice.fileservice.documentroot' property in sbm.conf configuration file).
5. Please note that in SBM 7.5 the default storage for document dataslots is database. Thus while planning and creating a new database instance for use with SBM 7.5, please make sure that the table spaces have enough space to accommodate all documents. For SBM 6.5 SP2 installation, the property 'sbm.docservice.fileservice.documentroot' in 'sbm.conf' provides location where document dataslots are stored. The total size of the folder pointed to by this property will give us total size of all the documents with all process instances.
6. Install SBM 7.5 with a fresh database instance. Do not execute repository setup from 'First steps' console (or using 'setupsbm' command) with SBM 7.5 installation. Please also make sure that no database objects (like table, sequence etc.) exist in this instance.
7. Take an export dump of SBM 6.5 database. Import it to the database instance that is configured with SBM 7.5. Please consult Database administrator to perform export-import of data. Please ensure that identity column values are retained during this operation in general for all databases other than Oracle<sup>®</sup> and particularly for Microsoft<sup>®</sup> SQL Server<sup>®</sup> database.
8. Please go through [Instructions for Migrating Applications from Business Manager 6.5 SP2 to Business Manager 7.5](#) on page 19 and carry out appropriate steps to migrate SBM applications. It is necessary to perform these steps before executing the migration tool.
9. Please make sure that there are no adapters in active state in SBM 6.5 SP2 before proceeding for migration.



10. Please make sure that all the JMS messages in SBM specific Topics and Queues are processed in SBM 6.5 SP2 before going for migration. You may contact your Application Server Support for this purpose.
11. Once the database dump of SBM 6.5 SP2 is migrated to database instance of businessManager 7.5, you need to drop the following AppServer specific tables in the migrated database manually.
  - a) In the case of WebSphere® AppServer, for both Single server as well as Cluster SBM 6.5 SP2 installation, drop the following tables in migrated database: SIB000, SIB001, SIB002, SIBCLASSMAP, SIBKEYS, SIBLISTING, SIBOWNER, SIBXACTS.
  - b) In the case of WebLogic AppServer, for Cluster SBM 6.5 SP2 installation, drop any tables found with following pattern in migrated database: BP <JMSNODENAME>, BL <JMSNODENAME>, JMS <JMSNODENAME>, <JMSNODENAME>BLJMSSTATE, <JMSNODENAME>BLJMSSTORE, <JMSNODENAME>BPJMSSTATE, <JMSNODENAME>BPJMSSTORE, <JMSNODENAME>JMSAJMSSTATE, <JMSNODENAME>JMSAJMSSTORE where <JMSNODENAME> is the JMS node name that you have created in source SBM. For example, if you have 2 JMS nodes with names JMSNODE1 and JMSNODE2 respectively, then you must drop following tables on your target database: BPJMSNODE1, BLJMSNODE1, JMSJMSNODE1, BPJMSNODE2, BLJMSNODE2, JMSJMSNODE2, JMSNODE1BLJMSSTATE, JMSNODE1BLJMSSTORE, JMSNODE1BPJMSSTATE, JMSNODE1BPJMSSTORE, JMSNODE1JMSAJMSSTATE, JMSNODE1JMSAJMSSTORE, JMSNODE2BLJMSSTATE, JMSNODE2BLJMSSTORE, JMSNODE2BPJMSSTATE, JMSNODE2BPJMSSTORE, JMSNODE2JMSAJMSSTATE, JMSNODE2JMSAJMSSTORE.
  - c) In the case of Pramati AppServer, for Cluster SBM 6.5 SP2 installation, drop the following tables in migrated database: <EJBCLUSTERNAME>, <JMSCLUSTERNAME> where <EJBCLUSTERNAME>, <JMSCLUSTERNAME> are the ejb cluster and jms cluster name respectively that you provided for cluster setup on SBM 6.5 SP2.

## Migration steps

1. Please extract the SBM Migration tool.zip file in a new empty folder on the machine where SBM 7.5 is installed. Set the following environment variables in `setenv.cmd/sh` file present under 'bin' folder. Use forward slash (/) for folder path.

Environment Variable	Description
JAVA_HOME	JRE/JDK installation folder. The value of this variable needs to be same as the value of the same variable in the <code>setenv.cmd/sh</code> file, located in the <code>SBM_Home\bin</code> folder of the Target SBM.
SBM_TARGET_HOME	Home folder of SBM 7.5 installation
SBM_MIGRATION_HOME	Home folder of Migration Tool

2. Set appropriate values for the following two properties in 'migration.properties' file located under 'conf' folder.

Property	Description
sbm.source.home	Home folder of SBM 6.5 SP2 installation

Property	Description
sbm.source.docds.folder	The folder location where documents belonging to document dataslots are stored for SBM 6.5 SP2 (source) installation. The value can be copied from the value of property 'sbm.docservice.fileservice.documentroot' in file <code>sbm.conf</code> .

The Migration Tool will set the following properties in 'migration.properties' file automatically if they are not already set: `sbm.migration.home`, `sbm.target.home`, `sbm.target.webapp.folder`, `sbm.target.admin.userid`, `sbm.db.provider`, `sbm.db.driver`, `sbm.db.multibyteschema`, `sbm.db.target.url`, `sbm.db.target.user`, `sbm.db.target.password`.

3. Perform this step only if Business Manager is configured with Sybase<sup>®</sup> database. Consult your database administrator before performing following operation. You need to configure the database level settings in order to run the Migration tool. Refer to the Sybase<sup>®</sup> User Manual ([http://infocenter.sybase.com/help/topic/com.sybase.dc31654\\_31644\\_1250/html/sag/X80055.htm](http://infocenter.sybase.com/help/topic/com.sybase.dc31654_31644_1250/html/sag/X80055.htm)) for more information. You need to perform either of the following steps:
  - Open the SQL script located in the `SBM_MIGRATION_HOME\dbscripts\Sybase\enableDatabaseOptions.sql` file using Text Editor. Change the database name to point to target database, then save the file. Now execute this script using SQL Advantage.
  - Open the Sybase<sup>®</sup> Central Java Edition tool. Connect using administrator login, to view all the databases. Right-click the target database, then select the **Properties** option. From the **options** tab, select the **select into/bulkcopy/pllsort** checkbox. Click **Apply** to save the changes, then click **OK**.
4. Execute `sbmmigration.cmd/sh` command within 'bin' folder to start migration.
5. Please look into `logs/migration.log` file for any warning and error messages.
6. Perform this step only if Business Manager is configured with Sybase<sup>®</sup> database. You need to perform this step to revert to the original database level settings (modified in Step [Step 2](#)). You need to perform either of the following steps:
  - Open the SQL script located in the `SBM_MIGRATION_HOME\dbscripts\Sybase\disableDatabaseOptions.sql` file using Text Editor. Change the database name to point to target database, then save the file. Now execute this script using SQL Advantage.
  - Open the Sybase<sup>®</sup> Central Java Edition tool. Connect using administrator login, to view all the databases. Right-click the target database, then select the **Properties** option. From the **options** tab, clear the **select into/bulkcopy/pllsort** checkbox. Click **Apply** to save the changes, then click **OK**.
7. Perform this step only if Business Manager is configured with IBM<sup>®</sup> DB2<sup>®</sup> database. Take help of your Database Administrator to perform this step.
  - After performing migration, identify the tables that are in reorganization-pending state. You can execute the following SQL statements to do this.

```
CONNECT TO SBM_DATABASE;

SELECT TABNAME AS TABLE, REORG PENDING
FROM TABLE(SYSPROC.ADMIN_GET_TAB_INFO('SBM_USER','')) AS T WHERE
REORG_PENDING='Y';

CONNECT RESET
```

- Perform reorganization on each of the table selected in the previous step. You can execute the following SQL statements to do this.

```
CONNECT TO SBM_DATABASE;

REORG TABLE SBM_USER.<Table_Name> ALLOW READ ACCESS;

CONNECT RESET;
```

where SBM\_DATABASE is the name of the database configured with your Business Manager, SBM\_USER is the schema name and <Table\_Name> is the name of the table.

In the case of cluster, you need to configure SBM 7.5 cluster setup after completing the above migration steps.

## Instructions for Migrating Applications from Business Manager 6.5 SP2 to Business Manager 7.5

This section contains hints, useful tips, and suggestions about migrating SBM applications from Business Manager 6.5 SP2 to Business Manager 7.5.

1. Copy the required Aurea® CX Process BizLogic™ and Web Flow (Aurea® CX Process BizSolo™) application folders from 'BPMStudio\_6.5SP2\_HOME/workspace' folder to 'BPMStudio\_7.5\_HOME/workspace' folder.
2. Import these projects in BPMStudio 7.5 using '**Existing projects from Workspace**' option.
3. Open each project, build the project and Save the project in Aurea® CX Process BPM Studio™ 7.5.
4. Export each project using 'Archive' option in the eclipse studio and save it as a zip file.
5. Unzip the BizLogic application zip file in 'SBM\_7.5\_HOME/ebmsapps' folder and 'SBM\_7.5\_WEBAPPDIR/ebmsapps' folder. And unzip the Web Flow (BizSolo) application zip file in SBM\_7.5\_HOME/BizSolo' folder and 'SBM\_7.5\_WEBAPPDIR/BizSolo' folder. The WEBAPPDIR location can be found from property 'SBM.WebAppDir' in file 'sbm.conf'.
6. If the BizLogic application makes use of any custom java classes and/or jar files, then copy them also to respective places in Business Manager 7.5 installation.
7. If the BizLogic application contains 'List' and/or 'Map' type of dataslots and are marked for 'Task Column' or 'Management Access', edit the process template xml file and set the value to false for following tags:

```
<BizManageAccessFlag>false</BizManageAccessFlag>
<Access type="BIZ_MANAGE_ACCESS" value="false"/>
<Access type="BIZ_SITE_COLUMN"
    value="false"/>
```

---

**Note:** The Process Template XML file refers to “Management Access” as “BizManage Access.”

---

8. When a human activity workstep has presentation type as 'Form' or 'Custom', a JSP file gets generated for the workstep. There are lot of differences between a JSP file generated by BPM Studio 6.5 SP2 or 6.8 and the one generated by BPM Studio 7.5. For example, for Date dataslot and Document dataslot, the JSP code generated in BPM Studio 7.5 makes use of javascript libraries like ExtJS and YahooUI, which was not the case with BPM Studio 6.5. Please refer to the sample JSPs present in 'docs/artifacts' folder for JSP code generated for Business Manager 7.5. You can also find respective JSP code for SBM 6.5 SP2 for comparison purpose.

	Business Manager 6.5 SP2	Business Manager 7.5
Date Dataslot	sample65sp2_Activity1.jsp	sample75_Activity1.jsp
Document Dataslot	sample65sp2_Activity2.jsp	sample75_Activity2.jsp

Make the required changes to Date dataslot and Document dataslot for custom JSP page.

- The default theme in Aurea® CX Process BPM Portal™ for SBM 6.5SP2 is set to 'theme05' and 'apptHEME05' whereas the default theme in the case of Business Manager 7.5 is set to 'theme01' and 'apptHEME01'. The theme information needs to be modified in the JSP's generated for workstep with 'Custom' presentation. Replace all the occurrences of 'theme05' with 'theme01' and 'apptHEME05' with 'apptHEME01' in the JSP's for workstep with custom presentation.
- In the JSP's for workstep with 'Custom' presentation the 'value' for submit button 'SB\_Name' is set to

```
<bizsolo:getLabel name='SUBMIT_LABEL' type='RESOURCE' />
```

Modify this value to

```
<bizsolo:getLabel name='<connection-name>' type='LINK' />
```

here '<connection-name>' is the name of the link which connects to the next workstep after submit.

- The 'Balanced Scorecard' applications, which are created from BPM Portal, are not present in BPM Studio workspace. Before migrating these applications, user needs to copy the application folder from 'SBM\_6.5SP2\_HOME/ebmsapps' folder to 'BPMStudio\_7.5\_HOME/workspace' folder. Open these applications in BPM Studio 7.5, build the application and save it. Finally, to complete the migration, you need to copy the application folder from 'BPMStudio\_7.5\_HOME/workspace' folder to 'SBM\_7.5\_HOME/ebmsapps' folder and 'SBM\_7.5\_WEBAPPDIR/ebmsapps' folder.

In the case of SBM 7.5 cluster setup, you need to execute the instructions mentioned in [Step 5](#) and [11](#) on each node of the cluster setup.

## Migration Issues in Aurea® CX Process BPM Studio™

You may encounter the following migration issues when importing Aurea® CX Process BPM Studio™ projects from version 6.5 SP2 (or 6.8) to 7.5.

Issue	Resolution
Group, Duration, and Manager fields configured for a Web application in 6.5 SP2 cannot be viewed for the application in 7.5, as these fields are not supported in this version.	Duration, manager, and group information is not supported for Web applications in BPM Studio 7.5.
You cannot export model, dataslot, managed adapter, and form of a migrated project to the repository. An error is displayed when you attempt to perform this operation.	A point is added in release notes for this bug.
The FTP managed adapter in a migrated project gets suspended, if the source location is configured to a Document dataslot.	Need to reconfigure the adapter in BPM Studio 7.5 due to changes in server architecture.

Issue	Resolution
The Email managed adapter in a migrated project gets suspended, if the Email body contains an attachment configured to a Document dataslot.	Need to reconfigure the adapter in BPM Studio 7.5 due to changes in server architecture.
The Performer pool of a migrated project contains a list of all managed adapters. Listing of managed adapters is not supported in version 7.5.	It does not have any ill effects and can be ignored.
The "Default" alert is not listed in the Alert workspace for migrated projects.	It does not have any ill effects. Only newly created applications contain the "Default" alert.
Inappropriate message, "Default format for the dataslot has been updated, would like to update the changes" is displayed when you try to modify a dataslot added to a workstep with "default" presentation in a migrated project.	This message is displayed when you try to modify the dataslot for the first time.
In version 7.5, you cannot deploy a migrated project containing a workstep with Flow (private) presentation format containing an initialized document dataslot.	For applications containing an activity having flow private presentation, document dataslots added to the Flow (private) worksteps needs to be re-initialized after importing it to studio 7.5.
Migrated projects from version 6.5 SP2 cannot be deployed from 7.5, if it contains a custom adapter with assigned dataslots using Upper-case names.	This may be due to multiple declarations of the auto-generated set/get methods. You need to regenerate the methods by removing the auto-generated methods, and then saving and re-opening the application.
A Common Resource project with adapters, created in version 6.8, cannot be deployed after migrating to version 7.5	Common Resource projects in 7.5 contain the 'dir.map' file, which contains directory mappings. This file is missing for the migrated projects. The workaround is to create a new Common Resource project in BPM Studio 7.5 and copy the generated 'dir.map' file to the migrated project.



---

# Business Manager Migration from 7.5 to 7.5 SP2

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This section provides instructions for migrating an existing Business Manager version 7.5 or 7.5 SP1 installation to Business Manager 7.5 SP2 installation.

For details, see the following topics:

- [Executing Migration Tool](#)
- [Migrating Applications from Business Manager 7.5 to 7.5 SP2](#)
- [Migrating Aurea CX Process Business Expert from 7.5 to 7.5 SP2](#)
- [Migrating applications from Business Manager 7.5 to 7.5 SP1](#)
- [Business Manager Migration from 6.5 SP2 to 7.5 SP2](#)
- [Business Manager Migration from 7.0 SP2 to 7.5 SP2](#)
- [Business Manager Migration from 7.0 SP2 to 7.5](#)

## Executing Migration Tool

You can use this migration tool to migrate from your existing Business Manager version to a higher Business Manager version. The version combinations supported by this tool are as follows:

- From Business Manager 7.5 to Business Manager 7.5 SP2
- From Business Manager 7.5 SP1 to Business Manager 7.5 SP2

Although, migration of both the above version combinations are supported by this tool, this section explains migration from Business Manager 7.5 (henceforth referred to as Source BM) to Business Manager 7.5 SP2 (henceforth referred to as Target BM). The same procedure is applicable for migration of Business Manager 7.5 SP1 to Business Manager 7.5 SP2.

---

**Important:** You must perform the migration in the same sequence as specified in this section, or the migration may fail.

---

## Points to Remember

Perform the following:

1. You need to execute the migration tool on the machine where Business Manager 7.5 SP2 is installed. In the case of cluster, you can execute the migration tool on any one node of the Business Manager 7.5 SP2 cluster.
2. The database type of the database associated with Source BM needs to be same as that of the Target BM.
3. The DMS provider of Source BM and Target BM must be same. If the DMS provider is 'sds', then the DMS storage type of Source BM and Target BM must also be same. You can find the DMS provider and DMS storage type from the values of the `sdms.provider` and `sdms.storage` properties respectively from the `SBM_HOME/conf/sdms.properties` file.
4. The migration utility does not migrate artifacts like BizSQL reports. They need to be migrated manually.

## Prerequisites

Before you start performing the migration from Business Manager 7.5 to 7.5 SP2, you must ensure that the following prerequisites are met:

1. Ensure that BizStore and Aurea® CX Process BizPulse™ has processed all the events and thus the values for last EventID in BIZSTOREEVENTCOUNTER and BIZPULSEEVENTCOUNTER tables match with maximum value of EventID in BIZEVENT table.
2. When installing Target BM, specify the same administrator user name and password used in Source BM installation. If you have installed the Target BM with a different administrator user, then after the Target BM installation is complete, open the **User Configuration** tool and specify the Source BM administrator user and password for **BusinessManager Admin Credentials**.
3. For proper migration, we assume that both Source BM and Target BM are configured with the same User Management Realm. If not, then all the Business Manager users will not be migrated by this migration tool, and needs to be performed by the Business Manager Administrator.
4. Perform a complete backup of Source BM database. Additionally, perform a complete backup of file system of Business Manager installation folder (in case of a Cluster, perform a backup of the Business Manager installations on all nodes).
5. Install Target BM with a fresh database instance. Do not execute repository setup from the First steps console (or using the `setupsbm` command) with the Target BM installation. Ensure that no database objects (like table, sequence, and so on) exist in this instance.
6. Perform an export dump of the Source BM database. Import it to the database instance that is configured with Target BM. Consult your Database administrator to perform export-import of data.



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**Note:** To preserve the values of the identity columns in Microsoft® SQL Server® tables, contact your database administrator.

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7. Perform the appropriate instructions (as discussed in [Migrating Applications from Business Manager 7.5 to 7.5 SP2](#)) to migrate Business Manager applications.
8. Ensure that there are no adapters in active state in the Source BM.
9. Ensure that all the JMS messages in Business Manager-specific Topics and Queues are processed in Source BM before performing migration. Contact your Application Server Support for this purpose.
10. After importing the database dump of Source BM to the database instance of Target BM, you need to drop the following Application Server-specific tables in the migrated database manually.
  - a) In the case of WebSphere®, for both Single server as well as Cluster Business Manager installation, drop the following tables in migrated database:  
 SIB000, SIB001, SIB002, SIBCLASSMAP, SIBKEYS, SIBLISTING, SIBOWNER, SIBOWNER1, SIBXACTS.
  - b) In the case of WebLogic, for Cluster Business Manager installation, drop the following tables in migrated database:  
 BP<JMSNODENAME>, BL<JMSNODENAME>, JMS<JMSNODENAME>.  
  
 where <JMSNODENAME> is the JMS node name that you have created in Source BM. For example, if you have 2 JMS nodes with names JMSNODE1 and JMSNODE2 respectively, then you must drop following tables on your target database:  
 BPJMSNODE1, BLJMSNODE1, JMSJMSNODE1, BPJMSNODE2, BLJMSNODE2, JMSJMSNODE2.
  - c) In the case of Pramati, for Cluster Business Manager installation, drop the following tables in migrated database:  
 <EJBCLUSTERNAME>, <JMSCLUSTERNAME>  
  
 where <EJBCLUSTERNAME> and <JMSCLUSTERNAME> are the EJB cluster and JMS cluster name respectively that you provided for the cluster setup on Source BM.
11. If the Source BM uses file system as DMS storage type, then the Target BM also should be configured to use file system as DMS storage type. Such a configuration can be set up in the Target BM by setting the values for different properties in  
 SBM\_TARGET\_HOME\conf\sdms.properties same as those in  
 SBM\_SOURCE\_HOME\conf\sdms.properties.  
  
 The property 'sdms.fs.root' in SBM\_TARGET\_HOME\conf\sdms.properties file may carry different value than the one in SBM\_SOURCE\_HOME\conf\sdms.properties. In such a case, copy the contents of the directory specified for property 'sdms.fs.root' in SBM\_SOURCE\_HOME\conf\sdms.properties to directory specified for property 'sdms.fs.root' in SBM\_TARGET\_HOME\conf\sdms.properties.

## Using the Migration Tool

To perform migration using the Migration tool:

1. Extract the Business Manager Migration tool (\*.zip file) to a new folder on the machine where Target BM is installed.

Set the following environment variables in `sbmclientenv.cmd` file located in the `\bin` folder. Use forward slash (/) for specifying various folder paths.

Environment Variable	Description
<b>JAVA_HOME</b>	JRE/JDK installation folder. The value of this variable needs to be same as the value of the same variable in the sbmclientenv.cmd file, located in the <code>SBM_Home\bin</code> folder of the Target BM.
<b>SBM_TARGET_HOME</b>	Target BM installation folder
<b>SBM_SOURCE_VERSION</b>	Source version of the BM installation. The value of this variable for BM 7.5 should be 7.5.0 and for BM 7.5 SP1 should be 7.5.1.
<b>MIGRATION_HOME</b>	Installation folder of the Migration tool

2. Perform this step only if Business Manager is configured with Sybase<sup>®</sup> database. Consult your database administrator before performing following operation. You need to configure the database level settings in order to run the Migration tool. Refer to the Sybase<sup>®</sup> User Manual ([http://infocenter.sybase.com/help/topic/com.sybase.dc31654\\_31644\\_1250/html/sag/X80055.htm](http://infocenter.sybase.com/help/topic/com.sybase.dc31654_31644_1250/html/sag/X80055.htm)) for more information. You need to perform either of the following steps:
  - a) Open the SQL script located in the `SBM_MIGRATION_HOME\dbscripts\Sybase\enableDatabaseOptions.sql` file using Text Editor. Change the database name to point to target database, then save the file. Now execute this script using SQL Advantage.
  - b) Open the Sybase<sup>®</sup> Central Java Edition tool. Connect using administrator login, to view all the databases. Right-click the target database, then select the **Properties** option. From the **options** tab, select the **select into/bulkcopy/pilsort** checkbox. Click **Apply** to save the changes, then click **OK**.
3. To start the migration, execute the `sbsmmigration.cmd/sh` command from the `\bin` folder. View the `\logs\migration.log` file for any warnings and error messages.
4. For the Source BM, if the DMS (Document Management system) provider is `sds` (default) and the DMS storage type is `fs` (File System), you need to copy the contents of root folder of DMS in the Source BM to the root folder of DMS in the Target BM. You can find the DMS provider, the DMS storage type and the DMS root folder from the values of the `sdms.provider`, `sdms.storage` and `sdms.fs.root` properties respectively in the `SBM_Home\conf\sdms.properties` file.

5. Perform this step only if Business Manager is configured with Sybase® database. Take help of your Database Administrator to perform this step. You need to perform this step to revert to the original database level settings (modified in [Step 2](#)). You need to perform either of the following steps:
  - a) Open the SQL script located in the `SBM_MIGRATION_HOME\dbscripts\Sybase\disableDatabaseOptions.sql` file using Text Editor. Change the database name to point to target database, then save the file. Now execute this script using SQL Advantage.
  - b) Open the Sybase® Central Java Edition tool. Connect using administrator login, to view all the databases. Right-click the target database, then select the **Properties** option. From the **options** tab, clear the **select into/bulkcopy/pllsort** checkbox. Click **Apply** to save the changes, then click **OK**.
6. Perform this step only if Business Manager is configured with IBM® DB2® database. Take help of your Database Administrator to perform this step.
  - a) After performing migration, identify the tables that are in reorganization-pending state. You can execute the following SQL statements to do this.
 

```
CONNECT TO SBM_DATABASE;
SELECT TABNAME AS TABLE, REORG_PENDING FROM
TABLE (SYSPROC.ADMIN_GET_TAB_INFO('SBM_USER','')) AS T WHERE
REORG_PENDING='Y';
CONNECT RESET;
```

where `SBM_DATABASE` is the name of the database configured with your Business Manager and `SBM_USER` is the schema name.
  - b) Perform reorganization on each of the table selected in the previous step. You can execute the following SQL statements to do this.
 

```
CONNECT TO SBM_DATABASE;
REORG TABLE SBM_USER.<Table_Name> ALLOW READ ACCESS;
CONNECT RESET;
```

where `SBM_DATABASE` is the name of the database configured with your Business Manager, `SBM_USER` is the schema name and `<Table_Name>` is the name of the table.

In the case of Business Manager cluster, you need to configure the Target BM cluster setup after completing the above migration steps.

## Migrating Applications from Business Manager 7.5 to 7.5 SP2

You need to perform the following instructions to migrate Business Manager 7.5 applications to 7.5 SP2 using Aurea® CX Process BPM Studio™.

1. Ensure that all the Business Objects, Messages, and Channels are exported to Database Repository using BPM Studio 7.5. You must import them in BPM Studio 7.5 SP2 from Database Repository.
2. If you are using Database Managed Adapters (DBAdapters) in your applications, then you need to copy the `db.properties` file from the `BPMStudio_7.5_HOME\workspace\.com.savvion.studio\adapters\DBAdapters` folder to the corresponding folder in BPM Studio 7.5 SP2.

3. Copy the required Aurea® CX Process BizLogic™, Web, and Common Resource application folders from `BPMStudio_7.5_HOME\workspace` folder to `BPMStudio_7.5SP2_HOME\workspace` folder.
4. Import these projects in BPM Studio 7.5 SP2 as described in the “Importing a Process File” section of the *BPM Studio User’s Guide*.

---

**Note:** We recommend you review the list of modified/removed APIs in Business Manager 7.5 SP2 - Release Notes before migrating the applications.

---

5. Open and save each imported project, then build the project in BPM Studio 7.5 SP2. For projects containing subprocesses (inline or external) or worksteps with Flow (or flow private) presentation, you also need to build the associated subprocesses or Web application projects in BPM Studio 7.5 SP2.
6. Export each project as an Archive file and save it as a zip file. For more information, refer to Eclipse® documentation.
7. Extract the BizLogic application zip file to `SBM_7.5SP2_HOME\ebmsapps` folder and `SBM_7.5SP2_WEBAPPDIR\ebmsapps` folder. Extract the Web application zip file to `SBM_7.5SP2_HOME\BizSolo` folder and `SBM_7.5SP2_WEBAPPDIR\BizSolo` folder. You can view the `WEBAPPDIR` location from the `SBM.WebAppDir` property in the `sbm.conf` file.
8. If any of the BizLogic applications makes use of any custom java classes and jar files, then copy them to respective location in Business Manager 7.5 SP2 installation.
9. Balanced Scorecard applications are created in Aurea® CX Process BPM Portal™ and do not exist in the BPM Studio workspace. To migrate these applications, copy the application folder from `SBM_7.5_HOME\ebmsapps` to `SBM_7.5SP2_HOME\ebmsapps` and `SBM_7.5SP2_WEBAPPDIR\ebmsapps` folders.
10. Perform the following steps to migrate adapter and custom classes:
  - a) Copy the custom classes in `SBM_7.5_HOME\ebmsapps\common\ejbadapters` to `SBM_7.5SP2_HOME\ebmsapps\common\classes` folder.
  - b) Add the required third-party JAR files to the `SBM_7.5SP2_HOME\ebmsapps\common\lib` folder.

---

**Note:** Do not copy any ejb stub classes, if present in `SBM_7.5_HOME\ebmsapps\common\ejbadapters` folder.

---

In the case of Business Manager cluster, you need to execute the instructions described in [Step 7](#), [Step 8](#), and [Step 9](#) on each node of the cluster.

## Migrating Common Resource Projects

You need to perform the following instructions to migrate Common Resource projects from 7.5 to 7.5 SP2 using BPM Studio.

1. Copy all the Common Resource project folder from `BPMStudio_7.5_Home\workspace` folder to `BPMStudio_7.5SP2_Home\workspace` folder.
2. Start all Business Manager servers including BizLogic and BizPulse servers. In case of a cluster, start each node of the cluster.
3. Open and save each Common Resource project, then build the project in BPM Studio 7.5 SP2. Deploy the projects on Target BM.

# Migrating Aurea® CX Process Business Expert™ from 7.5 to 7.5 SP2

The same migration tool that you use for Business Manager migration, also migrates Aurea® CX Process Business Expert™ data automatically and transparently without any additional steps or user intervention while migrating Business Manager data.

If you are using Sybase® or multi-byte MSSQL as your database, then migration of Business Expert is not supported.

## Migration Issues

You may encounter the following issues in applications migrated from version 7.5 to 7.5 SP2.

Issue	Resolution
<p>For migrated applications containing a custom presentation workstep with a double-type dataslot, you cannot complete nor save the corresponding task after updating the double-type dataslot field with a non-zero value after the decimal point.</p>	<p>Open the application in BPM Studio 7.5 SP2, then open the workstep's custom JSP file and change <code>alt="number 0 bok"</code> to <code>alt="number 1 bok"</code> in the following <code>"input"</code> tag:</p> <pre>&lt;input type="text" class="ApInptTxt" id="textField1" name="DOUBLE DATASLOT NAME" size="30" value="&lt;bizsolo:value name=' DOUBLE DATASLOT NAME '/&gt;" alt="number 0 bok"&gt;</pre>
<p>Migrated application, containing a JMS adapter workstep, does not execute and displays the exception message, "Cannot obtain queue connection factory jms/JMSAdapterXAQCF; context(JMSAdapterUtil.getConnectionFactory()); Nested:[jms/JMSAdapterXAQCF] not bound in Naming Service."</p>	<p>After importing this application in BPM Studio 7.5 SP2, open the Properties view of the JMS adapter workstep, then from Configuration tab, click Configure to set the "Connection Factory (JNDI Name)" value to "jms/BMConnectionFactoryXA." Save the application, then build the project, and complete the application migration process. After migration, start the EJB and Portal servers only and from <code>SBM_Home\bin\</code> folder, execute the following command:</p> <pre>MapDeployer.cmd/sh &lt;Application_name&gt;</pre> <p>Proceed with the rest of the Business Manager server startup procedure.</p>
<p>If an application has a human activity workstep with a 'Form' presentation in which individual Business Object attributes are added (instead of adding the whole Business Object in a single step), then after migrating such an application, when you open task interface of such a workstep in BPM Studio by clicking a task in the Task List</p>	<p>This BPM Portal bug is fixed in hotfix 1 of Business Manager 7.5 SP2.</p>

Issue	Resolution
page, an error message is shown and the task interface is not displayed.	
After importing a simulation project from Business Manager 7.5 to 7.5 SP2, the 'Instance creation count' for the process is set to unlimited in the target version, although it is set to some finite value in the source version.	After importing this application in BPM Studio 7.5 SP2, re-enter the 'Instance creation count' value.
After importing a simulation project from Business Manager 7.5 to 7.5 SP2, the value specified in 'Days' for fields of type 'Days:Hours:Minutes' in the source version does not migrate in the target version.	After importing this application in BPM Studio 7.5 SP2, re-enter the duration values in the 'Hours:Minutes:Seconds' format.
If an application has been published as a Web service in Business Manager 7.5, the application is not accessible as a Web service post migration. This is due to the unavailability of the related *.wsdl file in the target setup.	After migration, you need to unpublish the published Web service of the application in BPM Portal, before publishing the application again as a Web service.
If an application has been published as a model using the Process Repository in Business Manager 7.5, an error is displayed in BPM Portal when accessing the model post migration.	After migration, you need to unpublish the model using Process Repository, before publishing the application again as a model.
After migrating user-defined or copied analysis from Business Expert 7.5 to 7.5 SP2, the generated analysis report is not displayed and BPM Portal displays an error message.	Open the migrated analysis for edit in BPM Portal in 7.5 SP2 and save without any modifications. This regenerates the OLAP schema file.

## Migrating applications from Business Manager 7.5 to 7.5 SP1

This section contains hints, useful tips, suggestions about migrating applications from Business Manager 7.5 to Business Manager 7.5 SP1.

1. Copy the required BizLogic, Web Flow (BizSolo) and Common Resource application folders from 'BPMStudio\_7.5\_HOME/workspace' folder to 'BPMStudio\_7.5SP1\_HOME/workspace' folder.
2. Import these projects in BPMStudio 7.5 SP1 using 'Existing projects from Workspace' option.
3. Open each project, build the project and Save the project in BPMStudio 7.5 SP1.
4. Export each project using 'Archive' option in the eclipse studio and save it as a zip file.
5. Unzip the BizLogic application zip file in 'SBM\_7.5SP1\_HOME/ebmsapps' folder and 'SBM\_7.5SP1\_WEBAPPDIR/ebmsapps' folder. And unzip the Web Flow (BizSolo) application zip file in 'SBM\_7.5SP1\_HOME/BizSolo' folder and 'SBM\_7.5SP1\_WEBAPPDIR/BizSolo' folder. The WEBAPPDIR location can be found from property 'SBM.WebAppDir' in file 'sbm.conf'.
6. If the BizLogic applications make use of any custom java classes and/or jar files, then copy them also to respective places in Business Manager 7.5 SP1 installation.

7. Ensure that the Business Objects, messages and channels are exported to Database Repository using BPM Studio 7.5 , if you want them to be migrated to BPM Studio 7.5 SP1. You may use them in BPM Studio 7.5 SP1 by importing them from Database Repository.
8. 'Balanced Scorecard' applications are created from BPM Portal and are not present in BPM Studio workspace. To migrate these applications, the application folder needs to be copied from 'SBM\_7.5\_HOME/ebmsapps' to 'SBM\_7.5SP1\_HOME/ebmsapps' folder and 'SBM\_7.5SP1\_WEBAPPDIR/ebmsapps' folder.

In the case of SBM 7.5 SP1 cluster setup, you need to execute the instructions mentioned in [Step 5](#), [7](#), and [8](#) on each node of the cluster setup.

## Business Manager Migration from 6.5 SP2 to 7.5 SP2

You can perform Business Manager migration from an existing 6.5 SP2 installation (henceforth referred to as Source BM) to 7.5 SP2 (henceforth referred to as Target BM) in the following two steps:

1. Executing the migration tool to migrate from Business Manager 6.5 SP2 to 7.5.
2. Executing the migration tool to migrate from Business Manager 7.5 to 7.5 SP2.

---

**Note:** You do not need to install Business Manager 7.5 in order to perform this migration process.

---

## Prerequisites

Before performing the migration, you need to extract the migration tool (\*.zip) files as follows:

1. Extract the Business Manager Migration tool (6.5 SP2 to 7.5) to a new folder on the machine where Target BM is installed.
2. Extract the Business Manager Migration tool (7.5 to 7.5 SP2) to another new folder on the machine where Target BM is installed.

To execute the Business Manager Migration tool (6.5 SP2 to 7.5), perform the instructions provided in the chapter [Business Manager Migration from 6.5 SP2 to 7.5](#) on page 15 with the following exceptions:

- Read all instances of “SBM 7.5” in the documents as “SBM 7.5 SP2.”
- Read all instances of “Aurea® CX Process BPM Studio™ 7.5” in the documents as “BPM Studio 7.5 SP2.”
- From the section [Instructions for Migrating Applications from Business Manager 6.5 SP2 to Business Manager 7.5](#) on page 19, execute step 3 as: “Open and save each project, then build the project in BPM Studio 7.5 SP2.” If you encounter any migration issue—as listed in *<xi\_Xref Italic>Migration Issues in Aurea® CX Process BPM Studio™* you need to apply the resolution before executing this step.

To execute the Business Manager Migration tool (7.5 to 7.5 SP2), perform the instructions provided in the associated [Migrating Applications from Business Manager 7.5 to 7.5 SP2](#) on page 27 with the following exceptions in the “Prerequisites” section:

- Do not execute Step 4 regarding backup of 7.5 database, as you have completed the backup of the Source BM database before executing the previous migration tool.
- Do not execute Steps 5 and 6, as you have completed installing Target BM with a fresh database instance, as well as imported the database dump of the Source BM to the database instance configured with Target BM.
- Do not execute Step 8 regarding application migration, as you have completed the migration while executing the previous migration tool.
- Do not execute Step 11, as you have completed this instruction while executing the previous migration tool.

## Migrating Common Resource projects

To migrate Common Resource projects using BPM Studio:

1. Copy all the Common Resource project folder from `BPMStudio6.5SP2_Home\workspace` folder to `BPMStudio7.5SP2_Home\workspace` folder.
2. Common Resource projects created in BPM Studio 7.5 SP2 contains directory mappings in the `dir.map` file. This file is not available for projects migrated from BPM Studio 6.5 SP2. To resolve this issue:
  - a) Create and save a Common Resource project in BPM Studio 7.5 SP2.
  - b) Copy the generated `dir.map` file from this project folder to each of the migrated projects. For more information, refer to issue in the [Migration Issues in Aurea CX Process BPM Studio](#) on page 32 section.
3. Start all Business Manager servers including Aurea® CX Process BizLogic™ and Aurea® CX Process BizPulse™ servers. In the case of a cluster, start each node of the cluster.
4. Open and save each Common Resource project, then build the project in BPM Studio 7.5 SP2. Deploy the projects on Target BM.

## Migration Issues in Aurea® CX Process BPM Studio™

You may encounter the following migration issues when importing BPM Studio projects from version 6.5 SP2 to 7.5 SP2.

**Table 2: Migration issues**

Issue	Resolution
For activity worksteps (human performers) having its task interface as custom HTML format, this interface is not supported in 7.5 SP2.	After migration, you need to change the task interface to any of the supported options in 7.5 SP2 namely, Auto-generated, custom JSP, form, flow, or flow (private).
The default header in forms of migrated BPM Studio projects is not displayed in 7.5 SP2 Form interface.	Remove the default header from the form in BPM Studio 7.5 SP2 Form Editor and drag Header from the Layout section of the Tasks pane.



Issue	Resolution
FTP adapter containing a document dataslot gets suspended after migrating the containing process to 7.5 SP2.	<p>You need to regenerate the FTP adapter configuration in BPM Studio 7.5 SP2.</p> <p>Click the FTP adapter workstep and from the Properties view &gt; Configuration tab, click Configure to open the FTP Adapter Configurator and then the Map Configurator.</p> <p>Save and refresh the process after executing the migration tools to migrate from 6.5 SP2 to 7.5 and then from 7.5 to 7.5 SP2.</p>
For migrated applications, the labels of String dataslot-type Form fields in—checkbox, radio button, combo box and select formats—are not properly displayed in 7.5 SP2 Form interface.	You need to redefine the label and value for these controls in Form Editor of BPM Studio 7.5 SP2.
Cannot complete a workstep (with Form presentation) of a migrated Web application, as the “Connection” button is not available in 7.5 SP2 Form interface.	Remove the footer from the form in BPM Studio 7.5 SP2 Form Editor and drag Footer from the Layout section of the Tasks pane.

## Business Manager Migration from 7.0 SP2 to 7.5 SP2

You can perform Business Manager migration from an existing 7.0 SP2 installation (henceforth referred to as Source BM) to 7.5 SP2 (henceforth referred to as Target BM) in the following two steps:

1. Executing the migration tool to migrate from Business Manager 7.0 SP2 to 7.5.
2. Executing the migration tool to migrate from Business Manager 7.5 to 7.5 SP2.

---

**Note:** You do not need to install Business Manager 7.5 in order to perform this migration process.

---

## Prerequisites

Before performing the migration, you need to extract the migration tool (\*.zip) files as follows:

1. Extract the Business Manager Migration tool (7.0 SP2 to 7.5) to a new folder on the machine where Target BM is installed.
2. Extract the Business Manager Migration tool (7.5 to 7.5 SP2) to another new folder on the machine where Target BM is installed.

To execute the Business Manager Migration tool (7.0 SP2 to 7.5), perform the instructions provided in the associated [Business Manager Migration from 7.0 SP2 to 7.5](#) on page 35 with the following exceptions:

- From the [Business Manager Migration from 7.0 SP2 to 7.5](#) on page 35, execute step 3 as: “Open and save each project, then build the project in Aurea® CX Process BPM Studio™ SP2.”
- Read all instances of “SBM 7.5” in the documents as “SBM 7.5 SP2.”
- Read all instances of “BPM Studio 7.5” in the documents as “BPM Studio 7.5 SP2.”

To execute the Business Manager Migration tool (7.5 to 7.5 SP2), perform the instructions provided in the associated [Business Manager Migration from 7.5 to 7.5 SP2](#) on page 23 and the following sections up to [Migration Issues](#) on page 29 with the following exceptions in the “Prerequisites” section:

- Do not execute Step 4 regarding backup of 7.5 database, as you have completed the backup of the Source BM database before executing the previous migration tool.
- Do not execute Steps 5 and 6, as you have completed installing Target BM with a fresh database instance, as well as imported the database dump of the Source BM to the database instance configured with Target BM.
- Do not execute Step 8 regarding application migration, as you have completed the migration while executing the previous migration tool.
- Do not execute Step 11, as you have completed this instruction while executing the previous migration tool.

## Migration Issues in Aurea® CX Process BPM Studio™

You may encounter the following migration issue when importing BPM Studio projects from version 7.0 SP2 to 7.5 SP2.

**Table 3: Migration issues**

Issue	Resolution
Migrated applications containing a custom adapter workstep with String dataslot with modified argument name in its Set method, cannot be build in Studio 7.5 SP2.	Using Studio 7.5 SP2, you need to regenerate the argument name for Set method used in all Custom adapter worksteps.
For migrated applications, the labels of String dataslot-type Form fields in—checkbox, radio button, combo box and select formats—are not properly displayed in 7.5 SP2 Form interface.	You need to redefine the label and value of the String dataslot from the Dataslot content pane tab of BPM Studio 7.5 SP2.

## Migrating Common Resource projects

To migrate Common Resource projects using BPM Studio:

1. Copy all the Common Resource project folder from `BPMStudio7.0SP2_Home\workspace` folder to `BPMStudio7.5SP2_Home\workspace` folder.
2. Common Resource projects created in BPM Studio 7.5 SP2 contains directory mappings in the `dir.map` file. This file is not available for projects migrated from BPM Studio 7.0 SP2. To resolve this issue:
  - a) Create and save a Common Resource project in BPM Studio 7.5 SP2.
  - b) Copy the generated `dir.map` file from this project folder to each of the migrated projects.
3. Start all Business Manager servers including Aurea® CX Process BizLogic™ and Aurea® CX Process BizPulse™ servers. In the case of a cluster, start each node of the cluster.
4. Open and save each Common Resource project, then build the project in BPM Studio 7.5 SP2. Deploy the projects on Target BM.

# Business Manager Migration from 7.0 SP2 to 7.5

This document contains hints, useful tips, and suggestions about migrating Business Manager (henceforth referred to as Business Manager) applications from Business Manager 7.0 SP2 to Business Manager 7.5.

1. Copy the required Aurea® CX Process BizLogic™ and Web Flow (Aurea® CX Process BizSolo™) application folders from 'BPMStudio\_7.0SP2\_HOME/workspace' folder to 'BPMStudio\_7.5\_HOME/workspace' folder.
2. Import these projects in Aurea® CX Process BPM Studio™ using 'Existing projects from Workspace' option.
3. Open each project, build the project and Save the project in BPMStudio 7.5.
4. Export each project using 'Archive' option in the eclipse studio and save it as a zip file.
5. Unzip the BizLogic application zip file in 'SBM\_7.5\_HOME/ebmsapps' folder and 'SBM\_7.5\_WEBAPPDIR/ebmsapps' folder. And unzip the Web Flow (BizSolo) application zip file in 'SBM\_7.5\_HOME/BizSolo' folder and 'SBM\_7.5\_WEBAPPDIR/BizSolo' folder. The WEBAPPDIR location can be found from property 'SBM.WebAppDir' in file 'sbm.conf'.
6. If the BizLogic applications make use of any custom java classes and/or jar files, then copy them also to respective places in Business Manager 7.5 installation.
7. Please make sure that the Business Objects, messages and channels are exported to Database Repository using Aurea® CX Process BPM Studio™ 7.0 SP2, if you want them to be migrated to BPM Studio 7.5. You may use them in BPM Studio 7.5 by importing them from Database Repository.
8. 'Balanced Scorecard' applications are created from Aurea® CX Process BPM Portal™ and are not present in BPM Studio workspace. To migrate these applications, the application folder needs to be copied from 'SBM\_7.0SP2\_HOME/ebmsapps' to 'SBM\_7.5\_HOME/ebmsapps' folder and 'SBM\_7.5\_WEBAPPDIR/ebmsapps' folder.

In the case of a SBM 7.5 cluster setup, you need to execute the instructions mentioned in Step 5, 7, and 8 on each node of the cluster setup.

## Migration Issues in Aurea® CX Process BPM Studio™

You may encounter the following migration issues when importing BPM Studio projects from version 7.0 SP2 to 7.5.

Issue	Resolution
"Read Me" document does not include procedure to migrate SBM Common Resource project.	Common Resource projects in 7.5 contain the 'dir.map' file, which contains directory mappings. This file is missing for the migrated projects. The workaround is to create a new Common Resource project in BPM Studio 7.5 and copy the generated 'dir.map' file to the migrated project.
You cannot migrate published model documentation from SBM 7.0 SP2 to version 7.5.	You will need to copy the webapp/models directory from the source installation to the target installation.



## Business Manager Migration from 7.5 SP2 to 7.6 SP1

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This section describes how you can use the migration tool for migrating an existing Business Manager version 7.5 SP2 (henceforth referred to as Source BM) installation to Business Manager 7.6 SP1 installation (henceforth referred to as Target BM).

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**Important:** You must perform the migration in the same sequence as specified in this section, or the migration may fail.

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**Note:** You can also use this migration tool and the instructions provided in this section to migrate from Business Manager 7.5 SP2 to Business Manager 7.6 installation.

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For details, see the following topics:

- [Points to Remember](#)
- [Prerequisites](#)
- [Using the Migration Tool](#)
- [Migrating Applications from Business Manager 7.5 SP2 to 7.6 SP1](#)
- [Migrating Business Expert from 7.5 SP2 to 7.6 SP1](#)
- [Migration issues in BPM Studio](#)

## Points to Remember

Perform the following:

1. You need to execute the migration tool on the machine where Target BM is installed. In the case of cluster setup, you can execute the migration tool on any one node of the Target BM cluster.
2. The database type of the database associated with Source BM needs to be same as that of the Target BM.
3. The DMS provider of Source BM and Target BM must be same. If the DMS provider is 'sds', then the DMS storage type of Source BM and Target BM must also be same. You can find the DMS provider and DMS storage type from the values of the `sdms.provider` and `sdms.storage` properties respectively from the `SBM_HOME\conf\sdms.properties` file.
4. The migration utility does not migrate artifacts like BizSQL reports. They need to be migrated manually.

## Prerequisites

Before you start execution of migration tool, you must ensure that the following prerequisites are met:

1. Ensure that BizStore and BizPulse has processed all the events and thus the values for last EventID in BIZSTOREEVENTCOUNTER and BIZPULSEEVENTCOUNTER tables match with maximum value of EventID in BIZEVENT table.
2. When installing Target BM, specify the same administrator user name and password used in Source BM installation. If you have installed the Target BM with a different administrator user, then after the Target BM installation is complete, open the **User Configuration** tool and specify the Source BM administrator user and password for **Business Manager Admin Credentials**.
3. For proper migration, we assume that both Source BM and Target BM are configured with the same User Management Realm. If not, then all the Business Manager users will not be migrated by this migration tool. Your Business Manager administrator needs to create the users.

In the Target BM, the configuration parameter for specifying the user management realm has been modified in the `SBM_HOME\conf\umacl.conf` file. You need to use the `usermgr.realm.type` and `usermgr.realm.provider` parameters instead of the

`usermgr.class` parameter. Table 1 provides the values that you need to specify for these parameters, which replaces the `usermgr.class` parameter value in Source BM.

**Table 4: User management realm configuration**

Value of <code>usermgr.class</code> parameter in Source BM	Value of <code>usermgr.realm.type</code> parameter in Target BM	Value of <code>usermgr.realm.provider</code> parameter in Target BM
<code>com.tdiinc.userManager.JDBCRealm</code>	<code>jdbc</code>	Leave this parameter value empty.
<code>com.tdiinc.userManager.LDAPRealm</code>	<code>ldap</code>	Leave this parameter value empty.
Custom realm class name, example, <code>com.progress.MyRealm</code>	<code>custom</code>	Same as the custom realm class name, example, <code>com.progress.MyRealm</code>

## For migrating from a version prior to 7.5 SP2

If you are migrating from a version prior to 7.5 SP2 to the Target BM, you need to copy the `usermgr.class` parameter and its value from the `umacl.conf` file in your previous version and append it to same file in your Target BM. After executing the migration process and before restarting Business Manager servers, you should remove this parameter from the Target BM.

1. Perform a complete backup of Source BM database. Additionally, perform a complete backup of file system of Business Manager installation folder (in case of a Cluster, perform a backup of the Business Manager installations on all nodes).
2. Install Target BM with a fresh database instance. Do not execute repository setup from the First steps console (or using the `setupsbm` command) with the Target BM installation. Ensure that no database objects (like table, sequence, and so on) exist in this instance.
3. Perform an export dump of the Source BM database. Import it to the database instance that is configured with Target BM. Consult your Database administrator to perform export-import of data.

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**Note:** To preserve the values of the identity columns in Microsoft<sup>®</sup> SQL Server<sup>®</sup> tables, contact your database administrator.

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4. Perform the appropriate instructions (as discussed in [Migrating Applications from Business Manager 7.5 SP2 to 7.6 SP1](#)) to migrate Business Manager applications.
5. Ensure that there are no adapters in active state in the Source BM.
6. Ensure that all the JMS messages in Business Manager-specific Topics and Queues are processed in Source BM before performing migration. Contact your Application Server Support for this purpose.
7. After importing the database dump of Source BM to the database instance of Target BM, you need to drop the following Application Server-specific tables in the migrated database manually.
  - a) In the case of WebSphere<sup>®</sup>, for both Single server as well as Cluster Business Manager installation, drop the following tables in migrated database:

SIB000, SIB001, SIB002, SIBCLASSMAP, SIBKEYS, SIBLISTING, SIBOWNER, SIBOWNER1, SIBXACTS.

- b) In the case of WebLogic, for Cluster Business Manager installation, drop the following tables in migrated database:

BP<JMSNODENAME>, BL<JMSNODENAME>, JMS<JMSNODENAME>.

where <JMSNODENAME> is the JMS node name that you have created in Source BM. For example, if you have 2 JMS nodes with names JMSNODE1 and JMSNODE2 respectively, then you must drop following tables on your target database:

BPJMSNODE1, BLJMSNODE1, JMSJMSNODE1, BPJMSNODE2, BLJMSNODE2, JMSJMSNODE2.

- c) In the case of Pramati, for Cluster Business Manager installation, drop the following tables in migrated database:

<EJBCLUSTERNAME>, <JMSCLUSTERNAME>

where <EJBCLUSTERNAME> and <JMSCLUSTERNAME> are the EJB cluster and JMS cluster name respectively that you provided for the cluster setup on Source BM.

8. If the Source BM uses file system as DMS storage type, then the Target BM also should be configured to use file system as DMS storage type. Such a configuration can be set up in the Target BM by setting the values for different properties in SBM\_TARGET\_HOME\conf\sdms.properties same as those in SBM\_SOURCE\_HOME\conf\sdms.properties.

The property 'sdms.fs.root' in SBM\_TARGET\_HOME\conf\sdms.properties file may carry different value than the one in SBM\_SOURCE\_HOME\conf\sdms.properties. In such a case, copy the contents of the directory specified for property 'sdms.fs.root' in SBM\_SOURCE\_HOME\conf\sdms.properties to directory specified for property 'sdms.fs.root' in SBM\_TARGET\_HOME\conf\sdms.properties.

## Using the Migration Tool

You need to complete the following steps to perform migration using the Migration tool. You must ensure that all Business Manager servers (Source BM and Target BM) are shut down before executing the migration tool. You can start the Business Manager servers after completing the migration process.

To perform migration using the Migration tool:

1. Extract the Business Manager Migration tool (\*.zip file) to a new folder on the machine where Target BM is installed.

Set the following environment variables in `setenv.cmd/sh` file located in the `\bin` folder. Use forward slash (/) for specifying various folder paths.



**Table 5: Environment variables**

Environment Variable	Description
JAVA_HOME	JRE/JDK installation folder. The value of this variable needs to be same as the value of the same variable in the sbmclientenv.cmd file, located in the SBM_Home\bin folder of the Target BM.
SBM_TARGET_HOME	Target BM installation folder
MIGRATION_HOME	Installation folder of the Migration tool

2. To start the migration, execute the `sbmmigration.cmd/sh` command from the `\bin` folder. View the `\logs\migration.log` file for any warnings and error messages.
3. Perform this step only if Business Manager is configured with IBM® DB2® database. Take help of your Database Administrator to perform this step.
  - a) After performing migration, identify the tables that are in reorganization-pending state. You can execute the following SQL statements to do this.

```
CONNECT TO SBM_DATABASE;
SELECT TABNAME AS TABLE, REORG_PENDING FROM
TABLE(SYSPROC.ADMIN_GET_TAB_INFO('SBM_USER','')) AS T WHERE
REORG_PENDING='Y';
CONNECT RESET;
```

where `SBM_DATABASE` is the name of the database configured with your Business Manager and `SBM_USER` is the schema name.
  - b) Perform reorganization on each of the table selected in the previous step. You can execute the following SQL statements to do this.

```
CONNECT TO SBM_DATABASE;
REORG TABLE SBM_USER.<Table_Name> ALLOW READ ACCESS;
CONNECT RESET;
```

where `SBM_DATABASE` is the name of the database configured with your Business Manager, `SBM_USER` is the schema name and `<Table_Name>` is the name of the table.
  - c) Open the `dbscripts\ibmdb2\migrate752to76ddl_manual.sql` file using any text editor. Execute each SQL statement in this file in the order of sequence. Execution of the `ALTER_TABLE` statements may cause the corresponding table to be in reorganization-pending state. You need to perform reorganization of this table before executing the next SQL statement. Complete step 3a to confirm if this table is in reorganization-pending state. If yes, then complete step 3b.
4. For the Source BM, if the DMS (Document Management system) provider is `sds` (default) and the DMS storage type is `fs` (File System), you need to copy the contents of root folder of DMS in the Source BM to the root folder of DMS in the Target BM. You can find the DMS provider, the DMS storage type and the DMS root folder from the values of the `sdms.provider`, `sdms.storage` and `sdms.fs.root` properties respectively in the `SBM_Home\conf\sdms.properties` file.

# Migrating Applications from Business Manager 7.5 SP2 to 7.6 SP1

You need to perform the following instructions to migrate Business Manager 7.5 SP2 applications to 7.6 SP1 using Aurea® CX Process BPM Studio™:

1. Ensure that all the Business Objects, Messages, and Channels are exported to Database Repository using BPM Studio 7.5 SP2. You must import them in BPM Studio 7.6 SP1 from Database Repository.
2. If you are using Database Managed Adapters (DBAdapters) in your applications, then you need to copy the `db.properties` file from the `BPMStudio_7.5SP2_HOME\workspace\.com.savvion.studio\adapters\DBAdapters` folder to the corresponding folder in BPM Studio 7.6 SP1.
3. Copy the required Aurea® CX Process BizLogic™, Web, and Common Resource application folders from `BPMStudio_7.5SP2_HOME\workspace` folder to `BPMStudio_7.6SP1_HOME\workspace` folder.
4. Import these projects in BPM Studio 7.6 SP1 as described in the “Importing a Process File” section of the *BPM Studio User’s Guide*.

---

**Note:** We recommend you review the list of modified/removed APIs in Business Manager 7.6 SP1 - Release Notes before migrating the applications.

---

5. Open and save each imported project, then build the project in BPM Studio 7.6 SP1. For projects containing external subprocesses or worksteps with Flow presentation, you also need to build the associated subprocesses or Web application projects in BPM Studio 7.6 SP1.
6. Export each project as an Archive file and save it as a zip file. For more information, refer to Eclipse® documentation.
7. Extract the BizLogic application zip file to `SBM_7.6SP1_HOME\ebmsapps` folder and `SBM_7.6SP1_WEBAPPDIR\ebmsapps` folder. Extract the Web application zip file to `SBM_7.6SP1_HOME\BizSolo` folder and `SBM_7.6SP1_WEBAPPDIR\BizSolo` folder. You can view the `WEBAPPDIR` location from the `SBM.WebAppDir` property in the `sbm.conf` file.
8. If any of the BizLogic applications makes use of any custom java classes and jar files, then copy them to respective location in Target BM installation.
9. Balanced Scorecard applications are created in Aurea® CX Process BPM Portal™ and do not exist in the BPM Studio workspace. To migrate these applications, copy the application folder from `SBM_7.5SP2_HOME\ebmsapps` to `SBM_7.6SP1_HOME\ebmsapps` and `SBM_7.6SP1_WEBAPPDIR\ebmsapps` folders.
10. To migrate applications published as web service, perform the following steps.
  - Copy the `SBM_SOURCE_HOME\webapps\deploy\sbm\<ApplicationName>.jws` file to `SBM_TARGET_HOME\webapps\deploy\sbm` folder.
  - Copy the `SBM_SOURCE_HOME\webapps\deploy\sbm\wsdl\<ApplicationName>.wsdl` file to `SBM_TARGET_HOME\webapps\deploy\sbm\wsdl` folder.
  - Copy the `SBM_SOURCE_HOME\webapps\deploy\sbm\WEB-INF\jwsClasses` folder to `SBM_SOURCE_HOME\webapps\deploy\sbm\WEB-INF` folder.

In the case of a Business Manager cluster, you need to execute the instructions described in Step 7, Step 8, Step 9, and Step 10 on each node of the cluster.

## Migrating Common Resource Projects

You need to perform the following instructions to migrate Common Resource projects from 7.5 SP2 to 7.6 SP1 using BPM Studio:

1. Copy all the Common Resource project folder from `BPMStudio_7.5SP2_Home\workspace` folder to `BPMStudio_7.6SP1_Home\workspace` folder.
2. Start all Business Manager servers including BizLogic and BizPulse servers. In case of a cluster, start each node of the cluster.
3. Open and save each Common Resource project, then build the project in BPM Studio 7.6 SP1. Deploy the projects on Target BM.

## Migrating Business Expert from 7.5 SP2 to 7.6 SP1

The same migration tool that you use for Business Manager migration, also migrates Business Expert data automatically and transparently without any additional steps or user intervention while migrating Business Manager data.

Before you execute the migration tool, you must ensure that Business Expert has processed all the events and thus the values for last EventID in BMEVENTCOUNTER table match with maximum value of EventID in BIZEVENT table.

After executing the migration tool, you need to restart the Business Manager and Business Expert servers. Additionally, you need to open and save each metric and analysis (excluding the default analyses) in BPM Portal.

## Limitations

You may encounter the following limitations, when using Business Expert 7.6 SP1 with migrated Business Expert data:

- Business Expert 7.6 SP1 does not support any custom (or imported) analysis, which refers to any of the following Business Expert tables and views:

**Table 6: Business Expert tables and views**

Table /View	Description of change
BM_PROCESSINSTANCE	This table has been deleted.
BM_WORKSTEP	This table has been modified to include only process-level data.
BM_WORKITEM	This table has been deleted.
PROCESSINSTANCE_VIEW	This view has been deleted.
WORKSTEP_VIEW	This view has been modified to support monitoring process.

---

**Note:** For a list of database schema changes in Business Expert 7.6 SP1, refer to the `SBM_Home\BusinessExpert\dbscripts\\bmcreate.sql` file.

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- Business Expert 7.6 SP1 does not support the “Creator” and “Priority” system dataslots in filter condition. Any metric, containing these system dataslots, do not display them in filter condition after migrating to Business Expert 7.6 SP1.
- Business Expert 7.6 SP1 does not display custom changes made in analysis. You need to perform custom changes including axis swap, configure chart settings, and inserted calculations, after migrating to Business Expert 7.6 SP1.

## Migration issues in Business Expert

You may encounter the following migration issues when importing Business Expert data from version 7.5 SP2 to 7.6 SP1.

**Table 7: Business Expert migration issues**

Issue	Resolution
Business Expert does not support data migration of active process instances migrated as instances of another application, using the instancemigration tool bundled with Business Manager 7.5 SP2.	Ensure that such process instances are in completed state in Business Manager 7.5 SP2 before running the migration tool.
After performing migration, the analysis of a workstep duration metric does not provide a valid result.	Consult your database administrator to recreate the WORKSTEP_VIEW database view. Refer to the <code>SBM_Home\BusinessExpert\dbscripts\<database_name>\bmcreate.sql</database_name></code> file for view definition.
An incorrect message, “Migration for SBM cannot be done because SBM is not supported on SYBASE.” is logged in migration.log file, if the migration tool is executed before Business Expert has processed all events.	Ensure that Business Expert processes all events before running the migration tool.

In case you have not used Business Expert with Source BM installation and plan to use Business Expert with the Target BM, you must ensure the following points:

- After executing the migration tool, you need to execute the `setupserver` command (located in `SBM_7.6SP1_HOME\BusinessExpert\bin` folder) to configure the repository tables required for Business Expert functioning.
- Ensure that no records in the BIZEVENT table has been purged since the installation of Source BM. This is required to ensure that Business Expert engine can process all the events successfully. An exception to this requirement is when you have used the Business Manager archiver to purge BIZEVENT data. The archiver tool only purges completed and deleted process instances, and not any event related to process template installation, uninstallation, and refresh operations.
- Ensure that no process template has been uninstalled since the installation of Source BM. In case any process template has been uninstalled, ensure that all events belonging to process instances of this process are purged before performing the data migration.
- After starting Business Manager and Business Expert servers, Business Expert requires time to process all the events in the BIZEVENT table. Business Expert has processed all the events when the value of the LAST\_EVENT\_ID column of BMEVENTCOUNTER table matches maximum value of EVENT\_ID column of BIZEVENT table

## Migration issues in BPM Studio

You may encounter the following migration issues when importing BPM Studio projects from version 7.5 SP2 to 7.6 SP1.

**Table 8: BPM Studio migration issues**

Issue	Resolution
Migrated applications containing any form with duplicate names for added controls, cannot be build in Studio 7.6 SP1.	Open the application in Studio 7.6 SP1 and using Form Editor, assign a unique name (without case-sensitivity) to each of the added controls in the form.
Migrated applications using web services with defined faults, suspend on execution in Target BM.	You need to reconfigure the application containing the web service adapter in Studio 7.6 SP1, by performing the steps, described in the following <a href="#">Configuring fault handling</a> section.

## Configuring fault handling

To perform the migration:

1. Import the existing application to Studio 7.6 SP1.
2. Generate the fault/ exception classes, only if the web service is created for “Java Input and Output” or “Java Input and SOAP Output.”
3. Using dataslot mapping, map the fault objects/ XML to a dataslot.
4. Redeploy the process template to Business Manager servers.

---

**Note:** For detailed information regarding fault handling in Web service managed adapter, refer to the “Fault Handling” section of the *Managed Adapters Guide*.

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## Business Manager Migration from 7.6 to 7.6 SP1

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This section describes how you can migrate Aurea® CX Process Business Manager data. To migrate an existing Business Manager 7.6 (henceforth referred to as Source BM) installation to Business Manager 7.6 SP1 installation (henceforth referred to as Target BM).

For details, see the following topics:

- [Points to remember](#)
- [Prerequisites](#)
- [Migrating applications from Business Manager 7.6 to 7.6 SP1](#)

### Points to remember

1. The database type of the database associated with Source BM needs to be same as that of the Target BM.
2. The DMS provider of Source BM and Target BM must be same. If the DMS provider is 'sds', then the DMS storage type of Source BM and Target BM must also be same. You can find the DMS provider and DMS storage type from the values of the `sdms.provider` and `sdms.storage` properties respectively from the `SBM_HOME\conf\sdms.properties` file.
3. The migration utility does not migrate artifacts like BizSQL reports. They need to be migrated manually.

# Prerequisites

You must ensure that the following prerequisites are met:

1. When installing Target BM, specify the same administrator user name and password used in Source BM installation. If you have installed the Target BM with a different administrator user, then after the Target BM installation is complete, open the **User Configuration** tool and specify the Source BM administrator user and password for **Business Manager Admin Credentials**.
2. For proper migration, we assume that both Source BM and Target BM are configured with the same User Management Realm. If not, then all the Business Manager users will not be migrated by this migration tool. Your Business Manager administrator needs to create the users.
3. Perform a complete backup of Source BM database. Additionally, perform a complete backup of file system of Business Manager installation folder (in the case of Cluster, perform a backup of the Business Manager installations on all nodes).
4. Install Target BM with a fresh database instance. Do not execute repository setup from the **First steps** console (or using the `setupsbm` command) with the Target BM installation. Ensure that no database objects (like table, sequence, and so on) exist in this instance.
5. Perform an export dump of the Source BM database. Import it to the database instance that is configured with Target BM. Consult your Database administrator to perform export-import of data.

---

**Note:** To preserve the values of the identity columns in Microsoft® SQL Server® tables, contact your database administrator.

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6. Perform the appropriate instructions (as discussed in [Migrating applications from Business Manager 7.6 to 7.6 SP1](#) on page 49) to migrate Business Manager applications.
7. Ensure that there are no adapters in active state in the Source BM.
8. Ensure that all the JMS messages in Business Manager-specific Topics and Queues are processed in Source BM before performing migration. Contact your Application Server Support for this purpose.
9. After importing the database dump of Source BM to the database instance of Target BM, you need to drop the following Application Server-specific tables in the migrated database manually.
  - a. In the case of WebSphere®, for both Single server as well as Cluster Business Manager installation, drop the following tables in migrated database:  
SIB000, SIB001, SIB002, SIBCLASSMAP, SIBKEYS, SIBLISTING, SIBOWNER, SIBOWNER1, SIBXACTS.
  - b. In the case of WebLogic, for Cluster Business Manager installation, drop the following tables in migrated database:  
BP<JMSNODENAME>, BL<JMSNODENAME>, JMS<JMSNODENAME>.  
where <JMSNODENAME> is the JMS node name that you have created in Source BM. For example, if you have 2 JMS nodes with names JMSNODE1 and JMSNODE2 respectively, then you must drop following tables on your target database:



BPJMSNODE1, BLJMSNODE1, JMSJMSNODE1, BPJMSNODE2, BLJMSNODE2, JMSJMSNODE2.

- c. In the case of Pramati, for Cluster Business Manager installation, drop the following tables in migrated database:

<EJBCLUSTERNAME>, <JMSCLUSTERNAME>

where <EJBCLUSTERNAME> and <JMSCLUSTERNAME> are the EJB cluster and JMS cluster name respectively that you provided for the cluster setup on Source BM.

10. If the Source BM uses file system as DMS storage type, then the Target BM also should be configured to use file system as DMS storage type. Such a configuration can be set up in the Target BM by setting the values for different properties in

SBM\_TARGET\_HOME\conf\sdms.properties same as those in

SBM\_SOURCE\_HOME\conf\sdms.properties.

The property 'sdms.fs.root' in SBM\_TARGET\_HOME\conf\sdms.properties file may carry different value than the one in SBM\_SOURCE\_HOME\conf\sdms.properties. In such a case, copy the contents of the directory specified for property 'sdms.fs.root' in SBM\_SOURCE\_HOME\conf\sdms.properties to directory specified for property 'sdms.fs.root' in SBM\_TARGET\_HOME\conf\sdms.properties.

## Migrating applications from Business Manager 7.6 to 7.6 SP1

You need to perform the following instructions to migrate Business Manager 7.6 applications to 7.6 SP1 using Aurea® CX Process BPM Studio™.

1. Ensure that all the Business Objects, Messages, and Channels are exported to Database Repository using BPM Studio 7.6. You must import them in BPM Studio 7.6 SP1 from Database Repository.
2. If you are using Database Managed Adapters (DBAdapters) in your applications, then you need to copy the db.properties file from the BPMStudio\_7.6\_HOME\workspace\.com.savvion.studio\adapters\DBAdapters folder to the corresponding folder in BPM Studio 7.6 SP1.
3. Copy the required Aurea® CX Process BizLogic™, Web, and Common Resource application folders from BPMStudio\_7.6\_HOME\workspace folder to BPMStudio\_7.6SP1\_HOME\workspace folder.
4. Import these projects in BPM Studio 7.6 SP1 as described in the "Importing a Process File" section of the *BPM Studio User's Guide*.

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**Note:** We recommend you review the list of modified/removed APIs in Business Manager 7.6 SP1 - Release Notes before migrating the applications.

---

5. Open and save each imported project, then build the project in BPM Studio 7.6 SP1. For projects containing external subprocesses or worksteps with Flow presentation, you also need to build the associated subprocesses or Web application projects in BPM Studio 7.6 SP1.
6. Export each project as an Archive file and save it as a zip file. For more information, refer to Eclipse® documentation.

7. Extract the BizLogic application zip file to `SBM_7.6SP1_HOME\ebmsapps` folder and `SBM_7.6SP1_WEBAPPDIR\ebmsapps` folder. Extract the Web application zip file to `SBM_7.6SP1_HOME\BizSolo` folder and `SBM_7.6SP1_WEBAPPDIR\BizSolo` folder. You can view the `WEBAPPDIR` location from the `SBM.WebAppDir` property in the `sbm.conf` file.
8. If any of the BizLogic applications makes use of any custom java classes and jar files, then copy them to respective location in Target BM installation.
9. Balanced Scorecard applications are created in Aurea® CX Process BPM Portal™ and do not exist in the BPM Studio workspace. To migrate these applications, copy the application folder from `SBM_7.6_HOME\ebmsapps` to `SBM_7.6SP1_HOME\ebmsapps` and `SBM_7.6SP1_WEBAPPDIR\ebmsapps` folders.
10. To migrate applications published as web service, perform the following steps.
  - Copy the `SBM_SOURCE_HOME\webapps\deploy\smb\<ApplicationName>.jws` file to `SBM_TARGET_HOME\webapps\deploy\smb` folder.
  - Copy the `SBM_SOURCE_HOME\webapps\deploy\smb\wsdl\<ApplicationName>.wsdl` file to `SBM_TARGET_HOME\webapps\deploy\smb\wsdl` folder.
  - Copy the `SBM_SOURCE_HOME\webapps\deploy\smb\WEB-INF\jwsClasses` folder to `SBM_SOURCE_HOME\webapps\deploy\smb\WEB-INF` folder.

In the case of a Business Manager cluster, you need to execute the instructions described in Step 7, Step 8, Step 9, and Step 10 on each node of the cluster.

## Migrating Common Resource projects

**You need to perform the following instructions to migrate Common Resource projects from 7.6 to 7.6 SP1 using BPM Studio.**

1. Copy all the Common Resource project folder from `BPMStudio_7.6_Home\workspace` folder to `BPMStudio_7.6SP1_Home\workspace` folder.
2. Start all Business Manager servers including BizLogic and Aurea® CX Process BizPulse™ servers. In the case of cluster, start each node of the cluster.
3. Open and save each Common Resource project, then build the project in BPM Studio 7.6 SP1. Deploy the projects on Target BM.

## BM Migration from 7.6.X, 8.0 and 2013 to 2015 SP1 and 2016 R2

---

Using the migration tool you can migrate from 7.6.x, 8.0 and Savvion 2013 to the latest versions of Aurea® CX Process Business Manager installation.

For details, see the following topics:

- [Executing Migration Tool](#)
- [Points to remember](#)
- [Prerequisites for migration](#)
- [Using the Migration Tool](#)
- [Migrating Aurea CX Process Business Expert from 7.6.x to 10.x](#)
- [Migrating applications](#)
- [Migration issues in BPM Studio](#)
- [Migrating custom JSP forms](#)

### Executing Migration Tool

Using the migration tool available in AUREA\_CXPROCESS\_BUSINESSMANAGER\_DATA\_MIGRATION\_UTILITY ZIP file, you can migrate from an existing Business Manager installation to a newer version of Business Manager installation.

This tool supports migration of the following migration paths:

- From Business Manager 7.6.x to Savvion 2013. In this case, Business Manager 7.6.x is the Source BM and Savvion 2013 is the Target BM.
- From Business Manager 8.0 to Savvion 2013. In this case, Business Manager 8.0 is the Source BM and Savvion 2013 is the Target BM.
- From Business Manager 7.6.x to Business Manager 10.x. In this case, Business Manager 7.6.x is the Source BM and Business Manager 10.x is the Target BM.
- From Business Manager 8.0 to Business Manager 10.x. In this case, Business Manager 8.0 is the Source BM and Business Manager 10.x is the Target BM.
- From Savvion 2013 to Business Manager 10.x. In this case, Savvion 2013 is the Source BM and Business Manager 10.x is the Target BM.

---

**Note:**

- Business Manager version 7.6.x can be 7.6, 7.6.1, 7.6.2, 7.6.3, or 7.6.4.
  - Business Manager version 10.x is Savvion 2015 SP1 (10.0.1) or CX Process 2016 R2 (10.0.6).
- 

---

**Note:** You must perform the migration in the same sequence as specified in this section; otherwise, the migration might fail.

---

## Points to remember

During migration, remember the following:

1. You must execute the migration tool on the machine where Target BM is installed. In the case of a cluster setup, you can execute the migration tool on any one node of the Target BM cluster.
2. The database type of the database associated with Source BM must be same as that of the Target BM.
3. The Document Management System (DMS) provider of Source BM and Target BM must be same. If the DMS provider is *sds*, then the DMS storage type of Source BM and Target BM must also be the same. You can find the DMS provider and DMS storage type from the values of the `sdms.provider` and `sdms.storage` properties respectively from the `SBM_HOME\conf\sdms.properties` file.
4. The migration utility does not migrate artifacts like BizSQL reports. They must be migrated manually.

# Prerequisites for migration

Before you start executing the migration tool, you must ensure that the following prerequisites are met:

1. Ensure that BizStore and Aurea® CX Process BizPulse™ has processed all the events and thus the values for last EventID in BIZSTOREEVENTCOUNTER and BIZPULSEEVENTCOUNTER tables match with maximum value of EventID in BIZEVENT table.
2. When installing Target BM, specify the same administrator user name and password used in Source BM installation. If you have installed the Target BM with a different administrator user, then after the Target BM installation is complete, open the **User Configuration** tool and specify the Source BM administrator user and password for **Business Manager Admin Credentials**.
3. For proper migration, we assume that both Source BM and Target BM are configured with the same User Management Realm. If not, then all the Business Manager users will not be migrated by this migration tool. Your Business Manager administrator must create the users.
4. If you are migrating from Business Manager 7.6.3, run `setupsbm -c ProcessViews` command on the Source BM. Ignore this step, if you have already performed this as part of Business Manager 7.6.3 installation. Refer to "Reporting tables and views" in *Aurea® CX Process BizLogic™ Developer's Guide* for more information.
5. Back up the Source BM database. Additionally, back up the file system of Business Manager installation folder. In the case of a cluster, back up the Business Manager installations on all nodes.
6. Install Target BM with a fresh database instance. Do not execute repository setup from the **First steps** console (or using the `setupsbm` command) with the Target BM installation. Ensure that no database objects (like table, sequence, and so on) exist in this instance.
7. Perform an export dump of the Source BM database. Import it to the database instance that is configured with Target BM. Consult your Database administrator to perform export-import of data.

---

**Note:** To preserve the values of the identity columns in Microsoft® SQL Server® tables, contact your database administrator.

---

8. Ensure that there are no adapters in active state in the Source BM.
9. Ensure that all the JMS messages in Business Manager-specific Topics and Queues are processed in Source BM before performing migration. Contact your Application Server Support for this purpose.
10. After importing the database dump of Source BM to the database instance of Target BM, you must drop the following application-server-specific tables in the migrated database manually.
  - a. In the case of WebSphere®, for both single server as well as Business Manager cluster installation, drop the following tables in migrated database:  
SIB000, SIB001, SIB002, SIBCLASSMAP, SIBKEYS, SIBLISTING, SIBOWNER, SIBOWNER1, SIBXACTS.
  - b. In the case of WebLogic, for Business Manager cluster installation, drop the following tables in migrated database:  
BP<JMSNODENAME>, BL<JMSNODENAME>, JMS<JMSNODENAME>.

wherein <JMSNODENAME> is the JMS node name that you have created in Source BM. For example, if you have 2 JMS nodes with names JMSNODE1 and JMSNODE2 respectively, then you must drop following tables on your target database:

BPJMSNODE1, BLJMSNODE1, JMSJMSNODE1, BPJMSNODE2, BLJMSNODE2, JMSJMSNODE2.

- c. In the case of JBoss® EAP 5.2, drop the following tables in migrated database:

JBM\_COUNTER, JBM\_DUAL, JBM\_ID\_CACHE, JBM\_MSG, JBM\_MSG\_REF, JBM\_POSTOFFICE, JBM\_ROLE, JBM\_TX, JBM\_USER

11. If the Source BM uses a file system as DMS storage type, then the Target BM also must be configured to use file system as DMS storage type. Such a configuration can be set up in the Target BM by setting the values for different properties in

SBM\_TARGET\_HOME\conf\sdms.properties by copying from SBM\_SOURCE\_HOME\conf\sdms.properties.

The property `sdms.fs.root` in SBM\_TARGET\_HOME\conf\sdms.properties file might carry different value than the one in SBM\_SOURCE\_HOME\conf\sdms.properties. In such a case, copy the contents of the folder specified for property `sdms.fs.root` in SBM\_SOURCE\_HOME\conf\sdms.properties to folder specified for property `sdms.fs.root` in SBM\_TARGET\_HOME\conf\sdms.properties.

12. For common resource projects containing one (or more) business objects or custom Object dataslot classes, perform the following prerequisite steps:

- a. Using **Import > Existing Projects into workspace** option with **Copy projects into workspace** option enabled, import the Common Resources applications from STUDIO\_SOURCE\_HOME\workspace folder to the STUDIO\_TARGET\_HOME\workspace folder.
- b. Open and save each of the imported projects, and then build the project in Aurea® CX Process BPM Studio™.
- c. Using **File > Export**, export each common resource project as an archive (\*.zip) file.
- d. Extract the contents of the "classes" folder in the exported ZIP file to the SBM\_TARGET\_HOME\ebmsapps\common\bo\classes folder.

13. If the target BM is installed on Oracle® database, you must ensure that the database administrator assigns the "Create Procedure" permission to all Oracle® database users configured for the Target BM.

14. If Source BM is configured with IBM® DB2®, then ensure that the target database is IBM® DB2® version 10.5. If you are using IBM® DB2® database version 9.5 or any other version lower than 10.5, then move all the data from source DB2® database to target DB2® 10.5 database. Refer to IBM® documentation for this purpose.

## Using the Migration Tool

You must complete the following steps to perform migration using the migration tool. You must ensure that all Business Manager servers (Source BM and Target BM) are shut down before executing the migration tool. You can start the Business Manager servers after completing the migration process.

**To migrate Business Manager using the migration tool:**

1. Extract the Business Manager migration tool (\*.zip file) to a new folder on the machine on which Target BM is installed.

Set the following environment variables in `setenv.cmd/sh` file located in the `\bin` folder. Use forward slash (/) for specifying various folder paths.

**Table 9: Environment variables**

Environment Variable	Description
JAVA_HOME	JRE/JDK installation folder. The value of this variable must be the same as the value of the same variable in the <code>sbmclientenv.cmd</code> file, located in the <code>SBM_Home\bin</code> folder of the Target BM.
SBM_SOURCE_VERSION	The version of the Source BM. Valid values are 7.6, 7.6.1, 7.6.2, 7.6.3, 7.6.4, 8.0, or 9.0.0.
SBM_TARGET_HOME	Target BM installation folder.
MIGRATION_HOME	Installation folder of the migration tool.

2. Execute the `sbmmigration.cmd/sh` command from the `\bin` folder.
  - View the `\logs\migration.log` file for any warnings and error messages.
  - View the `\logs\sbm.log` file for information related to report creation.
3. For the Source BM, if the DMS provider is `sds` (default) and the DMS storage type is `fs` (File System), you must copy the contents of root folder of DMS in the Source BM to the root folder of DMS in the Target BM. You can find the DMS provider, the DMS storage type and the DMS root folder from the values of the `sdms.provider`, `sdms.storage` and `sdms.fs.root` properties respectively in the `SBM_Home\conf\sdms.properties` file.

In the case of a Business Manager cluster, you must configure the Target BM cluster setup after completing the above migration steps.

## Migrating Aurea® CX Process Business Expert™ from 7.6.x to 10.x

The same migration tool that you use for Business Manager migration, also migrates Aurea® CX Process Business Expert™ data automatically and transparently without any additional steps or user intervention while migrating Business Manager data.

The migration tool, on execution, migrates the following Business Expert-related data:

- User-defined reports and associated permissions.
- Published widgets of user-defined reports, if any.
- Copies of user-defined reports and associated permissions, if any.
- Published widgets of copies of user-defined reports, if any.
- Additions: New set of out-of-the-box reports and analysis category.

The migration tool, on execution, removes the following business metric-related data:

- Metric permissions: Default metric management permission, Default metric permission, Default Evaluate metric permission
- Metric dashboard permissions: Metric Notifications permission, Metric Observations permission
- Dashboard widgets: Metric Notifications, Metric Observations

If you want to remove unused Business Expert 7.6.x database objects from the Business Manager database, then you must set the value of the `be.db.objects.drop` property (default value, `false`) in the `MIGRATION_HOME\conf\migration.properties` file to `true`, before executing the Migration tool. On executing the Migration tool, the following Business Expert-related database objects are removed:

- Business Metric: ANALYTICS, ACLMETRIC, BM\_RESULTS, BM\_DEVIATIONS, DECISION\_PATH, SVC\_DATAMINING, ANALYTICS\_SEQ, ACL\_BM\_METRIC\_SEQ, BM\_RESULT\_SEQ
- Event processor: BMEVENTCOUNTER, BM\_WORKSTEP, BE\_PROCESSDATAINFO, BE\_PT\_REPLACE\_INFO, SVC\_BUSINESSEXPERT
- Dynamic dataslot tables: Format `BE_DS<pt_id>` (example: `BE_DS1_BM`)
- Rule wizards: PORTALRULEWIZARDS, PORTALWIZARDINFO, PORTALWIZARD\_SEQUENCE
- Report views: WORKSTEP\_VIEW, WORKITEM\_VIEW

---

**Note:** After executing the migration tool, you must open and save all user-defined reports before executing the report.

---

After migration from 7.6.x to 10.x, the following Business Expert-related reports and widgets are not available in Business Expert 10.x:

- Out-of-the-box (Process, Task, Performer) reports
- Published widgets of out-of-the-box (Process, Task, Performer) reports, if any.
- Copy of out-of-the-box (Process, Task, Performer) reports, if any.
- Published widgets of copies of out-of-the-box (Process, Task, Performer) reports, if any.
- Metric analyses and corresponding published widgets, if any.

## Migrating applications

You can migrate Source BM applications to Target BM using BPM Studio.



You can migrate applications in the following scenarios:

- From BPM Studio 7.6.x to BPM Studio 10.x. In this case, BPM Studio 7.6.x is the Source BPM Studio and BPM Studio 10.x is the Target BPM Studio.

---

**Note:** BPM Studio version 7.6.x can be 7.6, 7.6.1, 7.6.2, 7.6.3, or 7.6.4. BPM Studio version 10.x is 10.0.

---

- From BPM Studio 8.0 to BPM Studio 10.x. In this case, BPM Studio 8.0 is the Source BPM Studio and BPM Studio 10.x is the Target BPM Studio.
- From BPM Studio 9.0 to BPM Studio 10.x. In this case, BPM Studio 9.0 is the Source BPM Studio and BPM Studio 10.x is the Target BPM Studio.

To migrate Business Manager applications:

1. Ensure that all the Business Objects, Messages, and Channels are exported to Database Repository using Source BPM Studio. You must import them to Target BPM Studio from Database Repository.
2. If you are using Database Managed Adapters (DBAdapters) in your applications, then you must copy the `db.properties` file from the `STUDIO_SOURCE_HOME\workspace\.com.savvion.studio\adapters\ DBAdapters` folder to the corresponding folder in Target BPM Studio.
3. Use **Import > Existing Projects into workspace** option with **Copy projects into workspace** option enabled to import the Web, Common Resources and BPM Project applications from `STUDIO_SOURCE_HOME\workspace` folder to the `STUDIO_TARGET_HOME\workspace` folder.

---

**Note:** We recommend you review the list of modified/removed APIs in Source BM - Release Notes before migrating the applications.

---

4. Open and save each imported project, then build the project in Target BPM Studio. For projects containing external subprocesses or worksteps with Flow presentation, you must also build the associated subprocesses or Web application projects in Target BPM Studio.
5. Deploy Web, Common Resources and BPM projects.

---

**Important:** For BPM projects ensure that you deploy with **Copy file to server only** option. If you deploy with **Reinstall** option, then the existing instance data is removed, in case you have redone the flow, then use this option. If you have modified the BPM project, then it is recommended to deploy with **Refresh** option.

---

6. If any of the Aurea® CX Process BizLogic™ applications makes use of any custom Java® classes and JAR files, then copy them to respective location in the Target BM installation.
7. Balanced Scorecard applications are created in Aurea® CX Process BPM Portal™ and do not exist in the Target BPM Studio workspace. To migrate these applications, copy the application folder from `SBM_SOURCE_HOME\ebmsapps` to `SBM_TARGET_HOME\ebmsapps` and `SBM_TARGET_WEBAPPDIR\ebmsapps` folders.
8. To migrate applications published as Web services:
  - Copy the `SBM_SOURCE_HOME\webapps\deploy\sbm\<ApplicationName>.jws` file to the `SBM_TARGET_HOME\webapps\deploy\sbm` folder.
  - Copy the `SBM_SOURCE_HOME\webapps\deploy\sbm\wsdl\<ApplicationName>.wsdl` file to the `SBM_TARGET_HOME\webapps\deploy\sbm\wsdl` folder.

- Copy the `SBM_SOURCE_HOME\webapps\deploy\sbm\WEB-INF\jwsClasses` folder to the `SBM_SOURCE_HOME\webapps\deploy\sbm\WEB-INF` folder.

---

**Note:** In the case of a Business Manager cluster, you must execute the instructions described in [Step 5](#), [Step 6](#), [Step 7](#), and [Step 8](#) on each node of the cluster.

---

**Important:** In case value of a String dataslot is null, the method `jst.getDataslotValue(String dsName)` call returns java null value instead of "<NULL>" string from SBM 10.0 onwards.

---

## Migration issues in BPM Studio

You may encounter the following migration issue when importing projects from Source BPM Studio to Target BPM Studio.

**Table 10: Migration Issue**

Issue	Resolution
For worksteps with custom JSP presentation in migrated applications, the tag library URL is not updated automatically.	<p>Open the migrated application in Target BPM Studio and edit and save the workstep JSP page as follows:</p> <ul style="list-style-type: none"> <li>• Replace the URL, "http://java.sun.com/jstl/fmt" with the URL, "http://java.sun.com/jsp/jstl/fmt."</li> <li>• Replace the URL, "http://java.sun.com/jstl/core" with the URL, "http://java.sun.com/jsp/jstl/core."</li> </ul>

## Migrating custom JSP forms

This chapter explains how to migrate custom presentation forms created in versions prior to BPM Studio 9.0 to BPM Studio 10.x. Here, custom forms from older versions are migrated without modifying the form presentation and without upgrading to BPM Studio 10.x.

---

**Important:** The manual steps provided are only for guidance and may require more or less changes depending on the type of customization done.

---

**Note:** To benefit from BPM Studio 10.x form editor features, you have to do customization from scratch.

---

- For migrating custom JSP forms from BPM Studio version 7.6, 7.6.3, or 7.6.4 to 10.x, see [From BPM Studio version 7.6, 7.6.3, or 7.6.4 to 10.x](#) on page 59.
- For migrating custom JSP forms from BPM Studio version 7.6.1 to 10.x, see [From BPM Studio version 7.6.1 to 10.x](#) on page 63.
- For migrating custom JSP forms from BPM Studio version 8.0 to 10.x, see [From BPM Studio version 8.0 to 10.x](#) on page 67.

## From BPM Studio version 7.6, 7.6.3, or 7.6.4 to 10.x

Modify the custom JSP files as follows:

1. Search for the following line:

```
function AlertReassign()
```

Add the following lines just before this line.

```
function getContextPath() {
    return "<%=request.getContextPath() %>";
}
```

2. Replace the following line:

```
<html xmlns:bizsolo="http://www.savvion.com/sbm/BizSolo"
xmlns:sbm="http://www.savvion.com/sbm" xmlns:jsp="http://java.sun.com/JSP/Page"
xmlns:xalan="http://xml.apache.org/xalan">
```

```
xmlns:fn="http://www.w3.org/2005/02/xpath-functions"
xmlns:sfe="http://www.savvion.com/sbm/sfe"
xmlns:c="http://java.sun.com/jstl/core">
```

with

```
<html xmlns:bizsolo="http://www.savvion.com/sbm/BizSolo"
xmlns:sbm="http://www.savvion.com/sbm" xmlns:jsp="http://java.sun.com/JSP/Page"
xmlns:xalan="http://xml.apache.org/xalan"
xmlns:fn="http://www.w3.org/2005/02/xpath-functions"
xmlns:sfe="http://www.savvion.com/sbm/sfe"
xmlns:c="http://java.sun.com/jsp/jstl/core">
```

**3. Add the following line:**

```
<%@ page import="com.savvion.sbm.bizsolo.util.session.*,java.net.*" %>
```

after

```
<%@ page
import="com.savvion.BizSolo.Server.*,com.savvion.BizSolo.beans.*,com.savvion.sbm.util.
DatabaseMapping,java.util.Vector,java.util.Locale" %>
```

**4. Replace the following line:**

```
<%@ taglib uri="http://java.sun.com/jstl/core" prefix="c" %>
```

with

```
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
```

**5. Replace the following line:**

```
<%@ taglib uri="http://java.sun.com/jstl/fmt" prefix="fmt" %>
```

with

```
<%@ taglib uri="http://java.sun.com/jsp/jstl/fmt" prefix="fmt" %>
```

**6. Replace the following line:**

```
<bizsolo:link rel="stylesheet"></bizsolo:link>
```

with

```
<bizsolo:link rel="stylesheet" extJsVer="4"></bizsolo:link>
```

**7. Replace the following line:**

```
function openDocAttWin( slotName,sesID, ptname, piname, docurl, docServer,
readonly, ismultiline, appendwith, isStart )
```

with

```
function openDocAttWin( slotName,sesID, ptname, piname, docurl, docServer,
readonly, ismultiline, appendwith, isStart, fiid )
```

**8. Add the following line:**

```
param += '&fiid=' + fiid;
```

after

```
param += '&isPICreation=' + isStart;
```

**9. Add the following line:**

```
<input name="<%=BizSoloRequest.BSS_FIID%>" type="hidden"
value="<%=request.getParameter(BizSoloRequest.BSS_FIID)%>">
```

after

```
<input name="_ProcessTemplateName" type="hidden"
value='<%=bean.getPropString("ptName")%>'>
```

---

**Note:** Only in case of migrating custom JSP presentation of a BizSolo application, ignore the above step.

---

**10. Replace the following line:**

```
formWidgetHandler = new
FormWidgetHandler(allWidgets, {processName: 'doctst5in763', adapletCache: {'user': ''}});
```

with

```
formWidgetHandler = new
FormWidgetHandler(allWidgets, {processName: 'doctst5in763', adapletCache: {'user': ''}},
'<%=request.getParameter (BizSoloRequest.BSS_FIID) %>');
```

---

**Note:** Only in case of migrating custom JSP presentation of a BizSolo application, ignore the above step.

---

**11. Replace the following line:**

```
}catch (e) {}
```

with

```
}catch (e) {return false;}
```

**12. The line**

```
<script language="JavaScript" src="<c:out
value='${contextPath}' />bpmportal/javascript/ext/ext-all.js"></script>
```

should be replaced with

```
<script language="JavaScript" src="<c:out
value='${contextPath}' />bpmportal/javascript/ext4x/ext-all.js"></script>
```

**13. The following line should be added after ext-all.js inclusion:**

```
<script language="JavaScript" src="<c:out
value='${contextPath}' />bpmportal/javascript/bmconstants.js"></script>
```

**14. The line**

```
<script language="JavaScript" src="<c:out
value='${contextPath}' />bpmportal/javascript/BmViewport.js"></script>
```

should be replaced with

```
<script language="JavaScript" src="<c:out
value='${contextPath}' />bpmportal/javascript/BmViewport_4x.js"></script>
```

**15. The line**

```
<script language="JavaScript" src="<c:out
value='${contextPath}' />bpmportal/javascript/sbm/BusinessObjectHandler.js"></script>
```

should be replaced with

```
<script language="JavaScript" src="<c:out
value='${contextPath}' />bpmportal/javascript/sbm/BusinessObjectHandler_4x.js"></script>
```

**16. The line**

```
<script language="JavaScript" src="<c:out
value='${contextPath}' />bpmportal/javascript/sbm/FormWidgetHandler.js"></script>
```

should be replaced with

```
<script language="JavaScript" src="<c:out
value='${contextPath}' />bpmportal/javascript/sbm/FormWidgetHandler_4x.js"></script>
```

**17. The line**

```
<script language="JavaScript" src="<c:out
value='${contextPath}'>/>bpmportal/javascript/sbm/sbm.utils.js"></script>
```

should be replaced with

```
<script language="JavaScript" src="<c:out
value='${contextPath}'>/>bpmportal/javascript/sbm/sbm.utils_4x.js"></script>
```

**18. The line**

```
<link rel="stylesheet" type="text/css" href="<c:out
value='${contextPath}'>/>bpmportal/javascript/ext/resources/css/ext-all.css">
```

should be replaced with

```
<link rel="stylesheet" type="text/css" href="<c:out
value='${contextPath}'>/>bpmportal/javascript/ext4x/resources/css/ext-all.css">
```

**19. The line**

```
<script language="JavaScript" src="<c:out
value='${contextPath}'>/>bpmportal/javascript/bm/common/bmfield.js"> </script>
```

should be replaced with

```
<script language="JavaScript" src="<c:out
value='${contextPath}'>/>bpmportal/javascript/bm/common/bmfield_4x.js"> </script>
```

**20. The line**

```
<script language="JavaScript" src="<c:out
value='${contextPath}'>/>bpmportal/javascript/ux/fileuploadfield/FileUploadField.js">
</script>
```

should be replaced with

```
<script language="JavaScript" src="<c:out
value='${contextPath}'>/>bpmportal/javascript/ux/fileuploadfield/FileUploadField_4x.js">
</script>
```

**21. The line**

```
<input name="_WorkitemId" type="hidden" value="<%=
bean.getPropString("workitemId") %>" />
```

should be replaced with

```
<input name="_WorkitemId" type="hidden" value="<%=
bean.getPropLong("workitemId") %>" />
```

---

**Note:** The particular line may differ from the one displayed above, so one should look for `bean.getPropString("workitemId")` and replace it with `bean.getPropLong("workitemId")`.

---

**22. Add the following line:**

```
<script language="JavaScript"
src="/sbm/bpmportal/javascript/locale/bpmportal-lang-<%=myLocale.getLanguage()
%>.js"></script>
```

after

```
<script language="JavaScript" src="<c:out value='${contextPath}'>/>
bpmportal/javascript/sbm/sbm.utils.js"> </script>
```

## From BPM Studio version 7.6.1 to 10.x

Modify the custom JSP files as follows:

1. Search for the following line:

```
function AlertReassign()
```

Add the following lines just before this line.

```
function getContextPath(){
    return "<%=request.getContextPath() %>";
}
```

2. Replace the following line:

```
<%@ page import="com.savvion.BizSolo.Server.*,com.savvion.BizSolo.
beans.*,java.util. Vector,java.util.Locale" %>
```

with

```
<%@ page import="com.savvion.BizSolo.Server.*,com.savvion.BizSolo.
beans.*,com.savvion. sbm.util.DatabaseMapping,java.util.Vector,java.
util.Locale" %>
```

3. Replace the following line:

```
<%@ taglib uri="http://java.sun.com/jstl/core" prefix="c" %>
```

with

```
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
```

4. Add the following Aurea® CX Process BizSolo™ session related import tag:

```
<%@ page import="com.savvion.sbm.bizsolo.util.session.*,java.net.*" %>
```

after

```
<%@ page import="com.savvion.BizSolo.Server.*,com.savvion.BizSolo.beans.*,
java. util.Vector,java.util.Locale" %>
```

5. Add the following page context statement:

```
<% pageContext.setAttribute( "maxMulitLineLength", DatabaseMapping.self().
getSQLSize(java.lang.String.class)); %>
```

after

```
<% pageContext.setAttribute( "contextPath", request.getContextPath()+"/"); %>
```

6. Add the following line:

```
<script language="JavaScript"> var getLocalizedString = parent.
getLocalizedString; </script>
```

after

```
<!-- Javascript -->
```

7. Replace the following lines:

```
<script language="JavaScript" src="<c:out value='${contextPath}' />
bportal/javascript/engine.js"></script>
```

```
<script language="JavaScript" src="<c:out value='${contextPath}' />
bportal/javascript/util.js"></script>
```

with

```
<script language="JavaScript" src="<c:out value='${contextPath}' />
dwr/engine.js"></script>
```

```
<script language="JavaScript" src="<c:out value='${contextPath}' />
dwr/util.js"></script>
```

**8. Add the following line:**

```
<script>DWREngine = dwr.engine; DWRUtil = dwr.util;</script>
```

before

```
<script language="JavaScript" src="<c:out value='${contextPath}' />
bpmportal/javascript/utilities.js"></script>
```

**9. Add the following line:**

```
<script language="JavaScript" src="<c:out
value='${contextPath}' />bpmportal/javascript/fvalidate/fValidate.
validators-<%=myLocale.getLanguage() %><%=myLocale.getCountry() %>.js"></script>
```

after

```
<script language="JavaScript" src="<c:out
value='${contextPath}' />bpmportal/javascript/fvalidate/fValidate.validators.js"></script>
```

**10. Add the following lines:**

```
<script language="JavaScript" src="<c:out value='${contextPath}' />
bpmportal/javascript/ux/fileuploadfield/FileUploadField_4x.js" </script>
```

```
<script language="JavaScript" src="<c:out value='${contextPath}' />
bpmportal/javascript/bm/common/bmfield_4x.js"></script>
```

```
<script language="JavaScript" src="<c:out value='${contextPath}' />
bpmportal/javascript/fileupload.js"></script>
```

after

```
<script language="JavaScript" src="<c:out
value='${contextPath}' />bpmportal/javascript/sbm/sbm.utils.js"></script>
```

**11. Replace the following lines:**

```
<link rel="stylesheet" type="text/css" href="<c:out value='${contextPath}' />
bpmportal/javascript/ext/resources/css/xtheme-default.css">
```

```
<link rel="stylesheet" type="text/css" href="<c:out value='${contextPath}' />
bpmportal/css/theme01/bm-all.css">
```

with

```
<bizsolo:link rel="stylesheet" extJsVer="4"></bizsolo:link>
```

```
<link rel="stylesheet" type="text/css" href="<c:out value='${contextPath}' />
bpmportal/css/<%= bizManage.getTheme() %>/bm-all.css">
```

```
<link rel="stylesheet" type="text/css" href="<c:out value='${contextPath}' />
bpmportal/css/<%= bizManage.getTheme() %>/bm-xml.css">
```

**12. Replace the following line:**

```
function openDocAttWin( slotName, sesID, pname, piname, docurl, docServer,
readonly, ismultiline, appendwith, isStart)
```



with

```
function openDocAttWin( slotName,sesID, ptname, piname, docurl, docServer,
readonly, ismultiline, appendwith, isStart,fiid )
```

**13. Add the following line:**

```
param += '&fiid=' + fiid;
```

after

```
param += '&isPICreation=' + isStart;
```

**14. Remove the following lines, if it exists:**

```
<bizsolo:link rel="stylesheet"></bizsolo:link>
```

```
<bizsolo:if test='<%=bean.getPropString("\workitemName\")== null %>'>
```

```
</bizsolo:if>
```

**15. Add the following line:**

```
<input name="<%=BizSoloRequest.BSS_FIID%" type="hidden"
value="<%=request.getParameter(BizSoloRequest.BSS_FIID)%>">
```

after

```
<input name="_ProcessTemplateName" type="hidden"
value='<%=bean.getPropString("ptName")%>'>
```

---

**Note:** Only in case of migrating custom JSP presentation of a BizSolo application, ignore the above step.

---

**16. Replace the following line:**

```
<td class="ApSegTitle" align="center"><bizsolo:getDS
name="workitemName"></bizsolo:getDS></td>
```

with

```
<td class="ApSegTitle" align="center"><bizsolo:choose> <bizsolo:when
test='<%=bean.getPropString("\workitemName\")== null %>'><bizsolo:getDS
name="workitemName"> </bizsolo:getDS></bizsolo:when><bizsolo:otherwise>
<%=_PageName%></bizsolo:otherwise></bizsolo:choose></td>
```

**17. Replace the following line:**

```
<td width="15%" class="ApSegGenLabel"><bizsolo:getLabel type="RESOURCE"
name="BIZSITE_INSTRUCTION_LABEL"></bizsolo:getLabel></td><td width="15%"
class="ApSegGenData" colspan="5"><sbm:message key="workstep.Activity
instruction" escapeLine="true"></sbm:message></td>
```

with

```
<td width="85%" class="ApSegGenLabel"><bizsolo:getLabel type="RESOURCE"
name="BIZSITE_INSTRUCTION_LABEL"></bizsolo:getLabel></td><td width="85%"
class="ApSegGenData" colspan="5"><sbm:message key="workstep.Activity
instruction" escapeLine="true"></sbm:message></td>
```

**18. Replace the following line:**

```
<div style="display:none" id="textField1Error"><div><font color="red"><span
class="error" id="textField1ErrorMsg"></span><a href="#"
onclick="textField1ErrorMsgClose();return false;"></a></font>
</div></div>
```

with

```
<div style="display:none" id="textField1Error"><div><font color="red"><span
class="error" id="textField1ErrorMsg"></span><a href="#"
onClick="textField1ErrorMsgClose();return false;"></a></font></div></div>
```

**19. Replace the following line:**

```
<div style="display:none" id="textField2Error"><div><font color="red"><span
class="error" id="textField2ErrorMsg"></span><a href="#"
onClick="textField2ErrorMsgClose();return false;"></a></font>
</div></div>
```

with

```
<div style="display:none" id="textField2Error"><div><font color="red"><span
class="error" id="textField2ErrorMsg"></span> <a href="#"
onClick="textField2ErrorMsgClose();return false;">  </a></font></div></div>
```

**20. Replace the following line:**

```
<bizsolo:isAssigned><td class="ApBtnSpace"><input class="ApInptTxt" type="text"
name="bizsite_assigneeName" size="20"></td> <td class="ApBtnSpace"> <a
href="javascript://"
onClick="setUserControl(document.form.bizsite_assigneeName);searchUser()">

</img></a></td><td class="ApBtnSpace"> <input name="bizsite_reassignTask"
id="btn-reassign" class="ApScrnButton"
onMouseOver="this.className='ApScrnButtonHover';
" onMouseOut="this.className='ApScrnButton';
" onClick="clickedButton=this.name;
return AlertReassign();
this.onsubmit = new Function('return false');
" value="<bizsolo:getLabel name='REASSIGN_LABEL' type='RESOURCE'/">
type="submit"></td>
```

with

```
<bizsolo:isAssigned><td class="ApBtnSpace"> <input class="ApInptTxt" type="text"
name="bizsite_assigneeName" size="20"></td><td class="ApBtnSpace"> <a
href="javascript://"
onClick="setUserControl(document.form.bizsite_assigneeName);searchUser()">
</img></a></td> <td
class="ApBtnSpace"><input name="bizsite_reassignTask" id="btn-reassign"
class="ApScrnButton" onMouseOver="this.className='ApScrnButtonHover';"
onMouseOut="this.className='ApScrnButton';"
onClick="clickedButton=this.name;
return AlertReassign();
this.onsubmit = new Function('return false');"
value="<bizsolo:getLabel name='REASSIGN_LABEL' type='RESOURCE'/">
type="submit"></td>
```

**21. Replace the following line:**

```
formWidgetHandler = new FormWidgetHandler(allWidgets,
{processName:'testapp76',adapletCache:{'user':''}});
```

with

```
formWidgetHandler = new FormWidgetHandler(allWidgets,
{processName:'testapp76',adapletCache:{'user':''}},
'<%=request.getParameter(BizSoloRequest.BSS_FIID)%>');
```

---

**Note:** Only in case of migrating custom JSP presentation of a BizSolo application, ignore the above step.

---

**22.** Replace the following line:

```
}catch(e){}
```

with

```
}catch(e){return false;}
```

**23.** The line

```
<bizsolo:link rel="stylesheet" extJsVer= "3"> </bizsolo:link>
```

should be replaced with

```
<bizsolo:link rel="stylesheet" extJsVer= "4"> </bizsolo:link>
```

**24.** Add the following line:

```
<script language="JavaScript"
src="/sbm/bpmportal/javascript/locale/bpmportal-lang-<%=myLocale.getLanguage()
%>.js"></script>
```

after

```
<script language="JavaScript" src="<c:out value='${contextPath}'/>
bpmportal/javascript/sbm/sbm.utils.js"> </script>
```

## From BPM Studio version 8.0 to 10.x

Modify the custom JSP files as follows:

**1.** Add the following line:

```
<%@ page import="com.savvion.sbm.bizsolo.util.session.*,java.net.*" %>
```

after

```
<%@ page
import="com.savvion.BizSolo.Server.*,com.savvion.BizSolo.beans.*,com.savvion.sbm.util.
DatabaseMapping,java.util.Vector,java.util.Locale" %>
```

**2.** Replace the following line:

```
<bizsolo:link rel="stylesheet"></bizsolo:link>
```

with

```
<bizsolo:link rel="stylesheet" extJsVer="4"></bizsolo:link>
```

**3.** Replace the following line:

```
function openDocAttWin( slotName,sesID, ptname, piname, docurl, docServer,
readonly, ismultiline, appendwith, isStart )
```

with

```
function openDocAttWin( slotName,sesID, ptname, piname, docurl, docServer,
readonly, ismultiline, appendwith, isStart, fiid )
```

**4.** Add the following line:

```
param += '&fiid=' + fiid;
```

after

```
param += '&isPICreation=' + isStart;
```

5. Add the following line:

```
<input name="<%=BizSoloRequest.BSS_FIID%" type="hidden"
value="<%=request.getParameter (BizSoloRequest.BSS_FIID) %>">
```

after

```
<input name="_ProcessTemplateName" type="hidden"
value='<%=bean.getPropString ("ptName") %>'>
```

---

**Note:** Only in case of migrating custom JSP presentation of a BizSolo application, ignore the above step.

---

6. Replace the following line:

```
formWidgetHandler = new
FormWidgetHandler (allWidgets, {processName: 'Appin80', adapletCache: {'user': ''}});
```

with

```
formWidgetHandler = new
FormWidgetHandler (allWidgets, {processName: 'Appin80', adapletCache: {'user': ''}}, '
<%=request.getParameter (BizSoloRequest.BSS_FIID) %>');
```

---

**Note:** Only in case of migrating custom JSP presentation of a BizSolo application, ignore the above step.

---

7. The line

```
<bizsolo:link rel="stylesheet" extJsVer= "3"> </bizsolo:link>
```

should be replaced with

```
<bizsolo:link rel="stylesheet" extJsVer= "4"> </bizsolo:link>
```