

#### **Upgrading Software AG Products**

Version 10.3

October 2018

This document applies to webMethods Product Suite Version 10.3 and to all subsequent releases.

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

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#### **About this Guide**

This guide provides upgrade instructions for Software AG products.

#### **Document Conventions**

Convention	Description
Bold	Identifies elements on a screen.
Narrowfont	Identifies service names and locations in the format <i>folder.subfolder.service</i> , APIs, Java classes, methods, properties.
Italic	Identifies:
	Variables for which you must supply values specific to your own situation or environment.  New terms the first time they occur in the text.  References to other documentation sources.
Monospace	Identifies:
font	Text you must type in. Messages displayed by the system. Program code.
{}	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols.
I	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the   symbol.
[]	Indicates one or more options. Type only the information inside the square brackets. Do not type the [] symbols.
	Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis ().

#### Online Information and Support

#### Software AG Documentation Website

You can find documentation on the Software AG Documentation website at "http://documentation.softwareag.com". The site requires credentials for Software AG's Product Support site Empower. If you do not have Empower credentials, you must use the TECHcommunity website.

#### **Software AG Empower Product Support Website**

If you do not yet have an account for Empower, send an email to "empower@softwareag.com" with your name, company, and company email address and request an account.

Once you have an account, you can open Support Incidents online via the eService section of Empower at "https://empower.softwareag.com/".

You can find product information on the Software AG Empower Product Support website at "https://empower.softwareag.com".

To submit feature/enhancement requests, get information about product availability, and download products, go to "Products".

To get information about fixes and to read early warnings, technical papers, and knowledge base articles, go to the "Knowledge Center".

If you have any questions, you can find a local or toll-free number for your country in our Global Support Contact Directory at "https://empower.softwareag.com/public\_directory.asp" and give us a call.

#### Software AG TECHcommunity

You can find documentation and other technical information on the Software AG TECHcommunity website at "http://techcommunity.softwareag.com". You can:

- Access product documentation, if you have TECH community credentials. If you do not, you will need to register and specify "Documentation" as an area of interest.
- Access articles, code samples, demos, and tutorials.
- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Link to external websites that discuss open standards and web technology.

#### **Data Protection**

Software AG products provide functionality with respect to processing of personal data according to the EU General Data Protection Regulation (GDPR). Where applicable, appropriate steps are documented in the respective administration documentation.

# 1 Using Command Central or Software AG Installer, Software AG Update Manager, and Software AG Migration Utilities to Upgrade Products

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#### **Using Command Central to Upgrade Products**

If you want to upgrade products in one environment using Command Central, follow the instructions in this guide.

If you want to fully automate product upgrade for multiple similar environments using Command Central, see the composite template instructions in *Software AG Command Central Help*. You can reconfigure endpoints such as host names and ports by adding commands after the migration section of the templates. You will still need to perform the manual tasks in this guide if you cannot script them.

To see which products support upgrade/migration using Command Central, see *Software AG Command Central Feature Support Matrix*.

**Note:** You do not have to upgrade Platform Manager.

Command Central supports the upgrade scenarios below.

#### Same Installation Directory, Hosts, and Ports; Live Database

Command Central renames the old product installation directory, then uses the old directory name for the new product installation.

Benefits: Simple; similar to overinstall in that all paths, hosts, and ports remain the same. Can fully automate using custom composite templates.

Cautions: Risky; rollback is complicated. Significant downtime. Must back up live databases; use of cloned databases is not supported. Requires double disk space because old installation is still present. Requires extensive automated testing before production environments can be migrated.

#### New Installation Directory, Same Hosts and Ports, Cloned Database

Benefits: New installation is almost identical to old. Safer than first scenario; rollback is much simpler. Can start old installation after shutting down new installation, and vice versa. Can fully automate using custom composite templates or can perform step by step using a combination of the Command Central web user interface and commands.

Cautions: Requires double disk space because old installation is still present. Must adjust third-party tooling to point to new installation directory.

#### New Installation Directory and Ports, Same Hosts, Cloned Database

Benefits: Safer than first scenario; rollback is much simpler. Downtime is less than first and second scenarios; can migrate gradually while old installation continues to operate. Can fully automate using custom composite templates.

Cautions: Preparation for migration is more complex than first and second scenarios. Requires double disk space because old installation is still present. Must change endpoints to reflect new ports. Must adjust third-party tooling to new installation.

#### **New Hosts, Live or Cloned Database**

Typically required because of upgrades to hardware and operating systems. Use of same installation directory and ports can minimize change. Use of DNS to control IP-to-host mapping for the old and new environment can greatly simplify impact on external clients.

Benefits: Safest scenario, and minimal downtime. Easiest scenario when environment runs in a private or public cloud that allows temporary increase of capacity to host new environment and then release resources used by old environment. Can phase migration. Must adjust third-party tooling to new installation. Can fully automate using custom composite templates or can perform step by step using a combination of the Command Central web user interface and commands.

Cautions: Some products allow cross-operating system migration, but for other products, this type of migration might have unpredictable results, especially when old machine is Windows and new machine is non-Windows, or vice versa.

## Using Software AG Installer, Software AG Update Manager, and Software AGMigration Utilities to Upgrade Products

If you want to upgrade using Software AG Installer to install new products; Software AG Update Manager to install fixes; and Software AG migration utilities to migrate product configurations, data, and assets, follow the instructions in this guide.

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#### **Upgrades Covered in This Guide**

This guide explains how to upgrade the following from 9.7, 9.8, 9.9, 9.10, 9.12, 10.1, and 10.2 to 10.3:

- Apama, MashZone NextGen, Universal Messaging, and webMethods products.
- Terracotta and Zementis Predictive Analytics when used with webMethods products.

You can also use the procedures in this guide to migrate data from one 10.3 installation to another 10.3 installation (for example, for a data center move).

#### **Support for Upgrade Across Operating Systems**

Integration Server, Microservices Runtime, OneData, and Universal Messaging support migration across machines that have the same operating system and across machines that have different operating systems.

The other products support migration from a Windows system to another Windows system, and from a UNIX system to another UNIX system when both systems are using a JVM from the same vendor. These products do not support migration from one operating system to a different operating system (for example, from a Windows system to a UNIX system, or vice versa).

#### **Release Numbering Exceptions**

The products below did not follow general release numbering.

- In the webMethods 9.9, 9.10, and 9.12 releases, ActiveTransfer remained at its 9.8 release.
- In the webMethods 9.7, 9.8, 9.9, 9.10, 9.12, 10.1, 10.2, and 10.3 releases, the Terracotta release numbers were 4.1.4, 4.3, 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.5, and 4.3.6, respectively.

#### **Documentation Needed to Perform the Upgrade**

You will need the documentation listed below to perform the upgrade.

- Release notes for the old release + 1 through the new release; these list new features.
- Product readmes for the new release; these describe changes to product behavior; deprecations, removals, and additions of services, APIs, and other items; critical information about the new product release; and known and resolved issues.

- Fix readmes for fixes you install on new products; these list resolved issues and changes in behavior.
- System Requirements for Software AG Products
- Supported Upgrade Paths for Software AG Products
- Software AG Command Central Help or Using Software AG Installer
- Installing Software AG Products
- *Using Software AG Update Manager* (latest release)

You might need the documentation listed below to perform this upgrade, depending on the products you are upgrading. The release of the documentation you need is the new release.

- webMethods API Portal Administrator's Guide and webMethods API Portal Customization Guide
- webMethods Application Platform User's Guide
- webMethods BPM Task Development Help
- CentraSite documentation
- webMethods Deployer User's Guide
- webMethods Integration Server Administrator's Guide, webMethods Service Development Help, and webMethods Integration Server Clustering Guide
- MashZone NextGen Administration Guide and MashZone NextGen User and Developer Guide
- Administering My webMethods Server
- Administering webMethods OneData
- Administering webMethods Optimize and Configuring BAM
- Using Terracotta with webMethods Products and Terracotta BigMemory Max documentation
- Universal Messaging

#### **Upgrades Not Covered in This Guide**

The table below lists upgrades that are not covered in this guide, and supplies the correct information source.

Upgrade	Information
From a release prior to 9.7	See Supported Upgrade Paths

Upgrade	Information
Apama releases prior to 9.9	See the Apama release notes for the pre-9.9 release
ApplinX	See ApplinX documentation
webMethods Broker to Universal Messaging	webMethods Broker has been deprecated. You can migrate from webMethods Broker 9.6 to Universal Messaging 10.3; to plan the migration, see <i>Migrating from webMethods Broker to webMethods Universal Messaging</i> . During the migration you can continue to use webMethods Broker 9.6 and Universal Messaging 10.3 with the same Integration Server 10.3.
Command Central	See Software AG Command Central Help
Presto and MashZone NextGen	There is no direct path from Presto 3.8 (webMethods release 9.7), Presto 3.9 (webMethods release 9.8), or MashZone NextGen 9.9 to MashZone NextGen 10.3. Instead, you must upgrade to MashZone NextGen 9.10 using the instructions in the 9.10 upgrade guide, and then upgrade from 9.10 to MashZone NextGen 10.3 using the instructions in this guide.
Terracotta when not used with webMethods products	See Terracotta BigMemory Max documentation
Terracotta BigMemory Max to Terracotta DB	Terracotta DB 10.3 is significantly different from Terracotta BigMemory Max 4.x and 3.7.6 in terms of handling of cluster topology, data storage formats, and other functionality. You cannot migrate data and configuration for a Terracotta BigMemory Max server to a Terracotta DB server.
Zementis Predictive Analytics when not used with webMethods products, and releases prior to 10.1	See the Zementis installation guide for the release from which you want to upgrade.

## 3 Critical Factors and Requirements for Successful Upgrade

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#### **Preparation and Planning**

Software AG strongly recommends that you plan and prepare for your upgrade before performing the procedure described in this guide. Planning and preparing can include the tasks listed below.

- Read this guide in its entirety so you are familiar with all tasks you will need to perform.
- Read the product release notes. The release notes provide information on new functionality. Read the information for every release for your old release + 1 through the new release.
- Read the product readmes for the new release, including the readme for the Software AG Infrastructure. All readmes are available on the Software AG Documentation website. The product readmes contain this information:
  - Critical information and known and resolved issues for your products.
  - Changes to product behavior, services, parameters, properties, and APIs. Such changes can include additions, changes, deprecations, and removals. This information is especially important because you might need to modify product files or assets after migration to accommodate the changes.

Read the information in product readmes for your old release+1 through the new release. For example, if you are upgrading from 9.8 to 10.3, read the information for releases 9.9 through 10.3.

- Go to the "Knowledge Center" on the Empower Product Support Website and read tech articles (for example, KB 1788395). Use keywords such as upgrade to search for relevant tech articles, and search for your old release, your new release, and all releases in between.
- Define an upgrade approach and a cut-over plan. If you have a large landscape, you might want to do a phased upgrade.
- Set up operating guidelines that cover normal project management requirements across all affected groups in your organization.
- Define an approach to source control, and set up release management tools and procedures that support the migration of data into target environments.
- Account for externals to your Software AG environment, such as clients that communicate with your Software AG products and that might need endpoint URL, host name, or IP address updates.
- As part of upgrading, you will take a baseline of the old environment and use that baseline to perform the upgrade procedure. Software AG recommends a code freeze while you are migrating the baseline to the new environment.
- Many upgrade issues are caused by forgotten environmental settings. Plan, document, and test these thoroughly.

■ For complex projects that require extensive system testing, extended code freeze might not be possible. In this case, define a change management strategy to track code changes that occur in the old environment. After testing is complete on the baseline, this will enable you to merge the code changes into the baseline and re-test the new baseline.

If you need help creating your planning approach, contact Software AG Global Consulting Services. You can also go to the "Software AG TECHcommunity" and find tips and tricks and other information in the upgrade wiki (Wiki > webMethods > Upgrade).

#### **Testing and Troubleshooting**

Testing can include the tasks listed below.

- Software AG strongly recommends that you upgrade in a controlled test environment and test that environment for proper operation before promoting to your production environment.
- Provision new environments to support the upgrade. Environments in which you conduct testing should mirror the production environment.
- Obtain test data from the source environment and establish baseline test results.
- Many upgrade issues are caused by forgotten environmental settings. Plan, document, and test these thoroughly.
- Identify test tools for unit, functional, and non-functional regression testing.
- Define acceptance and sign off criteria.
- Automate a core set of regression tests for the upgrade. Software AG recommends focusing your tests most heavily on product areas that have undergone the most change. The readmes and release notes provide all product change information (see "Preparation and Planning" on page 22 for details).
- If upgrading to new machines, make sure connections and firewalls are open to back-end systems before starting any system testing.
- Use an issue management system to track defects and issues.
- If code freeze of the old environment during test is not possible, merge code changes from the old environment into the baseline and re-test the new baseline.

If you need help creating your testing approach, contact Software AG Global Consulting Services.

If you encounter errors during the upgrade, try the troubleshooting methods below.

Look in log files.

The table below lists the types of logs that record upgrade information and their locations.

Type of Log	Location
Installation and uninstallation	new_Software AG_directory /install/logs directory
Product	In a logs directory in the product file structure, or in the <code>new_Software AG_directory/profiles/product/logs directory.</code>
Data migration	new_Software AG_directory /install/logs directory and product directories indicated by the upgrade procedures
Database migration	new_Software AG_directory/common/db/logs directory.

- Go to the "Knowledge Center" on the Empower Product Support Website and read tech articles (for example, KB 1788395). Use keywords such as upgrade to search for relevant tech articles, and search for your old release, your new release, and all releases in between.
- Go to the "Software AG TECHcommunity" and:
  - Join the upgrade discussion forum (Forums > webMethods > Upgrade).
  - Read and share tips and tricks and other information in the upgrade wiki (Wiki > webMethods > Upgrade).

If you cannot resolve the problem using the methods above, contact Software AG Global Support.

#### **General Upgrade Procedure Requirements**

**Important:** If you do not conform to these requirements, you will experience unpredictable results, possibly including corruption of your installation and data.

- Perform the tasks in the upgrade documentation in the exact order in which they are presented. The task order is critical because your products have many interdependencies, including shared infrastructure and event driven architecture.
- After you install the new products, you install the latest fixes. However, the upgrade procedure might take days or weeks to complete. Continue to check for and install new fixes regularly during the procedure.
- Do not start any new products before the instructions in this guide tell you to do so, or your database components could become corrupted.

- Perform the tasks in this guide for all upgrade paths unless the guide states that a particular task is required for certain upgrade paths only.
- This guide assumes you are using the same RDBMS in the new environment that you used in the old environment. If you want to use a different RDBMS in the new environment, there are special requirements that must be met before you can upgrade your products. Contact Software AG Global Consulting Services for more information.

#### **API Gateway**

**Note:** Event Data Store was renamed Internal Data Store in release 10.2.

API Gateway supports many operating systems. However, API Gateway depends on Internal Data Store, which supports only Windows and Red Hat Enterprise Linux operating systems. You might therefore want to install two new API Gateways: One that will host migrated API Gateway assets, and one that will host the Internal Data Store with migrated Event Data Store data.

#### **API Portal Requirements**

You must have these functional privileges to upgrade API Portal:

- License, user, and document management
- User management configuration
- Database administration

Ask your API Portal administrator to log on to the User Management Component at http://host:port/umc, go to the user management page, click your user name, and either add you to the API Administrator group or go to the Functional Privileges tab and assign the privileges listed above to you.

#### **CentraSite Requirements**

If you want to install the CentraSite Application Server Tier and CentraSite Registry Repository on different machines, or in the same directory but at different times, you must install the Registry Repository first.

#### **Software AG Designer Requirements**

If you are upgrading products involving Software AG Designer projects, make sure the target machine has enough space for the projects you will migrate (see "Migrate")

Software AG Designer, Business Process Runtime Data, and Closed Loop Analytics" on page 79).

#### **Integration Server or Microservices Runtime Requirements**

Note:

Steps for Microservices Runtime are identical to those for Integration Server.

#### **General Requirements**

Make sure the target machine has enough space for custom packages you will migrate. Custom packages include packages created by users in Software AG Designer and business process packages generated by users from Software AG Designer.

#### **Clustering Requirements**

In Integration Server, a cluster is defined as multiple Integration Server instances that point to the same ISInternal database component and connect to the same Cache Manager on a Terracotta Server Array. A cluster can include Integration Server installations on different machines, server instances within an Integration Server installation, or both.

This section is intended for use with the rest of the upgrade procedure. You must perform all documented tasks for your products in the order they are written, with the additional tasks or exceptions noted below.

- When you install the new Integration Servers, create a cluster that matches your old cluster. You can install the new Integration Servers in parallel.
- When you install the fixes on the new Integration Servers, you can install the fixes in parallel.
- When you shut down the old products, shut down all cluster nodes.

Configure the cluster as instructed in *webMethods Integration Server Clustering Guide*.

#### My webMethods Server Requirements

#### **Environment Variable**

In your old release, you might have identified a default My webMethods Server installation in the global path of the installation's host machine using the environment variable WM\_HOME. If you are going to install the new release on the same machine as the old release, the existence of this variable could cause problems, so you must remove the environment variable from the global path.

Do not redefine the environment variable after installing the new My webMethods Server.

#### My webMethods Server Clustering Requirements

In My webMethods Server, a cluster is defined as multiple My webMethods Server instances that point to the same MywebMethodsServer database component. A cluster can include My webMethods Server installations on different machines, server instances within a My webMethods Server installation, or both.

This section is intended for use with the rest of the upgrade procedure. You must perform all documented tasks for your products in the order they are written, with the additional tasks or exceptions noted below.

■ Install Universal Messaging before installing My webMethods Server.

**Note:** Starting in 10.0, My webMethods Server clusters no longer use the server database to exchange JMS events or as a JMS provider. Instead Universal Messaging is required for synchronization among the cluster nodes.

- When you install the new My webMethods Servers, create a cluster that matches your old cluster. You can install the new My webMethods Servers in parallel.
- When you install the fixes on the new My webMethods Servers, you can install the fixes in parallel.
- You do not need upgrade the Software AG Infrastructure as instructed in this guide.
- When you shut down the old products, shut down all cluster nodes.
- When you migrate server instances from old My webMethods Server installations to new My webMethods Server installations, you can migrate the instances in parallel.
- When you initialize the server instances, you can initialize them in parallel.

Configure the cluster as instructed in *Administering My webMethods Server*.

#### **OneData Requirements**

- 1. Go to the *old\_Software AG\_directory* /profiles/ODE/configuration/ com.softwareag.platform.config.propsloader directory. Open the com.softwareag.catalina.connector.http.pid-*port* .properties file and the com.softwareag.catalina.connector.https.pid-*port* .properties file and note the port numbers.
- 2. Go to the indicated directory and open the file or files below.
  - Upgrade from 9.7 or 9.8: Go to the *old\_Software AG\_directory* /profiles/ODE/ configuration/tomcat/conf directory and open the context.xml file.

■ Upgrade from 9.9 or later: Go to the *old\_Software AG\_directory* /profiles/ODE/ configuration/com.softwareag.platform.config.propsloader directory and open the com.softwareag.catalina.resource.pid-*repository\_name schema* .properties files, where *repository\_name* is the repository name you provided during installation and *schema* is md, wa, or ra.

Note the database connection prefixes at the beginning of the names for the metadata, work area, and release area schemas. For example, in the metadata schema name jdbc/dev2md, the connection prefix is dev2. Also note any database parameters such as maxIdle, maxActive, and maxWait that are specified for the schemas.

3. Go to the *old\_Software AG\_directory* /profiles/ODE/bin/onedata/config directory. Open the repository.xml file and note the Repository Id (RepositoryID element) and Repository Name (Name element).

#### **Universal Messaging Clustering Requirements**

In Universal Messaging, a cluster is defined as multiple server instances in Universal Messaging installations on the same or different machines that are configured for clustering.

This section is intended for use with the rest of the upgrade procedure. You must perform all documented tasks for your products in the order they are written, with the additional tasks or exceptions noted below.

- When you install the new Universal Messaging servers instances, create a cluster that matches your old cluster. You can install the new Universal Messaging server instances in parallel.
- When you install the latest fixes on the new Universal Messaging server instances, you can install the fixes in parallel.
- When you shut down the old products, shut down all cluster nodes.
- When you migrate server instances from old Universal Messaging installations to new Universal Messaging installations, you can migrate the instances in parallel.
- If the new cluster nodes are on the same host machines as the old cluster nodes, start all new cluster nodes.

If the new cluster nodes are on different machines than the old cluster nodes, do the following:

1. Go to the <code>new\_Software AG\_directory</code> /UniversalMessaging/ server/<code>instance\_name</code> /bin directory for one cluster node and create a file named remote\_realms\_bootstrap.conf. Add a cross-host mapping property to the file for every node that is part of the cluster in the format <code>instance\_name</code> .address=<code>new\_host\_name\_or\_IP</code> (for example, umserver1.address=myUM1.com or umserver2.address=192.168.0.1). Copy the file to the same location for all the other nodes.

- 2. Start all cluster nodes. The remote\_realms\_bootstrap.conf file in every installation will be renamed remote\_realms\_bootstrap\_old.conf. When a source Universal Messaging server instance is bound to a specific network interface (absolute IP address), the interface of the migrated instance address will bind to 0.0.0.0 (all known interfaces on the port).
- 3. Open Enterprise Manager to make sure the cluster is running correctly.

Configure the cluster as instructed in Universal Messaging documentation

#### Database Requirements, Recommendations, and Preparation

- Check your RDBMS against *System Requirements for Software AG Products*. If the RDBMS version you are using is not supported by your new products, upgrade to a supported RDBMS version.
- Some products, like Integration Server, Microservices Runtime, Optimize, Process Engine, and Trading Networks, offer features to archive or purge data from their database components. You can reduce the amount of time needed to migrate database components later in this procedure if you archive and purge them now. For instructions, see the product documentation.
- Make a backup of the product databases; shut down all ActiveTransfer, Integration Server, Microservices Runtime, My webMethods Server, OneData, and Optimize instances that connect to database components before making the backup. If you are upgrading My webMethods Server, back up the My webMethods Server installation directory at the same time you back up the database. If you have problems, you will need to restore data from both types of backup.
- Software AG strongly recommends using cloned databases when testing your upgrade. You can clone only those database components that you will want to use in your new environment. Cloning operations are typically done at the level of the schema (Oracle) or database (SQL Server and DB2) that contains the product database components, or at the level of the database user that owns all the database components. Data cloning is usually performed using export and import tools that are bundled with the database. For cloning procedures, see your database vendor documentation.

#### Software AG recommends the following:

- Installing Software AG Products describes the basic grants and privileges needed to work with product database components. Before cloning the databases, give the database users that will work with the cloned databases the same basic grants and privileges that were given to the database users that work with the live databases.
- In some cases, one database user grants permissions to a second user (for example, the process audit database user grants permissions to a second user to archive process audit data). Before cloning the databases, create the second user in the new schema or database.

- Use a separate database user (Oracle) or database (SQL Server or DB2) to host the cloned databases.
- The new release might require changes to the database components, such as new tables, columns, keys, or indexes. You will run database migration scripts that update the existing database schemas so they are compatible with the new product release. The scripts might modify the existing database components, or might create parallel database components with the new structure and then insert, select, rename, and drop the tables, columns, keys, and indexes. These changes might increase the size of your database.
- Database migration may take many hours, depending on the volume of data, and is often the critical path for upgrade.

### 4 Install New Products

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#### **Install New Products Using Command Central**

Follow the instructions in *Software AG Command Central Help* to install your new products and fixes using Command Central.

#### Install New Products Using Software AG Installer

Follow the instructions in *Using Software AG Installer, Installing Software AG Products,* and below to install your new products using Software AG Installer.

When running Software AG Installer:

- 1. For installation directory, specify a new Software AG installation directory.
- 2. On the product tree, Database Configuration in addition to the new products to install.
- 3. On product panels or in response to prompts, provide the requested data.

Note: If you are installing the new products on the same machine as the old products, the installer often allows you to assign ports used by an old product to the new product as well, even if the old product is running. Assigning the same ports means you will not need to edit port values in assets and clients when you begin using the new release.

The table below describes the data to provide on installer panels or in response to prompts for the indicated products.

Product	Guidelines
ActiveTransfer Server	Point the database connection at the ActiveTransfer database component you want to use with the new ActiveTransfer Server.
Apama	If installing the new Apama on the same machine as the old Apama, specify a new work directory. Software AG recommends including the release number in the work directory name, as shown in the default.
Integration Server or Microservices Runtime	Point the database connection at the ISInternal database component you want to use with the new Integration Server or Microservices Runtime.

Product	Guidelines
My webMethods Server	Select <b>Side-by-side installation for upgrade</b> . No instance will be created.
OneData	Enter the values you noted earlier from the old installation for ports, repository ID, repository name, and database connection prefixes and parameters. Make sure the database connections point to the OneData database components you want to use with the new OneData.
	<b>Note:</b> Reusing port values means that Web service clients of the old OneData will not have to change URLs to access the new OneData.
Trading Networks	Point the database connection at the TradingNetworks database component you want to use with the new Trading Networks.
Universal Messaging	Select <b>Side-by-side installation for upgrade</b> . No instance will be created.

## **5** Prepare New Products, Old Products, Database Components, and ZIP Files for Migration

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#### **Install Latest Fixes on New Products**

The instructions in *Installing Software AG Products* include installing the latest fixes on your new products.

- Install the latest *product* fixes on all new products except the infrastructure components named Common Platform and Security Infrastructure. Also do not install the latest fixes on the database scripts. You will apply those fixes later in the procedure.
- For some products, fixes relating to migration are separate from product fixes. Install the latest *migration* fixes on all new products, including Common Platform and Security Infrastructure. Fix names for those products typically include the letters OSGI and SIN, respectively.
- Install the latest migration framework fix. Fix names for the migration framework follow the convention MIG\_release \_MigrationFramework\_Fixnumber and are listed under Common Library.

**Important:** If your upgrade procedure take days or weeks to complete, continue to check for and install new fixes regularly during the procedure.

## **Shut Down Software AG Runtime and Disable Automatic Startup**

Software AG Runtime starts automatically after installation. Shut down Software AG Runtime by stopping the Windows service or UNIX daemon. You can use the shutdown. {bat|sh} scripts in *new\_Software AG\_directory*/profiles/CTP/bin directory.

If you installed your new products on a Windows system, and you installed them as Windows services, the default startup mode for the services is Automatic. To prevent the new products from starting accidentally before this procedure instructs you to start them, set the services to Manual. If you installed on a UNIX system, and you have scripts that automatically start daemons, disable the scripts for the same reason.

**Important:** Do not start any of the new products at this point. Do not start any of the new products before the instructions in this guide explicitly tell you to do so, or your database components could become corrupted.

## **Prepare the Old Environment for Migration**

#### Install Fixes on Old Products

Install the latest product fixes on the old ActiveTransfer, API Gateway, API Portal, CentraSite, Infrastructure Data Collector, My webMethods Server, Optimize, and Process Engine. After you install the fix on the old product, start the old product.

## **Upgrade from 10.1: Prepare the Old API Gateway**

In this section you will do the following:

- Create a ZIP file containing backups of the configurations for the old Integration Server that hosts API Gateway, the API Gateway UI and dashboard (Kibana), and for one API Gateway instance. You can migrate only one API Gateway instance.
- Create a snapshot of the Event Data Store. The Event Data Store contains the following:
  - APIs.
  - Applications.
  - Policies and policy actions.
  - Configurations and administrator settings.
  - Aliases.
  - Users, groups, and access profiles.
  - Plans, packages, and subscriptions.
  - API events for transactions, monitoring, policy violations, threat protection, lifecycle, and errors.
  - Performance metrics.

Follow the steps below to migrate create the configuration backups and the Event Data Store snapshot.

- 1. Start the old API Gateway.
- 2. Open a command window or shell and go to the *old\_Software AG\_directory /* IntegrationServer/instances/*instance\_name* /packages/WmAPIGateway/cli/bin directory, where *instance\_name* is the API Gateway instance to migrate. Then run the command below.

The -backupDestinationDirectory parameter is the directory in which to store the ZIP file containing the configuration backups, and the Event Data Store snapshot. The directory must already exist and you must have write permissions to it. The snapshot will be stored in a sub-directory named default. The ZIP file and the

snapshot will be named apigw\_upgrade\_backup.zip and apigw\_upgrade\_backup, respectively.

```
apigw-upgrade-backup.[bat|sh]
-backupDestinationDirectory full_path_to_directory_for_
configuration_backups_ZIP_file_and_EDS_snapshot
```

3. If the old and new API Gateway installations are on different machines, copy the – backupDestinationDirectory to the new machine.

## Prepare the Old API Portal

- 1. Start the old API Portal Cloud Controller.
- 2. If the old API Portal is installed in a clustered, high-availability setup, make sure all nodes are running and accessible to the ZooKeeper ensemble. Then register each node with the parent node by running this command:

```
acc> add node logical_node_name IP_address_or_host_name
[@port] user name password
```

3. Run this command:

```
acc> startall
```

4. Run this command to make sure all API Portal components are running:

```
acc> list
```

5. For each tenant in the old API Portal, you will have to create a tenant in the new API Portal. List all tenants in the old API Portal by running this command:

```
acc> list tenants
```

6. Back up each old tenant's API and related data; user data; API Portal document storage data, including all access rights; and collaboration data to a file. The file extension .acb will automatically be added to each file.

The table below explains how to back up each old tenant's data to a file for each old product release.

Old Release	Commands to Run
9.7	<pre>acc&gt; set acc config backup.restore.tenant.app.types = com.aris. umcadmin.y-umcadmin-run-prod, com.aris.modeling.components. y-server-run-prod, com.aris.adsadmin.y-adsadmin-run-prod, com.aris.runnables.ecp-run-prod acc&gt; set acc config backup.restore.tenant.app.type.names = umc, abs, ads, ecp acc&gt; backup tenant tenant_name to full_path_to_backup_file username=your_user_name password=your_password</pre>
9.8	<pre>acc&gt; set acc config backup.restore.tenant.app.types=UMC,ABS,ADS,ECP acc&gt; backup tenant tenant_name to full_path_to_backup_file username=your_user_name password=your_password</pre>

Old Release	Commands to Run
9.9 9.10 9.12	
10.1 10.2	<pre>acc&gt; backup tenant tenant_name to full_path_to_backup_file username=your_user_name password=your_password</pre>

- 7. If you created a customized view of your old API Portal, back up the view as follows:
  - a. Open API Portal in a browser and log on with Administrator credentials.
  - b. Go to the **Administration** page. In the **Views** page under the **Customization** section, hover over the name of the custom view and click **Backup**. API Portal creates a ZIP file that contains the customized view.
  - c. Save the ZIP file.

## Prepare the Old CentraSite

- 1. If you changed settings for CentraSite Control from their defaults, note those settings so you can make the same changes in the new CentraSite installation.
- 2. If the new and old CentraSites are on the same machine, make sure the old CentraSite is shut down.
- 3. Export configuration data from the old CentraSite and assets from the old Registry Repository into a ZIP file. On the old machine, open a command window or shell, go to the *old\_Software AG\_directory* /CentraSite/utilities directory, and run the appropriate command below.
  - For Windows, run sbsExport.cmd full\_path\_to\_ZIP\_file
  - lacktriangle For UNIX, run sbsExport.sh full path to ZIP file

An example of this command for UNIX is as follows:

```
./sbsExport.sh /tmp/sbs cs82 data.zip
```

4. If the old and new CentraSite installations are on different machines, copy the ZIP file to any directory on the machine that hosts the new CentraSite.

## Prepare the Old Deployer

Start the old host Integration Server. In the old Deployer, edit all connections to old source and target product servers to point to the new source and target product servers.

You do not have to supply user names and passwords if you do not know them. For instructions, see *webMethods Deployer User's Guide*.

## Prepare the Old Software AG Designer

#### **Export Integration Server or Microservices Runtime Definitions**

- 1. In the old Software AG Designer, go to **Window > Preferences**. On the **Preferences** dialog box, in the left navigation bar, go to **Software AG > Integration Servers**.
- 2. Click **Export** and complete the dialog box. Software AG Designer will save the file with the extension .properties.

#### **Export CloudStreams Server Definitions and Projects**

- To export CloudStreams Server definitions to file, go to Window > Preferences > Software AG > CloudStreams Servers. Click Export and complete the dialog box. Software AG Designer will save the file with the extension .properties.
- 2. Open the CloudStreams Development perspective.
  - In the CloudStreams Governance view, right-click a governance project to export, click **Export**, and complete the wizard. The project folder will be exported.
  - In the CloudStreams Providers view, right-click the provider project to export, click **Export**, and complete the wizard. The projects will be exported as an archive (ZIP file).

## **Export Preferences**

If you want to migrate your preferences to the new Software AG Designer, you export them from the old Software AG Designer and then import them into the new Software AG Designer. To export the preferences, do the following:

- 1. In the old Software AG Designer, open the File > Export wizard. In the Select panel, go to General > Preferences and click Next.
- 2. In the **To preference file** field, specify the name of the file to which you want to export your preferences. Software AG Designer will save the file with the extension .epf.

### **Prepare the Old Integration Server or Microservices Runtime**

**Note:** Steps for Microservices Runtime are identical to those for Integration Server.

#### **Start and Connect Products**

- 1. Start the old Integration Server and open the old Integration Server Administrator.
- 2. If you are using Universal Messaging, make sure Integration Server is connected to each Universal Messaging server that is acting as a webMethods Messaging

provider. If you are using another JMS provider, make sure Integration Server is connected to the JMS provider.

#### **Suspend Triggers and Drain Queues**

#### Upgrade from 9.8: Suspend Triggers and Drain Queues When Using Command Central to Upgrade

You can suspend triggers and drain message queues by pausing the Integration Server instance from Command Central.

## **Suspend Triggers and Drain Queues Using When Not Using Command Central to Upgrade**

- 1. Go to **Settings > Quiesce** page. Click **Enter Quiesce mode** and set the time for the quiesce to occur to at least 1 minute, so Integration Server has time to stop executing new incoming requests and to finish executing in-flight services. Make sure the Quiesce Report shows the status SUCCESS in every field. For instructions and details about specific actions that occur when Integration Server is quiesced, see *webMethods Integration Server Administrator's Guide*.
- 2. Go to the **Settings > Messaging > webMethods Trigger Management** page. If the **Current Queue Counts** field does not show 0 for every trigger, diagnose and fix the problem (for example, the webMethods Messaging provider might not be active or might be slow to process requests from Integration Server). Refresh the page until the **Current Queue Counts** field shows 0 for every trigger.
- 3. Go to the **Settings > Messaging > webMethods Messaging Settings** page. Make sure the **CSQ Count** field shows 0 for the Universal Messaging connection alias.
- 4. Go to the **Settings > Messaging > JMS Settings** page. In the **JMS Connection Alias Definitions** area, make sure the **CSQ Count** field shows 0 for every JMS connection alias.

## Prepare the Old MashZone NextGen

Upgrade from 9.10 or 9.12: MashZone NextGen 10.0 and later do not support the PPM Chart View. To remove the view from the MashZone NextGen database, open the MashZone NextGen Developer or MashZone NextGen Administrator, go to the API Console, and send this request:

```
{
  "version": "1.1",
  "sid": "AppService",
  "oid": "removeApp",
  "svcVersion": "0.1",
  "params": [
        "ppm-chart"
  ]
}
```

A response of true indicates that the view has been removed.

## Prepare the Old My webMethods Server

When you edit configuration settings for My webMethods Server, you download the appropriate configuration file from the MywebMethodsServer database component to the My webMethods Server installation and make the changes in that file. You then either upload the file to the database component and delete it from the file system, or keep it in the file system so its settings are used in preference to the equivalent settings in the database. Go to the *old\_Software AG\_directory /MWS/server/instance\_name /config directory and check for any such files. If you do not want such files to be migrated to the new installation, delete them from the old installation.* 

### Prepare the Old OneData

- 1. In the old OneData, go to the **Home > Administer > Job Center** page. On the **Filter** page, for each job type, filter by **Active** or **Pending Active**. If a job has one of these statuses, terminate the job or wait for it to complete.
- 2. If you are using JMS with OneData, go to the *old\_Software AG\_directory* /profiles/ ODE/webapp/onedata/WEB-INF/lib directory and back up all client jar files required for JMS providers.
- 3. If you are using Kerberos authentication with OneData, back up your Kerberos-based SSO configurations and files.

The table below lists the directories that contain the Kerberos-based SSO configurations and files to back up.

old_Software AG_directory /	Files to Back Up
profiles/ODE/configuration/tomcat/conf	server.xml
profiles/ODE/configuration	custom_wrapper.conf and jaas.config
profiles/ODE/workspace/webapps/onedata/ WEB-INF	web.xml
profiles/ODE/configuration/ com.softwareag.platform.config.propsloader	All com.softwareag.jaas. realm.pid-SSO_realm_name

## **Prepare the Old Optimize**

 If you want to reuse your Central Configurator System (CCS) Environment definition, export the environment to an XML file. In My webMethods, go to the Administration > System-Wide > Environments > Define Environments page. Select the check

- box next to the environment, click **Export**, and provide a file name and location for the exported environment.
- 2. If you want to cluster Analytic Engines in the new installation, you will need a Terracotta Server Array. For planning information, see *Using Terracotta with webMethods Products*, *Configuring BAM*, and the Terracotta BigMemory Max documentation.

### **Prepare the Old Zementis Predictive Analytics**

- 1. Go to the *old\_Software AG\_directory* /Zementis/adapa-app/migration directory.
- 2. Back up Zementis Predictive Analytics models and resources by running this command:

```
./migration.sh backup Zementis host URL admin user admin password
```

The backup is written to the adapa-backup-*yymmdd-hhmmss* directory, where *yymmdd-hhmmss* is the time you ran the command based on the UTC time zone.

#### **Shut Down the Old Products**

#### **Shut Down Old Products Using Command Central**

Shut down products from Command Central.

### **Shut Down Old Products Manually**

The table below lists how to shut down specific products.

Product	Shut Down Instructions
API Portal	If the old and new API Portal are on the same machine:
	Run this command in the old API Portal Cloud Controller:
	acc> stopall
	■ Stop the cloud agent by going to the <i>old_Software AG_directory /</i> API_Portal/server/bin directory and running this command:
	CloudAgentApp.{bat sh} stop
CentraSite	If the old and new CentraSite are on the same machine, shut down all old Application Server Tiers by stopping the Software AG Runtime services, then shut down the old Registry Repository by stopping its service.
EntireX	Shut down EntireX as instructed in the previous table, then shut down all Brokers, RPC Servers, and customer applications

Product	Shut Down Instructions
	that use EntireX libraries. For instructions, see the product documentation for your old release.
Terracotta	Shut down all non-webMethods clients.

To shut down the other products on a Windows system.

- If the product is running as a service, shut down from the Windows Services window. Services are listed as Software AG *product release*.
- If the product is running as an application, shut down from the Windows start menu. Applications are listed as **Software AG > Stop Servers > product**.

On a UNIX system, use the instructions in the product documentation for your old release.

Note:

It is especially important to shut down all old ActiveTransfer, Integration Server, Microservices Runtime, My webMethods Server, OneData, and Optimize instances that connect to database components you are going to migrate.

## **Prepare Database Components for Migration**

#### Overview

The new release might require changes to the database components, such as new tables, columns, keys, or indexes. In this section, you run database migration scripts that update the existing database schemas so they are compatible with the new product release. The scripts might modify the existing database components, or might create parallel database components with the new structure and then insert, select, rename, and drop the tables, columns, keys, and indexes. These changes might increase the size of your database.

### **Special Considerations for Migrating Database Components**

If you are using business processes, you have stored information about in-progress, completed, or failed business process instances. This stored information is called business process runtime data. If you do not want to finish running in-progress process instances or resubmit completed or failed process instances from your old installation in your new installation, do not migrate your business process runtime data.

- If you are using Optimize with a DB2 RDBMS, there are special considerations for the URL you specify on the database component migration command. You must do the following:
  - Specify the schema name in the URL using all capital letters.
  - Specify the options CreateDefaultPackage=true, ReplacePackage=true, and DynamicSections=3000. These settings will affect all database components in the same schema or database.

## **Before You Migrate Trading Networks Database Components**

If you created custom indexes for your Trading Networks database components, check whether those custom indexes conflict with indexes that will be created when you run the Trading Networks database migration scripts in the next step. If so, drop the custom indexes.

The table below lists the directories under the *new\_Software AG\_directory* /common/db/ scripts/*RDBMS* /tradingnetworks/migrate directory that contain the database migration scripts for Trading Networks for each release.

Old Release	Directories
9.7	/50_to_55
9.8	/55_to_56 and 56_to_65
9.9	/65_to_70

## **Install Fixes on Database Migration Scripts**

If you are using Command Central to migrate database components, follow the instructions in *Before Creating Database Components* in the *Software AG Command Central Help* to install the latest fix on the database migration scripts.

If you are using the Database Component Configurator to migrate database components, use Software AG Update Manager to install the latest fix on the database migration scripts.

Database script fix names follow the convention DC *old release number* DBS Fix*latest fix number* .

## **Create ZIP Files as Source of Old Product Installations to Migrate**

If your old and new installations for a product are on different machines, create a ZIP file of the old product installation to use as the migration source.

## **Create ZIP File When Using Command Central to Migrate**

If you are upgrading one environment using Command Central, you can to create ZIP files of the old installations from Command Central or create them yourself as described in the next section.

If you are using composite templates to automate the upgrade, Command Central automatically creates a ZIP file of each old installation directory. The ZIP file includes all files except .log files. If you want to decrease the size of the ZIP file, see the table in the next section for the commands that will include only the required files for each product in the ZIP file.

## **Create ZIP File When Using Migration Utilities to Migrate**

#### Create a ZIP File for My webMethods Server

- 1. On the old machine, open a command window or shell, go to the *old\_Software AG\_directory* /MWS/bin/migrate or *old\_Software AG\_directory* /MWS/bin directory, depending on which old release you have, and run the command <code>ZIP-mws.{bat|sh}</code>. The command creates a ZIP file named mws.zip in *old\_Software AG\_directory* / MWS/migrate-zip directory.
- 2. Copy the mws.zip file to any directory on the machine that hosts the new My webMethods Server.

**Important:** If using FTP to copy, use the binary file transfer mode\type. If you use another mode\type, the ZIP file might become corrupted.

#### Create ZIP Files for All Other Products

The instructions below use the Java Archive tool to create the ZIP file. Specify the location of the Java Archive tool in the JAVA\_HOME and PATH system variables on the machine that hosts the old product installation. The tool is located in the *Software AG\_directory* /jvm/jvm/bin directory.

**Note:** On some systems, the lower-level jvm directory name includes additional information, such as /jvm/jvm160\_32, or /jvm/jvm170, or /jvm/jvm\_64.

- 1. Go to the product's old machine and open a command window or shell.
- 2. Go to the Software AG directory that contains the old product and enter the command indicated in the table below. If multiple commands are listed, use the same ZIP file name in each command.
- 3. Copy the product's ZIP file to any directory on the machine that hosts the new product.

**Important:** If using FTP to copy, use the binary file transfer mode\type. If you use another mode\type, the ZIP file might become corrupted.

The table below lists the command to run to create a ZIP file of the old product installation to use as the migration source.

Product	Command to Run
Application Platform	You can reduce the ZIP file size by first moving the log files out of the <code>old_Software AG_directory</code> /profiles/product /logs directory, where product is the host Integration Server instance, the host My webMethods Server instance, or SPM (for Platform Manager). <code>jar cfm ZIP_file_name.zip install/products profiles</code>
Digital Event Services	If your installation includes the file migrate.{bat sh} in the new_Software AG_directory/common/migrate/DigitalEventServices/bin directory:  jar cfM ZIP_file_name.zip install/products
	jar ufM ZIP_file_name.zip common/DigitalEventServices  If the following directories exist, add them to the ZIP file:
	<pre>jar ufM ZIP_file_name.zip profiles/product /configuration/DigitalEventServices</pre>
Event Routing	If your installation includes the file migrate.{bat sh} in the <i>new_Software AG_directory</i> /common/migrate/EDA/bin directory:
	<pre>jar cfM ZIP_file_name.zip install/products jar ufM ZIP_file_name.zip common/conf common/EventTypeStore</pre>
	If the following directories exist, add them to the ZIP file:
	<pre>jar ufM ZIP_file_name.zip profiles/product/configuration /event/routing optimize/analysis/conf/event/routing</pre>
Software AG Infrastructure	You can reduce the ZIP file size by first moving the log files out of the <code>old_Software AG_directory /profiles/CTP/logs directory.</code>
(specifically, Software AG	<pre>jar cfM ZIP_file_name.zip common/conf install/products profiles/CTP</pre>
Runtime)	You might see the message profiles/CTP: no such file or directory. You can ignore this message.

Product	Command to Run
Infrastructure Data	You can reduce the ZIP file size by first moving the log files out of the <i>old_Software AG_directory</i> /profiles/InfraDC/logs directory.
Collector	<pre>jar cfM ZIP_file_name.zip common/conf install/products profiles/InfraDC</pre>
Integration Server or Microservices Runtime	You can reduce the size of the ZIP file by first moving the log files out of the <code>old_Software AG_directory</code> /profiles/ <code>instance_name</code> /logs, /IntegrationServer/instances/logs, and /IntegrationServer/instances/ <code>instance_name</code> /logs directories. <code>jar cfm ZIP_file_name.zip *</code>
MashZone NextGen	jar cfM mzng.zip MashZoneNG
OneData	<pre>jar cfM ZIP_file_name.zip install/products profiles/ODE/bin/onedata/config/*</pre>
Universal Messaging	<pre>jar cfM ZIP_file_name.zip install/products UniversalMessaging/server</pre>

## 6

## **Migrate Database Components**

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#### Caution

**Important:** After you migrate database components to the new release, you can no longer use them with your old environment.

## Migrate Database Components Using Command Central

Use the Command Central command sagcc exec administration to migrate database components. The command syntax is shown below. The parameters are the parameters you use when running the Database Component Configurator and are documented in *Installing Software AG Products*.

```
sagcc exec administration product DCC\_node\_alias DatabaseComponentConfigurator database migrate [parm1=value1] [parm2=value2]...
```

In the examples below, the database components are on a SQL Server RDBMS at jdbc:wm:sqlserver://DBserver:1433;databaseName=TESTDB, and the database user is webmuser with password webmpass.

■ To upgrade Integration Server database components from 9.9 to the latest release:

```
sagcc exec administration product local DatabaseComponentConfigurator
database migrate db.type=sqlserver product=IS version=latest
db.username=webmuser db.password=webmpass db.name=TESTDB
db.url="jdbc:wm:sqlserver://DBserver:1433;databaseName=TESTDB"
```

To upgrade the My webMethods Server database components to the latest release:

```
sagcc exec administration product local DatabaseComponentConfigurator
database migrate db.type=sqlserver component=MWS version=latest
db.username=webmuser db.password=webmpass db.name=TESTDB
db.url="jdbc:wm:sqlserver://DBserver:1433;databaseName=TESTDB"
```

To check the progress of the migration in Command Central, click **Jobs** on the Command Central web user interface.

## Migrate Database Components Using Database Component Configurator

On the machine on which you installed the new Database Configuration, open a command window or shell, go to the *new\_Software AG\_directory* /common/db/bin directory, and migrate database components by running the command below.

```
dbConfigurator.{bat|sh} -a migrate -d {oracle|sqlserver|db2luw}
{-c db_component | -pr product} -v latest -l db_server_URL
-u existing_db_user -p password
```

After you run each command, check the log file dcc\_yyyymmddhhmmss in the new\_Software AG\_directory /common/db/logs directory.

If you are using an Oracle or DB2 RDBMS, and you are not using the default tablespace, also specify the -tsdata data\_tspace\_name and -tsindex index\_tspace\_name parameters.

On an AIX, HP-UX, or Solaris system, enclose the values "db\_server\_URL", "existing db user", and "password" in quotation marks.

If you are upgrading	Values for product
Integration Server or Microservices Runtime	Note: Migrate the Integration Server or Microservices Runtime database components before migrating other database components.
ActiveTransfer Server	-c ActiveTransfer
API Gateway	-c APIGatewayEvents
Business process runtime data and Business Rules	-pr BPM
Archive, Staging, or Reporting database components	-c {Archive Staging Reporting}
My webMethods Server	-pr MywebMethodsServer
OneData	-c {OneDataMetadata OneDataReleaseArea OneDataWorkA
Optimize	-pr OPTIMIZE
Trading Networks	-pr TN

## Migrate the DynamicBusinessOrchestrator Database Component

Run these SQL statements against the DynamicBusinessOrchestrator database component:

#### RDBM!

UPDATE PRA\_PROCESS\_RECENT P SET

Oracle, p. system = (SELECT DISTINCT PD. TYPE FROM WMPROCESSDEFINITION PD

WHERE PD.PROCESSKEY = P.PROCESSKEY) DB2,

MySQI UPDATE PRA\_PROCESS\_RECENT P SET
P.system = (SELECT DISTINCT PD.TYPE FROM WMPROCESSDEFINITION PD WHERE PD.PROCESSKEY = P.PROCESSKEY)

SQL

UPDATE PRA PROCESS SET PRA PROCESS.system = WMPROCESSDEFINITION.TYPE FROM PRA\_PROCESS, WMPROCESSDEFINITION WHERE WMPROCESSDEFINITION.

Server PROCESSKEY = PRA\_PROCESS.PROCESSKEY;

UPDATE PRA PROCESS RECENT SET PRA PROCESS RECENT.system =

WMPROCESSDEFINITION.TYPE

FROM PRA\_PROCESS\_RECENT, WMPROCESSDEFINITION WHERE WMPROCESSDEFINITION.

PROCESSKEY = PRA\_PROCESS\_RECENT.PROCESSKEY;

## Migrate Software AG Infrastructure

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## Software AG Infrastructure Configurations, Data, and Assets that Will be Migrated

- Software AG Runtime audit, debug, JAAS, JMX, port, security, single-sign on, watchdog, and Web Services Stack configurations.
- Journal log settings, user repository, and password store.
- Java Service Wrapper customizations you made in the old custom\_wrapper.conf files, including #include directives and comments (but not associated properties).
- Users, groups, and roles.
- Proxy configuration files for proxy types HTTP, HTTPS, FTP, and SOCKS. The utility migrates files for proxies that are not already configured in the new installation.
- Starting in 10.0, Software AG Security Infrastructure no longer supports SSX or SSX LoginModules. The migration utility migrates LoginContexts that do not contain SSX LoginModules. However, if an old LoginContext contains SSX LoginModules, the migration utility does the following:
  - If LoginContext exists in old and new release, the utility adds a comment to the new LoginContext that no migration was performed.
  - If LoginContext exists in old release but not in new release, the utility adds an empty LoginContext to the new release with comment that no migration was performed. This is to prevent software that used the old LoginContext from failing because of missing context.

Starting in 10.1, the migration utility does not support migration of JKS files that are not in the Software AG installation directory.

## **Migrate Software AG Infrastructure**

Infrastructure components are automatically installed with products. These components are the Software AG Common Platform, Software AG Runtime, Software AG Security Infrastructure, and Software AG Web Services Stack.

- 1. Make sure none of the new products are running. If the new and old products are on the same machine, make sure the old products are shut down.
- 2. You can migrate using the migration utility; follow the instructions in "Migrate Products Using Migration Utilities" on page 127. Software AG Infrastructure cannot be upgraded using Command Central.

## **Complete the Software AG Infrastructure Upgrade**

- Go to the *old\_Software AG\_directory* /profiles/CTP/configuration/ com.softwareag.platform.config.propsloader directory and copy all files to the *new\_Software AG\_directory* /profiles/CTP/configuration/ com.softwareag.platform.config.propsloader directory.
- #include directives are migrated to the end of the new custom\_wrapper.conf file; check them and adjust as necessary. The custom\_wrapper.conf file is located in the *Software AG\_directory* /profiles/CTP/configuration directory.

Note: As noted in the *Software AG Infrastructure Administrator's Guide*, you should never modify the wrapper.conf file unless instructed to do so by Software AG. If you did so, however, manually copy values for properties you modified in the old wrapper.conf file to the corresponding properties in the new custom\_wrapper.conf file.

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## Migrate Terracotta BigMemory

This section explains how to migrate Terracotta BigMemory Max clients and servers that are deployed in support of webMethods products. For all other setups, see the Terracotta BigMemory Max documentation.

Follow the instructions in *Using Terracotta with webMethods Products* to install the 4.1.4 or later license key and tc-config.xml file.

You must upgrade all Terracotta BigMemory Max clients and servers in the cluster to the new release before restarting the cluster.

If you have a single server:

- 1. Shut down your old Terracotta Server Array.
- 2. Start the new Terracotta Server Array.

If you have a mirror group consisting of an active server and a mirror server:

- 1. Shut down the old mirror server.
- 2. Shut down the old active server.
- 3. Start the new active server.
- 4. Start the new mirror server.

## Migrate Terracotta DB

Terracotta DB 10.3 is significantly different from Terracotta BigMemory Max 4.x and 3.7.6 in terms of handling of cluster topology, data storage formats, and other functionality. You cannot migrate data and configuration for a Terracotta BigMemory Max server to a Terracotta DB server. You cannot migrate TCStore data.

### Migrate Terracotta Management Console Configuration and Data

- 1. Go to the *old\_Software AG\_directory* /TerracottaDB/tools/management/conf directory and copy the tmc.properties file over the same file in the new installation.
- 2. Go to the *old\_Software AG\_directory* /TerracottaDB/tools/management directory and copy the data directory to the same location in the new installation.
- Start Terracotta Management Console.
- 4. If you receive error messages, open the tmc.properties file and make sure all the properties are set correctly. For instructions, see the product documentation.

### **Migrate Ehcache Data**

If you have Ehcache data in restartable caches contained in a restartable cache manager, you can migrate that data to a new cluster without moving the platform data roots. Since the data migration works at the data directory level, data for all restartable cache managers that use the same data directory will be migrated together.

- 1. Shut down the old cluster.
- 2. Start the active servers in the new cluster with the same number of stripes as the old cluster.
- 3. Create the cache manager configuration using a client. The cluster URI, including the cluster tier manager name for the cache manager, can be different from the URI for the old cluster. If the name part of the URI is different, specify the old name as the restart identifier when using the cache manager configuration API, so the system can map the data corresponding to a given cache manager correctly. If there is more than one cache managers under the same data directory, use the configuration API to create all the cache managers in the target cluster. For instructions, see the section on fast restartability in the *Ehcache API Developer Guide*.
- 4. Shut down the new cluster.
- 5. For all restartable cache managers on all servers you want to migrate, copy the contents of the Ehcache directories (caching data roots) from the data directories of all active servers in the old cluster to the data directories in the new cluster. The data directory paths on the new cluster can be different from those on the old cluster.
- 6. Start the new cluster. Terracotta DB will load all the cache data that was migrated from the old cluster.

## 9 Migrate Universal Messaging

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## Universal Messaging Configurations, Data, and Assets that Can be Migrated

- Server instances.
- Server instance data directories.

## **Migrate Universal Messaging**

- 1. If you are upgrading a Universal Messaging cluster, read the clustering instructions in the Universal Messaging documentation.
- 2. If the new and old Universal Messaging installations are on the same machine, make sure the old installation is shut down.
- 3. You can migrate using either of two methods.
  - To migrate using the migration utility, follow the instructions in "Migrate Products Using Migration Utilities" on page 127.
  - To migrate using Command Central, use the Command Central command below. If you want to use a custom migration, first run the migration utility manually to create the migrate.dat file (see "Migrate Products Using Migration Utilities" on page 127 for instructions), then specify the migrate.dat file on the importFile parameter. If you want to migrate all instances, do not specify the instanceName option.

```
sagcc exec administration product target_node_alias
NumRealmServer migration migrate
{srcDir|srcFile}=full_path_to_{old_Software AG_directory|ZIP file}
[importFile=full_path_to_migrate.dat]
[instanceName=name[,name...]]
```

If you installed Template Applications and Enterprise Manager in the new installation, the migration creates Template Applications and Enterprise Manager instances.

## **Complete the Universal Messaging Upgrade**

- 1. In release 9.8, the nserver.conf and nserverdaemon.conf files were combined into a single file named Server\_Common.conf. The Server\_Common.conf file is stored in the *new\_Software AG\_directory* /UniversalMessaging/server/umserver/bin directory.
  - Upgrade from 9.7: If you made any custom changes to the nserver.conf or nserverdaemon.conf file for an old instance, make the same changes to the Server\_Common.conf file for the corresponding new instance. The nserver.conf

- and nserverdaemon.conf files are stored in the *old\_Software AG\_directory* /nirvana/ server/bin directory.
- Upgrade from 9.8, 9.9, or 9.10: If you made any custom changes to the Server\_Common.conf file for an old instance, make the same changes in the Custom\_Server\_Common.conf file for the corresponding new instance.
- Upgrade from 9.12 or 10.1: If you made any custom changes to the Server\_Common.conf or Custom\_Server\_Common.conf file for an old instance, make the same changes in the Custom\_Server\_Common.conf file for the corresponding new instance.
- 2. If the data directory for an old instance was not in the default location specified in the Software AG Installer, the migration utility did not migrate the data directory. The default location for the data directory is the <code>new\_Software AG\_directory / UniversalMessaging/server/instance\_name / data directory. You can use the old data directory in the old location or copy it to a new location. If you copy it, edit the DDATADIR parameter in the Server\_Common.conf file for the new instance to point to the new data directory location.</code>
- 3. If you modified the old default JAAS configuration file, go to the *old\_Software AG\_directory* /UniversalMessaging/server/*server\_name* /bin directory, open the jaas.conf file, and copy the changes to the same file in the new installation. Also copy references to external resources such as truststore files and then modify the references as necessary.

## Migrate My webMethods Server

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## My webMethods Server Configurations, Data, and Assets that Can be Migrated

- Server instances.
- If the old My webMethods Server hosted Business Console, the user preferences, AppSpaces, and gadgets for Business Console.
- Java Service Wrapper customizations you made in the old custom\_wrapper.conf files, including #include directives and comments (but not associated properties).

## Other Actions Performed as Part of the Migration

- Deletes old configuration files that are not used by the new My webMethods Server, and deletes old properties that are not used by the new My webMethods Server from the new configuration files.
- Synchronizes the My webMethods Server installation directory with the database.
- If you specified a URL for Universal Messaging, updates the existing JNDI URL parameter or adds a new JNDI URL parameter to the cluster.xml file, as appropriate.

## Embedded Database No Longer Supported

Starting in My webMethods Server 10.3, My webMethods Server no longer offers an embedded database, so the My webMethods Server migration utility will not migrate instances that used an embedded database. Instead you can create a new instance, and then transfer applications and content from the old instance to the new instance using Deployer or the content import/export functionality of My webMethods Server. For instructions, see webMethods Deployer User's Guide or Administering My webMethods Server, respectively.

## Migrate My webMethods Server

- 1. If you are upgrading a My webMethods Server cluster, read "My webMethods Server Requirements" on page 26.
- 2. If the new and old My webMethods Servers are on the same machine, make sure the old My webMethods Server is shut down.
- 3. You can migrate using either of two methods.
  - To migrate using the migration utility, follow the instructions in "Migrate Products Using Migration Utilities" on page 127.

■ To migrate using Command Central, use the Command Central command below. If you want to use a custom migration, first run the migration utility manually to create the migrate.dat file (see "Migrate Products Using Migration Utilities" on page 127 for instructions), and then specify the migrate.dat file on the importFile parameter. If you want to migrate all instances, do not specify the instanceName option.

```
sagcc exec administration product target_node_alias
MwsProgramFiles migration migrate
{srcDir|srcFile}=full_path_to_{old_Software AG_directory|ZIP file}
[importFile=full_path_to_migrate.dat]
[instanceName=name[,name...]]
[newNodeName=instance_name:new_node_name[,instance_name:new_node_name...]]
[cloneDbURL=URL cloneDbUser=user cloneDbPassword=password]
```

## Complete the My webMethods Server Upgrade

## **Check Java Service Wrapper #include Directives**

The migration utility migrates #include directives to the end of the new custom\_wrapper.conf file; check them and adjust as necessary. The custom\_wrapper.conf file is located in the *Software AG\_directory* /profiles/ MWS\_instance\_name /configuration directory.

Note:

As noted in the *Software AG Infrastructure Administrator's Guide*, you should never modify the wrapper.conf file unless instructed to do so by Software AG. If you did so, however, manually copy values for properties you modified in the old wrapper.conf file to the corresponding properties in the new custom\_wrapper.conf file.

### Initialize a My webMethods Server Instance

The initializing process might take several hours.

1. Initialize the new My webMethods Server server instance by going to the new\_Software AG\_directory /MWS/bin directory and running this command:

```
mws.{bat|sh} -s instance_name init
```

The new components are deployed, and then the instance shuts down automatically. Restart the instance.

- 2. If the old and new My webMethods Server installations are on different machines, verify the host name for the new installation as follows:
  - a. Log on to one of the new My webMethods Server instances as Administrator and go to the Administration > My webMethods > Cluster Settings > Advanced Web and Cluster Configuration for MWS page.

- b. If the host name is not correct in the **Host** and **MWS Front End URL** field, update the host name.
- c. Go to the **Cluster Status and Control** page and restart the instance.

#### Switch from Clone to Live Database

If you used a clone database to test your new installation (recommended), and you later want to use your live database with the new installation you tested, you must run the My webMethods Server migration utility again to make the switch. The utility synchronizes the My webMethods Server installation directory with the database.

- 1. Run the My webMethods Server migration utility again.
- 2. Migrate each server instance again. When the utility asks for the database to use with each instance, choose the live database.
- 3. When the migration utility asks whether to delete or keep the migrated instances in the new installation, choose to delete the migrated instances.

## **Complete Business Rules Upgrade**

Business Rules projects currently deployed to My webMethods Server are migrated when you first start a server instance. In a cluster, the first cluster node to start up migrates all rule projects. During this migration, all rule projects deployed on My webMethods Server are unavailable. The My webMethods Server log file contains details about the rule project migration. By default, the log file is stored in the *Software AG\_directory* /MWS/server/*instance\_name* /logs directory.

- 1. If the new installation directory has a different name than the old installation directory, check the validity of the file system location used by Deployer for Business Rules asset deployment, and restart My webMethods Server if updates are necessary. For instructions, see *Working with Business Rules in My webMethods*, chapter "Hot Deploying and Merging Rule Projects with webMethods Deployer" and section "Configuring My webMethods Server."
- If you use business verification or data providers, log on to one of the new My webMethods Server instances as Administrator and go to the Administration > My webMethods > System Settings > webMethods Business Rules Settings page. Update the settings as necessary and save the changes.

For more information, see *Working with Business Rules in My webMethods*. For business verification, see chapter "Rule Verification Overview" and section "Configuring a Server Connection for a Preconfigured Verification." For data providers, see chapter "Working with Decision Tables" and section "Configuring a Server Connection for a Pre-configured Data Provider Service."

# 11 Migrate Integration Server, Microservices Runtime, and Hosted Wm Packages

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## **Integration Server and Microservices Runtime**

This chapter applies to Microservices Runtime as well as to Integration Server.

## **Packages**

This guide refers to different types of packages for Integration Server, as follows:

- Custom packages. These include Integration Server packages created by users in Software AG Designer and business process packages generated by users from Software AG Designer.
- Hosted packages. These are packages provided by Software AG on the Software AG Installer, where they are listed under Integration Server on the product selection tree. On the tree, they are listed using their product names. However, in the file system and within Integration Server, they are listed under their package names, and those names start with Wm. For this reason they are also called Wm packages.

Examples of hosted Wm packages are ActiveTransfer (WmMFT), Process Engine (WmPRT), Trading Networks (WmTN), adapters, and eStandards Modules.

When you installed the new Integration Server, the Software AG Installer created a server instance and copied all Wm packages and language packs you selected on the product selection tree into a package repository. The installer let you choose whether to install the selected Wm packages on the instance. (The installer always installs the language packs you selected on the instance.)

## Configurations, Data, and Assets that Can be Migrated

- Server instances.
- Custom (user-created) packages.
- Password store, and passwords.
- Integration Server configuration files.
- Configuration for hosted products, such as Trading Networks.
- JAAS configuration files.
- JDBC connection pool configurations, database drivers, and functional aliases.
- If the old Integration Server hosted Wm packages and those Wm packages also exist on the new Integration Server, the configuration files for those packages.
- Java Service Wrapper customizations you made in the old custom\_wrapper.conf files, including #include directives and comments (but not associated properties).

■ Starting in 9.5, custom (user-created) jar files.

## Other Actions Performed as Part of the Migration

- Deletes old configuration files that are not used by the new Integration Server, and deletes old properties that are not used by the new Integration Server from the new configuration files.
- If the old Integration Server used the embedded database, copies the database tables from the old Integration Server to the new Integration Server and upgrades the tables to the new format if necessary.
- Updates the SERVER ID stored in Integration Server database tables and configuration files to reflect the new host machine.
- Adds a new property named "Validate schemas using Xerces" to existing Web service descriptors, and sets the new property to the value the watt.server.wsdl.validateWSDLSchemaUsingXerces parameter had in the old Integration Server. The new property replaces the functionality provided by that parameter. For information about the new property, see webMethods Service Development Help.
- If you are migrating Business Rules data, upgrades Business Rule projects. You might see XML parsing messages due to a Java bug; you can ignore these messages.
- If you are upgrading CloudStreams, migrates configuration artifacts related to administering CloudStreams Server.

## **Migrate Integration Server**

- 1. If you are upgrading an Integration Server cluster, read "Integration Server or Microservices Runtime Requirements" on page 26.
- 2. If you are upgrading an Integration Server that hosts Deployer, follow the instructions in "Migrate the Asset Build Environment, Deployer, and Application Platform" on page 93.
- 3. If the new and old Integration Servers are on the same machine, make sure the old Integration Server is shut down.
- 4. The migration will scan the old installation for custom packages. However, it will not find custom packages whose names start with Wm, as this naming convention is used for packages provided by Software AG. If you have custom packages whose names start with Wm, and you want to migrate them, go to the *new\_Software AG\_directory* /IntegrationServer/bin/migrate directory, open the packages.cnf file, and add a <value name><\value> tag that identifies those custom packages (for example, <value name="WmFINMessages">WmFINMessages</value>).

**Note:** To simplify future upgrades, and as a general best practice, do not use the naming convention Wm *name* for custom packages.

- 5. You can migrate using either of two methods.
  - To migrate using the migration utility, follow the instructions in "Migrate Products Using Migration Utilities" on page 127.
  - To migrate using Command Central, use the Command Central command below. To find the *product\_ID* to use in the command, run the Command Central command sagce list inventory products *node\_alias*. If you want to use a custom migration, first run the migration utility manually to create the migrate.dat file (see "Migrate Products Using Migration Utilities" on page 127 for instructions), and then specify the migrate.dat file on the importFile parameter.

```
sagcc exec administration product target_node_alias
integrationServer migration migrate
{srcDir|srcFile}=full_path_to_{old_Software AG_directory|ZIP file}
[importFile=full_path_to_migrate.dat]
instanceName=name [newInstanceName=name]
[cloneDbURL=URL cloneDbUser=user cloneDbPassword=password]
```

## **Complete the Integration Server Upgrade**

### **Check Java Service Wrapper #include Directives**

Any Java Service Wrapper #include directives are migrated to the end of the new custom\_wrapper.conf file; check them and adjust as necessary. The custom\_wrapper.conf file is located in the *Software AG\_directory* /profiles/ IS\_instance\_name /configuration directory.

Note:

As noted in the *Software AG Infrastructure Administrator's Guide*, you should never modify the wrapper.conf file unless instructed to do so by Software AG. If you did so, however, manually copy values for properties you modified in the old wrapper.conf file to the corresponding properties in the new custom\_wrapper.conf file.

## **Customize Integration Server Startup Files**

The Integration Server startup scripts were changed in release 9.7. If you customized the old scripts, see *webMethods Integration Server Administrator's Guide* and the Integration Server readme for instructions on how to duplicate those customizations for the new installation.

### **Update WSDLs**

If you have Provider Web services that have an operation with field names starting with xml in the input signature, output signature, header, or faults, do the following:

- 1. Start the new Integration Server.
- 2. Review the migrationLog.txt file in the *new\_Software AG\_directory* /install/logs directory. If you see this error:

A property watt.server.xml.ncname.encode.backward.compatibility exists in config/server.cnf with value as true. Make sure you make the required changes as specified in the upgrade documentation. Not doing so could have adverse effects as support for this property may be dropped in a future release.

Update your WSDLs as follows:

- a. Open the new Integration Server Administrator and point to the new Integration Server.
- b. Go to the **Settings > Extended** page. If you have the extended setting watt.server.xml.ncname.encode.backward.compatibility and it is set to true, reset it to false.
- c. Regenerate the clients for all Provider Web services that have an operation with field names starting with xml in the input signature, output signature, header, or faults.

# **Upgrade from 9.7 or 9.8: Synchronize and Update Serial webMethods Messaging Triggers**

If you are using the new Integration Server with Universal Messaging, each webMethods Messaging trigger with serial processing must have a corresponding priority named object on Universal Messaging. However, each serial trigger you migrated from your old Integration Server corresponds to a shared named object on Universal Messaging. Create the corresponding priority named object by doing one of the following:

- If the Universal Messaging is a fresh installation (that is, it was not migrated from an earlier release), synchronize the publishable document types with the provider using Software AG Designer or the built-in service pub.publish:syncToProvider.
- If the Universal Messaging was migrated from an earlier release, this Integration Server is the only Integration Server that connects to Universal Messaging, and the Shared Client Prefix property for the Universal Messaging connection alias is set to No, disable and enable the Universal Messaging connection alias used by the trigger.
- If the Universal Messaging was migrated from an earlier release, and this Integration Server is not the only Integration Server that connects to Universal Messaging or the Shared Client Prefix property is set to Yes, wait till the named object is fully drained and no new documents will be sent to it, and then use Universal Messaging Enterprise Manager to delete the named object. You may need to quiesce document

publishers before deleting the named object. Then disable and enable the Universal Messaging connection alias used by the trigger.

# **Upgrade from 10.1: Save and Synchronize an Updated Publishable Document Type**

If your solution includes publishable document types with an encoding type of protocol buffers, you need to edit, save, and synchronize the publishable document types to Universal Messaging while the queues of subscribing triggers are empty.

# **Connect Integration Server and Hosted Products to Database Components**

If you did not migrate functional aliases, database driver configurations, and JDBC connection pool configurations, connect Integration Server and the products it hosts (for example, Trading Networks) to their database components. For instructions, see *Installing Software AG Products*.

### Complete the ActiveTransfer Upgrade

If you used custom keystore files in the old ActiveTransfer installation, make sure they are available and accessible in the location specified in the new installation.

If you have active file shares and did not configure the mft.sharing.account.tempdir property in the old installation, go to the <code>new\_Software AG\_directory</code> /IntegrationServer/instances/<code>instance\_name</code> /packages/WmMFT/config directory, open the properties.cnf file, and specify the old TempAccounts path on the mft.sharing.account.tempdir property.

When you start ActiveTransfer, it will modify listener (port) names to comply with Command Central standards. If ActiveTransfer finds duplicate listener (port) names, it will add an underscore and a unique number to each name. If a listener (port) name has a white space, it will replace that white space with an underscore.

### Complete the CloudStreams Upgrade

Back up any custom packages that contain CloudStreams artifacts, and then run the public service pub.cloudstreams.migration:migrate, which is available in the WmCloudStreams package. The service migrates old CloudStreams artifacts in custom packages that depend on the WmCloudStreams package and updates them to be compatible with the new CloudStreams. Artifacts include SOAP and REST connector services and connections. The utility logs the results of migration to the Integration Server server log.

The table below provides the input signature for the pub.cloudstreams.migration:migrate service.

Parameter	Description
allPackages	Boolean string. Optional. Set to:
	true to migrate CloudStreams artifacts from all custom packages that are dependent on WmCloudStreams.
	false to migrate CloudStreams artifacts from only custom packages specified on the packages parameter. This is the default.
packages	<b>Object</b> . String array containing the names of custom packages to migrate. You must specify at least one package name.

The output signature of the service is a parameter named Result that consists of an array of iData records. The array contains a record for each custom package specified in the input signature.

The table below lists the fields in each record in the array for each custom package specified in the input signature for the pub.cloudstreams.migration:migrate service.

Field	Description
packageName	<b>String</b> . Name of the custom package.
success	<b>String</b> . Value that indicates whether migration succeeded (true) or failed (false).
message	<b>String</b> . Information about the migration, such as number of CloudStreams artifacts found in the package and number of CloudStreams artifacts that were successfully migrated.
info	<b>Object</b> . Optional. If the service issued info messages during the migration, string array of the messages.
errors	<b>Object</b> . Optional. If the service issued errors during the migration, string array of the errors.

### Configure TLS 1.1 and 1.2 Trust Store

For SaaS back ends that have certificates that are not part of the JVM trust store, create and apply a new JKS trust store in Integration Server with the certificates of the SaaS back end. The trust store should contain all certificates in the certificate chain. This is a

standard practice for setting up secure exchange of certificates. If the trust store is not present in such cases, certificate related errors will occur.

1. In Integration Server Administrator, go to the **Security > Keystore** page and create the trust store. For detailed instructions, see the section on securing communications in *webMethods Integration Server Administrator's Guide*.

**Note:** You can also create the trust store using a publicly available tool.

2. Apply the trust store in the connection's advanced property **Trust Store Alias**. For detailed instructions, see the CloudStreams documentation for the Provider you are using.

### Complete the Dynamic Business Orchestrator Upgrade

Go to the *old\_Software AG\_directory* /IntegrationServer/instances/*instance\_name* /packages/ WmDBO/config directory and copy the provision.cfg file to the same directory in the new installation.

### **Complete Adapter Upgrades**

If the old Integration Server hosted adapters, and you installed the same release or later of those adapters on the new Integration Server, you migrated data for the adapters as part of the Integration Server migration. For the adapters below, however, you must also complete the indicated tasks. Then restart Integration Server.

For instructions on upgrading adapters when you are not also upgrading the host Integration Server, see the adapter product documentation.

### webMethods Adapter for JDBC

If the adapter connects to an Oracle RDBMS using an OCI driver, set the environment variables on the new Integration Server machine.

The table below provides the environment variable settings for the listed platforms for the Integration Server machine.

Platform	Environment Variable Setting
Solaris	LD_LIBRARY_PATH=\ORACLE_HOME\lib
HP	SHLIB_PATH=\ORACLE_HOME\lib
AIX	LIBPATH=\ORACLE_HOME\lib

Platform	Environment Variable Setting
Linux	LD_LIBRARY_PATH=\ORACLE_HOME\lib

### webMethods Microsoft Package

For instructions on migrating webMethods Microsoft Package to a new Integration Server on the same host as the old Integration Server, see the product documentation.

### webMethods Adapter for SAP

1. If the new Integration Server is on a UNIX system, set the environment variables on the machine.

The table below provides the environment variable settings for the listed platforms for the Integration Server machine.

Platform	Environment Variable Setting
Linux, Solaris	LD_LIBRARY_PATH
HP	SHLIB_PATH
AIX	LIBPATH

2. If the new Integration Server is on a Windows system, go to the C:\WINDOWS \system32\drivers\etc directory on the old Integration Server machine, open the services file, and copy all entries that contain the phrase "sapgw" into the same file in the new installation. Examples of these entries are sapgw00 3300\tcp, sapgw01 3301\tcp, sapgw02 3302\tcp, sapgw03 3303\tcp, sapgw04 3304\tcp, and sapgw05 3305\tcp.

### Complete eStandards Module Upgrades

If the old Integration Server hosted eStandards Modules, and you installed the same release or later of those modules on the new Integration Server, you migrated data for the modules as part of the Integration Server migration. For the modules below, however, you must also complete the indicated tasks. Then restart Integration Server.

For instructions on upgrading eStandards Modules when you are not also upgrading the host Integration Server, see the eStandards Modules product documentation.

### webMethods SWIFTNet Module

Reconfigure the module. For instructions, see *webMethods SWIFTNet Module Installation* and *User's Guide*.

# 12 Migrate Software AG Designer, Business Process Runtime Data, and Closed Loop Analytics

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### Migrate Software AG Designer

### **Before Migrating**

- 1. Open the new Software AG Designer and point to a new workspace. For example, you can accept the default workspace*release* (for example, workspace912)
- 2. Install any third-party features you need (for example, support for Subversion). The Eclipse release installed with the new Software AG Designer is Eclipse 4.7.3, so make sure any features you add are compatible with that Eclipse release.
- 3. If you exported your preferences before upgrading, import them as follows:
  - a. Go to the **File > Import** wizard. In the Select panel, go to **General > Preferences** and click **Next**. In the **From preference file** field, specify the .epf file to which you exported your preferences. Click **Finish**.
  - b. Go to Window > Preferences. In the preferences window, go to the Java > Installed JREs > Execution Environments page, if multiple JREs are listed, make sure JRE 1.8 is selected as the default, or remove older JREs from the list. Also update settings that point to old product installations to point to new product installations instead. For example, for My webMethods Server, update the Server > Runtime Environments settings. For Application Platform, update the path to the runtime instance, then review the messages on the Error tab to see whether any other paths need to be updated.
  - c. Restart Software AG Designer.

# Migrate Apama, Application Platform, Business Process, and Business Rule Projects

- 1. If you are migrating Apama, copy any files you modified from the old work directory to the new work directory.
- 2. If your projects are stored in a source control system, use the import wizard for that system (for example, Import SVN > Project from SVN).

If your projects are stored in the Software AG Designer workspace, do the following:

- a. Go to the **File > Import** wizard.
- b. In the Select panel, go to General > Existing Projects into Workspace and click Next.
- c. In the Import Projects panel, do the following:
  - a. Click **Select Root Directory** and go to the workspace that contains a type of project you want to import, or click **Select Archive File** and go to the directory that contains a type of project you want to import.

- b. In the **Projects** box, select the projects to import. Select **Copy projects into** workspace. Click **Finish**.
- 3. If you are migrating Apama, use **Project** > **Clean** to force a rebuild of generated project artifacts under the control of Software AG Designer.
- 4. Verify the projects.

The table below explains how to verify the projects for the listed products.

Product	Verify
Apama	All projects build without errors. If errors appear in the <b>Problems</b> tab, click each error and resolve it.
Application Platform	All projects compile without errors. If errors appear in the <b>Problems</b> tab, click each error and resolve it. For example, if you see errors indicating that classes cannot be resolved to a type, edit the project's class path configuration.
Business Process	All imported business process projects appear in the <b>Solutions</b> tab under the Processes node.
Business Rules	All imported business rules projects appear in the <b>Solutions</b> tab under the Rules node.

- 5. If you imported Business Rule projects, right-click each project in the Rules Explorer and then click **Upgrade Project**.
- 6. If you are migrating Apama
  - a. If any project imports event types from Digital Event Services, you might need to re-import those event types. Open the project, open the EventTypeList file under config/connectivity/DigitalEventServices, and click **Sync from Digital Event Services**. If you see changes, save the file.
  - b. If you use ant to automate building and deploying your projects, export your ant deployment scripts to an empty directory. Run the scripts to force a rebuild of any generated artifacts within your projects (for example, Apama queries, scenarios or Java\C\C++\.NET code using Apama APIs). Review the build output for errors and warnings.
  - c. If you use Apama dashboard deployments, create new deployment packages and install the deployment packages.

### **Migrate Task Application Projects**

1. Update your preferences.

- a. Go to Window > Preferences > Server > Runtime Environments. If the Installed server runtimes list does not include a My webMethods Server from the new release, add one.
- b. Go to **Software AG > Task Development**. In the preferences window, make sure all your other task-related Software AG Designer preferences are correct, and then click **OK**.
- 2. Import your projects.
  - a. Go to the File > Import wizard.
  - b. In the Select panel, go to **Software AG > Existing CAF Projects into Workspace** and then click **Next**.
  - c. In the Import Projects panel, click **Select Root Directory** and go to the workspace or source control system that contains your task application projects, or click **Select Archive File** and go to the directory that contains your task application projects. In the **Projects** box, select the projects to import.
  - d. Select **Copy projects into workspace** and then click **Finish**.
- 3. Make sure all imported task application projects appear in the **Solutions** tab, under the Tasks node.
- 4. If errors appear in the **Problems** tab, click the **Navigator** tab. Right-click each task application project, click **CAF Tools**, and click **Repair CAF Project**. If errors still appear, restart Software AG Designer.
- 5. Publish the migrated task application projects to a My webMethods Server from the new release. For instructions, see *webMethods BPM Task Development Help*.

### **Redo Attachment List Control Customizations in CAF Applications**

In 9.10, the CAF **Attachments List** control was improved; for example, the Java applet-based drag and drop panel was replaced by an HTML5-based equivalent.

Your CAF applications were migrated when you ran the My webMethods Server migration utility, but any customizations you made to the **Attachments List** control in your CAF applications were not. Manually redo the customizations in the migrated CAF applications.

### Migrate CloudStreams Server Definitions and Projects

- Go to Window > Preferences > Software AG > CloudStreams > Servers. Click Import, select the .properties file you exported earlier, and click Open. Software AG Designer asks whether to overwrite existing server definitions with the imported definitions. Click OK twice.
- 2. Open the CloudStreams Development perspective.

- 3. In the CloudStreams Governance view, right-click empty space and click **Import** to open the wizard. In the **Select Root Directory** field, identify the directory that contains the governance projects you exported earlier. In the **Projects** box, select the governance projects to import from the exported project folder. Click **Copy projects into workspace** and then click **Finish**. Click the **Governance** tab and make sure all imported governance projects appear.
- 4. In the CloudStreams Providers view, right-click empty space. If you want to import provider projects you exported to an archive (ZIP file) earlier, click Import Archive File. If you want to import provider projects from another CloudStreams, click Import from Workspace.

### Migrate Integration Server or Microservices Runtime Definitions

- 1. Go to **Window > Preferences**. On the **Preferences** dialog box, in the left navigation bar, go to **Software AG > Integration Servers**.
- Click Import, select the .properties file you exported, and click Open. Software AG
   Designer asks whether to overwrite existing servers. Click OK, and then click OK
   again to close the Preferences dialog box.

### **Migrate Mobile Projects**

- 1. Go to **Window > Preferences > Software AG > Mobile Development** and update the Mobile Designer installation directory to the MobileDesigner subdirectory in your new Software AG Designer installation directory.
- 2. Import your projects.
  - a. Go to the **File > Import** wizard.
  - b. In the Select panel, go to **General > Existing Projects into Workspace** and then click **Next**.
  - c. In the Import Projects panel, click **Select Root Directory** and go to the workspace that contains your mobile projects. In the **Projects** box, select the projects to import.
  - d. Select Copy projects into workspace and then click Finish.
- 3. In Package Explorer, follow the steps below. For instructions on resolving issues and errors, see *Migrating Mobile Projects* in *webMethods Mobile Development Help*.
  - a. Go to the model directory for each imported project and double-click the .aml file. Check for warnings and errors and resolve any issues.
  - b. Right-click the root node for each imported project and then click **Generate Source** Code > Application Model and API. Resolve any compile errors.
  - If you are using Mobile Administrator (instead of the Jenkins-based Remote Multi-Build), enable the Mobile Administrator Remote-Multi-Build ant target. Go

to the root of your project, open the build.xml file, and add the text below to the end of the file as a single line:

```
<import file="${env.MOBILE_DESIGNER}/plugins/MobileAdministrator/
v1.0.0/targets.xml"/>
```

4. If you later have problems with Android handset targets, such as problems running your project in the Phoney simulator, go to each project's /target directory in Package Explorer and remove all existing handset targets. Then re-add the targets for the project by running the ++Activate-Handset ant target.

### **Migrate Business Process Runtime Data**

Note:

If you have running process instances that are based on a process model created before you upgraded, and you now want to regenerate that process model in the new Software AG Designer, change the version number of the process model to the next sequence number before regenerating it. If you do not do so, the process instances will not behave as expected. When you enable the new version of the process model for execution in My webMethods Server, you will be asked if you want to upgrade running processes; respond No.

**Note:** Steps for Microservices Runtime are identical to those for Integration Server.

- 1. If you migrated business process packages that were generated by users from Software AG Designer, make sure the packages exist in the *new\_Software AG\_directory* /IntegrationServer/instances/*instance\_name* /packages directory. The package names are the project names or custom names you specified in Software AG Designer.
- 2. Open Integration Server Administrator and point to new Integration Servers that host Process Engines. Go to the **Settings > JDBC Pools** page and connect the ProcessEngine and ProcessAudit functions to their database components. For instructions, see *Installing Software AG Products*.
- 3. In Integration Server Administrator, go to the **Package > Management** page and click **f** for the WmMonitor package.
- 4. If your old and new product installations are on different machines and you want to be able to resubmit processes and process steps that ran before you upgraded, follow the steps below.

If the new Integration Server that hosts Monitor is connected to a messaging product and has process model fragments, select the **Resubmit to local IS** check box, click **Submit**, and then reload the package.

If the new Integration Server that hosts Monitor is not connected to any messaging product and has no process model fragments, clear the **Resubmit to local IS** check box, click **Submit**, and then reload the package.

5. Go to the **Settings > Messaging > webMethods Messaging Trigger Management** page and make sure document retrieval is enabled for all webMethods Messaging triggers on new Integration Servers. For instructions, see *webMethods Integration Server Administrator's Guide*.

### Migrate the Closed Loop Analytics JMS Topic

In "Migrate Software AG Designer" on page 80 you migrated all configurations and data involved in Closed Loop Analytics. You must now update the JMS topic in Universal Messaging from which Closed Loop Analytics collects escalation events, as follows:

- 1. Start the Universal Messaging instance from the new release that you are using for BPM, and then start the Enterprise Manager.
  - In the left panel, open the Realms tree and click the Universal Messaging instance you are using for BPM.
  - In the right panel, click the JNDI tab and open the Topics tree. Delete the topic for the escalation event type {http://namespaces.softwareag.com/EDA/WebM/Rules/CLA/1.0}ProcessEscalation.
- 2. On the Universal Messaging instance host machine, go to the *new\_Software AG\_directory* /jvm/jvm/bin directory and open a command window or shell. Create a new topic for the escalation event type by entering the command below. Type the command on one line with a space at each of the line breaks shown below.

java -jar new\_Software AG\_directory /common/lib/event-routing-jms-util.jar bind nsp://locahost:9000 {http://namespaces.softwareag.com/EDA/WebM/Rules/CLA/1.0}ProcessEscalation

## Migrate Optimize and Infrastructure Data Collector

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### **Configure and Start the Terracotta Server Array**

If you are clustering Analytic Engines in the new release, you must configure and start the Terracotta Server Array. For instructions, see *Using Terracotta with webMethods Products, Configuring BAM*, and the Terracotta BigMemory Max documentation.

### **Update Connection to Other Products**

### **Update Connection to Process Engine**

If you are using Optimize for Process, follow the steps below.

- 1. Open Integration Server Administrator and point to a new Integration Server that hosts a Process Engine.
- 2. Go to the Packages > Management page and click 🚰 for the WmPRT package.
- 3. Click **Settings** in the left navigation bar and then click **Edit Process Engine Settings**.
- 4. In the **JMS Server URL** field, identify the Universal Messaging host name and port as nsp://host:port. The default port is 9000.
- 5. Click **Submit** and then reload the WmPRT package.
- 6. Repeat these steps for every new Integration Server that hosts a Process Engine.

### **Update Connection to Optimize Support Package**

If you are using Optimize built-in services, follow the steps below.

**Note:** Steps for Microservices Runtime are identical to those for Integration Server.

- 1. Open Integration Server Administrator and point to a new Integration Server that hosts an Optimize Support package.
- Go to the Packages > Management page and click for the WmOptimize package.
- 3. Identify the Analytic Engine host machine and port. The default port is 12503.
- 4. In the **JMS Server URL** field, identify the Universal Messaging host name and port as nsp://host:port. The default port is 9000.
- Click Submit and then reload the WmOptimize package.
- 6. Repeat these steps for every Integration Server that hosts an Optimize Support package.

### Migrate Infrastructure Data Collector

# Infrastructure Data Collector Configurations, Data, and Assets that Can be Migrated

- Asset configuration files.
- SNMP, JAAS, JMX, SSH, security, log, platform debug, Web Services Stack, and watchdog configurations.
- Java Service Wrapper customizations you made in the old custom\_wrapper.conf files, including #include directives and comments (but not associated properties).

### **Migrate Infrastructure Data Collector**

- 1. If the new and old Infrastructure Data Collectors are on the same machine, make sure the old Infrastructure Data Collector is shut down.
- 2. If you want to migrate SNMP asset configuration files, go to the new\_Software\_AG\_directory infrastructuredc/bin/migrate/old\_release directory and open the snmpMigration.properties file. Enter the full paths to the old and new SNMP configuration directories. The contents of the file show the format to use.
- 3. You can migrate using either of two methods.
  - To migrate using the migration utility, follow the instructions in "Migrate Products Using Migration Utilities" on page 127.
  - To migrate using Command Central, use the Command Central command below. If you want to use a custom migration, first run the migration utility manually to create the custom migrate.dat file (see "Migrate Products Using Migration Utilities" on page 127 for instructions), and then specify the migrate.dat file on the importFile parameter.

```
sagcc exec administration product target_node_alias
InfrastructureDC migration migrate
{srcDir|srcFile}=full_path_to_{old_Software AG_directory|ZIP file}
[importFile=full_path_to_migrate.dat]
```

### Complete the Infrastructure Data Collector Upgrade

#include directives are migrated to the end of the new custom\_wrapper.conf file; check them and adjust as necessary. The custom\_wrapper.conf file is located in the *Software AG\_directory*/profiles/InfraDC/configuration directory.

Note: As noted in the *Software AG Infrastructure Administrator's Guide*, you should never modify the wrapper.conf file unless instructed to do so by Software AG. If you mistakenly modified the old wrapper.conf file, manually copy values

for properties you modified in the old wrapper.conf file to the corresponding properties in the new custom\_wrapper.conf file.

### **Deploy the Optimize Environment**

Unless otherwise noted, see *Configuring BAM* for detailed instructions on the Optimize steps in the sections below.

### Not Reuse the Old Optimize CCS Environment Definition

If you do not want to reuse your old Central Configurator System (CCS) Environment definition, start the new My webMethods Server, open My webMethods, and configure your new Optimize environment.

For Infrastructure Data Collector, when you define hosts, enter the same value in the **Host Name or IP Address** field of the Add\Edit Host dialog box that you had in the old release.

Note:

If the new value is not identical to the old value, you will have to stop monitoring existing assets, rediscover them, and reselect them for monitoring after you finish upgrading.

Skip to the step for deploying the new Optimize environment, below.

### Reuse the Old Optimize CCS Environment Definition

To reuse the old CCS environment definition that you exported to file before installing the new Optimize, follow the steps below.

- 1. Start the new My webMethods Server and open My webMethods.
- 2. Import the old CCS environment, as follows:
  - a. Go to the Applications > Administration > System-Wide > Environments > Define Environments page.
  - b. Click **Import Environment**. On the Import Environments dialog box, click **Browse**, go to the file to which you exported the old CCS environment, and click **OK**. When prompted, confirm the migration.
  - c. When asked "Do you wish to migrate the environment to the latest version?", click Yes. The CCS imports the old environment and migrates it to the new Optimize Logical Servers.
- 3. Update the database pool connection settings for the database pool definition associated with the environment you imported, as follows:
  - a. Go to the Applications > Administration > System-Wide > Environments > Database Pool Configuration page.

- b. In the **Pool** column, click the imported database pool.
- c. In the **Pool Settings** area, set the **Minimum Connections** field to 8, and the **Maximum Connections** field to 60.
- d. Make sure the database connection information is correct. In the **Database Connection** area, click **Test** and make sure the message Test Passed displays at the bottom of the page.
- e. Click Save.
- 4. Go to the Applications > Administration > System-Wide > Environments > Define Environments page. Under Environment Name, click the environment you imported.
- 5. If you are using a different JMS provider with the new release than you used with the old release, do the following:
  - a. Click the **Configure Servers** tab. Under **Configuration**, open the **Default Settings** tree and click **JNDI Configuration**.
  - b. In the **Naming Factory Type** list, click the JMS provider you are using with the new release (Universal Messaging) and clear the **Broker Name** field. Click **Save**
  - c. Click the **Map Endpoints** tab. In the first **Incoming Connections** field for the JMS Provider, type nsp for Universal Messaging. In the second field, type the port number.
  - d. Click Save.
- 6. Validate the environment as follows:
  - a. Click each tab that shows a red circle except the **Validate** tab. If you change any settings on a tab, and the tab has a **Save** button, click **Save**.
  - b. When all tabs except the **Validate** tab show a green check mark, click the **Validate** tab.
- 7. Click Finish.

### **Deploy the New Optimize Environment**

- 1. Start the new Optimize components you installed. These components can include the Analytic Engine, Infrastructure Data Collector, and the Web Services Data Collector.
- 2. Start the Universal Messaging you are using with the new release.
- 3. Deploy your new Optimize environment. For instructions, see *Configuring BAM*.
- 4. In My webMethods, go to the My webMethods > System Settings > Servers page.
  - If you have BPMS installed, select the **BPM and BAM** option and identify the new Analytic Engine and the new Integration Server that hosts Monitor. For the hosts, you can specify DNS name or IP address.

- If you have BPMS installed, but are not using BPM (that is, you are using only Optimize), select the **BAM only** option and identify the new Analytic Engine. For the host, you can specify DNS name or IP address.
- 5. Start the Analytic Engine and then click **Check Server Status** to make sure the server is available (green icon). It might take some time for the server to start (for example, 15 minutes). Then click **Save**.

# **Upgrade from 9.7: Start Monitoring 4.1 or Later Terracotta Server Arrays**

For instructions on each step, see *Administering webMethods Optimize*.

- 1. Start the new Infrastructure Data Collector.
- 2. Go to Applications > Administration > Infrastructure Components > Discovery.
- 3. Delete all Terracotta (Asset) entries.
- 4. Rediscover 4.1 or later Terracotta Server Arrays you want to monitor.
- 5. Go to Applications > Administration > Infrastructure Components > Monitored Components. Select Terracotta Server Array monitors, components, and KPIs.

### Switch from webMethods Broker to Universal Messaging

If you use webMethods Broker as your JMS provider in the old release, and are going to use Universal Messaging in the new release, do the following:

- Start Universal Messaging and open Universal Messaging Enterprise Manager.
- 2. Connect to a Universal Messaging instance, then click it.
- 3. Click the **Config** tab. Expand **Global Values** and set AllowRealmAdminFullAccess to true.

# 14 Migrate the Asset Build Environment, Deployer, and Application Platform

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### Migrate the Asset Build Environment

Go to the *old\_Software AG\_directory* /common/AssetBuildEnvironment/master\_build directory and copy the build.properties file to the same location in the new installation.

### Migrate Deployer

### Configurations, Data, and Assets that Will be Migrated

- Settings.
- Server aliases.
- Target groups.
- Projects.

Note:

Migrating Deployer projects does not convert the product assets in those projects from their old release to the new release. You must migrate the assets as instructed earlier in this guide.

### Migrate Deployer

- 1. Upgrade all source and target product servers that were defined in the old Deployer to the new release, and migrate all configurations, data, and assets for those products to the new release, as instructed earlier in this guide.
- 2. If the new and old Deployer are on the same machine, make sure the old Deployer is shut down.
- 3. You migrate Deployer when you migrate the host Integration Server. Do not start the new host Integration Server before you migrate Deployer. If you do, a file named MIGRATION\_DONE will be created in the WmDeployer package, and you will not be able to perform the migration. If you did start the new host Integration Server, delete this file.
- 4. You can migrate using either of two methods.
  - To migrate using the migration utility, follow the instructions for Integration Server in "Migrate Products Using Migration Utilities" on page 127.
  - To migrate using Command Central, follow the instructions for Integration Server in "Migrate Integration Server, Microservices Runtime, and Hosted Wm Packages" on page 69.

### **Migrate Application Platform**

# Application Platform Configurations, Data, and Assets that Will be Migrated

- Application Platform configuration files that reside in Integration Server installations.
- Application Platform projects bundles that reside in My webMethods Server installations.
- Upgrade from 9.8, 9.9, 9.10, or 9.12: Web applications that were created using WmTomcat for use as Application Platform web applications. Each web application will be migrated as a war ZIP file to the *new\_Software AG\_directory* / profiles/*instance\_name* /workspace/webapps directory.

### **Migrate Application Platform**

- 1. If the new and old Integration Server instances that host the Application Platform Support package are on the same machine, make sure the old instances are shut down.
- 2. If the new and old My webMethods Server instances that host Application Platform projects bundles are on the same machine, make sure the old instances are shut down.
- 3. You can migrate using either of two methods.
  - To migrate using the migration utility, follow the instructions in "Migrate Products Using Migration Utilities" on page 127.
  - To migrate using Command Central, use the Command Central command below.

```
sagcc exec administration product target_node_alias
PLSCore migration migrate
{srcDir|srcFile}=full_path_to_{old_Software AG_directory|ZIP file}
```

### **Complete the Application Platform Upgrade**

### **Verify and Correct Package Imports**

Go to the *new\_Software AG\_directory* /install/log directory and open the migrationLog.txt file. Check for messages similar to this message:

```
Project bundle /dev/installs/99oct2015/profiles/IS_default/
workspace/app-platform/deployer/bundles/greeter-web.jar
contains a package com.softwareag.applatform.sdk with import version
range [start_version, end_version) that must be upgraded manually.
```

The message relates to semantic versioning of the packages used in your Application Platform projects. For information, see the OSGi Alliance semantic versioning technical whitepaper.

If the message exists, and you never created manifest files for Application Platform projects, rebuild and redeploy the projects using Asset Build Environment and Deployer.

If the message exists, and you did create manifest files for Application Platform projects, edit the manifest files to include the *end\_version*, and then rebuild and redeploy the projects.

For instructions on rebuilding and redeploying Application Platform projects, see webMethods Application Platform User's Guide.

### **Update the Tomcat Configuration**

- 1. Go to *old\_Software AG\_directory* /IntegrationServer/web/conf directory and open all configuration files in that directory in a text editor.
- 2. Go to new\_Software AG\_directory /profiles/instance\_name /configuration/tomcat/conf directory and open all configuration files in that directory in a text editor.
- 3. Go to "https://tomcat.apache.org/migration-85.html".
- 4. Using the instructions on the web page, modify the new configuration files to have the same custom changes you made in the old configuration files.
- 5. Go to the *new\_Software AG\_directory* /profiles/*instance\_name* /configuration/tomcat/ conf directory, open the server.xml file, and replace the existing <Realm> element with the following:

```
<Realm className="org.apache.catalina.realm.LockOutRealm">
        <Realm className="com.softwareag.platform.catalina.auth.SINRealm"
        name="AppPlatformRealm"
        userClassNames="com.softwareag.security.jaas.principals.SagUserPrincipal"
        roleClassNames="com.softwareag.security.jaas.principals.SagRolePrincipal"
        defaultRealm="AppPlatformRealm"/>
        </Realm>
```

### Upgrade from 9.8, 9.9, 9.10, or 9.12: Complete the WmTomcat Web Applications Migration

1. Remove the dependency of each web application on WmTomcat. For each migrated Integration Server package, go to the new\_Software AG\_directory /IntegrationServer/instances/instance\_name /migrated\_package directory, open the manifest.v3 file in a text editor, remove the line below, and then save the file.

```
<value name="WmTomcat">...</value>
```

2. The URL for the migrated web applications is different from the URL for the original web applications; the port number changes, and the /web segment is removed (for example, the old URL http://localhost:5555/web/MyPackage/index.jsp becomes

- http://localhost:8072/MyPackage/index.jsp). Notify your users and update your software components that depend upon the URL.
- 3. Each web application was migrated as a war ZIP file. If you want to reduce the time it takes the Tomcat servlet container to start, go to the *new\_Software AG\_directory /* profiles/*instance\_name* /workspace/webapps directory and extract the war files from each ZIP file into the webapps directory.
- 4. If you have direct calls to the Integration Server API com.wm.app.b2b.server.Service.dolnvoke() in the JSP page for a web application, replace them with <webm:invoke/> custom tags. For instructions, see the Application Platform documentation.

### 15 Migrate Apama

- 1. If the new and old Apama are on different machines, update deployment scripts (for example, ant scripts and properties files) to specify the correct host names for the new installation.
- 2. If the new and old Apama are on the same machine, make sure all processes from the old installation are shut down.
- 3. Run your ant scripts to force a rebuild of any generated artifacts within your projects (for example, Apama queries, scenarios or Java\C\C++\.NET code using Apama APIs). Check the build output for errors and warnings.
- 4. Inject your migrated applications into the new Apama by running them in your user acceptance testing (UAT) environment. Scan the correlator logs for any errors or warnings. Re-run all your system tests (for example, PySys test cases) and ensure your application behaves as expected.
- 5. If you are using Command Central, recreate Apama instances in the new installation using the same command line, GUI, or composite template procedure you used to create the instances in the old installation, with modifications to accommodate any deprecated or removed items mentioned in the Apama release notes.

# Migrate API Gateway, API Portal, and CentraSite

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### **Upgrade from 10.1: Migrate API Gateway**

### API Gateway Configurations, Data, and Assets that Will be Migrated

- Event Data Store (see "Upgrade from 10.1: Prepare the Old API Gateway" on page 37).
- Configurations for the old Integration Server that hosts API Gateway, the API Gateway UI and dashboard (Kibana), and for one API Gateway instance.

### **Migrate API Gateway**

**Note:** Event Data Store was renamed Internal Data Store in release 10.2.

- 1. If the new and old API Gateway are on the same machine, make sure the old API Gateway (and its host Integration Server) are shut down.
- 2. If you used custom keystore files in the old API Gateway installation, copy the files to the same location in the new installation.
- 3. To update the connection settings and default mappings for the Internal Data Store in API Gateway, start the new API Gateway, log on, start the Internal Data Store, and then shut down API Gateway.
- 4. Start the new Internal Data Store by starting the service Software AG Internal Data Store or by opening a command window or shell, going to the <code>new\_Software AG\_directory</code> /InternalDataStore/bin directory, and running the command <code>startup.bat</code>
- 5. Go to the *new\_Software AG\_directory* /IntegrationServer/ instances/*instance\_created\_during\_installation* /packages/WmAPIGateway/bin/migrate directory, open a command window or shell, and run the command below.

```
migration.{bat|sh}
-instanceName name_of_old_API Gateway_instance
-edsbackup full_path_to_-backupDestinationDirectory/default
-isbackup full path to -backupDestinationDirectory
```

- 6. In addition to checking the standard upgrade log migrationLog.txt file in the *new\_Software AG\_directory* /install/logs directory, see the console.log and Reports\*.html logs in the *new\_Software AG\_directory* /IntegrationServer/instances/instance\_name/packages/WmAPIGateway/bin/migrate directory.
- 7. Shut down the new Internal Data Store, then restart API Gateway and theInternal Data Store.

### Migrate API Portal

### **API Portal Assets that Can be Migrated**

- Users and user groups.
- APIs and API documents.
- Plans and packages.
- Apps and applications.
- Collaboration data.
- Upgrade from 10.1: Analytics data.

### **Migrate API Portal**

- 1. If the new and old API Portals are on the same machine, make sure the old API Portal is shut down.
- If you installed the new API Portal in a clustered, high-availability setup, make sure all nodes are running and accessible to the Zookeeper ensemble. Then register all the nodes with the parent node by invoking the REST service shown below. The default for the cloud agent port is 18009.

The table below provides details about the REST service.

Parameter	Value
End point	http://load_balancer_host:load_balancer_port/acc/rest/nodes/
Method type	POST
Content type	application/json
Payload	<pre>{"nodename": "host_name", "hostname": "host_name",    "port": "cloud_agent_port", "username": "Clous",    "password": "g3h31m"}</pre>

- 3. Start the new API Portal Cloud Controller.
- 4. Run this command:

```
acc> startall
```

5. For each tenant in the old API Portal, create a corresponding tenant in the new API Portal and then import the license for the new tenant. For instructions, see *webMethods API Portal Administrator's Guide*.

6. For each new tenant you created, restore the data for the corresponding old tenant into the new API Portal from the backup file you created earlier by running the commands below. Each file has the file extension .acb.

**Important:** Inform API Portal users that they cannot work on the tenants during the restoration process.

**Important:** If the new tenant contains any data, the data will be replaced by the data you restore from the old tenant. Only the user metadata will be merged.

The table below explains how to restore each old tenant's data into the new API Portal for each old product release.

#### For Run these commands... 9.7 acc> set acc config backup.restore.tenant.app.types = UMC, ABS, ADS, ECP 9.8 acc> restore tenant tenant name from full path to backup file username=your user name password=your password 9.9 acc> invoke prepareTenant on bundle runnable name tenant.name=tenant name 9.10 9.12 10.1 acc> restore tenant tenant name from full path to backup file 10.2 username=your\_user\_name password=your\_password acc> invoke prepareTenant on bundle runnable name tenant.name=tenant name 10.3

#### 7. Run these commands:

```
acc> stop bundle_runnable_name
acc> start bundle_runnable_name
```

### Complete the API Portal Upgrade

If you created a customized view of your old API Portal, you backed up the view. For instructions on restoring the customized view from the backup, see the backup and restore section in the *webMethods API Portal Customization Guide*.

### **Migrate CentraSite**

### CentraSite Configurations that Will be Migrated

- Configurations from the old CentraSite and assets are migrated from the old Registry Repository to the new CentraSite installation.
- LDAP configuration is transformed and migrated from the old Registry Repository to the new CentraSite JAAS configuration.

### Migrate CentraSite

Import configurations and assets from the ZIP file you created earlier. Open a command window or shell, go to the *new\_Software AG\_directory* /CentraSite/utilities directory, and run this command:

```
sbsImport.{cmd|sh} /full_path_to_ZIP_file
For example:
./sbsImport.sh /tmp/sbs_cs82_data.zip
```

### **Complete the CentraSite Upgrade**

- 1. Start the new CentraSite.
- 2. If you use single sign-on with CentraSite, do the following:
  - a. Open the jaas.config file in the old and new *Software AG\_directory* /profiles/CTP/ configuration directories. Copy the following from the old file to the new file:
    - ServletHeaderLoginModule for extracting the user ID from the incoming HTTP header.
    - SimpleNameMappingLoginModule, if you are using it.
    - Any other entries you are using to process the extracted user ID.

The new jaas.config file should look like this:

```
CentraSite {
com.softwareag.centrasite.security.cache.ShortTermTokenLoginModule sufficient;
com.softwareag.security.jaas.login.internal.InternalLoginModule sufficient
...
com.softwareag.security.sin.is.ldap.lm.LDAPLoginModule sufficient
...
com.softwareag.security.jaas.login.modules.ServletHeaderLoginModule
required
... com.softwareag.security.jaas.login.modules.SimpleNameMappingLoginModule
required
...
com.softwareag.security.sin.is.ldap.lm.LDAPLoginModule required
...
com.softwareag.security.sin.is.ldap.lm.LDAPLoginModule required
...
};
```

The ShortTermTokenLoginModule establishes delegated authentication in CentraSite to perform secured internal communication. The initial InternalLoginModule is normally only for users in the INTERNAL domain, and the initial LDAPLoginModule is for LDAP users that are logging in directly and not via single sign-on. If you need only single-sign on logins, you can remove the initial InternalLoginModule and LDAPLoginModule.

b. Set up your LDAP configuration to resolve the extracted user ID via LDAP. Modify the generated LDAP login module to enable single sign-on-related options, such as technical user. Apply LDAP single sign-on technical user credentials if necessary.

- 3. Change any settings in CentraSite Control that you noted earlier.
- 4. If you installed plug-ins that are GUI extensions for CentraSite Control in the old CentraSite installation, install them in the new CentraSite installation.
- 5. If you are using API Portal with CentraSite, republish all API Portal instances you created in the old release to the new API Portal. For instructions, see the CentraSite documentation.

## Migrate MashZone NextGen

Upgrade from 10.1 or 10.2: Migrate MashZone NextGen	108
Upgrade from 9.10 or 9.12: Migrate MashZone NextGen	110

**Note:** There is no direct path from Presto 3.8 (webMethods release 9.7), Presto

3.9 (webMethods release 9.8), or MashZone NextGen 9.9 to MashZone NextGen 10.3. Instead, you must upgrade to MashZone NextGen 9.10 using the instructions in the 9.10 upgrade guide, and then upgrade from 9.10 to

MashZone NextGen 10.3 using the instructions in this guide.

Note: MashZone NextGen was renamed MashZone NextGen Business Analytics in

release 9.12, then renamed MashZone NextGen in release 10.1.

### Upgrade from 10.1 or 10.2: Migrate MashZone NextGen

# MashZone NextGen Configurations, Data, and Assets that Can be Migrated

- Database you were using for the old repository. If you used the embedded Derby database, the utility migrates the database. If you used an external database, the utility migrates the database driver, the MashZone NextGen repository libraries, and the database.
- LDAP configuration.
- User-defined custom look and feel.
- User-defined custom widgets.
- RAQL user-defined functions (UDFs) that are stored in the *old\_Software AG\_directory* /MashZoneNG/raql-udfs directory.
- Data file you defined and stored in the *old\_Software AG\_directory* /MashZoneNG/ mashzone/data/resources directory.
- Upgrade from 10.1 Digital Event Services configuration stored in the *old\_Software AG\_directory* MashZoneNG/apache-tomcat/conf/DigitalEventServices directory.
- Upgrade from 10.2: Digital Event Services configuration stored in the *old\_Software AG\_directory* MashZoneNG/rtbs/conf/DigitalEventServices directory.
- Ehcache attribute information that you changed in the old installation.
- Properties required to keep the new installation running properly. Port values are not migrated.

### Migrate MashZone NextGen

1. If you stored data files in a directory other than the default (that is, *old\_Software AG\_directory* /MashZoneNG/mashzone/data/resources) and you want to migrate those data files, move them into the default directory.

- 2. If you stored RAQL UDFs in a directory other than the default (that is, *old\_Software AG\_directory* /MashZoneNG/raql-udfs) and you want to migrate those UDFs, move them into the default directory.
- 3. If the new and old MashZone NextGens are on the same machine, make sure the old MashZone NextGen is shut down.
- 4. You can migrate using either of two methods.
  - To migrate using the migration utility, follow the instructions in "Migrate Products Using Migration Utilities" on page 127.
  - To migrate using Command Central, use the Command Central command below.

```
sagcc exec administration product target_node_alias
Presto migration migrate
{srcDir|srcFile}=full_path_to_{old_Software AG_directory|ZIP file}
```

#### Complete the MashZone NextGen Upgrade

Before you start MashZone NextGen, do the following if necessary:

- If you changed the MashZone NextGen startup files in the old installation and you want to re-use them in the new installation, go to the *old\_Software AG\_directory /* MashZoneNG/apache-tomcat/bin and copy the files to the same location in the new installation. If the files specify absolute paths, update the paths to point to the correction locations in the new installation.
- The old presto.config file references custom files such as truststores, keystores, and the landingpage welcometext file. If you changed these references or the referenced files in the old installation, go to the <code>new\_Software AG\_directory/</code> MashZoneNG/apache-tomcat/webapps/mashzone/WEB-INF/classes directory, open the presto.config file, and check whether the referenced files are available in the new installation. If they are not, make them available.
- Upgrade from 10.2: Starting in MashZone NextGen 10.3, aggregation settings for measure columns in dashboards that use PPM Context are managed and stored differently than they were in 10.2. You can view the dashboards in the new MashZone NextGen, but if you want to edit a dashboard, you must first migrate it to the new release.
  - 1. Choose to edit a dashboard. MashZone NextGen opens a prompt dialog box that asks whether to migrate the dashboard; click Yes. MashZone NextGen then opens a configuration dialog box; if a measure column was assigned multiple times, using different aggregation settings, MashZone NextGen keeps only one instance of the measure column. Click OK on the prompt dialog box, then click OK on the configuration dialog box.
  - 2. MashZone NextGen shows the dashboard again in edit mode. Open the data assignment for each widget. Reassign existing measure columns and set the required aggregation. Re-create any duplicate measure columns that were

- removed; use a unique column name for each assignment and set the required aggregation.
- 3. As a safety precaution, save the migrated dashboard under a new name. When you are sure it is correct, you can delete the original dashboard.

In "Migrate Event Infrastructure" on page 123, you will run the Event Routing migration utility. After that migration is complete, start MashZone NextGen and open the Admin Console, and do the following if necessary:

- The MashZone NextGen migration utility migrated standard file resources to the new installation. Go to **File resources > File resources**, edit the **resources** entry, and set the **Path** field to *new\_Software AG\_directory* /MashZoneNG/mashzone/data/resources directory.
- The Event Routing migration utility migrated the Event Type Store. If you are using custom event types, go to **Event Service > Event Service**, click the **EDA** tab, click the **Event Type Store** button, and set the **Event Type Store** directory field to *new\_Software AG\_directory* /common/EventTypeStore.

# **Upgrade from 9.10 or 9.12: Migrate MashZone NextGen**

Set up the new MashZone NextGen to use the old repository. If you deployed extensions to features of the old product, you will also copy the extensions to the new MashZone NextGen installation.

#### Set Up the MashZone NextGen Repository

#### Set Up Repository When Using the Embedded Derby Database

If you used the embedded Derby database for your old repository, follow the instructions below.

- 1. The new MashZone NextGen comes with a pre-populated Derby repository. Go to the *new\_Software AG\_directory* /MashZoneNG/apache-tomcat/bin and rename the mashzonenextgenrepository directory (for example, rename the directory mashzonenextgenrepository\_orig).
- 2. Upgrade from 9.10 or 9.12: Go to the *old\_Software AG\_directory* /MashZoneNG/ apache-tomee-jaxrs/bin directory and copy the mashzonenextgenrepository and mashzonerepository directories to the *new\_Software AG\_directory* /MashZoneNG/ apache-tomcat/bin directory.
- 3. Execute Derby database update SQL commands for the new release. You can execute these commands using any SQL client that can connect to Derby, or you can use the Derby IJ utility delivered with MashZone NextGen, as follows:
  - a. Open a command window and change to the directory where the Derby database resides (for example, cd *new\_Software AG\_directory* /MashZoneNG/ apache-tomcat/bin).

b. Start the IJ utility by running this command:

```
java -jar SAG_HOME/MashZoneNG/prestorepository/derby/lib/derbyrun.jar ij
```

c. Connect to the embedded Derby database by running this command:

```
connect 'jdbc:derby:mashzonenextgenrepository';
```

d. Run the file using the RUN command. For example:

```
RUN 'new Software AG directory/MashZoneNG/upgrade/10.1/MIGRATE-quartz2-DERBY.sql';
```

e. Exit the IJ utility by running the command EXIT;

#### Set Up Repository When Using Any Other Database

If you used MySQL, Oracle, PostGres, or SQL Server for your old repository, follow the instructions below.

1. Go to the *old\_Software AG\_directory* /{Presto|MashZoneNG}/apache-tomee-jaxrs/ lib directory and copy the JDBC driver jar file for your RDBMS to the *new\_Software AG\_directory* /MashZoneNG/apache-tomcat/lib directory.

The table below lists the JDBC driver jar file to copy for each type of database.

Database	JDBC Driver Jar File
MySQL	mysql-connector-java-5.1.31.jar
Oracle	ojdbc6.jar
PostGres	postgresql-9.2.1004.jdbc4.jar
SQL Server	jtds-1.3.1.jar

- 2. If you used MySQL, Oracle, or SQL Server for the old product, do the following:
  - a. Go to the *new\_Software AG\_directory* /{Presto | MashZoneNG}/apache-tomcat/ webapps/mashzone/WEB-INF/lib directory and delete the jackbe-presto-rds-postgre-derby-10.3.jar file.
  - b. Go to the *new\_Software AG\_directory* /{Presto|MashZoneNG}/prestorepository directory and copy the jackbe-presto-rds-oracle-mysql-mssql-10.3.jar file to the *new\_Software AG\_directory* /MashZoneNG/apache-tomcat/webapps/mashzone/ WEB-INF/lib directory.
- 3. Configure the new MashZone NextGen to use the existing repository. For instructions, see *MashZone NextGen Administration Guide*, and then see the section on getting started with MashZone NextGen, and then see the section on moving the MashZone NextGen repositories to a robust database solution. Skip steps 1 through 4, and start with step 5.

**Note:** In MashZone NextGen 10.0 and earlier, repository connection information was defined in the apache-tomee-jaxrs/conf/tomee.xml file. In the new MashZone NextGen release, repository connection information was moved to the apache-tomcat/conf/context.xml file and the format has changed.

- 4. Execute database update SQL commands for the new release. Use a SQL client that is connected to your mashzonenextgenrepository. If you need help, contact Software AG Global Support.
  - a. Go to the *new\_SoftwareAG\_directory* /MashZoneNG/upgrade/10.1 directory and open the appropriate *database\_type* .xml file in a text editor.
  - b. Read the instructions in the file and modify SQL statements that remove existing constraints as necessary.
  - c. Execute the SQL statements in the file one by one.

### Upgrade from 9.10: Add Data from Old Repository to New Repository

MashZone NextGen 9.10 had two repositories, mashzonerepository and mashzonenextgenrepository. Starting with MashZone NextGen 9.12, there is only one repository, mashzonenextgenrepository. The new mashzonenextgenrepository already contains the data from the old mashzonenextgenrepository, but you must manually add the data from the old mashzonerepository.

1. Go to the *new\_Software AG\_directory* /MashZoneNG/apache-tomcat/conf directory and open the context.xml file. Add a <Resource> entry that sets the connection attributes properly for the old mashzonerepository. For example:

```
<Resource name="amzDatabase" auth="Container" type="javax.sql.DataSource"
maxTotal="200"
maxIdle="30"
maxWaitMillis="10000"
validationQuery="values(1)"
username="app"
password="app"
driverClassName="org.apache.derby.jdbc.EmbeddedDriver"
url="jdbc:derby:
${catalina.base}/bin/mashzonerepository"/>
```

 Go to the new\_Software AG\_directory /MashZoneNG/apache-tomcat/webapps/ mashzone/WEB-INF directory, open the web.xml file in a text editor, and add this XML <resource-ref> element to the bottom of the file, just before the closing </ web-app> tag:

3. Start the MashZone NextGen server.

Data from the amzDatabase will automatically be migrated into the mashzonenextgenrepository, and amzDatabase will no longer be used.

- 4. Shut down the server.
- 5. Go to the *new\_Software AG\_directory* /MashZoneNG/apache-tomcat/webapps/ mashzone/WEB-INF directory and open the web.xml file in a text editor. Remove the <resource-ref> element you just added and save the file.
- 6. Go to the *new\_Software AG\_directory* /MashZoneNG/apache-tomcat/conf directory and open the context.xml file. Remove the <Resource id="amzDatabase"> element and save the file.

### Update the MashZone NextGen Configuration and Copy Extensions

Most of the MashZone NextGen configuration is stored in the MashZone NextGen repository. This section explains how to copy the parts of the old configuration that were not maintained in the repository, including extensions such as custom security profiles that you deployed in the old product. The procedure varies depending on whether you used an external configuration directory with the old product.

#### **Update When an External Configuration Directory Was Used**

- 1. Update the classpath in the application server that hosts the new MashZone NextGen to work with the external configuration directory and any subdirectories. For instructions, see the topic on setting up an external configuration directory in the *MashZone NextGen Administration Guide*.
- 2. Manually migrate the changes you made in the old configuration files listed below from the old product to the corresponding files in the new MashZone NextGen. Because of the complexity of the configuration, the easiest method is to use the difference tool offered by many text editors.
  - All files listed in the topic on configuration files that must be internal in *MashZone NextGen Administration Guide*.
  - The userRepositoryLdap.properties file, located in the external configuration directory.

#### Update When No External Configuration Directory Was Used

- 1. Copy any extensions you deployed from the old product to the corresponding directory for the new MashZone NextGen. See the *MashZone NextGen Administration Guide* for a complete list of extensions you might need to copy.
- 2. Manually migrate the changes you made in the old configuration files listed below from the old product to the corresponding files in the new MashZone NextGen. Because of the complexity of the configuration, the easiest method is to use the difference tool offered by many text editors.

- All files listed in the section on configuration files that must be internal in *MashZone NextGen Administration Guide*.
- The userRepositoryLdap.properties file, located in the *old\_Software AG\_directory* / {Presto | MashZoneNG}/apache-tomee-jaxrs/webapps/mashzone/WEB-INF/ classes directory.

#### **Upgrade from 9.10: Migrate Feeds and Run Upgrade Commands**

- 1. Data feeds that were created with the 9.10 MashZone Feed Editor are not supported in MashZone NextGen 9.12 and later. If you want to use these data feeds you must export them from the old installation and then import them into the new installation. For instructions on exporting and importing data feeds, see the *MashZone NextGen Administration Guide*.
- 2. If the MashZone NextGen server is not running, start it.
- 3. Open a command window or shell, go to the *new\_Software AG\_directory /* MashZoneNG/prestocli/bin directory, and run this command:

```
./padmin.bat runRequestFile -u Administrator -c -w manage -f ../../upgrade/9.12/upgrade_9.12.0.jump.txt
```

# 18 Upgrade from 9.7, 9.8, or 9.9: Migrate Mobile Designer

If you created apps using the Mobile Development perspective in Software AG Designer and want to continue to do so, or if you created apps using Mobile Designer but want to use the Mobile Development perspective in Software AG Designer from now on, delete the environment variable MOBILE\_DESIGNER as instructed below.

If you created apps using Mobile Designer and want to continue to do so, and if you also want to continue to use your existing build environment (that is, an IDE other than Software AG Designer, or Jenkins), delete the MOBILE\_DESIGNER environment variable as instructed below. Then pass the property #Denv.MOBILE\_DESIGNER=full\_path\_to\_Mobile Designer to Ant when calling Mobile Designer Ant targets (for example, enter ant #Denv.MOBILE\_DESIGNER=C: \SoftwareAG\MobileDesigner +Multi-Build).

To delete the MOBILE\_DESIGNER environment variable, do the following:

- For Windows, go to the Control Panel, click **System**, and then click **Advanced System Settings**. On the Advanced tab, click **Environment Variables** and delete the MOBILE\_DESIGNER environment variable. Then restart your system.
- For Mac OS X, delete the MOBILE\_DESIGNER environment variable from your .bash\_profile, your \etc\launchd.conf file, or both. The file or files that contain the environment variable depend on the version of MAC OS X you are using, and on modifications you might have made. Then restart your system.

# Migrate OneData

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# OneData Configurations, Data, and Assets that Will be Migrated

Configuration data.

# **Migrate OneData**

- 1. If the new and old OneDatas are on the same machine, make sure the old OneData is shut down.
- 2. You can migrate using either of two methods.
  - To migrate using the migration utility, follow the instructions in "Migrate Products Using Migration Utilities" on page 127.
  - To migrate using Command Central, use the Command Central command below.

```
sagcc exec administration product target_node_alias
ODE migration migrate
{srcDir|srcFile}=full_path_to_{old_Software AG_directory|ZIP file}
```

# **Complete the OneData Upgrade**

■ If you customized the old OneData Java Service Wrapper, copy the customizations from the old custom\_wrapper.conf files to the new custom\_wrapper.conf file. The files are located in the *Software AG\_directory* /profiles/ODE/configuration directory.

Note: As noted in the *Software AG Infrastructure Administrator's Guide*, you should never modify the wrapper.conf file unless instructed to do so by Software AG. If you mistakenly modified the old wrapper.conf file, manually copy values for properties you modified in the old wrapper.conf file to the corresponding properties in the new custom\_wrapper.conf file.

- If you are using JMS with OneData, copy the client jar files you backed up earlier to the *new\_Software AG\_directory* /profiles/ODE/webapp/onedata/WEB-INF/lib directory.
- If you are using Kerberos authentication with OneData, reconfigure it using the backups of the web.xml, server.xml, jaas.config, custom\_wrapper.conf and com.softwareag.jaas.realm.pid-SSO\_realm\_name.properties files you created earlier. For instructions, see *Administering webMethods OneData*.
- Go to the *new\_Software AG\_directory* /profiles/ODE/configuration/ com.softwareag.platform.config.propsloader directory. Open the three com.softwareag.catalina.resource.pid-onedata*schema* Db1.properties files, where

*schema* is md, wa, or ra. Replace values for database parameters such as maxIdle, maxActive and maxWait with the values you noted earlier from the old installation.

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# Zementis Predictive Analytics Assets that Will be Migrated

The Zementis Predictive Analytics migration script described below will migrate Zementis Predictive Analytics models and resources.

# **Migrate Zementis Predictive Analytics**

- 1. If the new and old Zementis Predictive Analytics servers are on the same machine, make sure the old Zementis Predictive Analytics server is shut down.
- 2. If the old and new installations are on different machines, copy the adapabackup-*yymmdd-hhmmss* directory from the old installation to the machine that hosts the new installation.
- 3. Go to the *new\_Software AG\_directory* /Zementis/adapa-app/migration directory.
- 4. Restore Zementis Predictive Analytics models and resources by running this command:

./migration.sh restore Zementis\_host\_URLadmin\_useradmin\_password full path to adapa-backup-yymmdd-hhmmss directory

# 21 Migrate Event Infrastructure

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# Migrate Digital Event Services

Digital Event Services components are automatically installed with products, except for Microservices Runtime. These components are the Digital Event Services runtime and the Digital Event Services Type Repository.

# Digital Event Services Configurations, Data, and Assets that Will be Migrated

- Digital Event Services runtime configurations for all products.
- Digital Event Services Type Repository.
- If you used Digital Event Persistence to persist events, the service configurations.

#### Migrate Digital Event Services

- 1. Make sure none of the new products are running.
- 2. You can migrate using either of two methods.
  - To migrate using the migration utility, follow the instructions in "Migrate Products Using Migration Utilities" on page 127.
  - To migrate using Command Central, use the Command Central command below.

```
sagcc exec administration product target_node_alias
DEVRuntime migration migrate
{srcDir|srcFile}=full_path_to_{old_Software AG_directory|ZIP file}
```

### **Complete the Digital Event Services Upgrade**

The Digital Event Services truststore and keystore configurations might contain references to external resources. If those resources are in different locations in relation to the new installation, go to the <code>new\_Software AG\_directory</code> /profiles/product/configuration/ DigitalEventServices/truststores and keystores directories, respectively, open the configuration files in a text editor and update the references. The references are specified on the location field.

### Migrate Event Routing

Event Routing components are automatically installed with products.

#### **Event Routing Configurations, Data, and Assets that Will be Migrated**

- Event Type Store.
- Upgrade from 9.9 or later: Event Routing configurations for all products.

#### **Migrate Event Routing**

Event Routing does not support migration from Command Central.

- 1. Make sure none of the new products are running.
- 2. To migrate using the migration utility, follow the instructions in "Migrate Products Using Migration Utilities" on page 127.

#### **Complete Event Routing Upgrade**

Go to the *new\_Software AG\_directory* /install/log directory and open the migrationLog.txt file. If you see the message below for one or more products, events that were delivered to those products in the old installation were not acknowledged before the products were shut down.

WARNING: There are still events left in IP storage <code>location\_of\_old\_storage\_file</code>. These events will not be migrated automatically and will not be redelivered by Event Routing in the new installation. For information how to migrate these events manually, see the upgrade guide.

To enable Event Routing to deliver the events to products in the new installation, you must copy the old storage files to the new installation. For each message, do the following:

- If the message provides the full path to the old storage file, the old storage file is in the default location (that is, the <code>new\_Software AG\_directory/profiles/product/configuration/event/routing/runtime/storage directory)</code>. Copy the old storage file to the same location in the new installation directory.
- If the message identifies the old storage file (for example, c:\EventRoutingStorage \SomeName\_Reliable.mem) but does not provide the full path, the old storage file is in a non-default location.
  - 1. In the migrationLog.txt file, determine to which product the message applies.
  - 2. Go to the *new\_Software AG\_directory* /profiles/*product* /configuration/event/ routing/runtime directory.
  - 3. Open the configuration is on file and find the storage-location property.
  - 4. Copy the old storage file to the directory specified on the property.

# **Migrate Event Persistence Services**

If you used Event Persistence to persist events in the old installation, configure new services in the new installation.

# 22 Migrate Products Using Migration Utilities

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# **Before You Run Migration Utilities**

Most products offer migration utilities that automatically migrate configurations and data from your old installation to your new installation. This section describes the general behavior of the migration utilities; any exceptions to the general behavior are noted in the product-specific chapters.

You can run migration utilities as follows:

- For some products, migration utilities run without prompting you for any information (that is, silently). If the utility fails to migrate an item, the utility exits. The utility does not revert the new product installation. You can address the issue and rerun the utility.
- For other products, you can run migration utilities as follows:
  - You can run a custom migration, in which you select the configurations and data to migrate. The utility gathers your settings through a series of prompts, then migrates the selected configurations and data. You can export your settings to a file named migrate.dat and use them in other upgrades.
  - You can run a migration with imported settings and some prompting or without any prompting (that is, silently). The imported settings can come from settings you exported from a custom migration, or from the default migration provided by Software AG with the product installation in a file named migrateold\_release sbs.dat. The settings for default migrations are described in the product-specific chapters.

If you are running the utility with prompting, and the utility fails to migrate an item, the utility asks whether to continue with the next item or abort the migration. If you choose to abort, the utility exits. The utility does not revert the new product installation. You can address the issue and rerun the utility.

Note:

When you run migration utilities, you provide the full path to the old installation, and sometimes the path to the new installation. If you supplied a symbolic link as the installation directory when you installed the old or new product, the path you provide to the migration utility must be the same symbolic link path you supplied during installation.

Migration utilities write detailed migration information to the command window and to the migrationLog.txt file in the <code>new\_Software AG\_directory</code> /install/logs directory. By default, utilities write INFO, ERROR, and FATAL messages to the log. If you want to increase the logging level for a product's migration to DEBUG, go to the product directory that contains the log4j.properties file (for example, the <code>new\_Software AG\_directory/product/bin/migrate</code> or /migrate/bin directory), open the file in a text editor, set the <code>log4j.logger.Migration</code> property to <code>DEBUG</code>, <code>MigrationFile</code> and save and close the file.

# Run the Software AG Infrastructure Migration Utility

The Software AG Infrastructure migration utility runs without prompting you for any information. If an error occurs, the utility exits.

1. On the machine that hosts the new products, open a command window or shell, go to the *new\_Software AG\_directory* /common/migrate/osgi/bin directory, and run the command below. For the migrateold\_release sbs.dat file, specify old\_release without periods (for example, 980, or 9100).

```
migrate.{bat|sh}
{-srcDir|-srcFile} full_path_to_{old_Software AG_directory|ZIP_file}
-importFile migrateold_releasesbs.dat
-silent true
```

- 2. If you see a *Software AG\_directory* /profiles/CTP directory in both the old and new installation directories, go to the *new\_Software AG\_directory* /profiles/CTP/bin/migrate directory and run the same command again.
- 3. Install the latest product fix on the new Common Platform and the new Security Infrastructure. Fix names for these products typically include the letters OSGI and SIN, respectively. For instructions on installing fixes, see *Using Software AG Update Manager* and the fix readme files.

# Run the Universal Messaging Migration Utility

#### **Perform a Custom Migration**

- 1. On the machine that hosts the new Universal Messaging, open a command window or shell, go to the *new\_Software AG\_directory* /UniversalMessaging/tools/migrate directory, and run the command migrate. {bat|sh}.
- 2. The utility asks for the full path to the Software AG directory that contains the old Universal Messaging installation or the ZIP file you made earlier.
- 3. The utility asks whether to import migration settings. Enter N.
- 4. The utility asks which Universal Messaging instance to migrate and lists the instances in the old installation. To specify multiple instances, separate them using commas.
  - Upgrade from 9.8 or later: To migrate all instances, press Enter without specifying any instances.
- 5. The utility asks whether to export your settings. If you want to perform other migrations by importing the settings from this session, enter Y. If not, enter N.
- 6. The utility asks whether to begin migration. If you enter Y, the utility migrates the data you selected.

#### Migrate Using Imported Settings

Imported settings can come from the following:

- Settings you exported from a custom migration. These settings are stored in a file named migrate.dat in the *new\_Software AG\_directory* /UniversalMessaging/tools/ migrate directory from which you ran the custom migration. Copy the migrate.dat file to any directory on machines that host new Universal Messaging installations to which you want to migrate data.
- Settings in the default migrations provided with Universal Messaging. For each old release, the settings are stored in a file named migrateold\_release sbs.dat file provided by Software AG in the new\_Software AG\_directory /UniversalMessaging/tools/migrate directory. The settings tell the migration utility to migrate the data listed under "Universal Messaging Configurations, Data, and Assets that Can be Migrated" on page 62.

#### Migrate Using Custom Imported Settings with Prompting

- 1. On the machine that hosts the new Universal Messaging, open a command window or shell, go to the *new\_Software AG\_directory* /UniversalMessaging/tools/migrate directory, and run the command migrate. {bat|sh}.
- 2. The utility asks for the full path to the Software AG directory that contains the old Universal Messaging installation or to the ZIP file you made earlier.
- 3. The utility asks whether to import migration settings. Enter Y and, when prompted, provide the full path to the migrate.dat file.

#### Migrate Using Custom Imported Settings without Prompting (Silent)

On the machine that hosts the new Universal Messaging, open a command window or shell, go to the *new\_Software AG\_directory* /UniversalMessaging/tools/migrate directory, and run the command below. If an error occurs, the utility exits.

```
migrate.{bat|sh}
{-srcDir|-srcFile} full_path_to_{old_Software AG_directory | ZIP file}
-importFile full_path_to_migrate.dat
-silent true
```

#### Migrate Using Default Imported Settings without Prompting (Silent)

On the machine that hosts the new Universal Messaging, open a command window or shell, go to the *new\_Software AG\_directory* /UniversalMessaging/tools/migrate directory, and run the command below. For the migrate*old\_release* sbs.dat file, specify *old\_release* without periods (for example, 980, or 9100).

The default imported settings migrate all instances, therefore only specify – instanceName if you want to override that default.

If an error occurs, the utility exits.

```
migrate.{bat|sh}
{-srcDir|-srcFile} full_path_to_{old_Software AG_directory | ZIP file}
-importFile migrateold_release sbs.dat
[-instanceName name[, name...]]
-silent true
```

# Run the My webMethods Server Migration Utility

Note:

Starting in My webMethods Server 10.3, My webMethods Server no longer offers an embedded database. If the old My webMethods Server used the embedded database,

#### **Perform a Custom Migration**

- 1. On the machine that hosts the new My webMethods Server, open a command window or shell, go to the *new\_Software AG\_directory* /MWS/bin/migrate directory, and run the command migrate. {bat|sh}.
- 2. The utility asks for the full path to the Software AG directory that contains the old My webMethods Server installation or the ZIP file you made earlier.
- 3. The utility asks whether to import migration settings. Enter N.
- 4. For each instance in the old My webMethods Server installation, the utility asks the following:
  - a. Whether to migrate the instance.
  - b. Whether to use the live database or a cloned database with the migrated instance. If you respond that you are using a cloned database, the utility prompts for the database URL, user, and password.

**Note:** You cannot use a new database that contains no data.

- c. If the old instance was connected to Universal Messaging, whether to use the old Universal Messaging URL or a new URL for the migrated instance. If you respond that you want to use a new URL, the utility prompts for the URL.
  - If the old instance was not connected to Universal Messaging, whether to specify a connection to Universal Messaging now or at some later time. If you respond that you want to specify the connection now, the utility prompts for the Universal Messaging URL.
- d. Whether to use a new node name for the migrated instance.
- 5. The utility asks whether to export your settings from this session. If you want to perform other migrations by importing the settings from this session, enter Y. If not, enter N.
- 6. The utility asks whether to begin migration. If you enter Y, the utility migrates the instances you specified.

#### Migrate Using Imported Settings

Imported settings can come from the following:

- Settings you exported from a custom migration. These settings are stored in a file named migrate.dat in the *new\_Software AG\_directory* /MWS/bin/migrate directory. Copy the migrate.dat file to any directory on machines that host new My webMethods Server installations to which you want to migrate data.
- Settings in the default migrations provided by Software AG with My webMethods Server. For each old release, the settings are stored in a file named migrateold\_release sbs.dat file in the new\_Software AG\_directory /MWS/bin/migrate directory. The settings tell the migration utility to migrate all instances within the old installation to the new installation, and to use the live database.

#### Migrate Using Custom Imported Settings with Prompting

- 1. On the machine that hosts the new My webMethods Server, open a command window or shell, go to the *new\_Software AG\_directory* /MWS/bin/migrate directory, and run the command migrate. {bat | sh}.
- 2. The utility asks for the full path to the old Software AG installation directory or to the ZIP file you made earlier.
- 3. The utility asks whether to import migration settings. Enter Y and, when prompted, provide the full path to the migrate.dat file.

#### Migrate Using Default Imported Settings without Prompting (Silent)

You can migrate in silent mode when the old and new My webMethods Server installations are identical (for example, they are hosting the same user interfaces for other products).

On the machine that hosts the new My webMethods Server, open a command window or shell, go to the *new\_Software AG\_directory* /MWS/bin/migrate directory, and run the command below. For the migrateold\_release sbs.dat file, specify old\_release without periods (for example, 980, or 9100).

The default imported settings migrate all instances, therefore only specify – instanceName if you want to override that default.

If an error occurs (for example, the installations are not identical), the utility exits.

```
migrate.{bat|sh}
{-srcDir|-srcFile} full_path_to_{old_Software AG_directory | ZIP file}
-importFile migrateold_release sbs.dat
[-cloneDbURL URL -cloneDbUser user -cloneDbPassword password]
[-instanceName name[, name...]]
[-newNodeName instance_name:new_node_name[, instance_name:new_node_name,...]]
-silent true
```

#### Migrate Using Custom Imported Settings without Prompting (Silent)

You can migrate in silent mode when the old and new My webMethods Server installations are identical (for example, they are hosting the same user interfaces for other products).

On the machine that hosts the new My webMethods Server, open a command window or shell, go to the *new\_Software AG\_directory* /MWS/bin/migrate directory, and run the command below.

If an error occurs (for example, the installations are not identical), the utility exits.

```
migrate.{bat|sh}
{-srcDir|-srcFile} full_path_to_{old_Software AG_directory | ZIP file}
-importFile full_path_to_migrate.dat
-silent true
```

# **Run the Integration Server Migration Utility**

If the old Integration Server installation has multiple server instances, you run the migration utility once for each instance you want to migrate. You can have the utility migrate old instances to new instances you created after installation or to new instances that the utility creates for you.

#### **Perform a Custom Migration**

- 1. On the machine that hosts the new Integration Server, open a command window or shell and go to the *new\_Software AG\_directory* /IntegrationServer/bin/migrate directory.
- Run the command migrate. {bat|sh}.
- 3. The utility asks for the full path to the Software AG directory that contains the old Integration Server installation or the ZIP file you made earlier.
- 4. If the old Integration Server installation has more than one server instance, the utility asks which instance to migrate and lists the instances in the old installation.

The utility then asks for the name of an instance to be the target of the migration. If you want the utility to migrate to the instance that was created during installation of the new Integration Server, enter the name of that instance. If you want the utility to create an instance and migrate to this new instance, enter a name that does not exist in the new installation.

If Wm packages exist on the old instance, and the same Wm packages exist in the new package repository, the utility will install those Wm packages from the new package repository on the new instance. If language packs exist in the package repository, the utility will install those language packs on the new instance.

5. The utility asks whether to import migration settings. Enter N.

- 6. The utility asks whether to migrate custom packages. If you choose to migrate all custom packages, the utility migrates the following:
  - Custom packages.
  - The WmChemPayloads, WmPapinetPayloads, WmRNPips, WmFINMessages, and WmFIXMessages packages, if present. These packages contains IS documents for the corresponding eStandards Modules and the schemas for those documents.

If you choose to migrate selected packages only, the utility lists each of the packages above and asks whether to migrate it.

- 7. The utility asks whether to migrate the password store, and whether to migrate passwords.
- 8. The utility asks whether to migrate Integration Server configuration files. If you choose to migrate selected configuration files only, the utility lists each configuration file and asks whether to migrate it. There are about 50 configuration files.
- 9. The utility asks you to specify the behavior to use for new properties that have been added to the new Integration Server and existing properties that have new defaults in the new Integration Server. If you choose to specify the behavior to use, the utility lists each property and asks whether to use new behavior or preserve existing behavior. You can also read about these properties in the Integration Server readme.
  - For CloudStreams, select the new behaviour asNeeded for the watt.server.http.listRequestVars property.
- 10. The utility asks whether to migrate functional aliases, database driver configurations, and JDBC connection pool configurations. If you enter Y for JDBC connection pool configurations, the utility asks whether to use the live database or a cloned database with each migrated connection pool. If you respond that you are using a cloned database for the migrated connection pool, the utility asks for the database URL, user, and password.
- 11. If the Integration Server hosts Wm packages, the utility asks whether to migrate the configuration files for those packages. Examples of hosted Wm packages are ActiveTransfer (WmMFT), Process Engine (WmPRT), adapters, and eStandards Modules. For some products, you might see additional prompts for migrating other data.
- 12. The utility asks whether to migrate custom jar files. If you choose to migrate selected custom jar files only, the utility lists each custom jar file and asks whether to migrate it.
- 13. If the Integration Server hosts Trading Networks, the utility asks whether to migrate Trading Networks information. If you enter Y, the utility asks the following:
  - a. Whether to migrate the Trading Networks configuration file. If you enter Y, the utility copies the configuration properties from the old Trading Networks installation directory, adds them to the new configuration properties in the new Trading Networks, and replaces the properties.cnf file in the *new\_Software*

- AG\_directory /IntegrationServer/instances/instance\_name /packages/WmTN/config directory.
- b. Whether to migrate Trading Networks data. This migration maps the data in the Trading Networks database to the new table structure.

**Note:** If you have a cluster of Trading Networks instances, the data is shared by all instances, so only migrate the data for one instance.

- c. Whether to migrate Trading Networks dashboard data. If you enter Y, the utility purges records from the dashboard tables and populates records from BIZDOC tables into dashboard tables. The dashboard tables include TransactionSummaryData, CustomAttributeVolumeValue, TransactionSuccessFailedData, SuccessFailedChartDocIdMap, and TransactionLateFAData.
- 14. The utility asks whether to migrate JAAS configurations.
- 15. The utility asks whether to migrate Java Service Wrapper customizations you made in the old custom\_wrapper.conf files, if any. These are migrated to the new custom\_wrapper.conf file.
- 16. The utility asks whether to update the Integration Server host name in your database tables. If the old and new Integration Servers are on different machines, respond Y.
- 17. The utility asks whether to export your settings. If you want to perform other migrations by importing the settings from this session, enter Y. If not, enter N.
- 18. The utility asks whether to begin migration. If you enter Y, the utility migrates the data you selected.

#### **Migrate Using Imported Settings**

Imported settings can come from the following:

- Settings you exported from a custom migration. These settings are stored in a file named migrate.dat in the *new\_Software AG\_directory* /IntegrationServer/bin/migrate directory from which you ran the custom migration. Copy the migrate.dat file to any directory on machines that host the new Integration Server installations to which you want to migrate data.
- Settings in the default migrations provided with Integration Server. For each old release, the settings are stored in a file named migrateold\_release sbs.dat file provided by Software AG in the new\_Software AG\_directory /IntegrationServer/bin/migrate directory. The settings tell the migration utility to migrate the data listed under "Run the Integration Server Migration Utility" on page 133. For Integration Server properties that are new or that have new defaults, the default migration chooses the behavior that best preserves backwards compatibility.

#### Migrate Using Custom or Default Imported Settings with Prompting

- 1. On the machine that hosts the new Integration Server, open a command window or shell, go to the *new\_Software AG\_directory* /IntegrationServer/bin/migrate directory, and run the command migrate. {bat|sh}.
- 2. The utility asks for the full path to the Software AG directory that contains the old Integration Server installation or to the ZIP file you made earlier.
- 3. If the old Integration Server installation has more than one server instance, the utility lists the instances and asks which instance to migrate from.
- 4. The utility asks for the name of a new server instance to be the target of the migration. See this step in "Perform a Custom Migration" on page 133 for detailed information on what to enter and how the utility proceeds.
- 5. The utility asks whether to import migration settings. Enter Y and, when prompted, provide the full path to the migrate.dat file or the migrateold\_release sbs.dat file. For the migrateold\_release sbs.dat file, specify old\_release without periods (for example, 980, or 9100).

#### Migrate Using Custom or Default Imported Settings without Prompting (Silent)

If you are using a cloned database for Integration Server database components, specify the -cloneDb options on the command as shown below. The migration utility uses the cloneDb options only for the Integration Server database components. If you are using a cloned database for the database components of hosted products (for example, Trading Networks), perform a custom migration that identifies the cloned database, then run the command below with the migrate.dat file created by the custom migration.

On the machine that hosts the new Integration Server, open a command window or shell, go to the *new\_Software AG\_directory* /IntegrationServer/bin/migrate directory, and run the command below. For the migrateold\_release sbs.dat file, specify the source release number without periods (for example, 980).

If you want to specify a new name for the migrated instance, specify -newInstanceName.

If the new and old Integration Servers are on different machines, and you want the utility to update the Integration Server host name in your database tables, specify -oldHostName and -newHostName.

If an error occurs, the utility exits.

```
migrate.{bat|sh}
{-srcDir|-srcFile} full_path_to_{old_Integration Server_directory|ZIP_file}
-importFile {migrateold_releasesbs.dat|full_path_to_migrate.dat}
-instanceName name [-newInstanceName name]
[-cloneDbURL URL -cloneDbUser user -cloneDbPassword password]
-silent true
```

# Run the Infrastructure Data Collector Migration Utility

#### **Perform a Custom Migration**

- 1. On the machine that hosts the new Infrastructure Data Collector, open a command window or shell, go to the *new\_Software AG\_directory* /Infrastructuredc/bin/migrate directory and run the command migrate. {bat|sh}.
- 2. The utility asks for the full path to the Software AG directory that contains the old Infrastructure Data Collector installation or the ZIP file you made earlier.
- 3. The utility asks whether to import migration settings. Enter N.
- 4. The utility asks whether to migrate SNMP asset configuration files. If you respond Y, the migration utility will migrate the old files you identified in the snmpMigration.properties file.
- 5. The utility asks whether to export your settings. If you want to perform other migrations by importing the settings from this session, enter Y. If not, enter N.
- 6. The utility asks whether to begin migration. If you enter Y, the utility migrates the data you selected.

If you chose to migrate asset configuration files, and a file that has the same name as an old file already exists in the new Infrastructure Data Collector installation, the utility backs up the new file to the <code>new\_Software AG\_directory</code> /infrastructuredc/ migrationbackup directory before migrating the old file. The same is true for all migrated directories and files.

#### **Migrate Using Imported Settings**

Imported settings can come from the following:

- Settings you exported from a custom migration. These settings are stored in a file named migrate.dat in the *new\_Software AG\_directory* /infrastructuredc/bin/migrate directory from which you ran the custom migration. Copy the migrate.dat file to any directory on machines that host new Infrastructure Data Collector installations to which you want to migrate data.
- Settings in the default migrations provided with Infrastructure Data Collector. For each old release, the settings are stored in a file named migrateold\_release sbs.dat file in the new\_Software AG\_directory /infrastructuredc/bin/migrate directory. The settings tell the migration utility to migrate the configurations, data, and assets listed in "Infrastructure Data Collector Configurations, Data, and Assets that Can be Migrated" on page 89.

#### Migrate Using Custom or Default Imported Settings with Prompting

- 1. On the machine that hosts the new Infrastructure Data Collector, open a command window or shell, go to the *new\_Software AG\_directory* /infrastructuredc/bin/migrate directory, and run the command migrate. {bat|sh}.
- 2. The utility asks for the full path to the Software AG directory that contains the old Infrastructure Data Collector installation or to the ZIP file you made earlier.
- 3. The utility asks whether to import migration settings. Enter Y and, when prompted, provide the full path to the migrate.dat file or the migrateold\_release sbs.dat file. For the migrateold\_release sbs.dat file, specify old\_release without periods (for example, 980, or 9100).

#### Migrate Using Custom or Default Imported Settings without Prompting

On the machine that hosts the new Infrastructure Data Collector, open a command window or shell, go to the *new\_Software AG\_directory* /infrastructuredc/bin/migrate directory, and run the command below. For the migrate*old\_release* sbs.dat file, specify the source release number without periods (for example, 980).

If an error occurs, the utility exits.

```
migrate.{bat|sh}
{-srcDir|-srcFile} full_path_to_{old_Software AG_directory | ZIP file}
-importFile {migrateold_releasesbs.dat|full_path_to_migrate.dat}
-silent true
```

# **Run the Application Platform Migration Utility**

The Application Platform migration utility runs without prompting you for any information. If an error occurs, the utility exits.

On each machine that hosts a new Integration Server instance that hosts the Application Platform Support package or a new My webMethods Server that hosts Application Platform projects bundles, open a command window or shell, go to the <code>new\_Software AG\_directory/common/migrate/AppPlatform/bin directory, and run the command below. For the migrateold\_release</code> sbs.dat file, specify <code>old\_release</code> without periods (for example, 980, or 9100).

```
migrate.{bat|sh}
{-srcDir|-srcFile} full_path_to_{old_Software AG_directory|ZIP_file}
-importFile migrateold_releasesbs.dat
-silent true
```

# Run the MashZone NextGen Migration Utility

#### **Perform a Custom Migration**

- 1. On the machine that hosts the new MashZone NextGen, open a command window or shell, go to the *new\_Software AG\_directory* /MashZoneNG/prestocli/bin/migrate directory and run the command migrate. {bat|sh}.
- 2. The utility asks for the full path to the Software AG directory that contains the old MashZone NextGen installation or the ZIP file you made earlier.
- 3. The utility asks whether to import migration settings. Enter N.
- 4. The utility asks whether to migrate the configurations, data, and assets listed in "Infrastructure Data Collector Configurations, Data, and Assets that Can be Migrated" on page 89.
- 5. The utility asks whether to export your settings. If you want to perform other migrations by importing the settings from this session, enter Y. If not, enter N.
- 6. The utility asks whether to begin migration. If you enter Y, the utility migrates the data you selected.

### **Migrate Using Imported Settings**

Imported settings can come from the following:

- Settings you exported from a custom migration. These settings are stored in a file named migrate.dat in the *new\_Software AG\_directory* /MashZoneNG/prestocli//bin/migrate directory from which you ran the custom migration. Copy the migrate.dat file to any directory on machines that host new MashZone NextGen installations to which you want to migrate data.
- Settings in the default migrations provided with MashZone NextGen. For each old release, the settings are stored in a file named migrateold\_release sbs.dat file provided by Software AG in the new\_Software AG\_directory /MashZoneNG/prestocli/bin/ migrate directory. The settings tell the migration utility to migrate the data listed under "MashZone NextGen Configurations, Data, and Assets that Can be Migrated" on page 108.

#### Migrate Using Custom Imported Settings with Prompting

- 1. On the machine that hosts the new MashZone NextGen, open a command window or shell, go to the *new\_Software AG\_directory* /MashZoneNG/prestocli/bin/migrate directory, and run the command migrate. {bat|sh}.
- 2. The utility asks for the full path to the Software AG directory that contains the old MashZone NextGen installation or to the ZIP file you made earlier.

3. The utility asks whether to import migration settings. Enter Y and, when prompted, provide the full path to the migrate.dat file file.

#### Migrate Using Custom or Default Imported Settings without Prompting (Silent)

On the machine that hosts the new MashZone NextGen, open a command window or shell, go to the *new\_Software AG\_directory* /MashZoneNG/prestocli/bin/migrate directory, and run the command below. For the migrateold\_release sbs.dat file, specify old\_release without periods (for example,1010, or 1020).

If an error occurs, the utility exits.

```
migrate.{bat|sh}
{-srcDir|-srcFile} full_path_to_{old_Software AG_directory|ZIP_file}
-importFile {migrateold_releasesbs.dat|full_path_to_migrate.dat}
-silent true
```

# **Run the OneData Migration Utility**

The OneData migration utility runs without prompting you for any information. If an error occurs, the utility exits.

On the machine that hosts the new OneData, open a command window or shell, go to the *new\_Software AG\_directory* /profiles/ODE/bin/migrate directory, and run the command below.

```
migrate.{bat|sh}
{-srcDir|-srcFile} full_path_to_{old_Software AG_directory|ZIP_file}
-silent true
```

Before migrating data, the utility backs up the files that contain the new configuration data in the *new\_Software AG\_directory* /profiles/ODE/bin/onedata/config directory. The backup files have the extension .bck.

# **Run the Digital Event Services Migration Utility**

The Digital Event Services migration utility runs without prompting you for any information. If an error occurs, the utility exits.

On the machine that hosts the new products, open a command window or shell, go to the *new\_Software AG\_directory* /common/migrate/DigitalEventServices/bin directory, and run the command below. For the migrateold\_release sbs.dat file, specify old\_release without periods (for example, 9120).

```
migrate.{bat|sh}
{-srcDir|-srcFile} full_path_to_{old_Software AG_directory|ZIP_file}
-importFile migrateold_releasesbs.dat
-silent true
```

# **Run the Event Routing Migration Utility**

The migration utility runs without prompting you for any information. If an error occurs, the utility exits.

On the machine that hosts the new products, open a command window or shell, go to the *new\_Software AG\_directory* /common/migrate/EDA/bin directory, and run the command below. For the migrateold\_release sbs.dat file, specify old\_release without periods (for example, 980, or 9100).

```
migrate.{bat|sh}
{-srcDir|-srcFile} full_path_to_{old_Software AG_directory|ZIP_file}
-importFile migrateold_releasesbs.dat
-silent true
```

# 23 Complete Final Upgrade Tasks for All Products

- Configure your new products. For instructions, see the product documentation for the new release.
- If you installed your new products on a different machine than your old products, make sure to update host names in your new products, in the connections between your products, and in your database tables. This guide indicates many locations in which to update host names, but make sure you also specify the correct host names when you configure your new products using the instructions in the product documentation. Also make sure any absolute paths in the new configuration files point to valid locations, or change them to be correct for the new machine. If the machine has a different operating system or hardware, make sure your JVM settings are correct.
- Read the product readmes for the new release, including the readme for the Software AG Infrastructure. All readmes are available on the Software AG Documentation website. The product readmes contain this information:
  - Critical information and known and resolved issues for your products.
  - Changes to product behavior, services, parameters, properties, and APIs. Such changes can include additions, changes, deprecations, and removals. This information is especially important because you might need to modify product files or assets after migration to accommodate the changes.

Read the information in product readmes for your old release+1 through the new release. For example, if you are upgrading from 9.8 to 10.3, read the information for releases 9.9 through 10.3.

- After installation, you might have set Windows services for products to Manual, and disabled scripts that start UNIX daemons, to avoid automatically starting both old and new products. When your new environment is ready, after you stop running the old products and when you want to start running the new ones, you can reset the Windows services to Automatic, and re-enable the UNIX scripts.
- After you have thoroughly tested your new environment, you can reclaim disk space by deleting ZIP files and files extracted from ZIP files from new machines, or by uninstalling products from old machines. To uninstall old products, use Command Central or the Software AG Uninstaller for the old release.