



# ARIS Process Performance Manager MIGRATION 9.X TO 10.0

Version 10.0

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This document applies to PPM Version 10.0 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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## 1 Text conventions

Menu items, file names, etc. are indicated in texts as follows:

- Menu items, key combinations, dialogs, file names, entries, etc. are displayed in **bold**.
- User-defined entries are shown in **<bold and in angle brackets>**.
- Single-line example texts (e.g., a long directory path that covers several lines) are separated by ↵ at the end of the line.
- File extracts are shown in this font format:

`This paragraph contains a file extract.`

## 2 General

This manual describes the process for migration of a PPM client from **PPM 9.x to PPM 10.0**.

The procedure described is based on Windows systems with the corresponding Windows specifications. The process can also be used on a **Linux** operating system.

There are some specific differences in handling between Windows and Linux systems:

- No program groups are available under Linux. Instead, you can use scripts to start and stop the required PPM components (e.g. a PPM client) and infrastructure components (e.g. Cloud Controller). Information on using the required scripts can be found in the **PPM Installation Guide**.
- Under Linux, you can use an appropriate file manager instead of Windows Explorer.
- Use a slash / instead of a backslash \.
- Under Linux, script files have the extension **.sh** instead of **.bat** under Windows.
- To execute scripts, under Linux you reference the directory **bin** instead of **bat** under Windows.

The Migration Guide is aimed at the PPM user who acts as the **system administrator**.

### Tip

For general information about installing **PPM** refer to the **PPM Installation Guide**.

## 3 Before migration

Migration prerequisites: an installed version of PPM 9.5 or higher, and PPM 10.0. You can only migrate clients from version PPM 9.5 to PPM 10.0.

We recommend that you migrate a client to PPM 10.0 supported by a product consultant.

### 3.1 Back up the existing system

Before migrating, create a backup (dump) of your database.

For information on backing up the database, please contact your database administrator.

If you abort the converter (runppmconverter) the database tables used by PPM may be damaged permanently. If you start the converter again, it aborts with the following error message:

```
I: 22.07.09 20:44:09: [CNV] database schema version: -1.0
```

```
E: 22.07.09 20:44:09: [CNV] The database was not converted completely. Please restore the database.
```

Restore the database (dump).

PPM supports the databases **Oracle 11g, Oracle 12c, DB2 9.5, DB2 10**, as well as **SQL Server 2008, 2012, 2014** and **2008 UNICODE, 2012 UNICODE**, and **2014 UNICODE** and **2014 UNICODE**. Detailed information is available in the documentation **PPM Database Systems**.

#### Tip

To test the migration outside the productive system you can back up a database dump of the productive system into the database of a test client. For testing purposes, you can perform the migration from there.

### 3.2 Back up user data

Before migrating, back up the user data of PPM 9.x central user management.

To obtain information on backing up data of central user management please contact your system administrator or proceed as follows.

#### Procedure

1. Log in to central user management as a user with administration privileges.
2. Display the  **User management** tab.
3. Click  Additional functions >  Back up data.
4. Enter the password required.
5. Enable the **Include photos** option, if required.
6. Click **OK**.
7. Click **Save**.

The user data of central user management are saved in the download folder.

### 3.3 Back up user management configuration

If relevant configuration settings have been changed for PPM in central user management you can back up these changes of PPM 9.x central user management before migrating.

Note that only the changed settings will be exported.

To obtain information on backing up data of central user management please contact your system administrator or proceed as follows.

#### Procedure

1. Log in to central user management as a user with administration privileges.
2. Display the  **Configuration** tab.
3. Click  **Export configuration**.
4. Select **Save File** and click **Ok**.

The configuration changes of central user management are saved in the download folder.

### 3.4 Convert old reports

Report definitions of PPM Versions < 5.0 are not supported anymore. If you want to execute a Report definition of PPM version < 5.0, the report definition has to be converted to the new format with the **runppmreportconvert** command of your old PPM installation.

### 3.5 Clients based on the "wm\_process" template (only versions earlier than PPM 9.9)

The **ProcessInstanceChange** and **ProcessStepInstanceChange** event types used in the **wm\_process** template are used in version **2.0** from version **PPM 9.9**. To migrate a client that is based on this template from a version earlier than PPM 9.9, you first need to import all data still based on version **1.0** event types into the currently used PPM version **9.x**.

#### Procedure

1. Start CTK 9.x.
2. Extract all data of the channel **Event::WebM::Process::V1\_0::ProcessStepInstanceChange** of the **PROCESS\_STEP** Universal Messaging data source.
3. Extract all data of the channel **Event::WebM::Process::V1\_0::ProcessInstanceChange** of the **PROCESS** Universal Messaging data source.
4. Make sure that no new data will be written to these two Universal Messaging channels after the extraction.
5. Then import all data extracted from the two data sources into PPM 9.x.

## 4 Migrate PPM installation

This chapter describes how to migrate your PPM installation. It contains all aspects that are not related to the client configuration and have to be migrated manually (not supported by the CTK).

### 4.1 Migrate user management

To transfer all users and user groups from a PPM 9.x installation's central user management to the central user management of a PPM 10.0 installation, please proceed as follows.

#### Procedure

If you backed up the central user management data as described in chapters 3.2 (Page 3) and 3.3 (Page 4) before the installation of PPM 10.0 or before the migration, you can skip steps 1 to 12.

1. Stop the PPM infrastructure by clicking **Stop PPM Core 10.0** in the **Software AG > Stop Servers** Windows program group.
2. Start the Windows service.
  - a. For migrating from **PPM 9.5** go to Windows Services administration and start the service **Software AG PPM and MashZone 9.5**.
  - b. For migrating from **PPM 9.6** and above go to Windows Services administration and start the service **Software AG PPM/MashZone <version>**.
3. Start the PPM infrastructure.
  - a. For migrating from **PPM 9.5** start the PPM infrastructure by clicking **Start PPM 9.5** in the **Software AG > Start Servers** Windows program group.
  - b. For migrating from **PPM 9.6** and above start the PPM infrastructure by clicking **Start PPM Core <Version>** in the **Software AG > Start Servers** Windows program group.
4. Close and re-open the central user management of the version to be migrated.
5. In central user management, switch to **Configuration**.
6. Export the configuration to a file.
7. In central user management, switch to **User management**.
8. In user management, click **Additional functions** and select **Back up data**.
9. The **Back up user management data** dialog opens. Enter a password and specify whether you want to include images.
10. Click **Start** to export user management to a file.
11. Exit central user management.
12. Stop the PPM infrastructure.
  - a. For PPM 9.5, click **Stop PPM 9.5** in the **Software AG > Stop Servers** Windows program group. Then, go to Windows Services administration and stop the service **Software AG PPM and MashZone 9.5**.
  - b. For PPM from version **9.6** and above, click **Stop PPM Core <version>** in the **Software AG > Stop Servers** Windows program group. Then, go to Windows Services administration and stop the service **Software AG PPM/MashZone <version>**.

13. Start the PPM infrastructure by clicking **Start PPM Core 10.0** in the **Software AG > Start Servers** Windows program group.
14. Open central user management version **PPM 10.0**.
15. In central user management, switch to **Configuration**.
16. Import the configuration from the file previously saved.
17. In central user management, switch to **User management**.
18. In user management, click **Additional functions** and select **Restore data**.  
The **Restore data** dialog box opens.
19. Select the file previously saved, enter the password you selected, and click **Start**.  
User management of the previous PPM version is migrated.

## 4.2 Migrate customized SSO

If you have set up a custom SSO mechanism in your system, you need to enable the **ppm\_web** component again for the custom SSO. To do so, enter the following command in the Cloud Controller and restart the **ppm\_web** component, if required.

```
reconfigure ppm_web +JAVA-Dcom.aris.umc.sso.plugins.active=true
```

## 4.3 Migrate customized cloud controller settings

If there are customized settings for the load balancer configuration or registry addresses in PPM version 9.x this settings have to be reconfigured for PPM 10.0 as well. For detailed information about reconfiguring see document **PPM Operations Guide** (chapter **Configuration**).

## 5 Migrate PPM client

The following chapters describe how to perform the PPM client migration. There are two ways to migrate a PPM version:

- Automated migration using CTK (Page 7)
- Manual migration (Page 12)

The procedure after a conversion is in both cases the same.

### 5.1 Perform automated migration

The following chapters describe how to perform the PPM migration using CTK.

#### Warning

You need to stop running PPM 9.x components (server, registry, etc.) and the PPM 9.x infrastructure before migrating to avoid a possible data loss. Please note that all components are in status **STOPPED**. Shutting down the services does not stop the components.

#### Prerequisites

You have installed PPM 10.0 in parallel to PPM 9.x before the migration.

You have started the PPM 10.0 infrastructure (Windows program group **Software AG > Start Servers > Start PPM Core 10.0**).

#### Directory references

The following directories play a key role in migration of a client from PPM 9.x to PPM 10.0 and are referenced in the following order:

- **<PPM9X\_HOME>** - Installation directory of the PPM 9.x installation
- **<PPM10\_HOME>** - Installation directory of the PPM 10.0 installation
- **<PPM10\_CLIENT\_RUN>** - PPM 10.0 directory  
 <PPM10\_HOME>\ppm\server\bin\agentLocalRepo\unpacked\<installation\_time>\_ppm-client-run-prod-<VERSION>-runnable.zip\ppm
- **<PPM9X\_DATA>** - Data directory of the PPM 9.x installation  
 <PPM9X\_HOME>\ppmmashzone\server\bin\work\data\_ppm
- **<PPM10\_DATA>** - PPM 10.0 data directory  
 <PPM10\_HOME>\ppm\server\bin\work\data\_ppm

#### 5.1.1 Select clients

Use PPM Customizing Toolkit to automatically migrate the configuration of your PPM clients from version **9.x** to version **10.0**.

#### Prerequisite

A prerequisite for carrying out the migration is an installation of PPM 9.x, which includes at least one non-migrated client in the **<PPM9X\_HOME>\config** directory.

### Procedure

1. Start PPM Customizing Toolkit via **PPM Customizing Toolkit 10.0** in the **Software AG > Administration** Windows program group.

You need to run PPM Customizing Toolkit as an administrator.

2. In the **Actions** area, click **Migrate PPM clients from a previous version**.

The **Migrate PPM clients from a previous version** dialog is displayed.

3. Select the version you want to migrate and specify the path to the PPM 9.x installation.
4. Click **OK**.

The dialog **Migrate PPM clients** opens in the list of existing PPM 9.x clients. Clients that exist only in the **custom** directory in version **9.x** are not included in the list.

If no clients that can be migrated are found an error message is displayed instead of the dialog.

5. Select a client to be migrated.
6. Click **OK**.

The **Migrate Client Wizard** opens.

Use the wizard to configure your client for PPM 10.0.

If there already exists a folder with the same name in the custom directory of PPM version 10.0, a warning dialog is displayed, that this folder has to be saved back and deleted, before a migration is possible.

## 5.1.2 Create custom directory

To transfer or create the custom directory please proceed as follows.

### Procedure

1. On the **Basic settings** wizard page enable the option **Create customizing files (custom directory)**.

If the client to be migrated already exists in the **custom** directory of version 9.x, you cannot specify any settings here. Existing settings are transferred as they are.

2. If required, specify more settings.
3. Click **Next**.

The client directory is created under **Custom** and any existing settings of the version **9.x** client are transferred.

On the following wizard pages you specify the settings required for PPM 10.0.

## 5.1.3 Specify server settings

You can transfer the server settings from version **9.x** to version **10.0** and adapt them, if required. Since version **9.6**, the analysis server needs more main memory than in earlier versions. The analysis server memory settings are automatically adapted by CTK. We recommend that you use the new settings because they are required for percentile calculation and Data analytics. If you

made changes to the **Additional settings** in version **9.x** they have been adapted by CTK. You can verify the changes and restore individual parameters, if required.

#### Procedure

1. Specify your settings.
2. Click **Next**.

Your settings are applied.

### 5.1.4 Specify language and e-mail settings

All language and coding settings are transferred from version **9.x** and cannot be changed. E-mail settings are also transferred, but can be adapted.

From version **9.8**, you can additionally specify the sender of generated e-mails. The default sender is `noreply@softwareag.com` if no other settings have been configured. The settings for this will be transferred for later migrations.

#### Procedure

1. Specify your settings.
2. Click **Next**.

Your settings are applied.

### 5.1.5 Specify database settings

You can adapt most version **9.x** database settings to version **10.0**.

The current version of the database management system originally used is applied. For Oracle, Oracle 11g is used, and for SQL Server, at least SQL Server 2008 is used.

After you exit the wizard, you can Convert the PPM database into the new version.

#### Procedure

1. Specify your settings.
2. Click **Next**.

Your settings are applied.

If you do not wish to request data from PPM via a query request you can now close the wizard. Click **Finish**. You can set up a webMethods connection after the migration.

### 5.1.6 Set up webMethods connection

You can configure a connection between PPM and webMethods.

#### Procedure

1. Specify your settings.
2. Click **Next**.

Your settings are applied.

## 5.1.7 Specify query interface settings

You can configure the PPM query interface settings.

### Procedure

1. Specify your settings.
2. Click **Finish**.

The wizard closes and the client configuration is transferred and automatically adapted from PPM 9.x to PPM 10.0.

## 5.1.8 Complete the migration

The migrated client is displayed as a regular PPM 10.0 client in the client overview. The status window on the PPM Customizing Toolkit start page documents the individual migration steps and displays any error messages.

Use PPM Customizing Toolkit to edit client properties and customizing. This client cannot be selected for another migration.

### 5.1.8.1 The custom directory

If a client configuration existed under `<PPM9X_DATA>\custom\<Client>`, it was copied to `<PPM10_DATA>\custom\<Client>`. (With the exception of the subdirectory `<PPM9X_DATA>\custom\<client>\data` because it may contain major data volumes or archives.)

In all transferred files of the bat, properties, and xml type, the absolute paths of the PPM 9.x installation have been automatically changed to the relative paths of the PPM 10.0 installation.

### 5.1.8.2 Patch files

If you installed PPM 9.x patches, a patch directory exists under `<PPM9X_DATA>\custom\<client>` containing the patch files of the jar type. The files were automatically copied to `<PPM12_DATA>\custom\<client>`. To find out whether the current versions are still compatible or if newer versions are available for PPM 10.0 please contact Software AG customer support.

### 5.1.8.3 Configuration programs (batch files)

The version 9.x configuration programs (batch files) have been updated based on template and language (e.g., base\_en), copied to the `<PPM10_DATA>\custom\<client>\bat` directory and supplemented with new version 10.0 programs.

The programs are available in the Programs component of the Client module.

Programs not available by default, such as custom batch files, have been saved to the **PPM9X** subdirectory in the **bat** directory and can be edited (e.g., to adjust paths) and added to the **Programs** component later.

The programs were not tested for configuration validity. The configuration can be updated after the migration by editing it in PPM Customizing Toolkit or exporting it from PPM after a previous import.

#### 5.1.8.4 Report definitions

Your report definitions were automatically copied to the new folder. The folder is stated in the entry `Reports.BaseDirectory` in the file `templates_settings.properties` in the directory `PPM12_DATA>/config/<client>`. Existing files were not overwritten. The default directory is `<PPM10_DATA>/config/<client>/report/reportdefinitions`.

#### 5.1.8.5 PPM database

Use the Convert PPM database program in the Programs component to convert the database of the PPM 9.x client. If you run the program with the `PPM_CONF_CONVERTER_CHECK=-check` parameter first, you can check whether the database needs to be converted or is up to date. See chapter **Convert PPM database**.

#### 5.1.8.6 Client settings

Depending on template and language (e.g., `base_en`), the client settings have been copied to the `<PPM10_DATA>/config/<client>` directory. Settings for version 9.x that did not exist in the client settings for version 10.0 have been added. For settings existing in both version 9.x and version 10.0, the client settings for version 10.0 have been used.

If the `wm_bpms` client template was used for the migrated client in version 9.x, you need to adjust the following files manually.

- `Chart_settings.properties`  
Adjust the value for `GANNT_CHART_MAX_SCALE_STEPS` in the file by applying the value from your version 9.x.
- `EpkImport_settings.properties`  
Adjust the value for `XML_IMPORT_PREMERGER_CACHE_SIZE` in the file by applying the value from your version 9.x.

If you have made more changes to one or multiple files, you can transfer them as described in chapter **Migrate client settings** (Page 17).

#### 5.1.8.7 Migrate measures documentation

If a measures documentation has already been created under PPM 9.x for the migrated client you need to publish that again. The documentation is stored in the client directory under `<PPM10_DATA>/custom/<client>/docu` and has been included in the client migration. You can use the **Publishing documentation** application in the Programs component to republish the measures documentation.

If the program does not exist under Run program, switch to the Configure programs tab and check the Display option for **publish.bat**.

### 5.1.8.8 Job automation

If one or more job automations exist for the client to be migrated, they are located in the **<PPM99\_DATA>/custom/<client>/automation** client directory. Existing automations were deactivated during migration and need to be reactivated via the Automations component in CTK, if they are planned to be used in the new version. From version 9.8, this requires login information that may be requested in a dialog.

Before you activate the job automation, please check if all required batch files are available. If required, add missing batch files manually to CTK (see section on **Configuration programs (batch files)**).

## 5.2 Perform manual migration

The following chapters describe how to perform the PPM client migration manually.

Before you perform the migration, you need to

- stop running PPM 9.x components (server, registry, etc.)
- stop the PPM 9.x infrastructure
- Install PPM 10.0 in parallel to PPM 9.x
- Start the PPM 10.0 infrastructure (Windows program group **Software AG > Start Servers > Start PPM Core 10.0**)

The following directories play a key role in migration of a client from PPM 9.x to PPM 10.0 and are referenced in the following order:

- **<PPM9X\_HOME>** - Installation directory of the PPM 9.x installation
- **<PPM10\_HOME>** - Installation directory of the PPM 10.0 installation
- **<PPM10\_CLIENT\_RUN>** - PPM 10.0 directory  
`<PPM10_HOME>\ppm\server\bin\agentLocalRepo\unpacked\<installation_time>_ppm-client-run-prod-<VERSION>-runnable.zip\ppm`
- **<PPM9X\_DATA>** - Data directory of the PPM 9.x installation  
`<PPM9X_HOME>\ppmmashzone\server\bin\work\data_ppm` (since PPM 9.5.x)
- **<PPM10\_DATA>** - PPM 10.0 data directory  
`<PPM10_HOME>\ppm\server\bin\work\data_ppm`

### 5.2.1 Overview

Perform the following steps to manually migrate your PPM system. They are described in the following chapters.

#### Overview

1. Installation of a client in PPM Customizing Toolkit

- See chapter Create client
- 2. Migration of client customizing  
See chapter Migrate client customizing
- 3. Migration of client settings  
See chapter Migrate client settings
- 4. Conversion of the PPM database  
See chapter Convert PPM database (Page 18)
- 5. Migration of user management  
See Migrate user management (Page 5)
- 6. Migrate reports  
See chapter Migrate report definitions ff.
- 7. Initialization of the analysis server  
See chapter Procedure after conversion (PPM 10.0)

## 5.2.2 Create client

You can create a PPM client using PPM Customizing Toolkit version 10.0.

### Prerequisite

The PPM infrastructure is started.

### Procedure

1. Start PPM Customizing Toolkit 10.0 by clicking **PPM Customizing Toolkit 10.0** in the Windows program group **Software AG > Administration >**.
2. Click the **Create client** button in the CTK client overview.
3. Specify the basic settings.
  - a. Specify the name of the client. It should be identical with the client to be migrated.
  - b. Enable the **Create customizing files** option.
  - c. Enable the **Select client template** option and select a base client matching the client to be migrated (e.g., base\_en for English clients, base\_de for German clients). If you do not find a suitable base client, select base\_en.
4. Click **Next**.
5. Specify the server settings.

The JVM parameters of the server programs and the operating mode of the client need to match the data in the respective PPM 9.x client.

Since PPM 9.6, more temporary memory has been required for the analysis server. The temporary memory will always be drawn from the overall main memory of the analysis server. Therefore, the size of the main memory in version **10.0** should be larger overall than in version 9.6 or older.

- a. Enter the value used in version **9.x** for the main memory settings.
- b. Click **Additional settings**.

- c. Set the value for **Temporary memory**.
    1. If the old value is larger transfer it to the settings of the new client.
    2. If the old value is smaller, remember the difference between the old and the new value and close the **Additional settings** dialog. Increase the main memory for the analysis server by this difference multiplied by 1.1. Enter the rounded value, i.e. with no decimal places.
  - d. If you made changes to the **Additional settings** in version **9.x** you need to check if you want to transfer individual parameters from version **9.x**.
6. Click **Next**.
  7. Specify the corresponding settings in the **Language and e-mail settings** dialog. The settings need to match those of the client to be migrated.
  8. Click **Next**.
  9. In the **Database settings** dialog, specify the parameters of the database used by the client to be migrated. Note the database platforms supported by PPM 10.0. Further information can be found in the Software AG System Requirements.
  10. Click **Next**.
  11. Enter the relevant program integration settings in the dialog **Program integrations**.
  12. Click **Next** if you are using the PPM query interface in the client to be migrated, otherwise click **Finish**.
  13. In the **Query interface settings** dialog, specify if the query interface is to be enabled, and enter a password.
  14. Click **Finish**.

A new client is created with the name you specified (<client>).

15. Close PPM Customizing Toolkit.

When this process is complete, you will find the following new directories in the data directory of the PPM 10.0 installation.

<PPM10\_DATA>/config/<client> contains the configuration files for the new client

<PPM10\_DATA>/custom/<client> contains the customizing for the new client

### 5.2.3 Migrate client customizing

This chapter describes how to migrate the customizing of a PPM 9.x client to a PPM 10.0 client with the same name. It is assumed that the customizing of the PPM 9.x client is located in the directory <PPM9X\_DATA>/custom/<client> with <client> being the variable for the client name.

In the first step, the directories or files are migrated which can be transferred the PPM 9.x customizing without any changes. Then, more directories and files are migrated that need to be adapted after their transfer.

### 5.2.3.1 Transfer "custom" directory without changes

You can transfer the **custom** directory without changing anything.

#### Procedure

1. Open Windows Explorer and go to the directory `<PPM10_DATA>/custom/<client>`.
2. Delete the **config**, **xml**, and **data** directories.
3. Switch to the `<PPM9X_DATA>/custom/<client>` directory.
4. Copy all directories from this directory to the clipboard except for the **bat**, **config**, **log**, and **patch** directories.
5. Now go to the directory `<PPM10_DATA>/custom/<client>` and paste the copied files.

### 5.2.3.2 Migrate the "xml" directory

You need to adapt the path data in the files `<client>_CTK.xml` and `<DATASOURCE>.xml` so that they match the new directory structure (see chapter Transfer "custom" directory without changes (Page 15)).

#### Procedure

1. Go to the directory `<PPM10_DATA>/custom/<client>/xml`.
2. Edit the file `<client>_CTK.xml` using a text editor and adjust the paths contained, if there are absolute paths used. Make sure that you use relative paths and `/` or `\` as separators between the individual path parts. If you have been using absolute paths, note that the home directory is now `<PPM10_CLIENT_RUN>/bin`. This means that you need to replace `<PPM9x_HOME>/ppmmashzone/server/bin/work/data_ppm/` with `../../../../work/data_ppm/`.
3. To continue using the data sources you need to adapt the data source files. Proceed as follows for each data source.
  - a. Switch to the directory `<PPM10_DATA>/custom/<client>/xml/<DATASOURCE>`.
  - b. Edit the file `<DATASOURCE>.xml` using a text editor and adjust the paths contained, if required. Make sure that you use relative paths and `/` or `\` as separators between the individual path parts.

If you have been using absolute paths, note that the home directory is now `<PPM10_CLIENT_RUN>/bin`. This means that you need to replace `<PPM9x_HOME>/ppmmashzone/server/bin/work/data_ppm/` by `../../../../work/data_ppm/`.

### 5.2.3.3 Migrate the "bat" directory

Batch files from previous PPM versions may no longer function and require adaptation.

The directory `<PPM10_DATA>/custom/<client>/bat` generated when the client was created contains a number of default batch files that are not to be changed or deleted.

An exception is the file **\_param.bat**. This file contains settings required for using the batch files. To continue using the settings from a PPM 9.x client, please proceed as follows.

#### Procedure

1. Switch to the **<PPM9X\_DATA>/custom/<client>/bat** directory and copy the file **\_param.bat** to the clipboard.
2. Switch to the directory **<PPM10\_DATA>/custom/<client>/bat** and replace the existing file version with the copied version.
3. Open the copied file **\_param.bat** with a text editor and replace the PPM 9.x paths in the file, e.g., **<PPM9X\_HOME>**, with the corresponding absolute paths in the PPM 10.0 installation.

To transfer more batch files from a PPM 9.x client to a PPM 10.0 client on which the files do not exist, the procedure is as follows.

#### Procedure

1. Switch to the **<PPM9X\_DATA>/custom/<client>/bat** directory and copy the relevant batch files to the clipboard.
2. Switch to the directory **<PPM10\_DATA>/custom/<client>/bat** and paste the copied batch files.
3. Check if referenced batch files have already been migrated. If this is not the case you need to migrate them, too.

### 5.2.3.4 Migrate the "config" directory

The **config** subdirectory in the **custom\<client>** directory contains properties files referencing configuration data in the **xml** subdirectory. The procedure for transferring these configuration files from a PPM 9.x client to a PPM 10.0 client is as follows.

#### Procedure

1. Switch to the **<PPM9X\_DATA>/custom/<client>/** directory and copy the **config** directory to the clipboard.
2. Switch to the directory **<PPM10\_DATA>/custom/<client>/** and paste the directory.
3. Switch to the directory **<PPM10\_DATA>/custom/<client>/config/**. Use a text editor to open the individual properties files and adapt the paths so that they reference the relevant files in the **xml** directory, which is located at the same level as the **config** directory.

Make sure that you use relative paths and **/** or **\\** as separators between the individual path parts.

If you have been using absolute paths, note that the home directory is now **<PPM10\_CLIENT\_RUN>/bin**. This means that you need to replace **<PPM9x\_HOME>/ppmmashzone/server/bin/work/data\_ppm/** with **../../../../work/data\_ppm/**.

### 5.2.3.5 Migrate the "patch" directory

If customer-specific calculation classes or other Java classes were used in the client to be migrated, these may need to be transferred to the new client, as well.

To check if customer-specific calculation classes were used in the client to be migrated, check whether the **patch** directory exists in the `<PPM9X_DATA>/custom/<client>/` directory and if it contains files of the **jar** type. If this is the case, please contact Software AG Customer Support to obtain suitable versions of the customer-specific calculation classes for your current PPM 10.0 version.

### 5.2.3.6 Migrate the "automation" directory

The **Automation** component has been available since PPM version 9.7. The automation subdirectory in the `custom\<client>` directory contains the job automations of a client and is included in the migration of the custom directory.

For further information, please see chapter Job automation (Page 20).

## 5.2.4 Migrate client settings

The **config** directory of the client directory contains the settings of a client. To migrate the settings for a PPM 9.x client to PPM 10.0, you need to migrate the settings files (properties files) for the client as well as the other settings.

The settings files of a PPM 9.x client are located in the directory `<PPM9X_DATA>/config/<client>/`. If you have made changes in one or more files, you should proceed as follows to transfer them to a PPM 10.0 client (directory `<PPM10_DATA>/config/<client>`).

#### Procedure

If you have made changes to one of the following settings files in the PPM 9.x client, you need to transfer these changes individually to the corresponding settings files for the PPM 10.0 client in the directory `<PPM10_DATA>/config/<client>`.

- AnalysisServer\_Log\_settings.properties (if it exists)
- AnalysisServer\_settings.properties
- Chart\_settings.properties
- EPK\_settings.properties
- Database\_settings.properties
- Report\_settings.properties
- Server\_Log\_settings.properties (if it exists)
- Server\_settings.properties
- SysMon\_settings.properties

If you have made changes to one of the following settings files in the PPM 9.x client, you can migrate them by copying the corresponding file to the config directory for the PPM 10.0 client and replacing the existing file.

- AdapterConfig\_settings.properties
- CNet\_settings.properties
- Keyindicator\_settings.properties
- Mail\_settings.properties
- MT\_Export\_settings.properties
- RE\_settings.properties

From version 9.8, the entry **EMAIL\_FROM=<sender of generated e-mails>** must exist in the file **Mail\_settings.properties**.

Add this entry to the file **Mail\_settings.properties** and specify the required e-mail address. If you do not want to enter a specific sender, please write **EMAIL\_FROM=noreply@softwareag.com**.

The files for initializing the system take on a special role.

- Initdb\_settings.properties
- InitSystem\_settings.properties

These files usually reference xml files in the custom directory of the client installation. Copy these files from the directory **<PPM9X\_DATA>/config /<client>** to the current directory **<PPM10\_DATA>/config/<client>**.

Edit the files using a text editor and adjust the paths contained. Make sure that you use relative paths and / or \\ as separators between the individual path parts.

If you have been using absolute paths, note that the home directory is now **<PPM10\_CLIENT\_RUN>/bin**. This means that you need to replace **<PPM9x\_HOME>/ppmmashzone/server/bin/work/data\_ppm/** with **../../../../work/data\_ppm/**.

Then copy the changed files to the directory **<PPM10\_DATA>/custom/<client>/config/**.

Do not change any of the other settings files (CorbaServer\_settings.properties, Help\_settings.properties, RMIServer\_settings.properties, Template\_settings.properties) located in the directory **<PPM10\_DATA>/config/<client>**.

## 5.2.5 Convert PPM database

### 5.2.5.1 Converter test run

Before you start converting the PPM database, perform a converter test run to identify possible problems.

#### Procedure

Execute the following command in the bin directory of your PPM 10.0 installation **<PPM10\_CLIENT\_RUN>/bin**.

```
runppmconverter -client <client> -user system -password <password> -check
```

If warnings occur during the converter test run (log output starting with W:) you can usually perform the conversion without taking any action.

### 5.2.5.2 Start the converter

Use the **runppmconverter** program to convert your PPM database.

#### Procedure

Execute the following command line in the directory **<PPM10\_CLIENT\_RUN>\bin**.

```
runppmconverter.bat -client <client> -user system -password <password>
```

### 5.2.6 Migrate recovery files

The **recovery** directory contains the analysis server recovery files. The procedure for transferring these recovery files from a PPM 9.x client to a PPM 10.0 client is as follows.

#### Procedure

1. Identify the directory in which the files of the client of the PPM 9.x installation are stored.  
To do so, open the file **AnalysisServer\_settings.properties** in the directory **<PPM9X\_DATA>/config/<client>** and find the setting **RECOVERY\_FOLDER**.
2. Switch to the directory specified (by default, **<PPM9X\_DATA>/recovery**) and copy the content of the **<client>** directory to the clipboard.
3. Identify the directory in which the files for the PPM 10.0 installation client are stored.  
To do this, open the file **AnalysisServer\_settings.properties** in the directory **<PPM10\_DATA>/config/<client>** and find the setting **RECOVERY\_FOLDER**.
4. Switch to the directory specified there and paste the files on the clipboard into it.

### 5.2.7 Migrate report definitions

The procedure for transferring report definitions from a PPM 9.x client to PPM 10.0 is as follows.

#### Procedure

1. Identify the directory in which the report definitions of the client of the PPM 9.x installation are stored. To do so, open the file **Templates\_settings.properties** in the directory **<PPM9X\_DATA>/config/<client>** and find the setting **Reports.BaseDirectory**.
2. Now, identify the directory in which the report definitions for the PPM 10.0 installation are stored. To do this, open the file **Templates\_settings.properties** in the directory **<PPM10\_DATA>/config/<client>** and find the setting **Reports.BaseDirectory**.
3. Copy the content from the base report directory for the PPM 9.x installation client to the base report directory for the PPM 10.0 installation, where the content does not yet exist.
4. Identify the directory in which the report images of the client of the PPM 9.x installation are stored. To do so, open the file **Report\_settings.properties** in the directory

<PPM9X\_DATA>/config/<client> and find the setting **reports.images\_directory**. The images for the **umg\_en** client are stored in the directory **/config/umg\_en/report/images**.

5. Now, identify the directory in which the report images for the PPM 10.0 installation are stored. To do this, open the file **Report\_settings.properties** in the directory <PPM10\_DATA>/config/<client> and find the setting **reports.images\_directory**.
6. Copy the content from the directory for the PPM 9.x installation client to the directory for the PPM 10.0 installation client, where the content does not yet exist.
7. If required, also copy the following directories if you have made any changes to any of their content. The directories are created during PPM installation with the default content. The corresponding paths are specified in the file **Report\_settings.properties** in the relevant directory of PPM 10.0.

/config/<client>/report/templates

/config/<client>/report/xsl

/config/<client>/report/resources (used for some table representations)

/config/<client>/report/styles (used for creating e-mail of runppmanalytics-results)

## 5.2.8 Migrate measures documentation

If a measures documentation has already been created under PPM 9.x for the migrated client you need to publish that again. The documentation is located in the client directory under <PPM10\_DATA>/custom/<client>/docu and has been included in the client migration. Proceed as follows to republish the measures documentation created.

### Procedure

1. Start PPM Customizing Toolkit 10.0 by clicking **PPM Customizing Toolkit 10.0** in the Windows program group **Software AG > Administration**.
2. Open the client you created or migrated by clicking **Configure process analysis**.
3. Switch to the **Programs** component of the **Client** module and open the **Configure programs** tab and switch to Edit mode.  
Under Linux, you need to set the execution privileges for the **../custom/<client>/bin** directory before executing the programs.
4. Now select the **publish.bat** program and enable the check box in the **Display** column. The program is now available under **Run program**.
5. Open the **Run program** tab and run the **Publish documentation** application. The documentation is transferred to PPM.

## 5.2.9 Job automation

If one or more job automations exist for the client to be migrated, they are located in the <PPM9X\_DATA>/custom/<client>/automation client directory.

After a restart of the **ppm\_web** component, all job automations from version **10.0** are scheduled again like in the migrated version. It is recommended that you deactivate all job automations via

the  **Deactivate all job automations** button in the **Automations** component in CTK (to do so, **ppm\_web** must have been started), and – if they are to be used in the new version – to reactivate them.

Before you activate the job automation, please check if all required batch files are available. If required, add missing batch files manually to CTK (see chapter Migrate the "bat" directory (Page 15)). From version **9.8**, this requires login information that may be requested in a dialog.

### 5.3 Business data of the "ProcessStepInstanceChange" EDA event type

If you extract a channel in a client using PPM Process Extractor Universal Messaging-2-PPM on which EDA events of the **ProcessStepInstanceChange (PSIC)** type are published, you should perform the following steps.

#### Procedure

1. Check whether you have assigned business data from the event in the **Data import** module to PPM attributes. If this is the case, proceed to the next step.
2. Check whether the business data that you have assigned to PPM attributes has a different XML namespace than the default namespace in the EDA events that are published on the channel. If this is the case, proceed to the next step.
3. As PPM Process Extractor Universal Messaging-2-PPM supports XML namespaces for business data in EDA events of the **PSIC** type, you need to adapt the attribute mapping and the transformations accordingly. Support for XML namespaces is described in the **Process Extractors** document in chapter **PPM Process Extractor Universal Messaging-2-PPM**.

### 5.4 Procedure after conversion (PPM 10.0)

After a successful conversion, you proceed as follows:

#### Procedure

1. Stop the PPM infrastructure by clicking **Stop PPM Core 10.0** in the Windows program group **Software AG > Stop Servers**.
2. Restart the PPM infrastructure by clicking **Start PPM Core 10.0** in the Windows program group **Software AG > Start Servers**.
3. Start the PPM 10.0 server and the analysis server in PPM Customizing Toolkit 10.0.  
If the PPM 10.0 server is unable to establish a connection to central user administration, update the central user administration connection data. To do so go to the directory **<PPM10\_CLIENT\_RUN>/bin** and execute the following command in the command line.  

```
runppmumcadmin -user system -password <password> -client <client> -resetinternalsessions
```
4. Export the configuration.
  - a. Go to the directory **<PPM10\_CLIENT\_RUN>/bin**.
  - b. Execute **runppmconfig** with the following command:

```
runppmconfig -client <client> -user system -password <password> -mode export -
system <PPM10_DATA>/custom/<client>/xml
```

- c. Execute **runppmconfig** with the following command:

```
runppmconfig -client <client> -user system -password <password> -mode export -
locales <PPM10_DATA>/custom/<client>/xml/<client>_locales.xml
```

Configurations that you did not export in this manner (e.g., report automations) can be exported individually by means of the batch file **runppmconfig**.

5. If the internal computer name of the sub-server is unknown, the URL of the sub-server RMI registry can be exported from the log file **rmi\_system.out.log** for the RMI registry in the directory

**<Sub-Server\_Installation>\ppm\server\bin\work\work\_ppm\_core\defaultLog\**  
as follows:

The RMI registry has been started on "<local host name>:17500".

Information on how to change the registry address can be found in the corresponding chapter **Changing the registry addresses** in the **PPM Operation Guide**.

6. For clients that contain Data Analytics analysis realms and have been migrated from PPM version **< 9.7**, you must re-import the data in the tables for these analysis realms to PPM. As long as you have not reimported the data, an error message will be output for queries in Data analytics or Cross analytics.
- If you have not done so already, start the client's server and analysis server.
  - Start CTK by clicking **PPM Customizing Toolkit 10.0** in the Windows program group **Software AG > Administration**.
  - Select a client.
  - Click **Configure Data analytics**.
  - Open all analysis realms one by one, and in the respective analysis realm overview on the top right, click **Import data**.

If you are using CSV data sources, check if the file reference is still valid.

The data is now saved persistently in the new database introduced in PPM 10.0.

You can use the migrated clients in PPM now. When migrating from 9.x to 10.0 the analysis server does not need to be reinitialized. The recovery files are copied during migration.

If you had Data analytics analysis realms in the version to be migrated and want to calculate the standard deviation for measures in these analysis realms, you need to manually adapt the configuration accordingly. The corresponding procedure is described in chapter Enable standard deviation for Data analytics (Page 22).

## 5.5 Enable standard deviation for Data analytics

From version **9.7** the standard deviation for analysis realms can be calculated. For clients that have been migrated from PPM **< 9.7** and had Data Analytics analysis realms, you can calculate the standard deviation by manually adapting the configuration accordingly.

## Procedure

1. Close CTK.
2. If required, start the client's servers.
3. For each analysis realm to be adapted, open the corresponding XML configuration file from the directory `<PPM10_DATA>/custom/<client>/xml` in a text editor.
4. For the measures you want to calculate the standard deviation for, remove the entry **standarddeviation="FALSE"** from the respective `<kidef>` element.
5. Save the file.
6. Import the changed configuration of the analysis realm into PPM. Go to the directory `<PPM10_CLIENT_RUN>/bin` and execute the following command in the command line.  
`runppmconfig -client <client> -user system -password <password> -mode import -overwrite -realm <PPM10_DATA>/custom/<client>/xml/<name of file>`

The option for calculating the standard deviation is now available in Data analytics.

## Example

```
<kidef name="amount_payment" table="payment"
column="amount" distribution="TRUE" standarddeviation="FALSE"
retrieveertype="KEYINDICATOR" kigroup="KI_GROUP_TIME"
assessment="POS" scale="HOURL">
<description name="Amount" language="en" />
</kidef>
```

becomes

```
<kidef name="amount_payment" table="payment"
column="amount" distribution="TRUE"
retrieveertype="KEYINDICATOR" kigroup="KI_GROUP_TIME"
assessment="POS" scale="HOURL">
<description name="Amount" language="en" />
</kidef>
```