



webMethods Process Performance Manager MIGRATION 9.X TO 9.10

Version 9.10

April 2016

This document applies to PPM Version 9.10 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 migration of a PPM client from **PPM 9.x to PPM 9.10**.

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

Tip

For information on installing **PPM**, please refer to the **PPM Installation Guide**.

3 Before migration

Migration prerequisites: an installed version of PPM 9.0 or higher (if used, Performance Dashboard 9.0 or higher), and PPM 9.10 (if used, Performance Dashboard 9.10). You can only migrate clients from version PPM 9.0 to PPM 9.10.

We recommend that you migrate a client to PPM 9.10 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  **More functions** >  **Save data**.
4. Enter the required password.
5. Enable the **Include photos** option, if required.
6. Click **Start**.
7. Click **OK**.
8. Select a directory where you want to save the user data file.

9. Click **Save**.



The user data of central user management are saved.

3.3 Back up user management configuration

If you specified relevant settings for PPM in central user management you can back up the configuration of PPM 9.x central user management before migrating.

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

Procedure

10. Log in to central user management as a user with administration privileges.
11. Display the  **Configuration** tab.
12. Click  **Export configuration**.
13. Specify your settings. The setting options available depend on the browser settings.
14. Click **Save**.

The configuration of central user management is saved.

3.4 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 Perform 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 9.10 in parallel to PPM 9.x before the migration.
- You have started the PPM 9.10 infrastructure (Windows program group **Software AG > Start Servers > Start PPM Core 9.10**).

Directory references

The following directories play a key role in the migration of a client from PPM 9.x to PPM 9.10 and will be referenced subsequently:

- **<PPM9X_HOME>** - installation directory of the PPM 9.x installation
- **<PPM910_HOME>** - installation directory of the PPM 9.10 installation
- **<PPM910_CLIENT_RUN>** - PPM 9.10 directory
 <PPM910_HOME>\ppmmashzone\server\bin\agentLocalRepo\.unpacked\ppm-client-run-p
 rod-<VERSION>-runnable.zip\ppm
- **<PPM9X_DATA>** - Data directory of the PPM 9.x installation
 <PPM90_HOME>\server\bin\work\data_ppm (PPM 9.0.x)
 <PPM9X_HOME>\ppmmashzone\server\bin\work\data_ppm (since PPM 9.5.x)
- **<PPM910_DATA>** - PPM 9.10 data directory
 <PPM910_HOME>\ppmmashzone\server\bin\work\data_ppm

4.1 Select clients

Use PPM Customizing Toolkit to automatically migrate the configuration of your PPM clients from version **9.x** to version **9.10**.

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 9.10** in the **Software AG > Administration** Windows program group.
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 9.10.

4.2 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, you cannot specify any settings here. Existing settings are transferred.

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 9.10.

4.3 Specify server settings

You can transfer the server settings from version **9.x** to version **9.10** 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.

4.4 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.

4.5 Specify database settings

You can adapt most version **9.x** database settings to version **9.10**.

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 your client does not include any Performance Dashboards you can now close the wizard. Click **Finish**. You can set up a webMethods connection after the migration.

4.6 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.

4.7 Specify Performance Dashboard settings

To migrate your Performance Dashboards you can configure the properties of the Performance Dashboard connection and the PPM query interface.

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 9.10.

4.8 Complete the migration

The migrated client is displayed as a regular PPM 9.10 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.

THE CUSTOM DIRECTORY

If a client configuration existed under `<PPM9X_DATA>\custom\<client>`, it was copied to `<PPM910_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 9.10 installation.

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 `<PPM910_DATA>\custom\<client>`. To find out whether the current versions are still compatible or if newer versions are available for PPM 9.10, please contact Software AG customer support.

CONFIGURATION PROGRAMS (BATCH FILES)

The version 9.x configuration programs (batch files) have been updated based on template and language (e.g., base_de), copied to the `<PPM910_DATA>\custom\<client>\bat` directory, and new version 9.10 programs have been added.

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.

PERFORMANCE DASHBOARDS

Your Performance Dashboards (XML files) have been copied automatically to the directory `<PPM910_DATA>\webapp\WEB_INF\config\<client>\performancedashboards`. Existing files were not overwritten.

MANAGEMENT VIEWS

Your Management views (HTML files and `_conf.xml` configuration files of the same name) have been copied automatically to the directory `<PPM910_DATA>\webapp\WEB_INF\config\<client>\managementviews`. Existing files were not overwritten. The bitmap files of the PPM 9.x client have been copied automatically to the bitmap directory of the PPM 9.10 client.

ASSETS

Assets (images, Java scripts) used in dashboards or Management views have been copied automatically to the directory `<PPM910_DATA>/webapp/assets/config/<client>`. The relative links of the assets used in dashboards and Management views can be transferred unchanged because they are relative to the Web URL.

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 `<PPM910_DATA>/config/<client>`. Existing files were not overwritten. Default directory: `<PPM910_DATA>/config/<client>/report/reportdefinitions`.

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**.

USER MANAGEMENT

The user management of the PPM 9.x client was not migrated automatically. You need to migrate user management manually. See chapter **Migrate user management**.

CLIENT SETTINGS

Depending on template and language (e.g., `base_de`), the client settings have been copied to the `<PPM910_DATA>/config/<client>` directory. Settings of version 9.x that did not exist in the client settings of version 9.10 have been added. For settings existing in version 9.x and version 9.10, the client settings of version 9.10 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 20).

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 `<PPM910_DATA>/custom/<client>/docu` and has been included in the client migration. Use the **Publish cockpits, Management views, and 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**.

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)**).

4.8.1 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. In the file `<PPM910_DATA>/custom/<client>/xml/PROCESS/PROCESS.xml`, change the entry `<edaeventtype id="{http://namespaces.softwareag.com/EDA/WebM/Process/1.0}ProcessInstanceChange" />` to `<edaeventtype id="{http://namespaces.softwareag.com/EDA/WebM/Process/2.0}ProcessInstanceChange" />`
2. In the file `<PPM910_DATA>/custom/<client>/xml/PROCESS_STEP/PROCESS_STEP.xml`, change the entry `<edaeventtype id="{http://namespaces.softwareag.com/EDA/WebM/Process/1.0}ProcessStepInstanceChange" />` to `<edaeventtype id="{http://namespaces.softwareag.com/EDA/WebM/Process/2.0}ProcessStepInstanceChange" />`.
3. Open the client in CTK 9.10.
4. In the **Attributes** module, create the attribute **AT_PROCESS_INSTANCE_DISPLAY_NAME** with the **TEXT** data type and the **AG_WM_PROCESS** attribute group.
5. Switch to the **Data source management** module.
6. For the data sources **PROCESS** and **PROCESS_STEP**, set the value for the Last extracted ID to **0**.
7. For the data sources **PROCESS** and **PROCESS_STEP**, replace **V1_0** with **V2_0** in the Universal Messaging **Channel** access parameter.
8. Switch to the **Data extraction** module.
9. Optional: On the **Universal messaging system event** tab, replace **Event_Type 1.0** with **2.0** in the value of the source system attribute for the data sources **PROCESS** and **PROCESS_STEP**.
10. On the **Universal messaging system event** tab, create the source system attribute **ProcessInstanceChange_ProcessInstance_DisplayName** for the **PROCESS** data source.
11. For the **PROCESS_STEP** data source, create the source system attribute **ProcessStepInstanceChange_ProcessInstance_DisplayName**.

12. Switch to the **Transformation** tab.
13. For the **PROCESS** data source, create a transformation for the source system attribute **PROCESS_INSTANCE_DISPLAY_NAME** with the operator **concat** and the operand **ProcessInstanceChange_ProcessInstance_DisplayName**.
14. For the **PROCESS_STEP** data source on the Transformation tab, create a transformation for the source system attribute **PROCESS_INSTANCE_DISPLAY_NAME** with the operator **concat** and the operand **ProcessStepInstanceChange_ProcessInstance_DisplayName**.
15. Switch to the **Data import** module.
16. Add the **PROCESS_INSTANCE_DISPLAY_NAME** source system attribute with the **TEXT** data type to the **PROCESS** and **PROCESS_STEP** data sources on the **Source system attributes** tab.
17. Optional: On the **Source system attributes** tab, replace the value of the source system attribute **Event_Type 1.0** with **2.0** for the two data sources **PROCESS** and **PROCESS_STEP**.
18. On the **Attribute mapping** tab, add a mapping of the source system attribute **PROCESS_INSTANCE_DISPLAY_NAME** for the data source **PROCESS** at the **FRG_MAIN_PROCESS** object and the **FRG_SUB_PROCESS** object in the **PPMAT_PROCESS_INSTANCE_DISPLAY_NAME** attribute.
19. On the **Attribute mapping** tab, add a mapping of the source system attribute **PROCESS_INSTANCE_DISPLAY_NAME** for the data source **PROCESS_STEP** at the **FCT** object in the **PPMAT_PROCESS_INSTANCE_DISPLAY_NAME** attribute.

4.8.2 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 Procedure after conversion (PPM 9.10)

After a successful conversion, you proceed as follows:

Procedure

1. Set the language of the PPM server and analysis server in PPM 9.10. To set the language in a PPM 9.10 client, use a text editor to open the files **Server_settings.properties** or **AnalysisServer_settings.properties** in the directory `<PPM910_DATA>/config/<client>/`. For the **LANGUAGE** property, add the language in which the relevant server is to be started (e.g., `LANGUAGE=en` to start the server in English).
2. Copy the content of the directory (e.g., `<PPM9X_DATA>/config/<client>/images/`) specified under **IMAGES_DIRECTORY** in the **Server_settings.properties** of PPM 9.x to the directory specified in the same file in the PPM 9.10 client.
3. Stop the PPM infrastructure by clicking **Stop PPM Core 9.10** in the **Software AG > Stop Servers** Windows program group.
4. Restart the PPM infrastructure by clicking **Start PPM Core 9.10** in the **Software AG > Start Servers** Windows program group.
5. Start the PPM 9.10 server and the analysis server in PPM Customizing Toolkit 9.10.
If the PPM 9.10 server is not able to connect to central user management, update the central user management connection data. To do so, go to the directory `<PPM910_CLIENT_RUN>/bin` and execute the following command in the command line.

```
runppmumcadmin -user system -password <password>-client <client>
-resetinternalsessions
```
6. Export the configuration.
 - a. Open the converted client in PPM Customizing Toolkit 9.10.
 - b. Switch to the **Programs** module.
 - c. Launch the program **Export PPM configuration** (exportconfig.bat).
You can also go to the directory `<PPM910_CLIENT_RUN>/bin` and execute the following command in the command line.

```
runppmconfig -client <client> -user system -password <password> -mode export -
system <PPM910_DATA>/custom/<client>/xml
```

Configurations that you did not export in this manner (e.g., report automations) must be exported individually by means of the batch file **runppmconfig**.
7. To be able to use the **administrator** with the password **manage** you need to activate the administrator first.
 - d. Start PPM GUI 9.10.
 - e. In Administration, open the **User privileges** component.
 - f. In the pop-up menu of the **administrator** user, select the option **Activate users**.
 - g. Then assign the user the **System administration** function privilege.
8. If you set up a master-sub-server scenario for your PPM system you need to adapt the connection of the sub-servers to the master. To do this, change the RMI ports of the

sub-server connection in the file **Server_settings.properties**. After the migration from PPM 9.0 to PPM 9.10, the RMI port changes from 16500 to 17500. (The RMI port of a PPM version from 9.5 remains unchanged at 17500). The master accesses the sub-servers in the form of **<IP>:<RMI port>**.

9. In the case of clients containing Data analytics analysis realms that have been migrated from a PPM version **< 9.7**, you need to reimport the table data of these analysis realms into PPM. As long as you have not reimported the data, an error message will be output for queries in Data analytics or Cross analytics.
 - a. If you have not done so already, start the client's server and analysis server.
 - b. Start CTK by clicking **PPM Customizing Toolkit 9.10** in the **Software AG > Administration** Windows program group.
 - c. Select a client.
 - d. Click **Configure Data analytics**.
 - e. 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 database introduced in PPM 9.10.

You can use the migrated clients in PPM now. For a migration from 9.x to 9.10, the analysis server does not need to be reinitialized. The recovery files are copied during migration.

To use reports in report automation they must be registered. To do so, open the **Administration** module in the PPM user interface and register the relevant reports.

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 31).

6 Appendix

6.1 Perform manual migration

The following chapters describe how to perform the PPM 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 9.10 in parallel to PPM 9.x
- start the PPM 9.10 infrastructure (Windows program group **Software AG > Start Servers > Start PPM Core 9.10**)

The following directories play a key role in the migration of a client from PPM 9.x to PPM 9.10 and will be referenced subsequently:

- **<PPM9X_HOME>** - Installation directory of the PPM 9.x installation
- **<PPM910_HOME>** - installation directory of the PPM 9.10 installation
- **<PPM910_CLIENT_RUN>** - PPM 9.10 directory
<PPM910_HOME>\ppmmashzone\server\bin\agentLocalRepo\unpacked\ppm-client-run-p
rod-<VERSION>-runnable.zip\ppm
- **<PPM9X_DATA>** - Data directory of the PPM 9.x installation
<PPM90_HOME>\server\bin\work\data_PPM (PPM 9.0.x)
<PPM9X_HOME>\ppmmashzone\server\bin\work\data_ppm (since PPM 9.5.x)
- **<PPM910_DATA>** - PPM 9.10 data directory
<PPM910_HOME>\ppmmashzone\server\bin\work\data_ppm

6.1.1 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 Start the converter

5. Migration of user management
See chapter Migrate user management
6. Migrate reports, Management views, and Performance Dashboards
See chapter Migrate report definitions ff.
7. Initialization of the analysis server
See chapter Procedure after conversion (PPM 9.10)

6.1.2 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.

6.1.3 Create client

You can create a PPM client using PPM Customizing Toolkit version 9.10.

Prerequisite

The PPM infrastructure is started.

Procedure

1. Start PPM Customizing Toolkit 9.10 by clicking **PPM Customizing Toolkit 9.10** in the **Software AG > Administration >** Windows program group.
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. It is therefore recommended that you select a larger main memory for version **9.10** than for the previous version.

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 of the analysis server by the difference multiplied by 1.1. Enter the rounded value without 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. Please note the database platforms supported by PPM 9.10. Detailed information on this is provided in the webMethods system requirements (wM_9.10_SystemRequirements).

10. Click **Next** if you are using program integrations, dashboards, or the PPM query interface, otherwise click **Finish**.

11. Enter the relevant program integration settings in the dialog **Program integrations**.

12. Click **Next** if you are using dashboards or the PPM query interface in the client to be migrated, otherwise click **Finish**.

13. In the **Dashboard settings** dialog, specify if Performance Dashboard, Management views, and the PPM query interface are 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.

After this process, the following new directories will be available in the data directory of the PPM 9.10 installation.

- <PPM910_DATA>/config/<client> contains the configuration files of the new client
- <PPM910_DATA>/custom/<client> contains the customizing of the new client

6.1.4 Migrate client customizing

This chapter describes how to migrate the customizing of a PPM 9.x client to a PPM 9.10 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.

6.1.4.1 Transfer "custom" directory without changes

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

Procedure

1. Open Windows Explorer and switch to the `<PPM910_DATA>/custom/<client>` directory.
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 switch to the `<PPM910_DATA>/custom/<client>` directory and paste the files you copied to the clipboard.

6.1.4.2 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 18)).

Procedure

1. Switch to the `<PPM910_DATA>/custom/<client>/xml` directory.
2. Edit the file `<client>_CTK.xml` 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, please note that the home directory is now `<PPM910_CLIENT_RUN>/bin`. This means that you need to replace `<PPM9X_HOME>[/ppmmashzone]/server/bin/work/data_ppm/` by `../../../../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 `<PPM910_DATA>/custom/<client>/xml/<DATASOURCE>` directory.

- 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, please note that the home directory is now **<PPM910_CLIENT_RUN>/bin**. This means that you need to replace **<PPM9x_HOME>[/ppmmashzone]/server/bin/work/data_ppm/** by **../../../../../../../../work/data_ppm/**.

6.1.4.3 Migrate the "bat" directory

Batch files from previous PPM versions may not function any longer and need to be adapted.

The **<PPM910_DATA>/custom/<client>/bat** directory generated when the client was created contains a number of default batch files 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 **<PPM910_DATA>/custom/<client>/bat** directory and replace the existing file version with the version you copied to the clipboard.
3. Use a text editor to open the file you copied, **_param.bat**, and replace the PPM 9.x paths, such as **<PPM9X_HOME>**, with the corresponding absolute paths of the PPM 9.10 installation.

To transfer more batch files from a PPM 9.x client to a PPM 9.10 client on which the files do not exist, please proceed 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 **<PPM910_DATA>/custom/<client>/bat** directory 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.

6.1.4.4 Migrate the "config" directory

The **config** subdirectory in the **custom\<client>** directory contains properties files referencing configuration data in the **xml** subdirectory. To transfer these configuration files from a PPM 9.x client to a PPM 9.10 client, please proceed as follows.

Procedure

1. Switch to the **<PPM9X_DATA>/custom/<client>/** directory and copy the **config** directory to the clipboard.

2. Then switch to the `<PPM910_DATA>/custom/<client>/` directory and paste the directory.
3. Switch to the `<PPM910_DATA>/custom/<client>/config/` directory. 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, please note that the home directory is now `<PPM910_CLIENT_RUN>/bin`. This means that you need to replace `<PPM9X_HOME>[/ppmmashzone]/server/bin/work/data_ppm/` by `../../../../../../work/data_ppm/`.

6.1.4.5 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 9.10 version.

6.1.4.6 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 27).

6.1.5 Migrate client settings

The `config` directory of the client directory contains the settings of a client. To migrate the settings of a PPM 9.x client to PPM 9.10, you need to migrate the settings files (properties files) of the client as well as other settings.

The settings files of a PPM 9.x client are located in the directory `<PPM9X_DATA>/config/<client>/`. If you changed one or more files, proceed as follows to transfer them to a PPM 9.10 client (`<PPM910_DATA>/config/<client>` directory).

Procedure

If you changed any of the following settings files in the PPM 9.x client, you need to transfer these changes individually to the corresponding settings files of the PPM 9.10 client in the `<PPM910_DATA>/config/<client>` directory.

- `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 changed any of the following settings files in the PPM 9.x client, you can migrate them by copying the respective file to the config directory of the PPM 9.10 client, thus 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 **<PPM910_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, please note that the home directory is now **<PPM910_CLIENT_RUN>/bin**. This means that you need to replace **<PPM9X_HOME>[/ppmmashzone]/server/bin/work/data_ppm/** by **../../../../work/data_ppm/**.

Then copy the changed files to the **<PPM910_DATA>/custom/<client>/config/** directory.

Do not change any of the other settings files (CorbaServer_settings.properties, Help_settings.properties, RMIServer_settings.properties, Template_settings.properties) located in the **<PPM910_DATA>/config/<client>** directory.

6.1.6 Convert PPM database

6.1.6.1 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 9.10 installation
<PPM99_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.

6.1.6.2 Start the converter

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

Procedure

Execute the following command line in the **<PPM910_CLIENT_RUN>\bin** directory.

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

6.1.7 Migrate recovery files

The **recovery** directory contains the analysis server recovery files. To transfer these recovery files from a PPM 9.x client to a PPM 9.10 client, please proceed 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_HOME>/config/<client>** and find the setting **RECOVERY_FOLDER**.
2. Switch to the directory specified (e.g., **<PPM9X_DATA>/recovery**) and copy the **<client>** directory to the clipboard.
3. Identify the directory in which the client files of the PPM 9.10 installation are stored.
To do so, open the file **AnalysisServer_settings.properties** in the directory **<PPM910_DATA>/config/<client>** and find the setting **RECOVERY_FOLDER**.
4. Switch to the directory specified there and paste the directory you previously copied to the clipboard.

6.1.8 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 9.10 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 9.10 or before the migration, you can skip steps 1 to 12.

1. Stop the PPM infrastructure by clicking **Stop PPM Core 9.10** in the **Software AG > Stop Servers** Windows program group.
2. Start the Windows service.
 - a. For migrating from **PPM 9.0** go to Windows Services administration and start the service **ARIS Agent 9.0**.
 - b. For migrating from **PPM 9.5** go to Windows Services administration and start the service **Software AG PPM and MashZone 9.5**.
 - c. For migrating from **PPM 9.6** go to Windows Services administration and start the service **Software AG PPM/MashZone <version>**.
3. Start the PPM infrastructure.
 - a. For migrating from **PPM 9.0** start the PPM infrastructure by clicking **Start ARIS PPM** in the **ARIS** Windows program group.
 - b. 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.
 - c. For migrating from **PPM 9.6** start the PPM infrastructure by clicking **Start PPM Core <Version>** in the **Software AG > Start Servers** Windows program group.
4. Restart 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**.
 - a. In user management, click **Additional functions** and select **Back up data**.
 - b. The **Back up user management data** dialog opens. Enter a password and specify whether you want to include images.
 - c. Click **Start** to export user management to a file.
8. Exit central user management.
9. Stop the PPM infrastructure.
 - a. For PPM 9.0, click **Stop ARIS PPM** in the **ARIS** Windows program group. Then, go to Windows Services administration and stop the service **ARIS Agent 9.0**.
 - b. 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**.
 - c. For PPM from version **9.6**, 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>**.
10. Start the PPM infrastructure by clicking **Start PPM 9.10** in the **Software AG > Start Servers** Windows program group.

11. Open central user management version **PPM 9.10**.
12. In central user management, switch to **Configuration**.
13. Import the configuration from the file previously saved.
 - a. In central user management, switch to **User management**.
 - b. In user management, click **More functions** and select **Restore data**.
The **Restore data** dialog box opens.
 - c. Select the file previously saved, enter the password you selected, and click **Start**.User management of the previous PPM version is migrated.

6.1.9 Migrate custom 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
```

6.1.10 Migrate report definitions

To transfer report definitions from a PPM 9.x client to PPM 9.10, please proceed 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_HOME>/config/<client>** and find the setting **Reports.BaseDirectory**.
2. Now, identify the directory in which the report definitions of the PPM 9.10 installation are stored. To do so, open the file **Templates_settings.properties** in the directory **<PPM910_DATA>/config/<client>** and find the setting **Reports.BaseDirectory**.
3. Copy the content from the base report directory of the client of the PPM 9.x installation to the base report directory of the client of the PPM 9.10 installation, which is not yet available there.
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_HOME>/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 of the PPM 9.10 installation are stored. To do so, open the file **Report_settings.properties** in the directory **<PPM910_DATA>/config/<client>** and find the setting **reports.images_directory**.
6. Copy the content from the client directory of the PPM 9.x installation to the client directory of the PPM 9.10 installation, which is not yet available there.
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

relevant paths are specified in the file `Report_settings.properties` in the relevant PPM 9.10 directory.

`/config/<client>/report/templates`

`/config/<client>/report/xsl`

`/config/<client>/report/resources` (used for older reports)

`/config/<client>/report/styles` (used for older reports)

For example, to use reports in report automation, they must be registered in the **Administration** module after the PPM user interface has been launched. See also chapter Procedure after conversion.

6.1.11 Migrate Management views

To migrate Management views from a PPM 9.x installation to PPM 9.10, please proceed as follows.

Procedure

1. Now, change to the base Management view directory of the client of the PPM 9.x installation **<PPM9x_DATA>\webapp\WEB-INF\config\<client>\managementviews**.
2. In the directory, copy the Management views (.html files) to be transferred to PPM 9.10 to the clipboard. Also, if applicable, copy the files of the same name with the extension **_conf.xml**.
3. Now, change to the base Management view directory of the client of the PPM 9.10 installation **<PPM910_DATA>\webapp\WEB-INF\config\<client>\managementviews** and paste the files you had copied to the clipboard.

Then adapt the settings in the configuration files (`_conf.xml`), if required. The value for the **corbaurl** setting must contain the URL of the Corba registry of the PPM 9.10 installation, which is located in the file **<PPM910_DATA>\config\Registry_settings.properties** under the key **CorbaServerURL**.

4. Then, identify the directory in which the graphics files 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 **ManagementViews2.FileBitmapBaseDirectory**.
5. Then, identify the directory in which the graphics files of the client of the PPM 9.10 installation are stored. To do so, open the file **Templates_settings.properties** in the directory **<PPM910_DATA>/config/<client>** and find the setting **ManagementViews2.FileBitmapBaseDirectory**.
6. Copy the content from the graphics base directory of the client of the PPM 9.x installation to the graphics base directory of the client of the PPM 9.10 installation.

6.1.12 Migrate Performance Dashboards

To migrate Performance Dashboards from a PPM 9.x installation to PPM 9.10, please proceed as follows.

Procedure

1. Now, change to the base Performance Dashboard directory of the client of the PPM 9.x installation
`<PPM9x_DATA>\webapp\WEB-INF\config\<client>\performancedashboards.`
2. Copy the .xml files of the dashboards you want to transfer to PPM 9.10 (by default, five .xml files per dashboard with the same name prefix) from the base dashboard directory of the client of the PPM 9.x installation to the base dashboard directory of the client of the PPM 9.10 installation

`<PPM910_DATA>\webapp\WEB-INF\config\<client>\performancedashboards.`
 Do not overwrite existing files (especially files beginning with "_").

Then adapt the settings in the configuration files (_conf.xml). The value for the **corbaurl** setting must contain the URL of the Corba registry of the PPM 9.10 installation, which is located in the file `<PPM910_DATA>\config\Registry_settings.properties` under the key **CorbaServerURL**.

6.1.13 Migrate assets

Management views and Performance Dashboards use assets, for example, images. If you migrated Management views or dashboards from a PPM 9.x client, you should also migrate the associated assets. Proceed as follows.

Procedure

1. Change to the directory `<PPM9X_DATA>/webapp/assets/config/<client>`. Copy all files from this directory to the clipboard.
2. Now change to the directory `<PPM910_DATA>/webapp/assets/config/<client>/`. If the directory does not exist, create it and paste the files in the directory.
3. Then check in which Management views and dashboards these assets are used, and adapt the paths, if required.

6.1.14 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 `<PPM910_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 9.10 by clicking **PPM Customizing Toolkit 9.10** in the **Software AG > Administration** Windows program group.
2. Open the client you created or migrated.
3. Switch to the **Programs** component of the **Client** module and open the **Configure programs** tab.

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 cockpits, Management views, and documentation** application. The documentation is transferred to PPM.

6.1.15 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.

Existing job automations from PPM version **9.7** are automatically deactivated after a restart of the **ppm_web** component 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.

After a restart of the **ppm_web** component, all job automations from version **9.8** 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 19)).

6.1.16 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. In the file **<PPM910_DATA>/custom/<client>/xml/PROCESS/PROCESS.xml**, change the entry **<edaeventtype id="{http://namespaces.softwareag.com/EDA/WebM/Process/1.0}ProcessInstanceChange" />** to **<edaeventtype id="{http://namespaces.softwareag.com/EDA/WebM/Process/2.0}ProcessInstanceChange" />**
2. In the file **<PPM910_DATA>/custom/<client>/xml/PROCESS_STEP/PROCESS_STEP.xml**, change the entry **<edaeventtype id="{http://namespaces.softwareag.com/EDA/WebM/Process/1.0}ProcessStepInstanceChange" />**

```
to <edaeventtype  
id="{http://namespaces.softwareag.com/EDA/WebM/Process/2.0}ProcessStep  
InstanceChange" />.
```

3. Open the client in CTK 9.10.
4. In the **Attributes** module, create the attribute **AT_PROCESS_INSTANCE_DISPLAY_NAME** with the **TEXT** data type and the **AG_WM_PROCESS** attribute group.
5. Switch to the **Data source management** module.
6. For the data sources **PROCESS** and **PROCESS_STEP**, set the value for the Last extracted ID to **0**.
7. For the data sources **PROCESS** and **PROCESS_STEP**, replace **V1_0** with **V2_0** in the Universal Messaging **Channel** access parameter.
8. Switch to the **Data extraction** module.
9. Optional: On the **Universal messaging system event** tab, replace **Event_Type 1.0** with **2.0** in the value of the source system attribute for the data sources **PROCESS** and **PROCESS_STEP**.
10. On the **Universal messaging system event** tab, create the source system attribute **ProcessInstanceChange_ProcessInstance_DisplayName** for the **PROCESS** data source.
11. For the **PROCESS_STEP** data source, create the source system attribute **ProcessStepInstanceChange_ProcessInstance_DisplayName**.
12. Switch to the **Transformation** tab.
13. For the **PROCESS** data source, create a transformation for the source system attribute **PROCESS_INSTANCE_DISPLAY_NAME** with the operator **concat** and the operand **ProcessInstanceChange_ProcessInstance_DisplayName**.
14. For the **PROCESS_STEP** data source on the Transformation tab, create a transformation for the source system attribute **PROCESS_INSTANCE_DISPLAY_NAME** with the operator **concat** and the operand **ProcessStepInstanceChange_ProcessInstance_DisplayName**.
15. Switch to the **Data import** module.
16. Add the **PROCESS_INSTANCE_DISPLAY_NAME** source system attribute with the **TEXT** data type to the **PROCESS** and **PROCESS_STEP** data sources on the **Source system attributes** tab.
17. Optional: On the **Source system attributes** tab, replace the value of the source system attribute **Event_Type 1.0** with **2.0** for the two data sources **PROCESS** and **PROCESS_STEP**.
18. On the **Attribute mapping** tab, add a mapping of the source system attribute **PROCESS_INSTANCE_DISPLAY_NAME** for the data source **PROCESS** at the **FRG_MAIN_PROCESS** object and the **FRG_SUB_PROCESS** object in the **PPMAT_PROCESS_INSTANCE_DISPLAY_NAME** attribute.

19. On the **Attribute mapping** tab, add a mapping of the source system attribute **PROCESS_INSTANCE_DISPLAY_NAME** for the data source **PROCESS_STEP** at the **FCT** object in the **PPMAT_PROCESS_INSTANCE_DISPLAY_NAME** attribute.

6.1.17 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**.

6.2 Procedure after conversion (PPM 9.10)

After a successful conversion, you proceed as follows:

Procedure

1. Set the language of the PPM server and analysis server in PPM 9.10. To set the language in a PPM 9.10 client, use a text editor to open the files **Server_settings.properties** or **AnalysisServer_settings.properties** in the directory **<PPM910_DATA>/config/<client>/**. For the **LANGUAGE** property, add the language in which the relevant server is to be started (e.g., **LANGUAGE=en** to start the server in English).
2. Copy the content of the directory (e.g., **<PPM9X_HOME>/config/<client>/images/**) specified under **IMAGES_DIRECTORY** in the **Server_settings.properties** of PPM 9.x to the directory specified in the same file in the PPM 9.10 client.
3. Stop the PPM infrastructure by clicking **Stop PPM Core 9.10** in the **Software AG > Stop Servers** Windows program group.
4. Restart the PPM infrastructure by clicking **Start PPM Core 9.10** in the **Software AG > Start Servers** Windows program group.
5. Start the PPM 9.10 server and the analysis server in PPM Customizing Toolkit 9.10.

If the PPM 9.10 server is not able to connect to central user management, update the central user management connection data. To do so, go to the directory

<PPM910_CLIENT_RUN>/bin and execute the following command in the command line.

```
runppmumcadmin -user system -password <password>-client <client>  
-resetinternalsessions
```

6. Export the configuration.

- a. Open the converted client in PPM Customizing Toolkit 9.10.
- b. Switch to the **Programs** module.
- c. Launch the program **Export PPM configuration** (exportconfig.bat).

You can also go to the directory **<PPM910_CLIENT_RUN>/bin** and execute the following command in the command line.

```
runppmconfig -client <client> -user system -password <password> -mode export -  
system <PPM910_DATA>/custom/<client>/xml
```

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

7. To be able to use the **administrator** with the password **manage** you need to activate the administrator first.

- a. Start PPM GUI 9.10.
- b. In Administration, open the **User privileges** component.
- c. In the pop-up menu of the **administrator** user, select the option **Activate users**.
- d. Then assign the user the **System administration** function privilege.

8. If you set up a master-sub-server scenario for your PPM system you need to adapt the connection of the sub-servers to the master. To do this, change the RMI ports of the sub-server connection in the file **Server_settings.properties**.

After the migration of PPM 9.0 to PPM 9.10, the RMI port changes from **16500** to **17500**. (The RMI port of a PPM version from 9.5 remains unchanged at 17500.) The master accesses the sub-servers in the form of **<IP>:<RMI port>**.

9. In the case of clients containing Data analytics analysis realms that have been migrated from a PPM version **< 9.7**, you need to reimport the table data of these analysis realms into PPM. As long as you have not reimported the data, an error message will be output for queries in Data analytics or Cross analytics.

- a. If you have not done so already, start the client's server and analysis server.
- b. Start CTK by clicking **PPM Customizing Toolkit 9.10** in the **Software AG > Administration** Windows program group.
- c. Select a client.
- d. Click **Configure Data analytics**.
- e. 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 database introduced in PPM 9.10.

You can use the migrated clients in PPM now. For a migration from 9.x to 9.10, the analysis server does not need to be reinitialized.

To use reports in report automation they must be registered. To do so, open the **Administration** module in the PPM user interface and register the relevant reports.

6.3 Enable standard deviation for Data analytics

From version **9.7**, the standard deviation for analysis realms can be calculated. For clients migrated from PPM < **9.7** that had Data analytics analysis realms, you can calculate the standard deviation by 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 `<PPM910_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. To do so, go to the directory `<PPM910_CLIENT_RUN>/bin` and execute the following command in the command line.


```
runppmconfig -client <client> -user system -password <password> -mode import
-overwrite -realm <PPM910_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"
retrievertype="KEYINDICATOR" kigroup="KI_GROUP_TIME"
assessment="POS" scale="HOOR">
<description name="Amount" language="en" />
</kidef>
```

becomes

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