



HOME

User Manual

DELMIA Process Engineer[®]

DB UtilitiesModule: PlanTypeSetSwitch



Foreword

This manual provides an introduction to the basic operations and functions of the PlanTypeSetSwitch.

While developing these functions we have made every effort to create a clearly organized, easy-to-understand program structure.

A user-friendly interface as well as a clear menu guide will enable you to quickly learn how to operate the program and to get familiar with its functions so that you can carry out your planning tasks in a quick and reliable way.

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1. Introduction

This manual explains how to use the Process Engineer PlanTypeSetSwitch for your planning purposes.

1.1 How to Use this Manual

This manual enables you to get familiar with the operation and functions of the Process Engineer. This manual briefly describes:

- PlanTypeSetSwitch Functions



Note

When handling the PlanTypeSetSwitch functions, please also refer to the general introduction to Process Engineer in the General Introduction Manual.



Click [General Introduction](#) to access the manual.

1.2 Documentation Conventions and Symbols

The symbols used in this manual are intended to provide you with keys to the contents in an immediately understandable manner.



This symbol is used to introduce key concepts that are covered in the sections immediately following this symbol. As a result, this symbol most frequently appears at the beginning of chapters or sections.



Note

*This symbol is used to mark notes, which provide you with additional information you need to have for further work. You will either find the Note sign at the beginning of a chapter or in a particular text passage in the chapter. Texts bearing this sign are additionally marked with **Note**. The text is always in italics.*







Caution

*This symbol indicates that the text that follows describes particular circumstances that you must avoid to avoid potential errors with the operation of the program or harm to data. You will either find the Caution sign at the beginning of a chapter or near a particular text passage in the chapter. Texts that are introduced by this sign are additionally marked with **Caution**. The text is always in italics.*

Example

This symbol marks examples which serve to illustrate a certain situation.

-  This symbol marks the individual operational steps involved in a particular operating instruction. Operating instructions describe operational steps, for example, how to open a menu or execute a function.
-  This symbol marks listed subjects. The symbol for listed subjects can be either used to structure a continuous text or to list main subject keywords.
-  This symbol marks list inside a bulleted or numbered list.
-  This symbol marks cross reference information that is available in another manual.

1.3 New Functions in PlanTypeSetSwitch

No new functionality has been added for this release.

2. Overview

A plantype set must be assigned to each project defined in the DELMIA Process Engineer®. The assigned plantype set defines the project structure according to the plantypes included, i.e. the three hierarchical levels under the three planning areas product, process, resource, and the arrangement of the hierarchical levels.

Up to version DPE 5.10 it was possible to edit the plantype set of the project. Projects were derived from in these versions from a plantype set of the system library. In these versions the derived plantype set could be independently processed and changed in the project.

With the introduction of the plantype pool in version 5.10, the plantypes were no longer administered in the project-specific PlanTypeSets, rather the plantype set of the project references a plantype set from the system library, and is thus dependent on this plantype set (this plantype set of the system library is named **master** from here onward).

The tool **PlanTypeSetSwitch** makes it possible to reference the various plantype sets of the projects to **one other** common master plantype set from the system library.

A similar situation could arise if a project is being worked on by several departments or locations independently from one another. The master plantype set is then adapted to the plan tasks in the respective departments as necessary. If the plan data are consolidated at a central location, the plantype set must also be adapted.

The PlanTypeSetSwitchs can considerably simplify the adaptation.

2.1 Prerequisites

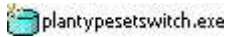
The DBAnalyser can be used only by an administrator who has access to the server.

In the directory *PPRServer\program\bin* you will find the executable file **PlanTypeSetSwitch.exe**.

Since the registration settings are necessary for the PlanTypeSetSwitch (settings in the system registration are modified with the registration editor), it has to be executed on the same computer on which the IPDServer is installed.

3. Operating and Functionalities

3.1 Starting the PlanTypeSetSwitchs



Start the program **PlanTypeSetSwitch.exe** in the directory PPRServer/program/bin. After starting, the following steps are executed automatically:

- A connection is set up to the Database - database
 - A connection is set up to the Config - database
 - All relevant data on the master plantype sets with which projects (or templates) have been created are loaded.
- A dialog “Merge PlanTypeSets” is opened.

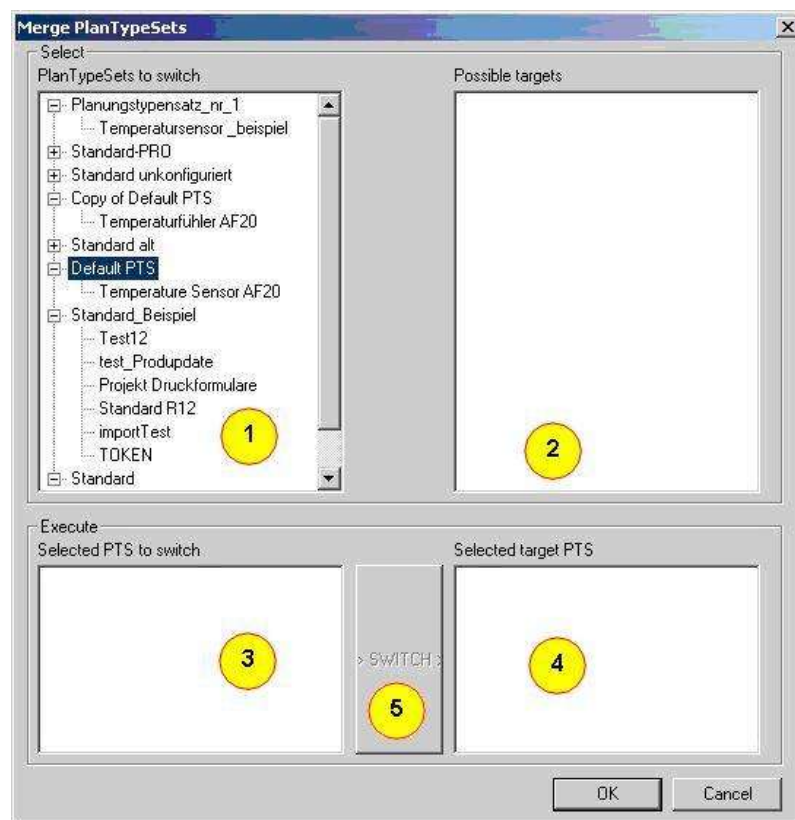


Figure 1: Merge Plantypesets

3.1.1 The “Merge PlanTypeSets” Dialog

The dialog is arranged in four sub-windows. After opening the dialog only the first sub-window is filled.



First Sub-window (PlanTypeSets to Switch)

In the first sub-window all plantype sets which contain projects or templates are displayed.

- If you click – symbol next to the plantype set name, all projects and templates based on this plantype set are displayed.

- If you have selected a plantype set which can be replaced by **no other** plantype set, all other sub-windows remain empty (Figure 1).
 - If you have select a plantype set which can be replaced by **one** other plantype set, all plantype sets which could be possible targets for the plantype set are displayed in the second window. The selected plantype set is shown in the third sub-window (Figure 2).
 - The selected plantype set in the first sub-window is as of here called the **base PTS**.
- In the first sub-window, select the plantype set (**base PTS**) that is to be replaced by another.

2

Second Sub-Window (Possible Targets)

In the second sub-window, all plantype sets (with their projects and templates) which could be potential targets for the replacing plantype set are displayed.

- If you have selected a plantype set in the second sub-window, the selected plantype set is shown in the fourth sub-window and the button Switch is enabled.
 - The plantype set selected in the second sub-window is henceforth called the target PTS.
- In the second sub-window select the plantype set to replace the plantype set of the first sub-window.

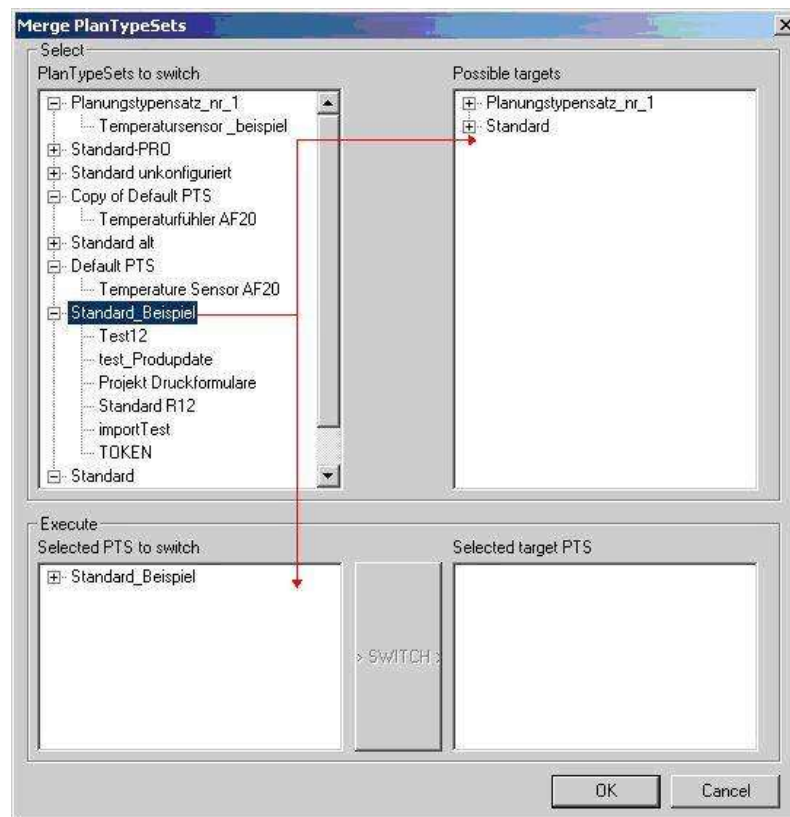


Figure 2: Second Sub-Window

3

Third Sub-Window (Selected PTS to Switch)

In the third sub-window (**base PTS**) the plantype set which was selected in the first sub-field and can be replaced by another plantype set is displayed.



Fourth Sub-Window (Selected Target PTS)

In the fourth sub-window, the plantype set selected in the second partial field (**target PTS**) is displayed.

Both sub-windows 3 and 4 are at the operative level. That which was selected in the upper two windows now appears in the two lower windows (the plantype set from 3 can be replaced by the plantype set from 4, the button Switch (5) is active).

3.2 Working with the PlanTypeSetSwitch

- 1) If a plantype set is to be replaced by another, you must select the plantype set to be replaced; in the [Examples](#) this is the plantype set *Standard_Beispiel*.
- In the second sub-window, all plantype sets (with their projects and templates) which could be potential targets for the replacing plantype set are displayed.

The selection criteria are:

- For every plantype from the **base PTS**, a plantype must exist with the same abbreviation (or same name) and the same PlanAreaType (process, product, plant or system element) in the target plantype set.
 - The target plantype set may contain more plantypes than the **base PTS**.
- 2) In the next step, a plantype set is selected in the second window (in the [Examples](#) the *standard*), with which the plantype set of the first window is to be replaced. The selected **base PTS** and **target PTS** are then displayed again in the sub-windows 3 and 4 again, and the button Switch (5) is active.

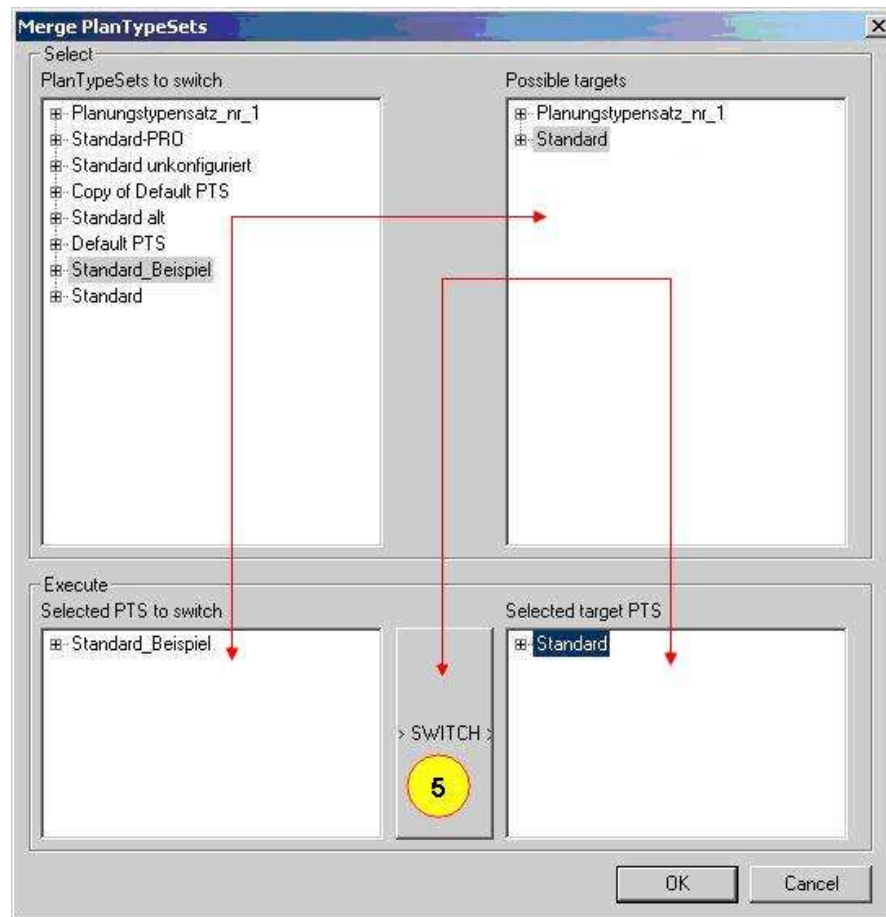


Figure 3: Select Standard Plantype

3) Click **Switch** button.

- Both plantype sets are compared (*base PTS* and *target PTS*). The following are checked:
 - If the base plantype and the target plantype have been derived from the same types (these could include both base types as well as ErgoPlanType types).
 - If a counterpart with the same name on the target plantype exists for every attribute defined on the base plantype.
 - If the maximum length of the base attribute is not greater than the length of the target attribute.
 - If the type of the base attribute is identical to the type of the target attribute.
 - If the name or the abbreviation are the same for the plantype and its target plantype.
- If none of these problems arise, the selected **base PTS** is replaced by the selected **target PTS**. If there are deviations, another dialog opens in which any problems which have arisen are displayed according their plantype:

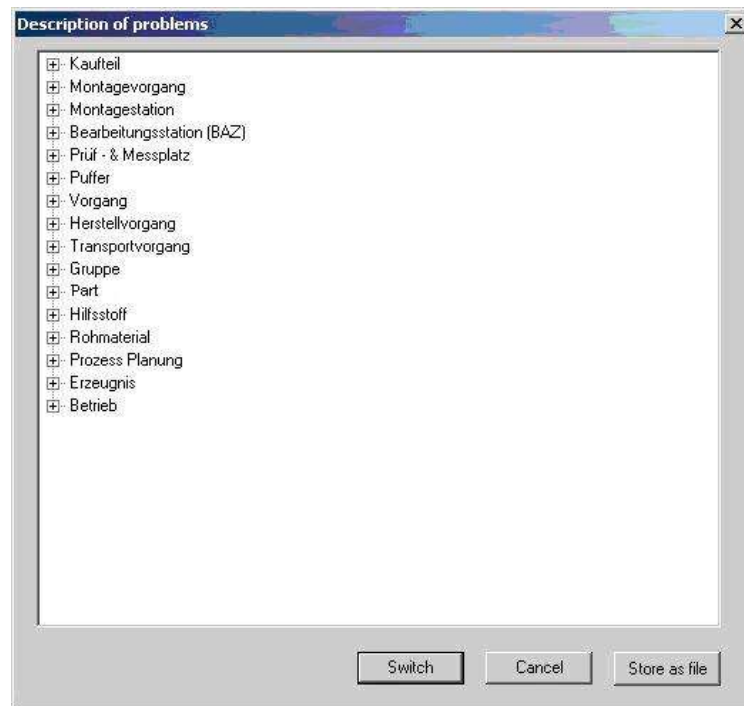


Figure 4: Description of Problems

- Using the button **Store as file** you can save the description of the deviations in a text file.
- A file selector opens in which you can define the name and directory of the file.
The default name suggested for the file comprises:
Switch_from_name_of_base_PTS_to_name_of_target_PTS.txt



Figure 5: Open File Selector



- Replacement is possible even if problems arise – enable the button **Switch**. **No** data are lost. It is possible that not all data are still displayed. If you want all the data to be displayed, further steps must be taken in the configuration manager. The data saved in the file are very helpful in this regard.
- In order to cancel the replacement, click **Cancel** button; all changes are then discarded.

Apart from plantypes, ScriptActions objects are also moved. The actual order of events:

- If all the data (including the target script) in the *Base* and *Target ScriptAction* are identical, the *Base ScriptAction* is simply deleted.
- If there are differences amongst the data, the *Base ScriptAction* is allocated to the *target* PTS. The same applies to the pointer referring to the plantype, which also is moved to the *target* plantype.

When the PlanTypeSetSwitch is done replacing, the Start dialog is again displayed with the adapted data: the plantype set *Standard_Beispiel* is no longer available, and all projects and templates are allocated to the plantype set *Standard* (target PTS).

In this way you can successively replace further plantype sets.

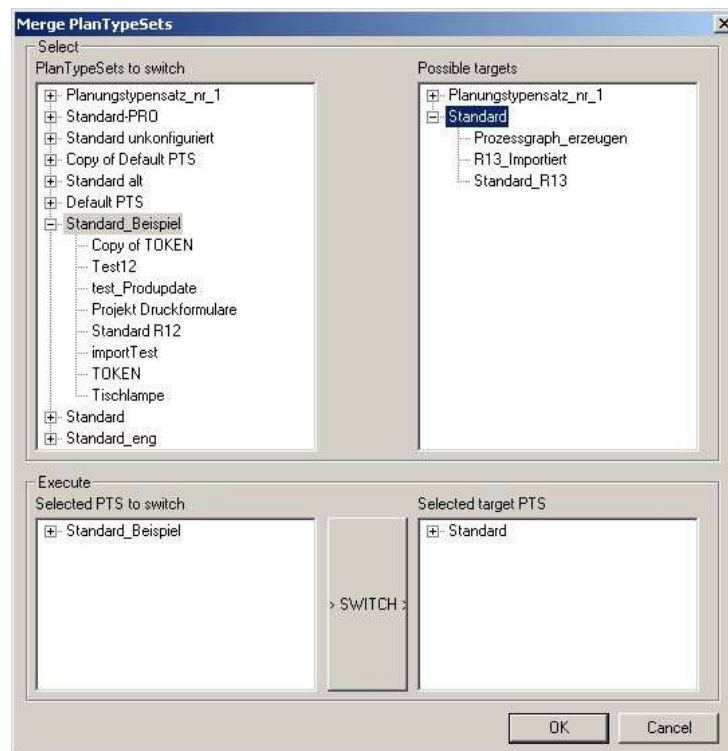


Figure 6: Replace Plantype Sets

- 4) In order to save all changes to the database, click **OK** and all changes are saved to the database.
- 5) In order to cancel all changes, click **Cancel** and all changes are then discarded.

3.3 Examples

As previously described, the plantype set *Standard Example* is to be replaced by *Standard*.

The example is shown with the plantype **Part** from the product structure.

Standard Example: Plantype Part

attribute_1	Attribute	customer	Bitmap
attribute_10	Attribute	customer	Customer
attribute_20	Attribute	customer	Drawing Number
attribute_4	Attribute	customer	Status
attribute_44	Attribute	customer	Vater
dbl_attribute_10	Attribute	customer	Supply per Process
dbl_attribute_2	Attribute	customer	Planned Refill Cycle
dbl_attribute_3	Attribute	customer	Necessary Part Bin Vo...
dbl_attribute_4	Attribute	customer	Real Part Bin Volume
dbl_attribute_5	Attribute	customer	Real Refill Cycle
dbl_attribute_6	Attribute	customer	Number of Part Bins
plantype_name	Attribute	customer	Plantype Name

Figure 7: Plantype set Standard Example – List of the Attributes
Standard: Plantype Part

attribute_1	Attribute	customer	Bitmap
attribute_10	Attribute	customer	Customer
attribute_2	Attribute	customer	Design Status
attribute_20	Attribute	customer	Drawing Number
attribute_3	Attribute	customer	Last Design Modificati...
attribute_4	Attribute	customer	Update Information
attribute_5	Attribute	customer	SAP Status
attribute_6	Attribute	customer	Material Nr.
dbl_attribute_10	Attribute	customer	Supply per Process
dbl_attribute_2	Attribute	customer	Planned Refill Cycle
dbl_attribute_3	Attribute	customer	Necessary Part Bin Vo...
dbl_attribute_4	Attribute	customer	Real Part Bin Volume
dbl_attribute_5	Attribute	customer	Real Refill Cycle
dbl_attribute_6	Attribute	customer	Number of Part Bins
dbl_attribute_7	Attribute	customer	Parts per Bin
dbl_attribute_8	Attribute	customer	Direct Material Costs
dbl_attribute_9	Attribute	customer	Indirect Cost Allowance

Figure 8: Plantype Set Standard – List of the Attributes

1. First have a look at the plantype set. The list of attributes shows the various attributes of both plantype sets (Standard Example, Standard) which you can edit.
2. Both attributes 44 and plantype_name are assigned to the plantype set Standard Example (Figure 7); these attributes are not to be found in the plantype set Standard. In addition, attribute 4 has another name in plantype set Standard Example as in the plantype set Standard (Figure 8).
3. Attribute 4, which also appears in plantype set Standard Example, is named Update Information here. This attribute is named Status in the plantype set Standard Example.

Plantype Set Standard Example: Plantype Part

- Various uses of the attributes for the layout of the dialog.

Figure 9: Properties Dialog Part : PTS 'Standard Example'

Plantype Set Standard: Plantype Part

- The same dialog, but with another layout

The image shows a 'Costs' dialog box with four input fields:

Direct Material Costs	0,00 Euro
Indirect Cost Allowance	12,00 %
Material Costs	0,00 Euro
Subproducts Material Costs	0,00 Euro

Figure 10: Properties Dialog Part: PTS 'Standard'

Questions which must be addressed include:

- What happens to the unavailable attributes?
- How are the available attributes used?
- What effect do the unused available attributes have?
- What happens to the attribute properties?
- What about the groups?
- After replacing, is everything deleted, and the Process Engineer has to be re-installed?

Here is the simple answer to all of these questions!

- PlanTypeSetSwitch checks both plantype sets. The differences found are listed concisely in the dialog **Description of problems**.
- If you click **Switch**, these differences are corrected. PlanTypeSetSwitch does not delete anything.

The image shows a 'Description of problems' dialog box with a tree view on the left and a list of problems on the right. The tree view includes:

- Kaufteil
- Montagevorgang
- Montagestation
- Bearbeitungsstation (BAZ)
- Prüf - & Messplatz
- Puffer
- Vorgang
- Herstellvorgang
- Transportvorgang
- Gruppe
- Teil** (selected)
- Hilfsstoff
- Rohmaterial
- Prozess Planung
- Erzeugnis
- Betrieb

The list of problems under 'Teil' includes:

- Attribute attribute_10 (RealName m_strAttribute_10): Base length is bigger(base: 250, target: ...)
- Attribute plantype_name (user defined attribute): pendant not found
- Attribute attribute_44 (RealName m_strAttribute_44): pendant not found
- Attribute attribute_52 (RealName m_strAttribute_52): pendant not found

At the bottom, there are three buttons: **Switch**, **Cancel**, and **Store as file**.

Figure 11: Dialog Description of Problems

Result of PlanTypeSetSwitch

- The display properties of the **target PTS** (plantype set Standard) for **Attribute 4** with the new name (Update Information) as well as groups **Costs**

and *Design Stamp* are applied to Attribute 4 (named Status) in the plantype set **Standard Example**.

- Both attributes 44 and plantype_name are no longer displayed, but they can be reconfigured at any time.
- The layout of the properties dialog Part, in accord with PlanTypeSetSwitch, corresponds to the layout of the plantype set Standard. *Please refer to the Figure 10.*

After replacing, you will no longer find the plantype set Standard Example in the dialog **Merge PlanTypeSets**. Instead you will find all projects which previously referenced the plantype set Standard Example under the plantype set Standard.

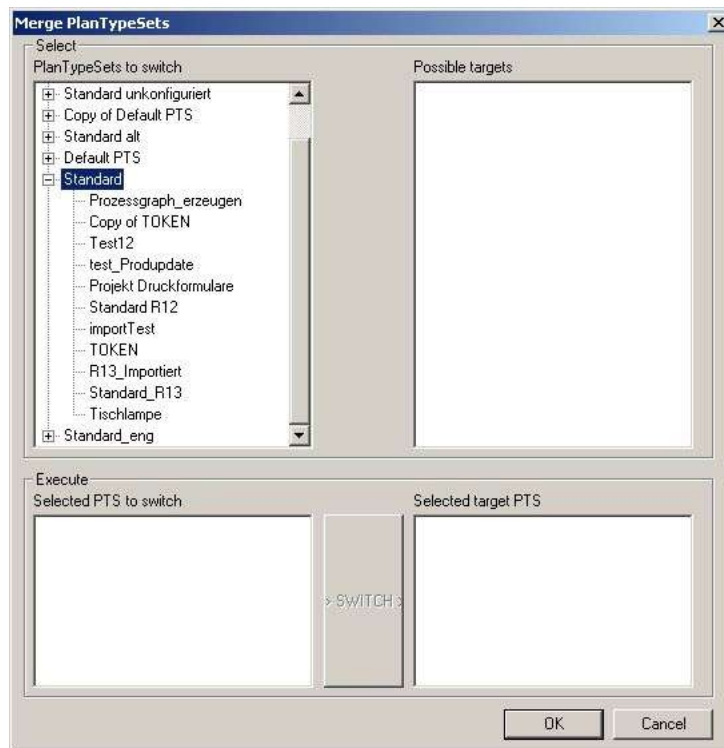


Figure 12: Dialog Merge PlanTypeSets after Replacing

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