

**Use Case:** Exchange of Product Configuration based on Serial Effectivities

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**Mentor:** PDM-IF

# Use Case: Exchange of Product Configuration based on Serial Effectivities

## Aim

Exchange of an explicit assembly with filtering information that was used to filter the assembly based on the given Effectivity Configuration.

## Actors

- OEM
- Manufacturer

## Preconditions

OEM is able to produce a valid technical data package from different applications of its information system, which is essentially its CAD and PDM systems. The content of the dataset exported is the multilevel assembly structure, product configuration (so-called 100% BoM) based on date, serial number and/or option code effectivities (building the so-called 150% BoM), the master data of each assembly/component part, the 3D positioning of each component part and a reference to 3D geometry and associated documents.

## Description

This use case is the export and import of

- Explicit (resolved) product assembly structure
- Product Configuration object assigned to the assembly root node
- Serial Effectivities assigned to the assembly relationships

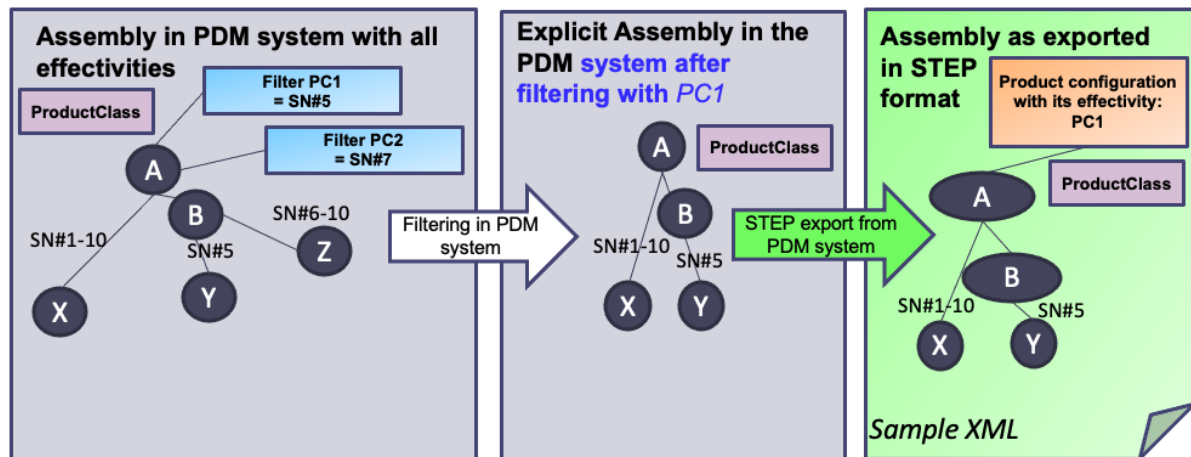
The aim is to preserve the filtering information and the relevant effectivities that were used by the OEM to export the dataset.

## Postconditions

The manufacturer is able to interpret the assembly structure with configuration information to perform his manufacturing process.

## Diagram

## Example of export:



The aim of this use case is *not* to process such a filter, but to exchange the filtering result and the relevant effectivities (the green box in the above figure) between the OEM and the manufacturer.

Effectivities may be defined on part versions (so-called part effectivities) or on part usage (so-called occurrence or structure effectivities).

Both the filter information and the relevant effectivities are only 'for information' and do not need to be processed as filter nor as effectivities.

## **Benefits**

Enable a powerful design collaboration across company boundaries.

Ability to describe all aspects of the explicit (or resolved) assembly including product configuration based on effectivities in a semantically accurate way with the associated recommended usage of AP242.