Schematic-Overview Datamodel PartNo - BomItems

Part

Plant

Specification-Header

BOM-Header

HeaderPart

-Finished-Products  
-Components  
-Raw-materials

-Status  
-Revision-history   
-Frame-ID

-Finished-Products  
-Components

-Base-Quantity  
 Alternatives  
-Preferred -Indicator

ComponentPart

BOM-Item

-Components  
-Raw-materials

-RevisionHistory-Quantity  
-uom

Characteristic

Example Implementation

Part-B

Alternative-1  
(preferred)

Alternative-2

BOM-Items

Part-A

Part-C

BOM-Items

Part-A

Part-D

Part-A

Alternative-1  
(preferred)

Alternative-2

Alternative-3

BOM-Items

Part-E

BOM-Items

BOM-Items

Remarks

There is a BOM for each alternative of Part-B, showing the preferred-alternative of the current-revision of part-A. If there exists more alternatives of part-B, and all the alternative-BOMs are related to Part-A, they indeed all share the same part-no/revision/plant/preferred-alternative, but with different quantity/uom per alternative.

Part-A can have one or more alternatives, but only one is preferred, on which the BOM-structure of Part-B depends on.

Part-B can also have one or more alternatives, only one is preferred.

Part-A can exist with its preferred alternative in the BOM of one or more alternatives of part-B, with same current-revision, but probably with different **quantity/uom etc.**

Part-A is unique in combination with its revision-no, plant, and alternative-no, and exists with all its revisions in the BOM-structure-history, but only 1 revision is CURRENT.

Some extra information:

If Part-A is changed and there is a new CURRENT-revision created, then also the BOM-structure of all CURRENT-revision alternatives of Part-B should be changed and should be pointing to new-current-revision of part-A.

During the process of creating a new revision of Part-A the new revision will get status=DEVELOPMENT. Part-A now has 2 revisions (status current/development) and each revision exists of one or more alternatives. In the BOM of Part-B it is only relating to the current-revision of Part-A.

The status of Part-A (of the highest-revision) can already be HISTORIC, but can still be part of the BOM of current-revision of part-B, and Part-A’s own BOM can still be related to current-revisions of other parts.