

SOVELIA

User Guide Items, Structures and Product Documentation

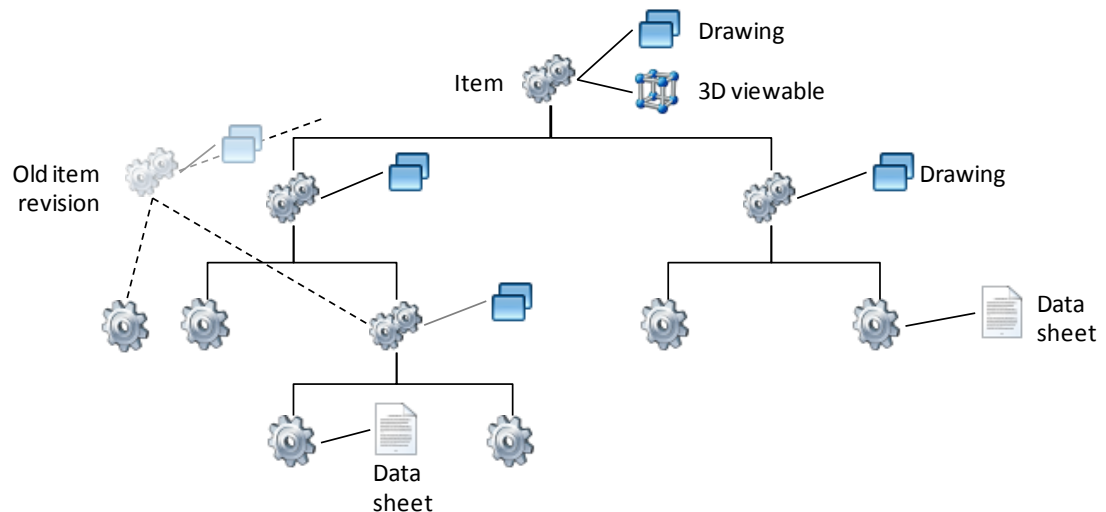
SYMETRI
ADDNODE GROUP

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1 Introduction

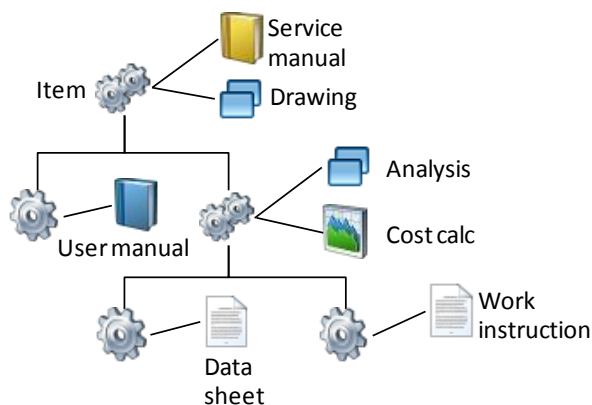
This section describes SOVELIA PLM Core template features. The functionality provides you with systems capabilities to manage core product definition, i.e. items, items structures and related product documents (main specification of item). The functionality supports process management to control creation of product definition.



Picture: Item structure completed with product documents.

PLM Core contains also integration functionality for ERP systems and capability to integrate with CAD tools.

The core product definition specified above can be extended by linking generic documents to item structure. Management of generic documents are described in another guide. This section contains instructions on how to create a new generic document as a part of an item structure.



Picture: Generic documents can be linked to item structure.

2 Principles

2.1 Lifecycles and rules

The lifecycle of items and product documents are synchronized. The lifecycle is item driven, which means the promotion of the item promotes the product documents (e.g. drawing or item master documents) to the same state. Generic documents linked to product structure are managed as fully independent objects and are not driven by item lifecycle.

The states for items and product documents are:

CRE – Created	Item is only in SOVELIA. Item information and structure can be modified. Item can still be deleted by the author. Product documents are seen only by Engineering groups.
IND – In design	The design work has started and item information and structure can be modified. The item has been sent to ERP. Product documents are seen only by Engineering groups.
DNR – Design ready	The item is defined ready by Engineering and modification is no longer possible for the Engineering group. Purchasing and Production Preparation functions are still allowed to complete the data before final approval. Product documents are seen only by these groups.
INP – In production	The item is ready for production and all modification rights are blocked. The possible BOM has been transferred and the item is released in ERP. Product documentation is available for Production and After Sales.
INA – In after sales	The item is only used for after sales purposes. Product documentation is available as in “In Production” state
OBS – Obsolete	The item must not be used. Product documentation available for Engineering.

Item lifecycle rules:

Lifecycle rules are setup for BOMs. When you change a status of an item the system checks that the status of related items, product documents and drawings follows the defined rules. You will receive messages when you break these rules.

Item	Child item / product document / drawing					
	CRE	IND	DNR	INP	INA	OBS
CRE	✓	✓	✓	✓	✓	✗
IND	✗	✓	✓	✓	✓	✗
DNR	✗	✗	✓	✓	✓	✗
INP	✗	✗	✗	✓	✓	✗
INA	✗	✗	✗	✓	✓	✗

Table: Downstream rules when promoting an item.

Item	Parent item						ECO must exist
	CRE	IND	DNR	INP	INA	OBS	
CRE	✓	✓	✓	✗	✗	✗	✗
IND	✓	✓	✓	✗	✗	✗	✓
DNR	✓	✓	✓	✗	✗	✗	✓
INP	✓	✓	✓	✓	✓	✓	✓
INA	✓	✓	✓	✓	✓	✓	✗
OBS	✗	✗	✗	✗	✗	✓	✗

Table: Upstream rules when promoting an item.

2.2 Automatic update of item revisions in BOMs

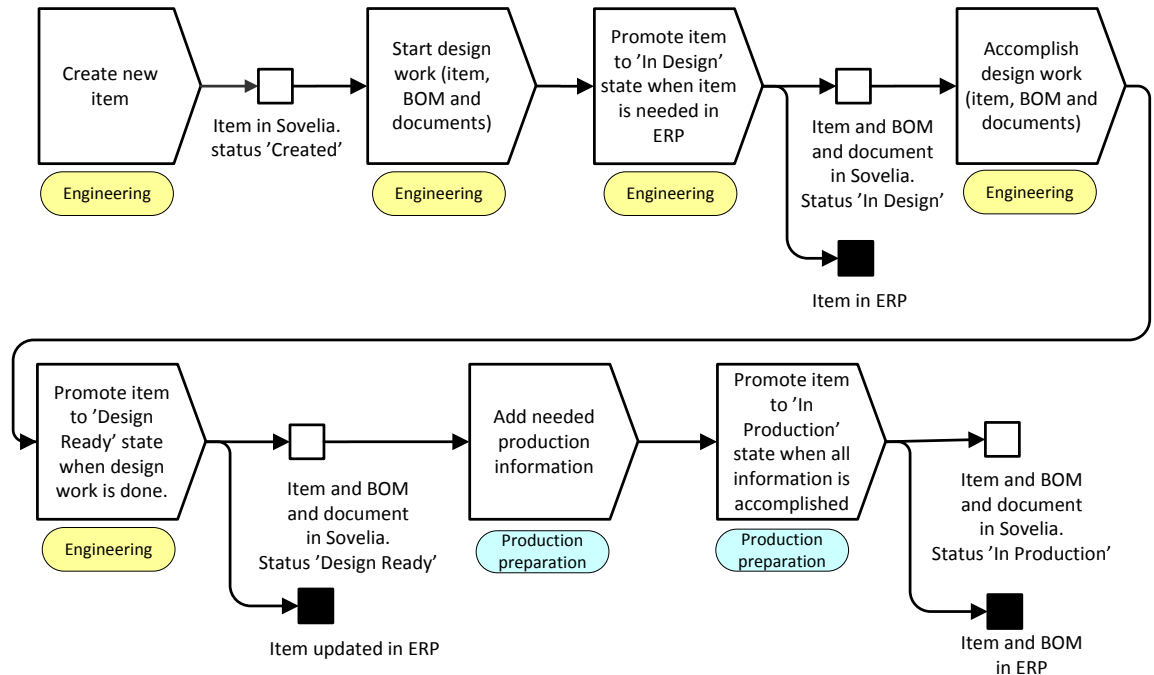
When new item revisions are promoted to status 'INP – In production', they are automatically updated in the latest revisions of their item parents (BOMs).

In other words, the latest item revision always contains the latest 'In production' item child revision, unless manually changed.

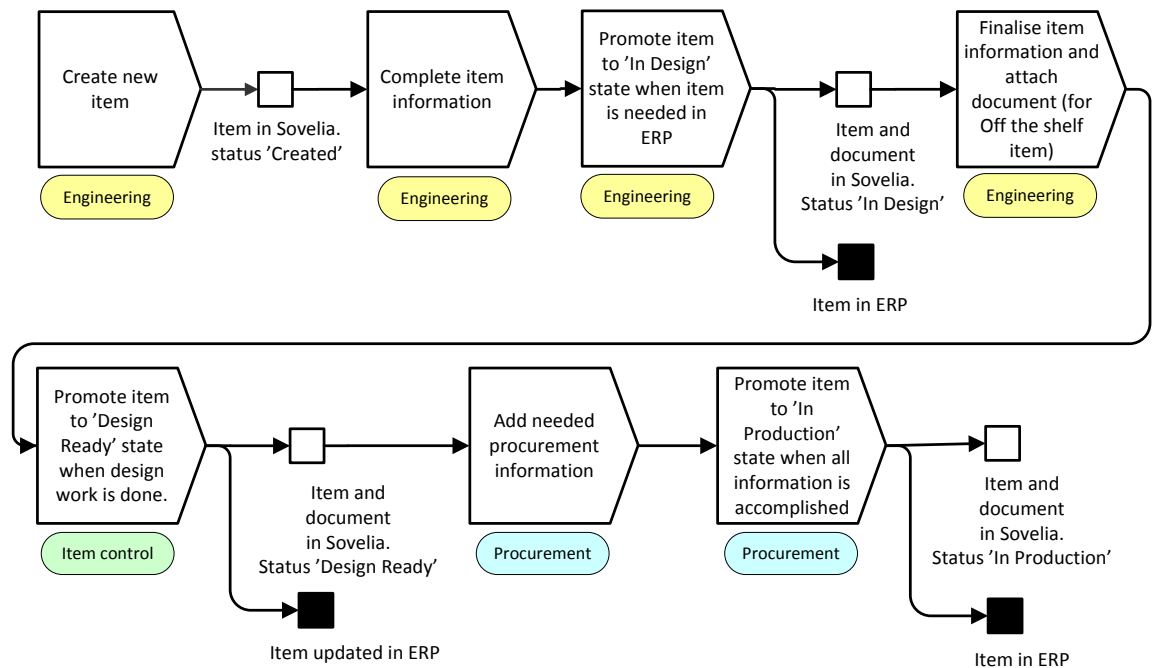
2.3 Processes and responsibilities

The following flowcharts describe the basic item and product structure management processes and involvement of needed roles until the product information is completely released for production. The processes vary depending on item type.

1. Own design item



2. Off the shelf item, 3. Raw material



2.4 Item data

Item data is defined in object information window.

- Object type classifies the item

▼ Items	12
000-Top Item	
001-Order Item	
> 01-Product families	1
02-Sales items	
> 03-Own design items	2
04-Catalog items	
05-Platforms	
10-Customer configurations	
20-Surface treatment	
> 30-Raw materials	3
90-Operational phase items	
99-Set	

- Status data defines the maturity of the item.
- Mandatory information is marked with *:
 - ID Item number, typically generated automatically based on predefined series
 - Revision Item revision, typically generated automatically based on predefined series
 - Name Dictionary name for the item
 - Item type Possible values:
 - 1. In house designed – items that are based on own design and have a drawing
 - 2. Off the shelf – catalogue components and items which design is owned by 3rd party
 - 3. Raw materials – plates, hoses, pipes, tubes, etc. material items
 - Weight (kg) Item unit weight in kilograms
 - Unit Choose desired unit of measure
- Uneditable attributes are hidden by default while creating a new item

3 Functions

3.1 Creating items

Related actions

+menu



Choose desired item type and enter mandatory and possible additional attributes.



Se

NEW PRODUCT

000-Top Item , Top Item class


☐ Hide
 ☐ prefilled
 ☐ optional
 ☒ uneditable
 attributes

Object ID *	TEST	Revision *	1
Description		Name *	None
Changed By	Auric Administrator	Item type *	1-In house design
Unit *	PCS	Weight (kg) *	0.0
Revision Description		Author	Auric Administrator
Additional desc		Spare part	OFF
Item traceability	OFF	Spare part BOM	OFF
Text		Design Data	pp.kk.vvv
Designer	None	Phantom	None

CANCEL

CREATE

New item from template

While in object info window you can create a new item from template by clicking  and 'New item from template'.

3.2 *Editing item information*

The data of the current item revision can be edited or a new revision can be created leaving the data on the previous revision as it was. Items are locked when they are edited to prevent simultaneous modifications.

Related actions

Revision

 New revision

Creates new revision by asking for Revision description only. Object info window of new revision will open and other attributes may be edited.

Edit –menu

 Edit

Opens object edit window where you can modify the item data and files.

3.3 *Creating item related product documents*

Item related product documents like specifications and data sheets can be linked to an item when editing the item object. The same option is available for drawings, but this is mainly relevant for 2D CAD tools as the drawings related to 3D models are created through SOVELIA CAD integrations.

Related actions

 -menu from object card or  -icon from subtree

New drawing for this item

Creates a new drawing and links it to the item. Some information is preselected. You need to choose the file using the 'Browse' button.

New document with company template

Create a new document for item using company template.

New product document for this item

Creates a new product document and links it to the item. Some information is preselected. You need to choose the file using the 'Browse' button. A product document is usually a specification or other document that is used to specify item.

New document for this item

Create a new generic document for item.

3.4 Approving items and product documents

Approval from lifecycle state to another is done by the responsible role described in flow charts in chapter 'Processes and responsibilities'.

Related actions

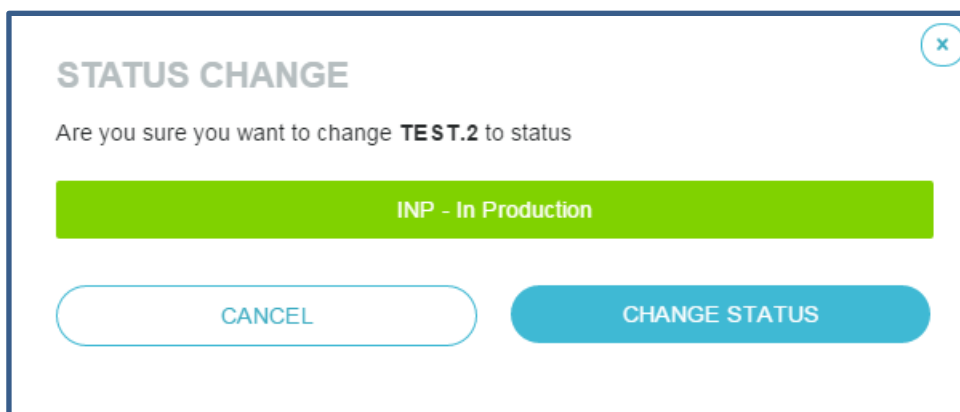


Opens the status selection window. The next state is preselected. Confirm the promote operation by clicking the 'Change status' button.

You can also click the status bars under the thumbnail in object info window to change object status:



Confirmation window opens:



Demoting

Demoting an object can be done by choosing a lower status bar in the object information window.

The demote operation is allowed in exceptional cases and is not needed in daily use.

3.5 Reports



-menu

Download report PDF

Runs a basic BOM report into PDF format for the selected item. By default PDF report is complete BOM.

Download BOM report

Runs a basic BOM report for the selected item. You can define which item and relation data fields are included and how many levels you want to have in the report.

3.6 Installed base management

Installed base equipment structures can be viewed in the 'Installed base management'-type. Full

sub-structure can be viewed by clicking 'show children' or by choosing

SUBTREE

in the object information window.