Sovelia SolidWorks&Creo add-in

Manage Properties

Item functions

Buttons		
	Create new item to Sovelia	Creates a new item with given attributes and revision (number or letter) to Sovelia . Fail message if item already exists or if the user does not have proper privileges to create item
	Create new revision to Sovelia	Create new item revision with given attributes and revision (number or letter) to Sovelia . Fail message if item revision already exists or if the user does not have proper privileges to revise item
	Put item's attributes to Sovelia	Put attribute values to corresponding Sovelia item revision. Fail message if item revision's status in Sovelia prohibits modifications or if item revision does not exist in Sovelia
	Get item's attributes to Sovelia	Get attribute values from corresponding Sovelia item revision. Info message if NEWER revision exists in Sovelia . Fail message if item revision does not exist in Sovelia.
	Search and get item from Sovelia	Search and get item number and related attribute values (newest revision) from Sovelia .

Item Settings

Default settings for item functions	
Source for new Item Numbers	Sovelia : number is always generated by Sovelia. If number field is not empty, user is asked to cancel or to get new number CAD : number is always feed to Sovelia from Number field. If Number field is empty, operation is canceled. Both (default): If Number field is empy, then Sovelia generates the number. If Number field id not empty, then user is asked whether to use the number in field or let Sovelia generate a new number
Item status when created from CAD	In Design
Item status when updated from CAD	In Design
Item status when revised from CAD	As is (current status remains)
Revision scheme	1,2, …
Initial revision	1

Item attributes

Item attributes, typetree, and name dictionary are defined in Sovelia from where the CAD add-in reads all definitions and builds the corresponding UI elements dynamically.

Item attributes are mapped to appropriate CAD custom properties (SolidWorks) / parameters (Creo) in CAD add-in settings. The following tables shows the default mapping.

Item standard attribute - CAD property/parameter mapping	
Item attribute	CAD property/parameter
Item number	Code
Revision	Revision
Revision description	Revision_Description
Type tree	Typetree
Description	Description
Name Id	Name_Id
Name language versions	Name_En, Name_Fi

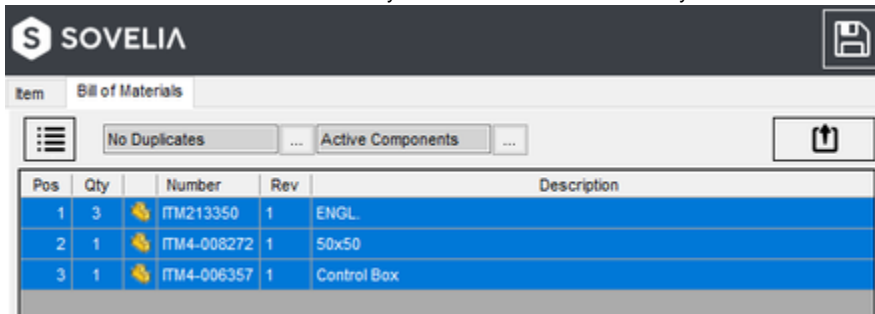| Item custom attribute - CAD property/parameter mapping (demo Sovelia)	
Sovelia custom attribute	CAD property/parameter
Additionaldesc	Additionaldesc
Itemtype	Itemtype
Sparepart	Sparepart
Unit	Unit
Standard	Standard
Customer	Customer
Surfacetreatment	Surface_Treatment

CAD model properties

CAD model properties section is not necessarily needed by the integration. It just provides user with handy way to manage CAD model properties. Following table introduces some out-of-the box fields. In addition ootb fields, custom input fields and automation can be defined for any custom property (SolidWorks) / parameter (Creo). CAD model properties section is fully customizable.
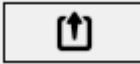
CAD model properties	
Weight (kg) 1,768056251 / Weight (kg) 2 **Weight** Calculated / user defined	Add-in controls weight value by utilizing CAD's native functionality. Integration updates the Weight value to Sovelia.
Rename model (and drawing) ☑ ITM4-008595 **Filename** automation	User can control if CAD model is named according to the item number or some customized rule. SolidWorks: drawing file, with equal name and saved in same folder with the model, is copied to new name as well. Creo: drawing file, in Creo session having equal name with the model, is renamed as well
Material Plain Carbon Steel Part's **material** properties	Material definition that is connected with CAD material library. This is not integrated with Sovelia by default.
Color RAL 1000 Green Beige Model **color**	Sets the 3D model's visual color. Add-in includes own color library. This is not integrated with Sovelia by default.

Bill of Materials

Bill of Materials sheet tab is available only for SolidWorks/Creo assembly.

| BOM function	Description
☰ Set Pos value	Sets value(s) to Pos column for user selected BOM members.
No Duplicates ... No / Show Duplicates view	*No Duplicates* view sums identical component instances into same BOM row (QTY >= 1). *Show Duplicates* shows all component instances i separate rows (QTY =1)
Active Components ... Active / All Components view	*Active Components* view shows only active component instances. *All Components* view shows also suppressed components in the BOM list
⬆ Put BOM to Sovelia	Update BOM to Sovelia. Fails message if any BOM member is missing Item number or Rev

Columns in BOM view	Description

Pos (Optional)	BOM member's position Creo: mapped to *LINENUMBER* component parameter SolidWorks: mapped to *Component Reference* property
Qty	Quantity of BOM members
Number	BOM member's Item number
Rev	BOM member's revision
Description	BOM member's Description
?	One custom column showing BOM Members custo property/parameter can be added

Document

Document sheet tab is available only for SolidWorks/Creo drawing. Document sheet is optional to have and the content is configurable.
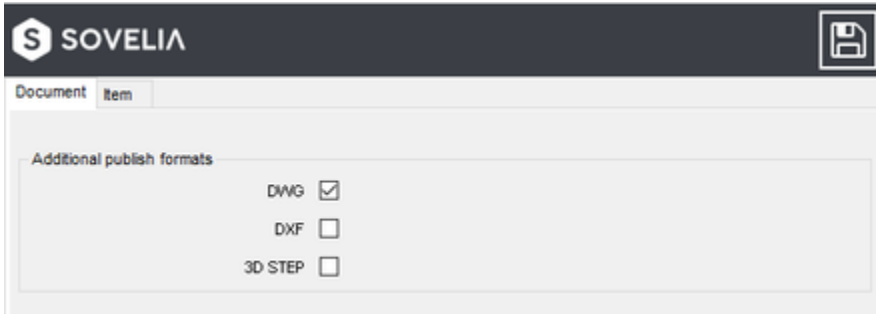
Publish Documents
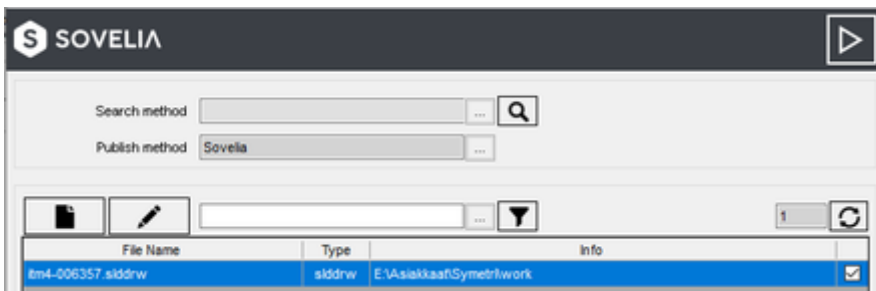
Publish Documents makes the file conversions for drawing (and 3D model) and uploads to Sovelia as documents.

Integration and file conversion options:

Primary publish format	
PDF	**Integration defaults** Document number: Item number-PDF Revision: Item's revision Status: In Design Description: Item's Description Class: Drawing class Type: Documents,Drawing Link: Item-Product document relation **PDF conversion options** Sheets: All sheets Other conversion defaults varies by CAD versions
Additional publish formats	

DWG	**Integration defaults** Document number: Item number-DWG Revision: Item's revision Status: In Design Description: Item's Description Class: Drawing class Type: Documents,Drawing Link: Item-Product document relation **DWG conversion options** Sheets: All sheets Other conversion defaults varies by CAD versions
DXF	**Integration defaults** Doc number: Item number-DXF Revision: Item's revision Status: Ready Description: DXF Class: Document class Type: Documents,CAD export files Link: Item-Doc relation **DXF conversion options** Sheets: Last sheet Other conversion defaults varies by CAD versions
3D Step	**Integration defaults** Doc number: Item number-STP Revision: Item's revision Status: Ready Description: STEP Class: Document class Type: Documents,CAD export files Link: Item-Doc relation **STEP conversion options** conversion defaults varies by CAD versions

Preferences

Preferences	
Sovelia server url	https://test.sovelia.com
Local dir for temporary files	C:\temp