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M-Files – SOLIDWORKS integration

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M-Files/SOLIDWORKS Plug-in overview

M-Files/SOLIDWORKS plug-in introduction video

Watch our M-Files/SOLIDWORKS plug-in introduction video:

Requirements from M-Files:

M-Files 9 or 10. The integration requires that the client and server versions are the same.

Features:

- o Export SW BOMs as new structures to M-Files
- o Create new objects in M-Files
- o Mapping to M-Files projects
- o Export SW Meta data (Custom properties) to M-Files
- o Update existing structure in M-Files
- o Export converted SW files to M-Files

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M-Files integration

Customer's environment with M-Files overview

CAD
SolidWorks

Export profile

SELECT EXPORT PROFILE

Structure export
- M-Files structure
- M-Files objects
- Metadata

SELECT EXPORT PROFILE

Full export
- M-Files structure
- M-Files objects
- Metadata
- Convert files to:
  - PDF
  - 3D PDF
  - eDrawings,
  - STEP

EXPORT TO M-FILES

Exists in M-Files?

EXPORT TO M-FILES

NO

M-Files
System Design BOM

Convert CAD files to:
- PDF (Drawings)
- 3D PDF (Parts & Assemblies)
- eDrawings, STEP

Add CAD BOM
- M-Files structure
- M-Files objects
- Metadata
- Workflow

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Starting a new project
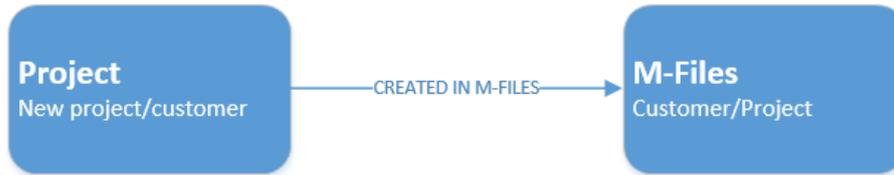
A new project is starting for a new customer/an existing customer. If the customer already exists in M-Files then the new project is added to M-Files. If the customer does not exist already in M-Files, he will then be added, and a new project will be added as well afterward.


Adding a new customer in M-Files

Adding a new customer project in M-Files

Viewing the Customer (ATR Soft) and Customer's project (Conveyor) in M-Files

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Creating CAD Files
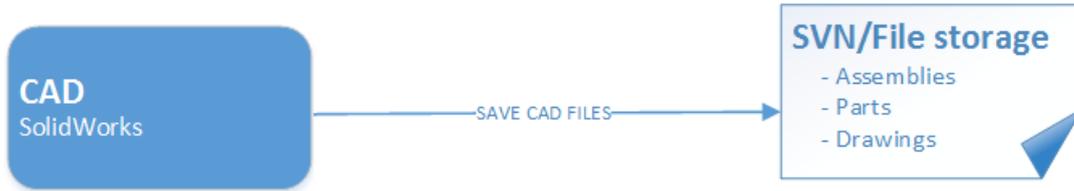
CAD files are created in SOLIDWORKS and will be stored on the file storage system used by the customer. Please note that in our integration M-Files is not used to store native SOLIDWORKS files, as it is not a PDM system.
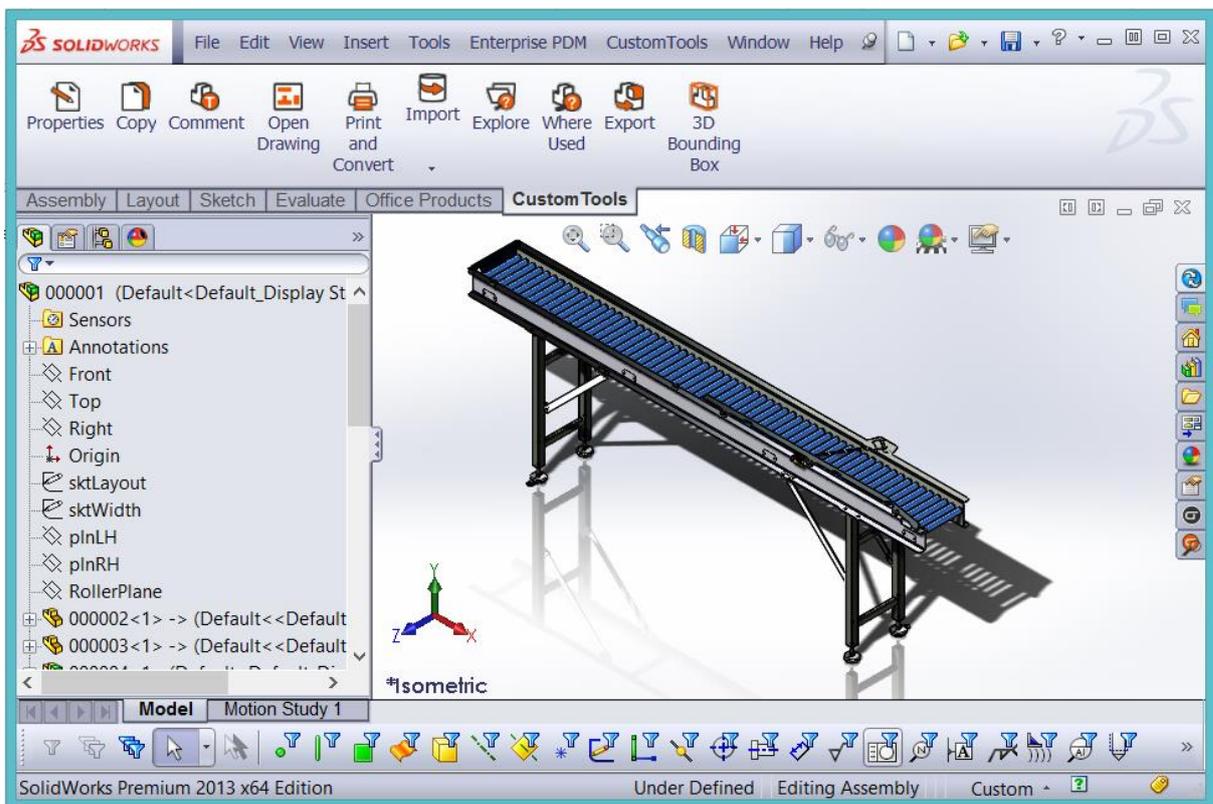
Assembly created in SOLIDWORKS

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Export new structure to M-Files
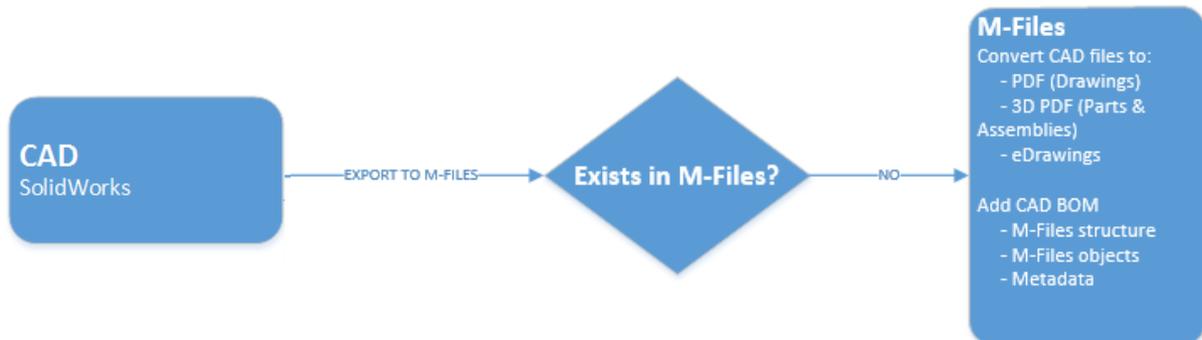
A SOLIDWORKS assembly can be exported at any time to M-Files. During the first export, the SOLIDWORKS Files can be converted to any of 25 files formats supported by SOLIDWORKS. The conversion is done as a batch operation by using CUSTOMTOOLS.

In addition, we will create the SW BOM structure inside M-Files and create M-Files objects for parts and assemblies. During the export SOLIDWORKS metadata (custom properties) will be exported as M-Files attributes.
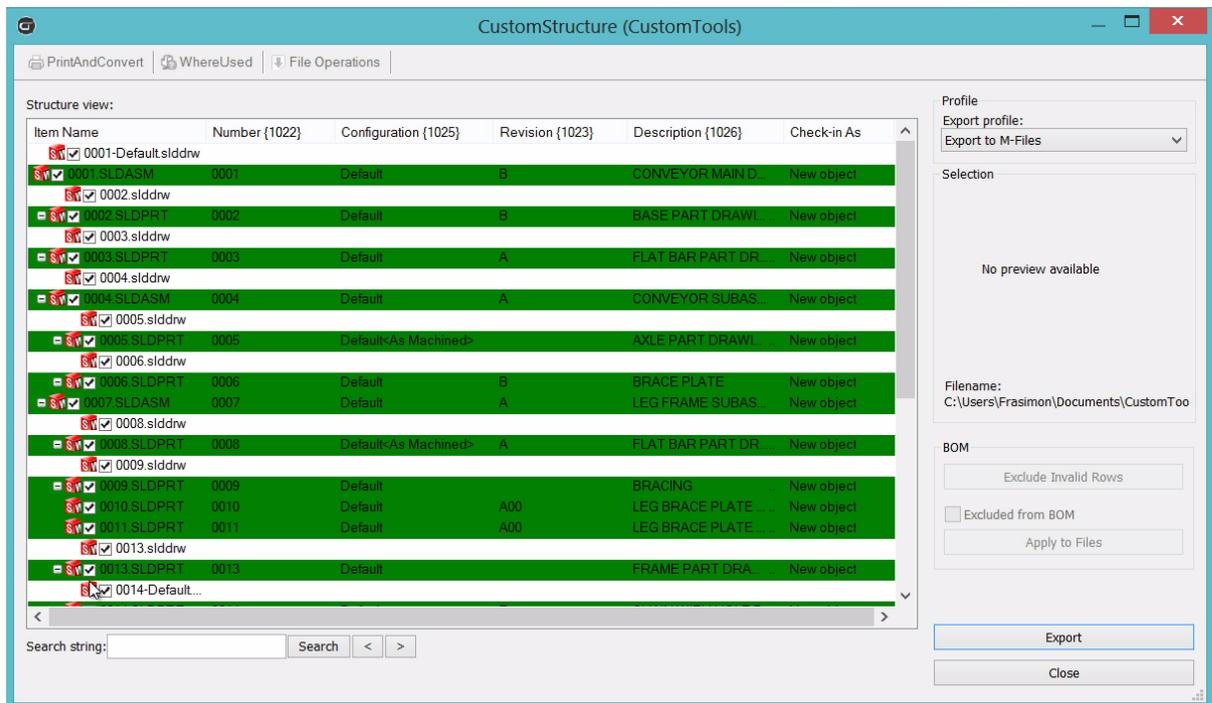
*Exporting CAD Structure to M-Files from SOLIDWORKS*

In the screenshot above lines marked as Green corresponds to new objects that will be created in M-Files. Please note that the colour code used can easily be customized based on your wishes.
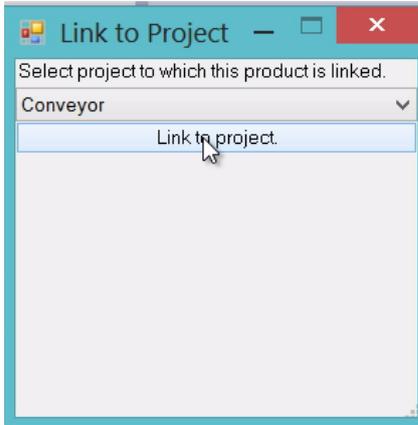
Once the CAD Files is exported to M-Files it can be linked to a project in M-Files.

Here the project Conveyor, created for the Customer ATR Soft, is selected.
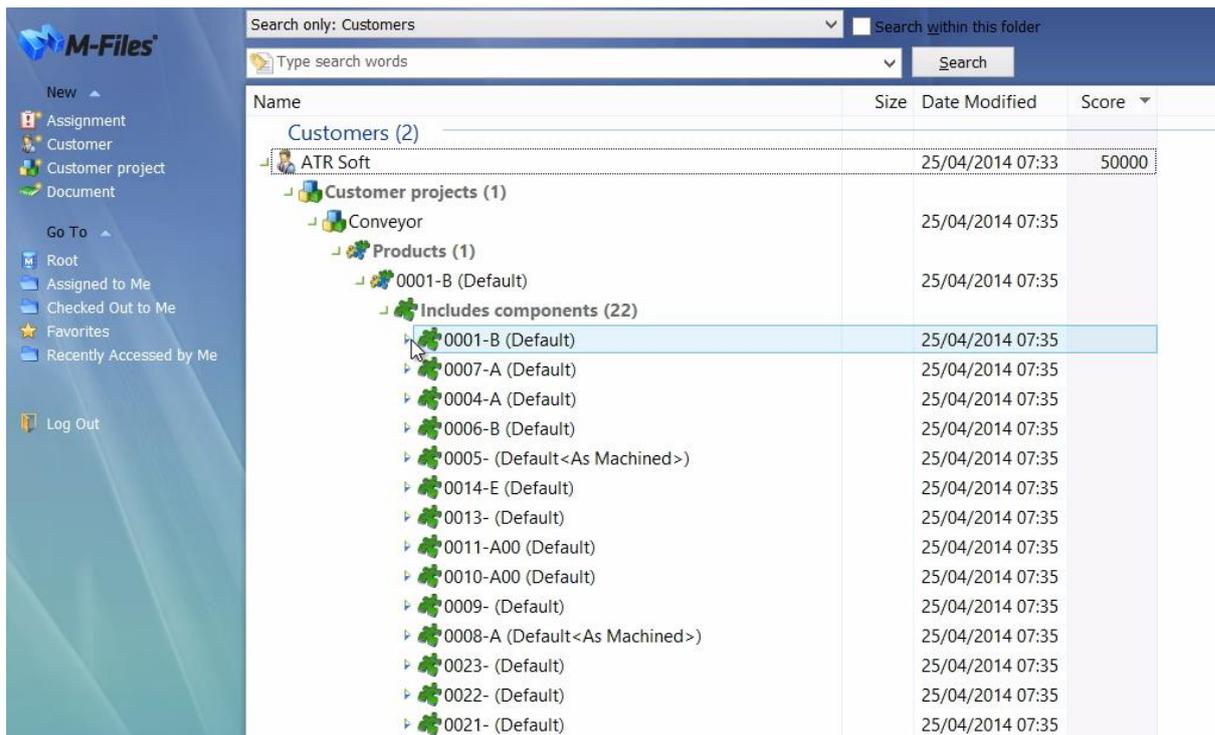
Objects created in M-Files

CAD Part shown as an object in M-Files with the related converted files.

Under each object in M-Files, there will be the different converted files for the parts/assemblies. (e.g.PDF for drawings, 3D PDF for parts, DXF for sheet metal parts,…).

Exporting CAD Metadata to M-Files:

When objects are created in M-Files, metadata of the SOLIDWORKS files are exported as attributes of the object in M-Files.
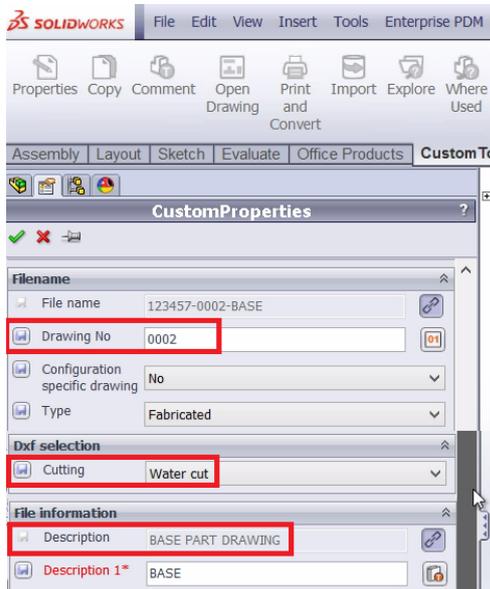

Custom Properties defined in SOLIDWORKS   *Attributes of the object in M-Files*
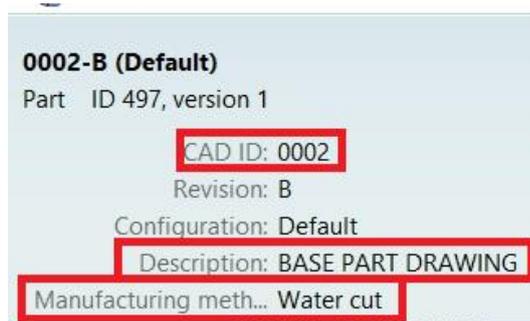
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Updating existing structure in M-Files

If a structure that already exists in M-Files is exported to again, then a new version will be created in M-Files.
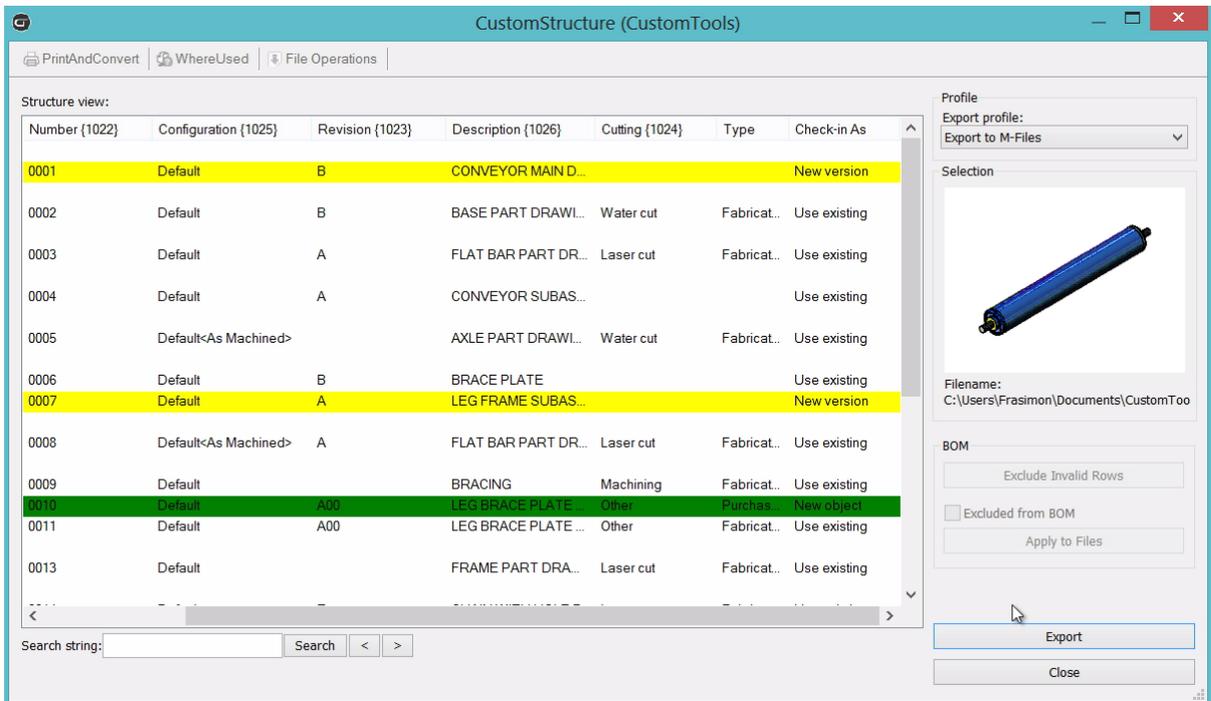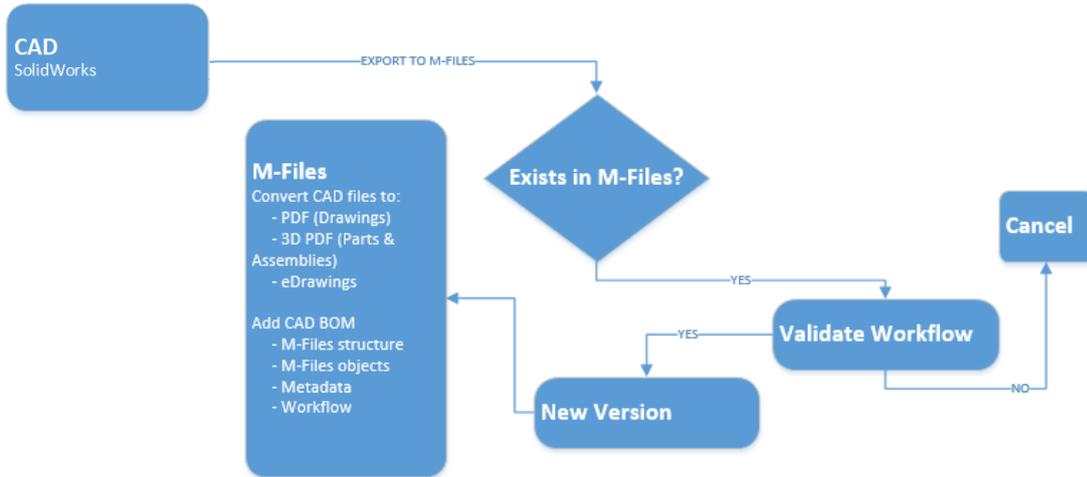
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Updating CAD Structure in M-Files from SOLIDWORKS.

In the screenshot above, we can see that a new part (0010.SLDPRT) was added to the sub-assembly (0007.SLDASM). In the CAD/Export dialog we can see that before exporting, we perform a check in M-Files. Lines marked as Yellow, corresponds to New versions that will be created in M-Files if we do the export. Lines marked as Green, corresponds to New objects that will be added to the existing structure in M-Files.