FOCUS ONREAL DESIGN AUTOMATE THEREST

Bi-directional Excel link

Marko Pynnönen – 10.02.2016





INTRODUCTION	4
About this Document	4
Intended Audience	4
Microsoft Windows® 7	4
Microsoft Windows® 8.1	4
Microsoft Excel 2013	4
CUSTOMTOOLS 2015 SP3	5
SOLIDWORKS 2015 SP4	5
Using this Document	6
Conventions used in this document	6
GETTING STARTED	7
System Requirements	7
Software Requirements	7
SOFTWARE INSTALLATIONS	8
CUSTOMTOOLS Import Standalone	8
Installing the Import Standalone	8
New CUSTOMTOOLS Installation	8
Modify Your Existing CUSTOMTOOLS Installation	
SETUP BI-DIRECTIONAL EXCEL LINK IN CUSTOMTOOLS	18
Script Add-in	18
CUSTOMTOOLS Export Feature	18



Add Script Add-In into Your CUSTOMTOOLS Environment	19
Create a New Script	
Setup the CUSTOMTOOLS Export Feature	21
Create New Export Profile	
Add Fields to the Export Profile	24
USING THE BI-DIRECTIONAL EXCEL LINK	30
Exporting the Current Model Structure	
Editing Property Values in Excel	33
Import New Values to the Models	34
Update Drawings	34
CONFIRM THE RESULTS	
Checking the Model Values	
Checking the Drawing	



About this Document

CUSTOMTOOLS 2015 SP2 presented a new feature which allows you to create a bi-directional linking to a **Microsoft Excel** workbook containing custom property values of your **SOLIDWORKS** documents so that you can link those values both ways, from **SOLIDWORKS** to the **Excel** workbook and vice versa.

This manual shows you how to install the bi-directional link from SOLIDWORKS to the Microsoft Excel workbook.

Intended Audience

This document is for all the users with the basic understanding about using the CUSTOMTOOLS products. The main purpose of this document is to get the users familiar with the CUSTOMTOOLS bi-directional Excel linking add-in.

Microsoft Windows® 7

Screenshots of the CUSTOMTOOLS installation in this manual are taken from the **CUSTOMTOOLS 2015 SP3** installer running on 64-bit Microsoft Windows 7 operating system.

Microsoft Windows® 8.1

Screenshots of the bi-directional Excel link usage are taken from the **CUSTOMTOOLS 2015 SP3** running on 64-bit Microsoft Windows 8.1 operating system.

Microsoft Excel 2013

Screenshots of the Microsoft Excel in this manual are taken from the 64-bit edition of the **Microsoft Excel 2013**.



In this manual we use the **CUSTOMTOOLS 2015 SP3** installer to install the CUSTOMTOOLS Import Standalone tool. Also the screenshots about the CUSTOMTOOLS are taken from the 64bit edition of the CUSTOMTOOLS 2015 SP3.

SOLIDWORKS 2015 SP4

The SOLIDWORKS version used in this manual, is the 64-bit edition of the SOLIDWORKS 2015 SP4.



This document has been written using the following conventions similar like used in the SOLIDWORKS documentation.

Conventions used in this document

Convention	Meaning
Bold	Any CUSTOMTOOLS command, menu item, or example file.
Italic	Refers to books and other documents or emphasizes text.
*** **	Tip, Note.
?	References CUSTOMTOOLS help.
Blue Underlined	Hyperlinks to CUSTOMTOOLS help, other internet reference or, a Hands-on example.
You Tube	A link to a video available online at the CUSTOMTOOLS <u>YouTube</u> channel. The video links you can find from the document are in relation to a topic the video link is associated to.



System Requirements

CUSTOMTOOLS bi-directional Excel linking does not have any specific requirements in relation to the workstation's hardware. However the Excel linking have some requirements in relation to the software installed in the workstation. See the following **Software Requirements** section for more information about the software level requirements.

Software Requirements

To make the bi-directional link to **Microsoft Excel** workbook with help of CUSTOMTOOLS, you need to have the following software installed in your workstation:

- CUSTOMTOOLS. At least the CUSTOMTOOLS 2015 SP2 is required.
 - **CUSTOMTOOLS Professional** license is required because the Excel link works in association to the **Export** feature.
- **CUSTOMTOOLS Import Standalone**. A standalone version of the CUSTOMTOOLS **Import** feature. This feature could be installed using the CUSTOMTOOLS installer.



NOTE: The **Import Standalone** tool is available only in the **Custom** setup mode of the CUSTOMTOOLS installer.



This chapter of this manual shows you what CUSTOMTOOLS components you need to install and how can you install them.

CUSTOMTOOLS Import Standalone

The CUSTOMTOOLS **Import Standalone** tool is included in the **CUSTOMTOOLS Installer**. You can install the tool by using the **Custom** setup mode while installing CUSTOMTOOLS.



TIP: You can also add the Import Standalone feature afterwards if you already have the other needed CUSTOMTOOLS products installed in your workstation.

Installing the Import Standalone

By first, start the CUSTOMTOOLS Installer normally and select the installer language as prompted.

CustomTools 2015 - InstallShield Wizard	×
Select the language for the installation from the choices	below.
English (United States)	•
OK	Cancel

1. CUSTOMTOOLS Installer language selection.

Once selected the installer language, the installer checks if any pre-requisites are missing from the workstation.

If you are making a new installation of CUSTOMTOOLS into a workstation which does not have CUSTOMTOOLS 2015 installed yet, you may need to install some pre-requisites. If you already have some CUSTOMTOOLS features installed, you can jump now to the page 11.

New CUSTOMTOOLS Installation

^{::} CUSTOMTOOLS product of ATR Soft Oy :: info@CUSTOMTOOLS.info :: www.CUSTOMTOOLS.info ::



CustomTool	ls 2015 - InstallShield Wizard
	stomTools 2015 requires the following items to be installed on your computer. Click tall to begin installing these requirements.
Status R	Requirement
Pending M	/licrosoft Visual C++ 2013 Redistributable Package (x64)
	Install Cancel

2. CUSTOMTOOLS pre-requisites installation.

CUSTOMTOOLS installer prompts you to install the missing pre-requisites if necessary. Otherwise the page of the CUSTOMTOOLS installer shown in the picture 2 above does not appear at all and you will go directly to the step after it.

You can see the missing pre-requisites in the list of the CUSTOMTOOLS installer. To install the missing pre-requisites, click the **Install** button in the page shown in the picture 2.

NOTE: If you need to install the **Microsoft** .**NET Framework v4.5.1** required by CUSTOMTOOLS 2015, you may need to restart your computer after the .NET Framework installation to continue the CUSTOMTOOLS installation process.

Once the pre-requisites installation is finished, the CUSTOMTOOLS the actual CUSTOMTOOLS installation process starts.



3. Start page of the actual installation of the CUSTOMTOOLS products.

On the start page of the CUSTOMTOOLS installer, click **Next** to begin the installation setup.



😸 CustomTools 2015 - InstallShield Wizard	×
License Agreement	
Please read the following license agreement carefully.	
	_
CustomTools license agreement:	Â
BY INSTALLING THIS SOFTWARE OR USING IT IN ANY OTHER WAY, ' COMMIT TO ABIDE BY THE TERMS AND CONDITIONS OF THIS LICENS AGREEMENT. THIS IS THE ONLY AGREEMENT CONCERNING THIS SOFTWARE PRODUCT AND ITS DOCUMENTATION MADE BETWEEN ' AND THE PRODUCER (ATR Soft Oy) ON THIS SOFTWARE PRODUCT T CAN BE LATER ALTERED. YOU MAY NOT USE, COPY, MODIFY, REM	SE YOU 'HAT
I accept the terms in the license agreement	rint
I do not accept the terms in the license agreement	
InstallShield	
< Back Next > Ca	incel

4. CUSTOMTOOLS License Agreement page.

The next step is to accept the **End User License Agreement**. Accept the **End User License Agreement** and then click **Next** to proceed to the next step.

😼 CustomTools 2015 - InstallShield Wizard	×
Customer Information	
Please enter your information.	D
User Name:	
David Designer	
Organization:	
ATR Soft Oy	
Serial Number:	
XXXX XXXX XXXX	Get Demo Serial
InstallShield < Back	Next > Cancel

5. Customer Information form.

Type the requested customer information in the **Customer Information** page and then click **Next** to proceed to the setup type selection.

😸 CustomTools	2015 - InstallShield Wizard
Setup Type Choose the se	tup type that best suits your needs.
Please select a	a setup type.
© Trial	Standalone version of CustomTools will be installed with demo database. Good for evaluation purposes.
© Custom	Choose which program features you want installed and where they will be installed. Choose this for both client and server installations.
InstallShield ———	< Back Next > Cancel

6. CUSTOMTOOLS Setup Type selection.

In the **Setup Type** page (picture 6), select the **Custom** setup type and then click **Next**.

😸 CustomTools 2015 - InstallShield Wizard	—
Custom Setup Select the program features you want installed.	G
Click on an icon in the list below to change how a feature is inst CustomTools Administration CustomTools Database CustomTools Service CustomTools License Manager CustomTools License Manager CustomTools Profile Converter CustomTools CustomImport Stand	talled. Feature Description This feature requires 80KB on your hard drive.
Install to: C:\Program Files\ATR Soft\CustomTools 2015\ InstallShield	<u>C</u> hange <u>N</u> ext > Cancel

7. The Custom Setup page to select the CUSTOMTOOLS components to install to the workstation.

In the **Custom Setup** page (picture 7), select at least the following features:

- Client features
 - o CUSTOMTOOLS SOLIDWORKS add-in
 - o CUSTOMTOOLS Administration
- Tools
 - o CUSTOMTOOLS CustomImport Standalone

The **CUSTOMTOOLS CustomImport Standalone** feature is very important while making the bidirectional Excel link because it is the tool used to import the SOLIDWORKS documents' custom property data changed in the Excel workbook, into the CUSTOMTOOLS database.

Click **Next** to proceed once the necessary features are selected.

Complete the following steps of the CUSTOMTOOLS installation like guided in the CUSTOMTOOLS Install Guide. Click one of the following links based on the needs in your environment:

- I need to install the CUSTOMTOOLS Database into my local workstation
- My environment already have the CUSTOMTOOLS Database installed



?

Once the installation is finished, you need to activate your CUSTOMTOOLS products on the first start of them.

To activate the CUSTOMTOOLS products, please refer to the <u>CUSTOMTOOLS License</u> <u>Activation</u> help for the instructions.



Start the CUSTOMTOOLS installer normally and click **Next** in the start page of the CUSTOMTOOLS installer shown the picture 3.

Now, the **Program Maintenance** page shown in the picture 8 appear.

🖞 CustomTools 2015 - InstallShield Wizard			
Program Maintenance			
Modify, repair,	, or remove the program.		
Modify			
1 ¹	Change which program features are installed. This option displays the Custom Selection dialog in which you can change the way features are installed.		
🔘 Repair			
F	Repair installation errors in the program. This option fixes missing or corrupt files, shortcuts, and registry entries.		
Remove			
8	Remove CustomTools 2015 from your computer.		
InstallShield			
	< Back Next > Cancel		

8. The Program Maintenance page of the CUSTOMTOOLS installer.

Select the **Modify** option from the **Program Maintenance** page and then click **Next**. At this point, you get directly to the Custom Setup page where you can change the CUSTOMTOOLS features installed in your workstation.

😸 CustomTools 2015 - InstallShield Wizard	—
Custom Setup Select the program features you want installed.	G
Click on an icon in the list below to change how a feature is ins	talled. Feature Description This feature requires 80KB on your hard drive.
InstallShield	Next > Cancel

9. The Custom Setup page of the CUSTOMTOOLS installer.

In this case, we are adding the **CUSTOMTOOLS CustomImport Standalone** feature into the existing CUSTOMTOOLS installation and we do not have to remove any installed features.

Make sure that your workstation also have the **CUSTOMTOOLS Administration** feature installed from the **Client** features. If the **CUSTOMTOOLS Administration** is not yet installed in your workstation, select it as well to install it because it is needed later in this manual to add the necessary CUSTOMTOOLS script add-in into the CUSTOMTOOLS database.

Click **Next** to continue the installation.

2

?

Complete the following steps of the CUSTOMTOOLS installation like guided in the <u>CUSTOMTOOLS Install Guide</u>.

Once the installation is finished, run the CUSTOMTOOLS Administration Tool. If you now installed the CUSTOMTOOLS Administration Tool, you may need to activate the Administration Tool's license.

To activate the Administration Tool (if needed), please refer to the <u>CUSTOMTOOLS</u> <u>License Activation</u> help for the instructions.

CUSTOMTOOLS Setup Bi-Directional Excel Link in CUSTOMTOOLS

The bi-directional Excel linking in CUSTOMTOOLS works with help of the customized script addin. CUSTOMTOOLS script add-ins are managed by the CUSTOMTOOLS **Administration Tool**. That is why you need to have the **CUSTOMTOOLS Administration** feature.

Script Add-in

All custom script add-ins are developed by the specific order and so needs the script add-in for the bi-directional Excel linking as well. To order the script add-in to add the bi-directional Excel linking feature into your CUSTOMTOOLS environment, contact the CUSTOMTOOLS sales team by an email to the following address.

sales@CUSTOMTOOLS.info

In the following sections of this manual, we assume you already have received the script add-in to apply the bi-directional Excel linking feature in your CUSTOMTOOLS environment.

CUSTOMTOOLS Export Feature

Bi-directional Excel linking created in this manual works in association to the CUSTOMTOOLS **Export** feature. To apply the script in use, you also need to make a new **Export Profile** by some special rules. The special rules of the **Export Profile** are used to associate the new **Export Profile** with the script add-in used by the bi-directional Excel link feature.



By first, run the CUSTOMTOOLS **Administration Tool** and login to your CUSTOMTOOLS database using the *Admin* user credentials. We use the Admin user credentials in this manual to make sure that we are logged into the CUSTOMTOOLS database as an user that have the necessary permissions in the CUSTOMTOOLS database.

CustomTools Administration 2015					
General Database Style - 2 🔍					
Properties Register Database Create Database Server	Set As Active Database Options Databa	Delete	Add Features	Create Profile	Copy As New A Rename Profile Export Profile Permissions Delete Profile Profile Options Profile Settings
Database View MPYNNONE-HOST.tes CT2015_SP3_B External Database Profiles User Groups Admins John Armst Manage Scripts	B405 pases fools trong (John) pler (Mark) is	Ch: 1		Comp	Add-in scripts Selected script: Selected script: Remove Script Remove Script Name: Language: Undefined Glass name: Load at start-up Debug add-in Referenced assemblies: Additional Eles Check In
•	•				 h.

10. CUSTOMTOOLS Administration Tool

To enter to the script add-ins management, select the **Manage Scripts** node from the **Database View**. Then select the *<New Script>* option from the **Selected script** box.

Create a New Script

In this example we have the CUSTOMTOOLS script add-in as an external source code file and as we have a script that works in association with the **Microsoft Excel** workbook, we also have an additional file which is used as the Excel file template.

Script's Source File



Click the button associated to the **Selected script** box to browse for the script source file you have received. In most of the cases, the script add-in's source file is a **Microsoft C#** file (*.cs). In this example, the script source file is called **UpdatePropExcel.cs**.

		Selected script: <new script=""></new>	-
Tools Helps as Script Files for Bi-Direction	ional Excel Link 👻 😽	Search Script Files fo	or Bi-Direct 🔎
er			
Name	Date modified	Туре	Size
(曾) UpdatePropExcel.cs	14.4.2015 11:14	Visual C# Source f	36 KB
			}
when had a should be should be should be a should be a should be a should be a	montrout	and the second s	and -

11. CUSTOMTOOLS script add-in's source file in the Open dialog box.

Browse and open the **UpdatePropExcel.cs** file with help of the **Open** dialog box. When you open the script source file, the source code included in the file appear to the script add-in's code area in the CUSTOMTOOLS Administration.

Once you have loaded the script's source file, ensure that **C#** is selected in the **Language** box and the selected class in the **Class name** box is **UpdatePropExcel**.

Select the **Load at start-up** option and then click the **Check In** button to compile the script and save the script into the CUSTOMTOOLS database.

Additional Files

As told above, the bi-directional Excel linking needs the Excel file template so before closing the **CUSTOMTOOLS Administration Tool**, upload the Excel file template as an additional file into the database.

Click the **Additional Files** button to open the **Add-in Script Files** dialog box which you can use to upload the additional files into the CUSTOMTOOLS database.

Filename			Size	Open
ExcelExportTe	mplate.xlsm		34450	Delete
•			Þ	
Upload file				
File:			6	Upload

12. The Add-in Script Files dialog box is used to upload additional files needed by the script add-in, into the CUSTOMTOOLS database.

In the **Add-in Script Files** dialog box, click the button to browse for the Excel template file. In this example, the Excel template file is called **ExcelExportTemplate.xlsm**. Locate and open your Excel template file with help of the **Open** dialog box and then click **Upload** to upload the template file into the database. Finally, click **OK** to exit the **Add-in Script Files** dialog box.

Setup the CUSTOMTOOLS Export Feature

CUSTOMTOOLS **Export** feature is set up in the CUSTOMTOOLS **Profile Options**. You can use the **Administration Tool** or the **SOLIDWORKS add-in** to make the necessary changes to your CUSTOMTOOLS profile options.



Open the CUSTOMTOOLS **Profile Options** and select the **Export Profiles** node from the options tree view.

····Projects	User Options	es				
Sequences CustomProperties Model Properties Orawing Properties Ordult List Properties Sheet Metal Settings Weldment Settings	Name Output Path CustomTools Raw structure {Source Path}{Source Filename}_{Date}.xml Excel report {Source Path}{Source Filename}.xlsx				}.xml	
	New		Delete			
Model Combination	Label	Field Type		Field Data		
Sheet Format Action Layer Definitions File Conversion Database Search Groups Materials Export Profiles						
CNC Tool Options	New	Edit	Delete			

13. The Export Profiles options in the CUSTOMTOOLS Profile Options dialog box.

Click the **New** button associated to the **Export profiles** group to create a new export profile.



Export Profil	e (CustomTools) ? 🗙
Profile name:	
Bi-Directional BOM [UpdateProperties]	
Output path:	
Source Path Source Filename	DATE.xml
XSL style sheet:	
	Browse
	V 🔶
<	>
Language:	
	<u> </u>
BOM Type	Run conversion rules
Top level only	Pdf Build
O Parts only	PdfMerge

14. The **Export Profile** dialog box.

?

Create the new export profile using the settings described in picture 14 above:

- **Profile name**: Bi-Directional BOM [UpdateProperties]
- **Output path**: {Source Path}{Source Filename}_{Date}.xml

Once you have created the export profile itself, you need to add the property fields into the export profile to map the needed CustomProperties with the export profile created.

For more information about the **Export Profile** creation, please see the CUSTOMTOOLS **Export Profiles** help.



		Profile Opt	tions - Export	Profiles (CustomTo	ols)
Database Options Profile Options U	ser Options				
Projects	Export profiles				
Sequences CustomProperties	Name		Output Path		
Model Properties	CustomTools R	aw structure	{Source Path}{S	ml	
··· Drawing Properties	Bi-Directional B	OM [UpdatePro	{Source Path}{S	ource Filename}_{Date}.xi	ml
Cut List Properties Sheet Metal Settings Weldment Settings	Excel report		{Source Path}{Source Filename}.xlsx		
Wersion Properties Custom Scope Properties Custom Entity Properties Custom Entity Settings	New	Edit	Delete		
Lookup Lists Combination Properties	Profile fields				
Model Combination Drawing Combination Weldment Combination RAL Color Color Batch Job	Label	Field Type		Field Data	
···· Print Properties ···· Sheet Format Action ···· Layer Definitions ···· File Conversion					
···· File Conversion ···· Database Search Groups ···· Materials					
Export Profiles CNC Tool Options CoBox Options	New	Edit	Delete		

15. Click the **New** button to add property field into the selected export profile.

To add CustomProperties to the export profile, select the export profile you created and then click the **Add** button associated to the **Profile fields** options group.

The Export Profile Field dialog box shown in the picture 16 appear.

Field type:
Field data:
V
Label
Value
Options
Maximum length: 0
Compulsory field
OK Cancel

16. Add new field to the Export Profile using the **Export Profile Field** dialog box.

To create a field into the Export Profile, define the following options for the property field in the **Export Profile Field** dialog box:

- **Field type**. Determines the type of the source of the value retrieved to the export profile field. You have the following options to choose the field type from:
 - **CUSTOMTOOLS attribute**. Select this to retrieve the field data from a CustomProperty. Select the source attribute from the **Field data** box.
 - SOLIDWORKS property. Select this to retrieve the field data from the selected SOLIDWORKS property of the file. Select the source attribute from the Field data box.
 - Value. Select this to determine the field data manually.
- Field data. Determines the source property of the export field when the Field type is either CUSTOMTOOLS attribute or SOLIDWORKS property.
- Label. Determines the field label shown in the Export dialog box and, in the output file.
- Value. Determines the user defined value for the export profile field.

Profile Field Options

• Maximum Length. Determines the maximum length of the property value to be written to the export profile field on the Export process. This option does not change the maximum length of the CustomProperty itself.



• **Compulsory field.** Select this option to make the profile field as required. When this option is selected, the export profile filed have to have value in order to allow to start the export process.

Profile fields to be added

In this manual, we create the following fields into the Export Profile we recently created. Please note that the custom properties that can be modified in the Excel repot must be written between brackets e.g. {Description} in the Label:

G Export Profile Field (CustomTo ?	x
Field type:	
CustomTools attribute	~
Field data:	
Description3	~
Label	
{Description3}	
Value	
Options	
Maximum length:	_
Compulsory field	
📀 ок 🔇 с	Cancel

17. To be able to modify a custom property in Excel the label must be written between brackets {Description3}.

The users will only be able to modify custom properties written within brackets, if a custom property is exported and the label does not contain any brackets then the user using the Excel document will not be able to modify the custom property value.

G Export Profile F	ield (CustomTo	? ×
Field type:		
SolidWorks property		~
Field data:		
Part Number		~
Label		
Part Number		
Value		
Options		
Maximum length:	0	A
Compulsory field		
	📀 ок 🙁	Cancel

18. Prevent users from modifying custom property values by defining the label without using any brackets e.g. Part number.

- Drawing No
 - Field type: CUSTOMTOOLS attribute
 - Field data: drw_no
 - Label: Drawing No
- Item No
 - Field type: SOLIDWORKS property
 - o Field data: Item Number
 - o Label: Item No
- Qty
 - Field type: SOLIDWORKS property



- Field data: Quantity
- Label: Qty
- Description
 - Field type: CUSTOMTOOLS attribute
 - Field data: description
 - Label: Description
- Material
 - Field type: CUSTOMTOOLS attribute
 - Field data: material
 - Label: Material
- Design Date
 - Field type: CUSTOMTOOLS attribute
 - Field data: DrawnDate
 - Label: {Design Date}
- Designer
 - Field type: CUSTOMTOOLS attribute
 - Field data: DrawnBy
 - Label: {Designer}
- item
 - Field type: CUSTOMTOOLS attribute
 - Field data: item
 - Label: {item}
- Price
 - Field type: CUSTOMTOOLS attribute
 - Field data: Price
 - Label: {Price}
- Finish
 - Field type: CUSTOMTOOLS attribute
 - Field data: surface
 - o Label: {Finish}
- Preview
- :: CUSTOMTOOLS product of ATR Soft Oy :: info@CUSTOMTOOLS.info :: www.CUSTOMTOOLS.info ::



Add the fields described above into your export profile as they are documented. Once you have added the fields into the export profile, the CUSTOMTOOLS profile customization is done and you can proceed to the use case example.





This chapter describes an example use case of usage of the bi-directional Excel link in practice.



NOTE: In order to use the **Export** feature in CUSTOMTOOLS, you need to have the **CUSTOMTOOLS Professional** license in use.

Exporting the Current Model Structure

By first, run the SOLIDWORKS 2015 SP4. Then open an assembly in SOLIDWORKS. In this manual, I use a conveyor assembly as an example.



199. The Conveyor assembly used in the example.

Once opened the main assembly, click the **Export** button in the **CUSTOMTOOLS** command manager. In the model structure, select the subassembly and then click **File Operations, Open file in SW** to open just the subassembly in SOLIDWORKS.



In this example, I update the property values for the leg frame subassembly of the conveyor (Picture **Error! Reference source not found.**) with help of the bi-directional Excel link.



^{20.} The leg frame subassembly.

While the subassembly is open in SOLIDWORKS, click the **Export** command again in the **CUSTOMTOOLS** command manager to open the **Export** dialog box again but now having just the subassembly's structure listed in the **Structure view**.



cture view:											Profile
m Name	Drawing No	Item No	Qty	Description	Material	{Design Date}	{Designer}	{item}	{Price}	{Finish}	Export profile: Bi-Directional BOM [UpdateProperties]
A12-00008	A12-00008-08	0	1	LEG FRAME	-	7.1.2012	DMcT				
P12-00	P12-00004-08	1	1	LEG FRAME	AISI 304	7.1.2012	DMcT			Bead blast	Selection
<pre> § P12-00 </pre>	P12-00009-08	2	2	THREADED P	ST/STL 304	7.2.2012	DMcT			Deburnig	
🤏 P12-00	P12-00010-08	3	1	LEVELLING F	-	7.2.2012	DMcT				
🤏 P 12-00	P12-00011-08	4	1	LEVELLING F	-	7.2.2012	DMcT				
🤏 P12-00	P11-00005-08	5	2	PLATE	AISI 304	7.2.2011	TTL			Cutting	No preview available
🍕 P12-00	P12-00006-08	6	2	LEG BRACE P	AISI 304	7.2.2012	DMcT			Cutting	no preview draidble
🤏 Р12-00	P12-00007-08	7	2	LEG BRACE	AISI 304	7.2.2012	DMcT				
											Filename: Z:\SW files\Conveyor\A12-00008-08 LE
											BOM
											Exclude Invalid Rows
											Excluded from BOM
											Apply to Files
										>	Export

21. The **Export** dialog box with the subassembly structure in the **Structure view**.

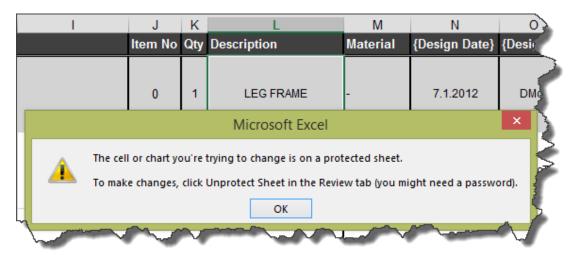
In the **Export** dialog, select the **Bi-Directional BOM [UpdateProperties]** as the exporting profile in the **Export profile** box. Then click the **Export** button to export the model structure into an **Excel** workbook.

Once you have exported the model structure in the Excel workbook, the **Microsoft Excel** starts automatically with the exported file open.

Close **SOLIDWORKS** at this point.



In the **Microsoft Excel**, you can edit all property values that header text is surrounded by the curly brackets ({ }). The rest of the properties in the Excel sheet are protected and you receive an error message if trying to change values of the protected cells.



20. Values in the protected cells cannot be edited.

In picture 20 is shown an error message which appear when trying to edit value in Excel that is in a protected cell (a cell with header without the curly brackets).

	ABCDEFGH I	J		L	М	N	0	Р		R	S	V	W	X
1	Drawing No	Item No	Qty	Description	Material	{Design Date}	{Designer}	{item}	{Price}	{Finish}	Preview	Status		
2	A12-00008-08	0	1	LEG FRAME		7.1.2012	DMcT	A12-08			4		Imp	ort
3	P12-00004-08	1	1	LEG FRAME	AISI 304	7.1.2012	DMcT	P12-08		Bead blast	þ			
4	P12-00009-08	2	2	THREADED PLATE, M16	ST/STL 304	7.2.2012	DMcT	P12-09		Deburring	0			
5	P12-00010-08	3	1	LEVELLING FOOT	*	7.2.2012	DMcT	P12-10		Sintering	L.			
6	P12-00011-08	4	1	LEVELLING FOOT	-	7.2.2012	DMcT	P12-11		Sintering	L			
7	P11-00005-08	5	2	PLATE	AISI 304	7.2.2011	TTL	P12-12		Cutting				
8	P12-00006-08	6	2	LEG BRACE PLATE	AISI 304	7.2.2012	DMcT	P12-13		Cutting	e			
9	P12-00007-08	7	2	LEG BRACE	AISI 304	7.2.2012	DMcT	P12-14		Cutting				

213. New values in the updateable cells in the Excel workbook.



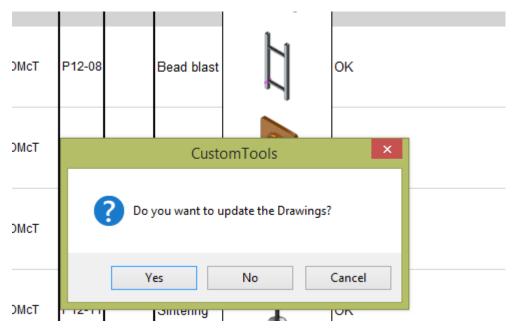
The example assembly does not have the item numbers in the **{item}** column and the finishing information in the **{Finish}** column is also missing from some of the rows. Enter the desired values into the cells of which values are currently missing.

Import New Values to the Models

To update the new values into the CUSTOMTOOLS database, click the **Import** button located in the Excel workbook's sheet. During the import process, the *OK* text appear to the **Status** column of each row once the associated item is imported.

Update Drawings

Once the importing process is finished, the **CUSTOMTOOLS** prompt appear to let you to choose whether or not to update also the drawing referenced by the models listed.



22. A prompt to choose whether to update the drawings or not.

In the prompt, click **Yes** to update the referenced drawings. Then the values used for example in the drawings' title blocks are updated. Click **No** if wish not to update the drawings. Both options; **Yes** and **No** still updates the new values into the CUSTOMTOOLS database.



If you do not want to update the CUSTOMTOOLS database at this point, click **Cancel**. You can then update the database later by using the CUSTOMTOOLS **Import** feature in SOLIDWORKS. In this example, select **Yes** in the prompt.

Please wait while CUSTOMTOOLS updates the drawings with help of the CUSTOMTOOLS **Import Standalone** tool and SOLIDWORKS. The drawings' update process may take several minutes to complete. Once all files are imported, click the **Close** button in the **Import** dialog box to exit the **Import Standalone** tool.

The new property values are now written to the CUSTOMTOOLS database and the models' referenced drawings are updated based on the new property values.



In this chapter, we confirm that the new values were written properly into the models. Then we open one drawing to check that the properties used in its title block were also updated.

Checking the Model Values

Start the SOLIDWORKS and open the assembly file of which property values were updated with help of the **Microsoft Excel**.

Item Name	Drawing No	Item No	Qty	Description	Material	{Design Date}	{Designer}	{item}	{Price}	{Finish}	Preview
A12-00008	A12-00008-08	0	1	LEG FRAME		7.1.2012	DMcT	A12-08		_	
P12-00		1	1	LEG FRAME	AISI 304	7.1.2012	DMcT	P12-08		Bead blast	
🦲 P12-00		2	2	THREADED P	ST/STL 304	7.2.2012	DMcT	P12-09		Deburring	
🤏 P12-00	P12-00010-08	3	1	LEVELLING F	-	7.2.2012	DMcT	P12-10		Sintering	
🤏 P 12-00	P12-00011-08	4	1	LEVELLING F	-	7.2.2012	DMcT	P12-11		Sintering	
🤏 P12-00	P11-00005-08	5	2	PLATE	AISI 304	7.2.2011	TTL	P12-12		Cutting	
🥵 P12-00	P12-00006-08	6	2	LEG BRACE P	AISI 304	7.2.2012	DMcT	P12-13		Cutting	
🤏 P12-00	P12-00007-08	7	2	LEG BRACE	AISI 304	7.2.2012	DMcT	P12-14		Cutting	

Click the **Export** command in the **CUSTOMTOOLS** command manager.

23. The CUSTOMTOOLS Export dialog box with the property values updated in Excel.

As we can see in the **Export** dialog box now, the new property values were updated properly into the model files. Next, open a drawing of any document of which property values you updated in Excel.

Checking the Drawing

To open the drawing, select the desired file in the **Structure view** and then click File **Operations, Open Drawings**.

The **Select Drawing** dialog box appear.

^{::} CUSTOMTOOLS product of ATR Soft Oy :: info@CUSTOMTOOLS.info :: www.CUSTOMTOOLS.info ::



G	Select Drawing (Custom	Tools) ? ×
Select drawings		Preview
Drawing	Referenced Model Configuration	
✓\P12-00007-08 LEG BRACE.SLDD	Default	
		4×
		De la la martina de la companya de l
<	>	
Found 1 drawings.		
Select All Clear Selection	Delete Selected	OK Cancel

24. The Select Drawing dialog box.

In the **Select Drawing** dialog box, select the desired drawing and then click **OK** to open the selected drawing. The selected drawing then opens in SOLIDWORKS.

In the example assembly, the **{Finish}** property value is used as the **Surface treatment** information in the drawing's title block.

1 1 1		U							L	2	
1	STEEL PLATE			P12-00007-08	MA10605		PL- 5 \$355K2G3 EN 10029 32×541,12×				
P art	art Description			Drw No.	ltem [Descrip	escription 2 🛛 🔰 🔪			
Drawin	ig No.: P	12-00007-08	Material	AISI 3	304	QTY:		Drawn By:	DMcT	Drawn Date	
State:	F	FOR APPROVAL	Weight:	0.	7 kg.	REV:		Appr. By:	Tero	Appr. Date	
<u>30201 - Ro</u> ller Conveyor						Scale: 1: Paper: A Sheet	4		For Sol	In Took In Works 20520 Turku Finland rustomtools info	
Surface treatment: RAL Color: Cutting							Ð	COPYRIGHT: THIS DRAWING MAY UNDER NO CIRCUMSTANCE BE COPA WITHOUT APPROVAL FROM ATR SOFT			
I work the second											

25. The updated title block of the drawing.

A value *Cutting* is now updated there as it was used to because of the property value changes that were made in the Excel so the drawings were also updated properly.

