

Re-usable Components with Spreadsheet Integration

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Purpose

Building a Re-usable component family in the re-use library from already existing items.

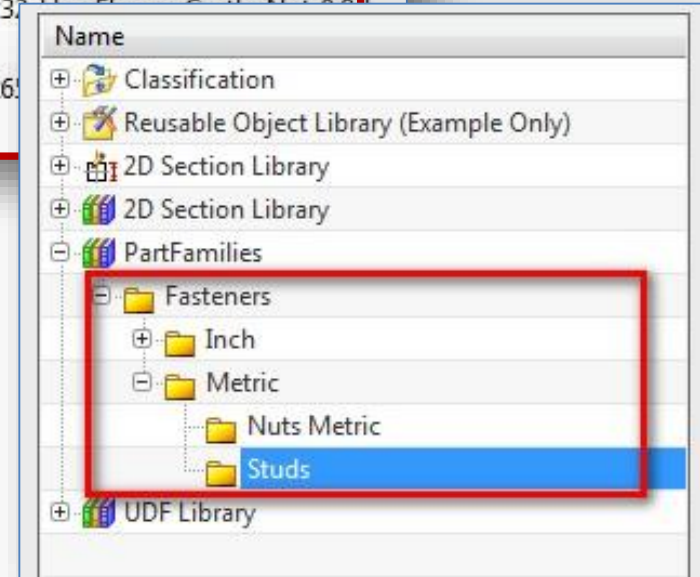
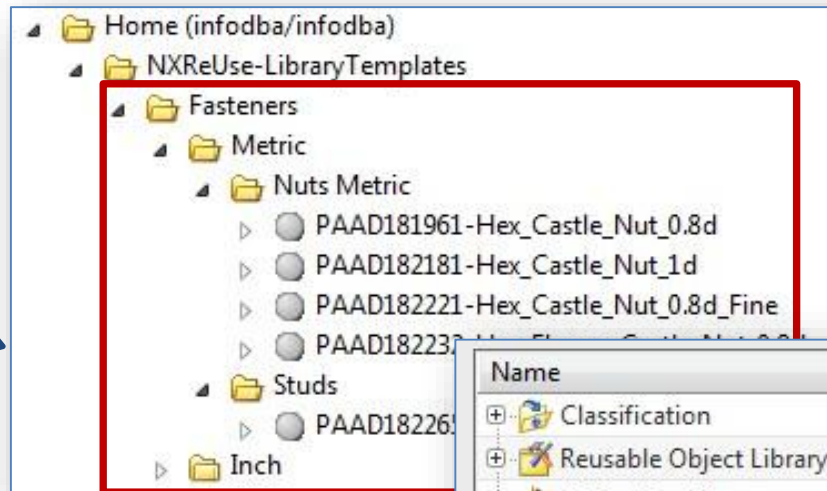
This is not intended for real Part Families

Teamcenter / NX preparations

Re-Use Library Setup

Teamcenter preparations

- 1) In Teamcenter infodba Home folder your library folder structure needs to be created. This structure will be shown in the Re-Use library
- Folder names MUST be Unique**
Do Not Use Underscores in Folder names,

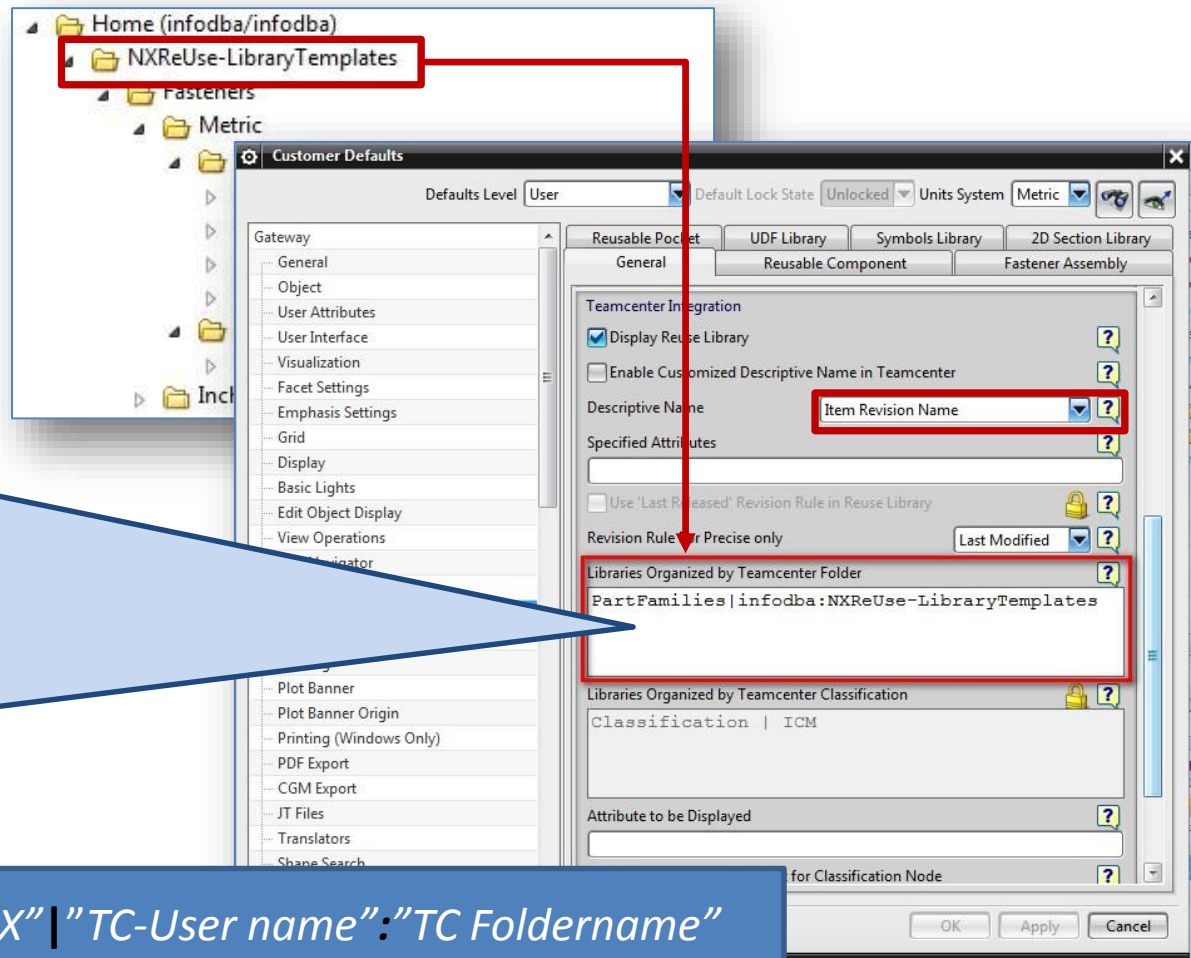


NX preparations

2) From “Gateway – Reuse Library – General Tab” Change the marked settings accordingly.

In “Libraries Organized By Teamcenter” Section the reference to the Teamcenter folder will be made.

The format of this string is very important.
No Spaces/Underscores allowed



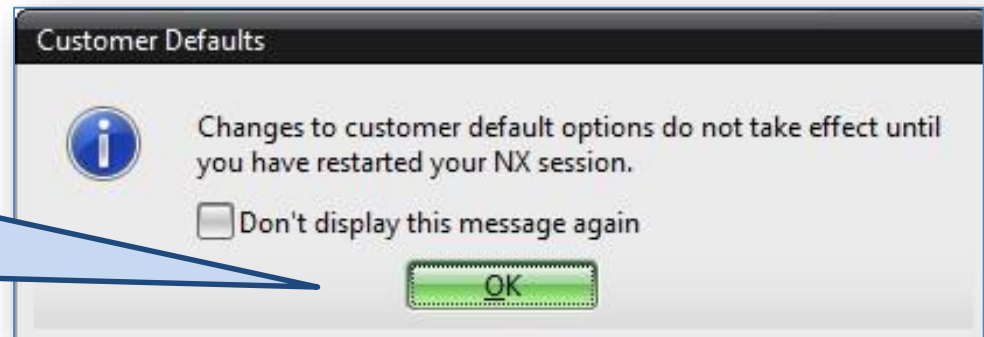
“Library name as shown in NX” | “TC-User name”: “TC Foldername”

NX Preparations

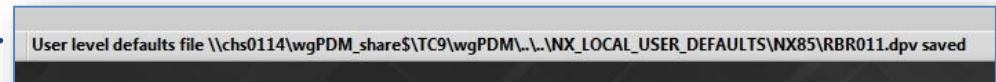
3) For the changes to be applied NX needs to be restarted.

Select OK

(this will NOT automatically restart NX)



From the status-bar you can read that your new settings have been saved.



Spreadsheet Creation

To simulate a Partfamily we need a spreadsheet which will select the proper TC Item id based on the parameter selection of the user.

Spreadsheet creation

For the re-Use library to function properly the template parts need a spreadsheet which is configured properly.
(Store on your local HD)
MAKE SURE it is of format XLS (2007).
XLSX won't work yet.

4) We will need 2 Cells.
One with value PARAMETERS and One with value END.
NX will look between these cells for the information it needs.

	A	B	C	D
1	PARAMETERS			
2	ThreadSize	Length	Bmat	DB_Part_No
3	6	50	"8.8"	015.101.004.231
4	6	50	21CrMoV5-7	015.101.004.237
5	8	20	"8.8"	015.101.005.051
6	8	20	34CrMo4;SCM 435	015.101.005.054
7	8	30	"8.8"	015.101.005.111
8	END			

These parameters are in no way connected to the 3D model in NX, they are just a list of values to make the proper ItemID selection in Teamcenter

Primary Parameters

ThreadSize

Length

Bmat

Details

Name	Value
ThreadSize	6
Length	50
Bmat	"8.8"
DB_Part_No	015.101.004.231

Spreadsheet creation

Any driving value in this range of parameters which has a **Decimal point** needs to be in quotations ("8.8")
If not done like this the re-use library will regard the numbers as 2 separate parameters.

The item with ThreadSize 6 and length 50 is available in two different Basic Materials with their own corresponding ItemID

	A	B	C	D
1	PARAMETERS			
2	ThreadSize	Length	Bmat	DB Part No
3	6	50	"8.8"	015.101.004.231
4	6	50	21CrMoV5-7	015.101.004.237
5	8	20	"8.8"	015.101.005.051
6	8	20	34CrMo4;SCM 435	015.101.005.054
7	8	30	"8.8"	015.101.005.111
8	END			

Primary Parameters

ThreadSize 6

Length 50

Bmat "8.8"

Details

"8.8"

21CrMoV5-7

Parent Part Creation

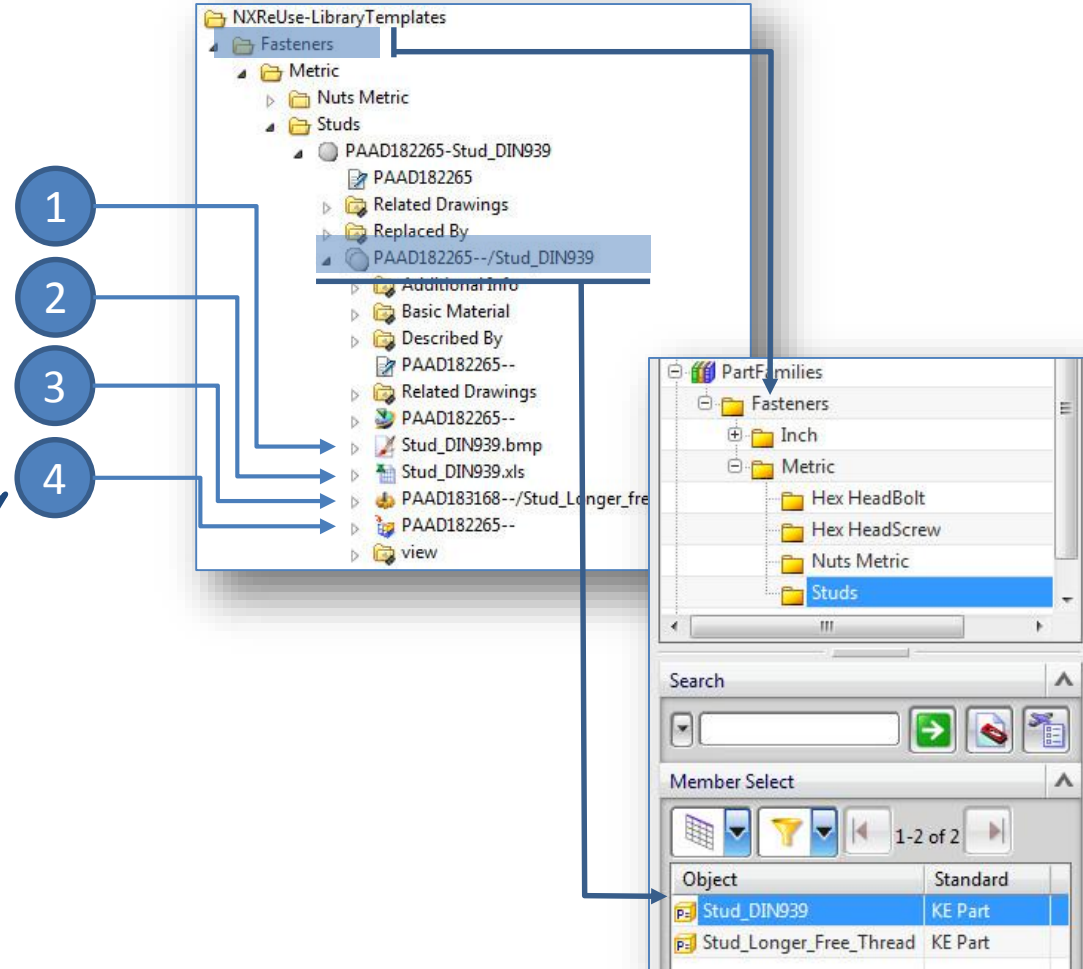
Each group of “family members” needs a part to function as a parent

Parent Part Creation

For storing the driving Spreadsheet and the KRX file (needed for re-use library), we create a Parent Part which will act as a container and the main selector for the re-use library

This item will hold the following datasets;

1. Image file for preview in selection menu
2. Spreadsheet for item selection
3. KRX file (needed for re-use library)
4. NX dataset for preview in re-use library



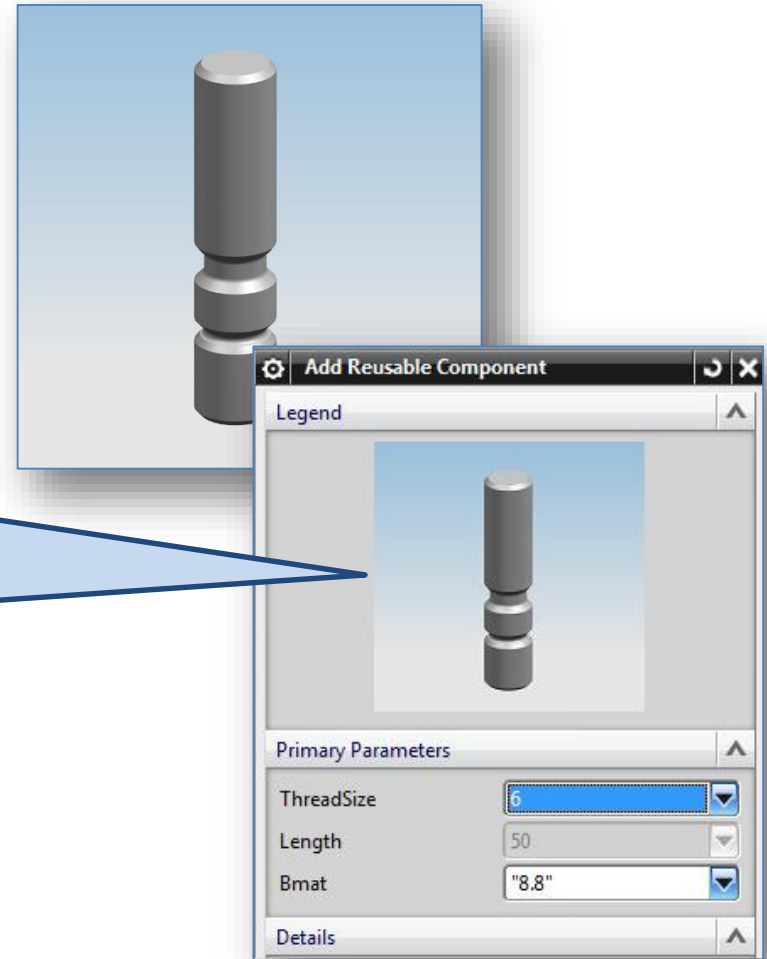
Parent Part Creation

In the parent part you create a 3D dummy model which represents the group for which you are creating the family.

From the NX screen create a square screen dump (Bitmap format) and resize that to 120 x 120 pixels.

(Store on your local Hard Drive)

This will be used as the preview image when a member is added to the assembly.

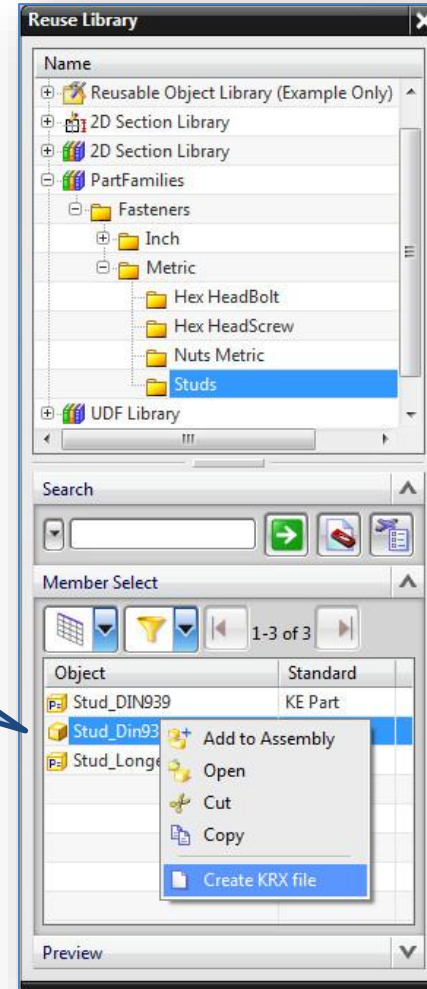


Parent Part Creation

In the library you will find the parent part which you have created in Teamcenter in the corresponding folder.

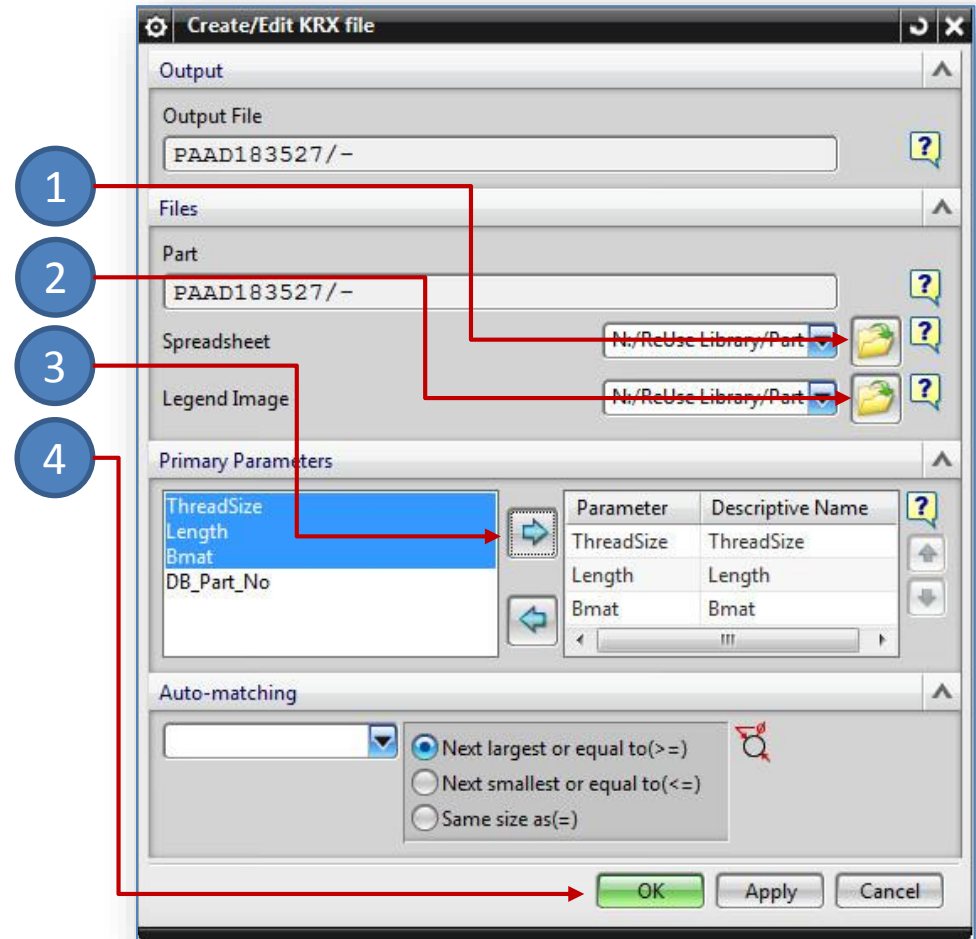
Right click on the item and select *"Create KRX File"*

This will activate the KRX file menu



KRX File Creation

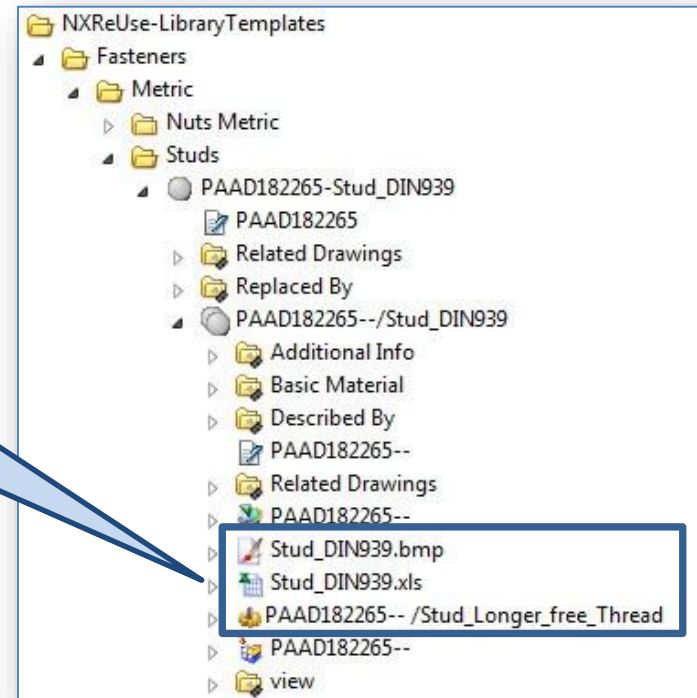
1. Select the Spreadsheet you have created for the component family
(From local Hard Drive)
2. Select the preview bitmap
(From local Hard Drive)
3. From the Primary parameters select the parameters which the user has to select from and add them to the section on the right
Do not add the DB_Part_No
4. Select OK to close the dialog.



Parent Part Creation

In Teamcenter the selected items (Spreadsheet and Preview Bitmap) will be added to the Parent Part and the KRX file will be created in there as well.

Editing the spreadsheet (adding new items afterwards) can be done from Teamcenter directly.



Document History Table

Date	Change	User
2015-02-20	Created	Ronald van den Broek
2015-02-20	Updates in spreadsheet creation	Ronald van den Broek