

KÄRCHER

makes a difference



KÄRCHER CATIA STARTMODEL

November 2019

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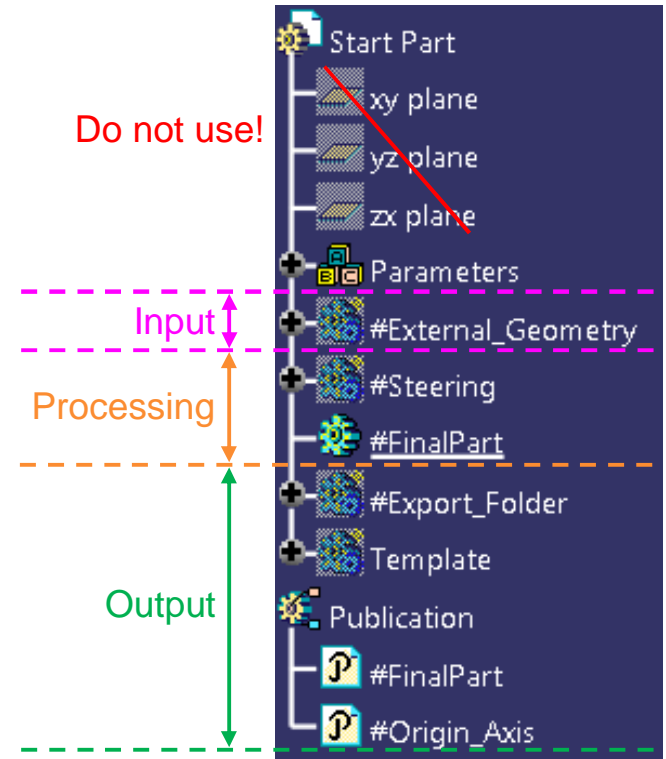
GENERAL STRUCTURE

The Start Part defines a general valid structure for designing parts in CATIA V5.

The Start Part provides divisions for archiving geometry which are divided into “Input”, “Processing” and “Output”.

Important:

- It's not allowed to rename or delete Bodies and Geometrical Sets starting with a #.
- Standard planes should not be used.



PARAMETERS

Division: Processing

Description:

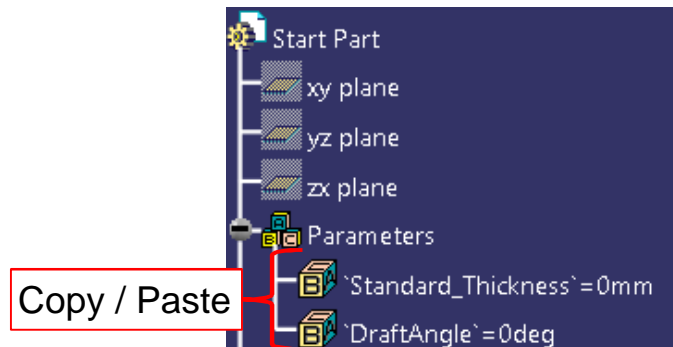
The pre-defined parameters can be used as template – „#Standard_Thickness“ can be copied for all length parameters, „#DraftAngle“ for all angles.

Method hint:

Do not create too much parameter. Limit them to the important ones.

Important:

The pre-defined parameters can also be used and modified directly!



REFERENCES FROM OTHER PARTS

Division: **Input**

Description:

All geometries from other parts must be pasted into the body or geometrical Set #External_Geometry. It is allowed to insert the geometry isolated (= as result) or with link to origin part.

Further sub-structures are allowed and recommended.

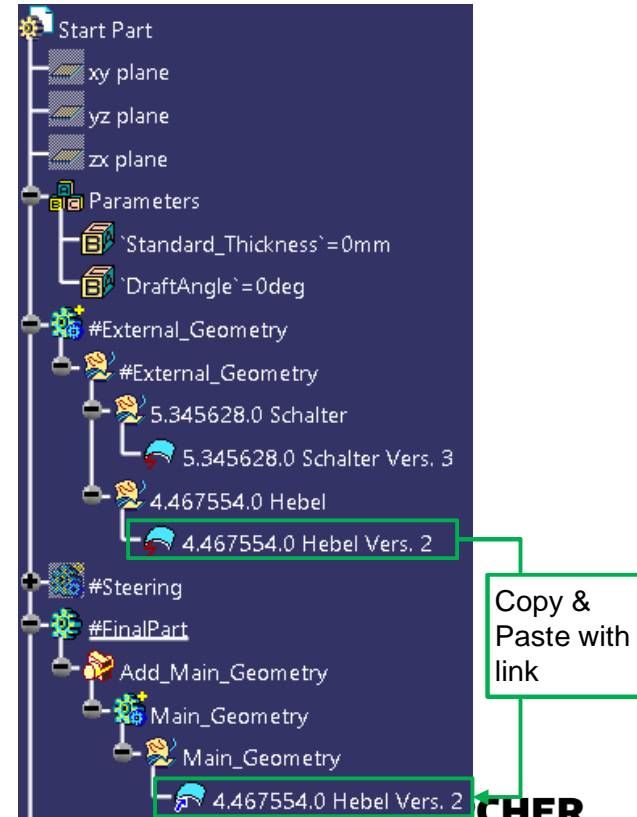
From here the geometry can be used with **[Copy & Paste as result with Link]** (CPL) in the following design.

Method hint:

It is recommended to use descriptive naming for the isolated geometry.

Important:

Only in this Body and Geometrical Set isolated geometry is allowed!



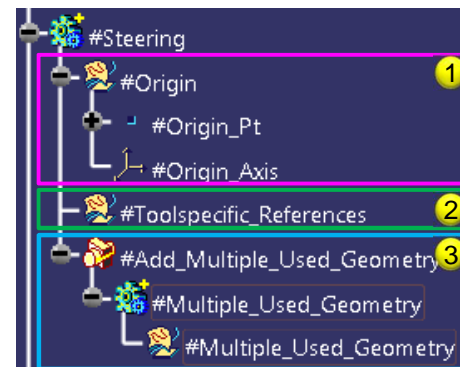
STEERING

Division: Processing

Description:

#Steering contains general steering features for the design and is divided into:

- 1. #Origin:**
contains part origin and origin axis system. Sub-structuring with geometrical sets is permitted.
- 2. #Toolspecific_References:**
contains tool specific references such as parting surfaces, draft directions, etc.
- 3. #Multiple_Used_Geometry:**
contains geometry that's used multiple in the design. These geometries can be copied and pasted with link in the respective body in the #FinalPart.



FINAL PART

Division: Processing

Description:

The #FinalPart contains the complete resulting geometry for the part.

Method hint:

You should use sub-structures with bodies (Boolean Operations) and geometrical sets to have a clear structure.



FINAL PART

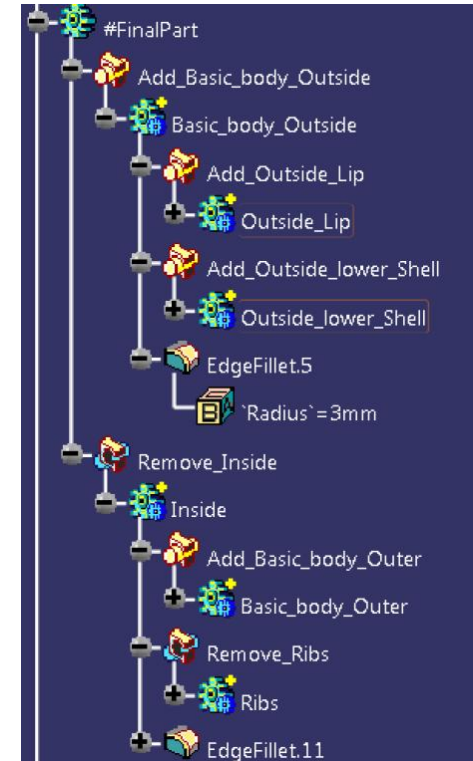
Division: Processing

Method hint:

Sub-structures should fulfill these demands:

- Documentation in an individual "Body" or "Geometrical Set"
- can be positioned with positioning points
- design with sketches (Positioned Sketch)
- geometrically independent from the rest of the design
- sketches are set into Hide
- sensible naming (surface results are named like their Geometrical Set)

see Kärcher CATIA Methodology



REFERENCES TO OTHER PARTS

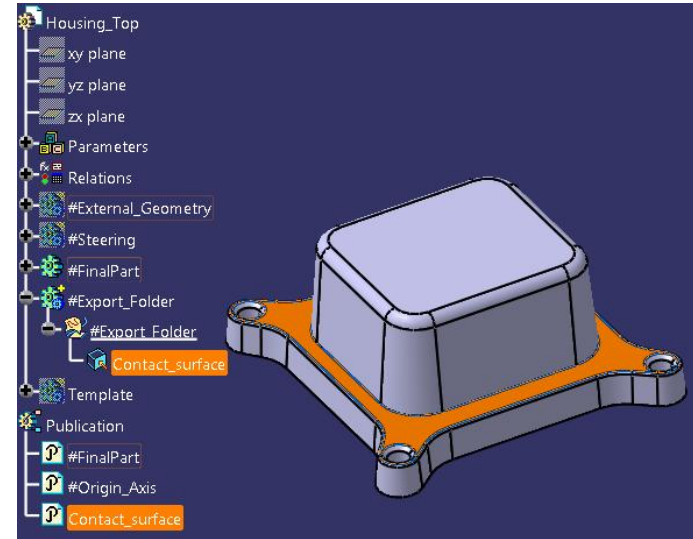
Division: Output

Description:

Exchange geometry (e.g. for tooling) can be put into #Export_Folder by using extract or CPL.

Method hint:

Exchange geometry should be published.



TEMPLATE

Division: -

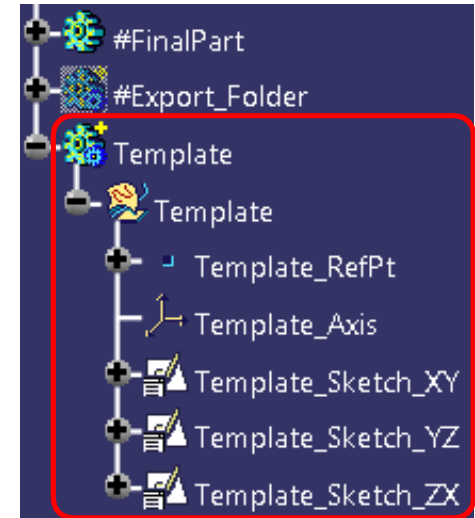
Description:

The Template is a pre-defined body that contains standard features like point, axis system and main sketches. It is used as master copy for surface and solid design.

The sketches refer to the respective planes and the origin of the axis system. Thus the complete structure can be positioned by editing the reference point of the respective geometrical set.

Note:

The template can be copied and inserted manually or by using the macro “Add Template”.



PUBLICATIONS

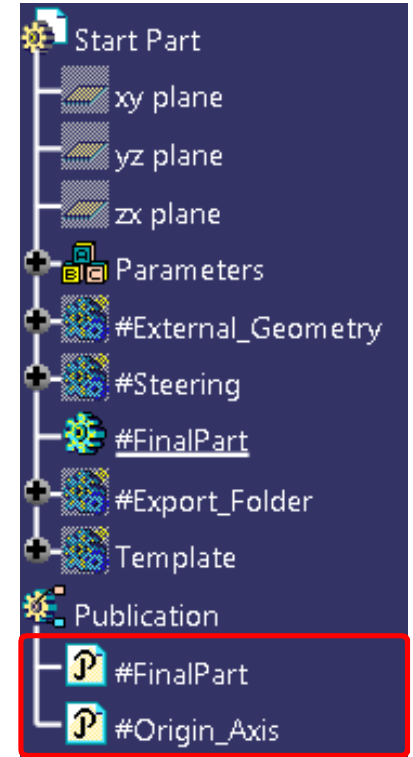
Division: Output

Description:

Publications are used when geometry from a part is used in another part or in a product.

In the Start part the #FinalPart is already published if needed to be copied to another part.

The #Origin_Axis is published mainly to be used in product context for positioning reasons (see Skeleton Methodology).



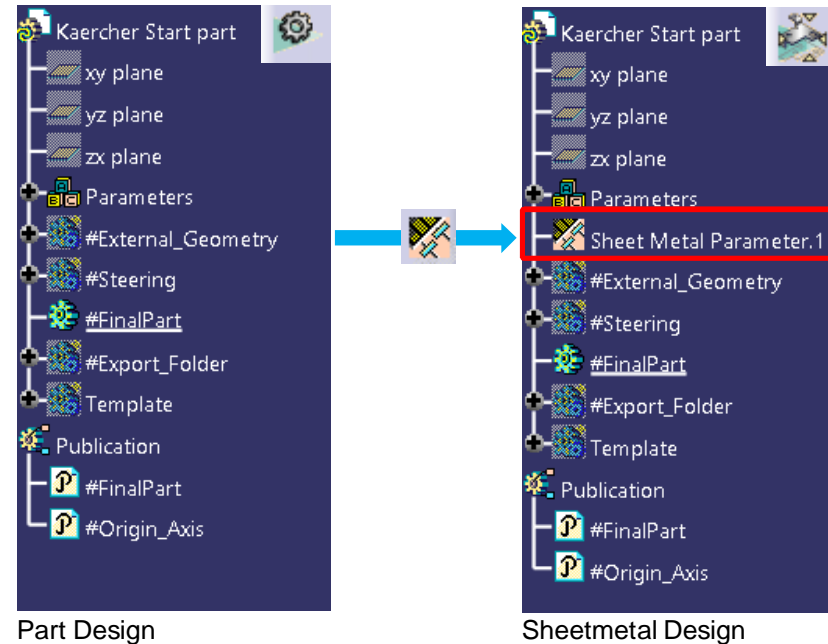
START PART FOR SHEETMETAL DESIGN

Division: -

Description:

Use the same Start part for PartDesign and Sheetmetal.

Due to the sheetmetal parameter, the Startmodel is defined as a Sheetmetal part for the Q-Checker.



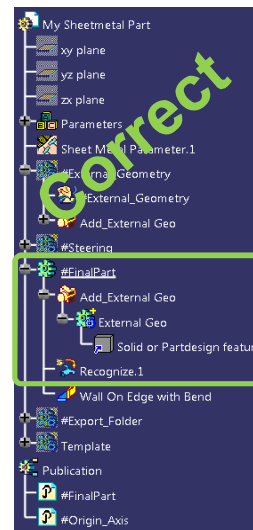
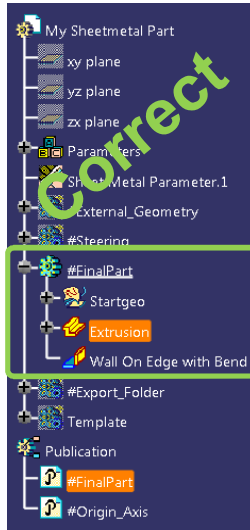
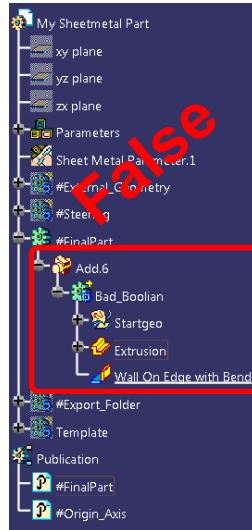
START PART FOR SHEETMETAL DESIGN

Note:

Don't use Boolean Operations for structuring your Sheetmetal Parts!

Else the „unfolded View“ doesn't work. Please work directly inside the #FinalPart.

Only one Boolean Add is allowed in special cases, e.g when Recognize-function is used.



MAKE A DIFFERENCE
THANK YOU