1st CERN CAD Forum

Tips and tricks

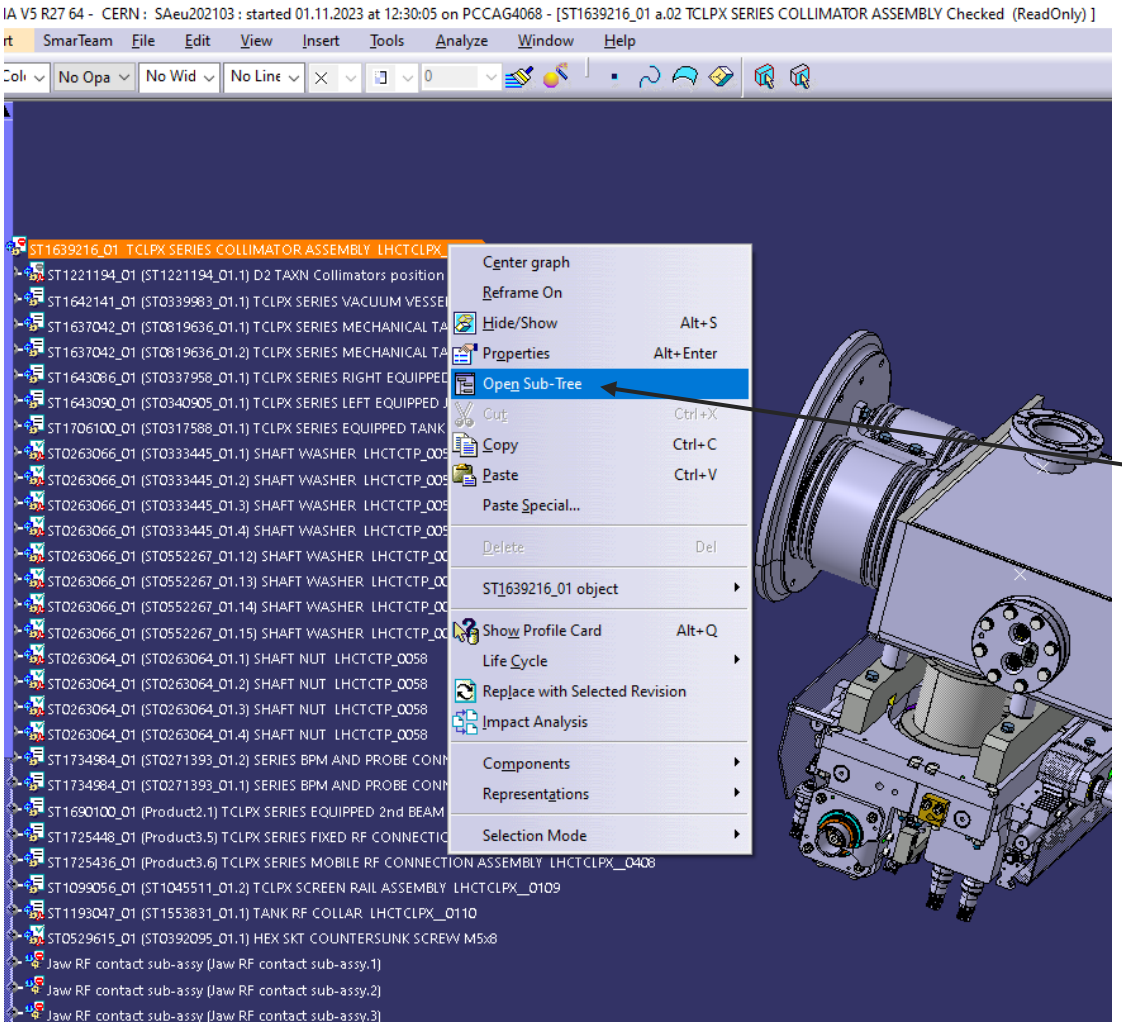
08.11.2023 – E.Urrutia for Kraftanlagen / Assystem

Table of content :

- Sub-tree window
- Intersection radius
- Quick parametrization
- Edit multi-constraints
- Dimensions re-routing
- Advanced replication tool (for geometrical sets)

Sub-tree window

Additional window can be opened to ease navigation in construction tree

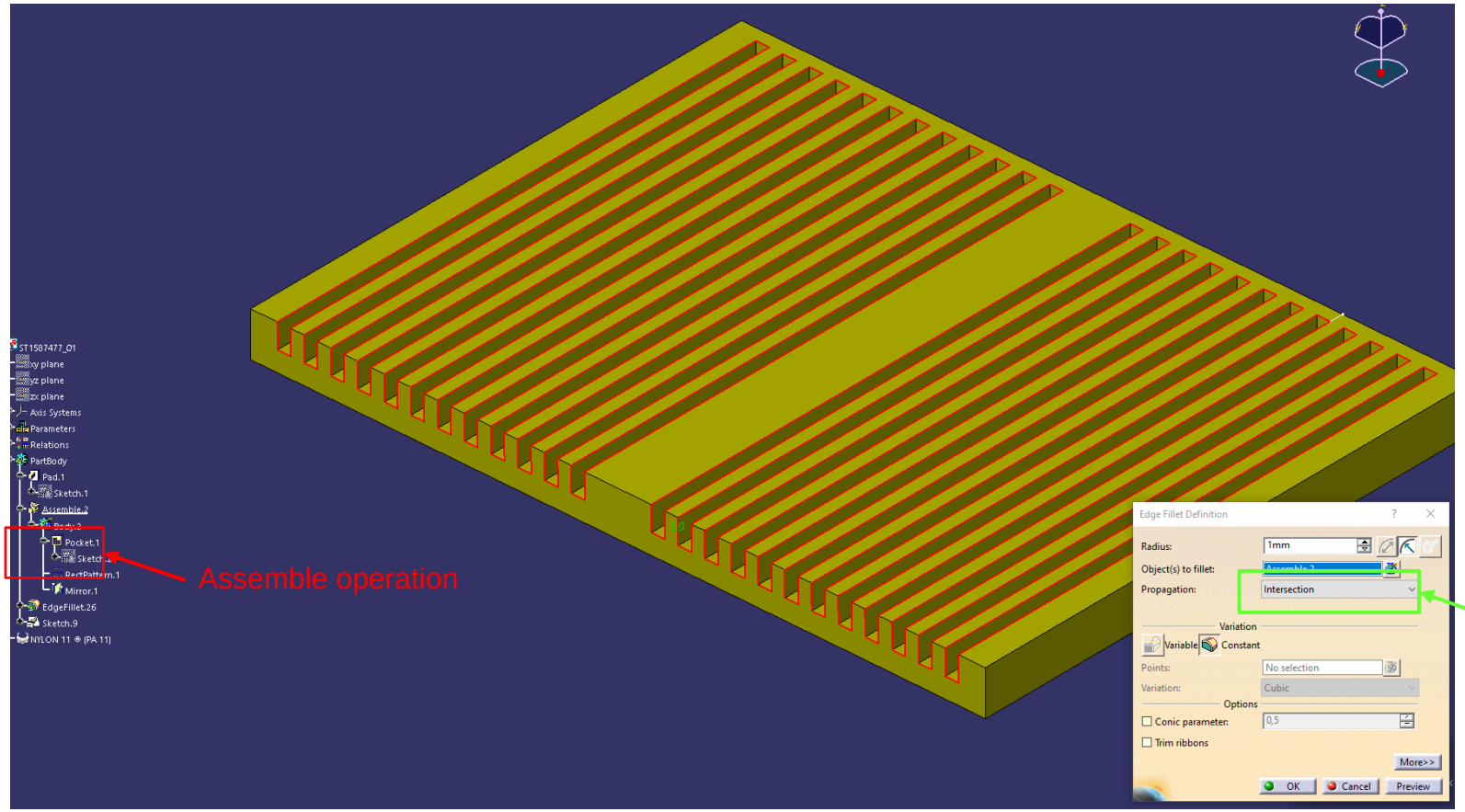


2nd window can be opened by right-clicking on construction tree

Can be very useful for big assenblies and 2 screens configuration

Intersection radius

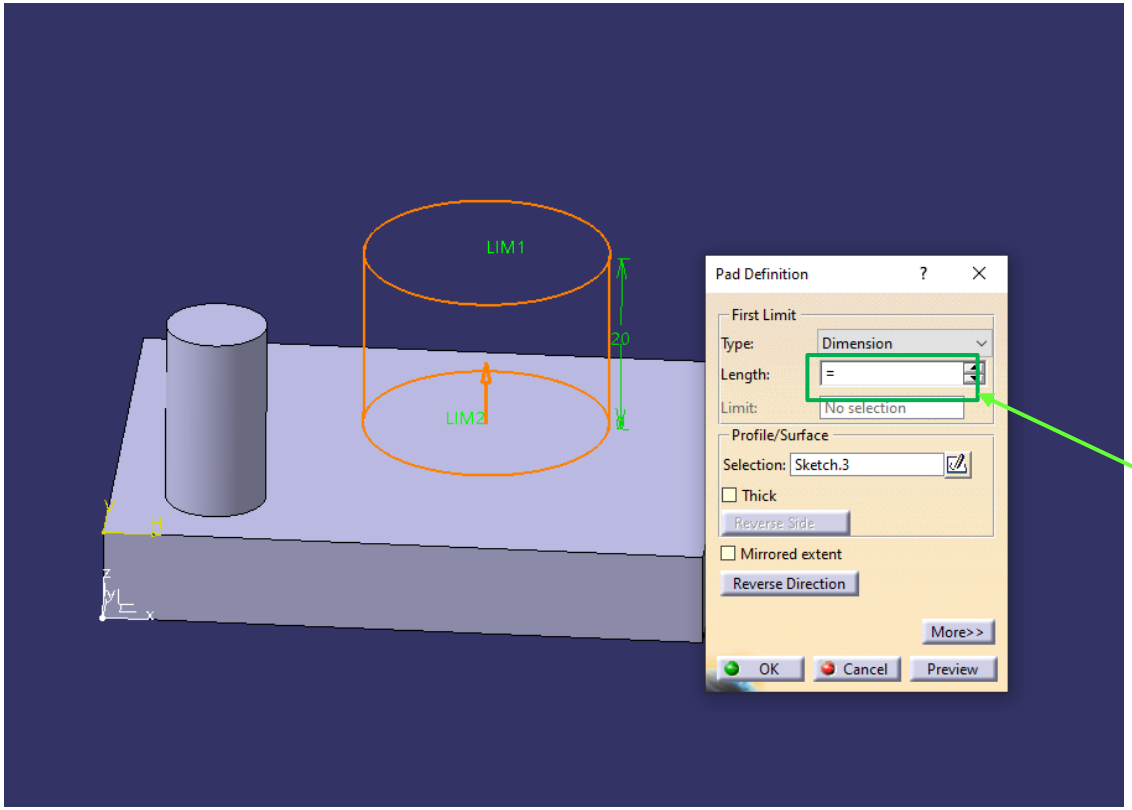
Edge selection in radius function can be done by selection intersection between 2 operations



In filet creation *Intersection* option allows to slect quickly all the edges created between 2 or more operations

Quick parametrization

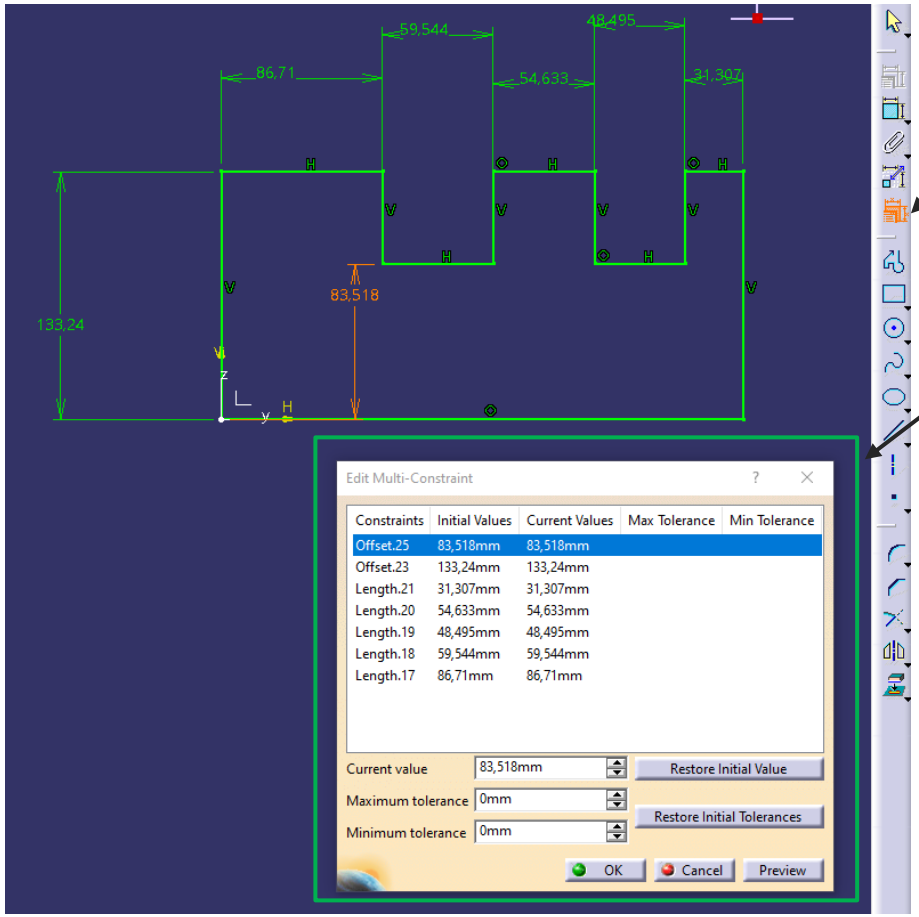
A method can be used to parametrize dimensions quickly during construction

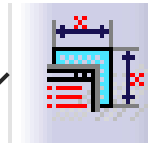


By using « = » symbol, dimensions can be linked quickly to parametrize construction (instead of right-click + edit formula + selection + ok)

Edit multi-constraints

Multi-constraint function allows to edit dimensions in a sketch before comitting them





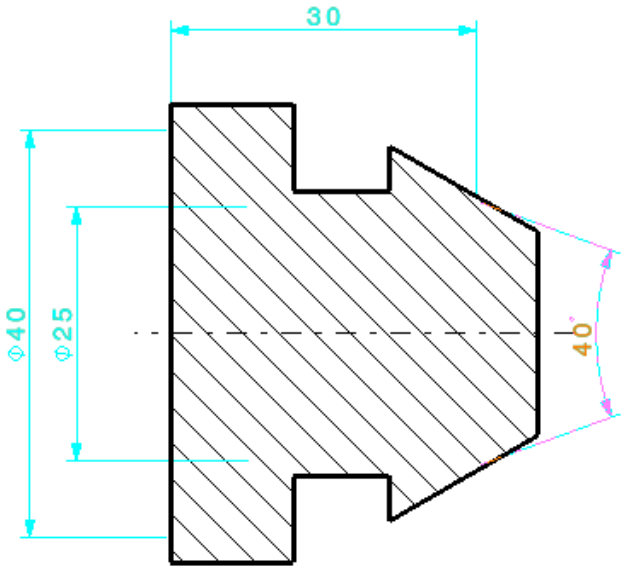
The dimensions box appears and allows the modification of values without a direct update of the geometry

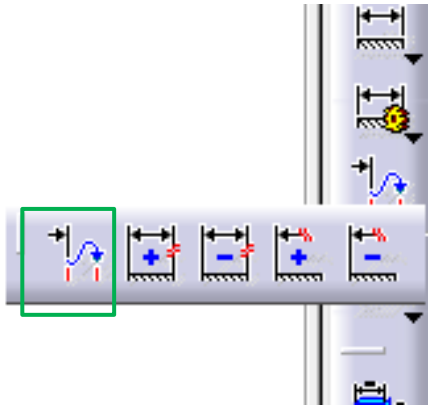
Useful when the geometry has a tendency to «flip» when dimension are changed (like tangent arcs for instance)
Allows to avoid dezooming operation when the sclae is not the good one at the begining

Dimensions re-routing

Re-route dimension tool allows to reconnect broken or hidden dimensions after a geometry update in drawing

In case of broken or hidden dimensions it’s possible to «repair» thanks to the Re-Route Dimension tool

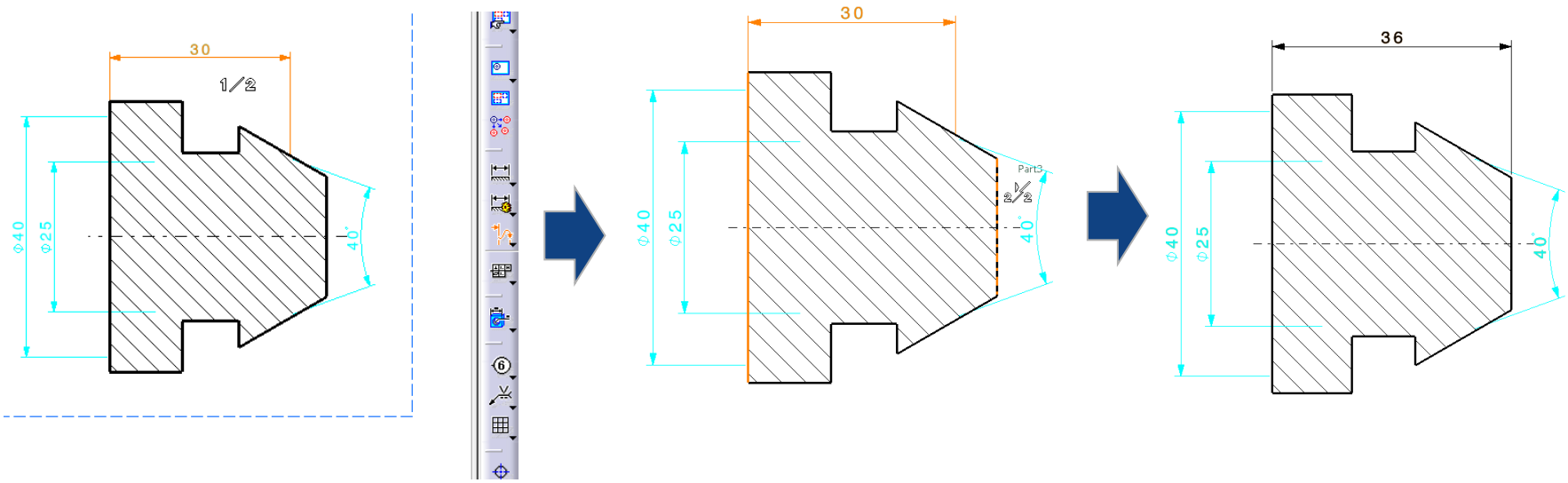




Re-Route Dimension tool

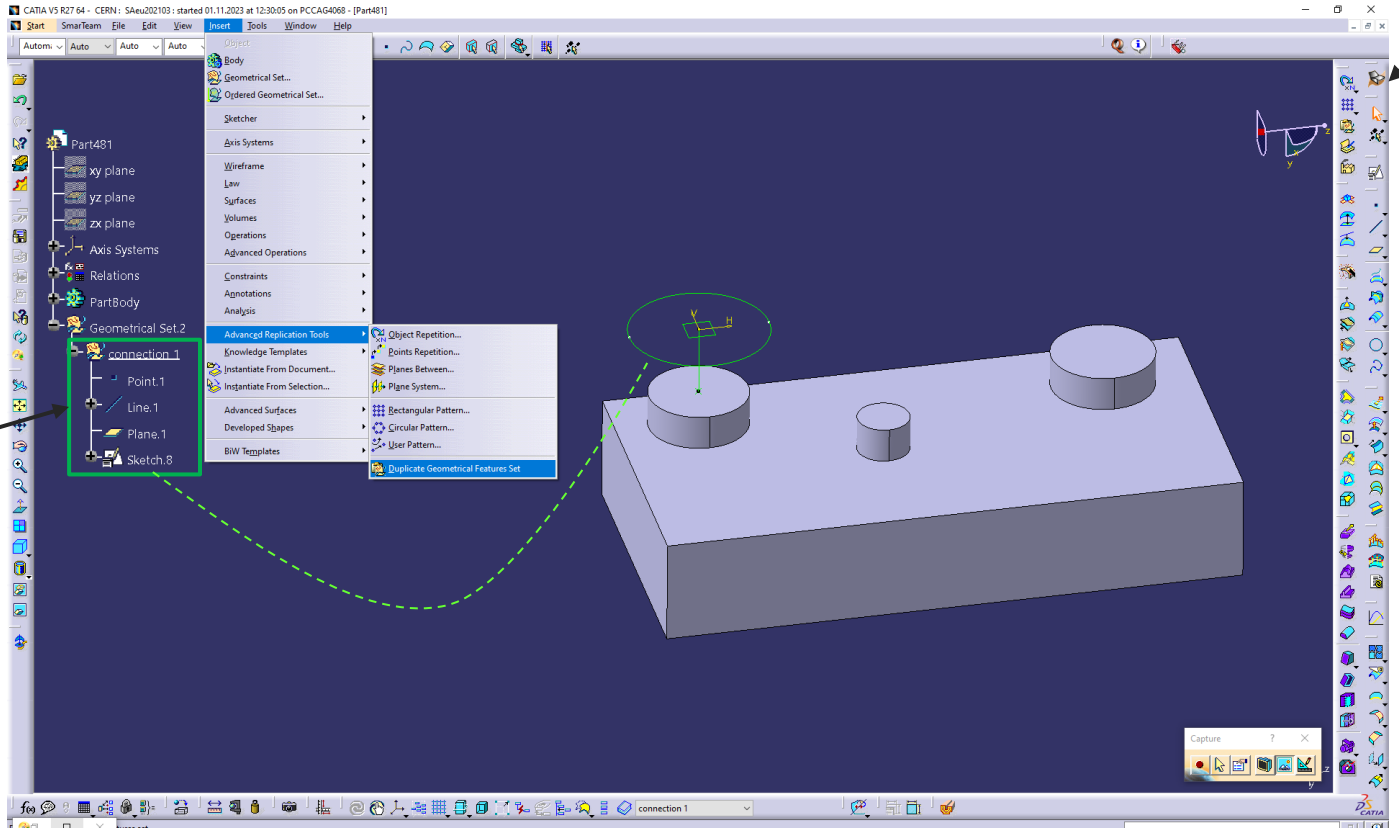
Re-route dimension tool allows to reconnect broken or hidden dimensions after a geometry update in drawing

Once Re-Route Dimension tool selected > click on the broken dimension > select the new inputs (one or several)



Advanced replication tool (for geometrical sets)

Duplicate Geometrical Features Set tool allows to repeat a number of features inside a geometrical set by selecting some inputs to create them



Generative Shape Design Workbench

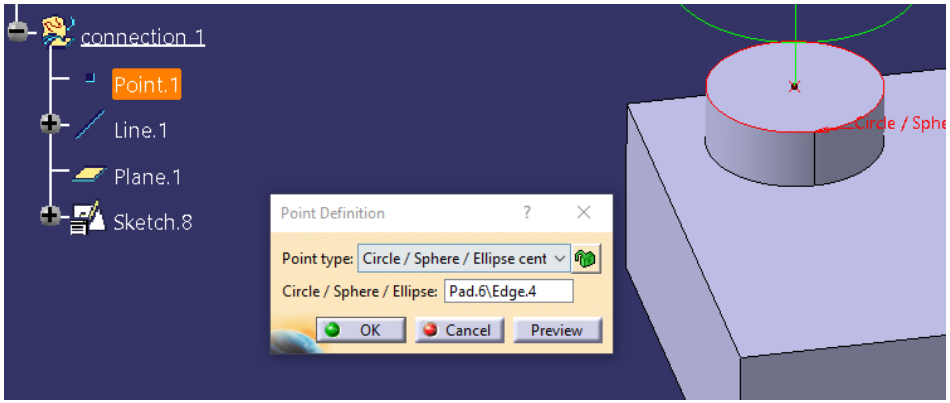
Geometrical Set to duplicate

Insert > Advanced Replication Tools > *Duplicate Geometrical Features Set*

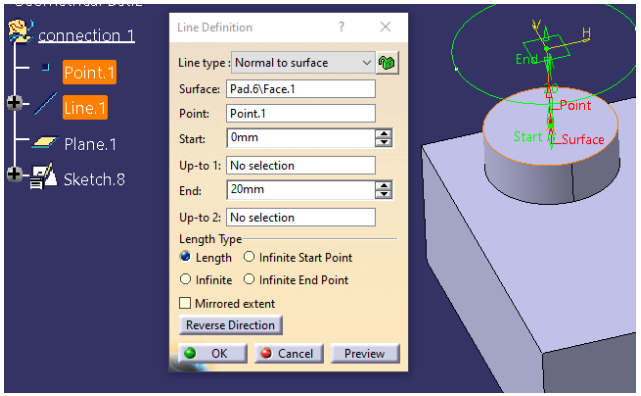
Duplicate Geometrical Features Set tool allows to repeat a number of features inside a geometrical set by selecting some inputs to create them

Example :
Connection 1 Geometrical set inputs :

- Point.1 = circle edge



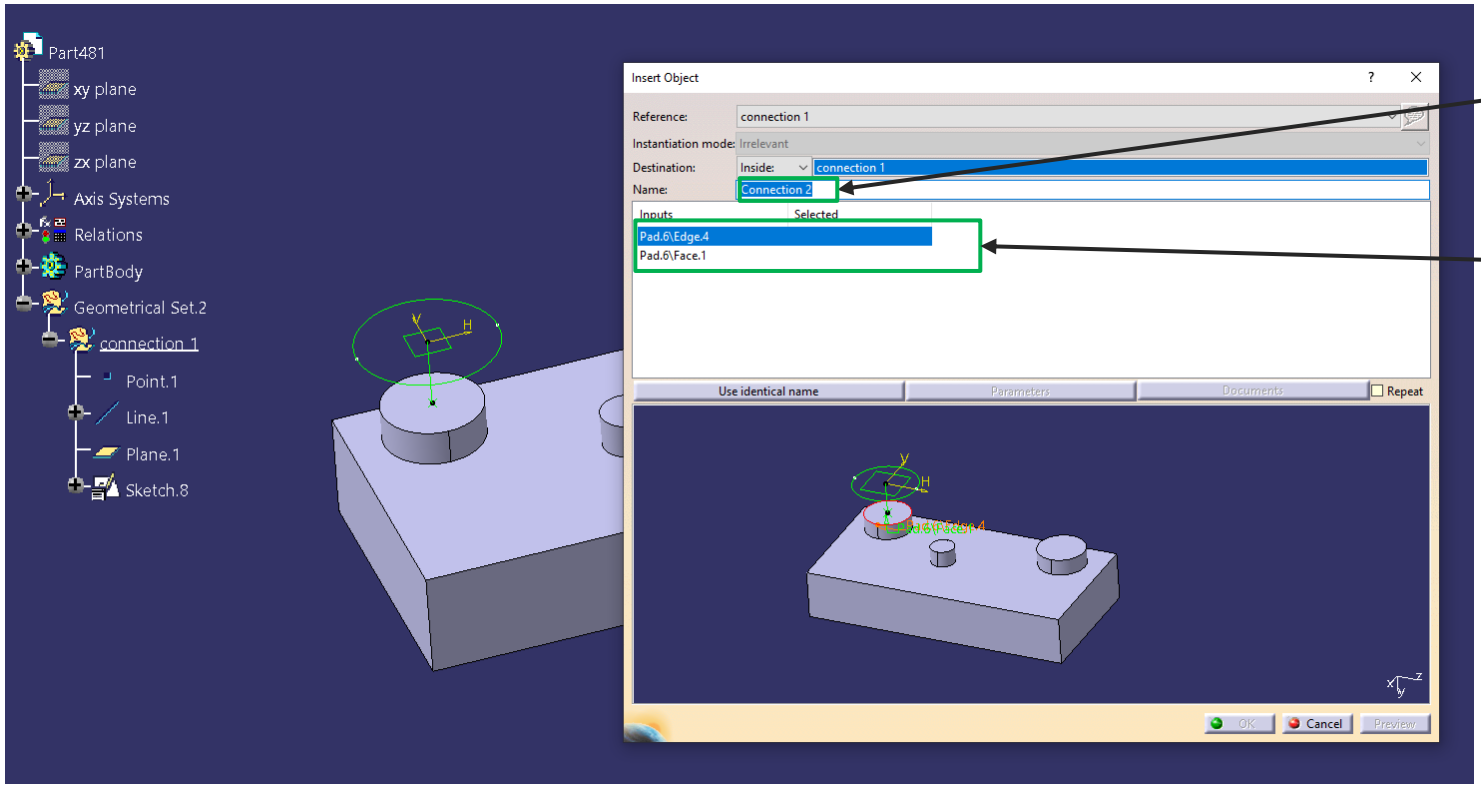
- Line.1 = Point.1 + Surface



Plan.1 & Sketch.8 are built from Point.1 + Line.1 (no external references)

Duplicate Geometrical Features Set tool allows to repeat a number of features inside a geometrical set by selecting some inputs to create them

By clicking *Duplicate Geometrical Features Set* + the Geometrical Set to duplicate *(*here *connection 1),* a window appears to select to select inputs for the new Set



Duplicate Geometrical Features Set tool allows to repeat a number of features inside a geometrical set by selecting some inputs to create them

Once inputs are selected, the Geometrical set is duplicated with the new parameters, click OK to validate