

# TECHNIA

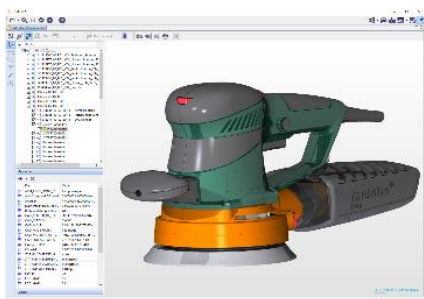
ADDNODE GROUP

## Lite3D 2018.5 - What's new

EXPERIENCE MATTERS



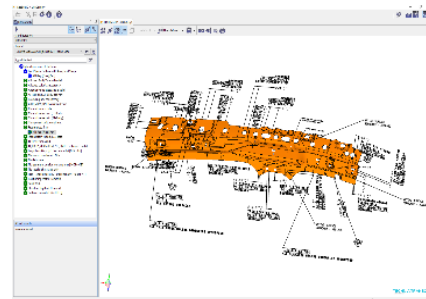
# This release contains:



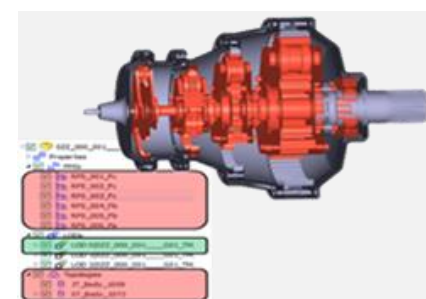
**LiteBox3D 1.17.1**  
Desktop-Viewer



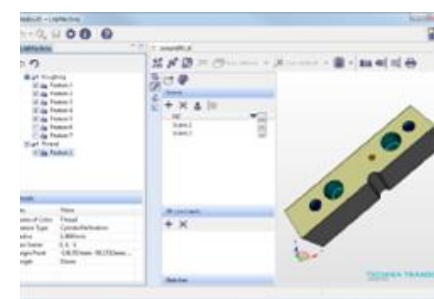
**xCompare 2.2.2**  
Validation



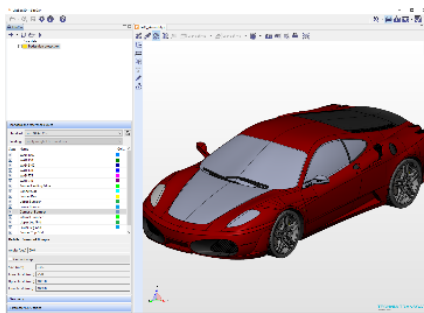
**LiteComply 1.11.1**  
Data Quality



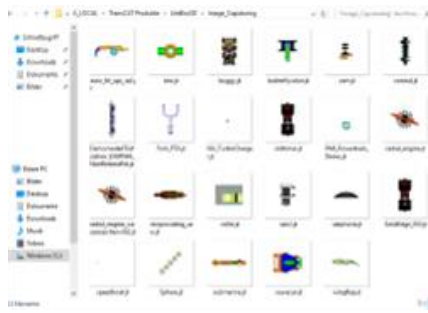
**LiteDrop 2.2.2**  
Data Simplification & IP Protection



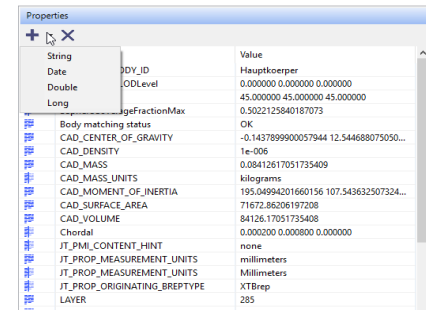
**LiteMachine 1.0.2**  
Design to Manufacture



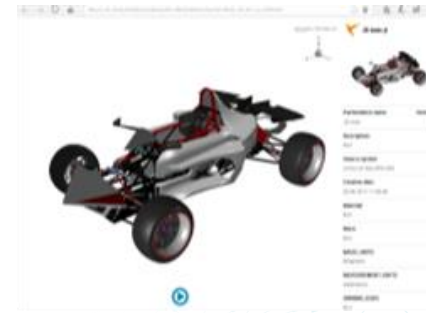
**LiteCar 1.2.0**  
Vehicle Homologation



**LiteImage 1.17.1**  
Image Capturing (Batch)



**LiteProperties 1.1.0**  
Properties editing (batch)

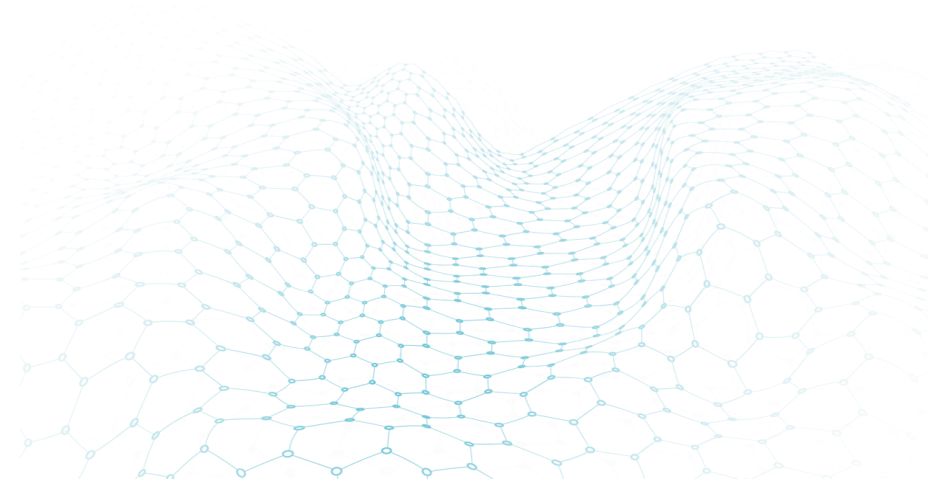


**3DHTML 1.2.0**  
3DHTML creator (batch)

# What's new in release 1.17.1

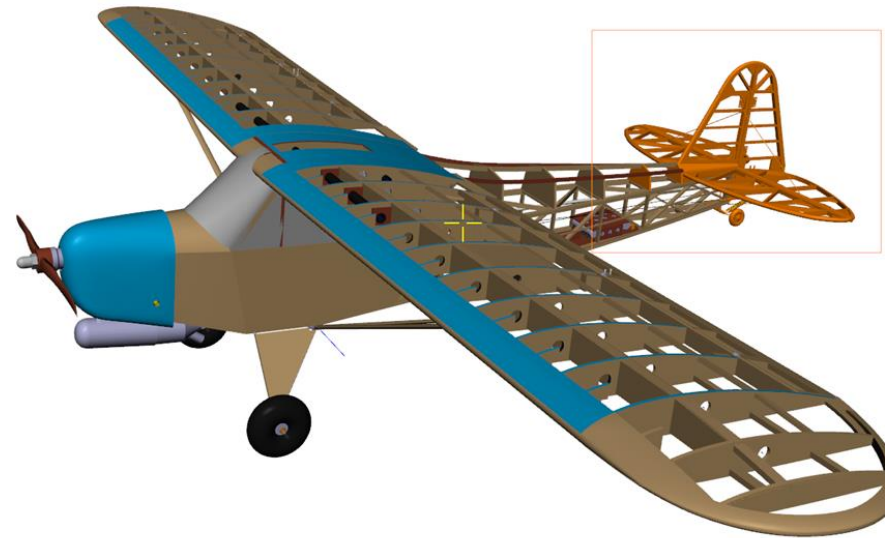
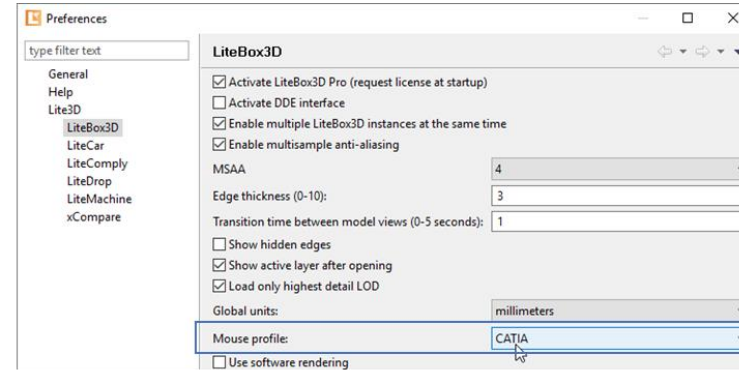


# LiteBox3D



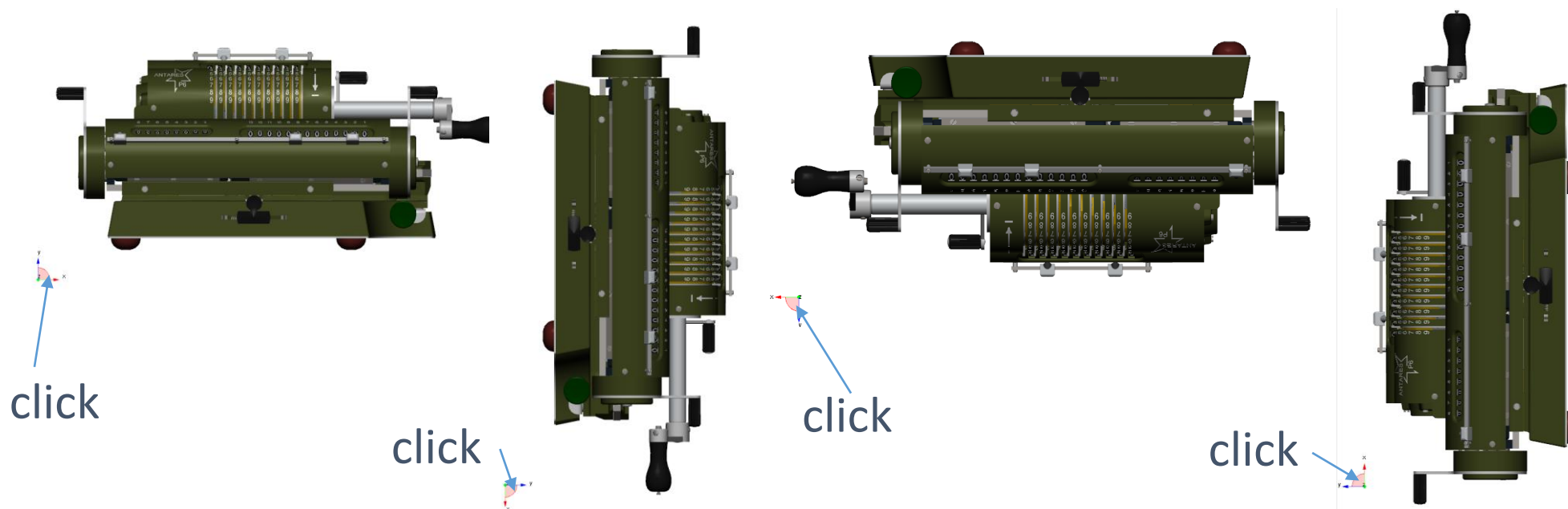
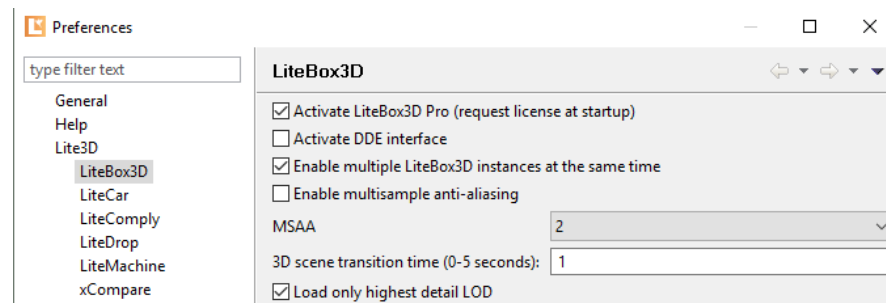
# Multi-Select (Trap) of Geometry

- Geometry can be selected using a Trap
  - CATIA and NX Mouse profile:
    - Click left mouse button, hold it and move it to create the selection box
    - Release left mouse button to select elements inside this box
    - Click somewhere, clears the selection
  - Default Mouse profile:
    - Click left and right mouse button at the same time, hold it and move it to create the selection box
    - Release mouse buttons to select elements inside this box
    - Click somewhere, clears the selection



# Compass

- Selecting Compass aligns the view with selected coordinate plane and by click rotates view in 90 degree steps
- Changing views with Compass is performed by animations (transition time set in preferences)



## Pro functionality: Ray tracing

- Real-time 3D rendering to get realistic product shots

Fast

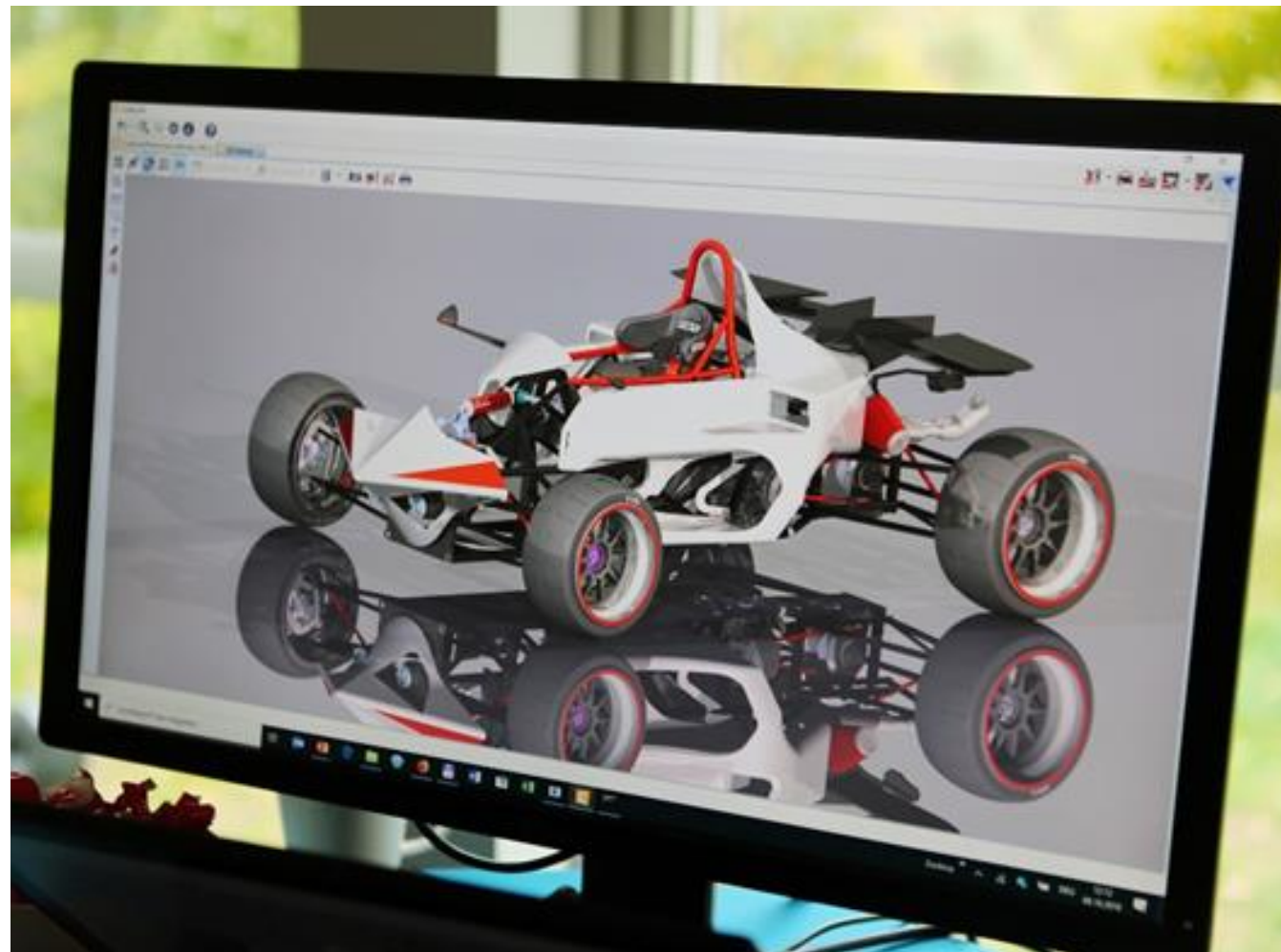


Everything is happening instantly. LiteBox3D uses TECHNIA's internally developed render engine.

Easy

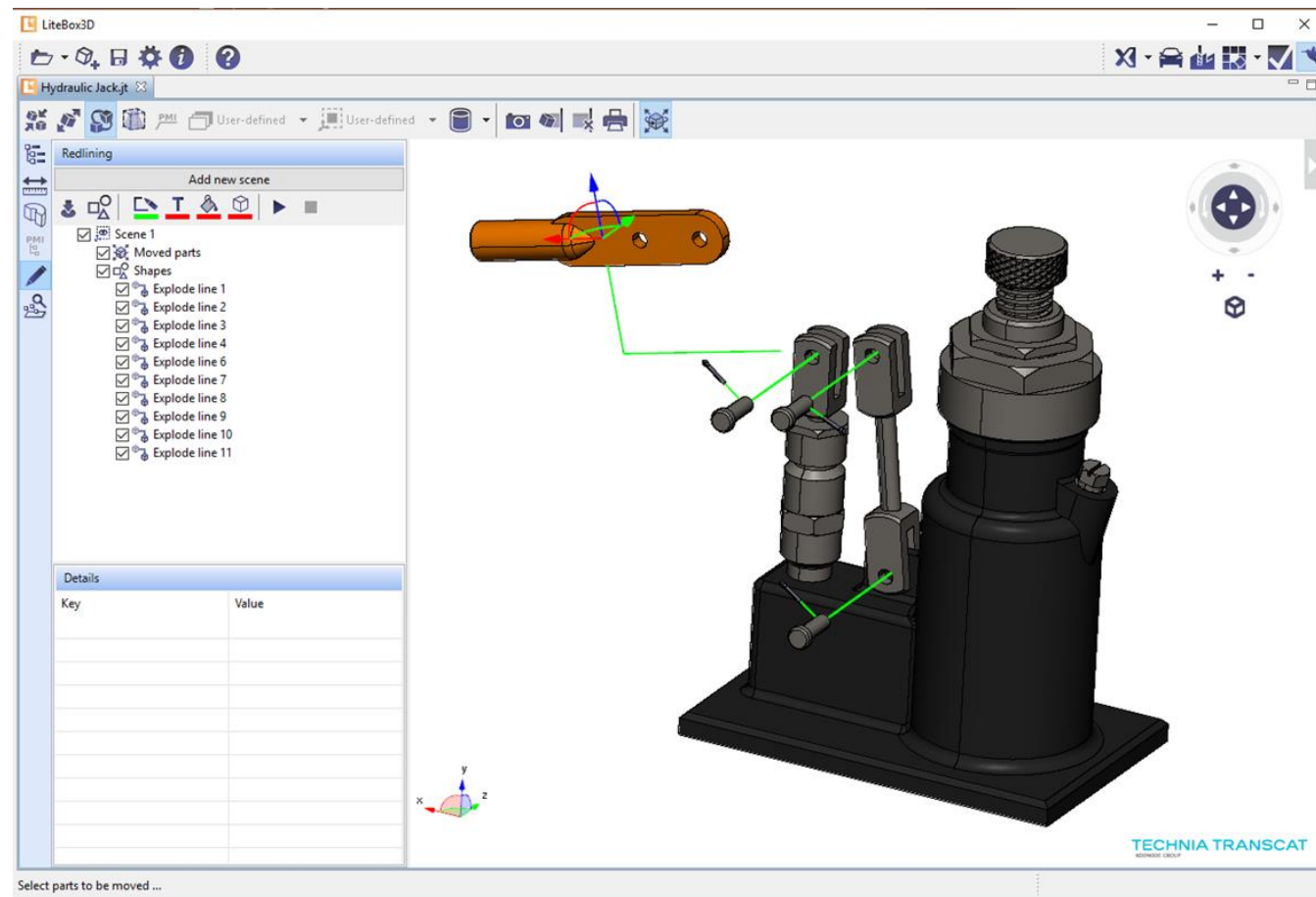


You don't have to be a rendering expert to create photorealistic view of your 3D models



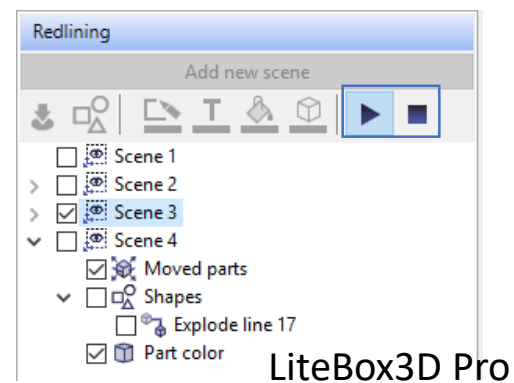
## Pro functionality: Moving of parts

- Parts can be moved and rotated in the 3D scene. Optionally, an explode line is created. The changed location can be stored in a redlining scene. A possible application of this feature are work instructions.

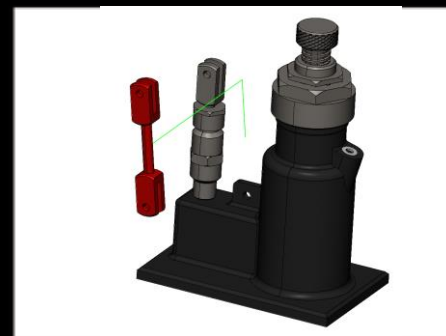
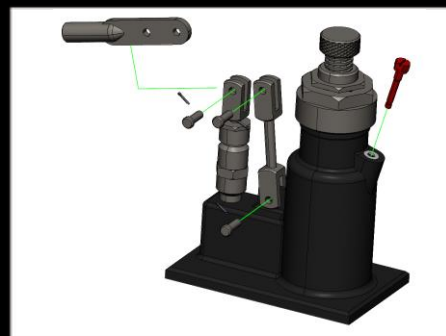
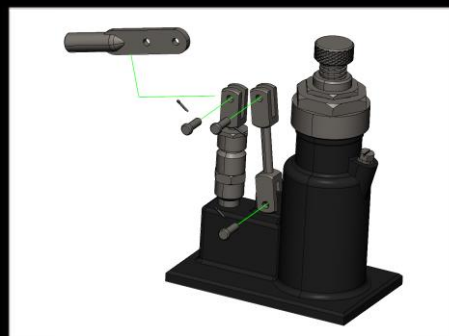
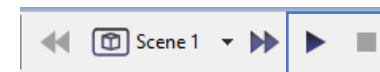


## Redlining – Play scenes

- Play and stop redlining scenes in LiteBox3D Pro or Free viewer



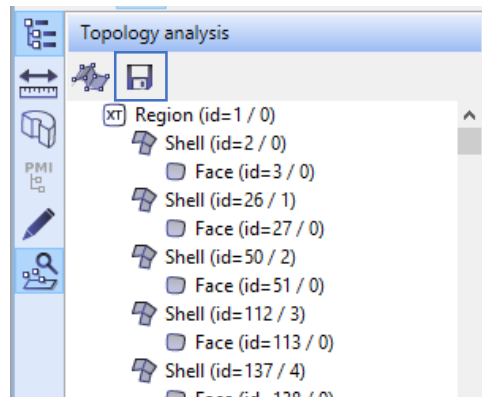
LiteBox3D Free





## Pro functionality: Topological analysis – Result export

- Export results of Topological analysis in file
  - Set environment variable TCA\_LB\_TOPO\_RESULTS = C:\tmp\filename.json
  - Save button will be available in Topology analysis



```
{ "Name of part": "PartBody",
  "Number of regions": 1,
  "Region (id=1/0)": {
    "Volume": "0.0000000000000000 mm³",
    "Area": "19456.167467396564462 mm²",
    "Center of gravity": {
      "X": "0.0000000000000000 mm",
      "Y": "0.0000000000000000 mm",
      "Z": "0.0000000000000000 mm"
    },
    "Number of faces": 518,
    "Start of bounding box": {
      "X": "-1.0000000000000001 mm",
      "Y": "0.0000000000000000 mm",
      "Z": "-13.0000000000000052 mm"
    },
    "End of bounding box": {
      "X": "91.0000000000000057 mm",
      "Y": "55.00000000000000213 mm",
      "Z": "1.0000000000000000 mm"
    },
    "Number of shells": 518,
    "Shell (id=2/0)": {
      "TYPE": "Open",
      "Volume": "0.0000000000000000 mm³",
      "Area": "138.164100824871042 mm²",
      "Center of gravity": {
        "X": "0.0000000000000000 mm",
        "Y": "0.0000000000000000 mm",
        "Z": "0.0000000000000000 mm"
      },
    },
  },
}
```

## Fixed errors

- Model views with sections are clipped correctly
- Showing PMIs for specific JT files version 10.0
- Received command appears in DDE interface with activated Pro license
- Copy in Details works also for key

Properties	
Key	Value
ASM_LEVEL_BOD...	PartBody
AdvCompressLO...	0.000000 0.000000...
Body matching st...	mismatch of Bod...
CAD_CENTER_OF...	44.1106869523847...
CAD_DENSITY	1e-006
CAD_MASS	0.0187487813924864
CAD_MASS_UNITS	kilog
CAD_MOMENT_...	6.31512737274...

Unbenannt - Editor

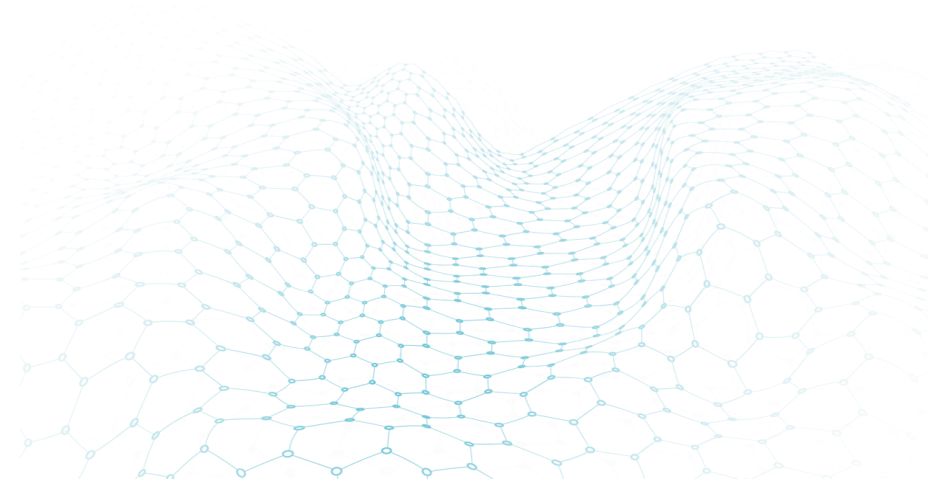
Datei Bearbeiten Format Ansicht ?

CAD\_MASS;0.0187487813924864

# What's new in release 1.17.1

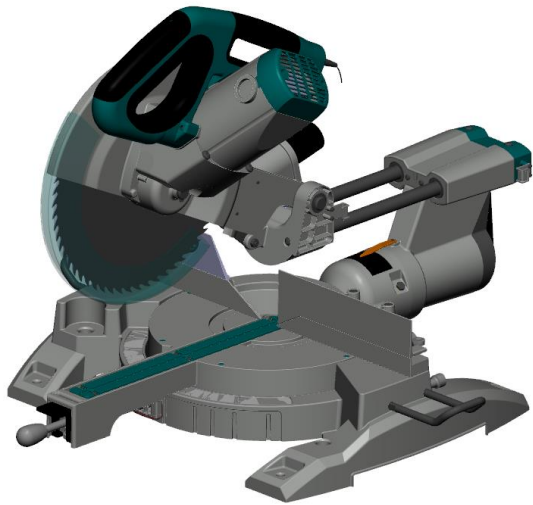


# LitelImage



## Software rendering

- Software rendering option uses ray tracing functionality.
- Software rendering is done on CPU instead of GPU.



GPU rendering



Software rendering

```
LiteImage.exe [-v] [-i] [-h] [--software] <config.xml>
```

### Options:

```
-i, --interactive  Start in interactive mode
--software        Enable software rendering
-v, --version     Display only the version of LiteImage utility
-h, --help, -?   Display only the usage message
```

### Arguments:

```
<config.xml>      Name of the LiteImage configuration file
```

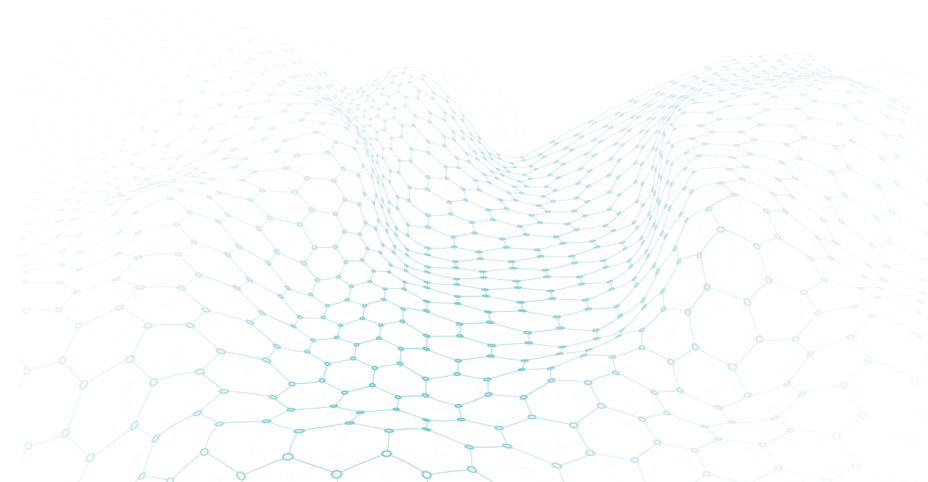
### Configuration file example:

```
<TechniaTranscat>
  <LiteImage>
    <!-- Path to model -->
    <Input filepath="C:\path\to\model.jt"/>
    <!-- Path to output model -->
    <Output filepath="c:\path\to\image.png"/>
    <!-- Optional: Width and height of image in pixels -->
    <Width>1000</Width>
    <Height>1000</Height>
  </LiteImage>
</TechniaTranscat>
```

# What's new in release 1.2.0

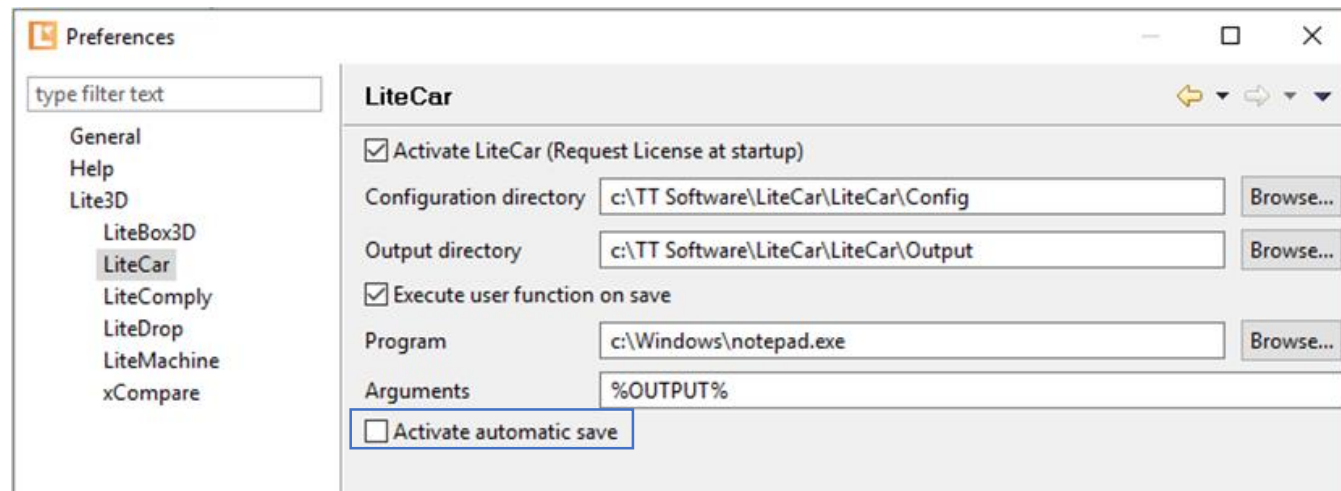


# LiteCar



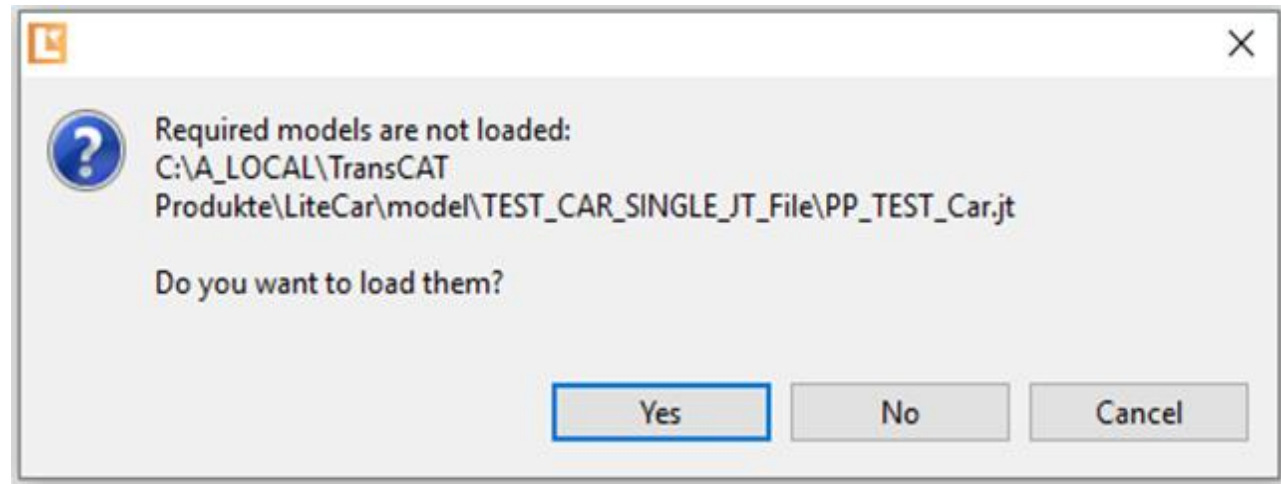
## Deactivate Automatic Save

- Automatic Save can be deactivated



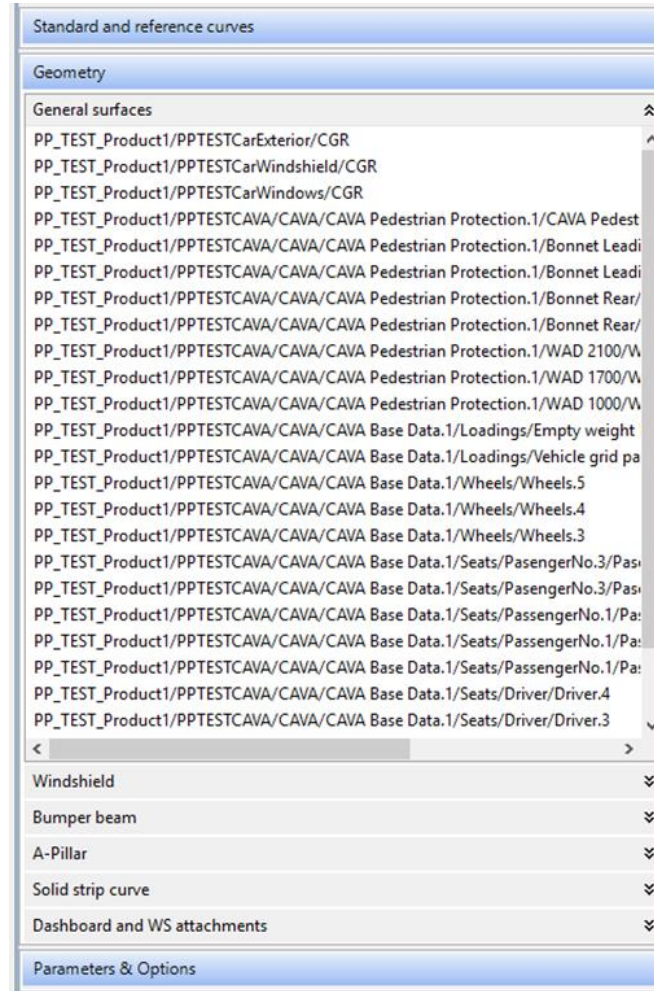
## Automatically load the not loaded models

- Load LiteCar report
- If model is not loaded already, it can be loaded automatically



## Geometry windows can be resized

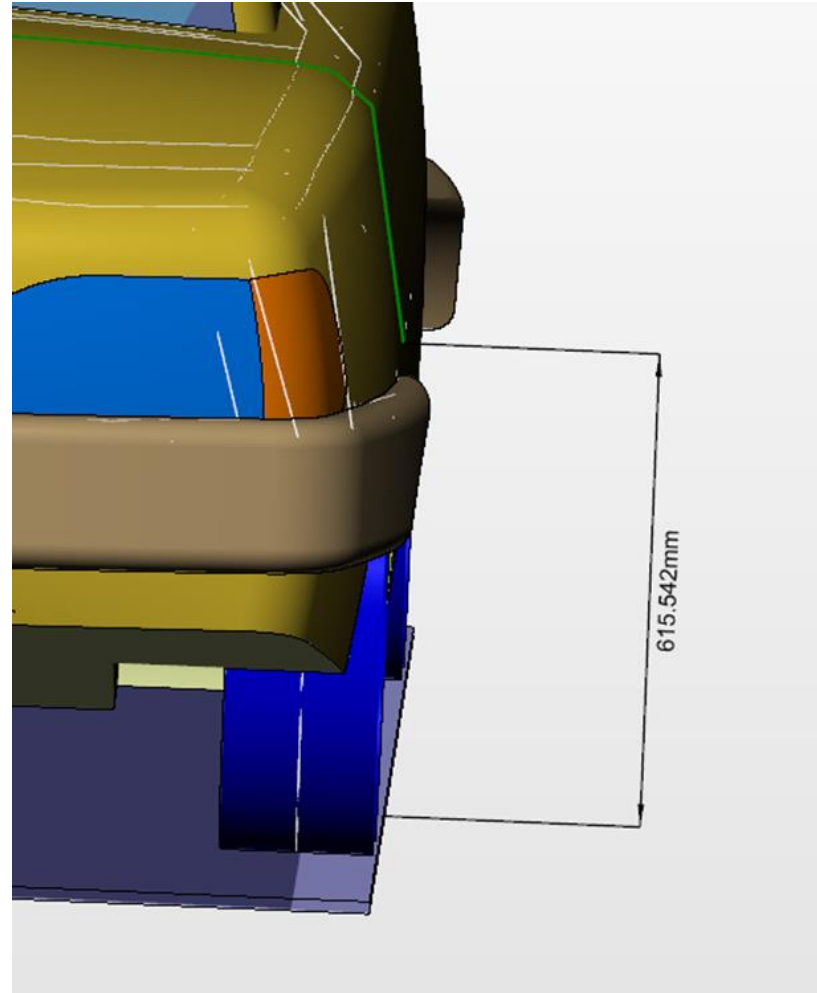
- Geometry windows can be expanded and collapsed
- Allows to see more lines





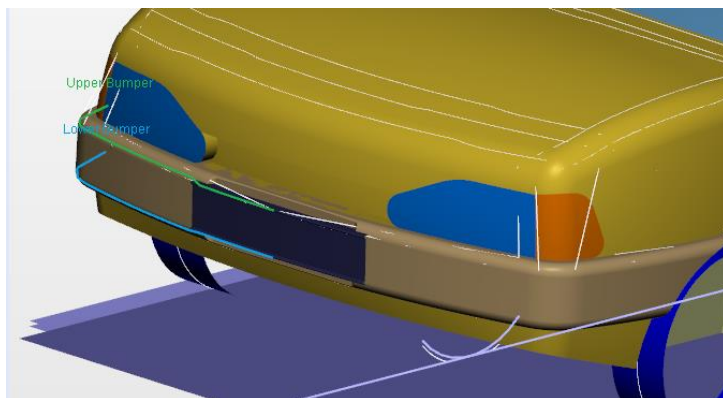
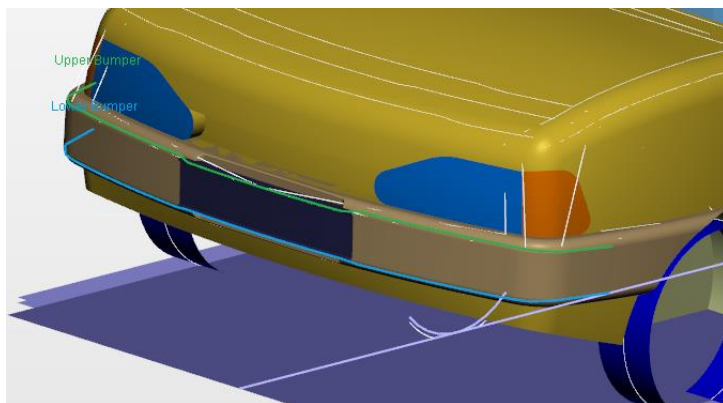
## Measurement of LiteCar points, curves and surfaces

- LiteCar features can be used for measurement

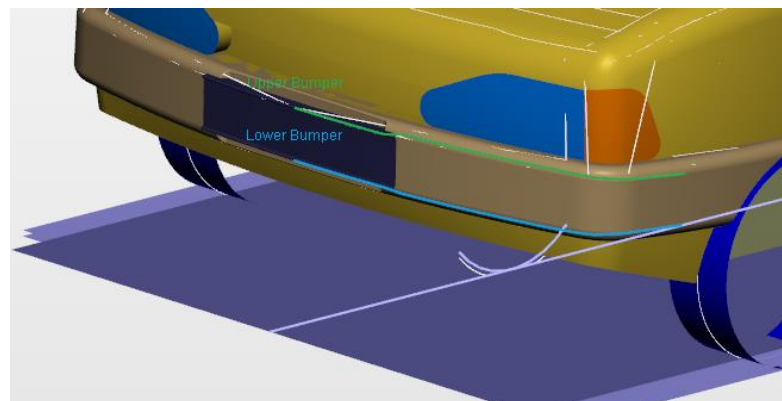


## Left / Right / Both sides calculation types

- New option to define calculation type

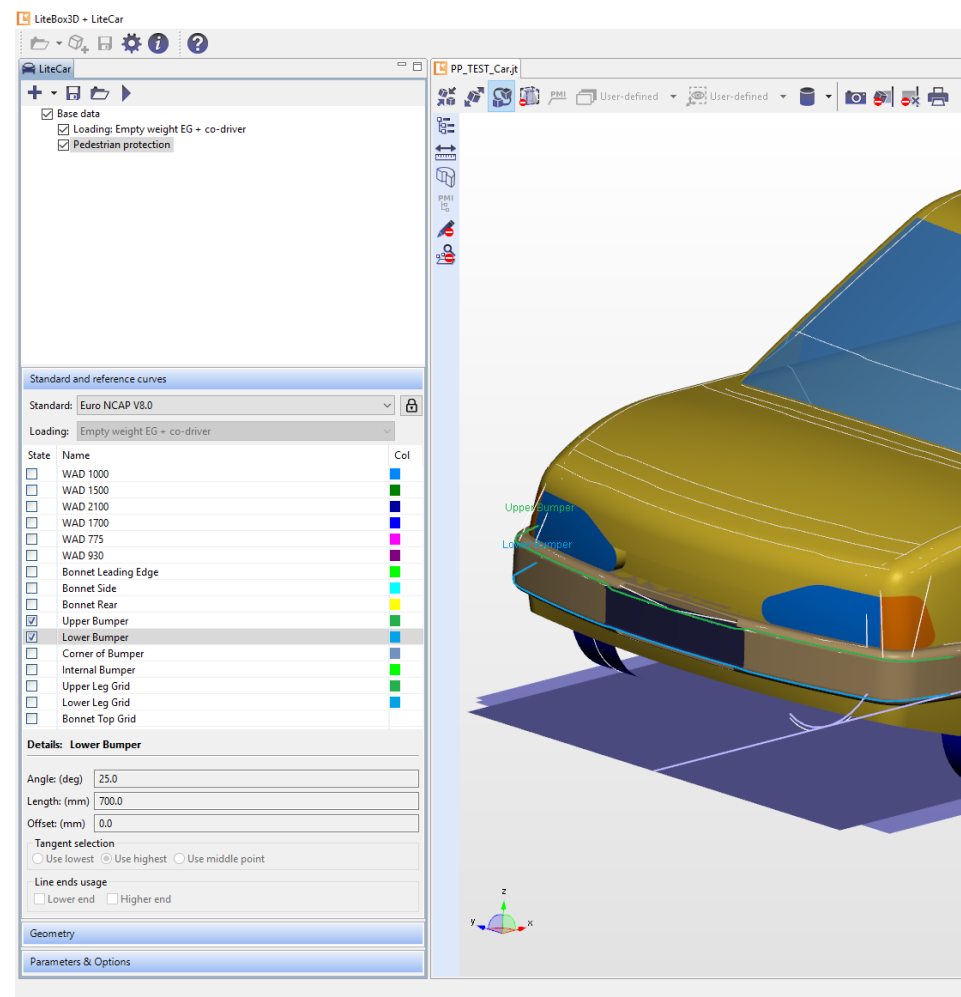


Parameters & Options	
Name	Value
Calculation type	Both
Cutting step (mm)	Left
WAD fill gap size (mm)	Right
	Both



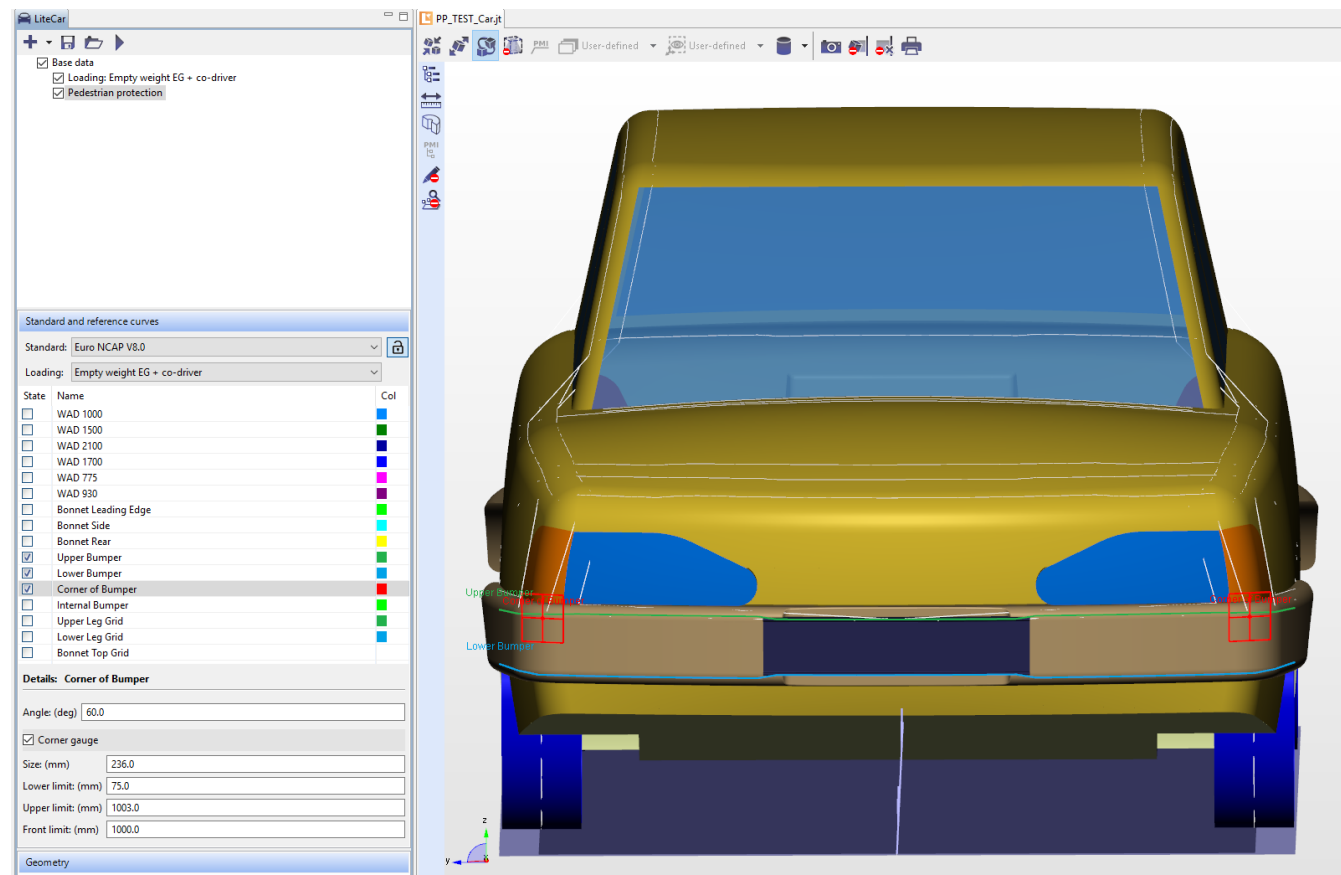
## Upper & Lower Bumper Reference Line

- Upper and Lower Bumper curves added



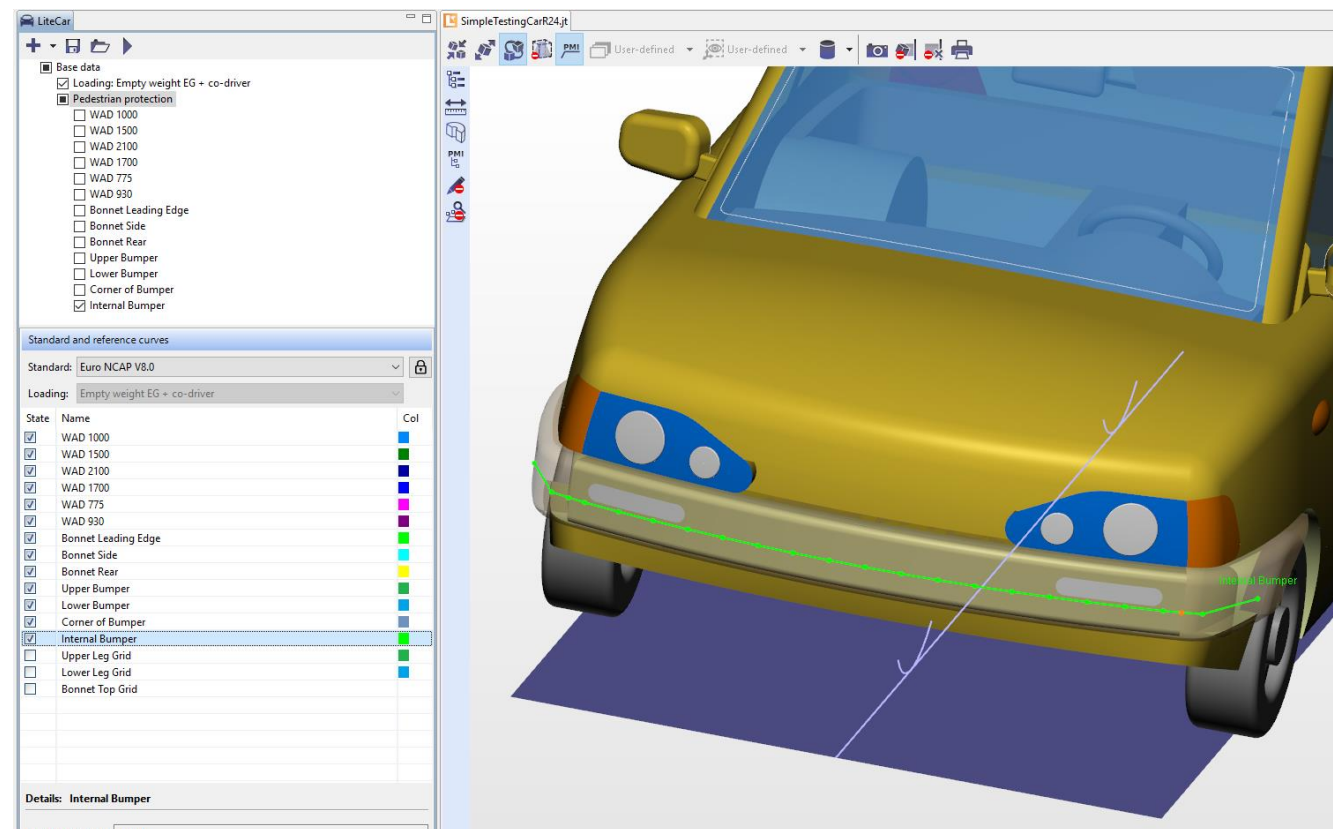
## Corner of Bumper (incl. gauge)

- Corner of Bumper added



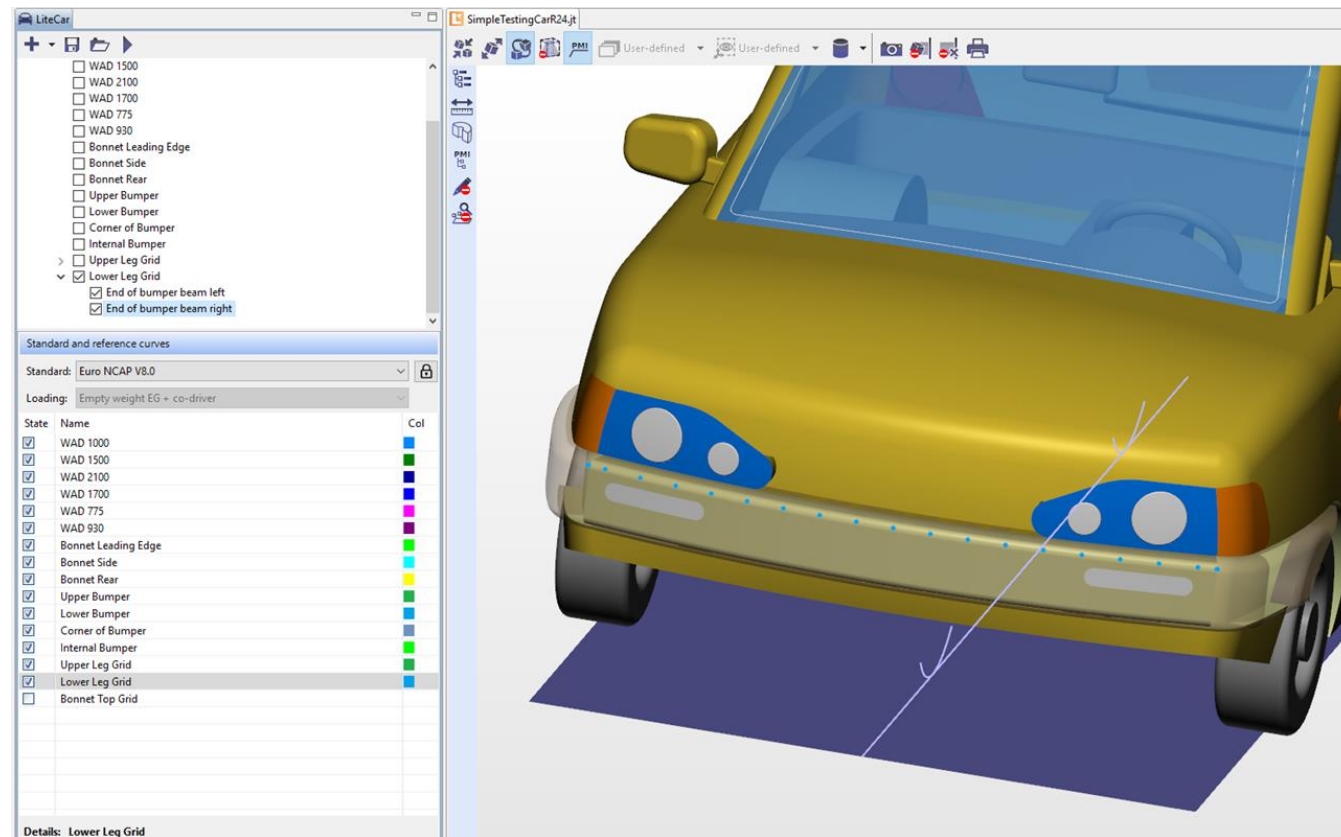
# Internal Bumper Reference Line

- Internal Bumper added



## Lower Leg Grid

- Lower Leg Grid added



## Upper Leg Grid

- Upper Leg Grid added
- Display of Energy and Angle
- Values are exported

The screenshot shows a 3D CAD environment with a yellow car model. A grid is applied to the upper leg area. The interface includes a tree view on the left with the following items:

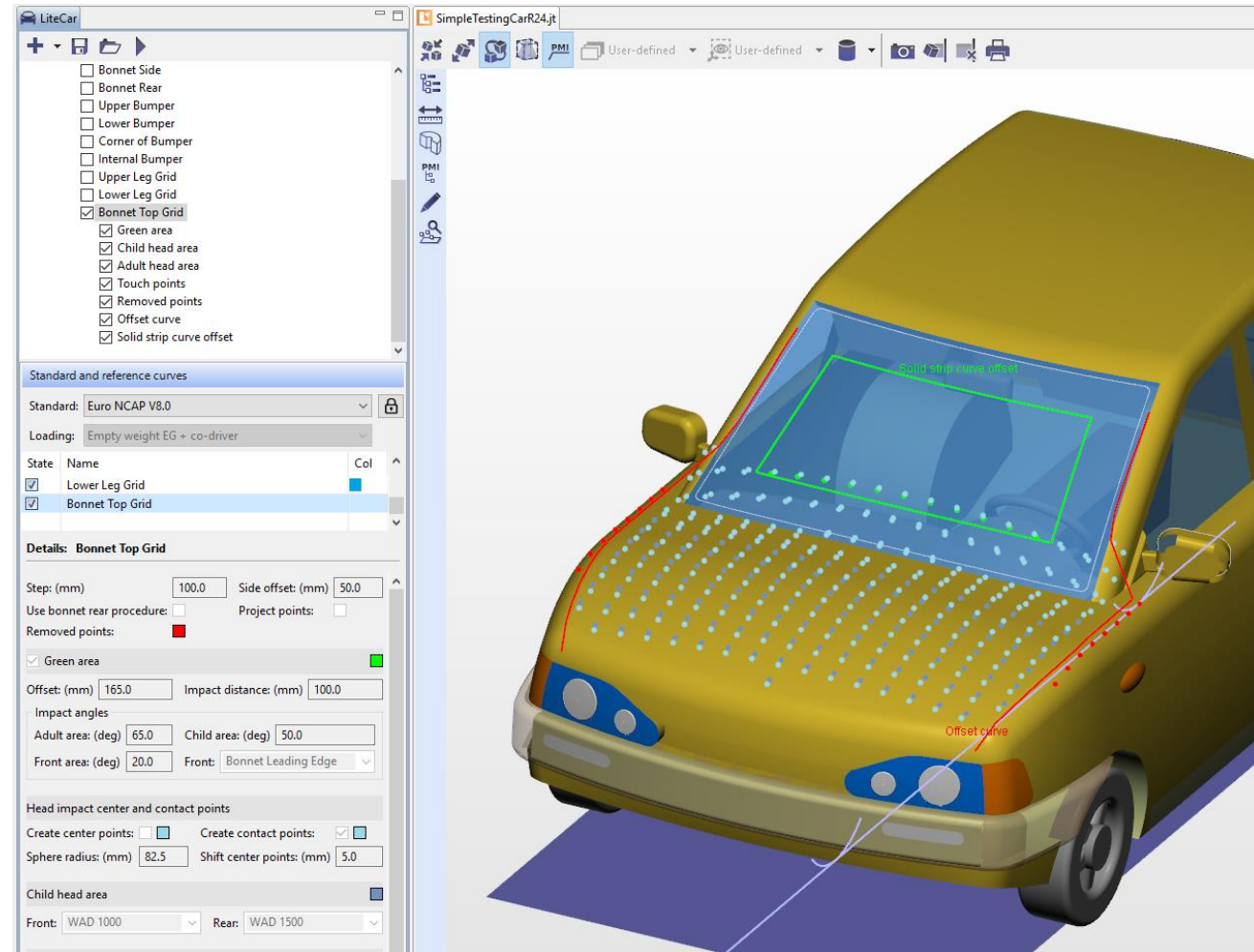
- WAD 775
- WAD 930
- Bonnet Leading Edge
- Bonnet Side
- Bonnet Rear
- Upper Bumper
- Lower Bumper
- Corner of Bumper
- Internal Bumper
- Upper Leg Grid
- Left corner point
- Right corner point
- Left corner point on reference curve
- Right corner point on reference curve
- Removed points
- Lower Leg Grid

The data table at the bottom right contains the following XML-like structure:

```
<GridUpperLeg alias="Upper Leg Grid" color="#22814C" step="100.0" side_offset="50.0" reference="WrapAround5" impact_1
<Points value="-777.4718 0.0 480.9869 -775.70807 100.0 480.96194 -770.6563 200.0 480.92728 -762.1008 300.0 480.8064
<Labels value="U,0 U,+1 U,+2 U,+3 U,+4 U,-1 U,-2 U,-3 U,-4"/>
<Arrows scale="1.0">
<Indices value="0 1 2 3 4 5 6 7 8"/>
<Points value="-1151.0232 -1.12031166E-13 604.02435 -1149.3181 100.0 603.9684 -1144.316 200.0 603.9075 -1135.807;
<Angles value="18.230444 18.223478 18.217588 18.211979 18.203947 18.22343 18.217499 18.211834 18.204002"/>
<Energy value="393.2923 393.33838 393.37732 393.4144 393.46747 393.53868 393.3779 393.41534 393.4671"/>
</Arrows>
</RemovedPoints>
</CornerPoints>
<CornerPoints left="-593.9389 -849.8061 599.4407" right="-593.9389 849.80615 599.4407"/>
<CornerPointsOnRef/>
<Corner reference_type="closestPoint"/>
</GridUpperLeg>
```

## Bonnet Top Grid

- Bonnet Top Grid added
- Show Offset curve







# TECHNIA

At TECHNIA, we pave the way for your innovation, creativity and profitability. We combine industry-leading Product Lifecycle Management tools with specialist knowledge, so you can enjoy the journey from product concept to implementation. Our experience makes it possible to keep things simple, personal and accessible so that together we transform your vision into value.

With over 30 years' experience, more than 6000 Customers worldwide and World-class knowledge in PLM & Intelligent Engineering, we work together as an extension of your team to create an exceptional PLM experience.

Our teams work from 21 locations around the world, across vertical industries, delivering a premium service with a global infrastructure and a local presence. We adopt the latest technology and agile methodologies so, even as technology changes, our relationships last a lifetime.

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