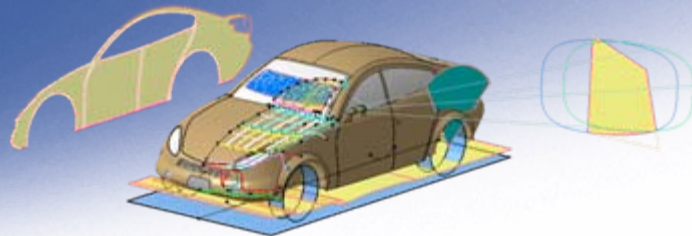


CAVA

CAVA 1.19.1 – What's new



TRANSCAT

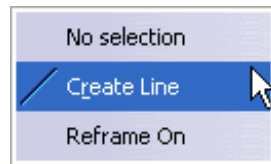
A DASSAULT SYSTEMES COMPANY

Geometry creation via context menu

👤 Different CAVA feature provide selectors for Lines / Points. Similar to V5 in general it will be possible to create this geometry by context.

👤 *Point*

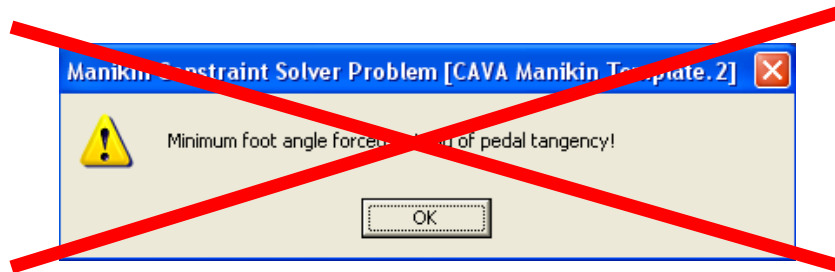
👤 *Line*



Improved update mechanism

Warning messages will no more pop up during update process, if the feature dialog is not opened.

Simplifies the use of CATIA Automation to drive input parameter

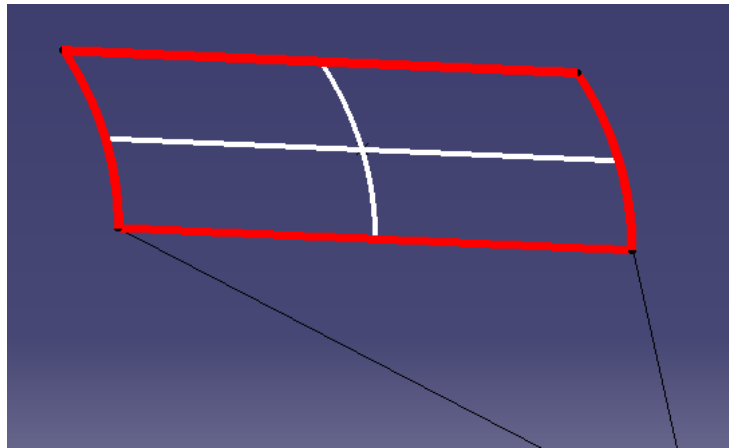


Seating Belts



Creating outline of transition area from the given seat travel curves

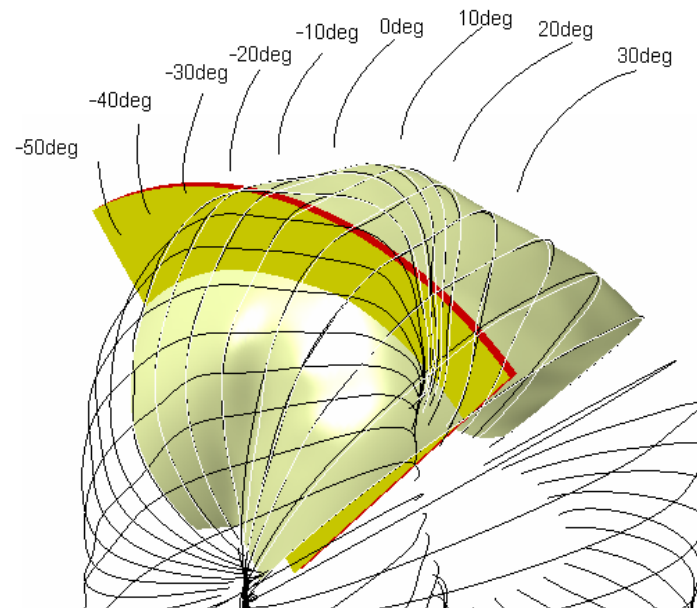
-> resulting limiting curves



Wheel Covering



- ✚ Cutting sections of the selected surface around the wheel axis



Number Plates



👤 Check for angle and position according EC 1003/2010 (formerly 70/222/EWG) standard

- 👤 *Dimension check*
- 👤 *Position of number plate related to longitudinal plane*
- 👤 *Position of number plate related to vertical axis*
- 👤 *Position of number plate related to road*
- 👤 *Geometrical view conditions*

Limits | Number Plates | Detail Check for the Back position | Result

Front Plate: Fill.1 Back Plate: Fill.2

Size Check

Country Name	Length Front	Height Front	Length Back	Height Back	Do Check	Result
🔒 Europe_1	520mm	120mm	520mm	120mm	<input checked="" type="checkbox"/>	❗
🔒 Europe_2	340mm	240mm	340mm	240mm	<input type="checkbox"/>	NA

Country name: Do check

Length Front: 0 mm Height Front: 0 mm Length Back: 0 mm Height Back: 0 mm

New Feature "Clearance of trailer coupling device"



Regulation 94/20/EG

Generation of the defined free space area

Details

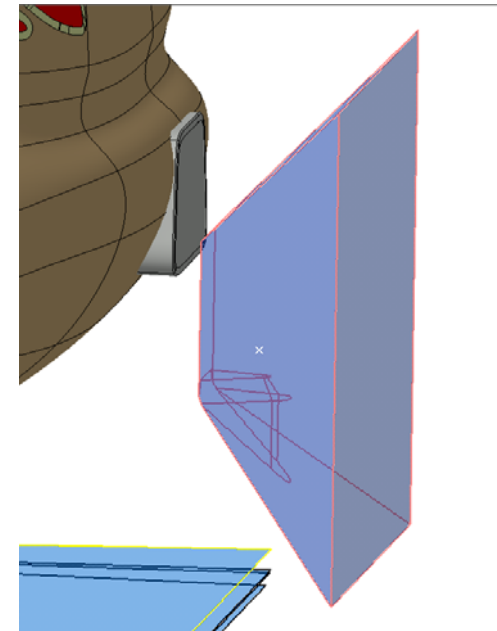
Parameters

- A1) Min Distance from SphereCenter to Top : 140mm
- A2) Min Distance from SphereCenter to Bottom : 55mm
- A3) Min Distance from SphereCenter to Carrier Plate : 32mm
- A6) Min Distance from SphereCenter to Front : 65mm
- B1) Min Distance to Right Side : 75mm
- B2) Min Distance to Left Side : 75mm
- B3) Max Side Angle Left : 30deg
- B4) Max Side Angle Right : 30deg
- A7) Min Carrier Plate Angle : 45deg
- B7) Max Carrier Side Angle : 30deg
- A4) Max Lower Angle : 45deg
- A5) Max Upper Angle : 45deg
- B5) Max Radius of Coupling Foot : 14,5mm
- B6) Max Radius of Carrier Plate : 40mm
- A10) Max Front to Rear Distance : 100mm

The A10 will be used only in case that the back limit is behind the car rearmost point and behind carrier plate.

Picture

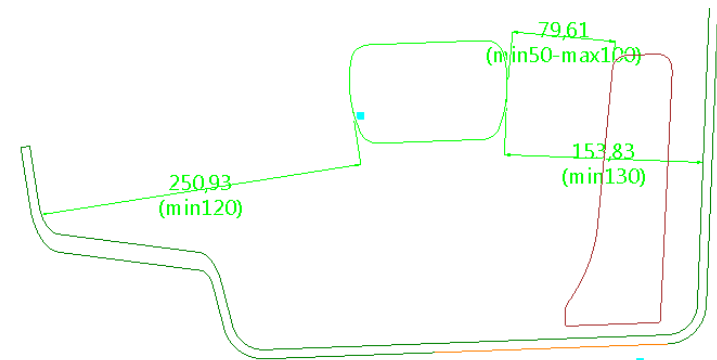
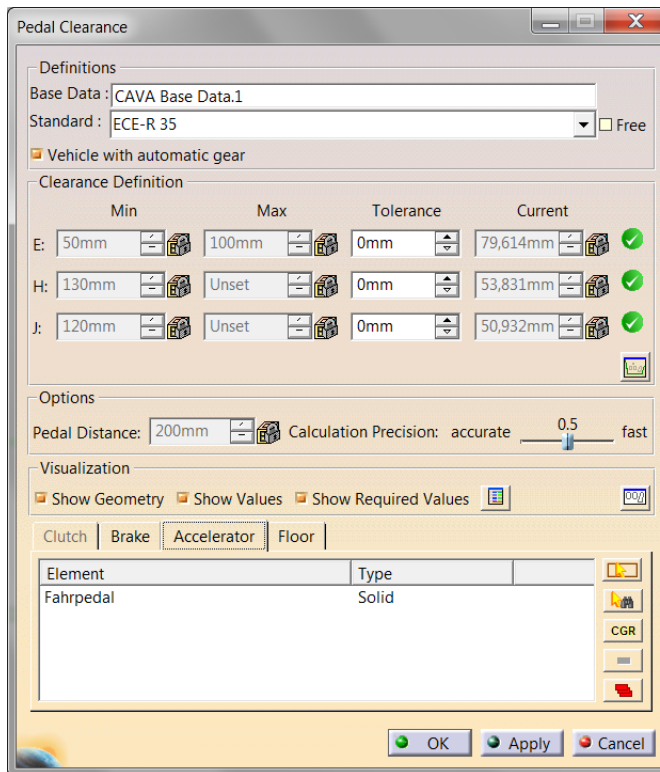
OK Apply Cancel



New Feature “Pedal Clearance”

 Regulation ECE-R 35

 2D Viewer with screenshot functionality 



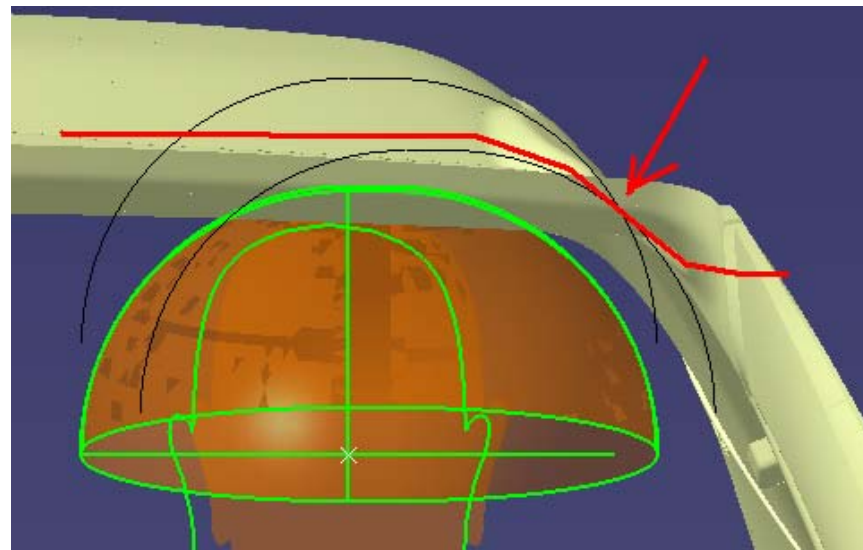
CAVA – Manikin




Head Contour










👤 Creating cut sections of interior surface and touch point



SAE 2D Template

-  New optional push button to write the parameter values of type (user Input / Output) into the base data feature

Position Parameters

Torso Angle :	<input type="text" value="25deg"/>		Base Data
SRP :	<input type="text" value="1400,00 -370,00 570,00"/>		Base Data
Leg Room : (+ 254mm)	<input type="text" value="850mm"/>		User Input
Knee Angle :	<input type="text" value="81,287deg"/>		Output
Foot Angle :	<input type="text" value="87deg"/>		User Input
Heel Point :	<input type="text" value="801,48 -370,00 339,55"/>		Output
H30 :	<input type="text" value="239mm"/>		User Input

river | Passengers |

Seat Reference Point (SRP)

No Reference Point X : Y : Z :

Heel Reference Point

Active Ref : X : Y : Z :

Steering Wheel Center Point

Active Ref : X : Y : Z :

Pedal Reference Point

Active Ref : X : Y : Z :

HPoint Travel (TL17) :

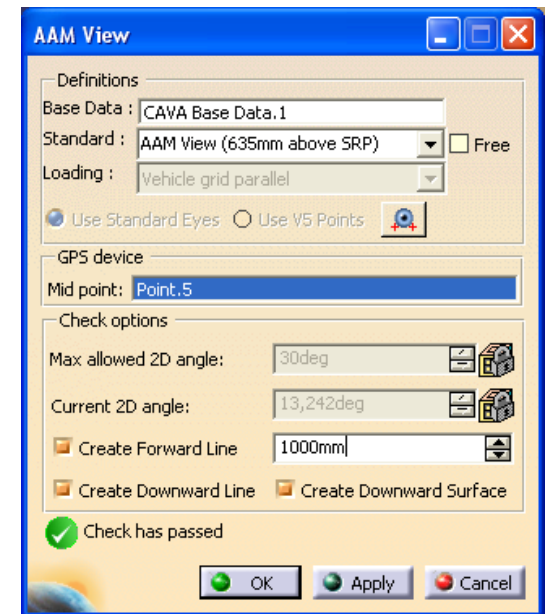
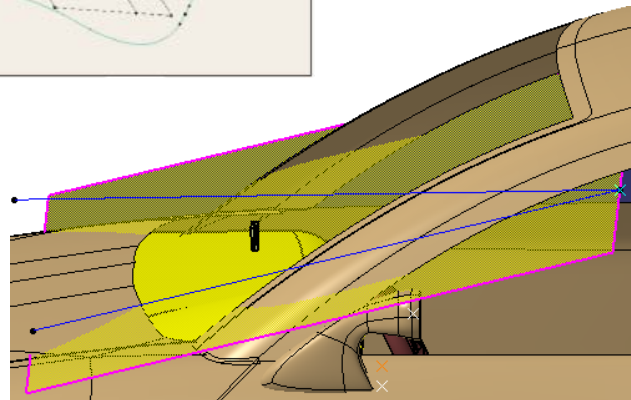
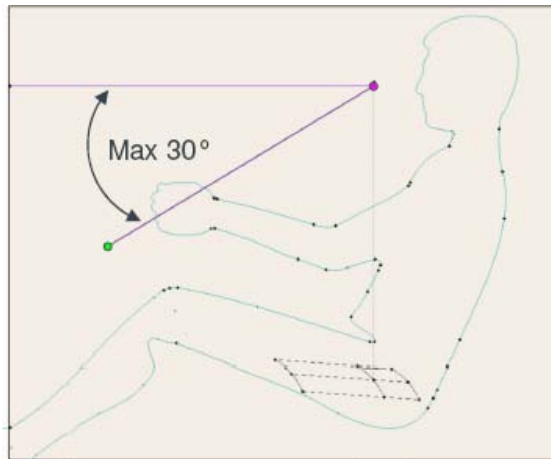
Back Angle (A40) : Fixed

CAVA – Vision



New Feature "AAM View"

 2D View to GPS device

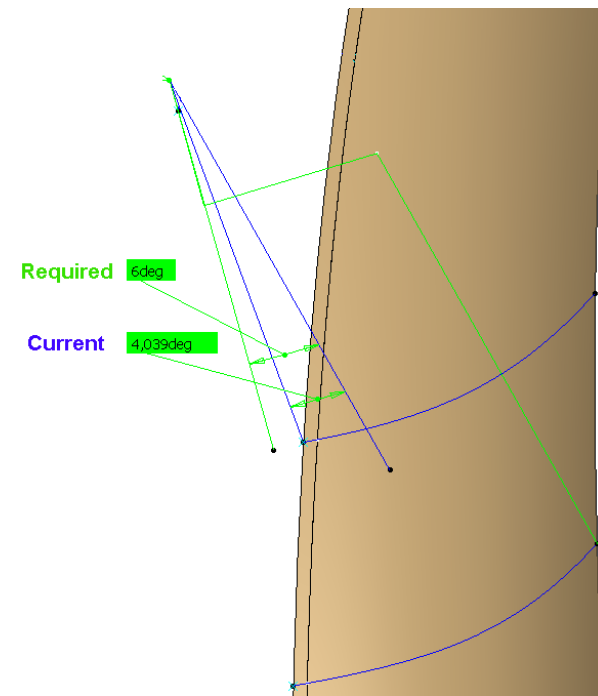
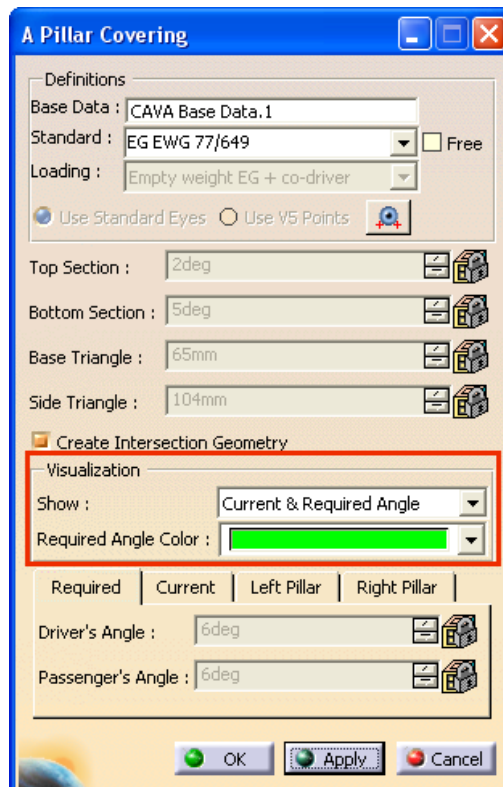


CAVA – Vision



A-Pillar Obstruction

 New option to display the required angle

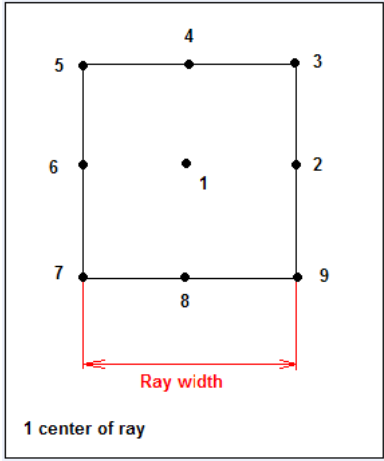
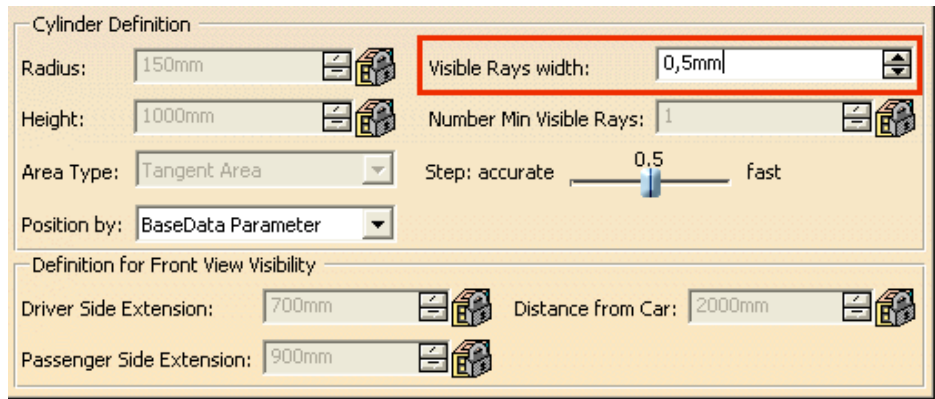


Close Range Visibility



New option to check possible gap rays by defining a min. required width for a ‘valid’ sight ray

All gaps with a width below this threshold will not be considered for the visibility check

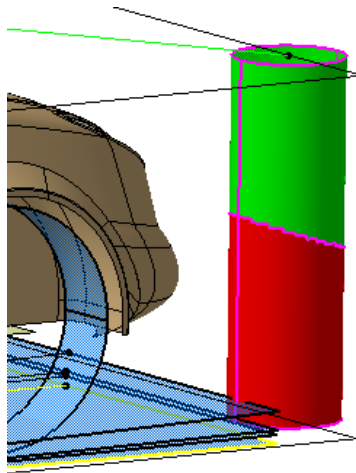


Close Range Visibility



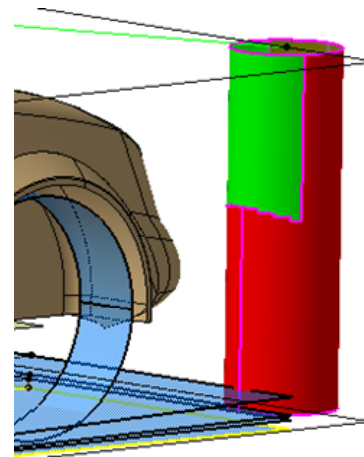
Demo cylinder shows only visible part

Visualization changed from transparent to opaque



1.18.x

transparent



1.19.1

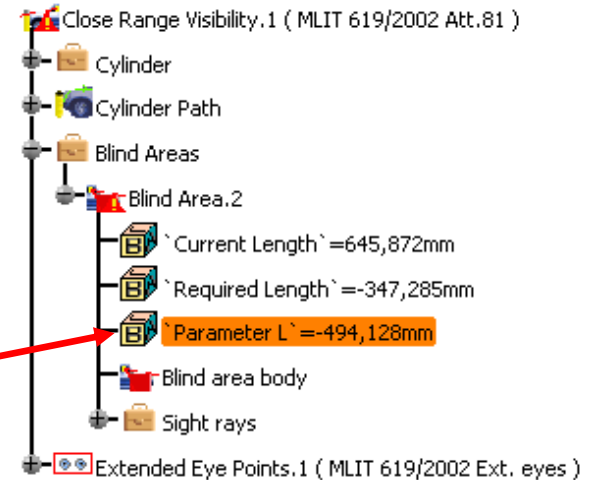
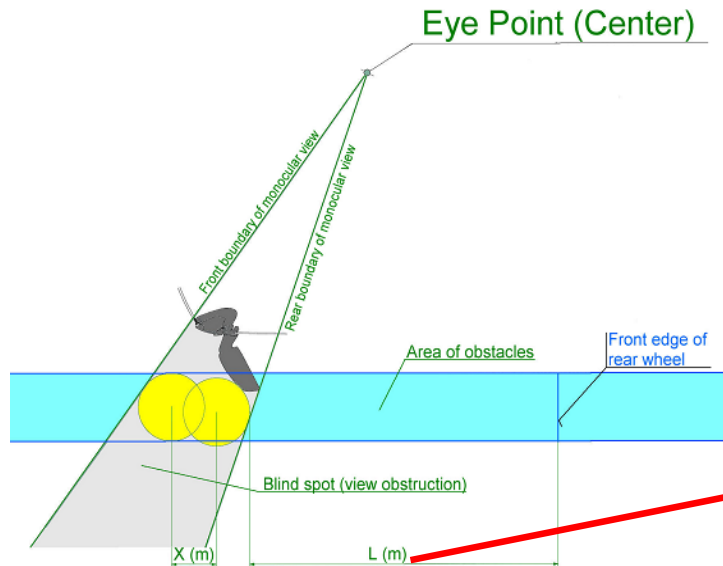
opaque

Close Range Visibility



Parameter 'L' available as parameter in navigation tree

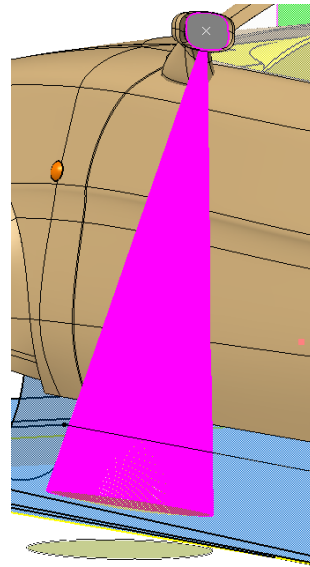
- L = Distance to rear wheel used in formula of blind spot area can now be referenced (e.g. for automation)



Close Range Visibility



Visualization of the vision cone body for custom shape cameras



Included check whether vehicle geometry is blocking the camera view

CAVA – Vision

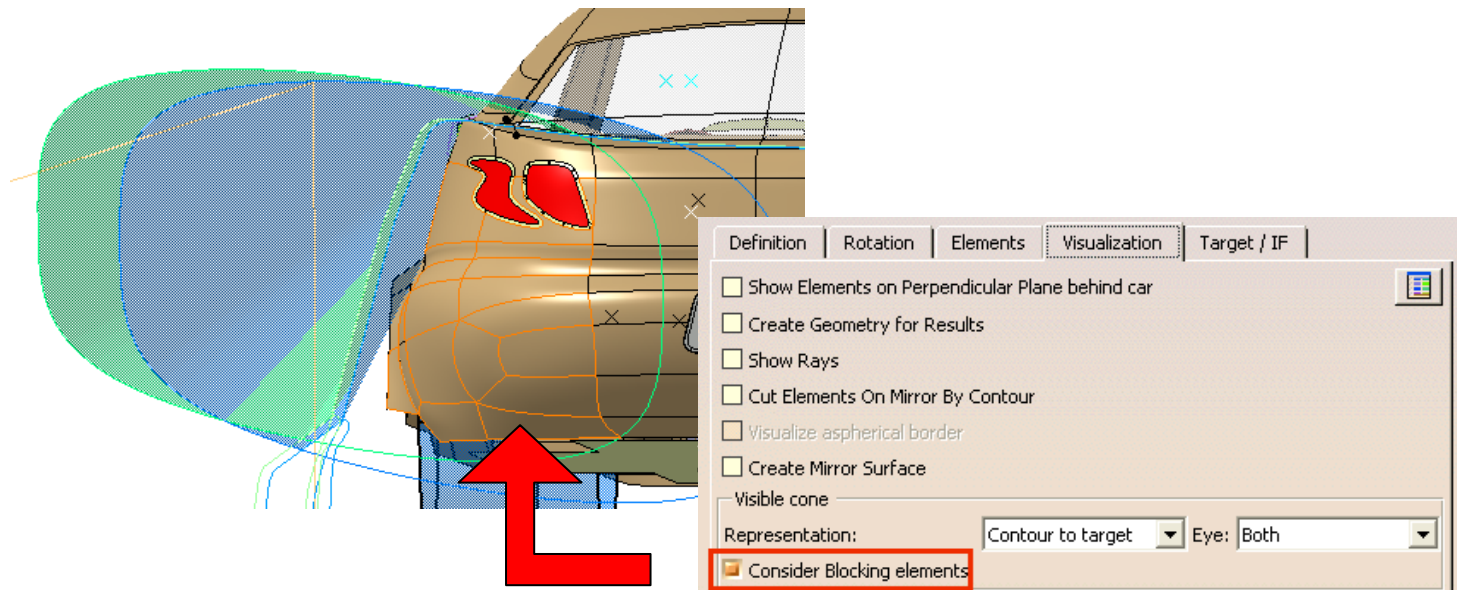


Mirror



Consider the blocking elements for the vision cone

Vision cone will be limited by blocking elements



CAVA – Vision

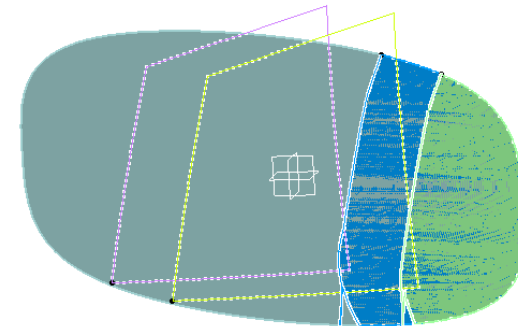
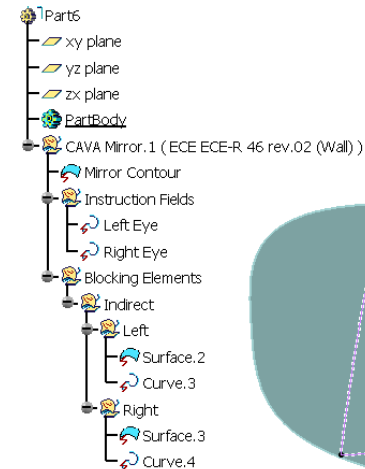
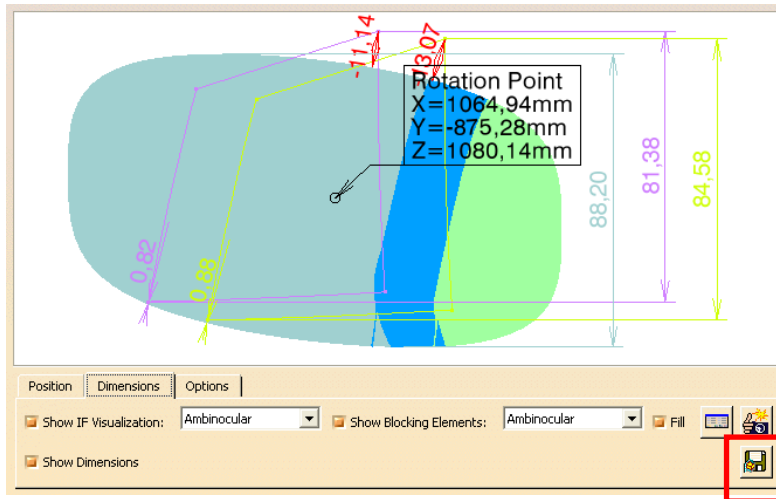


Mirror



New option to export graphic from 2D Viewer into a new CATPart.

The elements are on Z = 0 plane according to the 2D viewer

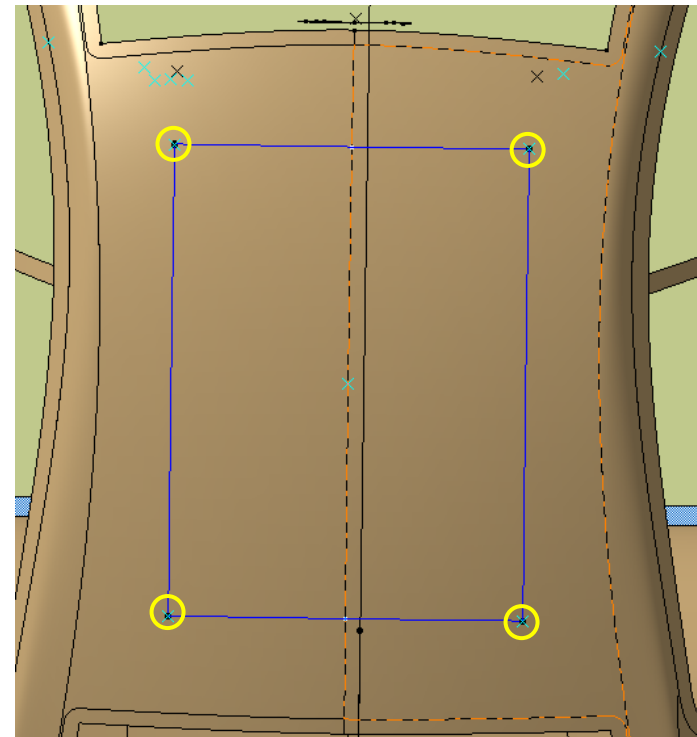


Head Impact

 Additional output parameter in navigation tree

 *Upper Roof 'Corner points'*

- Upper Roof Target
 - Distance D1` = 1413,754mm
 - Distance D2` = 1015,677mm
 - Edge G
 - Edge F
 - Roof Section Offset` = 300mm
 - Edge E
 - Edge H
 - Req Vert Min Angle` = 0deg
 - Point PlanesEG
 - Point PlanesEH
 - Point PlanesFG
 - Point PlanesFH
 - Req Vert Max Angle` = 50deg
 - Point M

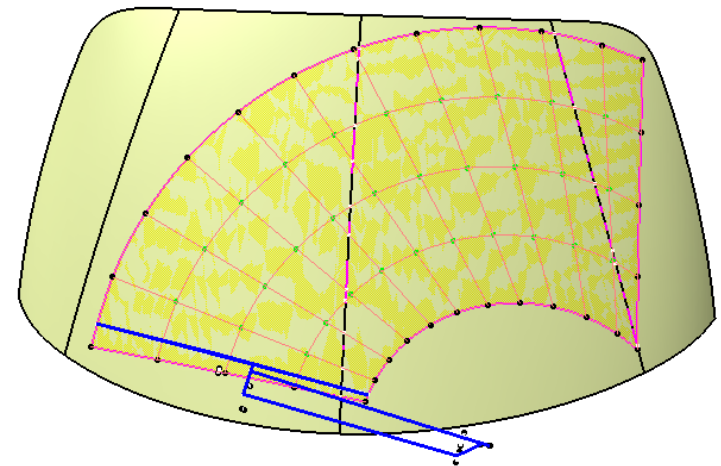
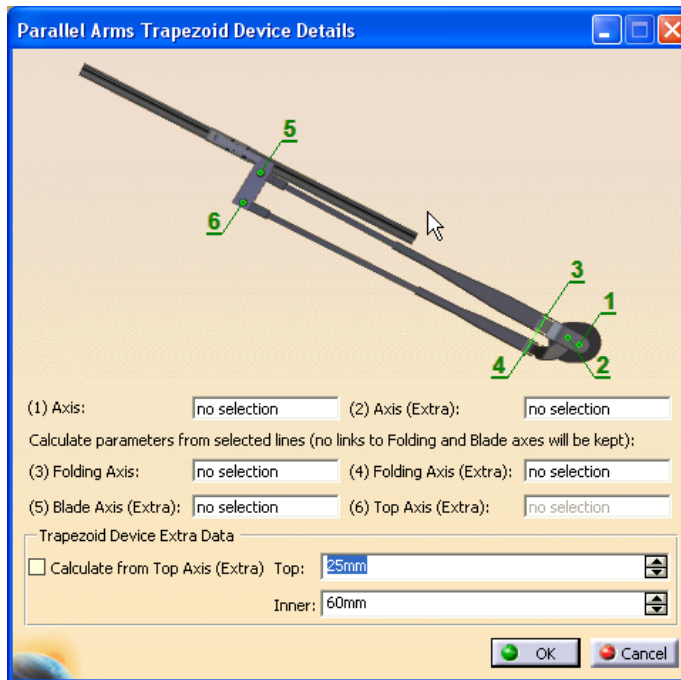


CAVA – Wiper



New type of wiper 

 Parallel arm wiper



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THANK YOU

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