

# CAVA – Vehicle Homologation

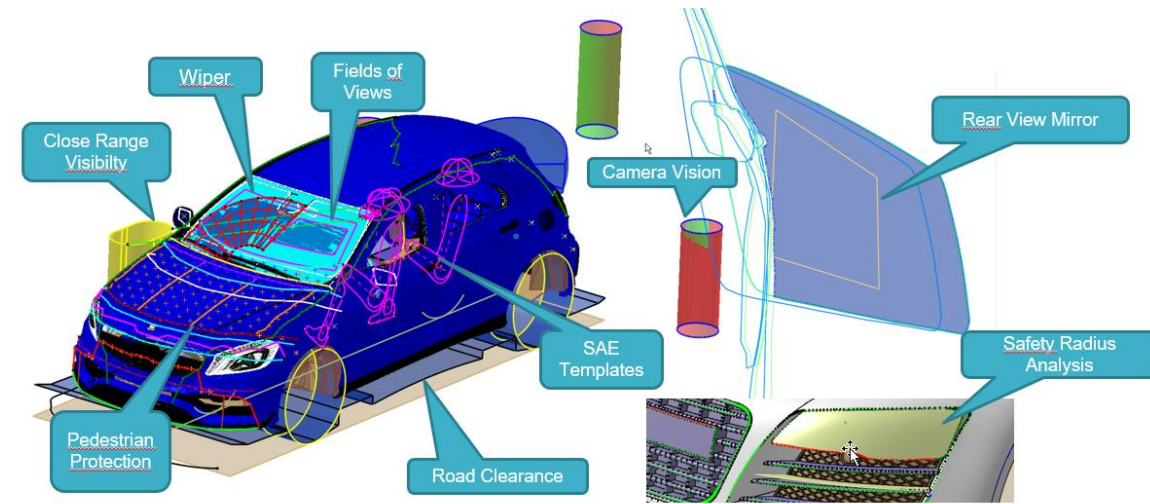


Vehicle Compliance is a compulsory part of Automotive design. CAVA (CATIA Automotive Extensions Vehicle Architecture) provides the solution to efficiently and confidently validate the compliance of your vehicle design and architecture against international standards and regulations.

Available as a CATIA V5 or 3DEXPERIENCE enhancement, CAVA is successfully used by OEMs and suppliers world-wide and can be installed as a complete solution or as individual sub products for specific application areas.

## CAVA Product Portfolio

- **CAVA OVA:** Verify the overall vehicle packaging
- **CAVA Manikin:** Verify seating positions, pedals and headroom
- **CAVA Vision:** Analyze the direct and indirect vision of the driver
- **CAVA Safety:** Analyze safety of occupants and pedestrians
- **CAVA Wiper:** Analyze wiper kinematic and wiping quality
- **CAVA Tools:** Project the silhouette outlines of a complete vehicle with one click using Silhouette Tools



## Integration into CATIA

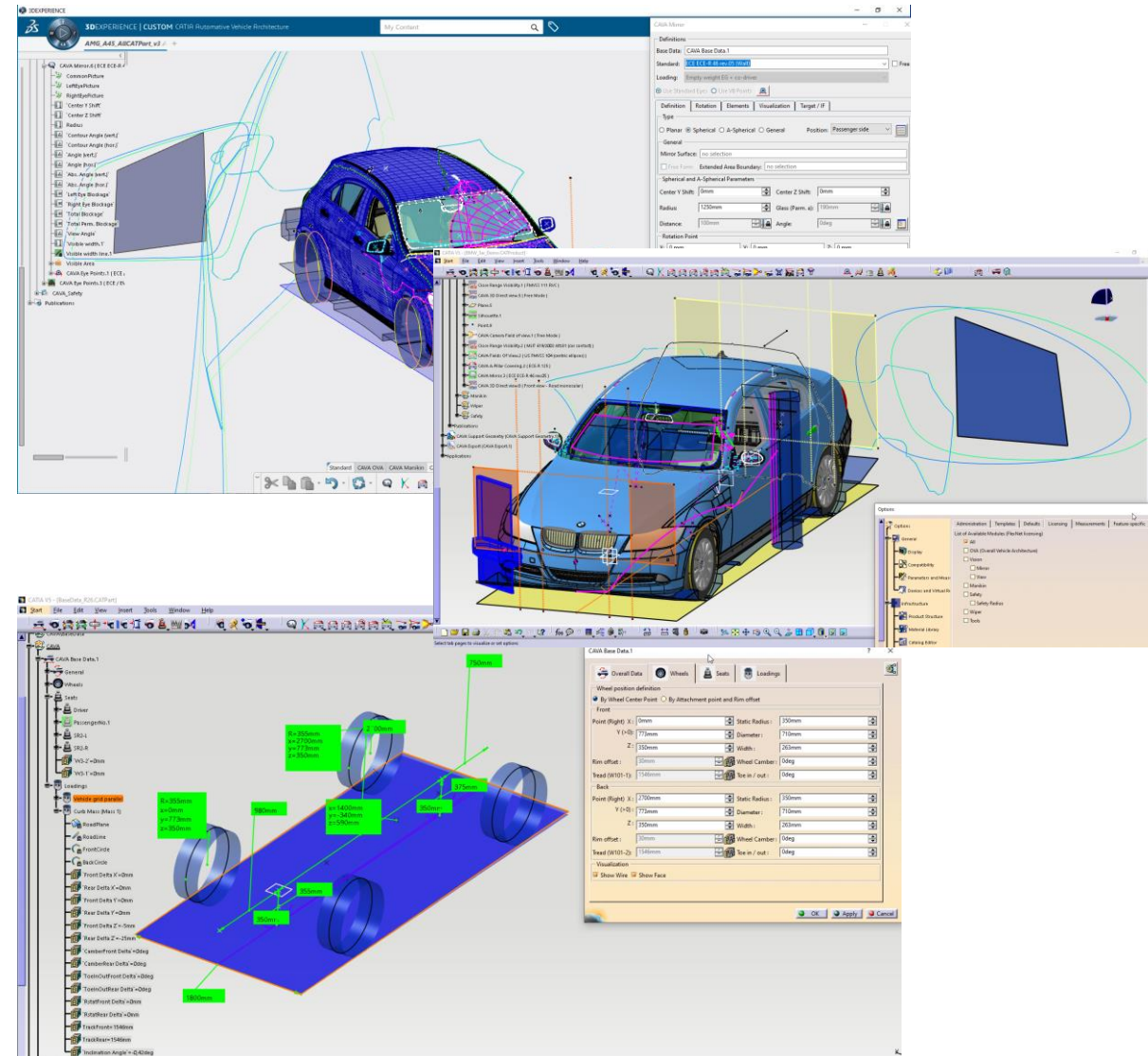
- CAVA is integrated into CATIA as a separate workbench or App.
- CAVA features are stored directly with the CAD data.
- Working in part and product context.
- Automatic feature update on change of any input parameters or changed geometry.

## Configurable and Open

- Supported Standards are available as readable xml file.
- You can create your own adapted company-specific standards easily.
- Export your results as regular CATIA Geometry for downstream applications, readable without CAVA.
- Create textual, excel and drawing reports using customizable report templates.

## Base Data Concept

- Organize relevant parameters in a central location.
- Define vehicle size, wheel size, driver and occupant placement.
- Define different ground reference planes to accommodate loading configurations.



# CAVA Tools – Silhouette

The Silhouette function offers the possibility to project the silhouette outlines of a complete vehicle with one click. This helps to create homologation drawings including measurements of key parameters like length, width and height.

## Features

- Can be used anywhere you need a silhouette, it's not limited to special automotive scenarios
- Works in product context and with visualization geometry – no limitation to single parts
- Enables you to select projection direction and projection plane independently
- User defined accuracy

## Result

- Calculates exterior outlines and outlines of openings
- Can optionally create filled surface
- Calculates size of projection area

