# Adam Opel AG: Using ANSA in Pedestrian Safety Analysis

Challenge:

- Passing from EuroNCAP v5.0 to v8.0 the number of Target locations has had an approximate increase from 60 to 210. This creates the need for an automated tool that produces the target locations, positions the Impactor, and offers simultaneously high precision and time effectiveness.

Approach:

- An enhanced Pedestrian tool has been developed, using the ANSA script and the ANSA Pedestrian functionality.
- The tool allows the analyst to mark the outer trim of the vehicle by creating all the desired Target Points.
- Moreover, it offers the ability to position all the Impactors (Headform, Lower and Upper Legform) according to the protocol on all the created Target Points simultaneously.
- Finally, there is a bulk creation of ready for solving keyword files for all the positioned Targets.
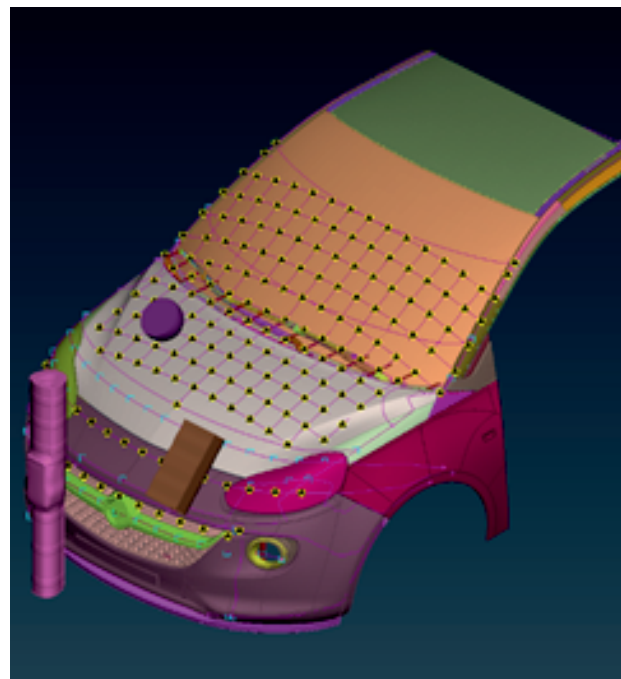
Results:

- Using the ANSA Pedestrian functionality and its scripting capabilities, a simulation engineer can perform a full Pedestrian Safety analysis, from the outer surface math data(unmarked) to a simulation in the solver, in less than 25 minutes.

"ANSA provides a powerful programming language that enables the automation of repetitive tasks improving the quality and speed of our work."

Yogesh Upreti, Development Engineer in Pedestrian Safety, Adam Opel AG