

ACP OpDesign revolutionizes the product design and development process through a holistic, performance driven method.

Based on the advanced SPDRM process and data management software of BETA CAE Systems, it captures ETA's Accelerated Concept to Product (ACP) Process and delivers a streamlined optimization path.

It orchestrates the phases of product design and development and is able to evaluate multiple design concepts under multi-disciplinary loads, through Topology, and Geometry, Grade & Gauge (3G) optimization.

It can act as an Optimization suite or provide the individual tools to design products from concept, in a sophisticated and effective way.

ACP OpDesign is enabled by combining the power of ANSA's modeling capabilities with its connection with most well-known FEA solvers, Topology and Parametric Optimizers, and META's post-processing automation.

- Create new products from concepts
- Optimize existing designs
- Evaluate numerous design concepts under multiple load conditions
- Optimize shape, material, and thickness
- Consider manufacturability alternatives



# ACP OpDesign

Optimal Design  
Gateway

Sign - up to try ACP OpDesign:  
[www.acpopdesign.com](http://www.acpopdesign.com)

*Reveal the Path  
to Optimized  
Products*

a collaboration of

**eta** **BETA**<sup>B</sup>

## ● Concept

Starting from Concept, the available design space is defined and set-up for topology optimization under Multidisciplinary loads (static and dynamic). The shell geometry from the results is generated by allocating material where is needed to withstand the loads.

## ▶ Low Fidelity 3G

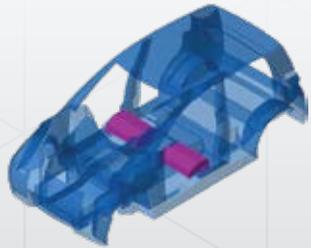
Continuing from Concept Design or starting from existing designs the LF3G step focuses on the optimization of the Geometry, Grade, and Gauge.

This step optimizes the position of important parts, the form and width & height of cross sections, and the material and thickness selection.

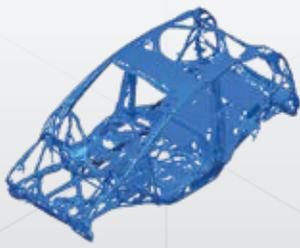
## ▶ Decoupling & High Fidelity 3G

Important load carrying sub-systems are “decoupled” for detailed design, based on alternative manufacturing design solutions. The sub-systems are further optimized for the optimal design solution under multiple load cases.

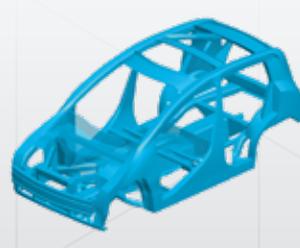
Further, the system is fully reintegrated and gauges optimized if required.



Design Space



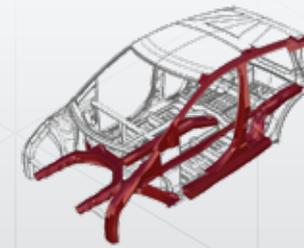
Topology Skeleton



LF3G Design



Sheet Baseline Design



Selection, Optimization, Reintegration, Gauge optimization

