

Advanced Engineering Services & Software for Automobiles and Commercial Trucks

ACP Process

ETA provides solutions to its global customers, by integrating CAE with design and development. The team is skilled at analyzing all aspects of product development, from initial CAE and design, to tool design and manufacturing considerations. Using its Accelerated Concept to Product (ACP) Process, ETA can effectively reduce product weight and cost while improving product performance.

Vehicle Development Programs

ETA is a leading full service supplier to the global automotive industry and has extraordinary capabilities in management, CAE and design to support vehicle development. ETA can support the client's virtual product development activities on a scale ranging from a single simulation to complete vehicle design, including drawings and prototypes. Put into practice on over 30 vehicle programs worldwide, ETA's areas of expertise include interior, body and chassis/suspension, NVH, product optimization, weight reduction, virtual testing, crash/safety, metal stamping & virtual proving ground simulations.

Design Validation

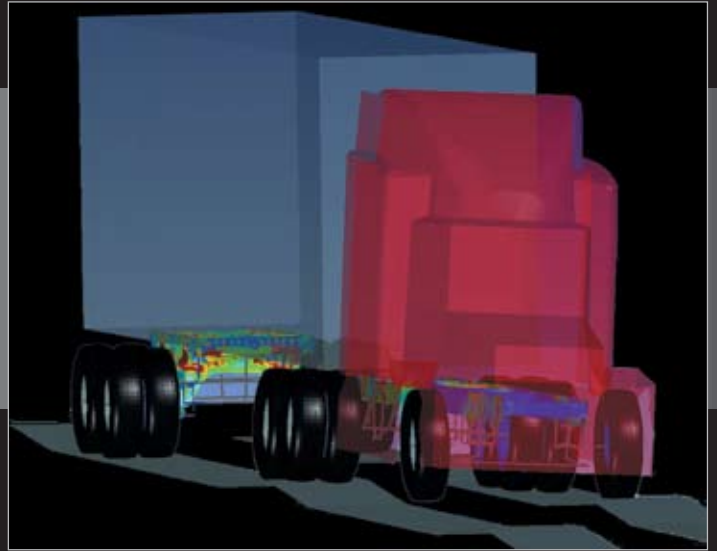
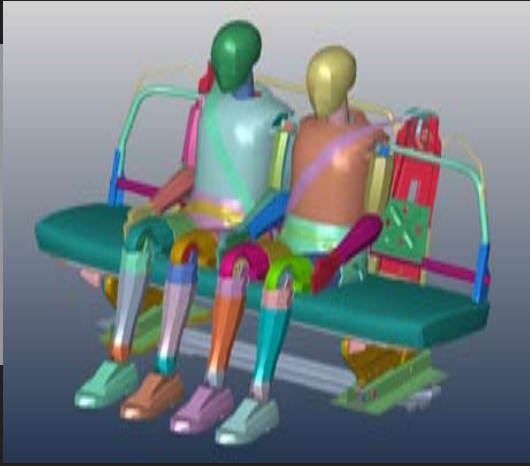
Using VPG, ETA can provide great insight and accurately validate the design. As the design proceeds through the development process, testing ensures that it continues to meet design expectations and detects design failures at each stage of the process.



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Crash & Occupant Safety

ETA can significantly improve the safety of an automobile through advanced VPG simulations. The team can successfully implement many common impact & occupant safety test conditions. VPG offers a complete Crash Tool Library (dummy models, barriers, impactors), Impact and Occupant Safety Processes (FMVSS testing, ECE regulations, IIHS, and more).

Commercial Trucks

ETA can design and analyze all aspects of the commercial truck. Specifically, the team is skilled at analyzing ride comfort, braking response, suspension and steering systems. Additionally, it can analyze and improve the vehicle's restraint system, overall safety performance, vehicle/road interactions and rollover events with shifting loads.

Metal forming & Production Support

Using ETA's own die analysis tool, DYNIFORM, cost estimation can be accurately predicted, as well as stamping effects, formability analysis, tooling design, tooling performance and die structural integrity. DYNIFORM can also provide insightful manufacturing process simulation, including scrap shedding/removal and sheet metal transferring/handling.

Hybrid & Electric Vehicles

Simulation is used to analyze all component sizes and explore other possible configurations for these complex vehicles. The team can also optimize engine, motor and battery pack sizes for improved fuel efficiency, as well as analyze vehicle dynamics to reduce friction and improve aerodynamics.

