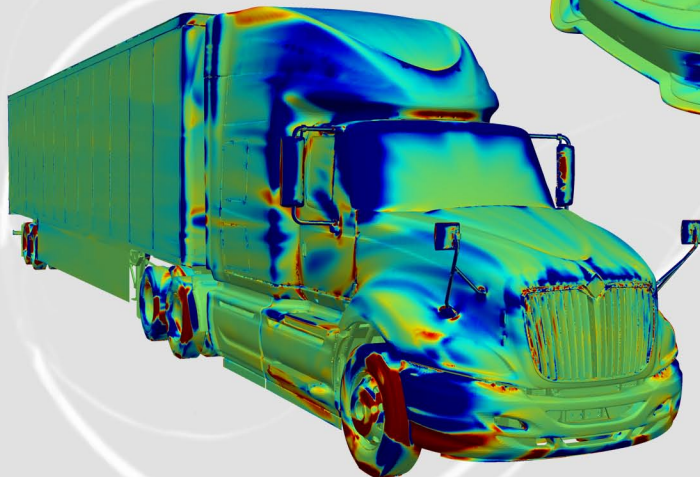
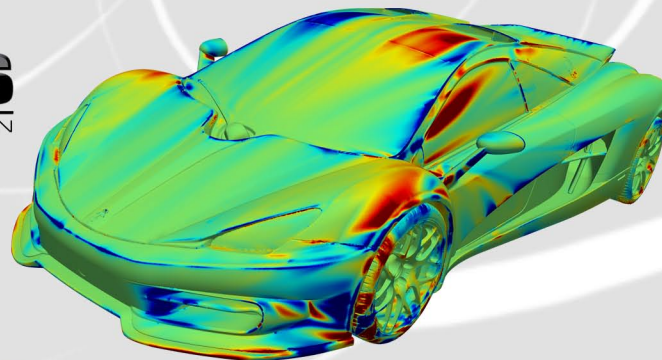


Push/Pull Sensitivity



Adjoint Optimization

ARC, the Best Kept Secret in Efficiency!

Adjoint Optimization is a **complex CFD solver** that allows for a more efficient way to optimize designs. **Topology optimization** with Adjoint delivers optimized internal flows for scenarios such as intake ports, HVAC ducts, exhaust manifolds, water jackets, etc. The user supplies a package volume and target parameters and **adjoint automatically shows the direction to morph for aerodynamic targets.**

Adjoint sensitivity takes the exterior of a car, for example and shows whether you should **push or pull on the surface to improve** several parameters (drag, downforce, efficiency, balance, etc.).

Streamline Solutions, a joint venture between ARC and ENGYS Ltd, **ELEMENTS Adjoint** solver uses industry leading **quasi-transient accuracy** to deliver the best predictions available for improvements.

The Adjoint Optimization solver delivers in a single run what would take many numerous CFD runs to deliver using traditional parametric techniques.