
Key Technologies

- CAD (BRep, VRep, NURBS, Splines, Subdivision)
- CAE, FEM (structure analysis, fluid dynamics)
- Additive Manufacturing, 3D-Printing
- Parallelisation (CUDA, OpenMP, MPI)
- Modern OpenGL, Visualisation (higher order primitives)

References

- CST (Dassault) ▪ Audi ▪ Airbus ▪ Daimler ▪ MeshParts

CONTACT

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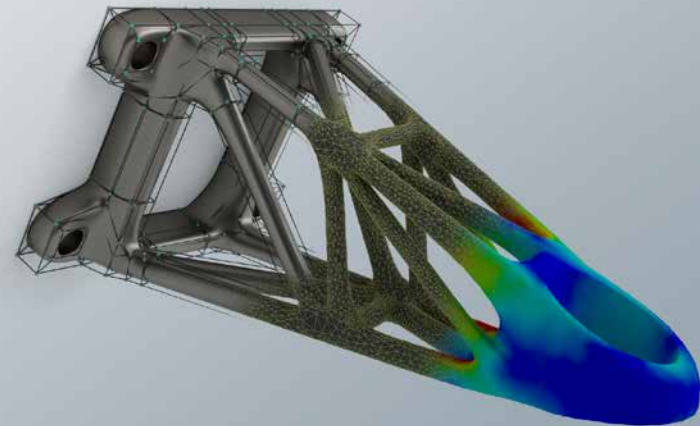
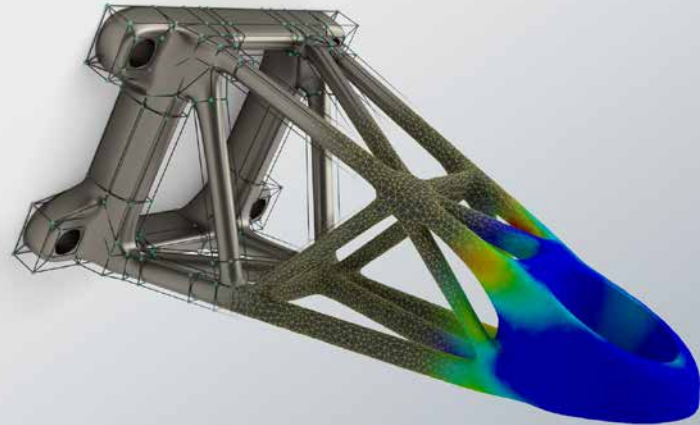
“Interactive Engineering Technologies”

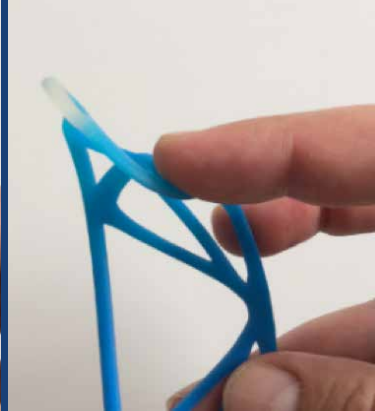
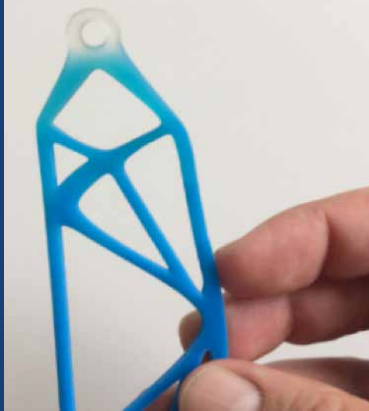
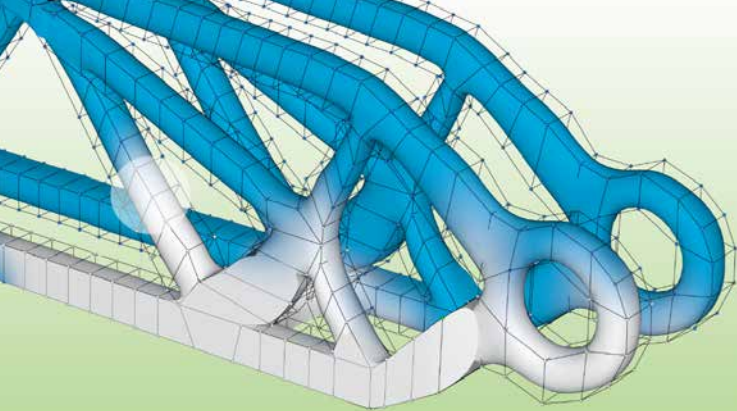
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INTERACTIVE ENGINEERING TECHNOLOGIES





WE ENABLE NOVEL PRODUCT DEVELOPMENT

Our Team

Our team of highly motivated and experienced people of

- computer science,
- mathematics and
- industrial design

develops customized solutions for complex industrial challenges. Our goal is to rethink engineering processes and to support them with new software tools.

Interactive Simulation

As an example, our efficient algorithms and data structures reduce simulation time from minutes to seconds and enable the exploration of design spaces with interactive simulation. We exploit the tremendous computational power of graphics processing units with highly optimized massively parallel algorithms.

Components with functionally graded materials

Our modeling approaches for components with functionally graded materials open up the potential of 3D printing – especially with multiple material – and revolutionize the possibilities of CAD and additive manufacturing processes with novel geometric representations, data formats and interaction techniques. This facilitates the integration of assembly components with different materials into a single representation with graded materials which can be manufactured automatically in one step.

Iso-geometric Analysis

We integrate both methods, rapid simulation and volumetric modelling, into visual-interactive systems that can be used intuitively. Our software development approach focuses on memory and computational efficiency, as well as robustness.

Our offering to Industry and Economy

We flexibly adapt to customer requirements to develop novel software solutions for CAD & CAE benefiting software providers and end users in many industrial sectors.