INTEGRAL MINING

ADVANCED NUMERICAL MODELING

WWW.INTEGRALMINING.COM

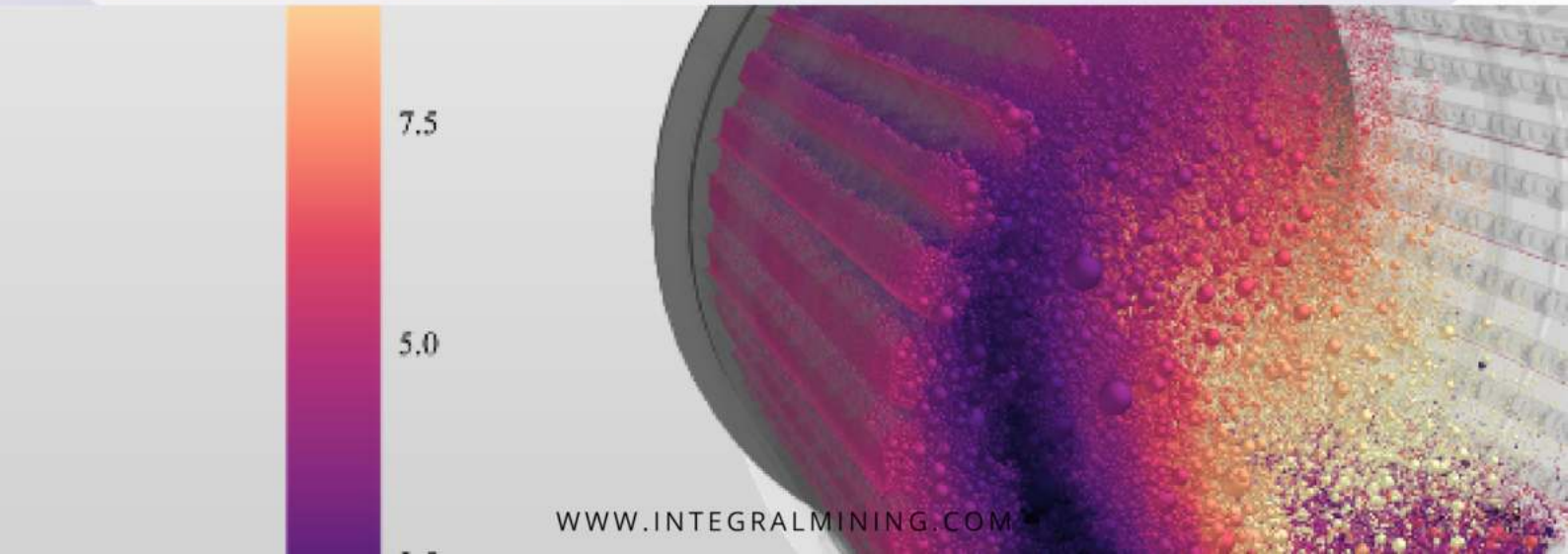
ALTAIR EDEM

EDEM is high-performance software for bulk and granular material simulation. Powered by DEM, EDEM quickly and accurately simulates and analyzes the behavior of coal, mined ores, soils, fibers, grains, tablets, powders, and more.
EDEM simulation provides engineers with crucial insight into how those materials will interact with their equipment during a range of operation and process conditions. It can be used stand-alone or combined with other CAE tools.

Leading companies in the heavy equipment, off-road, mining, steelmaking, and process manufacturing industries use EDEM to understand and predict granular material behaviors, evaluate equipment performance, and optimize processes.

Fast and scalable compute performance across CPU, GPU, and multi-GPU solvers – simulate large and complex particle systems involving millions or tens of millions of particles.

High Performance Solver

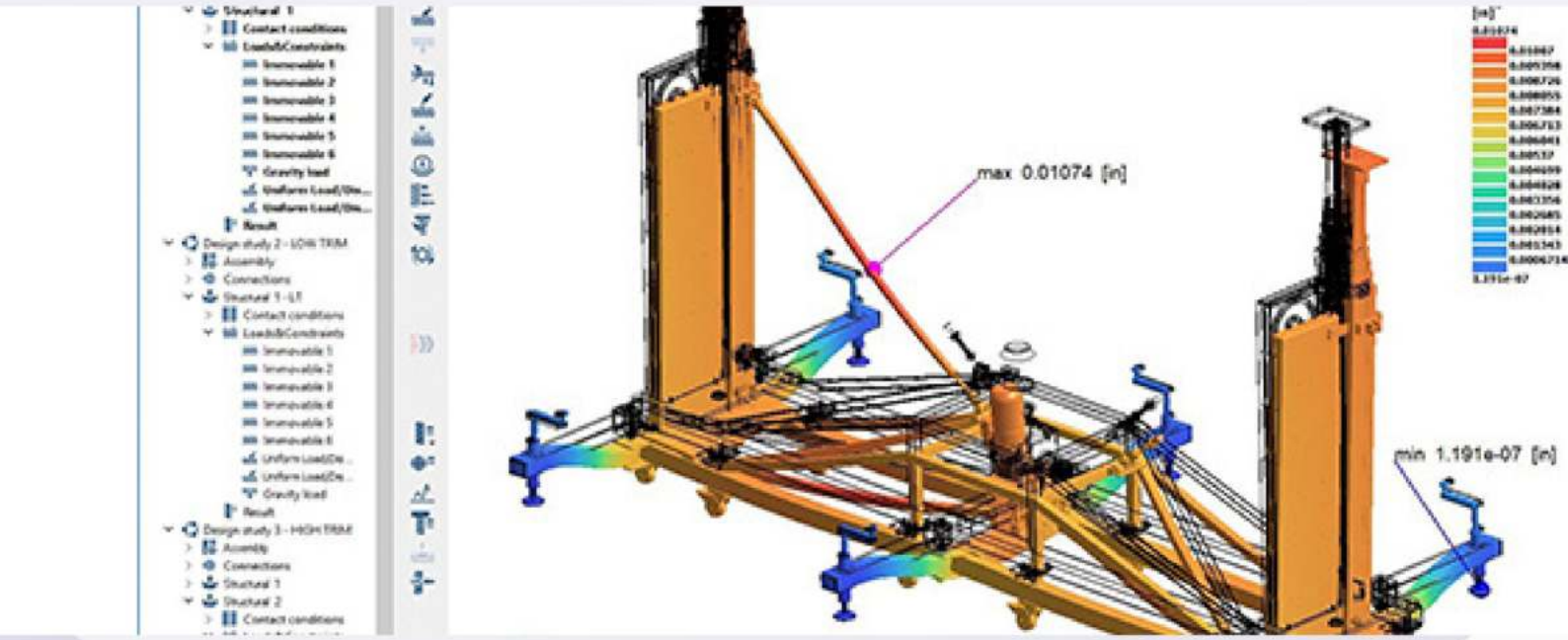


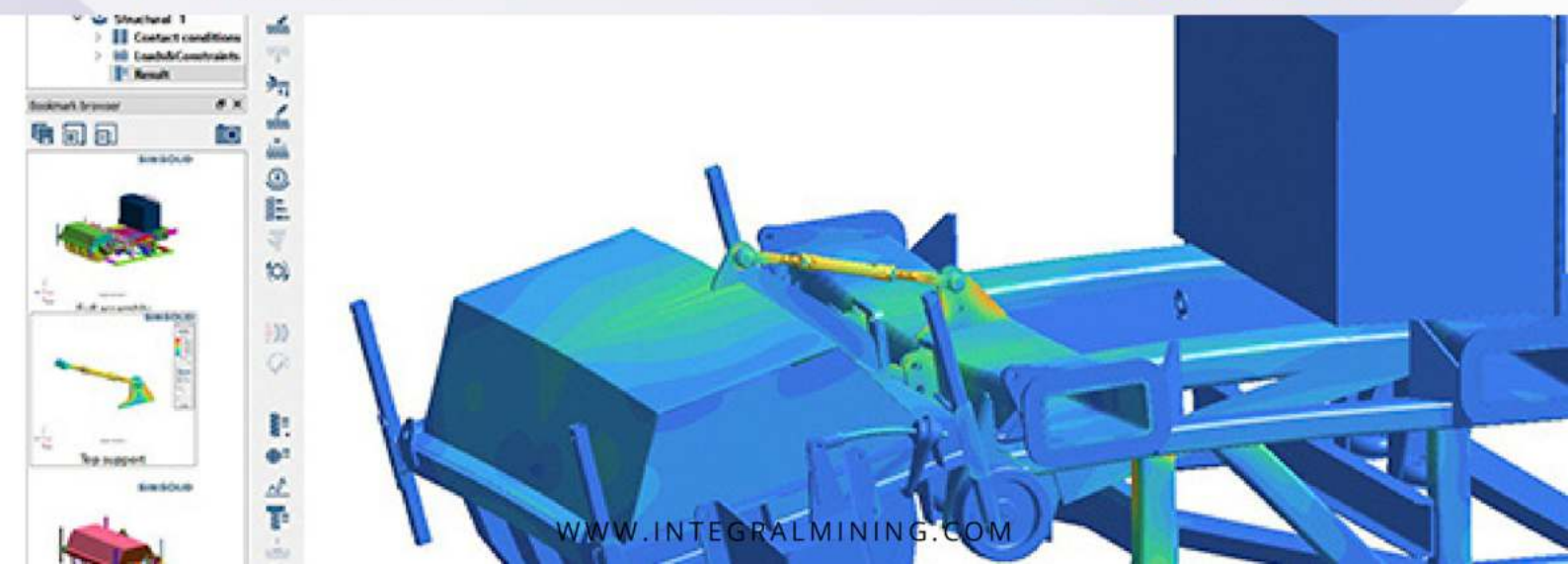
ALTAIR SIMSOLID

Multiple design scenarios can be simulated quickly under real-life conditions. Early CAD models, in any common format, can be used. Altair SimSolid tolerance of imprecise geometry means that, unlike CAD-embedded simulation tools, there is no need to simplify complex geometries before analyzing designs.

Altair SimSolid is the game-changing simulation technology for designers, engineers, and analysts. It eliminates geometry preparation and meshing: the two most time-consuming, expertise-extensive, and error-prone tasks performed in a conventional structural simulation.

Get Results in Seconds to Minutes





ALTAIR ACUSOLVE

AcuSolve® is a proven asset for companies looking to explore designs by applying a full range of flow, heat transfer, turbulence, and non-Newtonian material analysis capabilities without the difficulties associated with traditional CFD applications. Robust, scalable, and accurate regardless of the quality and topology of the mesh elements.

Implicit time stepping enables users to take larger time steps while maintaining accuracy.

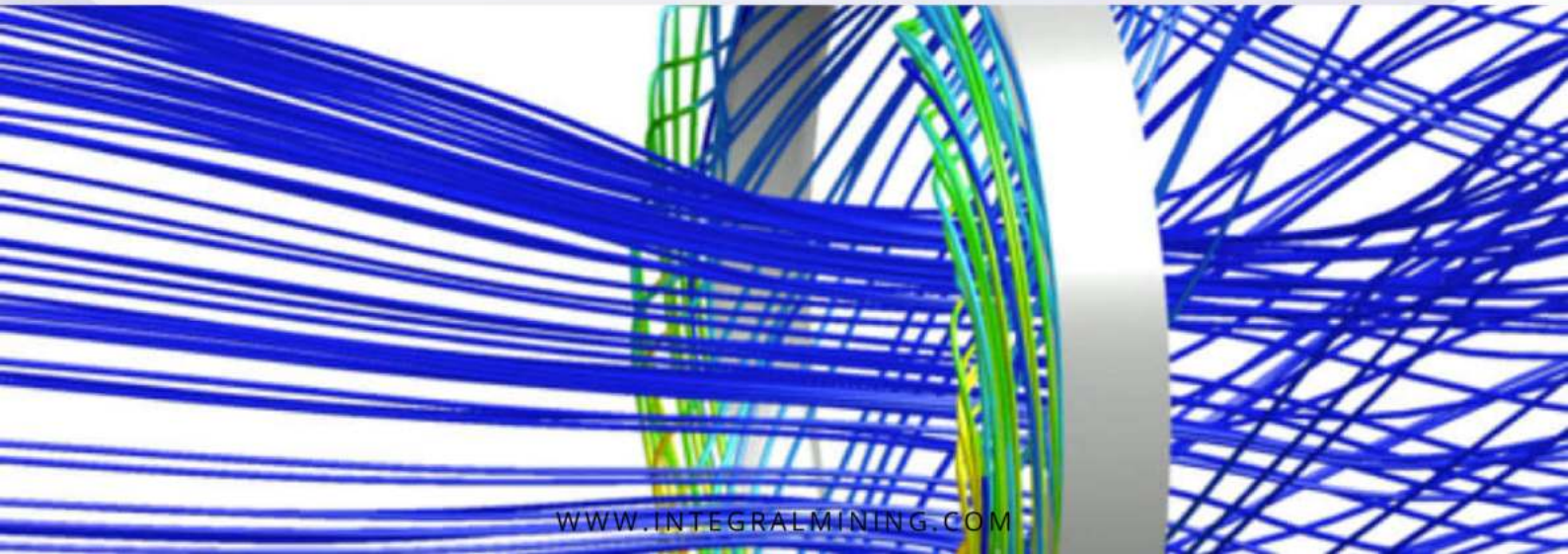
The solver is second-order accurate in space and time, without needing to initiate the model with first-order simulation.

Quickly solves coupled velocity and pressure systems while maintaining stability.

The architecture leverages massively parallel machines and scales reliably for every simulation need.

Not constrained by traditional Courant-Friedrichs-Lewy (CFL) parameter limitations.

Coupled Velocity and Pressure



ALTAIR MOTIONSOLVE

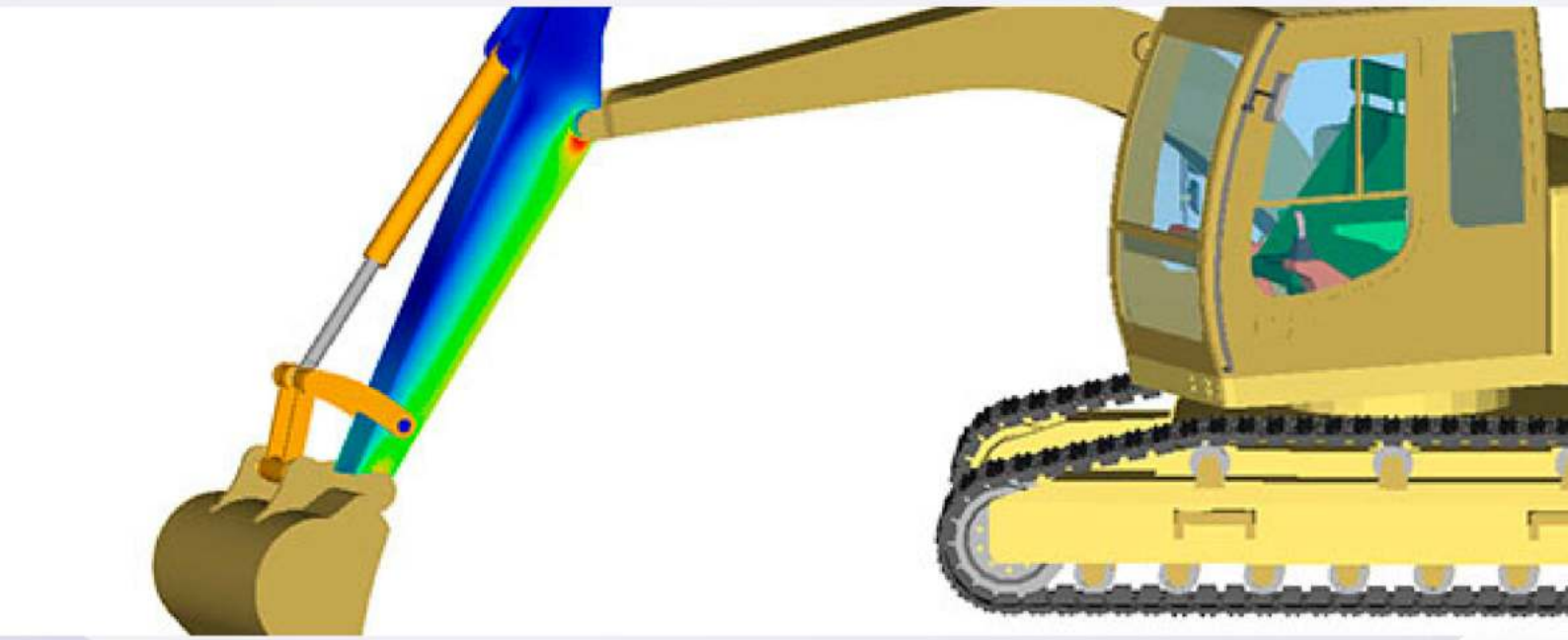
MotionSolve is a comprehensive multibody simulation software that helps you easily build and execute complex system models to evaluate the dynamic response of products and optimize their performance.

engineers and designers can graphically build system models describing the phenomena of interest. These models can include realistic geometry, diverse loading conditions, linear or nonlinear component flexibility, nonlinear connectivity, friction/contact, multiphysics and other environmental effects.

Designed to simulate ever-smarter products as system-of-systems, MotionSolve facilitates multi-disciplinary collaboration across product development teams by integrating with other Altair solutions for discrete element modelling, nonlinear flexbodies, CFD coupling, controls integration, and signal processing.

Quickly mechanize your CAD to predict how the mechanism operates.

Analyzes and Improves Systems of Systems



ALTAIR INSPIRE

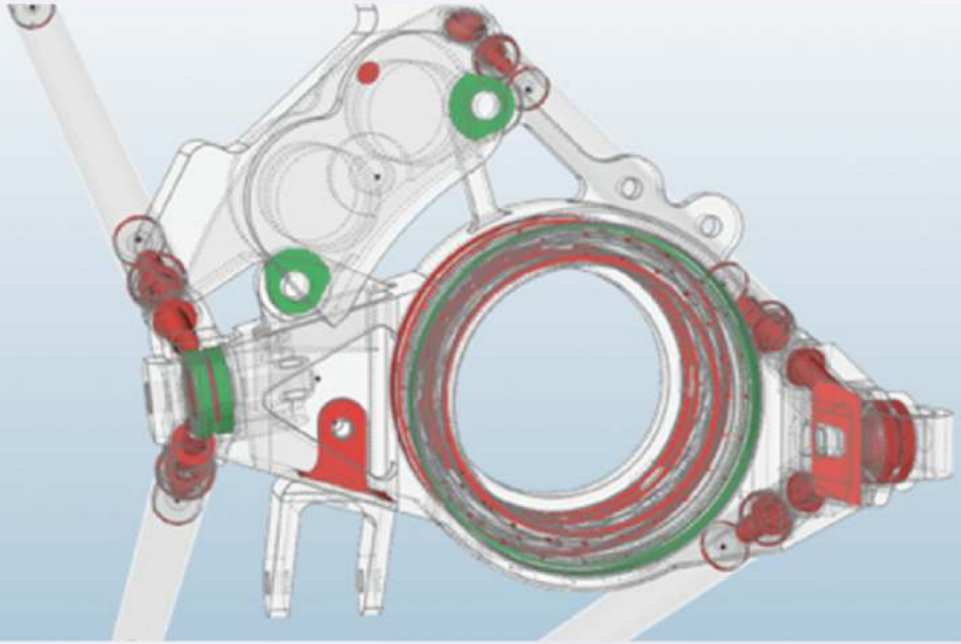
Applied early in the product development lifecycle, Inspire accelerates the creation, optimization, and study of innovative, structurally efficient parts and assemblies through collaboration.

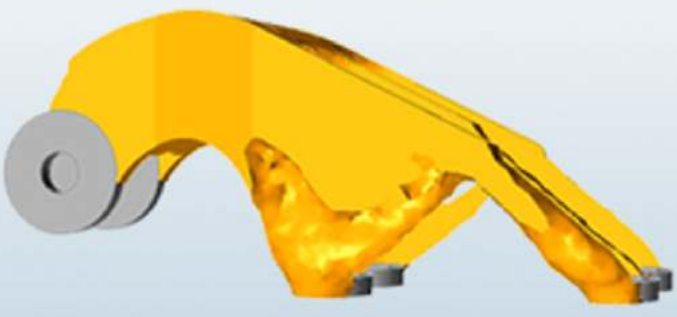
Experience an interactive engineering design environment for rapid design exploration and product creation, without the need to invest in new computer hardware.

Inspire enables both simulation analysts and designers to perform what-if studies faster, easier, and above all earlier, encouraging collaboration and reducing product time to market.

Create, modify, and defeature solid models quickly, use PolyNURBS to create free-form smooth geometry, and study multiple assembly configurations.

Simulate at the Speed of Design





INTEGRAL MINING

ADVANCED NUMERICAL MODELING

WWW.INTEGRALMINING.COM
INFO@INTEGRALMINING.COM

www.altair.com

ALTAIR ENGINEERING, INC, ALL RIGHTS RESERVED. ALTAIR.COM