

ALTAIR

ONLY FOWARD

INTEGRAL MINING

ADVANCED NUMERICAL MODELING



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SYSTEMS MODELING

Altair model-based development (MBD) tools drive fast development for smarter connected systems. Altair customers simulate complex products as systems-of-systems throughout your entire development cycle from early concept design to detailed design to hardware-in-the-loop testing (HIL). Explore more by combining mechanical models with electrical models (in 0D, 1D, and/or 3D) to enable multi-disciplinary simulation and leverage automatic code-generation for your next generation embedded systems.

ALTAIR ACTIVATE

Altair Activate is an open and flexible integration platform for comprehensive system-of-systems simulation. Based on a hybrid block diagram modeling environment for signal blocks, object oriented physical components, and electric and electronics systems, Altair Activate allows multiphysics analysis throughout the development cycle.

The comprehensive support of math modeling, scripting and modeling languages, facilitate the re-use and integration of existing code within the same model. Multilevel modeling, using models of adjustable complexity, tool-independent Functional Mock-up Interface (FMI) standard, or co-simulation with Altair® MotionSolve® and Altair® Flux™ facilitates multibody dynamics analysis for electromechanics sensors and actuator design.

Altair Activate empowers the collaboration and closes the links between multi-disciplinary engineering that are often isolated in development silos.

Much Faster than 3D Simulations



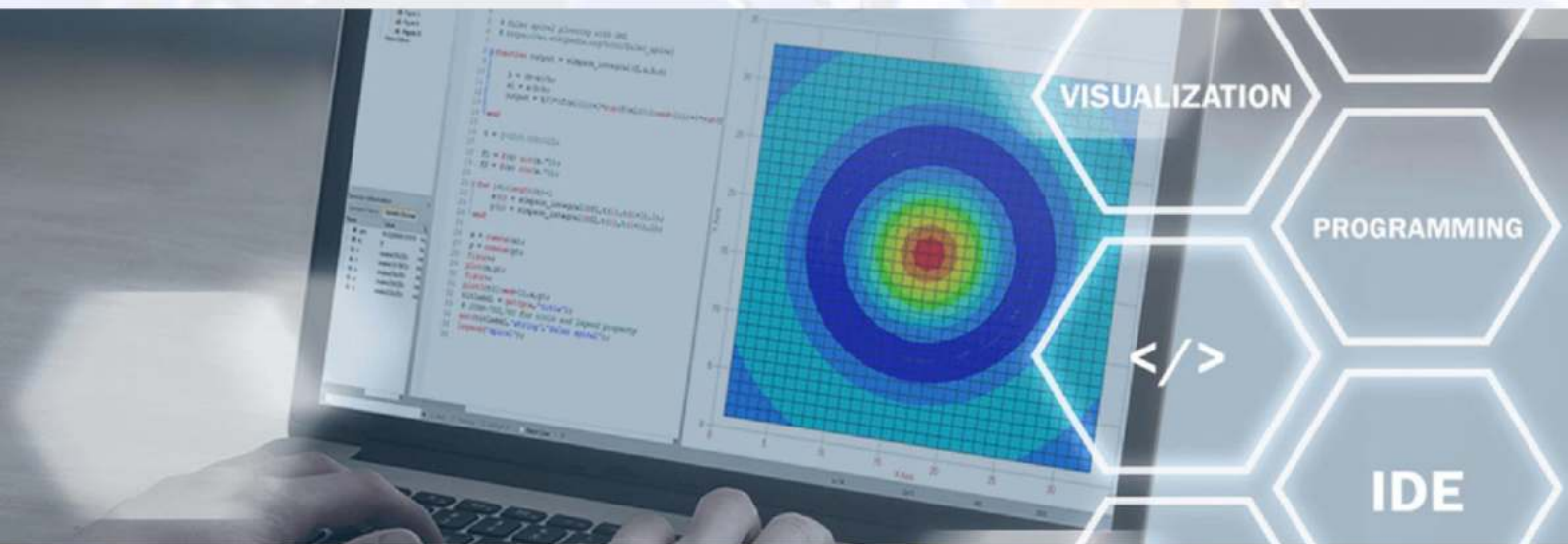
ALTAIR COMPOSE

Analyzing data, developing algorithms, or creating models - Altair Compose is designed to bring your ideas forward.

Altair Compose is an environment for doing math calculations, manipulating, and visualizing data, programming, and debugging scripts useful for repeated computations and process automation. Altair Compose allows users to perform a wide variety of math operations including linear algebra and matrix manipulations, statistics, differential equations, signal processing, control systems, polynomial fitting, and optimization.

The broad set of native CAE and test result readers accelerates system understanding and works with Altair Activate® to support model-based development, for multi-domain and system of systems simulations. Altair Embed® completes the model-based design portfolio with automated code generation, allowing for the testing and verification of embedded systems.

Rapid Algorithm Development

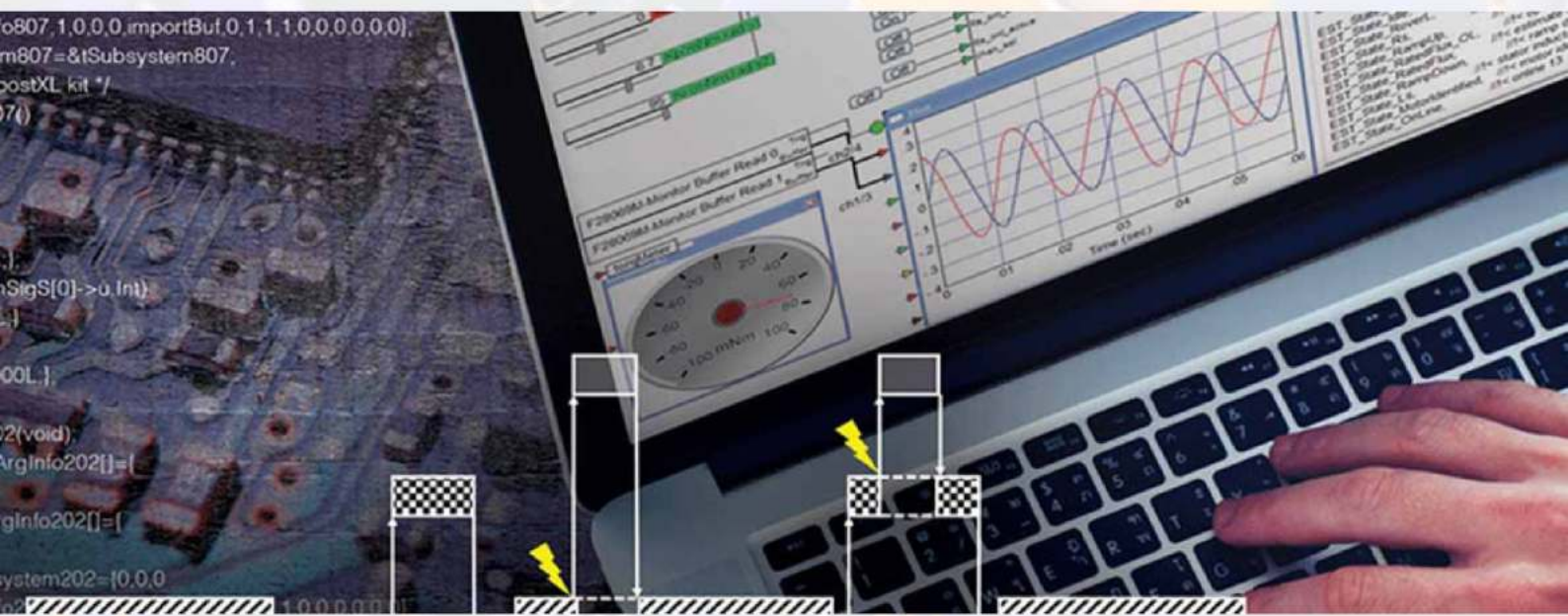


ALTAIR EMBED

Altair Embed is a powerful tool for nonlinear simulation and model-based firmware development. With Altair Embed, you design, analyze, and simulate using block diagrams and state charts. You can then automatically generate compact and optimized firmware to run on an extensive selection of microcontrollers.

Offering deep support for the most popular on-chip peripherals and libraries for electric motor control, digital power design, analog/digital communications, and image and video processing, Altair Embed lowers development costs by removing the need for manual coding which reduces errors and speeds the edit debug cycle with easy to use Hardware-in-the-Loop (HIL) capability.

Prebuilt e-Drive Diagrams



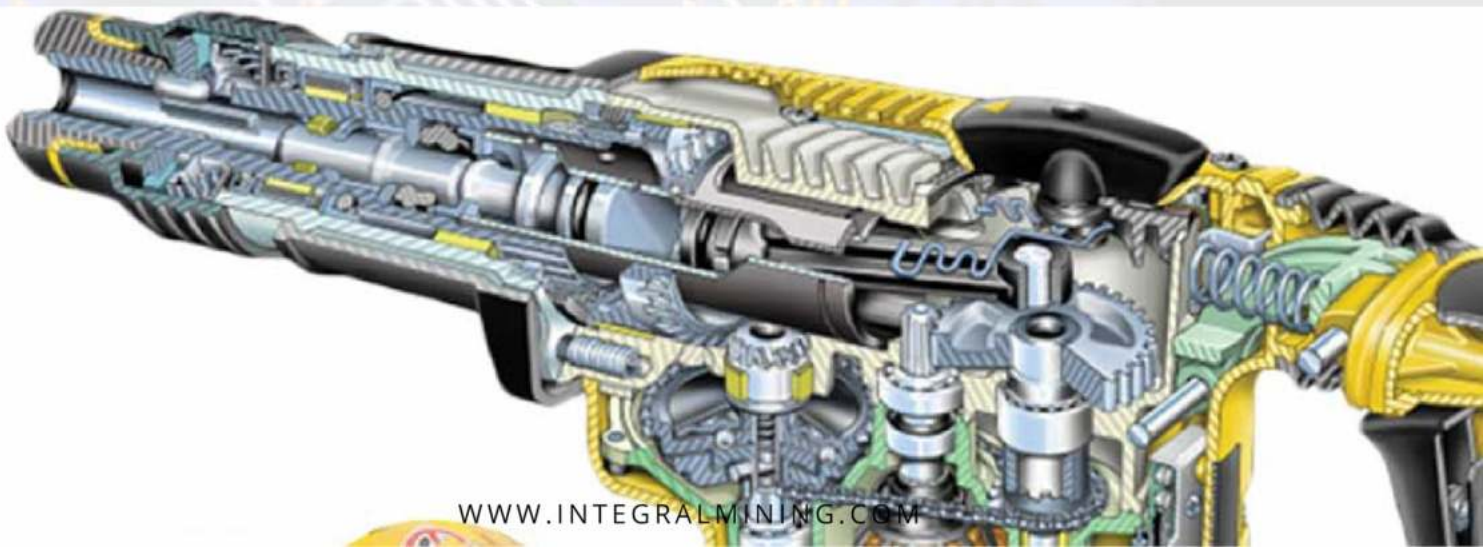
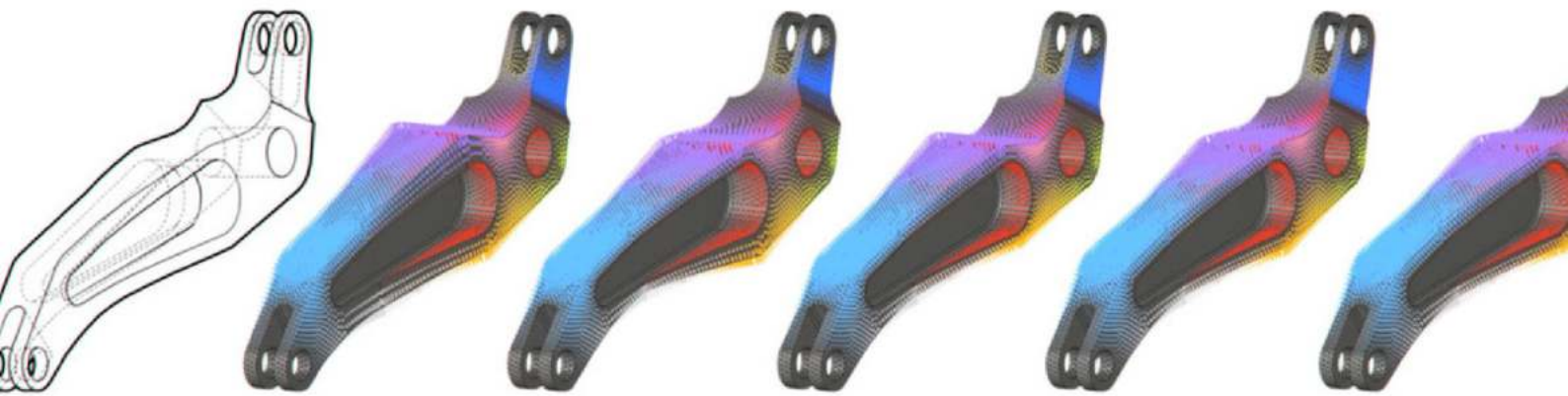
ALTAIR HYPERSTUDY

HyperStudy is a multidisciplinary design study software that enables engineers to explore and optimize their product performance and robustness.

By using automatic processes combining state-of-the-art mathematical methods, predictive modeling and data mining, HyperStudy explores the design space of any system model smartly and efficiently. Users are guided to understand data trends, perform trade-off studies, and optimize design performance and reliability, while considering multiphysics constraints.

The intuitive user interface combined with seamless integration to Altair® HyperWorks® makes design exploration technology accessible to non-experts.

Empower Your Competitiveness

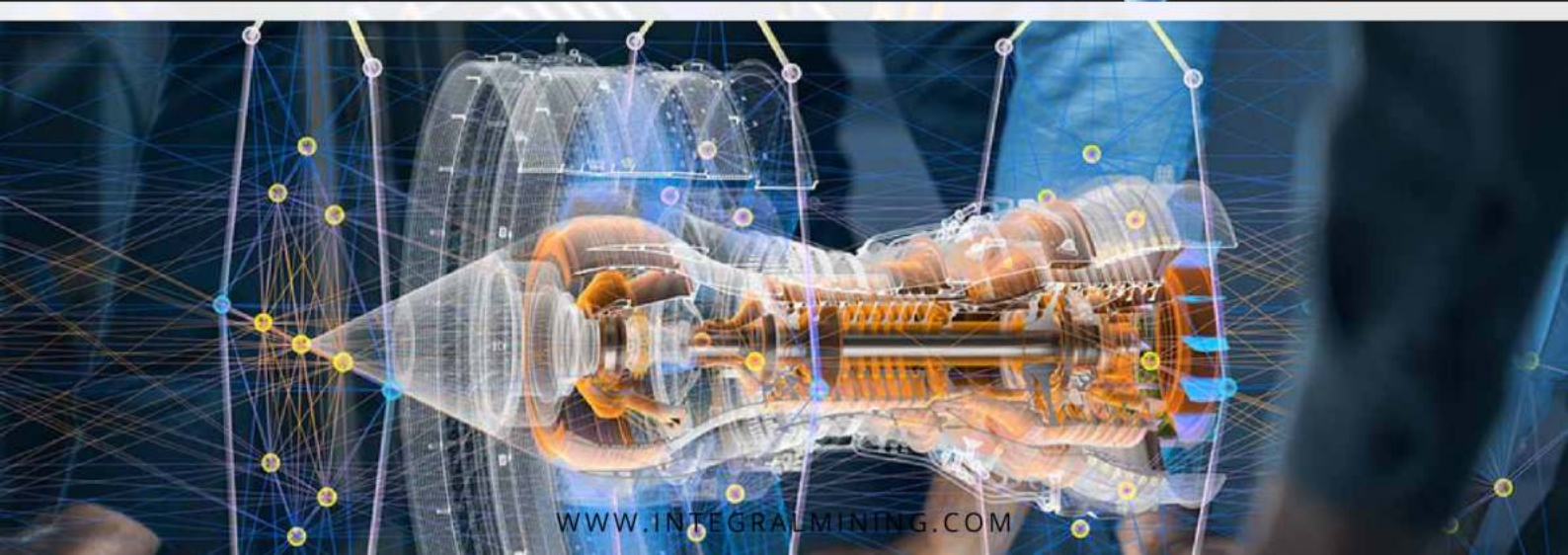
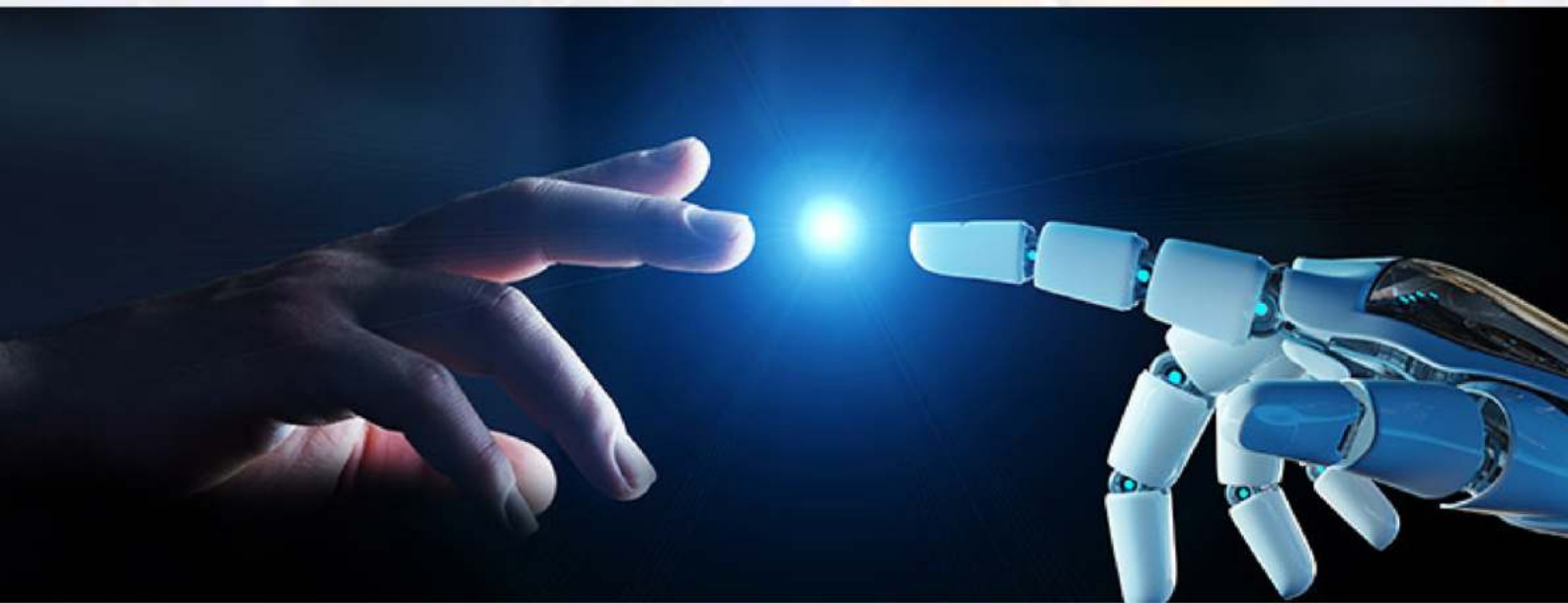


ALTAIR DESIGNAI

DesignAI combines physics-based simulation-driven design and machine learning-based AI-driven design to create high-potential designs earlier in development cycles. Augment current product development practices and multiply the productivity of engineering teams with AI technology to explore a broader population of customer pleasing, high performing, meaningful, and manufacturable new product design alternatives.

Increase collaboration, speed up design convergence, and achieve greater product innovation by tearing down departmental silos while reducing the risks associated with invention.

Solve the Most Challenging Design and Engineering Problems Faster



Accelerating Innovation

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