

Ideal for Organizations that:

- Perform frequent impact/drop test simulations on manufactured products, such as electronic devices or appliances.
- Are interested in shortening analysis cycle and learning curves for product teams.
- Need to establish best practices and standardized results across enterprise.

Solution Highlights

- Reduces impact simulation time by up to 60% - accelerating development/minimizing cost.
- Captures knowledge and best practices in standard workflow processes.
- Increases reliability and repeatability of impact simulation results enterprise wide.
- Provides an easy to learn, user-friendly interface that streamlines the analysis process.

"Thanks to the Altair ProductDesign team, we have been able to reduce our virtual testing time significantly. The Impact Simulation Director is fully integrated into our design process and has allowed our engineers to concentrate on research and development, not consumed with model building and set up tasks."

Omkar Dole
FEA Scientist II
Amcor Rigid Plastics

Impact Simulation Director

Altair's Impact Simulation Director (ISD) solutions empower engineers and designers to simulate the impact performance of designs faster to cost-effectively produce higher-quality products.

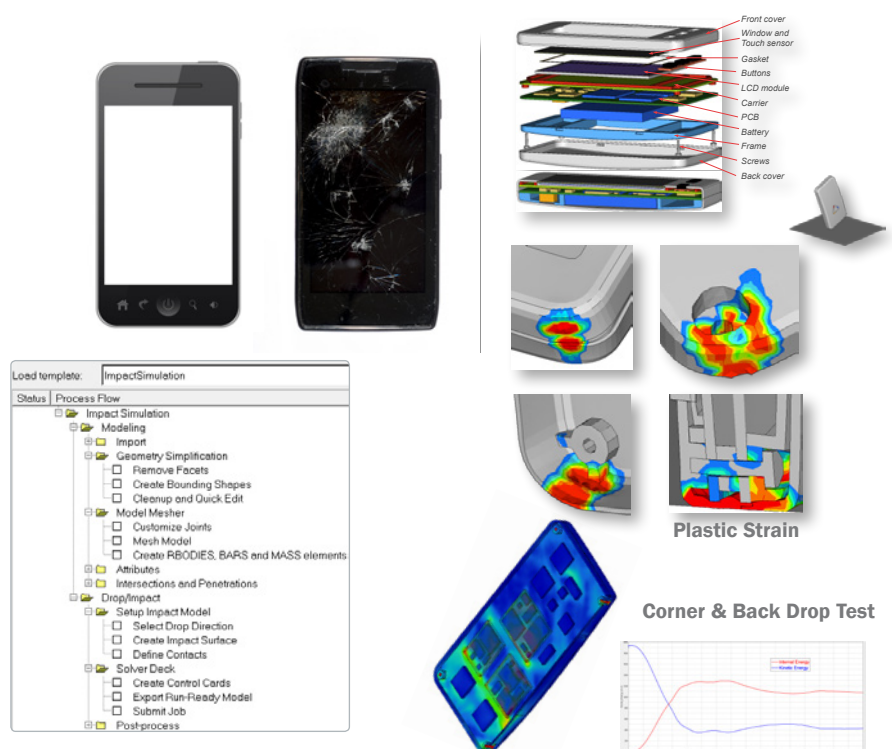
ISD solutions automate the laborious, manual tasks associated with model setup, analysis, post-processing and reporting.

Highly tailored to an organization's specific procedures and best practices, Altair's ISD solutions reduce development time and costs while enhancing product robustness and performance.

Impact Simulation Director solutions streamline:

- Importing Master file and CAD models into HyperMesh
- Performing geometric cleanup and generate mesh
- Assigning materials and properties, define contacts
- Applying boundary conditions required for the impact analysis
- Exporting and submitting jobs for analysis
- Post-processing results

Mobile phone drop simulation



ISD Solution Capabilities

Modeling

- Organize CAD model based on the master file which defines assemblies, sub-assemblies and describes the material, element type and size for the complete analysis.
- Simplify the geometry of the complex parts by removing features, creating bounding shapes and eliminating holes and fillets.
- Mesh all the parts in an organized fashion with the model mesher browser. Define mesh criteria for each part and check mesh quality and status. User can also repair the failed mesh within this efficient custom designed process step.
- Assign materials and properties to all the parts according to the solver-specific material file.
- Check and fix penetrations and interference for all the parts and sub-assemblies.

Analysis

- Set-up Impact/Drop Model by selecting drop direction and orientation creating impacting surface and defining contacts.
- Generate a solver deck by creating control cards, exporting run-ready models and submitting the job to the solver.
- Solvers - Impact Simulation Director supports RADIOSS®, LS-Dyna and Abaqus.

Collaboration

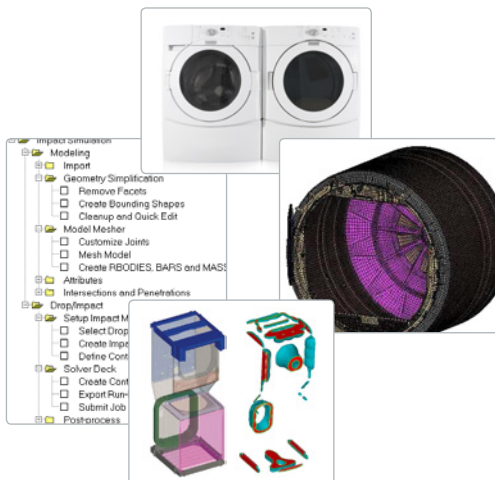
- Post-Process delivery through a variety of visualization tools and reports.
- Leverage Altair's simulation cloud suite.
- Integrate seamlessly with all Altair Enterprise Solutions.

Deployment

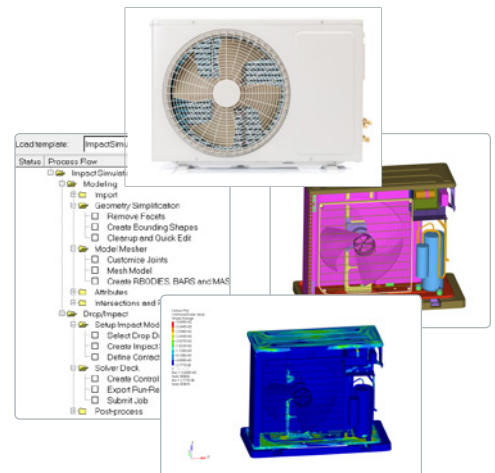
Altair's team will work with you to understand your unique needs and practices to ensure that Impact Simulation Director solutions meet your specific requirements. Our experts support the following tasks:

- **Evaluating** current methods for modeling and Impact Simulation.
- **Aligning** ISD with your enterprise needs e.g. connect to your material database, comply to company standards and naming conventions, etc.
- **Providing** quick start and periodical checkpoints to ensure a successful user experience.

Package drop simulation



Air Conditioning Unit drop simulation



Altair Engineering, Inc.

1820 E. Big Beaver Rd. Troy, MI 48063-2031 USA
Phone: +1.248.614.2400 • Fax: +1.248.614.2411
www.altair.com • info@altair.com

For more information about Impact Simulation Director and other Enterprise Solution Offerings, contact us at info@altair.com

Altair's Enterprise Software and Solutions division helps companies to solve business and engineering problems at the desktop, team and enterprise levels. We work closely with our clients to increase organizational efficiency and decision-making by building solutions that are tailored to their unique environment and processes. These solutions include: cloud-based simulation and high-performance technical computing, CAE workflow automation, and specialized data analytics applications.