



A Platform for Innovation™



Altair® HyperForm® Solista™

Highly Efficient Platform to
Capture the Stamping Process

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Altair® HyperForm® Solista™ is a comprehensive finite-element-based sheet metal forming simulation framework. Its unique process-oriented environment captures the forming process with a suite of highly tailored and configurable analysis and simulation tools. HyperForm Solista delivers a cost-effective solution that allows users to develop an optimal manufacturing process.

Benefits

Immediate Cost Savings

A remarkable cost savings is driven by competitive pricing and the dramatic reduction of the overall product development cycle time. HyperForm Solista delivers a turn-key solution yielding a significant return on investment, even within the first year.

Accurate and Reliable Solver

The most accurate incremental sheet metal forming solver on the market (Altair® RADIOSS™) is seamlessly integrated into HyperForm Solista's process-driven user interface. This solver allows users to quickly predict wrinkles and splits prior to cutting steel, avoiding the unnecessary costs associated with die machining and press downtime.

Efficiently Captures the Stamping Process

HyperForm Solista's open framework combined with an extensive built-in knowledge of the manufacturing domain

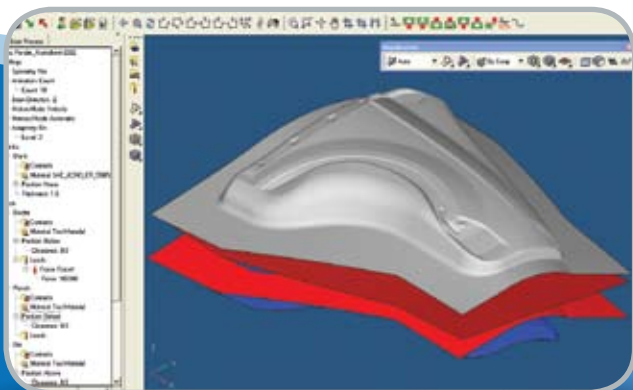
efficiently captures the stamping process. This further increases user productivity through a comprehensive collection of tailored, process-oriented automations for virtually every stamping application.

Complete Solution for Stamping

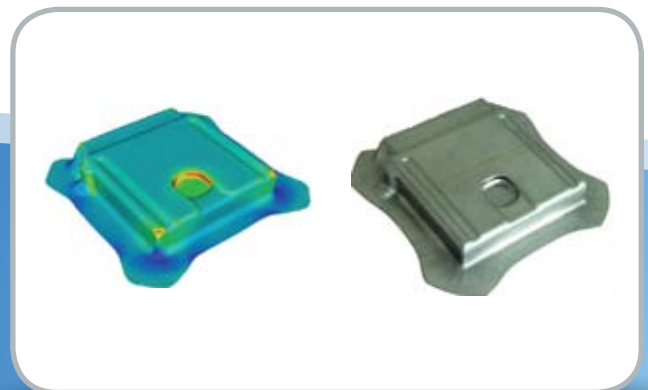
HyperForm Solista offers a complete solution for managing the entire stamping simulation process. This stamping platform boasts robust functionality, such as a feasibility analysis utility, parametric rapid draw die design, final process validation, process optimization, and results visualization to meet and exceed user's high-performance requirements.

Metal Forming Solution for Every Need

Product and Cost Engineers can study manufacturing feasibility in combination with post-manufacturing performance changes.



Capturing the Process Knowledge Through the Intuitive Graphical User Interface



Simulation Results Accurately Predict Part Failure

Die Designers can build a process and create conceptual die designs with a parametric die module and run quick feasibility analysis or a detailed forming simulation.

Process Engineers can validate the conceptual or real die by performing a full-forming contact simulation to predict areas of wrinkling, high thinning, low spots, springback and related manufacturing issues.

Die Tryout Engineers can communicate more efficiently and improve productivity and part quality by utilizing the detailed reports automatically generated from the analysis.

Capabilities

Fastest Feasibility Analysis

The fastest inverse solver in the marketplace for quick one-step feasibility analysis and results mapping addresses forming feasibility early in the product development cycle, minimizing downstream formability challenges and associated costs.

Efficient Cost Analysis

The accurate blank shape-prediction and intuitive nesting interface proposes proper blank-sizing, minimizing material scrap in the early stages of the product development process.

Concept Die Design Development

The intuitive, parametric, and NURBS-based die-face-development tool delivers a powerful tool for engineers to quickly modify and verify multiple draw scenarios.

Fast and Robust Process Validation

Through its best-in-class incremental solver (Altair® RADIOSS™), HyperForm Solista provides product and die engineers with powerful capabilities to:

- Analyze and validate the robustness of the manufacturing process
- Determining wrinkles and splits prior to cutting steel
- Avoiding unnecessary costs associated with die machining and press downtime

Optimize the Process

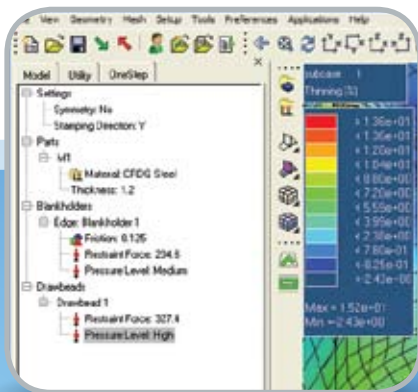
HyperForm Solista provides a very accurate simulation of the entire stamping process, including springback analysis and compensation, allowing the user to validate and optimize the manufacturing process in a virtual tryout environment.

Tube Bending and Hydroforming

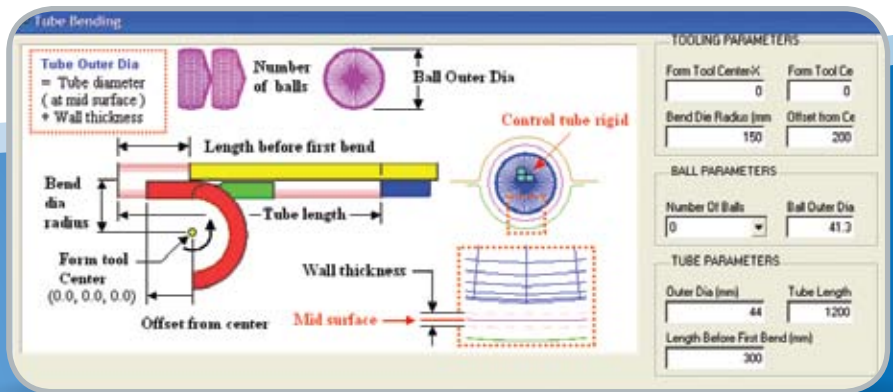
In addition to the complete sheet metal forming capabilities, HyperForm Solista includes powerful utilities for tube bending and hydroforming, delivering a nearly hands-off model auto-setup process.



Complete Manufacturing Platform for Stamping Simulation



User-friendly Environment for Analysis Set-up and Results Review



Specialized Panels for Automated Model Setup

Learn more about
HyperForm[®] Solista[™]
at www.altairhyperworks.com/hyperform

About Altair

Altair empowers client innovation and decision-making through technology that optimizes the analysis, management and visualization of business and engineering information. Privately held with more than 1,300 employees, Altair has offices throughout North America, South America, Europe and Asia/Pacific. With a 20-year-plus track record for innovative product design and development, advanced engineering software and grid computing technologies, Altair has more than 3,500 corporate clients representing the automotive, aerospace, government and defense, and consumer products verticals. Altair also has a growing client presence in the life sciences, financial services and energy markets.



Performance Simulation Technology

HyperWorks is an enterprise simulation solution for rapid design exploration and decision-making. As one of the most comprehensive, open-architecture CAE solutions in the industry, HyperWorks includes best-in-class modeling, analysis, visualization and data management solutions for linear, nonlinear, structural optimization, fluid-structure interaction, and multi-body dynamics applications.

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