

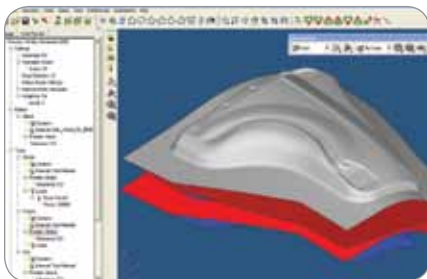
Altair® HyperForm™

Highly Efficient Platform to Capture the Stamping Process

Altair® HyperForm® 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 delivers a cost-effective solution that allows users to develop an optimal manufacturing process.



Simulation Results Accurately Predict Part Failure



Capturing the Process Knowledge Through the Intuitive Graphical User Interface

Benefits

Immediate Cost Savings

A remarkable cost savings is driven by competitive pricing (based on Altair's patented HWU licensing) and the dramatic reduction of the overall product development cycle time.

Accurate and Reliable Solver

The most accurate incremental sheet metal forming solver on the market (Altair® RADIOSS™) is seamlessly integrated into HyperForm'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'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 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.

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.

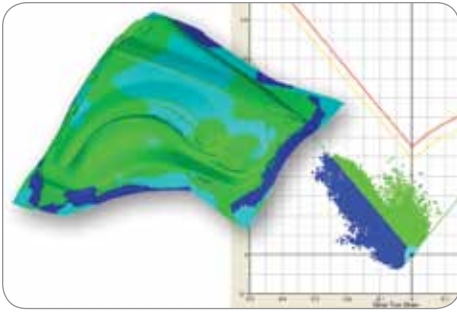
Capabilities

Fastest Feasibility Analysis

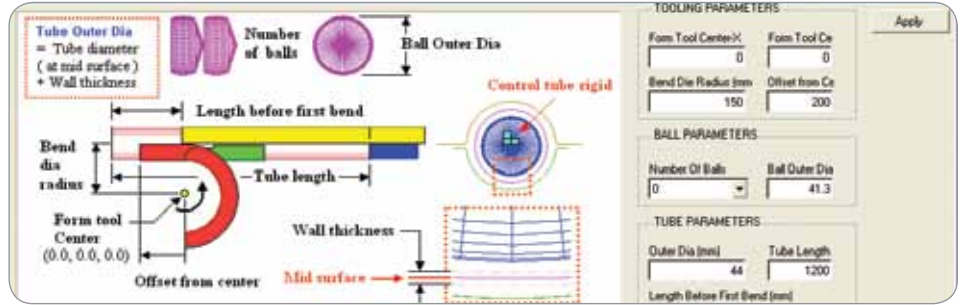
The fastest inverse solver in the marketplace for quick one-step feasibility analysis and results mapping addresses forming feasibility early in the product development cycle, minimizing downstream formability challenges and associated costs.

Efficient Cost Analysis

The accurate blank shape-prediction and intuitive nesting interface proposes



Fast and Robust Part Feasibility Analysis



Specialized Panels for Automated Model Setup

proper blank-sizing, minimizing material scrap in the early stages of the product development process.

Concept Draw 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.

Seamless Data Mapping

Product engineers can study manufacturing feasibility in combination with post-manufacturing performance changes, seamlessly mapping the forming results to the structural or crash analysis models.

Fast and Robust Process Validation

Through its best-in-class incremental solver (Altair® RADIOSS™), HyperForm 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

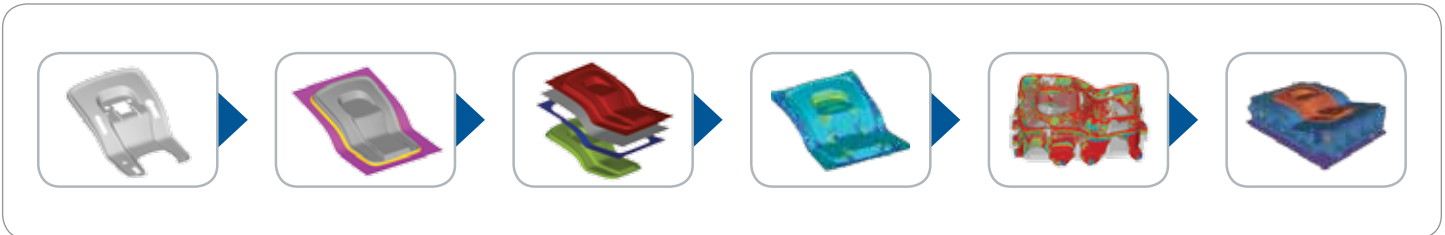
Optimize the Process

Through a seamless integration with the HyperWorks optimization tools

(Altair® HyperStudy® and OptiStruct®), HyperForm offers unique capabilities to analyze and optimize not only the sheet metal but even the tool structure, allowing the die designers to conceive lightweight, robust and validated structures.

Tube Bending and Hydroforming

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



Complete Manufacturing Platform for Stamping Simulation



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