# Altair **Inspire**™

## The Future of Simulation-Driven Design

Altair Inspire enhances the concept development process by enabling simulation-driven design to increase your product's efficiency, strength and manufacturability.

## Fast, Easy, Accurate, and Affordable

# Inspiration for
# better products

At Altair, we believe in starting out on the right foot every time. Our innovative software allows you to define a design space, apply loading conditions, and generate the ideal structural solution for your part or assembly. This often results in reduced costs, development time, material consumption, and product weight. With its easy to use interface, new users need just a few hours of training, and many require none at all.

Validate designs using simulation and visualize displacement, factor of safety, percent of yield, tension and compression, von Mises stress, and major principal stress.

"Altair Inspire is a very useful tool that helps our designers to better understand the behavior of a structure. I believe that with Inspire we are able to create better, lighter, and stiffer products and components."

*Mikael Thellner,*
*Technical Mgr for TopologicalOptimization,*
*Scania*

"Altair Inspire is extremely easy to use and delivers results incredibly fast. After only 10 minutes we already have first results and estimates. I'm always looking forward to new projects for which I can apply Inspire – it's a great tool to work with."

*Uwe Kasper,*
*Design Engineer,*
*LEIBER Group*

"What I love about Altair Inspire is that you put in all of your parameters, push 'optimize' and very quickly a completely unique shape for your product is created."

*Seth Astle,*
*Senior Industrial Designer,*
*3D Systems*

# Design Based on Intent

Enhance your concept development process by starting with the solution



| Sketch or Import a Part or Assembly | Define Fasteners, Joints, and Contacts | Analyze Motion and Extract Loads | Assign Materials and Loads |

## Reduce Development Time

Altair Inspire changes the way design engineers approach design. Starting with the optimized structural solution in the early concept development stages reduces design iterations, rework, and failed prototypes.



Quickly and easily generate the ideal concept, then smooth it out with the PolyNURBS tool.

## Reduce Weight

Altair Inspire assists design engineers by generating the optimal structural concept within a design space using loads as input. Design lightweight in, instead of engineering mass out when starting with the ideal solution.



Connect multiple parts using fasteners and joints to model, optimize, and analyze assemblies. Then predict loads for moving mechanisms with dynamic motion analysis.
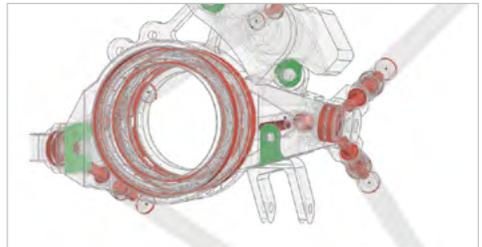


Evaluate neighboring parts and designate whether they should be bonded, contacting, or have no contact.
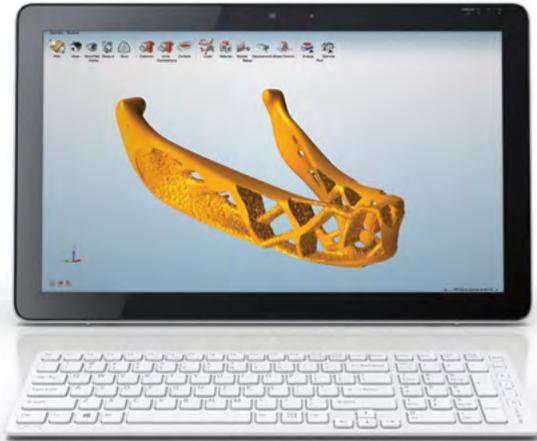
Altair Inspire's intuitive user interface is incredibly easy to learn, new users often require little or no training at all.

## Reduce Costs

Altair Inspire has a straightforward interface and works with existing CAD systems. Decrease costs by reducing design iterations, material consumption, and design faster, stronger, lighter and easy to manufacture products.



Design parts based on their intended use, evaluating traditional and additive manufacturing methods.

Learn more at solidThinking.com/Inspire

*"The ease of use of the software is great, using Inspire we were able to generate multiple design iterations in just about half a day's time. To create similar results without Inspire would have taken four to five days."*

*Joel Ball, Design Engineer, Detroit Diesel*

## Altair Inspire Features

### Key Features

- Min/Max Size
- Draw Direction
- Symmetry
- Pattern Repetition
- Cyclic Repetition
- Stress Constraints
- Frequency Constraints
- Part Instances
- Displacement Constraints
- Gravity Loads
- Fasteners
- Joints
- Contacts
- Friction

### Geometry Import

- ACIS
- CATIA (V4 & V5)
- IGES
- Inventor
- JT
- Parasolid
- Pro/E
- SolidWorks
- STEP
- STL
- UG NX (Unigraphics)

### Geometry Export

- IGES
- Parasolid
- STEP
- STL and Lattice STL

## Altair Inspire is available for:

Windows 10, 8.1, 7

## Supported Languages

Chinese
English
French
German
Italian

Japanese
Korean
Portuguese
Spanish

Learn more at
**solidThinking.com/Inspire**

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