



ALTAIR FOR CONSUMER GOODS

altair.com/consumer-goods

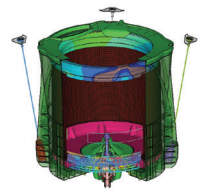


What makes consumers loyal to a product? There are many factors ranging from sensory perception (sight, smell, touch, smell) to quality and durability, and now more than ever, the sustainability of the product; what impact does it have on the planet. Consumers use the same factors to judge all products no matter if it's a dishwasher, athletic shoes or mobile phones. Altair's broad portfolio of solvers helps in every step of design.

FROM CONCEPTUAL DESIGN TO REALITY

Consumer products are all about the user experience. Whether it is the initial impression of the packaging and shelf appeal, to the user interaction and interface, Altair can help. Altair Inspire Studio allows industrial designers to develop products faster, facilitating initial sketching and exploration of styling alternatives, as well as development of photo-realistic renderings. With organic surface modeling and parametric control, and a unique construction tree history feature, designers can focus on their ideas instead of struggling with the design technology.

Altair's industrial design services can help customers with everything from user research, to branding, to design and prototyping.



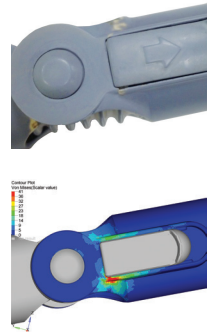
Altair Activate® was used by Mabe to improve machine performance by simulating subsystem interactions

HPC DRIVING PRODUCT INNOVATION

The consumer goods industry is fast paced and highly competitive, with designs becoming increasingly complex while the timeline for production shrinks. Companies must innovate and develop new products quickly to retain and attract new customers. To keep up with the pace of today's innovation, manufacturers need to get faster insights on their most complex simulation and optimization jobs. Altair's high-performance computing and cloud tools enable users to easily set up, submit, and monitor large simulation and optimization jobs on local or cloud compute resources.



Euro-Pro embraces Altair solvers accessible via HPC cloud infrastructure to introduce simulation drive philosophy as substantial part of development



PACKAGING OPTIMIZATION CUTS COST AND DEVELOPMENT TIME

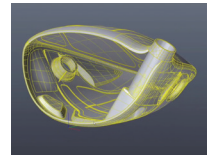
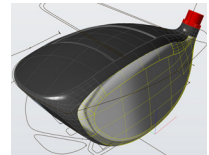
Many economical gains can be made also by improving the processing and packaging needed for consumer products. Altair has the experience and expertise to simulate and tune manufacturing processes for optimal performance and cost as well as optimize product packaging for protection against shipping and abuse conditions.

Altair's solutions for process manufacturing enable detailed analysis and visualization of the flow of particles, like powders and tablets, through process segments and handling equipment. These simulation insights can reduce manufacturing risk and shorten product development cycles.

INNOVATIVE ENGINEERING FOR SPORTING GOODS PERFORMANCE

Sporting goods manufacturers are often at the forefront of the use of advanced materials to drive peak performance. Designers of tennis rackets, hockey sticks, racing bicycles and more take advantage of simulation, automation and optimization to reduce design cycle time and enhance product value. Altair helps them to model the behavior of advanced composite materials and accurately map simulation data to test results to validate designs.

Born out of 30 years of crash and safety biomechanics experience, Altair also supports manufacturers of sporting goods with modeling complex human-product interaction. Leveraging detailed anthropomorphic structures and powerful nonlinear structural analysis technology, we help companies merge biology with technology and bring innovative products like concussion-prevention football helmets to the consumers that need them.



Wilson leveraged virtual design technologies to rapidly explore concepts and optimize aerodynamics

HELPING THE INNOVATORS INNOVATE, DRIVE BETTER DECISIONS, AND TURNING TODAY'S PROBLEMS INTO TOMORROW'S OPPORTUNITIES.



ALTAIR TRENDING IN:

Additive Manufacturing
Autonomous & ADAS
Big Data
Cloud Computing
Data Transformation
Digital Twin
e-Mobility

Exascale
GPU Solutions
Lightweighting
Machine Learning
Mechatronics
Smart Product Development
5G



**We greatly value the breadth and
depth of Altair's technology —**

and the expertise of their consulting engineers.
Every time we have wanted to expand our simulation
capabilities, Altair has helped us do that.”

Martin Ortega, PhD, Mabe



Altair is a global technology company that provides software and cloud solutions in the areas of product development, high performance computing (HPC) and data analytics. Altair enables organizations across broad industry segments to compete more effectively in a connected world while creating a more sustainable future.

To learn more, please visit altair.com

