

SimApp Analyses

Kinetic Vision, Comet Solutions team up to improve product testing

As one of North America's largest manufacturers of rigid metal and plastic containers, BWAY Corporation is a global market leader in packaging solutions for large and small manufacturers and container distributors.

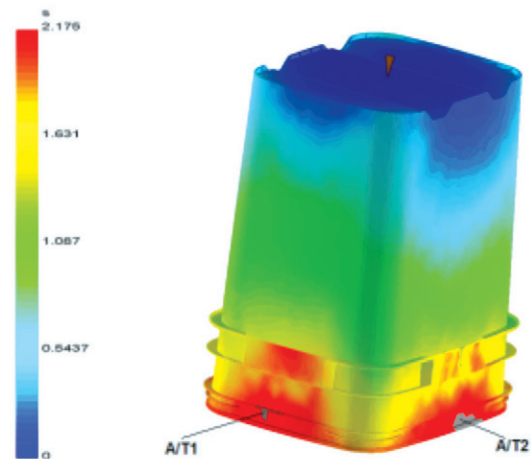
Traditionally, the company's engineers and designers have relied on outsourcing the analysis and simulation of new product designs. Because delegating such responsibility to outside resources is inefficient, time-consuming and costly, BWAY began a search for a solution to allow their product engineers to easily and expertly run these simulations.

BWAY found the solution through a partnership with Comet Solutions—a developer of simulation applications, SimApps™ that automate analyses, for various American and Asian manufacturing companies, including Intel, American Axle and Magna International. In collaboration with AweSim partner Kinetic Vision, a Cincinnati-based engineering service provider, the team created a BWAY-specific SimApp. This SimApp will interface with the AweSim platform at the Ohio Supercomputer Center, enabling it to be accessed by BWAY when needed for testing and analysis runs.

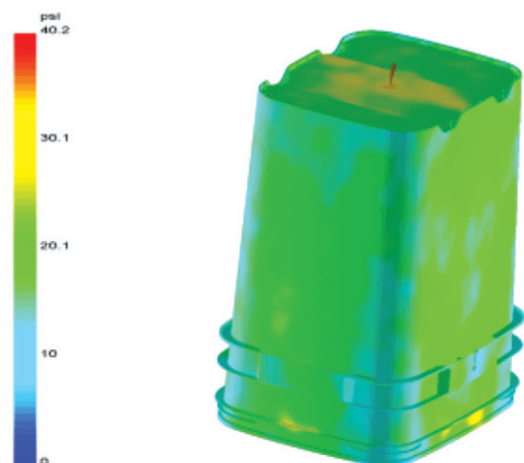
The key difference? Comet SimApps are proven to measurably reduce the high costs and slow time-to-market associated with extensive product testing. For example, leveraging a Comet SimApp allowed NASA to slash trade study time from a six- to eight-week process to just eight hours. Similarly, at Intel, Comet reduced an analysis process that typically took in-house experts up to two weeks to complete down to a process of less than 15 minutes. Furthermore, the work was conducted by Intel non-experts.

Speaking this summer at the NAFEMS International Conference of Simulation Process and Data Management, Comet's CTO, Malcolm Panthaki noted: "Simulation has been in the hands of too few for too long. Yet, all engineers and designers in the product development process could use simulation to answer questions and optimize designs during all design phases."

Comet Solutions' platform offered an easy-to-use template for rapid creation of a SimApp by Comet Solutions and Kinetic Vision. This SimApp has enabled BWAY end-users to perform fully automated simulations to "explore the design space of entire families of containers, analyzing them automatically," according to Comet. •



This "bucket crush test" illustration is an example of how Comet Solutions' simulation applications, or SimApps, allow manufacturers to automate various analyses. This allows engineers and non-expert designers the ability to run fully automated, on-demand and accurate tests inexpensively and quickly.



Project Lead: Daniel Meyer, Comet Solutions
Research Title: Development of SimApps for manufacturing designers and engineers
Funding Source: Intel Corporation
Website: cometsolutions.com