

Manufacturers, Engineering Firms Choose Autodesk Simulation 360

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Designers Leveraging Industry's First, Cloud-Based Simulation Tool

SAN FRANCISCO--(BUSINESS WIRE)--Nov. 19, 2012-- Manufacturing companies and engineering firms worldwide have selected <u>Autodesk</u> <u>Simulation 360</u> from <u>Autodesk, Inc</u>. (NASDAQ: ADSK) to make simulation part of their daily design and engineering processes.

Bard, Rao + Athanas (BR+A) Consulting Engineers of Boston use Simulation 360 to analyze the thermal ...

Bard, Rao + Athanas (BR+A) Consulting Engineers of Boston use Simulation 360 to analyze the thermal comfort effectiveness of an active chilled beam in an HVAC system for a typical office. (Photo: Business Wire)

First introduced in September, Autodesk Simulation 360 features a comprehensive set of tools delivered securely in the cloud for designers, engineers and analysts to more easily predict, optimize and validate the performance of things in the world around us. The virtually infinite power of

the cloud allows complex engineering tests that were once limited to simulation specialists to be performed by mainstream designers.

Companies turning to capabilities of Autodesk Simulation 360 include Asahi Kasei Plastics North America, a custom plastic resin manufacturer in Fowlerville, Mi., and Venmar CES (Venmar), a Canada-based leading manufacturer of energy recovery systems. Consulting engineering operations also selecting Autodesk Simulation 360 include Bard, Rao + Athanas (BR+A) Consulting Engineers of Boston, and CFR Engineering (CFR) in Germantown, Md.

"The big advantage of Autodesk Simulation 360 over traditional CFD (computational fluid dynamics) software is the recent implementation of Autodesk cloud computing," said Jason Sambolt, a mechanical engineer with CFR. "CFR Engineering can now upload its CFD models to the cloud to run simulations in lieu of running the simulations on hardware in the office. This maximizes employee productivity and hardware resource allocation."

CFR, which provides comprehensive mechanical, plumbing and electrical engineering design services for the building industry in various market sectors, uses Autodesk Simulation 360 to support their project designs. Autodesk Simulation 360 helps CFR and its clients fully understand how a design will function prior to starting construction in order to maximize the efficiency of the design. In turn, this helps CFR to confidently implement new technology and ideas through proof of concept verification.

Autodesk Simulation 360: A Complete Simulation Solution

The engineering team at Asahi Kasei Plastics looks to Autodesk Simulation 360 as a complete solution given its plastic flow simulation, structural analysis and CFD capabilities that allow the company to read any CAD data provided by customers and easily convert it to simulation file types.

Asahi Kasei Plastics specifically leverages the <u>Autodesk Simulation Moldflow</u> capabilities in Autodesk Simulation 360 to support its injection molding customers, according to Donald Kosheba, technical services Moldflow specialist at the company.

"With a lower cost of entry, fully functioning user interface and fees only for the time you need, Autodesk Simulation 360 allows us to provide a total engineering solution in simulation on the go," said Kosheba. "This is by far the best tool we have to support injection molders and mold makers to solve the most challenging plastic processing problems."

Similarly, BR+A uses the CFD capabilities in Autodesk Simulation 360 for various simulation design tasks, including optimization of architectural and HVAC systems integration.

BR+A designs state-of-the-art healthcare, research, educational and commercial facilities for major corporations and institutions — incorporating building information modeling, energy modeling and lifecycle cost analyses to optimize client investment. BR+A leverages the CFD capabilities in Autodesk Simulation 360 in combination with Autodesk Revit to accelerate project analysis and provide more timely feedback.

"The tools in Autodesk Simulation 360 software are robust tools that give you the real-world information you'd expect when designing an integrated system," said Jacob Knowles, director of Sustainable Design at BR+A. "The technology hits the sweet spot for our CFD modeling needs."

Likewise, Venmar uses the CFD capabilities in Autodesk Simulation 360 to perform fluid dynamics studies on its products from packaged light commercial Energy Recovery Ventilators (ERVs) and classroom unit ventilators to semi-custom light commercial ERVs and full-custom Dedicated Outdoor Air Systems.

Study of the air flow pattern and thermal behavior in air handling systems helps Venmar improve design of its products to increase efficiency and reduce production cost, according to Mohammad Afshin, Venmar R&D design engineer. Afshin explained he also appreciates the user-friendliness of the Autodesk Simulation 360 CFD interface, in addition to its easy work flow process and powerful help and support from the Autodesk team.

"The Autodesk cloud environment also allows us to perform multiple simulations simultaneously without advanced computer hardware requirements," said Afshin. "The other strong aspect of this software is its powerful post processing tools that create very clear, easy to understand images of complicated geometries. These images can also be used in marketing to display our engineering superiority to the customer."

About Autodesk

Autodesk, Inc., is a leader in <u>3D design</u>, engineering and entertainment software. Customers across the manufacturing, architecture, building, construction, and media and entertainment industries -- including the last 17 Academy Award winners for Best Visual Effects -- use Autodesk software to design, visualize and simulate their ideas. Since its introduction of AutoCAD software in 1982, Autodesk continues to develop the broadest portfolio of state-of-the-art software for global markets. For additional information about Autodesk, visit <u>www.autodesk.com</u>.

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