From CAD to CAE

FLUENT software now offers support for Autodesk Inventor.

By Shane Moeykens, Strategic Partnerships Manager, ANSYS, Inc.

A seamless flow from computer-aided design (CAD) to computer-aided engineering (CAE) has long been an important goal for engineering design teams seeking to increase productivity and reduce costs. Now, companies who use Autodesk® Inventor™ have streamlined access to selected CAE software from ANSYS. The new Fluent Inventor Connection provides users with the ability to automatically launch FloWizard or GAMBIT software from the Inventor environment. With a single click, users can load a geometry model directly into FloWizard or GAMBIT to set up a computational fluid dynamics (CFD) analysis and solve for the flow in or around the geometry. The Fluent Inventor Connection provides seamless connectivity between design and analysis processes.

As a consultant and longtime user of ANSYS software, Brad Stevens of Kx Simulation Technologies sees benefits customers can reap from the tight integration of design-level analysis tools. “We are certain that the addition of even tighter integration between the ANSYS design-level CFD tool, FloWizard, to Autodesk Inventor will bring increased productivity and value to Inventor users,” Stevens said. Kx, a Cincinnati, Ohio-based engineering consulting firm, delivers customized solutions backed by more than 15 years of engineering experience.

Prototyping can account for as much as 25 percent of the entire development cycle. “Digital prototyping offers an efficient and cost-effective alternative to fabricating costly prototypes. Virtual testing and analysis allow a company to validate basic design properties in the early phases of the drafting and development process, providing further development cycle and cost benefits,” said Robert “Buzz” Kross, vice president of Autodesk Manufacturing Solutions. Autodesk has had a formal relationship with ANSYS, Inc. since 2005, through the joint solution for stress and strain analysis powered by ANSYS DesignSpace technology. “We’re very excited to expand this relationship to other areas of multiphysics, such as the CFD capability enabled by the Fluent Inventor Connection and FloWizard 3.0,” Kross added.

The Fluent Connection software also provides interfaces with UGS NX™, Pro/ENGINEER® Wildfire® and SolidWorks®. Integrating core CAE technologies with independent design tools has been a key part of the ANSYS strategy for nearly a decade.