Kelly Racing Uses Autodesk Software to Accelerate Design of Faster, Lighter Cars

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Autodesk Inventor and Autodesk Simulation CFD Software Key to Creating Race-Ready Car Components in Record Time

SAN RAFAEL, Calif., Oct 27, 2011 (BUSINESS WIRE) --

Australia-based racing team, Kelly Racing, has been named the Autodesk October Inventor of the Month for its innovative use of software from Autodesk, Inc. (NASDAQ:ADSK) to precisely design and validate new car components that give the team a racing edge -- all without hitting the track for physical testing.

Given that the period between races is often a window of less than three weeks, Autodesk Inventor Professional, Autodesk Simulation CFD, Autodesk Simulation Multiphysics and Autodesk Vault Professional software are crucial to enabling Kelly Racing to turn around new components in a timely manner and secure wins in half the time of most racing teams.

"It is critical for us to be fast and efficient in every facet of our business," said Rick Kelly, team racer and co-owner. "Autodesk provides the technology and expertise to streamline our entire design process, so we can beat our competition on the track and in the marketplace. Now that we have incorporated Autodesk Product Design Suite, it has enabled us to further enhance our workflow."

Faster Design and Faster Cars with Digital Prototyping

Following a race weekend, the drivers brief Kelly Racing's in-house design and engineering team on what precisely went right and wrong during the race. The designers then set to work with Inventor Professional software to make modifications to the existing car parts that can enhance performance and save the team time. For example, improvements to the front end of the car, in particular the suspension assembly, has increased traction and grip by 8 percent, leading to faster lap times or shaving 1 percent of total car weight through design and material optimization. Even the most minor modifications play a vital role in a sport where a fraction of a second can be the difference between first and twenty-first place.

Engineers then test revised designs with Autodesk Simulation CFD to optimize aerodynamic performance and ensure the components are able to perform at speeds of up to 300 kilometers (188 miles) per hour. Autodesk Simulation Multiphysics software is also used to predict and validate the mechanical performance of the new components.

Autodesk Vault Professional data management software helps manage the design process from initial concept to final release, providing the engineering team with greater control over the design process right up until the component or part is manufactured, released to the race department and put on the car.

Embracing Digital Prototyping has been a winning strategy for Kelly Racing. A new racing team typically takes six or more years to register its first win, but just barely into its third season, Kelly Racing has already scored two victories along with nine podium finishes.

"Kelly Racing is using Autodesk software to accelerate design processes in a way that gives its team a powerful competitive advantage," said Robert "Buzz" Kross, senior vice president, Manufacturing Industry Group at Autodesk. "As a result, its team is able to operate at peak performance and compete at the highest levels of racing."

About the Autodesk Inventor of the Month Program

Each month, Autodesk selects an Inventor of the Month from the users of Autodesk Inventor software, which takes manufacturers beyond 3D to Digital Prototyping. Winners are chosen for engineering excellence and groundbreaking innovation. For more information about Autodesk Inventor of the Month, contact us at IOM@autodesk.com.

About Kelly Racing

Kelly Racing is a race car team that competes in the Australian V8 Supercar series. The team made its debut appearance in 2009. For additional information, visit www.kellyracing.com.au.

About Autodesk

Autodesk, Inc., is a leader in 3D design, engineering and entertainment software. Customers across the manufacturing, architecture, building, construction, and media and entertainment industries -- including the last 16 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 www.autodesk.com.

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