Simulation in the News

LEGO SPEED CHAMPIONS 2015 SETS REVEALED
Bricks & Bloks
bricksandbloks.com, February 2015

In February, LEGO® introduced a new theme centered on speed champions including brands like Ferrari, Porsche and McLaren. The Ferrari model sports the ANSYS logo, as ANSYS is a team sponsor. The Ferrari team optimizes critical components of its race cars, like brake-cooling systems and full-body aerodynamics, using ANSYS solutions.

NUMERICAL MODELING OF ANTENNAS
Elektronik Praxis
elektronikpraxis.vogel.de, October 2014

A series of articles examines simulation-based development of advanced antennas, from basic numerical modeling to optimization and system design. ANSYS HFSS, designed for 3-D simulation of high-frequency electromagnetic fields, is used to analyze complex antennas that are difficult or impossible to understand.

ANSYS SOLUTIONS MEETING CUSTOMER NEEDS AT TIMKENSTEEL
Industry Today
industrytoday.co.uk, February 2015

TimkenSteel, a leading manufacturer of special bar quality (SBQ) large bars and seamless mechanical tubing, uses ANSYS simulation to solve customers’ most demanding engineering challenges. The company’s experts in materials and applications work closely with customers to deliver solutions tailored to their applications and supply chains. TimkenSteel leverages ANSYS computational fluid dynamics (CFD) solutions to simulate material behavior during the heat treat process, reducing trial and error in the plant to optimize heat-treated steel products.

COMPUTER SIMULATIONS SHOW PATRIOTS’ FOOTBALLS PROVIDE A NEGLIGIBLE ADVANTAGE
Sportsgrid
sportsgrid.com, January 2015

Hard science debunked any notions that a football deflated to 10.5 psi — 2 psi less than the NFL minimum — gave quarterback Tom Brady or the Patriots’ running game any distinct advantage. Popular Science paired up with computer simulation specialist ANSYS to see how a particular grip would be affected by decreased air pressure inside the ball.

ANSYS MODERNIZES CODE FOR INTEL XEON PHI
insideHPC
insidehpc.com, March 2015

Collaboration between ANSYS and Intel® speeds structural code on Intel Xeon Phi™ coprocessors. The partnership ensures that simulation engineers performing structural analysis can expect seamless high-performance computing (HPC) operations with multi-core Xeon® E5 v3 processors and many-core Xeon Phi coprocessors. The result is the ability to run multiple, incredibly large simulations rapidly — which is becoming standard when developing today’s innovative products.
**ONE ON ONE**  
*Semiconductor Engineering*  
semiengineering.com, February 2015

The starting point of electronics systems engineering is no longer the system on chip (SoC). *Semiconductor Engineering* talked with Walid Abu-Hadba of ANSYS about systems engineering, compute power and how simulation can be used to analyze a wide range of product behaviors.

“How does the SoC interact with everything around it? If you don’t think of it as a system, you’re making a mistake. The way we look at it is not from the chip up. It’s from the system down. It’s a different way of thinking about it.”

— Walid Abu-Hadba, Chief Product Officer, ANSYS

**DESIGNING ROBUST ELECTRONICS FOR THE INTERNET OF THINGS**  
anys.com, March 2015

The Internet of Things (IoT) will greatly streamline communication among our electronic devices, improving the way we live, work and play. In just a few years, more than 26 billion IoT devices will be installed. This means that the high-tech, automotive, healthcare, aerospace, industrial automation and energy sectors face complex design challenges — which can be resolved better, faster and less expensively using engineering simulation solutions from ANSYS.

**DIESEL ENGINE GIANT CHOOSES TO STANDARDIZE ON ANSYS MULTIPHYSICS**  
engineering.com  
engineering.com, March 2015

Cummins has standardized its simulation software to the ANSYS portfolio, a move that will allow Cummins to innovate products and bring virtual prototyping earlier into the development cycle. For a company known for innovations within control, filtrations, air handling, power generation and aftertreatment systems, standardization of simulation tools should help it share results between disciplines and design teams.

**SPACEX LEVERAGES HPC TO REACH ORBIT**  
HPCwire  
www.hpcwire.com, January 2015

Much of SpaceX’s future success hinges on its ability to leverage high-performance computing along with computer-aided engineering tools in the drive to reduce the cost of lifting a pound of payload to orbit. The pioneering company employs new computing tools to develop everything from reusable rockets to floating launch pads. SpaceX’s primary computer-aided engineering solution is ANSYS software, since the company needs to investigate multiple types of physics when designing rocket engines and spacecraft.

“We use ANSYS solutions to shorten the design analysis cycle, increasing the rate of design evolution while reducing test costs.”

— Andy Sadhwani, Senior Propulsion Analyst, SpaceX

**ATMEL SELCTS ANSYS SIMULATION SOLUTIONS TO POWER THE IOT**  
eletimes.com, March 2015

Atmel Corporation is using engineering simulation solutions from ANSYS to model, analyze and optimize its broad IoT product portfolio, from scalable embedded microcontrollers and microprocessors to wireless connectivity gateways. The software helps enable Atmel to meet stringent power/performance requirements, ensure reliable operations across a wide range of frequencies, and deliver products with tight time-to-market constraints.