



## Apache Design's Totem Software Adopted by Fujitsu Semiconductor for Power Noise and Reliability Analysis

### Solution from ANSYS Subsidiary Addresses Accuracy, Performance and Capacity for Advanced Process Custom IC Designs

PITTSBURGH, Dec. 7, 2011 /PRNewswire/ -- [ANSYS](#) (NASDAQ: ANSS) announced that Totem™ software from its subsidiary Apache Design, Inc. -- has been deployed by Fujitsu Semiconductor Limited to analyze and optimize all their custom integrated circuit (IC) designs. This includes analog, memory, high-speed I/O, PMIC (power management IC) and RF ICs that are used in wide variety of consumer, mobile and communications electronic products. As custom IC designs increase in complexity, engineers face the challenges of meeting stringent performance and reliability targets, especially at 28-nanometer (nm) and below manufacturing process nodes. Totem -- a complete power noise and reliability platform for analog/mixed-signal chip designs -- was selected by Fujitsu Semiconductor for its ability to handle large designs and analyze global noise coupling, which can impact chip performance and reliability. It was also chosen for its integration with existing analog design tool environments, a feature that offers improved productivity.

(Logo: <http://photos.prnewswire.com/prnh/20110127/MM38081LOGO> )

"Apache's Totem enables us to accurately model and simulate power/ground, substrate and package/PCB noise coupling at the full-chip level for advanced process technologies," said Masaru Ito, director of the technology development division, IP and technology development and manufacturing unit of Fujitsu Semiconductor Limited. "By using Totem, we can explore the impact of noise coupling on the circuit's performance and determine if critical layout changes are needed early in the design process, allowing us to increase productivity and lower the risk of re-spin."

"The successful adoption of our Totem platform demonstrates how designers can depend on Apache to deliver products that meet the needs of leading custom designs," said Dian Yang, general manager and senior vice president at Apache. "Totem enables designers to optimize for better performance, lower product cost, meet specifications, and help mitigate design risks."

#### [About Totem](#)

Totem is a full-chip, layout-based power noise and reliability platform for analog and mixed-signal designs. It addresses the challenges associated with global couplings of power/ground noise, substrate noise, and package/PCB capacitive and inductive noise for memory components (Flash and DRAM), high-speed I/Os (HDMI and DDR), and analog circuits such as power management ICs. Totem-CSE considers the impact of full-chip SoC substrate noise and obtains an accurate substrate injection signature for all digital components. It accurately analyzes noise coupling effects at every time-point using a single-kernel solver, and enables designers to account for all global noise impact on their designs. Totem-MMX is a transistor-level power noise analysis and verification solution for static and dynamic power integrity from early design stage to sign-off. It addresses the verification of IP designed using full-custom or semi-custom techniques for both analog and mixed-signal designs.

#### [About Apache Design, Inc.](#)

Apache Design, Inc., a subsidiary of ANSYS, Inc., is a leading provider of innovative power analysis and optimization solutions that enable the design of power-efficient, high-performance, noise-immune ICs and electronic systems. Apache's comprehensive suite of integrated products and methodologies advances low-power innovation and provides a competitive advantage for the world's top semiconductor companies. The company's differentiated simulation software solutions help lower power consumption, increase operating performance, reduce system cost, mitigate design risks, and shorten time-to-market for a broad range of end-markets and applications. Learn more at: <http://www.apache-da.com/>.

#### [About ANSYS, Inc.](#)

ANSYS brings clarity and insight to customers' most complex design challenges through fast, accurate and reliable engineering simulation. Our technology enables organizations -- no matter their industry -- to predict with confidence that their products will thrive in the real world. Customers trust our software to help ensure product integrity and drive business success through innovation. Founded in 1970, ANSYS employs more than 2,000 professionals, many of them expert in engineering fields such as finite element analysis, computational fluid dynamics, electronics and electromagnetics, and design optimization. Headquartered south of Pittsburgh, U.S.A., ANSYS has more than 60 strategic sales locations throughout the world with a network of channel partners in 40+ countries. Visit [www.ansys.com](http://www.ansys.com) for more information.

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