Synopsys TetraMAX ATPG Cuts Test Development Schedule at Arrow Electronics

Multicore Processing Speeds Runtime by 3X, Accelerates Time-to-Quality

MOUNTAIN VIEW, Calif., Nov. 3 /PRNewswire-FirstCall/ -- Synopsys, Inc. (NASDAQ: SNPS), a world leader in software and IP for semiconductor design, verification and manufacturing, today announced that Arrow Electronics successfully deployed Synopsys' TetraMAX® automatic test pattern generation (ATPG) with multicore processing to significantly reduce the time needed to generate high-quality manufacturing tests. Stringent quality goals combined with increasing design complexity stimulated the need to improve ATPG performance at Arrow. By utilizing TetraMAX ATPG's multicore processing capability on their quad-core compute servers, Arrow's Custom Logic Solution (CLS) ASIC design engineers cut more than a week from their test development time for a 30 million-gate system-on-chip, meeting their test quality goals ahead of schedule.

"To meet Arrow's quality goals, our CLS ASIC designers rely on at-speed manufacturing tests that can take days to generate," said Erich Van Stralen, ASIC test team manager at Arrow Electronics. "For our latest project, we used TetraMAX ATPG running on quad-core machines, which reduced test pattern generation time to less than 24 hours with no impact on fault coverage. We now consider the Synopsys multicore ATPG capability essential to meeting our quality goals on time."

Generating deep-submicron tests on a single processor core can take weeks or longer, especially for very large designs. TetraMAX's multicore processing capability employs algorithms to ensure that runtime performance scales well with the number of processor cores used, speeding ATPG runtime on eight cores, for example, by six times or more. Built into the Galaxy™ Implementation Platform to eliminate time-consuming iterations between synthesis, scan insertion and physical implementation, DFTMAX™ compression and TetraMAX ATPG provide designers with a comprehensive solution for meeting their most challenging quality and cost goals for test.

"Design engineers are under pressure to deliver increasingly complex products to market in less time but with higher quality," said Gal Hasson, senior director of marketing for synthesis and test at Synopsys. "TetraMAX's multicore processing capability accelerates test pattern generation, enabling customers, such as Arrow Electronics, to meet their test development schedules in the presence of increasingly challenging test requirements."

About Synopsys

Synopsys, Inc. (NASDAQ: SNPS) is a world leader in electronic design automation (EDA), supplying the global electronics market with the software, intellectual property (IP) and services used in semiconductor design, verification and manufacturing. Synopsys' comprehensive, integrated portfolio of implementation, verification, IP, manufacturing and field-programmable gate array (FPGA) solutions helps address the key challenges designers and manufacturers face today, such as power and yield management, software-to-silicon verification and time-to-results. These technology-leading solutions help give Synopsys customers a competitive edge in bringing the best products to market quickly while reducing costs and schedule risk. Synopsys is headquartered in Mountain View, California, and has more than 65 offices located throughout North America, Europe, Japan, Asia and India. Visit Synopsys online at https://www.synopsys.com/.

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