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Altos' Statistical Timing Library Models Proven on UMC's 65nm Process using Extreme DA's GoldTime

Variety™ LX characterizes UMC's 65nm standard cell library for sensitivity to process variations

Anaheim, California -- June 5, 2008 - Altos Design Automation Inc. today announced that UMC has qualified Altos' statistical timing model generator, Variety LX on UMC's 65nm standard cell library. This qualification effort means that designers can use Altos' Variety LX, UMC's 65nm process along with UMC's 65nm standard cell libraries to generate robust library views for statistical analysis and optimization. Statistical analysis and optimization play an important role in helping to overcome many of the challenges associated with designing at advanced process nodes in the presence of increasing process variability.

The qualification process involved the creation and validation of statistical timing models created by Variety LX accounting for process parameter variation. UMC then performed statistical timing analysis on critical signal paths using Extreme DA's GoldTime™ and all paths were found to have good correlation to the golden Monte Carlo SPICE simulation results. The mean path delay and mean plus /minus sigma path delay were well within acceptable error tolerance levels.

"Statistical timing analysis can help reduce margins and improve design productivity when using 65-nanometer processes where chip performance is sensitive to parameter variations," said Darsun Tsien, UMC's vice president of design methodology. "A working statistical design flow needs library models that are derived from statistical-based process models along with silicon derived parameter variation measurements. We have confirmed that Variety LX can efficiently generate accurate models required by downstream statistical timing tools such as Extreme's DA GoldTime which enables improved yield prediction and optimization of circuit performance."

Jim McCanny, Altos CEO said, "By collaborating with UMC and Extreme DA in creating qualified statistical models, we have jointly created the foundation for our common customers to enjoy the benefits of using statistical design methods such as faster timing closure and lower power."

"Statistical timing analysis relies on detailed characterization of variations in the cell libraries used by designers," said Mustafa Celik, president and CEO of Extreme DA. "Our collaboration with Altos and UMC has produced a powerful, verified statistical flow that can improve IC performance and remove design pessimism. We are satisfying fabless semiconductor companies' demands for faster, more accurate timing closure and higher chip yields."

About Altos' Variety LX

Variety creates statistical timing cell models that represent the non-linear impact of any number of systematic and random parameter variations. All library timing data is characterized for variation including delays, transitions, timing constraints and pin capacitances. Variety generates SSTA models for a number of commercial SSTA products from a single characterization run.

About Extreme DA GoldTime

GoldTime™ provides timing analysis for performance sign-off of integrated circuit (IC) designs manufactured in advanced nanometer (nm) processes. With its unique, patent-pending ThreadWave™ technology, GoldTime delivers 5X better speed and capacity over popular solutions in use today. GoldTime works with both nominal and statistical model libraries and supports corner-based and statistical design flows. See <http://www.extreme-da.com> for more information.

About UMC

UMC (NYSE: UMC, TSE: 2303) is a leading global semiconductor foundry that manufactures advanced system-on-chip (SoC) designs for applications spanning every major sector of the IC industry. UMC's SoC Solution Foundry strategy is based on the strength of the company's advanced technologies, which include production proven 90nm, 65nm, mixed signal/RFCMOS, and a wide range of specialty technologies. Production is supported through 10 wafer manufacturing facilities that include two advanced 300mm fabs; Fab 12A in Taiwan and Singapore-based Fab 12i are both in volume production for a variety of customer products. The company employs approximately 12,000 people worldwide and has offices in Taiwan, Japan, Singapore, Europe, and the United States. UMC can be found on the web at <http://www.umc.com>.

About Altos

Altos Design Automation provides ultra-fast, fully-automated characterization technology for the creation of library views for timing, signal integrity and power analysis and optimization. Altos' advanced modeling solutions are used by both corner-based and statistical-based design implementation flows to reduce time to market and improve yield.

Privately held, Altos was founded in 2005 in Santa Clara, CA. Its corporate headquarters is at 4020 Moorpark Ave., Suite 100, San Jose, CA 95117. Telephone: (408) 980-8056. On the Web at: <http://www.altos-da.com>

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