

Synopsys Unveils SiliconSmart ADV Cell Library Characterization Solution

Offers a Smarter Way to Get PrimeTime Signoff-Quality Timing Models with Available Compute Resources

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Highlights:

- Single license includes everything required for library characterization and QA
- Simple multi-core licensing enables easy adaptation to constantly changing characterization workload requirements
- Embedded gold reference SPICE engines enable best accuracy with fastest throughput
- Innovative technologies provide characterization speed up of FinFET modeling requirements

Synopsys, Inc. (Nasdaq: SNPS) today announced the availability of its [SiliconSmart® ADV](#) comprehensive standard cell library characterization and QA solution that is tuned to produce signoff quality PrimeTime® libraries and provide maximum throughput on available compute resources. SiliconSmart ADV's unique licensing approach adjusts easily to varying workload profiles, eliminating the burden on characterization teams to predict future workload requirements and operate within the constraints of traditionally cumbersome licensing methods. In addition, innovative SiliconSmart technologies utilize embedded gold reference SPICE engines to provide a characterization speed-up for generating advanced Liberty™ models used by PrimeTime static timing analysis (STA) to accurately account for effects seen in ultra-low voltage FinFET processes that impact timing. This includes PrimeTime parametric on-chip variation (POCV), advanced waveform propagation (AWP) and electromigration (EM) analysis.

"Synopsys works with leading semiconductor companies to understand and solve characterization challenges in a broader context that encompasses unpredictable workloads, large compute environments and complicated production characterization flows spanning many tools," said Robert Hoogenstryd, senior director of product marketing for the design group at Synopsys. "SiliconSmart ADV's unified licensing offers a new and smarter approach to solving these problems compared to the cumbersome approach of traditional characterization products."

SiliconSmart ADV provides, with a single license, everything needed for library characterization and QA of the most advanced standard cell libraries. For the best accuracy with the fastest throughput, SiliconSmart ADV includes embedded Synopsys FineSim® SPICE and embedded Synopsys HSPICE® circuit simulation solutions. It also offers flexible multi-core licensing to optimize throughput in compute farm environments and enable easy adaptation to constantly changing characterization needs. SiliconSmart ADV's comprehensive Liberty Variation Format (LVF) characterization and modeling capabilities enable best-in-class PrimeTime POCV variation analysis. Smart LVF performance optimization technology provides the highest throughput and accuracy. Support for the latest Liberty EM model extensions is also included for cell-level EM characterization. SiliconSmart ADV also provides a suite of tools to accelerate the manual and error-prone QA process for sign-off quality libraries. The entire library qualification process is automatically parallelized to provide quick turnaround time and identify problems early on. Visualization aids and intelligently organized results help to quickly isolate problem areas and provide QA management metrics.

Availability:

SiliconSmart ADV is available now. For further information, contact your local Synopsys sales representative or [register for the webinar](#).

About Synopsys

Synopsys, Inc. (Nasdaq:SNPS) is the Silicon to Software™ partner for innovative companies developing the electronic products and software applications we rely on every day. As the world's 16th largest software company, Synopsys has a long history of being a global leader in electronic design automation (EDA) and semiconductor IP and is also growing its leadership in software quality and security solutions. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing applications that require the highest quality and security, Synopsys has the solutions needed to deliver innovative, high-quality, secure products. Learn more at www.synopsys.com.

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