Synopsys' New Virtualizer Studio Integrated Development Environment Accelerates Virtual Prototyping Productivity

New IDE in Virtualizer Tool Set Integrates Advanced Modeling Tools to Speed Creation and Deployment of VDKs

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Highlights:

- Virtualizer Studio IDE assembles virtual prototypes at a higher level of abstraction to speed VDK creation by more than 10X
- IDE integrates browsing, editing, debug and static analysis of SystemC source code to accelerate model creation by more than 2X
- Pre-assembled reference VDKs enable developers to jump-start VDK development using ARM® Fast Models and the Synopsys DesignWare® TLM Library

Synopsys, Inc. (Nasdaq:SNPS) today announced the latest release of its Virtualizer™ tool set for creating Virtualizer Development Kits (VDKs), software development kits that use virtual prototypes as the embedded target to enable the fastest time to quality software. This latest release includes the new Virtualizer Studio Eclipse-based Integrated Development Environment (IDE) with advanced modeling and debug tools for faster creation of higher-quality virtual prototypes. The new unified IDE provides developers with all the tools needed to accelerate development and debug of transaction-level models (TLMs) by more than 2X and speed VDK creation by more than 10X, compared to build-your-own methods.

"Using a VDK that we can easily extend with our own subsystems was a key benefit of working with our chip supplier," said Katsuyuki Sugita, lead engineer at Konica Minolta, Inc. "Because Virtualizer Studio efficiently supports the incremental refinement of the VDK, we can quickly discuss integration needs, accelerating our ability to jointly deliver updates to the software development team."

The Virtualizer Studio IDE integrates VDK and TLM creation features that enable modeling and virtual prototyping teams to create VDKs more efficiently compared to build-your-own SystemC-based modeling:

- The new VDK creation feature delivers more than 10X higher productivity by enabling the VDK to be captured and assembled at a higher level of abstraction. Developers can directly enter memory/register map and connectivity information from their hardware specifications without having to create detailed block diagrams. Additionally, developers can start a VDK design using configurable reference VDKs that contain ARM Fast Models and Synopsys DesignWare TLM models. This enables developers to incrementally create full-scale VDKs using the provided reference VDKs with existing and newly developed SystemC models.
- The enhanced TLM creation features in the Virtualizer Studio IDE speed development of SystemC-based models by more than 2X. Browsing, editing and debug of SystemC source code are also directly integrated in the IDE. In addition, Virtualizer Studio integrates with code coverage and Coverity® static code analysis tools, enabling developers to improve model quality as part of their integrated development flow.
- Virtualizer Studio IDE also provides platform-level debugging capabilities that complement the user's embedded software development toolchain and enable software developers to perform efficient debug and root cause analysis to correlate hardware and software execution.

"Early software development using VDKs is critical in meeting the quality and time-to-market requirements for SoC designs," said Bill Neifert, director of models technology, ARM. "The configurable reference VDKs for ARM Fast Models, integrated with the ARM DS-5 Development Studio toolchain and Synopsys DesignWare TLM models, offer an extendable starting point that enables a significant acceleration in software development time."

"Semiconductor suppliers are increasingly relying on commercial virtual prototyping tools to efficiently create VDKs for their SoCs months before RTL is finalized," said John Koeter, vice president of marketing for IP and prototyping at Synopsys. "The new Virtualizer Studio IDE in Virtualizer significantly accelerates delivery of VDKs within the supply chain to enable early software bring-up, debug and test."

Availability & Resources

Synopsys Virtualizer tool set, which includes the new Virtualizer Studio IDE and advanced modeling and debug features, is in limited customer availability today.

Learn more about Virtualizer and VDKs:

- https://www.synopsys.com/prototyping/VirtualPrototyping/Pages/Virtualizer.aspx
- https://www.synopsys.com/VDK

Synopsys Virtualizer Tool Set at SNUG Japan 2016: Konica Minolta will present a tutorial on the latest Virtualizer release with the new Virtualizer Studio IDE at SNUG Japan. SNUG Japan takes place on September 9, 2016. For more information about SNUG Japan and Konica Minolta's tutorial, visit: https://www.event-web.info/snugjapan/program.html and https://www.event-web.info/snugjapan/detail.html?track=4&session=8#session_8

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