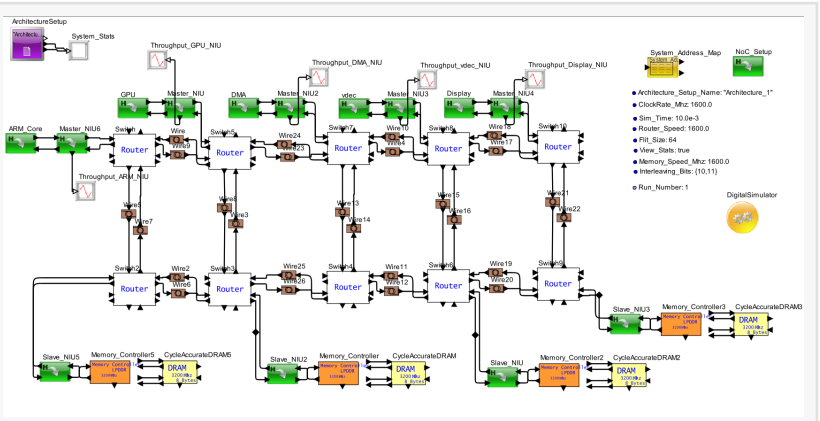
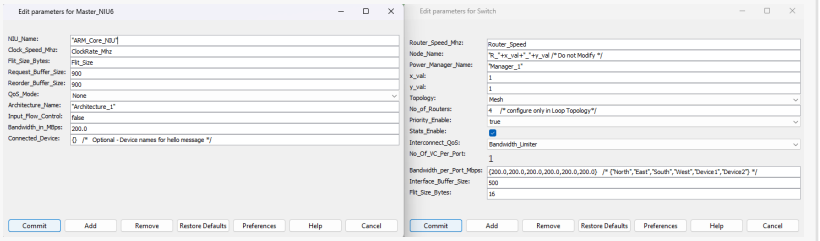
Mirabilis Design Adds System-Level Modelling Support for Industry-Standard Arteris FlexNoC and Ncore Network-on-Chip IPs

The VisualSim System-Level NoC library with the Arteris FlexNoC & Ncore system models is available in VisualSim Architect version 2420 on Linux, Windows, & Mac.

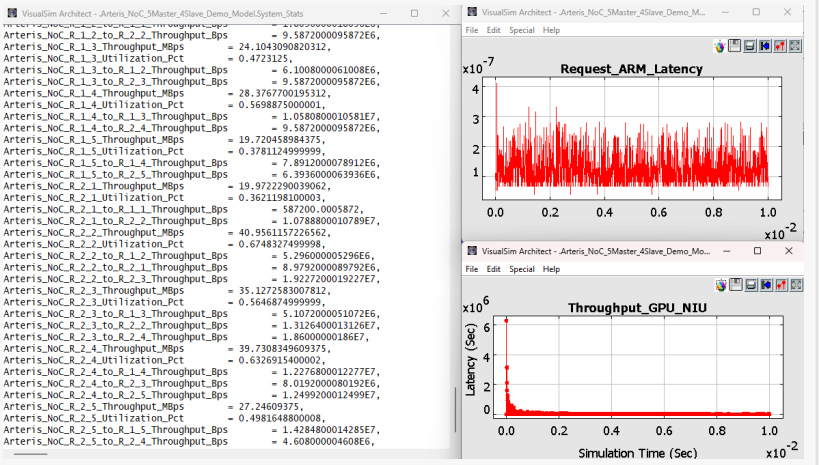
SANTA CLARA, CA, UNITED STATES, February 13, 2025 /EINPresswire.com/ -- Mirabilis Design announced today the latest addition to the VisualSim Architect with modelling support for Arteris' FlexNoC and Ncore Network-on-Chip (NoC) IPs. This addresses the long-standing demand from customers to model this best-in-class interconnect technology, enabling full System-on-Chip modelling support for exploration across AI, datacenter and edge applications. The NoC System-Level IP Library bridges the gap between requirements management and micro-architecture SystemC models, providing an exploration platform.



Arteris NoC



Arteris Parameters



Arteris Statistics

Designers and researchers can use this modelling library to experiment with different topologies, coherent cache hierarchy strategies, assignment of initiators and targets onto network nodes, and define the NoC settings including flit size, buffer depths, Quality-of-Service algorithms, and clock speeds. The optimized architecture can be entered into Arteris' IP configuration tools to generate the RTL. The library comes packaged with a variety of parameters to configure the IP, a report

generator to capture and display statistics, and a library of application-specific workloads.

"The partnership between Mirabilis Design and Arteris represents a transformative step in high-performance SoC innovation. The integration of Arteris' industry-leading NoC with processors, AI engines, GPUs, coherent caches, DDR/LPDDR DRAM, and peripherals, delivers scalable, efficient, and optimized solutions for cutting-edge applications.", said Deepak Shankar, Founder of Mirabilis Design. "Architects now have access to a powerful platform that accelerates design exploration and ensures precise trade-offs for power, performance, and functionality-driving the future of advanced computing."

“We believe that integrating Arteris’ FlexNoC and Ncore models into Mirabilis Design’s VisualSim Architect will help our mutual customers," said Guillaume Boillet, senior director of strategic marketing at Arteris. "Our partnership helps system designers to more effectively model and simulate real-world SoC workloads and make critical architecture-level trade-offs that account for the NoCs”

Availability

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About Mirabilis Design Inc.

Mirabilis Design is a Silicon Valley software company, providing software and training solutions to identify and eliminate risk in the product specification, accurately predicting the human and time resources required to develop the product, and improve communication between diverse engineering teams. VisualSim Architect combines Intellectual Property, system-level modelling, simulation, environment analysis and application templates to significantly improve model construction, simulation, analysis, and RTL verification. The environment enables designers to rapidly converge to a design which meets a diverse set of interdependent time and power requirements. It is used very early in the design process in parallel with (and as an aid to) the written specification and before an implementation (for example, RTL, software code, or schematic) of the product.

About Arteris

Arteris is a leading provider of system IP for the acceleration of system-on-chip (SoC) development across today's electronic systems. Arteris network-on-chip (NoC) interconnect IP and SoC integration automation technology enable higher product performance with lower power consumption and faster time to market, delivering better SoC economics so its customers can focus on dreaming up what comes next. Learn more at arteris.com.

Deepak Shankar

Mirabilis Design Inc
+1 408-245-8992
dshankar@mirabilisdesign.com
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X
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