

# Synopsys Strengthens Design-Technology Co-Optimization Solution with Acquisition of QuantumWise

Materials Modeling Enables Semiconductor Manufacturers to Save Time and Cost for Advanced Process Node Development

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## Highlights:

- QuantumWise solution reduces time and cost by enabling earlier co-optimization of materials, processes, devices, and circuits for 5nm and beyond
- Rigorous modeling of materials provides semiconductor manufacturers the ability to evaluate the impact of new materials on transistor performance in the early phases of technology research, before wafers are available
- Integration with Synopsys' Sentaurus TCAD will provide seamless flow from materials to transistor by creating models for TCAD process and device simulation
- Solution will contribute to creation of higher-quality early Process Design Kits (PDKs) for Design-Technology Co-Optimization (DTCO)

Synopsys, Inc. (Nasdaq: SNPS) today announced it has completed its acquisition of QuantumWise, a leading provider of simulation tools for materials modeling in early manufacturing process development. With this acquisition, Synopsys will enhance its support of semiconductor manufacturers who are evaluating a wide variety of new materials to extend Moore's law and develop novel memories.

Founded in 2008, QuantumWise is a leading supplier of software tools for atomic-scale modeling of materials, with more than 400 commercial and academic customers worldwide. The QuantumWise tools simulate the properties of materials based on fundamental quantum mechanical theories to improve product performance across many applications, including semiconductors and electronics.

The terms of the deal, which is not material to Synopsys financials, have not been disclosed.

"The QuantumWise technology is a key component of our DTCO solution as it enables the systematic evaluation of new materials by providing TCAD models in the very early stages of technology research before wafers are available," said Dr. Howard Ko, general manager of Synopsys' Silicon Engineering Group "Over the past year, we have worked closely with our customers to define links between our Sentaurus™ TCAD tools and the atomistic modeling of materials with the QuantumWise tools. This acquisition now gives us the opportunity to accelerate the application of this critical technology to address the challenges in technology development of advanced process nodes."

## 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 15th 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 security and quality solutions. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing applications that require the highest security and quality, Synopsys has the solutions needed to deliver innovative, high-quality, secure products. Learn more at [www.synopsys.com](http://www.synopsys.com).

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