Synopsys Introduces Improved Illumination Optics Design with New LightTools Version

LightTools Version 9.1 Brings Enhanced LiDAR Design Features, Increased Ray Tracing Speed, and Faster Optomechanical Modeling with SOLIDWORKS

MOUNTAIN VIEW, Calif., Dec. 15, 2020 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS) today announced the release of version 9.1 of its LightTools® illumination design software, which expands LightTools' comprehensive features and workflows for illumination optics design with new tools to model and analyze light detection and ranging (LiDAR), AR/VR, and biomedical systems. Additionally, version 9.1 introduces a Distributed Simulation Module that increases the speed of computation-intensive ray tracing, as well as improved optomechanical interoperability with Dassault Systèmes' SOLIDWORKS 3D CAD software.

"The feature and workflow enhancements in LightTools are tailored to help engineers focus on solving complex design challenges and delivering innovative optical systems to market sooner," said Stuart David, vice president of engineering in Synopsys' Optical Solutions Group. "SOLIDWORKS users working on optical designs can expect to speed up source characterizations. Engineers developing LiDAR systems can more easily perform time-of-flight analysis. And development of advanced applications for AR/VR, displays, and medical devices is improved with LightTools' comprehensive polarization analysis."

LightTools v9.1 update includes:

- Efficiency enhancements to the LightTools SOLIDWORKS Link Module give illumination engineers more control and ease of use for optomechanical modeling. Users will experience faster model setup with the ability to control source placement and assign optical properties within SOLIDWORKS.
- New design capabilities meet demanding requirements for LiDAR systems, AR/VR headsets, display technologies, and biomedical instruments. Users can design laser sources with Gaussian and Super Gaussian light distributions using spatial and angular apodization, as well as model and analyze polarizing elements with biaxial birefringent materials.
- The LightTools Distributed Simulation Module can accelerate the simulation speed of large, computation-intensive ray trace processes over a network of computers. The module, which is useful for boosting ray trace speeds for stray light and luminance analyses, now supports forward and backward simulations.

Availability

LightTools v9.1 is available now. Customers with a current maintenance agreement can download this version from the Synopsys website using their SolvNetPlus account, or obtain the software from their local distributor.

About the Synopsys Optical Solutions Group

The Synopsys Optical Solutions Group provides design tools that model all aspects of light propagation for high-accuracy optical product simulations and visualizations. With intelligent, easy-to-use solutions and an expert support team anchored by optical engineers, Synopsys helps organizations deliver superior optics to market faster. Learn more at synopsys.com/optical-solutions.

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.

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