# RSoft Product Updates Advance Optical Design for AR/VR Systems

RSoft Photonic Component Design Suite 2018.12 Now Available

MOUNTAIN VIEW, Calif., Dec. 17, 2018 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS) today announced the release of version 2018.12 of the Synopsys RSoft™ Photonic Component Design Suite, which introduces new features to advance the design of optics used in augmented reality and virtual reality (AR/VR) systems. The latest RSoft release supports Synopsys' optical design workflow for nano-textured diffractive optical elements that enable smaller, lightweight AR/VR devices with improved displays and immersive experiences.

Synopsys' design workflow includes a seamless interface betweenthe company's LightTools® software for virtual prototyping of light as it traverses optical and mechanical components in an AR/VR model, and the RSoft tools for fast, rigorous modeling of nano-textured optical structures. LightTools and RSoft provide a unique multi-domain simulation approach that shares Bidirectional Scattering Distribution Function (BSDF) data to help AR/VR device designers achieve superior light extraction efficiency, beam shaping, and color tuning.

In version 2018.12, the RSoft BSDF enhancements provide greater design flexibility and speed with:

- BSDF files that can be calculated for X-, Y-, or Z-oriented structures
- Support for LightTools zone rotations in RSoft BSDF user-defined optical properties
- Expanded azimuthal symmetry support for faster RSoft BSDF calculations
- Support for non-uniform wavelengths, which is useful for RGB color displays in AR/VR systems

"With the LightTools and RSoft products' multi-domain simulation approach that combines macro- and nano-scale optical engineering, designers can create AR/VR models that provide end users with a superior sense of display immersion and visual comfort," said George Bayz, vice president of Synopsys' Optical Solutions Group. "By using Synopsys' complete AR/VR design solutions, designers can be confident of getting the results they need for first-time-right manufacturing."

**Availability & Resources**

Synopsys' RSoft products version 2018.12 are available now. Customers with a current maintenance agreement can download this version from the Synopsys website using their SolvNet® account.

**About Synopsys RSoft Products**

Synopsys RSoft products are leading solutions in photonic design software and serve several industries including optical communication, optoelectronics, and semiconductor manufacturing. RSoft products provide a full range of design, optimization, and planning tools for optical communications, as well as solutions for optoelectronics components and subsystems. Learn more at https://www.synopsys.com/optical-solutions/rsoft.html.

**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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