

Ansys Speos 2024 R2 Highlights



Ansyes Speos 2024 R2 introduces a range of new features and enhancements designed to improve productivity, optical design capabilities, and result experiences. Here is a detailed overview of the key updates:

Productivity Enhancements

Speos

- **Optical Design Exchange – Support of New Surface Types:** This enhancement allows for the incorporation of new surface types in optical design, broadening the range of optical simulations that can be performed to asymmetrical systems.
- **Errors at Simulation Initialization:** Improved handling of errors that occur at the initialization stage of simulations, allowing for faster identification and resolution of issues.
- **Stopping Simulation During Meshing Stage:** Users can now halt simulations during the meshing stage if needed, providing better control over the simulation process.
- **LXP Enabled on Sensors by Default:** Light Expert (LXP) is now enabled on sensors by default, simplifying sensor setup.
- **Default Display Option in Virtual Photometric Lab:** A new default display option has been added to enhance the user interface and streamline workflows in the Virtual Photometric Lab.

Speos for NX

- **Speos Tree Management:** Improvements in the management of the Speos tree structure help users navigate and organize their projects more efficiently.
- **Speos Pattern:** Enhancements to Speos pattern functionalities improve the accuracy and flexibility of optical pattern designs.
- **Automation Script:** New scripting capabilities allow for increased automation of repetitive tasks, boosting productivity.
- **Optimization Compatible with GPU:** Speos for NX now supports GPU-based optimization, significantly accelerating the optimization process.
- **Specify Sensor Resolution:** Users can now specify sensor resolution in greater detail, enhancing the accuracy of simulations.
- **3D Texture Projection Direction:** Improved control over 3D texture projection directions for more precise texturing in simulations.

Speos for Creo Parametric

- **Black Box Option on Speos Light Box:** The black box option on the Speos Light Box introduced in Speos 2024 R1 is now supported by Speos for Creo Parametric and provides additional privacy and protection for proprietary designs.
- **Ray File Source Pattern:** Enhanced ray file source pattern functionalities improve the accuracy of light source simulations.

- **Surface Property Plugin:** A new plugin for surface properties allows for more detailed and customizable surface simulations.

Speos GPU

- **General improvements to Speos GPU support,** enabling faster and more efficient simulations.
- **Unify Simulation Report Data:** Unified simulation report data simplifies the analysis and reporting of simulation results.

Result Experience with Live Preview

- **Virtual Lighting Controller:** Compatibility with VLC for better control of light sources' power and lighting configurations.
- **VR-Sensor Compatibility:** Supported sensors are extended to VR ones for better predictiveness of future designs.
- **Create Viewpoint (Speos only):** Users can now create specific viewpoints within Speos, aiding in the analysis and presentation of simulation results.
- **Simulation Information in Status Bar:** The status bar now displays more detailed simulation information, providing real-time insights.
- **2D Navigation Improvement:** Enhanced 2D navigation capabilities improve user experience and ease of use.

Sensor / Autonomous Driving

- **Sequence Detection Tool / Peak Illuminance:** New method for sorting detected optical sequences at the end of simulation by decreasing peak illuminance values, along with new sequence detection tool interface for better stray light analysis of optical sensors.
- **Camera Simulation with Source Power Temporal Variation:** Improved camera simulation feature to account for temporal variations in source power, increasing simulation realism.

Optical Part Design

- **Light Guide – Multiple Optical Axis:** New capability for designing light guides with multiple optical axes, allowing for more complex and efficient optical part designs.

These updates in Ansys Speos 2024 R2 significantly enhance the capabilities for optical simulation, design, and analysis, making it a powerful tool for engineers and designers in the optical and photonics industries.