Synopsys Releases First Commercial Version of LucidShape CAA V5 Based Software for Automotive Lighting Simulation

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Highlights:

- Synopsys is now shipping a commercial version of LucidShape CAA V5 Based software
- Enhancements since the beta version:
  - Provides quantitative analysis of near-field illuminance
  - Speeds optical model setup with Light Guide Designer and robust example model library
  - Performs high-accuracy luminance calculations

Synopsys, Inc. (Nasdaq: SNPS) today announced the commercial availability of itsLucidShape® CAA V5 Based software product, which allows designers to perform optical simulations and analyses of automotive lighting products within the CATIA V5 environment. After a successful beta release in October 2016, Synopsys is shipping a general release version of the product as of March 6, 2017. Enhancements since the beta version include new features for constructing and optimizing light pipes, analyzing near-field illuminance and generating luminance images.

LucidShape CAA V5 Based Key Features

With the LucidShape CAA V5 Based product, designers who are familiar with CATIA can perform optical analyses of automotive headlights, signal lights, tail lights and other lighting products with a minimal learning curve. Key features and benefits include:

- Enables CATIA V5 users to leverage powerful LucidShape features to produce automotive lighting designs that meet performance, styling, visual branding and regulatory requirements
- Allows users to develop designs with CATIA-generated geometry or geometry created in LucidShape software
- Supports fast, accurate simulations of automotive lighting part-level models and product-level assemblies, providing the most comprehensive CATIA-based optical simulations available
- Includes a comprehensive suite of optical analysis tools
- Provides a hierarchical display of project components to facilitate navigation in complex models

What's New in LucidShape CAA V5 Based Version 2017.03

Since the initial beta release, the following capabilities have been added:

- The Light Guide Designer, available as a beta feature in the 2017.03 version, helps automate the construction, analysis and optimization of light pipes and their extraction features to improve light output
- The Planar Lux Sensor provides quantitative analysis of near-field illuminance for lighting components such as light guides
- The Luminance Camera Sensor performs rapid, high-accuracy luminance calculations and generates luminance images at multiple angles and viewing directions; this feature is useful for analyzing lit images of light guides, tail lights, reverse lights, stop lights, turn signal lights and retro-reflectors
- A robust example model library, with intuitive features for browsing, searching and filtering content, helps users get a head start on their model creation and analysis tasks
- Optical simulation enhancements provide users with additional flexibility to customize settings and output
- The updated Check Model Integrity feature reports when the optical part of a model is ready for simulation
- The model transfer capability provides easier management of ancillary design files needed for optical simulations and preserves analysis results

"The LucidShape CAA V5 Based tool integrates easily into the workflow of anyone using CATIA to model automotive lighting components," said George Bayz, vice president and general manager of Synopsys' Optical Solutions Group. "Designers can prep illumination optics for manufacture and quickly verify design compliance with performance requirements and industry regulations, which helps save costs and get products to market faster. The enhancements in LucidShape CAA V5 Based version 2017.03 augment the designer's ability to perform in-depth illumination analyses, resulting in greater accuracy for performance predictions."

About Synopsys LucidShape Products

Synopsys' LucidShape products provide a complete set of design, simulation and analysis tools for automotive lighting. With dedicated algorithms tailored for automotive applications, LucidShape software facilitates the design of automotive forward, rear and signal lighting reflectors and lenses. In addition, the LucidDrive® tool provides the ability to perform virtual night-driving simulations that generate realistic lighting scenes in real time, which allows designers to quickly and accurately evaluate beam patterns for exterior automotive lighting applications on the road, traffic signs and surroundings prior to expensive fabrication and testing. For more information, visit https://optics.synopsys.com/lucidshape.

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