



Ansys and DXOMARK Partner on Breakthrough Solution to Validate Virtual Camera Systems

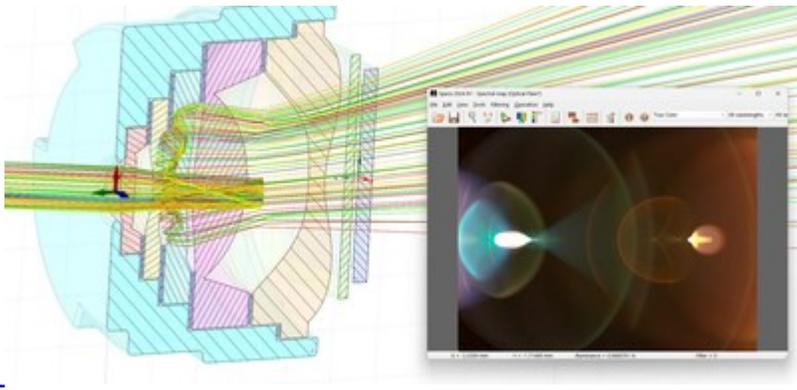
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Enhanced process improves optical performance of virtual camera models in a streamlined, integrated workflow

/ Key Highlights

- Ansys and DXOMARK collaboration will offer the first solution on the market to reliably validate virtual models of camera systems
- [Ansys Lumerical™](#), [Ansys Zemax OpticStudio™](#) and [Ansys Speos™](#) create a workflow that produces a raw image that can be evaluated by DXOMARK's world-class software, [Analyzer](#), to enable an end-to-end virtual camera system solution

PITTSBURGH, Jan. 25, 2024 /PRNewswire/ -- [Ansys](#) (NASDAQ: ANSS) and [DXOMARK](#) are entering a new partnership to provide an end-to-end camera solution that bridges the gap between physical measurements and simulation. DXOMARK's industry-leading tool for image quality analysis, Analyzer, augments Ansys' optics portfolio to provide a predictively accurate validation of camera systems. The robust workflow will optimize designs and deliver valuable insights earlier in the development process, speeding time-to-market for products in industries ranging from aerospace and automotive to healthcare and consumer electronics.



Optical systems are used across industries in applications like autonomous vehicle sensors and advanced medical devices. As the number of critical applications continues to increase, so does the need for even more reliable validation. To design the most accurate virtual camera systems, large amounts of real-world data are needed to correctly define the models used for testing. This information can be challenging to obtain, making the validation process much longer and cost inefficient.

Combining Ansys and DXOMARK's technology enables a reliable solution for validating virtual camera systems. Users first run simulations in Ansys Zemax OpticStudio to develop an optimal lens design, and Ansys Lumerical, to simulate complex micro-components, like the complementary metal-oxide-semiconductor (CMOS) sensor. These results are then integrated into Ansys Speos, where a full virtual model of the camera is built. Using the Speos Sensors System Exporter, a raw image of the model is produced and transferred to Analyzer for characterization. The DXOMARK software enables customers to evaluate various features of their virtual model — including noise, flare, dynamic range, and distortion — against Analyzer's physical measurement standards. The process enables users to compare simulation results with real-world data and validate the design with extreme predictive accuracy.

"The collaboration with Ansys will provide unparalleled benefits for customers around the world," said Frédéric Guichard, ceo of DXOMARK. "The question of validating any virtual model comes down to the real-world data used to back it up. We have been providing that service for over 20 years with Analyzer. Integrating it into their workflows will further empower customers to continue to produce top-of-the-line products with fewer obstacles."

"We are invested in helping our customers overcome engineering challenges, and by partnering with DXOMARK, we can deliver reliable simulation solutions that are backed by the best of the best," said Shane Emswiler, senior vice president of products at Ansys. "Customers across industries have diverse needs, and Analyzer has been at the forefront of standardizing and benchmarking camera system functionality for decades. The partnership will ensure our customers get the most out of their designs, presenting them with further opportunities for innovation and industry advancement."

The end-to-end workflow will maximize product value and help customers align their products and services with current market trends. [Visit Ansys at SPIE Photonics West](#) in San Francisco Jan 27-Feb 1, 2024, at booth #1827 in Hall C to learn more.

/ About Ansys

Our Mission: Powering Innovation that Drives Human Advancement™

When visionary companies need to know how their world-changing ideas will perform, they close the gap between design and reality with Ansys simulation. For more than 50 years, Ansys software has enabled innovators across industries to push boundaries by using the predictive power of simulation. From sustainable transportation to advanced semiconductors, from satellite systems to life-saving medical devices, the next great leaps in human advancement will be powered by Ansys.

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/ About DXOMARK

DXOMARK is a French technology company and the international leader in the multimedia quality assessment of professional and consumer electronics products (such as automotive cameras, machine vision, smartphones, laptops, and more).

As a private and independent company, DXOMARK's mission is to help Original Equipment Manufacturers develop high-quality products for the benefit of the end user.

To guide users in their choice, DXOMARK provides on its website — dxomark.com, .cn, .fr and corp.dxomark.com — the largest database of quality evaluations of smartphones, DSLRs, speakers, and laptops, in 5 areas of expertise (Audio, Battery, Camera, Display & Selfie).

DXOMARK, based in Boulogne-Billancourt near Paris, employs 120 people, including a hundred engineers and technicians, who have carried out thousands of tests each year for over 20 years in the company's 17 state-of-the-art laboratories, which have been developed in-house. More than 200 of these laboratories, which are 100% dedicated to measuring and optimizing the quality of professional and consumer electronics products, have been sold to tech companies around the world.

DXOMARK's business activities include:

- Quality evaluation services to manufacturers during the product development process. We help improve the quality of products from conception to production in the areas of our expertise: camera, audio, display, and battery.
- Detailed scientific test reports. DXOMARK tests a wide range of commercial products and provides a detailed report of results and measurements that is available for purchase by all manufacturers.
- Sales of its proprietary turnkey laboratories (Analyzer) to Research & Development teams.

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