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## OPTIS equips Bombardier Aerospace with its SPEOS CAAV5 Based software for aircraft lighting design



*Images provided courtesy of Bombardier*

Toulon, France 8-Aug-06 : **OPTIS announces today that Bombardier Aerospace chose SPEOS CAAV5 Based software solution to enhance aircraft lighting design processes.**

Bombardier Aerospace is a world leader in the design and manufacture of innovative aviation products and services for the regional, business and amphibious aircraft markets. It also offers Flexjet fractional ownership, Skyjet aircraft charter and management, technical services, aircraft maintenance and pilot training, as well as military aircrew training.

Bombardier Aerospace chose SPEOS CAAV5 Based software for its unique light simulation capabilities, notably the ability to simulate the crew's information interface as it would really see it in its final in-flight context. The fact that SPEOS CAAV5 Based is fully integrated in their pre-existing PLM solution, CATIA V5, was also a major deciding factor.

Previously, Bombardier's lighting design was carried out using information about visual comfort gathered from pilot experience. Analysis was carried out during different flying conditions, but light design didn't come until late on in the global development process. This made for a costly and time consuming design phase. They also lacked the means of predicting glare from the sun and reflections, which could potentially prevent a pilot from seeing important safety information in the cockpit.

SPEOS CAAV5 Based accurately simulates the crew's visual perception and thus predict visual obstructions, glare and reflection. This is made possible because SPEOS CAAV5 Based has an integrated physiological human vision model, unique in the world. SPEOS CAAV5 Based is the only software available which combines advanced light simulation techniques with human visual perception analysis based on a physiological model.

SPEOS CAAV5 Based also enables designers to improve the perceived quality of its instrument panels and cabin lighting, by optimizing color, contrast, light uniformity and intensity as well as the overall harmony of the different light components in the interface.



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SPEOS CAAV5 Based results are even closer to reality in that the software takes into account ambient lighting conditions such as sun, clouds, and day and night vision.

Bombardier was further attracted by the ability of SPEOS CAAV5 Based to verify the compliance of their designs with aerospace standards.

The fact that SPEOS CAAV5 Based is seamlessly integrated in Bombardier's PLM solution CATIA V5 was perhaps the most important benefit, as it means that engineers know the interface and the software fits into with the company's overall software implementation strategy. Its user-friendliness added to its attractiveness; engineers took just 5 days to learn SPEOS and became operational within just 2 weeks.

Richard Heppell, Manager Core Systems Engineering, Bombardier Aerospace, says: *“ We are planning to use SPEOS CAAV5 Based mainly for cockpit design to improve existing information interfaces as well as developing new ones. We looked at other software on the market but SPEOS CAAV5 Based was by far the choice of Bombardier. Thanks to OPTIS software, we believe we can shorten our product development time and eliminate the time-consuming and costly phase of making physical prototypes. We expect to reduce design time by 50% on projects where SPEOS CAAV5 Based is used. (Acquiring the software) was a very valuable experience for the cockpit lighting design, and I am confident we can extend the technology to other sectors such as cabin lighting and exterior lighting.”*

Jacques Delacour, CEO and President of OPTIS says : *“Bombardier is a prestigious company and an important reference for us. We are confident that by using SPEOS CAAV5 Based for their lighting design, Bombardier will reduce their time-to-market, creating highly realistic digital mock-ups, and further improve the visual ergonomics of their cockpits.”*

**About Optis :** OPTIS is the first company in the world to integrate solutions for the simulation of light, 100% based on a physical model, in a CAD software. Specialised in optics and in software development, OPTIS has launched several innovative solutions since it was founded in 1989. Its software solutions respond to the needs of industry, research and architecture and are used in 36 countries worldwide, with more than 5500 licences sold. They are available in standalone version and also versions integrated in CATIA V5 and SolidWorks by Dassault Systèmes. They include photometry, optics, colorimetry, lighting, visual ergonomics and photorealism, all based on physical reality thanks to their libraries of measured materials and sources. OPTIS is SolidWorks Gold Partner for its software OptisWorks, and Dassault Systèmes Software Partner for SPEOS CAA V5 Based, integrated in CATIA V5. Information about OPTIS is available at [www.optis-world.com](http://www.optis-world.com)

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