ZODIAC AEROSPACE
ADVANCING AIRLINE INTERIOR DESIGN WITH SOLIDWORKS VISUALIZE

With SOLIDWORKS Visualize software, Zodiac Aerospace industrial designers can quickly transform design concepts created in CATIA 3D design software into stunning images that are rich in colors, textures, and depth, providing the high degree of photorealism their customers need to understand innovative concepts and approaches.

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Challenge:
Demonstrate how innovative concepts in airline interior design will look and operate inside a finished cabin, quickly and with a high degree of realism.

Solution:
Implement SOLIDWORKS Visualize photorealistic rendering software.

Benefits:
- Realized ability to create and render concepts in one day
- Improved customer visualization and appreciation of concepts
- Satisfied industry demand for speed and realism
- Leveraged renderings for web and promotional materials

Zodiac Aerospace is a world leader in the development of aerospace equipment and systems for commercial, regional, and business aircraft, as well as helicopters and space equipment. With 100 locations and more than 30,000 employees, the company develops and manufactures state-of-the-art solutions to improve onboard comfort and living conditions, as well as high-technology systems that boost aircraft performance and enhance flight safety. Zodiac Aerospace assists airlines and aircraft manufacturers worldwide with meeting the complex challenges of today's aviation industry.

At Zodiac Aerospace in Everett, Washington, industrial designers work with major airlines and aircraft manufacturers to develop innovative concepts for seats, galleys, cabins, overhead bins, and other interior aircraft components. According to Senior Industrial Designer Martin Pieramico, the group has faced growing demand and increasing pressure to develop and show innovative design concepts in a finished state—within an aircraft—more quickly.

"Today's standard is that our customers expect to see something that looks as real as possible as quickly as possible," Pieramico says. "They don't want to see 2D sketches, crude mock-ups, or images that look fake. Because they are making decisions on moving forward with new concepts based on our designs, they need to see colors, textures, and depth as if they were actually looking at the concept in a real aircraft."

To meet tighter deadlines and demands for greater realism, the group needed an efficient rendering package that would enable them to quickly render concepts created in CATIA® 3D design software with a high degree of photorealism. After evaluating leading 3D rendering packages, including KeyShot® and SOLIDWORKS® Visualize software, the group standardized on the SOLIDWORKS Visualize rendering solution in 2013. Zodiac Aerospace chose SOLIDWORKS Visualize software because it creates higher-quality images faster than other applications and is easy to use.

"We have to render concepts in great detail—like showing a pillowed look on our upholstery styling, for example," Pieramico explains. "After rendering a test concept in various applications, SOLIDWORKS Visualize produced the best-quality image in the shortest amount of time."

FROM CONCEPT TO RENDER IN ONE DAY

Using SOLIDWORKS Visualize software, Zodiac Aerospace has enhanced its ability to create innovative design concepts and render them inside an aircraft in a matter of hours rather than days. "I can talk about a concept in the morning, and then use SOLIDWORKS Visualize to create and show a completely rendered image of it later that afternoon," Pieramico says.

"That's the rendering performance that our industry now not only expects but demands," Pieramico adds. "We're always under extremely tight deadlines with less and less time to deliver rendered design concepts to our customers. Because purchasing decisions are frequently made based on a rendering, we need the rendering speed that SOLIDWORKS Visualize provides to grow new business."

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>
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SEEING IS UNDERSTANDING

In addition to the accelerated rendering performance that SOLIDWORKS Visualize provides for Zodiac Aerospace, the solution produces high-quality images, which boost customer visualization, comprehension, and appreciation of innovative concepts. "The days when our customers would have to extrapolate what a seat or cabin design would look like based on a 2D sketch are long gone," Pieramico notes.

"Today, the major airlines all want to imprint their own personality and individuality on the appearance of aircraft interiors rather than accept the generic designs offered by the aircraft manufacturers," Pieramico continues. "This is why seat revisions are now a given and why it's so important for customers to fully visualize how the seats will look in their plane. Concept presentation is critical. The more polished and finished a concept looks, the easier it is for customers to understand, embrace, and carry through to its conclusion. SOLIDWORKS Visualize gives us speed and quality."

MORE PRODUCTIVE AND COST-EFFECTIVE

Since implementing SOLIDWORKS Visualize software, Zodiac Aerospace industrial designers have increased productivity cost-effectively, enabling them to take on projects that are more ambitious and create photo-quality content for use in web and promotional materials, eliminating the need for costly photo shoots. For instance, Pieramico recently used SOLIDWORKS Visualize to create an image of an entire passenger airliner of the future, highlighting the large number of Zodiac Aerospace products that it will contain.

"Because SOLIDWORKS Visualize produces the most realistic images of any program that I've evaluated, we are saving money by leveraging rendered images for use in brochures and online," Pieramico stresses. "Rather than invest the time and money required for a professional photo shoot, I can set up cameras in SOLIDWORKS Visualize to produce photorealistic images more economically."

Zodiac Aerospace industrial designers use SOLIDWORKS Visualize software to create design concept imagery because it creates higher-quality images faster than other applications and is easy to use, providing the performance boost the company needs to compete successfully.

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