



Microlights used in a Thomas Cook outlet

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Colin Davies, Engineering Manager, Microlights



Microlights Limited

Illuminating the Future with Autodesk Inventor™

Time was when unimaginative and unsuitable lighting drove customers to take items outside shops so that they could be sure of the color before purchasing. Microlights Limited, the British designer and manufacturer of lighting solutions for the international retail, hotel, and leisure market changed all that. In business since 1984, the United Kingdom-based company has built an impressive reputation for technical and performance leadership. Microlights creates innovative lighting designed to reveal true colors; cost-effective, energy-efficient, and low-maintenance lighting to encourage shoppers to explore the whole store. Customers include Harrods, Jaeger, and Thomas Cook Global and Financial Services.

3D Design Comes of Age

Lighting design involves much more than a base, a bulb, and a shade. The lighting market is very subjective and highly competitive. Companies succeed only with the right balance of creativity, engineering, and value. To stay competitive, Microlights has been a long-term user of computer-aided design. They used Autodesk's AutoCAD® software for 2D design and recently decided to move to 3D. Microlights evaluated PTC and Autodesk products in a real design scenario. Each supplier was asked to produce complete 3D design and documentation for an 18-part luminaire from 2D drawings already created by the company. The lamp-head comprised the complete assembly of reflector, various standard parts and fastenings, castings and moldings, and glass. Full documentation included general arrangements, visualizations, parts drawings, standard part drawings, and assembly drawings. Suppliers were given just two days to complete the task. Autodesk Inventor™ software was selected hands down.

"It is just so easy to use," says Colin Davies, Engineering Manager at Microlights. "Its like designing on a canvas and it works in the same way that designers think."

Inventor's ease-of-use has been reflected in the minimal training requirements at Microlights. Training will never be eliminated completely since there is always a need to lay down a proper foundation for effective use of any system. But for Microlights this was achieved with a 2-day foundation course for each member of the design team, supplied by one of Autodesk's specially accredited MCAD Plus resellers.

"Inventor helps you develop good design disciplines, especially in part numbering and bill-of-material," adds Davies. The Autodesk Inventor part numbering system is highly flexible. A wide range of data can be attributed to an individual part, selectively displayed, and used to create a bill-of-materials.

One Model Is Worth 1,000 Words

With 3D visualizations, customers can better relate to the designs the company produces and can grant design approval without seeing physical prototypes. In fact, Autodesk Inventor's visualization capabilities are so effective that the company intends to cease production of printed product brochures. Instead, Inventor-produced images will be published either to the Web or on CD. Products will be presented more quickly to customers and hard-copy publication costs and timescales are reduced.

Teamwork and Communication for Competitive Advantage

Autodesk Inventor enables true collaborative engineering, allowing the design group to work as team, accessing the same model at the same time. But the value of the product extends beyond the design department. Communication

MICROLIGHTS

with other parts of the organization has improved significantly, too. Now new departments have access to the virtual prototypes before committing to material purchase or production setup and packaging. New designs are brought to market faster than ever before, at lower cost and with higher quality, further strengthening Microlights' competitive position. According to Davies, "We have

halved development times, with similar savings in other parts of the process, too." As well as creating new designs, the company's standard parts catalogue is being added to the system. Out of over 200 parts, 2 new designers have added 50 in less than 2 months. Autodesk Inventor has truly made light work for Microlights.

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