



## MKS Toolkit Case Study

# CSM3D International Limited

### Subtitle

Specialists in CAD/CAM software for the shoe design trade, CSM3D International Limited has built its business on Shoemaster--a software application for designing shoes that deliver both form and function. The product was first introduced in 1965 and was one of the first 3D CAD/CAM systems used in the industry.

When the time came to create a Windows based version of Shoemaster, CSM3D didn't settle for a one-size-fits-all solution. It turned instead to MKS Toolkit for Enterprise Developers (formerly NuTCRACKER), the powerful UNIX to Windows migration tool from MKS Inc., a Microsoft Certified Solution Provider. With the help of NuTCRACKER, a project that might have taken a year or more took just 90 days.

### Market Opportunity

Shoemaster was originally designed in the UNIX environment. CSM3D realized that its product needed an upgrade if it was going to capitalize on the vast section of the shoe market that utilizes Windows as its standard platform.

"Traditionally, shoe manufacture was like any other engineering industry, heavily into UNIX workstations running networked graphics packages," says Ian Paris, Managing Director. "But we found that the march of technology was leading more people towards Windows based applications, now that graphics and processing power has improved so much."

### Defining the Upgrade Process

The decision was made to forge ahead with a Windows based solution, but the company needed to decide on a cost-effective, efficient development process that didn't compromise quality. Native rewrites can be an extremely expensive task and require the maintenance of dual versions by two separate development organizations. The scope of the conversion process to Windows did not outweigh the benefits that such a system would bring to CSM3D though. The increased market share would have a large-scale positive impact on CSM3D's bottom line.

CSM3D took a serious look at rewriting the code in house and estimated that Shoemaster's 600,000 lines of code would take roughly one year to port to Windows. There was concern within the company that while its developers were familiar with UNIX, they had no prior experience with Windows and setbacks from this inexperience could greatly impact the timeline. Additionally, a year seemed like a long time to wait before taking advantage of the opportunities waiting for them in the expanded Windows market.

### 30 Days to Success

CSM3D began to research code-migration tools. The company's vision of a conversion tool that could do the job was clear: It needed a tool that could convert

### Company Profile

CSM3D International Limited specializes in CAD/CAM software for the shoe design trade. The company's flagship product, Shoemaster, was first introduced in 1965 and was the very first 3D CAD/CAM system used in the industry. Shoemaster is currently used in more than 30 countries.

### Situation

Shoemaster was originally built on a UNIX platform. In order to stay competitive and provide a product that was compatible with today's enterprise technology, CSM3D needed to convert the software to a Windows based environment. The company wanted to complete the transition and distribute the product as quickly as possible without losing any of the product's integrity.

### Business Solution

After investigating several options, CSM3D selected NuTCRACKER, from Microsoft Certified Solution Provider MKS Inc., to automate its UNIX to Windows NT porting process. They chose Scientific Computers Ltd., a United Kingdom NuTCRACKER distributor, as its supplier and partner in the project. Using NuTCRACKER, the company was able to port Shoemaster's 600,000 lines of code in just three months.



the code quickly and accurately while maintaining the specialized and diverse functions of Shoemaster.

“A seemingly quick port could not be achieved at the expense of long-term credibility among our customers,” says Paris. “Their expectations of Shoemaster had to continue to be met.”

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NuTCRACKER allowed CSM3D’s developers to continue working within the familiarity of the UNIX environment while porting the application, drawing on their experience and confidence with the familiar platform. The developers were able to quickly produce a reliable and robust Windows version of the product.

### Living Up to its Reputation

From start to finish, it took CSM3D just three months to port all of the code, test the product, market it to prospective clients, and actually start installing the Windows version of Shoemaster at customers’ sites. The quality of technical support provided by Scientific Computers played a significant role in the rapid and successful development process. Scientific was ready and able to guide the CSM3D developers through the process of converting the code to the Windows platform.

“Shoemaster is an application that represents 30 years of development,” says Paris. “We ported it to Windows in about 90 days, without any loss of performance or quality. We can continue to support our customers worldwide with the product on two parallel platforms. With NuTCRACKER, we found a reliable tool that really lives up to its reputation and with Scientific Computers we found a company with technical depth and realistic pricing and support.”

Shoemaster is currently used in more than 30 countries and with the new Windows version CSM3D’s market share promises to continue to grow.

### Benefits

By utilizing NuTCRACKER to port Shoemaster’s code, CSM3D managed to cut nine months off the proposed conversion schedule and still maintain the high-quality performance of their product. Developers at CSM3D were able to work in the UNIX platform and best utilize their skills as experienced UNIX programmers. Finally, CSM3D has diversified and significantly increased its market share with the inclusion of its new Windows version of Shoemaster.

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### Ian Paris

Managing Director  
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