

"In terms of simulation software, we're seeing more than 10% of our customers now using simulation"

Alan Sampson, Managing Director, Solid Solutions

As the UK's leading SolidWorks reseller, Solid Solutions can boast a comprehensive grasp of the state of the CAD market. Paul Fanning talks to MD Alan Sampson.

## Top seller

Alan Sampson has been in a privileged position to see the development of CAD in the design engineering sector. With a background in the automotive and electronics sectors, he went on to found Solid Solutions, which has grown over the years to become the UK's biggest reseller of SolidWorks.

In the early days, he says, both the technology and the cost were prohibitive for most companies. He says: "We worked with CAD from previous generation products. They were Fortran-based and a bit twitchy and they cost £50,000 to £100,000 per seat. However, we saw the writing on the wall with the emergence of the PC platform becoming strong enough to run 3D CAD."

Solid Solutions was founded 13 years ago to meet this demand. Originally envisaged as doing small volumes of high margin work, it soon found itself expanding to a degree that surprised its founders. Says Sampson: "We were a bit late to the market. There were 10 other resellers when we started - some had been around for years. We set about trying to bring some of the programming and customer support into that marketplace. We never thought we'd get this big, but actually we quickly found ourselves vying for pole position. Five years later we became the biggest UK

SolidWorks reseller by a long way and a not long after that the third biggest in Europe."

Needless to say, this success has brought a raft of other responsibilities. Many of these have been imposed by SolidWorks itself, but others have come about as a result of Solid Solutions' ambition and desire to be the leader in its market. Probably the single biggest factor setting Solid Solutions apart is the number of certifications held by its staff in different competencies. SolidWorks introduced these certifications for its products and it is a discipline Solid Solutions has embraced wholeheartedly.

Says Sampson: "There are 20 different packages or discrete products within SolidWorks and, beyond that, there are now seven or eight simulation products. There has been a massive proliferation in products and each one has an associated certification with it - a formal exam our engineers can sit and, if they attain a certain number of certifications, they achieve what is called an 'Elite' status. It's a huge amount of effort, but everyone's bonused on which certifications they have. We put a massive amount of investment into getting our staff to do this...In fact, we're just about to achieve our 13th Elite qualified engineer, which is far more than any other

reseller anywhere in the world and, I believe, it's actually more than SolidWorks has. What it means to our customers is that when we have an engineer on the phone, they can give them answers and solutions quickly. It doesn't waste our time or the customer's time and we have a highly satisfied customer as a result."

Having started in the Midlands, Solid Solutions now has offices in Fareham, Leeds and Durham, as well as satellite offices in Cambridge, London and Sheffield. The company now has more than 4,000 customers, 70 staff and has seen double digit growth every year - even during the downturn.

Much of this success is, of course, down to the quality of the individual engineers and Sampson claims the biggest limitation on his company's growth is the ability to get good personnel. He has a very definite idea of what sort of person he wants, saying: "The engineers we employ are problem solvers. One of my favourite interview questions is the old Microsoft one about why manhole covers are circular. There are a number of good design reasons for it and if a guy can come up with three of them, it gives you a really good idea of how his mind works."

But it isn't just about educating the Solid Solutions workforce. "Customer focus has

been key for us," says Sampson. One way in which this has been evident has been in the development of its 'Webcast Wednesdays'; web-based ongoing customer development with two one-hour webcasts every week on specialist topics.

With regard to the future of CAD, Sampson believes that most of the significant modelling issues related to the software itself have been resolved. He says: "We've solved the problems of how to create a shape, how to put those shapes together and how to make detailed drawings from them. To continue trying to invest into those algorithms is a case of diminishing returns... It's really now about how you take that virtual prototype and what you can do with it. Can you make it lighter? Can you improve its quality? Can you avoid having to create prototypes and test it in a virtual world? Can you review and control it? Can you use the CAD data to produce high quality marketing material?"

He is also convinced that, beyond CAD, simulation is assuming an increasingly significant role within engineering design, saying: "In terms of simulation software, we're seeing more than 10% of our customers now using simulation. The sort of simulation software that once only the likes of a PhD graduate at Rolls-Royce would have used, is now being used to determine how well a drainhole cover will cope with a British Standard test."

Equally, for all the talk of cloud computing, Sampson believes that it will not significantly affect the fundamentals of CAD software. He says: "I am sure that cloud-based technology will alter the platforms we utilise but this is only relevant if it delivers real end-user benefits. These will most likely be flexibility and cost savings rather than fundamental changes to the nature of the way that CAD aids design" [www.solidolutions.co.uk](http://www.solidolutions.co.uk)

