

'Honey, I've shrunk the file'

This Bangalore-based company has developed technology to reduce the file size of a CAD model, so it can be hosted on the Internet easily.

SHAMIK PAUL

If photographs or images can convey what a thousand words cannot, imagine what might not be possible with a three-dimensional computer-aided design (CAD) model.

And if these models come in manageable file sizes, so much the better.

3D Solid Compression (P) Ltd, a Bangalore-based IT company, says it has developed and patented a technology that reduces the file size of a CAD model up to 100 times, making it easy to host on the Internet.

These models are interactive, and users can view them from different angles or even take a cross-sectional view if necessary, says the company. Since the models can be animated, they offer more value than ordinary images. Annotations and voice can also be added.

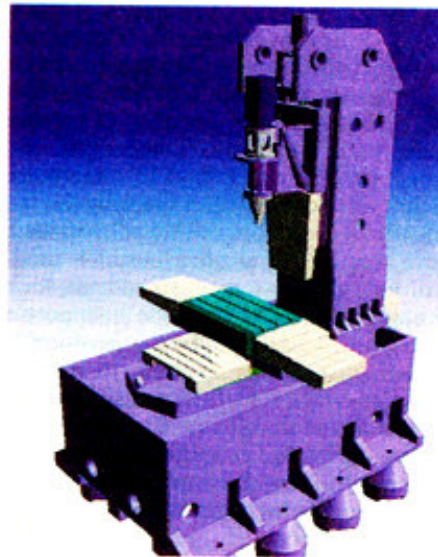
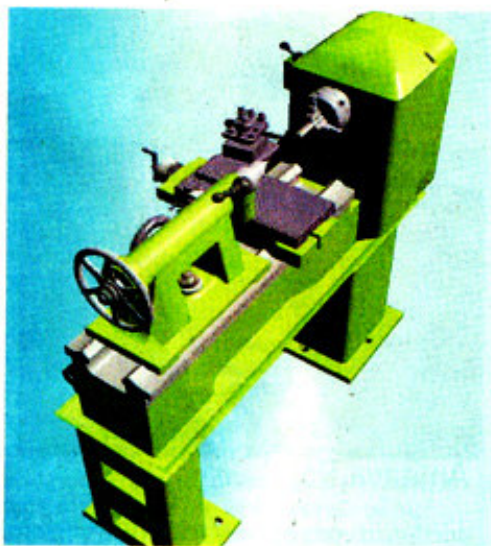
Manufacturing companies and educational institutions could be the principal users of this technology, says K.K. Venkatraman, Chief Executive, 3D Soc. The company is also focusing on the online product merchandising space.

Manufacturing companies use large and complex machines. They could use the 3D models instead of ordinary images for training or for maintenance. Since the models are animated, they can show how a particular machine works, making for better understanding, he says.

The product can also be used to create e-manuals for machines, which would replace the conventional printed manuals. Since 3D Soc's product reduces the file size of the models, hosting them on the Web would not be a problem.

Engineering students, who have to study complex machinery, can use these models, which can also be used for advertisement on the Web.

According to Venkatraman, a 3D model of a carburettor is generally between 50 MB and 60 MB, but the company has reduced it to 1 MB through the Virtual Interactive Solid (VIS) technology it has developed. It translates 3D CAD models into the VIS format



Reduced file size enables easier sharing of 3D models, be it milling machine or lathe.

that is very light, and also creates models in the native VIS format, he says.

Currently, the company has three solutions. The VISTrans translates models from formats such as Maya, 3D Studio and others into the VIS format. With the VISPublisher animation, annotation, audio and hyperlinks can be added. The models can be viewed through the VISViewer.

The company has another advanced application called the VISPlayer, which is also used to view models in the VIS format. This can be customised. Venkatraman says the company bundles the solutions and offers a suite called VISPublisher. It either licenses it or offers it as a service, depending on the needs of the customer.

The R&D was funded by Indian Institute of Science, Bangalore, and Stanford University. In 2004, the technology got a patent, and the company was registered. Funded by IDG Ventures, it started operations from mid 2006. 3D Soc has seen good demand for its product in the Indian market, says Venkatraman. TAL Manufacturing Solutions Ltd

(a Tata enterprise), Triveni Engineering and Industries Ltd, and Bajaj Auto Ltd are among the company's customers, he says.

SPARE PARTS CATALOGUE

Deshpande, General Manager, Product Engineering, Bajaj Auto Ltd, says the company has done a pilot project using the product developed by 3D Soc. The main advantage, he feels, is that the file size is very small. Generally, 3D CAD models have very large data size, and normally the company limits access to these files to very few people.

He says the company intends to use this kind of technology to create a spare parts catalogue and service station manual that would be given to its dealer network. Currently, these are in the printed format.

Since most of the company's models are created in 3D environment, it will be able to deploy this kind of technology because it is interlinked with the main design component, he says.