

Topic:
AEC

Revit Technology plans AEC world domination

iCAD is produced by Business Advantage, a B2B research, business development and marketing consulting practice operating in the global IT, Digital and Telecommunication sectors.

Revit Technology has caused quite a stir in the AEC CAD world since it started trading globally in May 2000. Its aim is nothing less than to conquer the worldwide market - and without any channel support. What is the strategy behind the Revit assault? Why has it opted for an Internet-subscription service? And is the AEC industry ready for it?

Billed as the first parametric building modeller, Revit software has been hailed by its developers and early users as a revolutionary technology that will change the entire process by which buildings are designed, constructed and operated over their lifecycle. Its most trumpeted selling point is to enable architects and building professionals 'to make changes anytime, anywhere in the design process while ensuring complete consistency of all drawings and documentation in the project.' Revit Technology now has around 650 customers worldwide, and twelve out of twenty of the largest architectural firms in the USA are using its software.



The Grand Plan

So where is Revit heading? We asked Russell Henley, Director of Sales, EMEA, for Revit Technology. *"Within a year's time we plan to be the second or third largest manufacturer of software for the construction industry within Europe. Our target market is the whole construction industry, starting with architects through the chain of consultants and builders etc, through to the building owner. Architects are only stage one,"* explains Russell. *"In Europe there are about 600,000 – 700,000 potential individual users working in the construction industry. We launched in the UK in November, and in the New Year we will set up a team to address the Nordic/Scandinavian regions. Then we will move into Germany, Austria and Sweden. Later in 2001 we will move into Southern Europe. Then, at the end of 2001 we will address the Middle East and Africa."*

The User View

So what do the architects and construction professionals think? The Waterman Partnership is one of the UK's leading structural engineering consultants, responsible for the Bluewater retail park in Kent, England, the largest of its type in Europe. They are also one of the endorsers of Revit's Early Adopter Programme and therefore understandably enthusiastic about Revit.



Waterman Partnership
Consulting Engineers

Computer Manager Lee Barnard told us: *“Parametric modelling is something which the construction industry has been crying out for. Despite the industry’s conservative nature, there is a ripple of realisation that things must change. I think that this software will change the whole way of working, once that change is forced upon the industry by clients who demand a better service and the ability to use a model for facilities management throughout a building’s lifecycle.”*

ARUP Consulting engineering giants Ove Arup (the Sydney Opera House and Pompidou Centre in Paris count among their flagship projects) are not Revit users, but they are checking it out. *“Our Advanced Technical Unit has subscribed for two licences to assess its suitability,”* explains Associate Director Alec Milton. *“The parametric modelling style of software is what the industry needs, and I do hold out hope that this is the way of the future. I imagine that the industry will warm to the idea of a system that unites disparate data, although other software such as Autodesk can do similar things. What I think does make Revit stand out is its ease of use. Unlike other 3D packages, Revit has a parametric capability which doesn’t need the help of a specialist programmer to create your own custom objects.”*

So what might hold Revit back? *“I think the main issue is persuading people to change,”* says Alec. *“Sure, Revit has very impressive features. But people do not buy software based on features. They do so because the client tells them to, or because everyone else is using it. Data exchange is an issue here; when data is exchanged between different software packages, some always gets lost. Ideally all parties involved in a project use the same software. It would take a leap of faith for one organisation to say they want to use Revit, and another leap of faith for the rest to follow suit.”*

Competitors’ Views

Autodesk dominates the construction design software market. Their Construction Industry Service Business Development Manager, David Clarke, also identifies interoperability of different software systems as a key issue. *“North Western Europe is very hot on regulations to ensure that all parties working on a construction project can read each others drawings. Having translators is one thing, but these need to be independently certified. Potential users of new software will want to see the certification that proves it complies with national and international committee standards.”*

Some of Revit’s rivals are unimpressed by suggestions that the newcomer is leading a parametric revolution. *“Autodesk has got ‘object’ technology as Revit has,”* says David Clarke. *“Revit just splits and supports that technology differently.”*

Another big player in the AEC market, Graphisoft, says that the parametric capabilities of its ArchiCAD software have been developing for years. *“From its very early days ArchiCAD has been based on working with parametric real world construction components like 2D/3D doors, windows, walls, roofs and slabs,”* says Andras Haidekker, MD of Graphisoft UK Ltd. *“In order to describe the wide variety of construction objects we use GDL, a lightweight programming language that has been refined over the years for the AEC industry. GDL facilitates the building process regardless of CAD system. Each object is a tiny program which reacts to its environment and displays itself according to particular needs: 2D, 3D or even weight or pricing. Although Revit and GDL are doing different things with parametric technology, they are both part of a general trend towards parametric building modelling. ArchiCAD delivers what others are promising. The key to success is compatibility with the drafting based world.”*

Who needs the Channel?

CAD software manufacturers across the board will join Revit Technology's rivals in the AEC market in studying the impact of their Internet-subscription model. What is the thinking behind this? *“By having subscribers of our software we are able to build up a close relationship with our customers - unlike most manufacturers,”* says Russell Henley. *“We learn from them, which helps us develop our software and business in the right direction - and the customers prefer to deal directly with the manufacturer.”*

“The old system of purchasing licences does not account for the fluctuating workloads characteristic of the construction industry. We base our method of sale on the way projects are run. The subscription agreement includes the provision of free software upgrades, technical support and training. One other major CAD supplier has threatened to take away the licence of customers who don't upgrade to their latest software - which is ridiculous.”

“Other major CAD manufacturers will eventually sell in the same way as us. All of them do sell direct but they don't come clean about it. They have a channel to support and are worried about legal actions against them if they drop third parties out of the chain. Dealers in the past have just handled goods. Their extra cut on the price is what has kept software/hardware costs so high.”

Autodesk's David Clarke is not convinced the AEC industry is ready for e-procurement. *“There is no culture in the industry of obtaining products off the Internet. Autodesk has an e-store to provide this option, but we also supply through normal channels because that is what our customers demand. Also a lot of customers want to buy on credit, and want terms of say thirty or sixty days for this. However you can't get this kind of finance over the Internet at the moment.”*

Revit on Rivals

"I think rival vendor reaction has fallen into two camps," says Russell Henley: "those with their heads in the sand pretending Revit doesn't exist, and those who are taking the appearance of Revit very seriously, to the extent that some are even suggesting they join forces and work with us."

"We have a distinct advantage over our competitors in that our development software is less than two years old," explains Russell. "We may have to write code like other manufacturers, but unlike them, we don't have to check this code is compatible against all the other software we already have on the market. We plan to release new versions of our software every 100 to 120 days. Our nearest competitors do so once every 18 months or so. So we'll keep getting further ahead."

iCAD will keep you up to date on Revit's progress.

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