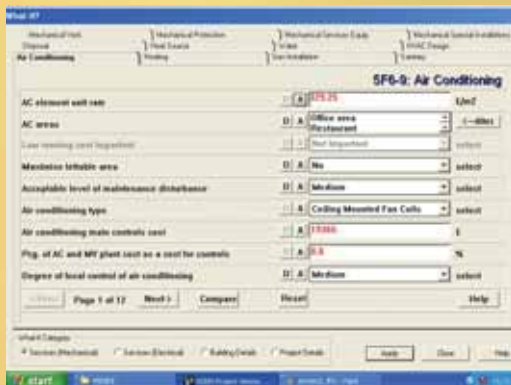


ProjectWinner

How many tempting projects come your way in a week? And how long do you spend putting together a quotation so that you can bid for the project? And just how accurate are the results of your calculations? If you find yourself asking these questions on a regular basis then perhaps it's time to investigate ProjectWinner from Vixensoft, says David Chadwick



How many tempting projects come your way in a week? And how long do you spend putting together a quotation so that you can bid for the project? And just how accurate is the result of your calculations - or do time constraints

restrict you to a 'back of an envelope' effort.

It's a Catch 22 situation! Assuming that you'll only land a small proportion of the contracts you bid for you will be tempted to waste little time in preparing the tender documents. Errors will consequently creep in and you will either underestimate the costs, or play safe and overbudget - and lose the job! Alternatively, you may spend a lot of time preparing the budget, improving your chances of landing the contract, but at a huge cost in man-hours.

Imagine, therefore, an application that solves both of these problems - allowing you to convert many more opportunities into professional quotations in short order with a high degree of accuracy - or cutting down on the time it takes to produce an accurate budget so that the evenings and weekends can be spent with the family instead of hunched over a keyboard into the small hours.

Amazingly, the software that allows you to do this does not even require the user to sketch out a plan of the proposed project - it requires no 2D drawings or 3D models, and, even better, can make its own inferences and judgments where the contract manager's knowledge is lacking.

Sounds too good to be true, doesn't it? But the application, ProjectWinner from Vixensoft, is one of the fruits of a project that was started in Salford University over twenty years ago, as ELSIE, the government funded project developed by the Salford University and the RICS. The knowledge-based pre-design estimating application was conceived to deliver to the construction industry a tool which could surpass conventional systems and enable the user to produce accurate estimates at the pre-design stage, and is now transforming budget estimating practice.

Adopted by industry software specialist Vixensoft in 1999, the product has undergone significant overhaul and advancement and been relaunched as ProjectWinner. Today it can boast more than 70 man years of development. Recent work has been concentrated on developing the construction application, the mechanical and electrical functionality already being enjoyed successfully by leading M&E contractors such as NG Bailey, Shepherd Engineering Services, EIWHS and MITIE Scotgate.

It's all quite simple, really (he says!). The software can take a number of known facts - and make assumptions based on the properties associated with each fact using previously defined rules. It makes allowances for missing elements, making intelligent guesses about them based on what it already knows about similar elements -and it learns from its efforts, so that the next time a similar project comes round, the software is better prepared to cope with it. A bit like the



way humans deal with facts, really - which is why they call it Artificial Intelligence - except that the software has a pretty powerful computer to help it consider many more options.

How does it work for costing a building project, then? Enter the Contract Manager, and let's say the opens his mail to find a tender document for a warehouse. The information supplied is pretty limited - a given amount of storage space, the basic materials preferred for its construction, the number of staff it needs to house, and where it is to be located.

In spite of the limited amount of information supplied, ProjectWinner allows Contract Managers to start assembling costs immediately, extracting information from the two major sections of the software - the knowledge database and the cost database. The knowledge database, displayed in a box to the left of the screen, lists every type of cost element involved in a design - walls, roofs, light fittings, etc. The cost database, in another window, holds costs associated with each element, going right back to 1966, and the region in the country where the last known cost was established. Linking both the knowledge database and the cost database allows the software to calculate a cost trend for each region (it costs more to plaster a room, say, in London than it does in Hull!).

Like any decent software, either of these databases can be added to at any time, or edited. The cost database editor, however, also contains numerous other properties that can be added to the basic cost, such as substructure site abnormalities, and quality plussage (the percentage added if you want to produce a quality job!)

The user builds up a record for each project based on what the building will consist of. There is no need for a drawing. An office, say, for 10 occupants, will require a given amount of space per occupant, with associated facilities, comfort levels (central heating or air conditioning requirements), toilet facilities and so on. The office can be built as a single storey or on two or three levels - it doesn't really matter, as the difference between building



either can be compared at a later stage.

The figures aren't all plucked out of thin air. One assumes that the company has previous experience in erecting warehouses, and further assistance is provided by the software with templates covering a number of categories - leisure, residential, industrial, education and health - and the company's own efforts in developing their own questionnaires for their own specialisations.

Having put in all of the data we currently have, and asked the computer to make its own inferences where we don't have any data, we can then ask the computer to cost the project. After significant calculation, which takes little time on a modern PC, it produces its results in graph or table format (exportable to Excel), showing costs per predefined section, or perhaps as a percentage of the overall cost. That bit about significant calculation - I was shown a visual representation of the calculations required to produce the costs - with the result of each individual element calculation affecting every other. Mind boggling, to say the least - and certainly far beyond the capacity of a very experienced guy with a calculator!

And, if there is a need to change one or more of the elements, say to change the air conditioning system in the warehouse (the system can tell you if what you have is not man enough for the job), the project can be run again and a variance report provided that details the new costs for every single element.

There is also a 'Vary Option', slightly different to the above, where a number of iterations can be run to look at the costs

involved in variations to the design - looking at 2 to 5 storey office accommodation, or lighting levels from 300 to 500 lux at 50 lux intervals.

Finally, the whole set of costs can be produced in a standardised multi page report. Total time taken to produce a detailed budget? Hours instead of weeks. And the accuracy of the result? - some users quote figures within 5% or so.

ProjectWinner Testimonials

"Before we started using ProjectWinner the design brief-to-budget estimate process could take up to 7 or 8 days. In the hands of a competent estimator, ProjectWinner can allow the same work to be done in 7 or 8 hours after reading the design brief. The time saving really is that significant. It also helps us highlight cost problem areas very quickly."

Ted Groom, Estimating Manager, EI WHS Ltd. (25.10.05)

"My background is in mechanical engineering with some 14 years experience in estimating. Having made the transition into electrical contracting Project Winner enables me to produce electrical budget estimates with impressive backup information extremely quickly."

Steve Ravenscroft, Estimating Manager, Darke and Taylor Ltd (21.10.05)

"ProjectWinner is a valuable tool for construction & M&E consultants. It provides a very useful platform for early discussions with estimators and architects, and an important metre squared pricing comparison. In truth, I'm surprised it hasn't already been more widely adopted by consultants".

Mike Powers, Associate, Clancy Consulting Ltd (25.10.05)

"Sainsbury's Heating has moved from a £1.8m to £4m turnover company. We have targeted the D&B market, and rely upon ProjectWinner software for speed and accuracy. ProjectWinner is an important part of our D&B process and speeds delivery of budget estimates to our clients."

Chris Sainsbury, Managing Director, Sainsbury's Heating Ltd. (2.11.05)
www.vixensoft.co.uk