EMBRACING THE VERSATILITY OF ArchiCAD

More than 125 years of innovation. Founded in 1869 in Adelaide, Australia, Woods Bagot can certainly lay claim to being one of the world’s most experienced architectural design firms. They have grown through excellence, innovation and the desire of their 350-plus employees to constantly create quality designs.

thought.design is how Woods Bagot sum up their philosophy - one word, not two - as the fusion between these 2 complementary elements is key to the firm’s principles.

Innovation is the keystone to the Company’s CAD policy. In 1996, Woods Bagot began an evaluation of the 3D CAD solutions on the market. Following exhaustive testing of all possible products, ArchiCAD® was their 3D CAD design tool of choice.

In the following years, the Company has embraced ArchiCAD to such an extent that they have created their own customized tools using the ArchiCAD API. The Tessera add-on was the first API developed by Woods Bagot. It enables the cross-checking of room contents against the brief requirements, as well as the automated placement of furniture and equipment into zones. In large projects, the number of objects involved can be significant (20,000 or more).

"Woods Bagot is continuing to develop and exploit innovative Virtual Building™ tools – through our own internal development team, as well as our membership of the Australian Government’s Cooperative Research Centre for Construction Innovation, and the International Alliance for Interoperability," says David Marchant, Woods Bagot’s Global IT Manager.
"ArchiCAD has been the catalyst for substantial change in our business."

Fergus Hohnen, Woods Bagot Melbourne Studio IT/CAD Manager

Photo-realistic visualizations
Fast forwarding to 2004, ArchiCAD is now the core of the Company’s design processes. “The Virtual Building model gives us the capacity to provide high quality imagery/renderings at any point in the project, and using a range of rendering tools including ArchiCAD’s own in-built rendering engine,” says Fergus Hohnen, Woods Bagot Melbourne’s IT/CAD Manager. "ArchiCAD allows us to communicate more clearly, easily and far earlier in projects than tradition has dictated."

Skilled, compact design team
For the Southern Cross project, the Company built a design team with a core of four people. During the various phases of the project, the team swelled to 25 people at peak periods, with 12-14 dedicated CAD staff. “The only comparative project I know of was documented by 40 people using 2D tools,” adds Hohnen.

Great marketing material as a welcome by-product
The same team was able to produce invaluable marketing material to support the developer and builder, SX Developments Pty Ltd/Multiplex Developments and Multiplex Constructions. This was generated directly from the Virtual Building – the 3D model at the core of every ArchiCAD design.

"ArchiCAD has enabled us to integrate design, documentation and presentation throughout the entire Southern Cross project,” states Gordana Ticak, Project Director, Woods Bagot.

Greater design definition
The Virtual Building model enabled Woods Bagot to provide more detailed resolution and documentation of key areas of the project. "At the lower level, the Southern Cross façade is relatively complex,” adds Fergus Hohnen. "The Virtual Building improved our understanding of many complex junctions and thus our ability to accurately depict the design."

Overhead reductions
ArchiCAD proved itself to be a versatile design tool during the Southern Cross project. Not only was it able to add value to the project by providing very convincing marketing materials, it was also capable of reducing costs significantly. By using automatic
labeling, a coding exercise, scheduled to be 40 person-hours was reduced to just 8 person-hours. On another project, 240 person-hours were booked for a 7,000m², 5-story interior design fit out. On the actual project, this was decimated to just 60 person-hours by exploiting ArchiCAD’s scheduling tools.

Comprehensive support
On a project of this scale, 78,000+ m², there were inevitably technical issues and challenges arising. Graphisoft prides itself on its level of customer support and assistance. With a very capable reseller, arkiTech (now Graphisoft Australia), Graphisoft was able to resolve any such issues. “Our support from both Graphisoft and arkiTech on the Southern Cross project has been exceptional,” praises Hohnen. “It has been reassuring to know that we have had the technical expertise of both companies to assist with difficulties. Both parties have been extremely proactive in providing solutions to specific issues.”

Deadlines delivered
As a result of all the savings and streamlining detailed, Woods Bagot was able to comply with a very challenging deadline schedule. The challenges may have been insurmountable with other ways of design. “We could not have achieved many of the deadlines on the Southern Cross project using traditional 2D documentation methods,” says Gordana Ticak, Project Director, Woods Bagot Melbourne.

“A dedicated Woods Bagot Southern Cross Design team has delivered a high standard of documentation and 3D marketing presentation material on the project due to a streamlined approach, which enabled the team to meet a very challenging design and construct program,” concludes Chris Wanless, SX Developments Superintendent.