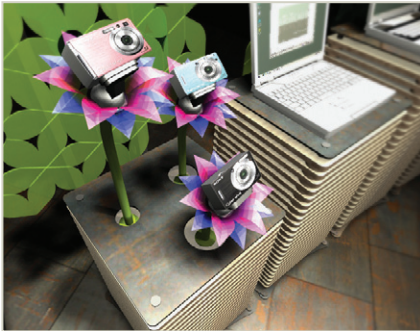


by Helen Morse

A Fitter shop fitter: AM System UK uses BIM to design Sony stores

AM System UK (AM) is using the latest in 3D building information modelling (BIM) techniques to most effectively design and deliver all sizes of store and concession for client Sony and other leading electronic goods, sports and footwear retailers. Projects range from small concessions within shops to flagship Sony Centres such as the one recently opened in London Heathrow, Terminal Five and innovative uses of unusual sites such as that at Scotch Hall shopping centre in Drogheda, north of Dublin.



Sony Centre in London Heathrow.

But AM is not an architect; it is a retail fit-out and manufacturing company.

“Retail interior design is no longer simple shelving systems,” says Helen Morse, design department manager at AM. “Shop interiors are becoming far more sophisticated and architectural. “All of this means we need to have more control over our designs and we have to be able to explain their intricacies to the client in a way that is easy to understand. 3D design enables us to model the space and design the store with amazing accuracy: it also allows the client to see clearly what they’ll be getting right from the start.”

3D allegiance

Based in Leicestershire, AM has been operating for 50 years. It was originally part of a company based in Denmark. As digital design took off the Danish operation worked on AutoCAD. However, AM investigated its 3D design capabilities and found that converting from 2D to 3D proved very time consuming.

Although many of its sub contractors and some architects still work in 2D, AM has been a user of ArchiCAD’s 3D model-based design capabilities for some time. Morse says: “We found that Graphisoft’s ArchiCAD software was far more efficient and easier to use when converting from 2D to 3D. Its design capabilities are also of paramount importance. Even when an architect supplies us with 2D data for the shell of a retail unit we remodel it in 3D before designing the store inside it. The work then progresses seamlessly from concept to detailed design stage using the same 3D model, and, if contractors need 2D drawings we simply output them, and any required detail data, from the model.”

Plane sailing

One example of the benefits of this approach is AM’s long running store design relationship with Sony. The electronics giant has opened a flagship store in Heathrow Terminal Five and its innovative design has been made possible by the unique communicative abilities of ArchiCAD.

“The T5 store is very different to any other,” says AM’s senior designer Julian Collinge. “Its design is based upon the idea of a technology garden: an experiential area where travellers can interact with products and get information on Sony’s latest film and music releases, too.”

Not instantly recognisable as a shop, the store’s design uses elements such as a glass floor and technology trees – 2.1 m high data/power connected stands showcasing the latest mobile phones, computer games and gadgets – none of which is the norm in the regimented world of airport retail interiors.

“ArchiCAD enables us to create a progressively more detailed model that is the centre of all decisions. It negates redrawing the design following each amendment; cuts out misunderstandings; and means that we alleviate problems with the client or planners not knowing what they are getting until it is built.”

Julian Collinge – Senior Designer at AM



Sony Centre in London Heathrow.



“ArchiCAD’s 3D capabilities enabled us to explain to both Sony and British Airports Authority (BAA) that the design would look good and be of no danger to the public in an emergency,” says Collinge. “We had to show that the stands wouldn’t block sight lines; that the glass floor could be reconfigured easily; that the space would work visually from all perspectives, etc.” AM did this by creating a fly-through in ArchiCAD of the space and its surroundings. The designs were approved on aesthetic grounds and also met all BAA airside security/safety checks.

“Our concept model, which first sold our ideas to Sony and BAA, went on to become the full store design. Using BIM we are able to evolve the model, modifying and adding to it as the project progressed. At Heathrow it was used at all stages of the design including getting approvals from the airport authority,” says Collinge. “This way of working is really beneficial because it enables you to see the link between the design and the finished store. ArchiCAD enables us to create a progressively more detailed model that is the centre of all decisions. It negates redrawing the design following each amendment; cuts out misunderstandings; and means that we alleviate problems with the client or planners not knowing what they are getting until it is built.”

From big to small

In contrast to flagship projects such as the one at Terminal Five, AM also undertakes the design and manufacture of smaller but no less challenging stores such as the 80 sqm Sony Centre in Scotch Hall, Drogheda, 35 miles north of Dublin.

The Scotch Hall store has been widely acclaimed for its innovative design that strays outside of the conventional retail unit layout. “It was a particularly challenging site to design a store for,” says Collinge. “Set against a Grade One listed stone wall and with a 20 m high ceiling, the store is like no other and it was only through using 3D

AM System is a creative design consultancy, working with some of Europe’s leading brand holders and retailers. Established in 1958, AM System has created some of the most successful retail outlets in their respective fields in Europe. AM System work in partnership with their clients, constantly reviewing how the retail design fits with current best retail practice and changing display requirements.

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modelling that we could fully explain our concept to Sony, the Retailer and the shopping centre Manager.

“At first people were sceptical but by working through the ArchiCAD model with them, we were able to show how we’d design around the listed façade and provide the necessary services without running them above a ceiling as is normally the way.

“AM worked with the client and safety inspectors to design and then amend the 3D model to alleviate fears about things including fire safety and security. We created a fly-through and also interrogated the model to ensure that there were no services clashes. It all worked out perfectly.”

Making concessions

Concession displays within department stores are a big part of Sony’s national coverage but they are only small in terms of size. “We have to be able to roll them out quickly and cost efficiently,” says Morse. “Our solution is an ArchiCAD conversant sales/design person, who goes to site, surveys, designs and costs a concession on the spot. The clients love it because they can see the process and get to navigate through the model to see the view from the checkout or positioning of stands, for instance. For us, it saves immense amounts of time and often pulls in extra work, as the clients ask us to design other parts of the store.

“It is this ability to sit in front of clients or hold on-line design sessions to work through a design that is probably the most important part of ArchiCAD for me. The software is easy to use; the client can understand 3D better than 2D; we can work out problems quickly and easily; the client enjoys the interactivity and the feeling of having input into the design; and, if they want us to experiment with the design we can do it there and then.”

Sony Centre in Scotch Hall, Drogheda.



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Helen Morse – Design Department Manager at AM

Collinge says: "We aren't architects and we don't use some of the features of ArchiCAD that they do. However, 3D model-based design is integral to the way we work and our success. There will always be those in the construction industry who are more comfortable working in 2D but if you want to connect properly with everyone – clients, planners and sub contractors – 3D model-based design is definitely the way to go."

Helen Morse is Design Department Manager at AM. www.amsystem.co.uk



Sony Centre in London Heathrow.

About Graphisoft

Graphisoft is the pioneer and leader in developing Virtual Building™ solutions. It is widely acknowledged as the world's #1 supplier of model-based software and services for the building industry. Our clients are at the forefront of the industry – delivering projects that are better designed, more predictable to construct and less expensive to operate.

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