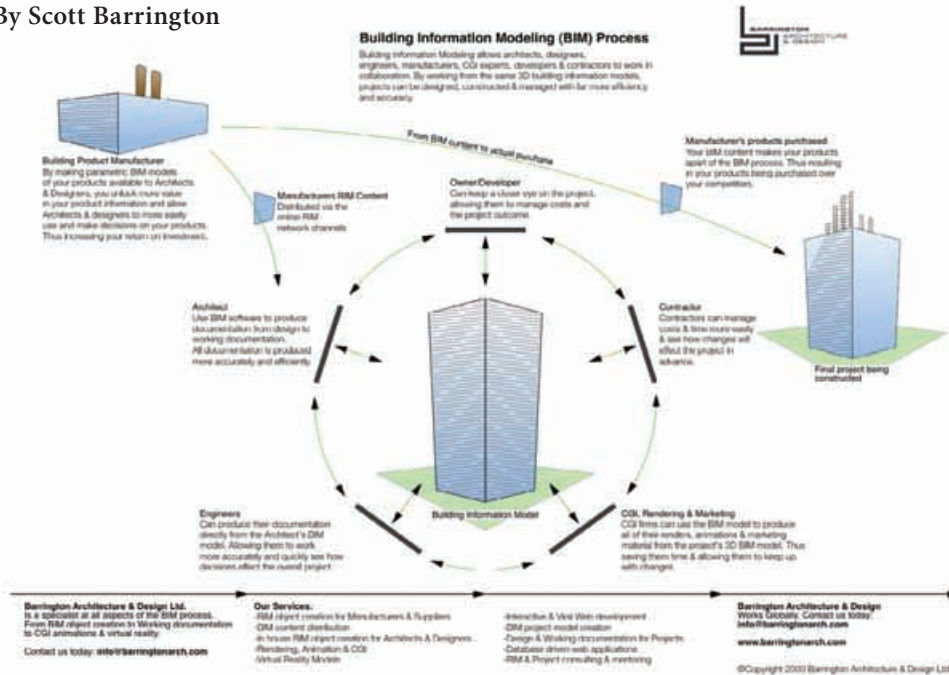


# BIM explained

By Scott Barrington



## The BIM process

Building information modelling (BIM) is currently a buzzword in the architectural and construction industry, and is the process of producing virtual (digital) building models on a computer which are then used to produce the documentation for the project. BIM software is currently being adopted three times faster than 2D CAD software was in the

early 1990s.

There are a few different brands of BIM software available, such as ArchiCAD, Revit and Vectorworks. ArchiCAD is currently the most widely used in New Zealand, with around 45 percent market share.

BIM provides a number of benefits to people and companies at all stages of the building process. The problem most companies

experience is coming to terms with BIM and correctly understanding how it affects them.

## Architects

BIM software is used by architects and designers from the initial design concept to working documentation. This allows the initial time that has been invested in the design process to be transferred through into the



This large commercial building was recently completed in Blenheim; designed by West & Tritt Architects in Christchurch, it was modelled in ArchiCAD, one of the most widely used BIM software programs in New Zealand

working drawing stage, thus speeding up the entire process. All the building documentation is taken from the BIM model, which enables it to be produced more efficiently and accurately and allows far more technicians to work collaboratively.

## Engineers/consultants

The 3D virtual BIM models can be accessed by and exported to work with the software used by structural, MEP and thermal engineers. Once again this allows all parties to work in collaboration, meaning

documentation is produced more accurately. This saves time during the final building process as everything is modelled in 3D, and any issues can be sorted out before construction starts.

## Building product/component manufacturers

BIM provides manufacturers a chance to unlock more value in their product information. By producing and making available parametric objects of their products, it allows architects and designers to use and make

decisions on manufacturers' products more easily. All BIM content can then be distributed via a variety of internet channels, which allows product data to reach the market more quickly.

## Developers/owners/clients

Through using BIM modelling, developers and owners can keep a closer eye on the whole construction process, allowing them to manage costs and the project outcome. BIM 3D models can then be exported for use in marketing materials. Commercial projects can also use the BIM model as part of their everyday building management system, thus making the BIM process a very valuable part of the building's life cycle.

To summarise, BIM is all about increasing the flow of information and allowing greater collaboration.

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