

# Investing in construction quality

The beauty of BIM is that it streamlines construction to deliver better and more cost-effective buildings. For this, it must have quality information, making a regularly maintained specification database essential.

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**A CURRENT CHALLENGE** for the construction industry is improving the creation, delivery and use of project documentation.

Quality specification data, how this information is then delivered to specifiers and the quality of tools that turn this data into construction-ready project documentation all require attention.

## ***BIM is the enabler***

BIM (building information modelling) offers an exciting future solution for our industry, but it requires the highest quality of data to realise its potential.

Key deliverables are accurate and complete construction specifications, coordination of specification data and project drawings and confirming how products comply with the New Zealand Building Code. Training at tertiary, trade and professional levels is another essential element.

A number of industry organisations, including Registered Master Builders Association and New Zealand Institute of

Architects (NZIA), are investigating how best to meet these challenges. They are achieving this through direct investment and by partnering with overseas organisations such as NBS (UK) and Natspec (Australia).

## ***Creating quality specs***

An aim for both industry organisations is developing the technology to create accurate, up-to-date and project-specific specifications. The challenge is gaining broad industry acceptance of the need for improvements in quality while providing a verifiable and dependable source of construction information. This includes:

- accurate, up-to-date specification data
- a means of delivering this data to specification writers
- a way to manipulate this data, quickly and accurately
- an ongoing, live connection with those producing specifications, to ensure data always meets current standards, codes and changes in technology

- a method of providing viable links between specification data and other construction documents, including drawings, whether CAD or BIM based.

## ***Specification database needed***

A key requirement is a rich, constantly maintained specification database, which specifiers access through an intuitive interface. This should be partnered with intelligence and guidance to allow the rapid creation of a dependable and fully customised project specification that complies with industry best practice and the Building Code.

Using keynoting, integrated with leading information modelling software such as Revit and Archicad, specification data is coordinated with and connected to project drawings.

By adding the ability to connect specifications and drawings to data on construction products, all essential project information can be fully coordinated.

A parallel requirement is the ability to connect online with those creating and using the project documents. This ensures that:

- users access only the latest and most complete information
- those with special requirements, such as volume builders and designers providing specialised services, can ensure their own office masters remain in line with changes in standards, codes and industry best practice.

### **Industry collaboration**

A pan-industry discussion on BIM is in progress to ensure that BIM technology leads to industry-wide collaboration on construction projects.

This effort is supported by the BIM Acceleration Committee and involves:

- New Zealand Institute of Architects
- Institution of Professional Engineers New Zealand

- New Zealand Institute of Building
- New Zealand Institute of Quantity Surveyors
- Specialist Trade Contractors Association.

### **Object library necessary**

A key element in a BIM-based future is a trusted library of construction objects that meets the needs of leading CAD systems. Significant investment will be needed to achieve such an object library. However, technical reference group workshops have been held among leading industry organisations in the UK, New Zealand and Australia.

The intention is to develop an international BIM object standard, creating a core international standard suitable for use within all three countries.

Recognising that local and regional requirements differ, a localised and regional Part B will be added to the standard. This

allows other countries to use their own localised and regional Part B, with the core standard remaining unchanged.

### **A quality future**

Improved quality is the aim, and the tools offering the ability to link specifications, drawings and other related project data are now available. If project documents are to meet the needs of a technology-rich future, everyone must accept the need to improve the quality of construction documentation. They will, by using the new tools and the information sources they connect. ◀

Patrick Clifford, former NZIA President and NZIA gold medallist notes:

'The sector needs information it can rely on, delivered using tools that ensure quality documentation.'