

A PATHWAY TO BIM IMPROVING RESIDENTIAL CONSTRUCTION PRODUCTIVITY

Nick Clements

1. bisco Ltd

Abstract

We are asked regularly, "Why can't you scan these plans and give me a bill of materials?"

Unfortunately paper drawings are too dumb for this but the that CAD packages produce them are smart so why not go straight to the source and get the what you need? This is Building Information Management or BIM.

Residential building is around 50% of NZ construction so is key to improving construction productivity.

There are many challenges to implementing BIM into residential construction:

- It is highly fragmented and most companies build less than 10 houses per year
- Construction partners often change project by project
- Communication between parties is fundamentally paper based
- Participants often have low IT skill and IT adoption
- Poor quality estimating and cost tracking are common
- The builder is often determined after the design phase so has no input into BIM model
- Projects are short duration limiting the ability to invest in communication between parties

Understand why it is important that BIM penetrates deeply into NZ residential construction and why achieving this is difficult.

See how implementing BIM solutions into the residential housing supply chain can improve productivity.

Understand the challenges involved including, technology, business process, data requirements, and operator skills for both BIM and non-BIM authored projects. Appreciate the benefits that customers' have realised from these tools. Learn the infrastructure, business processes change, and information requirements to generate construction costs, labour and equipment requirements, project plans, directly from a residential housing BIM model.

The Building Integration Software Company Ltd, (bisco) are a specialist BIM software development company working to unlock information held in the design BIM models and make it transparent through the construction process. Achieving this has taken them close to 10 years of research and development and including 25+ collaborative research projects with local universities and technical institutes.

References

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Nick Clements – nickc@bisco.co.nz

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