

New software for code compliance

Does your new office or house design comply?

DesignCheck will tell you

Australia's building codes are many and complex and non-compliance can be expensive.

For one high-residential building the wrong answer cost \$5 million in design and construction changes.

For house builders, getting the details right can mean many visits to the local council to negotiate approval.

Dr Lan Ding has the solution – an automated design checking system – DesignCheck – that quickly assesses if a building design meets the requirements of Australia's new building disabled access code. The system was developed by Lan, and a team of Sydney and Melbourne researchers from the Cooperative Research Centre for Construction

Innovation. Lan has turned the codes into a readable format and then automated the checking process.

"It's a stunning achievement that could dramatically streamline the building design process," says Moshe Gilovitz, Director of Victoria's Building Commission.

"The DesignCheck software tool assesses building designs against complex building codes. Through early identification of potential problems, the software overcomes inefficiencies in code compliance checking by reducing both time and cost," said Dr Keith Hampson, of the Construction Innovation CRC.

Lan says, "For example, when designers load a sketch design file into DesignCheck, it allows a path of travel to be checked against accessibility by the disabled."

"When a detailed design is loaded, door type, door width, handrail height etc. can be checked.

"If designers would like to check more details such as fittings in a disabled toilet, they can be checked through specifications."

According to David Marchant, IT Manager for international architects Woods Bagot, "The tool will benefit designers as it enables us to analyse a virtual model.

"We can check our code requirements at different stages of the design right up to when we hand it over to the client. They then have the same opportunity during ongoing use and maintenance of the building in being able to check how various changes to the design interact with the codes." DesignCheck will also be useful to building certifiers, consultants, building code authorities and specification writers.

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