UNSW SYDNEY | Australia's Global University

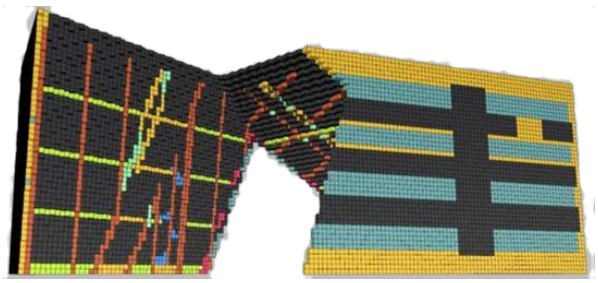
3D modelling for the Digital Twin

Faculty of Built Environment /GRID lab

EXPERTISE

3D integration of BIM and GIS
3D integration of above and below surface
3D indoor modelling and navigation
Voxel modelling
3D Data structures
3D Database Management Systems

Patent US8504292: Indoor localization based on ultrasound sensors



SELECTED RECENT PROJECTS

Walking in Point clouds
Indoor/outdoor navigation
Indoor/outdoor navigation UNSW
3DSDI for the Port of Rotterdam
SIMs3D Indoor
3D underground

http://grid.unsw.edu.au

COMPETITIVE ADVANTAGES

We make 3D models suitable for 3D analysis:

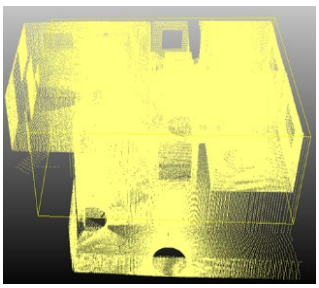
Semantically-rich: objects/assets have a well-defined identity and meaning expressed by their name and properties.

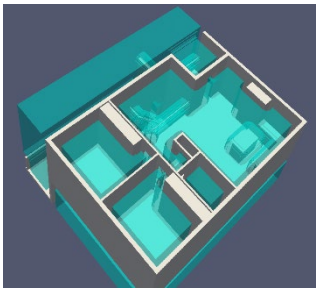
Geometrically-rich: objects/assets can be represented by different geometric primitives, level of details or resolutions and dimensions

Topologically-correct: objects/assets are valid against certain geometrical and semantical rules

Well-structured: objects/assets are organized in domain data structures representing relations within domains and links between the domains.

We are preparing the foundations of the Digital Twin





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