

“Mapping Planners Information Visualisation Requirements”

Guillermo Aranda-Mena + William Sher + Rod Gameson + Peter Ward

University of Newcastle [CRC-CI CPW] 26 October 2004



- Background
- Study
- Scenarios



Project Background



Gerry Shutt
Senior Manager
Knowledge Management

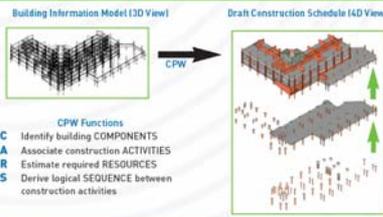
David Marchant
Senior Associate
Manager, Information Technology - Global



Construction Planning Workbench (CPW) 2002-056-C



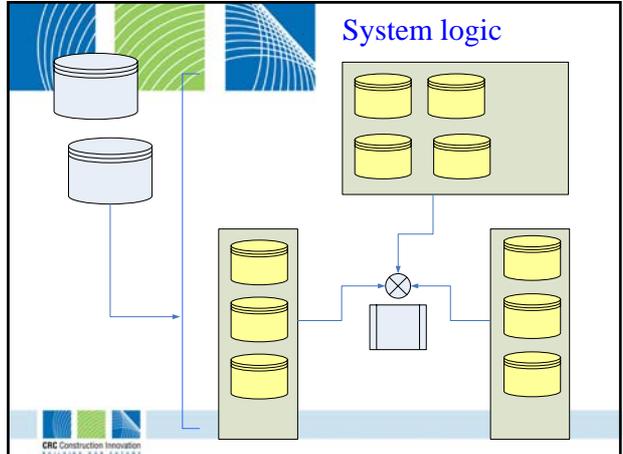
Objective
To investigate the feasibility of automatically generating a draft construction schedule from a 3D building model stored in an IFC database.



Integrate planning and design software



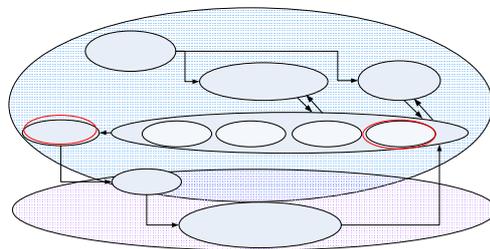
System logic



Study and Results

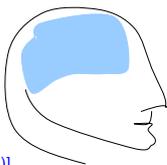


Study



Knowledge capture

- Interview schedule
- Woods Bagot and John Holland [Sydney + Newcastle + Melbourne + Canberra = (11)]
- Interview analysis: content analysis
- Closed workshops with CRC Industry Partners [Sydney + Melbourne + Brisbane = (33)]
- Results validation and strategies for implementation

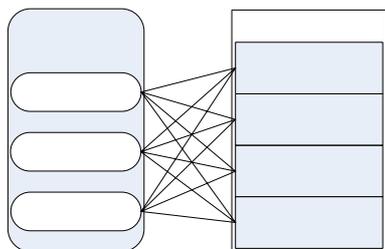


Interviews

- 11 In-depth interviews
 - + Strategic decision makers
 - + Planning and design consultants
 - + Construction planners and
 - + Contract managers
- Focus Groups
 - three workshops [33 participants]



Cross Referencing



Content Coding



Content Coding

The screenshot shows a software interface for content coding. On the left, there is a list of text elements with checkboxes and labels. On the right, a larger window displays a selected text element with a red box highlighting a specific part of the text. Below the text, there are various settings and options for coding.

Data analysis

A graphic featuring a stylized grid pattern in blue and green on the left side. The text "Data analysis" is centered in a blue font.

Relational Grid: Product / attributes

Elements: 11, Constructs: 9, Range: 1 to 9, Context: Information-Visualisation Requirements

Left pole (low ratings – light clusters) clusters

Right pole (high ratings – dark clusters)

The diagram shows a grid of elements (1-11) on the left and constructs (1-9) on the right. Lines connect elements to constructs, indicating relationships. A legend indicates that a red circle represents a linkage of 75% or above.

Variation Grid: Interview / feedback

CRC_01+ consensus-with CRC_01. Expected future for information-visualization: darker clusters refer to stronger change expectations (lower left corner).

The diagram shows a grid of elements (1-11) on the left and constructs (1-9) on the right. Lines connect elements to constructs, indicating relationships. A legend indicates that a red circle represents a linkage of 75% or above.

Scenarios

A graphic featuring a stylized grid pattern in blue and green on the left side. The text "Scenarios" is centered in a blue font.

Results: scenario_01 Use of software alignment

The diagram shows a grid pattern with a central point. A red line connects the center to a point on the right. A blue arrow points from the center to the right. A blue arrow points from the center to the left. A blue arrow points from the center to the top. A blue arrow points from the center to the bottom. A blue arrow points from the center to the right. A blue arrow points from the center to the left. A blue arrow points from the center to the top. A blue arrow points from the center to the bottom.

