



National Plumbing Regulators Forum

Industry Outlook

AMCA BIM-MEP ^{AUS} Initiative

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AMCA

8 MARCH 2011



Agenda



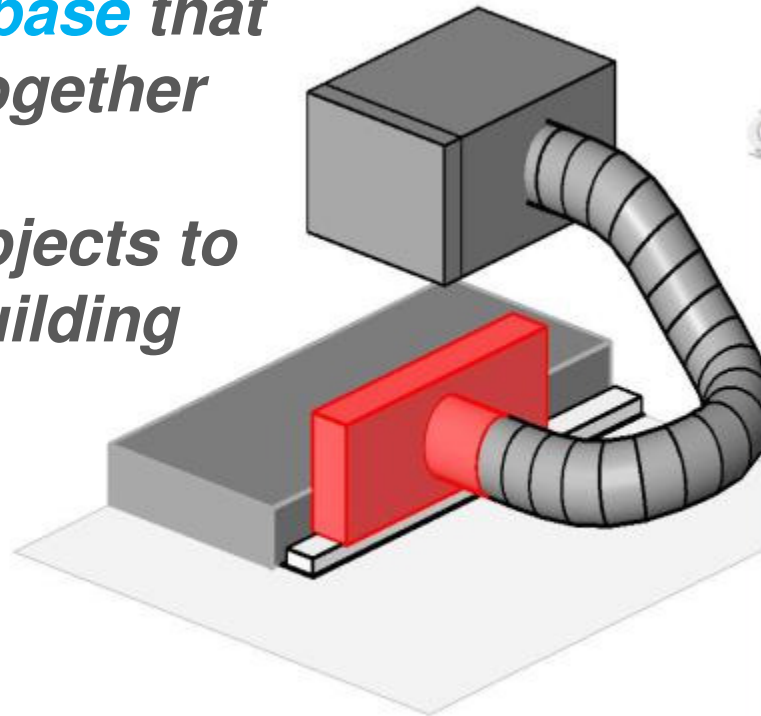
- BIM/IPD/SCI Key Concepts
 - Building Information Modelling
 - Integrated Project Delivery
 - Supply Chain Integration
- Key Issues
- Purpose of BIM-MEP^{AUS}
- Overview of the system and how it works
- Industry Stakeholder Benefits



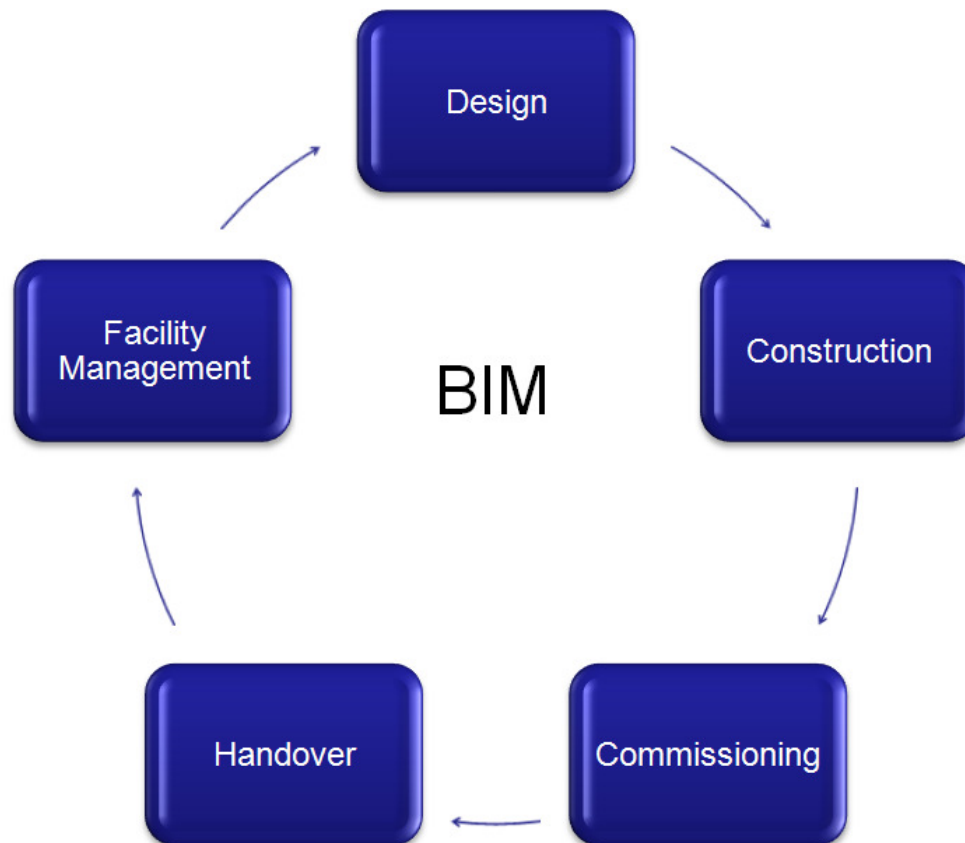
Building Information Modelling



“A building database that uses data files together with intelligent parametric 3D objects to represent the building elements”



BIM Workflow Concept



BIM / IPD

- Applications
- Integrated Project Delivery
- Supply Chain Integration
- Asset Life Cycle Management

Integrated Project Delivery



- Collaborative Design / Construction Strategy
- IPD Management Plan

- Data and Information Sharing
- BIM Execution Plan



Supply Chain Integration



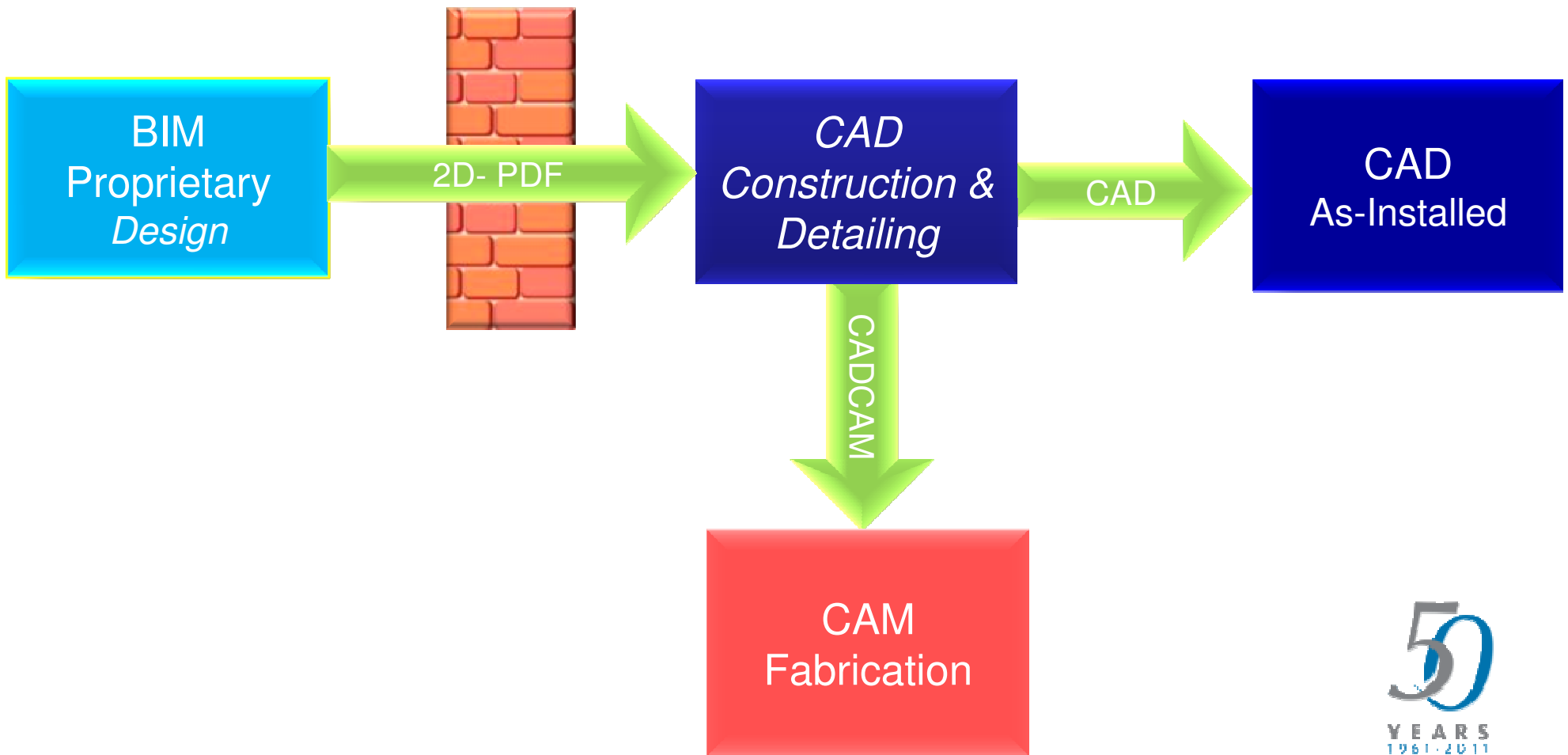
- Integrated Design
 - With Building
 - Services
 - Access & Maintenance
- Off-site Manufacture
- Benefits
 - Shortened Programme
 - Reduced Costs
 - Quality
 - Safety



Challenges to BIM / IPD Implementation

- **Proprietary BIM**
- **Design BIM vs IPD BIM**
- **Model content**
- **Establishment of Industry Standards**
- **Engagement of supply chain**
- **File Size/File Management**
- **BIM to Fabrication Conversion**

BIM CURRENT WORKFLOW



Purpose of BIM-MEP^{AUS}



- Enable smarter IPD Workflows within Projects through industry level standards
- Align industry supply chain to support BIM
- Improve collaboration through all phases of the project
- Reduce costs and risks for all parties involved in the services supply chain
- Deliver better client outcomes



- Vendor Independent
 - Collaborative
 - Inclusive
-
- MEP package customized to Australian and Industry Standards and workflows

BIM-MEP AUS System



BIM MEP AUS



Software

BIM MEP AUS Models



Content

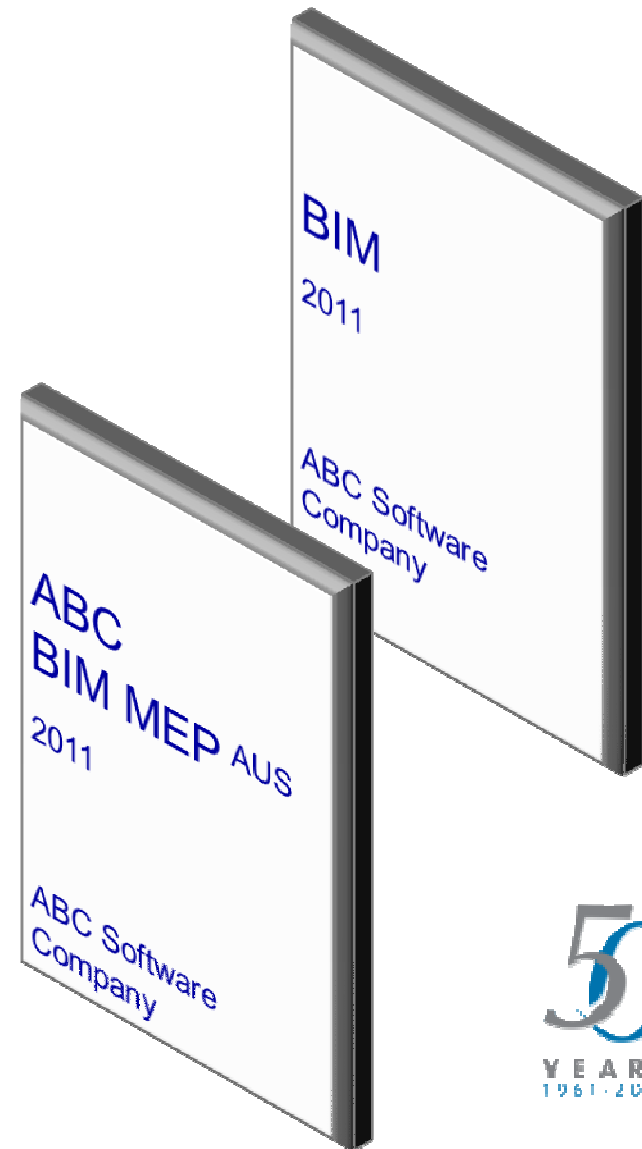
BIM MEP AUS Workflows



Workflows



- Duct and Piping Libraries
- Equipment Parametric Models
- Embedded Documentation Standards and functionality
- Embedded Regulatory and Australian Standards
- Industry Standards
- Designed for IPD
- Designed for Supply Chain Integration



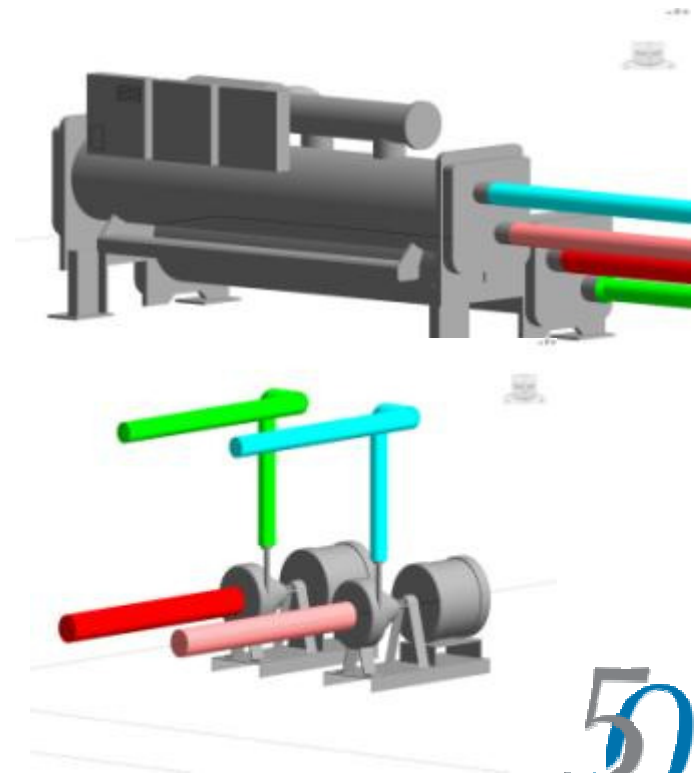
- Modelling Techniques
- Naming Conventions
- Coordination Methodologies
- Standards

Benefits

- Reduced cost to implement and maintain BIM
- Best of Breed BIM Software
- Consistent industry documentation standards
- Supports application development
- Energizes IPD
- Energizes Supply Chain Integration

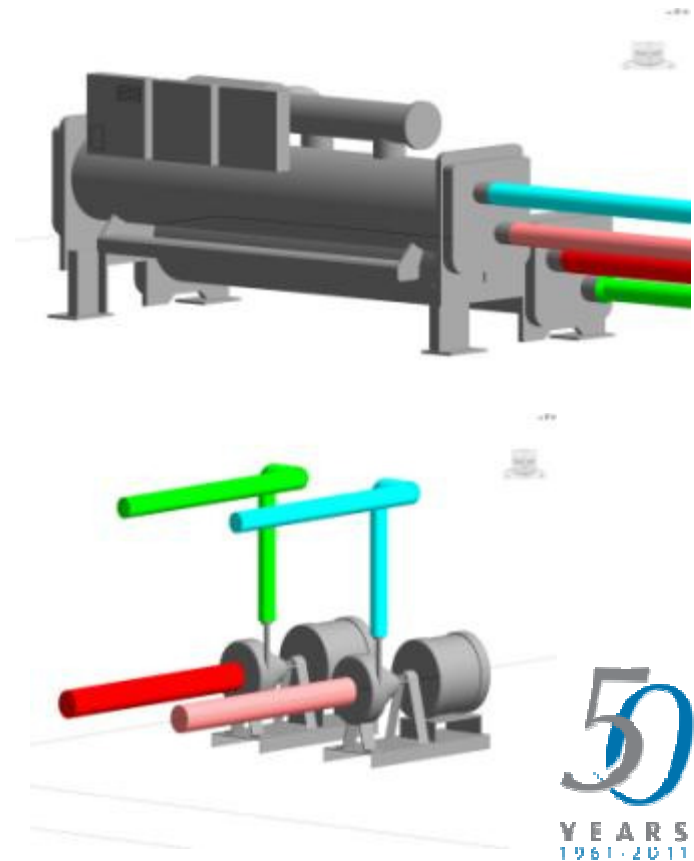


- Software Model Content Guide
- Agreed Data Sets
 - Design
 - Procurement
 - Commissioning / As Built
- Interchangeable with generic parametric models
- Tested and certified to BIM-MEP^{AUS}
- Certified Models

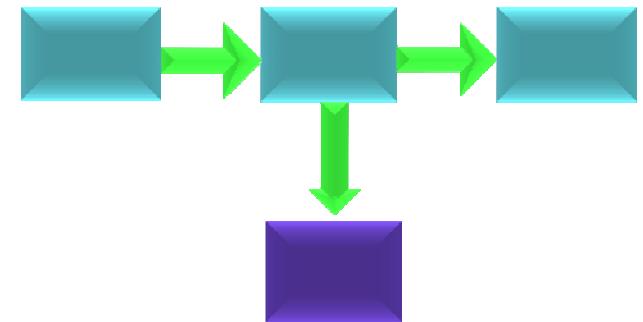


Benefits

- Reduced cost to implement and manage BIM-MEP for product suppliers
- Reduced Cost to document in BIM
- Best of Breed BIM Content Models
- Model Interchangeability
- Design/Procurement/Commissioning



- Detail Work flows and processes to cover a range of project delivery models based on IPD
- Vendor independent but vendor specific



Benefits

- Enables Improved IPD and Collaboration
- Enables Supply Chain Integration
- 2-3% Project Cost Saving on Construction Documentation

Actions for 2011



DELIVERABLES

2011 MILESTONES

- | | |
|---|---------------|
| 1. BIM-MEP ^{AUS} Project Management Software | Completed |
| 2. Spatial coordination guidelines for industry | 31 March 2011 |
| 3. BIM execution plan | 31 March 2011 |
| 4. BIM-MEP ^{AUS} website/ Marketing the Initiative and Strategy | 31 March 2011 |
| 5. Project methodology and appointing working groups of the BIM Steering Committee to develop components | Feb-June |
| 6. Appointing accredited model builders for industry suppliers | March-June |
| 7. Finalising the BIM-MEP ^{AUS} standards, model standards and workflows | March-June |
| 8. Releasing the BIM-MEP ^{AUS} workflow solutions (REVIT MEP ^{AUS} , FAB-MEP ^{AUS}) | March-June |
| 9. 2011 AMCA BIM Industry Forum | 27 July 2011 |
| 10. Developing BIM 101 training courses | September |
| 11. Incorporate BIM education into current AMCA Development Courses | September |

