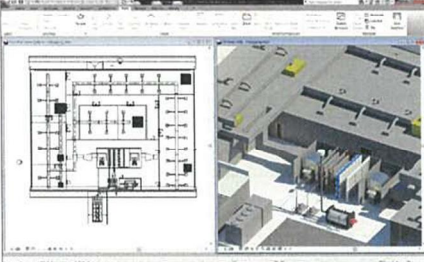


 **BIM-MEP<sup>AUS</sup>** 

Design and construction world is moving to BIM




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 **BIM-MEP<sup>AUS</sup>** 

Why BIM-MEP<sup>AUS</sup>?

- Launched by the Air Conditioning Mechanical Contractors Association of Australia (AMCA) in 2010.
- An industry initiative addressing the barriers holding back the adoption of IPD and BIM in the Australian building services sector.
- Providing practical solutions developed through collaboration among key Australian building services practitioners and peak industry bodies.
- Formed a whole of industry Steering Committee including architects, head contractors, consultants, specialist sub-contractors, equipment manufacturers and suppliers.
- Developed standards and protocols as well as developing a related BIM object library with managed content.
- Formed user groups throughout Australia to progressively improve tools and the needs of the industry.
- Set a pathway for Mechanical contractors' to adopt Revit for whole lifecycle.

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 **BIM-MEP<sup>AUS</sup>** 

BIM MEP<sup>AUS</sup> - National Industry Initiative

- BIM (Building Information Modelling) is the cohesive creation of 3D building designs
- BIM allows the sharing of design, procurement, construction, operational and maintenance information across the project workflow and building lifecycle.
- The national BIM MEP<sup>AUS</sup> Initiative is an industry wide 'standard practice' for BIM.
- BIM MEP<sup>AUS</sup> achieves this standard practice by incorporating Australian standards and industry best practice into BIM MEP<sup>AUS</sup> specification documents.
- The BIM MEP<sup>AUS</sup> specification documents provide instruction on consistent modelling techniques plus the technical syntax for the BIM MEP<sup>AUS</sup> shared parameters within Autodesk Revit software.
- The BIM MEP<sup>AUS</sup> shared parameters within Revit allows standardised information sharing and communication across the project workflow and building lifecycle.

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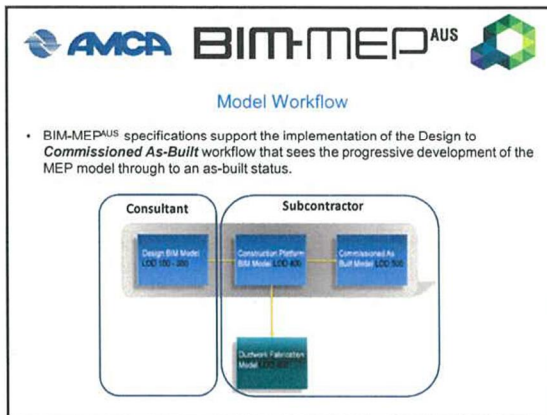
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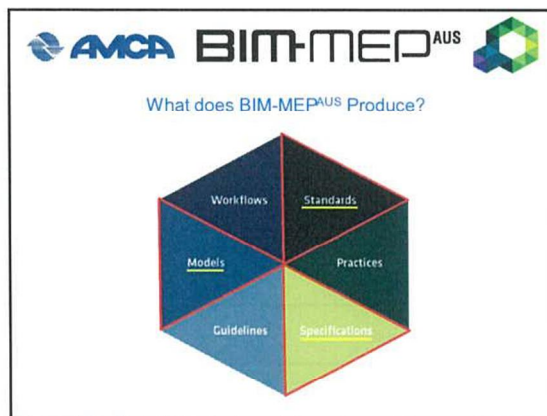
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**BIM-MEP<sup>AUS</sup> Specifications**

- Target to publish 15 specifications this year
- Combination of AMCA running the specification workgroups and utilising support directly from AMCA members and industry

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**BIM-MEP<sup>AUS</sup> Workshops**

Some examples of recently completed BIM-MEP<sup>AUS</sup> workshops:

- BIM-MEP<sup>AUS</sup> National Chiller Specification
- BIM-MEP<sup>AUS</sup> National Fan Coil Unit Specification
- BIM-MEP<sup>AUS</sup> National Adjustable Pitch Axial Fan Specification
- BIM-MEP<sup>AUS</sup> National Centrifugal Pump Specification
- BIM-MEP<sup>AUS</sup> National Mechanical Piping Specification
- BIM-MEP<sup>AUS</sup> National Water Cooled Electric Chiller Specification
- BIM-MEP<sup>AUS</sup> National Ductwork Internal Lining & Insulation Wrap Specification
- BIM-MEP<sup>AUS</sup> National Fire/Smoke/Volume Control Damper Specification
- BIM-MEP<sup>AUS</sup> National Rectangular & Circular Attenuator Specification

Some examples of BIM-MEP<sup>AUS</sup> workshops in progress:

- BIM-MEP<sup>AUS</sup> National Air Handling Unit Specification
- BIM-MEP<sup>AUS</sup> National Fan Coil Unit Specification
- BIM-MEP<sup>AUS</sup> National VAV Unit Specification

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**BIM-MEP<sup>AUS</sup> Deliverables**

- MEP Industry Standard
  1. BIM-MEP<sup>AUS</sup> Specifications
    - MEP Modelling Guidelines
    - BIM-MEP<sup>AUS</sup> Shared Parameters
  2. Autodesk Revit BIM-MEP<sup>AUS</sup> Software Solutions
    - BMA Revit Add in Template for Modelling Guidelines
    - Industry Foundation Models – Generic Design Content
    - Manufactures Certified Models
    - Fabrication Models

*design content*

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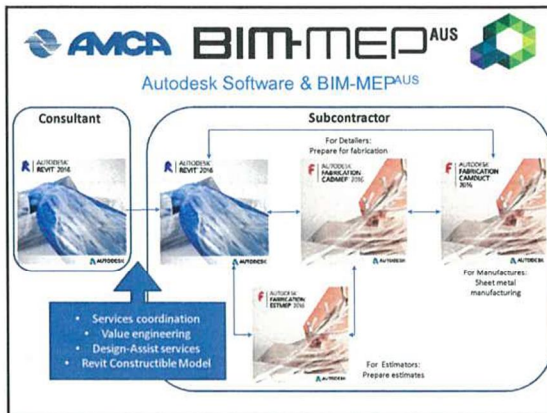
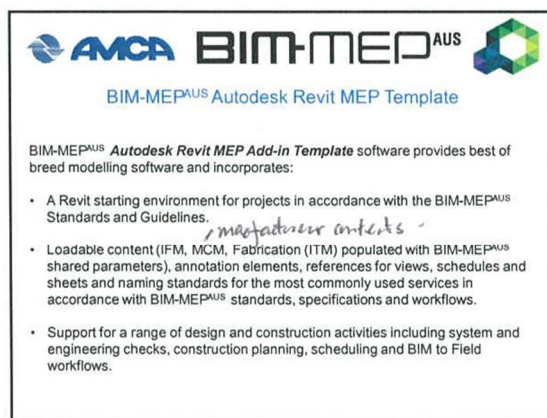
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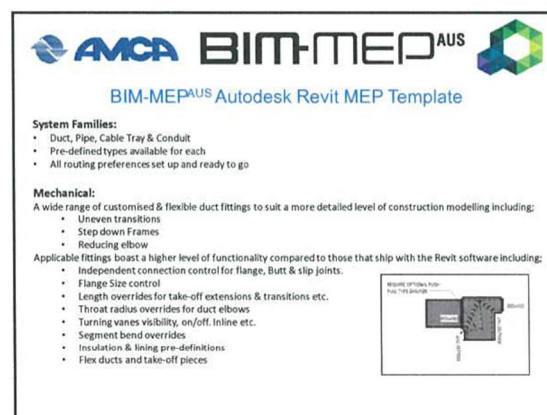
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### BIM-MEP<sup>AUS</sup> Autodesk Revit MEP Template

**Piping & Hydraulics:**

- Full range of Victaulic Pipe types including a customised IPS-AGS hybrid pipe setup
- Full uPVC pipe system for drain waste and vent (DWV) drainage applications including a variety of bends and junctions, multi-way risers, inspection openings, level tapers, reducers, traps and cowls.

**General Items Common to all disciplines:**

- Pre-defined duct & pipe System types
- Pre-defined view templates for all services
- Pre-defined view filters for all services
- Pre-defined line weights & hatch patterns for documentation.
- A range of typical tags pre-defined with applicable parameter labels
- Consistent Detail level display fine/medium/course
- Consistent naming conventions throughout the template for a more user-friendly experience

**Schedules & Shared Parameters:**

A detailed list of specific shared parameters is included with the template for scheduling & specification of equipment which is industry recognised.

**Generic Content:**

A generic library of equipment for modelling in the early stages of design, these Industry Foundation Models (IFM's) work with the BIM-MEP<sup>AUS</sup> shared parameters

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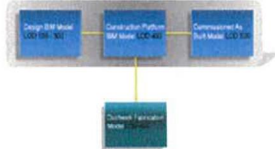
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### BIM-MEP<sup>AUS</sup> Generic Design Content - Industry Foundation Models

The BIM-MEP<sup>AUS</sup> generic design *Industry Foundation Models* provide:

- Designer requirements with systems and services and whilst not providing shop drawing level detail, the IFMs are fully specified and constructible and allow design scheduling up to and including LOD 300 to support efficient tender take-off and procurement.
- The IFMs are fully interchangeable with BIM-MEP<sup>AUS</sup> *Manufacturers Certified Models*.




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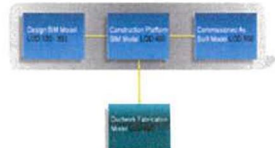
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### BIM-MEP<sup>AUS</sup> Manufacturer Certified Models

The change to BIM-MEP<sup>AUS</sup> *Manufacturers Certified Models* in the virtual build allow:

- The progression of the design model into an LOD 400 construction model to provide construction level detail, content suitable for approval submissions, installation instructions and technical schedules needed for finalisation of the *Commissioned As-Built* LOD 500 model.




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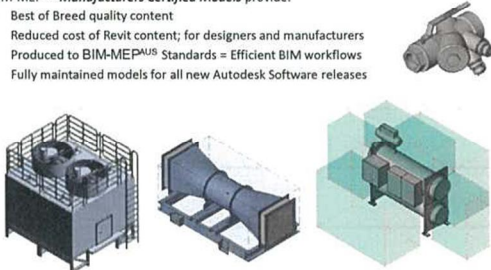


**AMCA BIM-MEP<sup>AUS</sup>**

**BIM-MEP<sup>AUS</sup> Manufacturer Certified Models**

BIM-MEP<sup>AUS</sup> *Manufacturers Certified Models* provide:

- Best of Breed quality content
- Reduced cost of Revit content; for designers and manufacturers
- Produced to BIM-MEP<sup>AUS</sup> Standards = Efficient BIM workflows
- Fully maintained models for all new Autodesk Software releases




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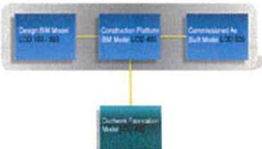
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**AMCA BIM-MEP<sup>AUS</sup>**

**BIM-MEP<sup>AUS</sup> Fabrication Content**

The BIM-MEP<sup>AUS</sup> *Fabrication (ITM)* Content provides:

- Fabrication models to directly drive MEP fabrication on the shop floor to meet Contractor / Fabricator requirements. *Fabrication (ITM)* models also help generate better estimates and create more accurate detailed models to allow project specific LOD 400 content inclusive of the technical schedules needed for finalisation of the *Commissioned As-Built* LOD 500 model.




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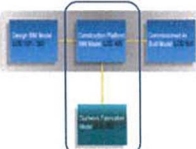
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**AMCA BIM-MEP<sup>AUS</sup>**

**Revit MEP and Fabrication 2017 Release**  
Increasingly aligning to industry needs

- Native Fabrication Models (ITM files from CADmep) in Revit MEP
- Improved Functionality
- Australian Content Pack / IFMs
- Focus on Shared Parameters




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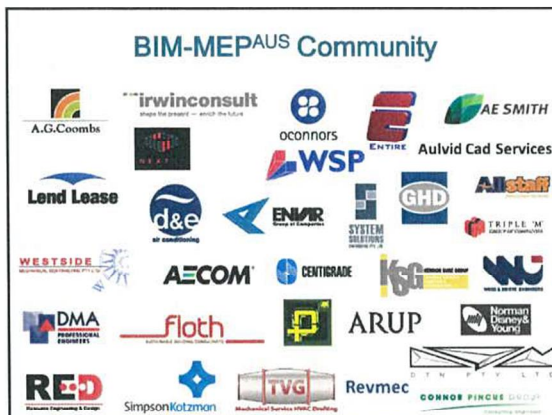
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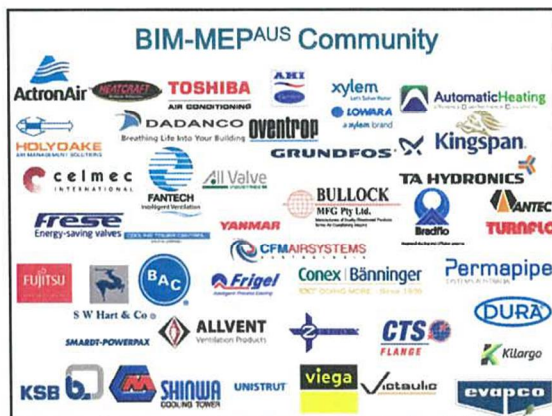
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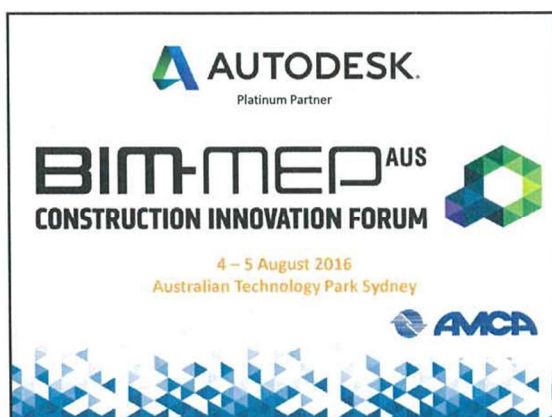
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**BIM-MEP AUS**  
CONSTRUCTION INNOVATION FORUM

- Australasia's leading BIM and construction forum for construction practitioners.
- Over 300 attendees in 2014 and 2015.
- Unique international keynote speakers.
- Global project case studies – client leadership presentations.
- Network with major contractors and industry peers.
- Demonstration of major property owners capabilities and future plans.

Register at: [www.bimmepaus.com.au](http://www.bimmepaus.com.au)

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**BIM-MEP AUS**  
CONSTRUCTION INNOVATION FORUM

 <p><b>Tim Moormeier, P.E.</b> President U.S. Engineering Company USA</p>	 <p><b>André Glogowsky</b> Board Member of HOCHTIEF do Brasil Brazil</p>
 <p><b>Steve Butler</b> Industry Strategy Manager MEP &amp; Fabrication Autodesk UK</p>	 <p><b>Alain Wisha</b> Global Head BIM &amp; Digital Building Engineering UK</p>
 <p><b>Kevin Allen</b> BIM &amp; Productivity Director Comfort Systems USA USA</p>	 <p><b>BURO HAPPOLD ENGINEERING</b></p>
 <p><b>John Seabrook CBM</b> Associate Director Lord Leeson &amp; Head Strategic Development Dassault Systems Northern Europe &amp; UK</p>	 <p><b>Andy Robins</b> Software Development Manager Autodesk UK</p>
 <p><b>Patrick Balke</b> General Manager MEP Division Trimble USA</p>	 <p><b>AUTODESK</b></p>

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