

# **Building Information Modelling**

#### NATSPEC and BIM

NATSPEC is a not-for-profit organisation with the objective to improve the construction quality and productivity of the sustainable built environment through leadership of information.

NATSPEC supports open global systems and aims to promote productivity through consistency in BIM guidelines, standards and tools that reflect the Australian industry.





#### What is BIM?

"BIM is a digital form of construction and asset operations. It brings together technology, process improvements and digital information to radically improve client and project outcomes and asset operations. BIM is a strategic enabler for improving decision making



for both buildings and public infrastructure assets across the whole life cycle. It applies to new build projects; and crucially, BIM supports the renovation, refurbishment and maintenance of the built environment - the largest share of the sector."

European Union BIM Task Group Handbook

#### Introduction to **BIM**

For an introduction to BIM, see the page on this topic under the Resources menu of the NATSPEC BIM Portal at bim.natspec.org.

This page includes a brief summary of the benefits of using BIM and links to short videos, documents, websites and books on the topic.



#### Getting started with BIM

The NATSPEC BIM paper Getting Started with BIM covers the preparation and planning required by architectural or engineering personnel who want to implement BIM. It provides general guidance and discusses some of the issues that need to be considered, as well as



decisions to be made during the process.

#### **NATSPEC Industry Affiliations**

NATSPEC actively participates in a range of international, national and state digital information projects. This informs the development of NATSPEC's BIM documents, resources and tools, ensuring that they reflect current best practice and Australian industry requirements.

NATSPEC has worked on a number of BIM initiatives with organisations including the International Construction Information Society, buildingSMART, Australian Institute of Architects, Consult Australia, Sustainable Built Environment National Research Centre, and Facility Management Association of Australia.

The NATSPEC BIM Portal acts as a knowledge hub for the Australasian BIM Advisory Board and the Project Team Integration initiative by the Australian Construction Industry Forum and Australasian Procurement and Construction Council.











## NATSPEC National BIM Guide

#### **Australian BIM Consistency Documents**









#### NATSPEC National BIM Guide

NATSPEC publishes the National BIM Guide, a suite of documents that can be used to implement BIM on a project. To work effectively, the documents should be compiled in a coordinated way and read in conjunction with each other.

The documents in the suite are:

- NATSPEC National BIM Guide: The Guide's core document.
- Appendices: Reference documents providing more detailed information on topics found in the Guide.
- Templates: Editable templates for specifying project-specific requirements.

#### **National BIM Guide Appendices**

- Appendix A Glossary
- Appendix B AS ISO 19650 Resources
  Descriptions
- Appendix C BIM Use & Enabler Descriptions
- Appendix D Defining Information Requirements

#### **National BIM Guide Templates**

- Asset Information Requirements (AIR)
  Template
- Project Information Requirements (PIR) Template
- Exchange Information Requirements (EIR) Template
- Project BIM Brief (PBB) Template

#### **ABAB Strategic Framework**

The ABAB BIM Process Consistency Report helps Governments and industry adopt, implement and align the use of BIM on public projects. This increases control over quality and makes it easier to achieve financial and strategic expectations.



The Report's common framework drives savings and efficiencies, and supports small to medium enterprises transitioning to the BIM environment.

#### **Open BIM Object Standard (OBOS)**

The OBOS is an international standard that promotes best practice in BIM object creation.

It facilitates the creation of high-quality standardised generic, manufacturer-specific and project-specific BIM objects and is for use by all construction professionals. Compare Bind Decem Bind Bacter Standard An anarchina Bandard For A

Based on open BIM standards such as Industry Foundation Classes (IFC), the OBOS provides confidence to object authors and product manufacturers that their BIM objects will be acceptable to end users.

#### **BIM Value Tool**

BIM Value is a free online tool that provides users with a step-by-step guide to identifying potential benefits, metrics and tools when implementing BIM.



The Sustainable Built Environment National

Research Centre (SBEnrc) developed the BIM Value tool in partnership with NATSPEC to help organisations better assess the potential value of BIM for their particular purposes. The ABAB Asset Information Requirements (AIR) Guide helps clients and consultants to take advantage of BIM's capacity to deliver information captured during the design and construction of an asset to those responsible for its



ongoing operation and maintenance. The Guide's audience is clients and their agents who have limited experience in using BIM to deliver information for operational purposes, or do not have well-developed strategic asset management plans or AIR.

#### **NATSPEC BIM Properties Generator**

The BIM Properties Generator is a free online tool for standardising object designations, properties and property names.

It is an accessible, user-friendly resource for selecting properties based

on open BIM standards. This



streamlines the exchange and interoperability of BIM objects between disciplines and projects to promote productivity and progress across the Australian construction industry.

BIM Properties Generator content conforms to the OBOS.

#### **BIM Value Benchmarking Tool**

BIM Value Benchmarking (BVB) is a free online tool developed by SBEnrc and hosted by NATSPEC. It collects project information and calculates the value of benefits that BIM delivers.



Over time, BVB will provide

historical data to refine decision making regarding BIM implementation. BIM Value and BVB are complementary tools.



## NATSPEC BIM Portal



#### NATSPEC hosts the National BIM Portal at bim.natspec.org.

The Portal reflects NATSPEC's primary focus on the "information" in Building Information Modelling. The content of the National BIM Portal has been selected or developed to provide targeted information for busy practitioners wanting to learn key concepts or quickly find tools and resources that can be readily applied in their projects.

The National BIM Portal contains all of the resources mentioned in this document and many more.

### NATSPEC//ConstructionInformation

NATSPEC is a national not-for-profit organisation, owned by Government and industry, with the objective to improve the construction quality and productivity of the sustainable built environment through leadership of information. It is impartial and is not involved in advocacy or policy development.

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