



# Building Information Modelling

## NATSPEC BIM Position Statement

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

NATSPEC believes that digital information, including 3-D Modelling, Building Information Modelling (BIM) and Digital Engineering (DE) will provide improved methods of design, construction and communication for the industry. Further, NATSPEC supports open global systems. This will result in improved efficiency and quality.

NATSPEC's primary focus is on the "i" (information) in BIM and how it is linked to digital models.

NATSPEC's aim is to promote productivity through consistency, through the development of BIM guidelines, standards, and tools beneficial to the construction industry.

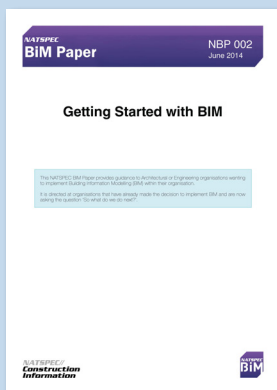
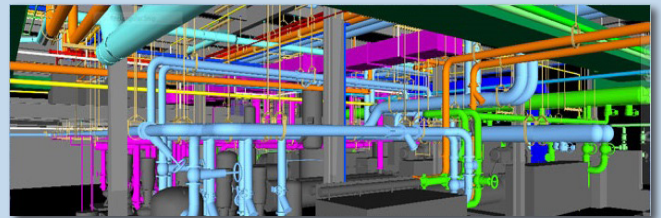
## Introduction to BIM

For an introduction to BIM see the page on this topic under the Resources menu of the NATSPEC BIM Portal <https://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.

## 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, supports the renovation, refurbishment and maintenance of the built environment – the largest share of the sector." (European Union BIM Task Group).



## Getting started with BIM

This NATSPEC BIM Paper is for those who have been seriously considering implementing BIM within their organisation and are now asking 'What do we do next'?

The paper covers the preparation and planning required by architectural or engineering personnel who want to make implementation happen. It provides general guidance on the topic and discusses some of the issues that need to be considered and decisions to be made during the process.

## NATSPEC Industry Affiliations

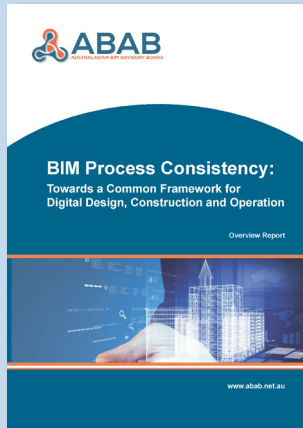
NATSPEC actively participates in a range of international, national and state digital information projects. This participation informs the development of NATSPEC's BIM documents, resources and tools, ensuring they reflect current best practice and Australian industry requirements.

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

The NATSPEC BIM Portal [bim.natspec.org](http://bim.natspec.org) acts as a Knowledge Hub for the Australasian BIM Advisory Board (ABAB) and the Australian Construction Industry Forum (ACIF)-Australasian Procurement and Construction Council (APCC) Project team integration (PTI) and BIM initiative.



## Open Standards and Consistent practices

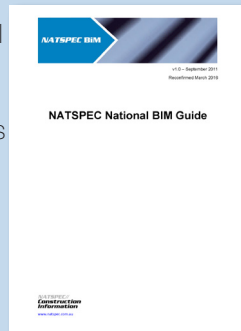


NATSPEC supports open standards such as those developed by buildingSMART and ISO. With so many stakeholders collaborating in the procurement and management of the built environment, these are essential for reliable communication and the free flow of information.

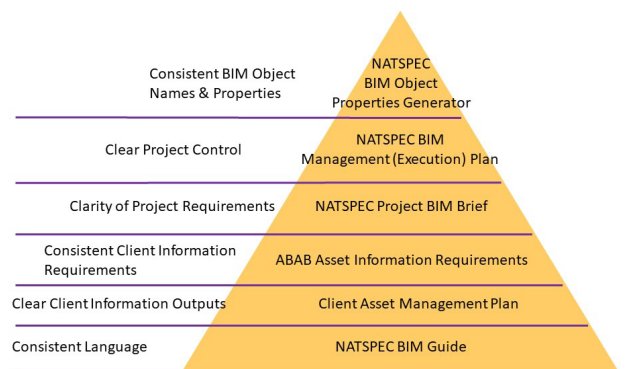
NATSPEC supports a consistent approach to BIM implementation nationally through the free documents, resources and tools it provides. The consistent use of proven methods, techniques, standards, templates, workflows and tools facilitates BIM implementation and accelerates BIM adoption, leading to greater efficiency, productivity and sustainability across industry as a whole.

## NATSPEC National BIM Guide

The National BIM Guide is the central reference in a suite of documents that defines requirements for BIM projects in general. The Guide defines things such as uses for BIM on projects, BIM Management Plan content, roles and responsibilities, collaboration procedures, modelling requirements, documentation standards and digital deliverables.

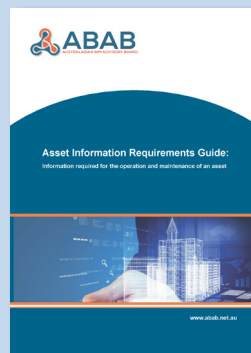


## BIM Consistency Documents



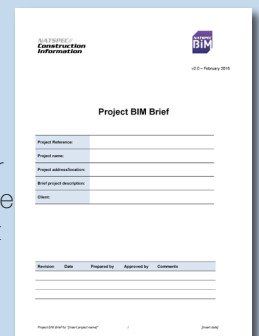
## Asset Information requirements

The purpose of the ABAB Asset Information Requirements (AIR) Guide is to assist clients and their consultants to define their AIR in order to take advantage of BIM's capacity to deliver the information about a built asset captured during the design and construction processes to those responsible for its ongoing operation and maintenance.



## NATSPEC Project BIM Brief Template

The Project BIM Brief Template is used to outline initial strategic decisions early in a project. It provides a means of documenting client requirements regarding BIM for their projects. By indicating the scope of services required for the project, it allows the project team to formulate an effective response.



## Open BIM Object Standard (OBOS)

The OBOS is an international standard to promote best practice in BIM object creation. It is for use by all construction professionals – designers, specifiers, manufacturers and BIM content developers – to assist the creation of standardised generic, manufacturer and project-specific BIM objects of high quality. Being 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.



## NATSPEC BIM Properties Generator

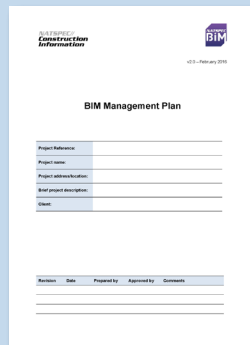
The BIM Properties Generator is a free online tool for standardising object designations, properties and property names.

It provides 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.



## NATSPEC BIM Management Plan Templates

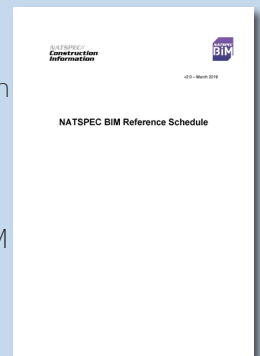
A BIM Management (execution) Plan (BMP) is a formal document that defines how a project will be executed, monitored and controlled with regard to BIM. One of its main purposes is to make clear what members of the project team can expect from each other – who is meant to do what, and how, and when.



## NATSPEC BIM Reference Schedule

The BIM Reference Schedule is a list of reference documents and standards provided for consideration for inclusion in project documents.

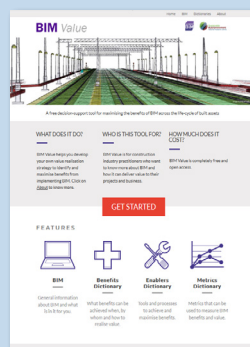
The specific documents selected to apply to a project are recorded in the Project BIM Brief, e.g. Open BIM Object Standard. This arrangement provides flexibility to select the references most appropriate to the specific requirements of a project.



## BIM Value Tool

Although there are numerous studies and articles on the benefits of BIM, it can be difficult for organisations to assess its potential value for their particular purposes.

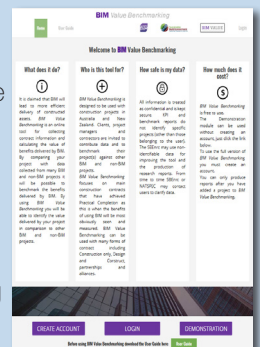
The BIM Value tool was developed by the Sustainable Built Environment National Research Centre (SBEncr) in partnership with NATSPEC to address this issue.

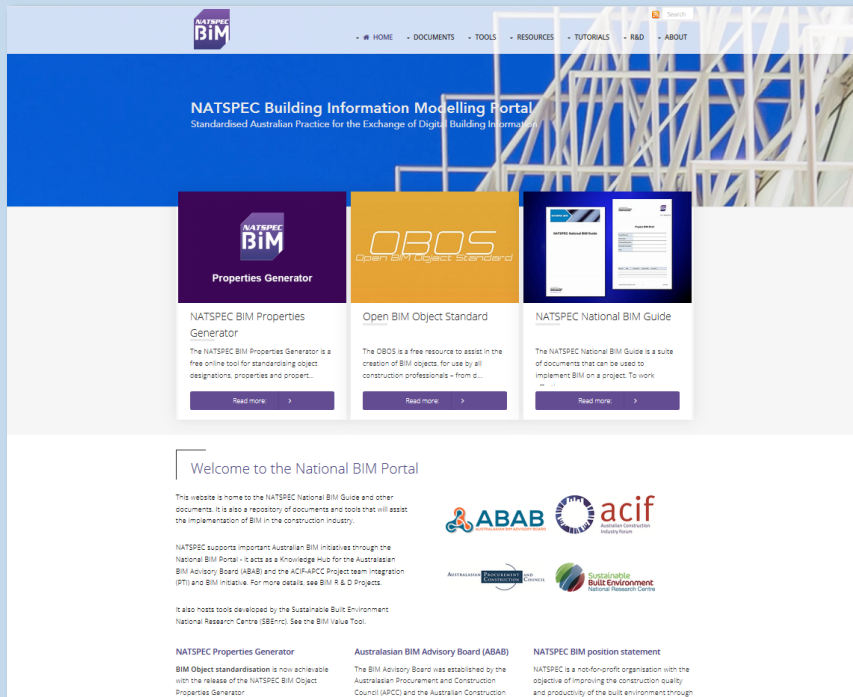


## BIM Value Benchmarking Tool

BIM Value Benchmarking is a free online tool for collecting contract information and calculating the value of benefits delivered by BIM. It was developed by the Sustainable Built Environment National Research Centre (SBEncr) and is hosted by NATSPEC.

Over time, BIM Value Benchmarking will provide historical data to refine decision making regarding BIM implementation.





NATSPEC – mainly through its BIM Portal website – provides information to help people improve their knowledge of BIM and to allow them to make more effective use of the tools and project-related documents also found on the site. This information takes the form of web pages and guides on a number of topics, case studies and links to documents provided by other organisations.

There is no shortage of information available on BIM. On the contrary, the sheer volume of information can be overwhelming and it can take some time to find that which is relevant.

The content of the 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 on their projects.

The NATSPEC BIM Portal contains all of the resources mentioned in this document and many more. Many of the documents and tools are designed to work together and provide a useful, practical means of implementing BIM on projects. All are free and aligned to Australian industry practices.

Some of the resources that can be found under the following menus include:

## Documents

- NATSPEC National BIM Guide suite of documents
- Open BIM Object Standard
- NATSPEC BIM Papers on a variety of subjects
- ABAB BIM Process Consistency Report
- ABAB Asset Information Requirements Guide
- NATSPEC BIM Papers on a variety of subjects
- Templates, Proforma and Checklists

## Tools

- NATSPEC BIM Properties Generator
- SBEnrc BIM Value Tool
- SBEnrc BIM Value Benchmarking Tool
- Keynoting Framework
- Classification and Filing Tools

## Resources

- Getting started with BIM
- Introduction to BIM
- BIM Guides by other organisations
- BIM Management Plans by other organisations
- BIM topics including COBie and Object Libraries
- Case Studies of BIM projects
- Presentations from recent BIM events
- Glossary of BIM terms

## R & D Projects

- Details of Australian Government or industry organisation R & D projects

To visit the NATSPEC BIM Portal go to [www.natspec.com.au](http://www.natspec.com.au) and click on the BIM logo.

NATSPEC is a national not-for-profit organisation, owned by Government and industry, whose objective is to improve the construction quality and productivity of the built environment through leadership of information. [www.natspec.com.au](http://www.natspec.com.au)