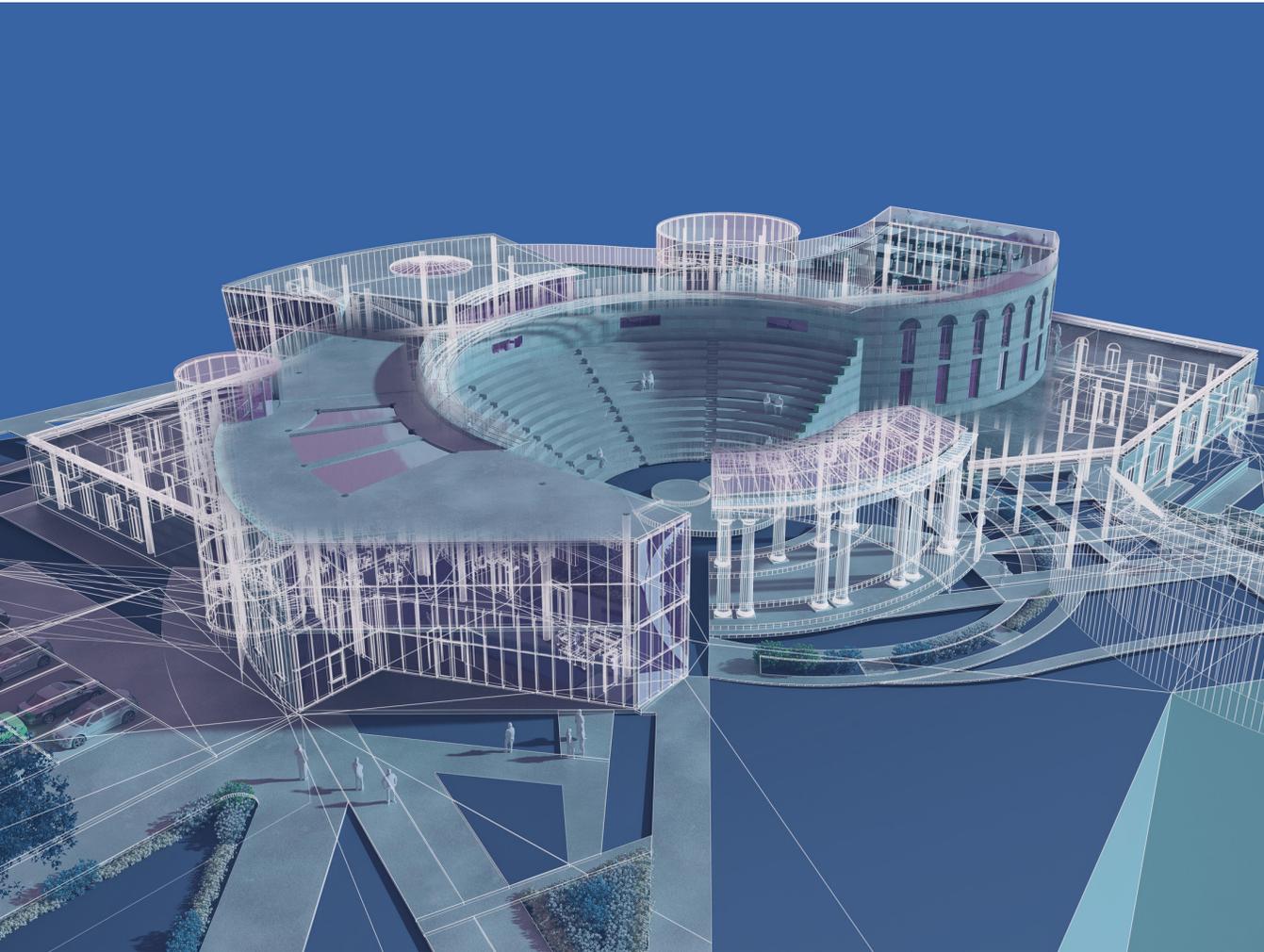




National BIM Standard-United States®



When building information modeling (BIM) first came into use, it was seen simply as a three-dimensional (3D) model of a facility. However, such a basic explanation does not adequately convey the potential of digital, object-based, interoperable BIM processes and tools when used with modern communications methods.

As first defined in the *National BIM Standard-United States®* (NBIMS-US™), a BIM “is a digital representation of physical and functional characteristics of a facility. As such, it serves as a shared knowledge resource for information about a facility, forming a reliable basis for decisions during its life cycle from inception onward.”

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National BIM Standard-United States®

By using BIM as an information warehouse, nearly every piece of information that an owner needs about a facility throughout its life can be made available electronically. The current challenge is that the industry does not yet have the open standards and infrastructure in place to capture, organize, distribute and mine that information. The goal of the National Institute of Building Sciences buildingSMART alliance® is to establish, through the NBIMS-US™ project, the necessary standard and structure so that end-users throughout all facets of the industry can use BIM to efficiently access the information needed to create and operate optimized facilities.

Owners, planners, realtors, appraisers, mortgage bankers, designers, engineers, estimators, specifiers, facility managers, safety engineers, occupational health providers, environmentalists, contractors, lawyers, contract officers, subcontractors, fabricators, code officials, operators, risk managers, renovators, first responders and demolition contractors all can benefit by having access to BIM. Each stakeholder has his or her own view of the information, and shares the same information. Whether it's a matter of supply (during the design and construction process), use (after the facility handover) or some of both, having this information readily available to all of the people involved in the process is extremely helpful. However, for the process to work effectively, the information being shared must adhere to open standards.

The NBIMS-US Project Committee, a committee of the buildingSMART alliance®, oversees development of the NBIMS-US™. A vast array of organizations participates in the NBIMS-US Project Committee

and related Subcommittees to produce the standard. All participants in the standards development process consent to having their work shared with the industry. In addition, the NBIMS-US™ incorporates consensus standards from U.S. industry, as well as international standards development efforts, such as International Standards Organization (ISO) efforts, so that the standard can be used around the globe.

Members of the NBIMS-US Project Committee believe that the development of this standard will help improve the competitiveness of the construction industry and the efficiency and effectiveness of U.S. government agencies, as well as international efforts. By helping to ensure that information gathered throughout the life cycle of a constructed facility is collected in a standardized manner, it becomes useful to all relevant parties during the design, construction, operations and maintenance of the facility.

In May, 2015, the buildingSMART alliance® published the latest edition, *National BIM Standard – United States® Version 3* (NBIMS-US™ V3). This open consensus standard builds on the previous editions of the standard. Building professionals from across the nation and around the world had the opportunity to offer their candidate standards and ideas. The resulting document, which effectively doubles the scope of the standard, consists of nineteen (19) reference standards, terms and definitions; nine (9) information exchange standards; and eight (8) practice guidelines to support users in their implementation of open BIM standards-based deliverables.

The NBIMS-US™ V3 is available at no cost as a downloadable PDF. To download your copy, visit www.nationalbimstandard.org. ■

The History:

Established in 1992, the Facility Information Council (FIC) served to improve the performance of facilities over their full life cycle by fostering common and open standards and an integrated life-cycle information model for the architecture, engineering, construction, operations and owners (AECOO) industry. The FIC began developing the *National BIM Standard™* (NBIMS) in 2005 to improve the interoperability of BIMs. In early 2008, the FIC released *NBIMS Version 1 – Part 1: Overview, Principles, and Methodologies for Public Use*. That same year, in order to consolidate missions and streamline services, the buildingSMART alliance® began overseeing the standard after the sunset of the FIC. The mission of the FIC endures under the governance of the Alliance. The NBIMS-US Project Committee continues the important work of developing open standards and guidance documents for all aspects of building information modeling.