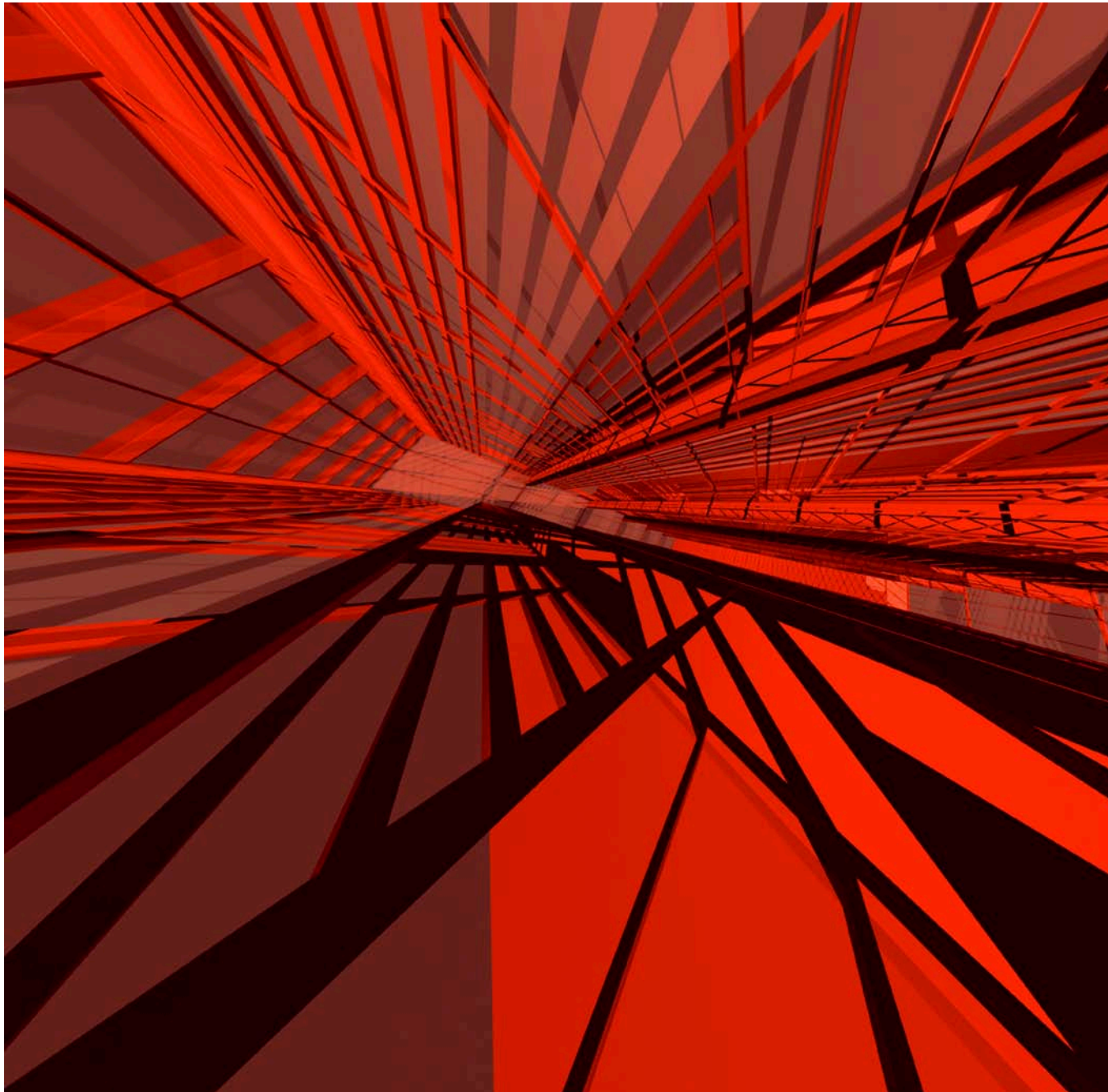




National Institute of
BUILDING SCIENCES

buildingSMARTalliance

2009 Annual Report



An Authoritative Source of Innovative Solutions for the Built Environment

Board of Direction

Executive Committee 2009:

Thomas Gay (thomas.gay@fmglobal.com)
David Morris (david_morris@emcorgroup.com)
John Cross (Cross@aisc.org)
David Hammond (David.M.Hammond@uscg.mil)

All other BOD members are listed on web site

Executive Director:

Dana “Deke” Smith (dsmith@nibs.org)

Technical Coordinator:

Francois Grobler, Acting (francois.grobler@usace.army.mil)
www.buildingsmartalliance.org, www.buildingsmart.com

History, Overview and Highlights

- In 2007, the Board of Directors of the National Institute of Building Sciences established the buildingSMART alliance.
- The buildingSMART alliance is a council of the National Institute of Building Sciences and builds on former Institute programs such as the North American Chapter of the International Alliance for Interoperability (IAI-NA). The International Alliance for Interoperability (IAI) is now buildingSMART International.
- In September 2008, the Institute’s Board of Directors retired the Facility Information Council (FIC) at the request of its chair, David Jordani. At the same time, IAI-NA was officially discontinued. These moves allowed the migration of the United States National CAD Standard® (NCS) and National BIM Standard™ (NBIMS) from FIC to the buildingSMART alliance, thus completing the transition of all FIC programs to the buildingSMART alliance. In December 2008, members of the NCS and NBIMS Committees became members of the Alliance, giving the Alliance much greater breadth and making the Alliance the front door for new information technology-related activities. A new web site was launched to reflect these changes.



- The buildingSMART alliance is a membership-based program of the Institute that is open to any person, corporation, agency or other entity—public or private—engaged directly or indirectly in activities supporting the purpose of the Alliance.
- In 2008, the buildingSMART alliance elected its first permanent Board of Direction (BOD). The new BOD was officially seated that December at

the National Conference of the buildingSMART alliance, held in conjunction with the Ecobuild AEC S+T Conference.

- New websites for the Institute and its councils launched in 2009. In addition, a significant new project collaboration portal was launched for NCS and NBIMS. This will allow on-line balloting of both standards.
- In 2009, the Alliance produced two issues of the *Journal of Building Information Modeling*. The print magazine is distributed to over 5,000 people; the on-line version received more than 3,000 downloads.
- In December 2009, the buildingSMART alliance held its annual conference in conjunction with the buildingSMART International Council at Ecobuild America. The Board convened at the conference, at which time it approved the Rules of Governance for the NBIMS Consensus Process.
- The American Institute of Architects (AIA) Board of Directors approved a significant interoperability statement in December 2009. It read, in part, “The American Institute of Architects believes that all industry-supporting software must facilitate, not inhibit, project planning, design, construction, commissioning, and lifecycle management. This software must support non-proprietary; open standards for auditable information exchange...”
- Deke Smith continues to act as the executive director of the buildingSMART alliance. Peter Smeallie supports marketing and membership efforts. Bill East acts as the projects coordinator. Additional staff support is provided by the Institute.

Membership

- During 2009, memberships in the Alliance remained static. This was largely due to a depressed economy and a drop in the employment rate: nearly 50% of architects were reported to be out of business. The number of sponsors decreased slightly to 17 (see below). The number of corporate members remained steady at 147, as did the number of individual members, now at 442. This was looked as positive, based on the status of other organizations.
- The Alliance anticipates that the buildingSMART alliance National Conference, *Journal of Building Information Modeling*, web site and new marketing materials will continue to boost awareness and, therefore, membership. The challenge will continue to be attracting new markets and stakeholders.
- The Alliance has a variety of member levels, from the individual level through corporate level, including local and federal members as well as associations. Sponsors are encouraged and will ultimately provide the primary funding stream. A student membership also exists.
- The Alliance also initiated a reduced membership agreement, which will allow other organizations to offer a reduced membership fee and be allowed to keep part of the fee collected to support their efforts as well as designate them as sponsors of the Alliance. Agreements are now in place with the Sheet Metal and Air Conditioning Contractors' National Association (SMACNA), National Electrical Contractors Association (NECA), Mechanical Contractors Association of America (MCAA) and Campus FM Technology Association (CFTA).
- The Alliance will continue to be inclusive to ensure full involvement of the construction industry. Marketing efforts will progress to encourage all players to join. Full members can now vote on consensus products of the Alliance as well as participate in projects. Members of supporting organizations have access to the projects.
- In September 2009, the Institute applied its membership structure across all Institute councils, including the Alliance. This created the need to transition members to the new structure as their memberships expired. This transition will therefore occur over much of the next year. The structure still allows for sponsorships at the \$10,000 and above levels.
- A focus for next year will be to involve more members from the various associations to represent the constituencies. This will help ensure that Alliance has good across-the-board representation when it undertakes a consensus standard. The National BIM Standard, being as broad as it is, provides a representational challenge, since there are so many different points of view involved.

Sponsors

The buildingSMART alliance had 17 sponsors in 2009. They included:

SILVER INTERNATIONAL SPONSORS	BRONZE INTERNATIONAL SPONSORS	ALLIANCE SPONSORS			
 Hellmuth, Obata + Kassabaum, Inc.	 US Army Corps of Engineers	 International Code Council	 American Institute of Architects	 Bentley Systems, Inc.	 McGraw-Hill Construction
 FM Global	 General Services Administration	 Technical Sales International	 American Institute of Steel Construction	 Department of Veterans Affairs	 US Coast Guard
 Nemetschek North America	 SMACNA		 Associated General Contractors of America	 Jaros, Baum & Bolles	 Webcor Builders

- Sponsors commit substantial resources toward the work of the Alliance. Sponsors recognize that the work of the Alliance is critical to the success of the transformation of the construction industry and that funds are needed to make this happen. Sponsors are willing to underwrite the cost of developing standards and interoperability to achieve collaboration in the industry.
- The Alliance Board of Direction and staff extend sincere appreciation to all members, especially Alliance sponsors.

Alliance Activities

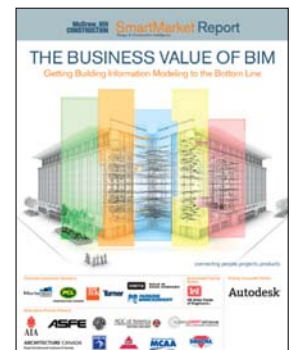
- The Alliance produced two editions (spring and fall) of the *Journal of Building Information Modeling* (JBIM) in 2009. The magazine is distributed to 5,000 people in print. Also available on the web site, the electronic version was downloaded more than 3,000 times.



- Article abstracts are juried by the JBIM Editorial Review Committee. The committee evaluates abstract submittals and selects from them the articles to be used in upcoming JBIM issues.
- The Alliance now has a speaker's bureau, which includes more than 40 speakers available for meetings, workshops and other presentation activities around the country.
- The Whole Building Design Guide web site provides the educational component of BIM. It points people to the education activities and products of the Alliance.
- In 2009, the Alliance continued to foster reforming the educational system to include BIM-related programming. Several activities occurred during the year, which resulted in a consolidated review session at the Annual Meeting in December. This effort was led by Dr. Raymond Issa and included participants from schools across the country.
- The education effort focuses on collaborative education and establishing a relationship between the academic sector and the physical plant stakeholders in an effort to heighten awareness about BIM.
- The Alliance held meetings with the Canadian BIM Council, which strengthened the North American representation. It is anticipated that a more formal agreement will be in place in early 2010.

- The Alliance was featured or mentioned in dozens of articles throughout the year in all facets of the industry.
- The Alliance supported BIMStorm™ efforts, including events held in Tokyo, Washington, San Diego, Santa Clara, and Oslo.
- The number of buildingSMART alliance Interest Groups almost doubled in 2009. Interest Groups provide the grassroots link to users. A pending proposal addresses forming the leads of these groups into a committee from which a selected member would represent North America at the International Users Group meetings.

- In 2009, the buildingSMART alliance again sponsored the McGraw-Hill SmartMarket Report on BIM. The 2009 report focused on the penetration of BIM in the market place and the value of BIM. It is anticipated that reports will be produced annually.



- Over the past year, the Alliance worked according to its strategic plan and made progress in all four of its goals:
 - Grow the Alliance
 - The primary focus for the year, the Alliance continued to emphasize getting the message out to groups. (A list of contacted organizations is included later in the document.) While the Alliance did not achieve its goal of substantially increasing the number of members, it did maintain counts in difficult economic times.
 - Scope of BIM
 - The Alliance signed a contract to document the scope of BIM. This important task will define just how much effort will be required to implement an interoperable BIM capability across the industry. The results are expected to be available in mid 2010.
 - Develop Projects
 - The Alliance launched its web portal in 2009, which provides project managers with the ability to store and share

information as well as keep track of subject matter experts. The portal allows groups to work collaboratively. Some work from the projects will result in ballots to be submitted for the next version of NBIMS.

- Further the Standards
- NCS is under revision and has several ballots proposed.
- The NBIMS Committee approved the consensus process, is re-establishing the Project Committee and had a first meeting of the Planning Committee. The Technical Committee will be established soon. David Morris is the new chair. The Alliance extends its appreciation to the previous chair, Alan Edgar, for his efforts. The NBIMS Committee anticipates having a new version of the NBIMS out in late 2010.

Presentations in 2009

The buildingSMART alliance staff made a number of presentations during the year. Below is a partial list. (Copies of these presentations are available upon request.) In addition, members of the Speaker's Bureau also made numerous presentations around the country. Please visit the web site under Events for additional presentations.

• AGC BIM Forum	Jan 8, 2009
• CMAA Keynote	Jan 13, 2009
• Institute Consultative Council	Jan 14, 2009, May 21, 2009
• APPA Conference	Jan 20, 2009
• ASPE Conference	Jan 22, 2009
• Alberta AAA Meeting	Jan 11, 2009
• Alberta Government	Jan 11, 2009
• Korean Institute of Construction Technology	Feb 20, 2009
• University of Wisconsin	Feb, Mar, Apr 2009
• National FM Tech Conference	Mar 10, 2009
• OGC AECOO-1 Testbed	Mar 26, 2009
• University of Washington	Apr 6, 2009
• Catholic University	Apr 22, 2009
• ASPE Fort Wayne	Apr 24, 2009
• PMI College of Scheduling	May 17, 2009
• AGC BIM Forum – COBie	May 28, 2009
• NYC BIM 2030	Jun 2, 2009
• Connectivity Week – SmartGrid	Jun 10, 2009
• AEC Technology Strategies	Jun 11, 2009
• Tri-Service Cost Keynote	Jun 23, 2009
• WPL Presentation of Book	Jul 29, 2009
• Campus FM Technology Association	Aug 12, 2009
• High Performance Buildings Congressional Caucus	Sep 2, 2009
• Canadian BIM Council	Sep 29, 2009
• Archibus Webinar	Oct 1, 2009
• Finnish BIM Consortium	Oct 2, 2009
• Government Accountability Office	Oct 7, 2009
• AGC BIM Forum – Philadelphia	Oct 8, 2009
• CSI Washington Chapter	Oct 21, 2009
• North Carolina A&T State University	Nov 3, 2009
• AIA Building Connections	Nov 4, 2009
• buildingSMART Middle East	Nov 11, 2009
• Introduction to BIM	Dec 8, 2009
• Strategic Planning for BIM	Dec 8, 2009
• Performance Simulation	Dec 13, 2009

Technical Activities

A goal of the Alliance is to develop and advance open standards for interoperability and collaboration between practitioners based on the business enterprise activity model through projects. These primary technical projects include:

- **United States National CAD Standard®** – Project Lead – Mark Butler
 - The current version is Version 4, which was created in January 2008.
 - Task teams and chairs for the next edition have been assigned and trained. The next edition of the standard is open for balloting.
 - In December 2009, the NCS Steering Committee approved a new online consensus balloting tool to ballot all NCS amendments. It is expected that this new tool will be used by all Alliance projects seeking industry consensus.
 - The next version of the National CAD Standard is expected to include more facility types. The NCS BIM Task Team is developing a proposal to create an NCS-NBIMS transition module to demonstrate how to migrate CAD data into BIM deliverables.
 - The goal for the release of the next edition of the NCS is late spring of 2011.
 - The Alliance BOD continues its support of NCS and is establishing a relationship between NBIMS and NCS.
- **National BIM Standard™** – Project Lead – David Morris
 - In January 2006, the National Building Information Modeling Standard was chartered within the Institute's former Facility Information Council (FIC).
 - In December 2006, the buildingSMART alliance was officially chartered by the Institute's Board of Directors.
 - In January 2007, the *NBIMS V1-P1: Overview, Principles & Methodologies* (draft) was produced and the final version was released in December 2007 after international review and significant revision. It was the first time in the world that all the building information modeling concepts had been documented. Version 1 – Part 1 defined a process that all projects should follow in the development of model views.
 - In February 2007, NBIMS, NCS and the Alliance underwent a streamlining effort.
 - In September 2008, the Facility Information Council was officially dissolved - NBIMS and NCS were then re-chartered within the Alliance.
 - The National BIM Standard's foundation is primarily based on International Standards (ISO 16739) but includes other standardization efforts, such as XML, CIS/2, etc.
 - The National BIM Standard has been downloaded nearly 500,000 times.
 - The consensus process that will be used by buildingSMART alliance was approved by the Alliance Board of Direction in December 2009. Approval is anticipated by the Institute Board of Directors in early 2010.
 - The first consensus version of the NBIMS is planned for third quarter 2010. The NBIMS Project Committee is being re-affirmed.



National
BIM Standard™

Other Projects Associated with the Alliance

- In the past, the Alliance included a complete list of projects with the Annual Report. However, due to the length and breadth of current projects, the list is now available on the web site at www.buildingsmartalliance.org under active projects section.
- Many of these projects will be the source for ballots to be voted upon for the first consensus version of NBIMS.

International Activities

buildingSMART International Executive Committee – United States Representative – Deke Smith

- buildingSMART alliance Executive Director Deke Smith was named to the Executive Committee of buildingSMART International in early 2009.
- His role is to ensure continuity with the efforts of the Alliance / the North American Chapter and buildingSMART International.
- A new buildingSMART International budget format is now available to identify how funds supplied to buildingSMART International by the chapters are to be spent and detail how they have been spent in the past.
- An improved and maintained buildingSMART International web site is now available. A new web master has been appointed from Norway, Øivind Rooth.
- A goal of buildingSMART International is to expand chapters to include China (re-established), India (possibly part of the Middle East chapter initially), South America and others. Another goal is to strengthen some of the chapters that are not as strong as others.

buildingSMART International Technical Committee – United States Lead – Dr. Francois Grobler

- A new tool for the validation of datasets was developed in concert with the AECOO-1 test bed. This tool will allow a user to ensure that information being developed is in compliance with the latest version of IFCs.
- The international web site now has links to all technical activities of buildingSMART International, making it easier to get the latest information on IDM, MVD, IFD and other products of buildingSMART International.

Goals for 2010

- Establish a Memorandum of Agreement with the Canadian BIM Council.
- Establish a liaison with Mexico so that the Alliance truly represents North America.
- Create the first consensus version of NBIMS.
- Strengthen the buildingSMART alliance Interest Groups so they can take grassroots interests to the International Users Group.
- Expand the financial resources of the Alliance so that specific projects can be established and financed by the Alliance.
- Increase the number of sponsors.
- Complete a scope document for buildingSMART strategic goal #2, which established a Stakeholder Activity Model. This model will be the basis for future planning.

National Institute of Building Sciences

1090 Vermont Avenue, NW, Suite 700

Washington, DC 20005-4950

(202) 289-7800

(202) 289-1092 fax

www.nibs.org

www.buildingsmartalliance.org