

BIM Applications Workshop

Special Event at 2008 Annual Conference
and Final Action Hearings

Monday, September 15
1:30 pm–4:30 pm Central
Minneapolis Convention Center
This free event is open to the public.



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building**SMART**alliance



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See how building information modeling (BIM) is advancing building design, construction, and plan review/approval processes. Learn about BIM's current and future applications including clash detection, cost estimating, and SMARTcodes™ code compliance checking from industry experts.

This Workshop will benefit code officials, designers, contractors, building owners, first responders, professionals associated with the building design and construction process, as well as others focused on data access related to existing buildings facilitated by BIM. Presentations include:

- **An Overview of BIM**
- **Integrated Project Delivery—A Win Win Win Opportunity**
- **Exciting Case Studies**
 - Web-based Application for Selection of Building Products in BIM
 - Building Developer Applications for BIM
 - Application of BIM to Sustainability in Design, and Progressive Technology and Delivery Processes
 - BIM: Implementation, Innovation, and Lessons Learned
 - Expanding the Use of BIM on Complex Projects
 - Automated Code Compliance Checking

The Workshop concludes with a moderated panel discussion.

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Presentation Summaries

An Overview of BIM

The facilities community is beginning the transformation to the information age. This talk will open your eyes to the breadth and depth to which the changes are occurring. These changes will affect everyone from the planner to the first responder, and from the real estate professional to the code official. At the heart of the change is BIM and the organization coordinating this effort across the industry is the buildingSMART alliance (bSa). Its vision is a global environment where all participants can readily and transparently share, apply, and maintain information about facilities and infrastructure to enhance quality and economy of design, construction, operation, and maintenance. Presenter **David A. Jordani, FAIA**, is a contributing author for *Facility Design and Management Handbook* published by McGraw-Hill, chairs the bSa Facilities Information Council and the Business Process Integration Task Team, and is a member of the bSa Board of Directors.

Integrated Project Delivery = A Win-Win-Win Opportunity

Integrated Project Delivery (IPD) incorporates new technologies and working relationships to leverage early contributions of knowledge and expertise, allowing all team members to contribute throughout the project lifecycle. Focused on the necessary goals of responsible design and fully integrated project teams, this presentation will cover the forces driving these industry changes, the rationale behind IPD, connections to sustainability, recent related activities of the Institute, and the resulting opportunities for all participants in the project delivery process. Presenter **Robert P. Smith, AIA, LEED AP**, is Managing Principal of CMMI, Inc., a 55-person hospitality design firm based in Atlanta. A volunteer leader in AIA for 17 years, Mr. Smith currently serves on the 2008 AIA board-level committee implementing the Strategy on Integrated Project Delivery. He served as a speaker/presenter at more than 30 industry events, including seven AIA National Conventions.

Web-based Application for Selection of Building Products in BIM

The vision of BIM as the global standard for all design, construction, and operations critically relies on an ability to electronically extract relevant information from one or more core design models. In order to realize that vision, the objects with which the core design models have been created need to provide sufficient data. McGraw-Hill Construction is leading an initiative with building products manufacturers, international standards organizations, and innovative software companies to facilitate creation of and access to BIM content of building products. **Steve Jones**, Senior Director of McGraw-Hill Construction, will present highlights of that initiative. Mr. Jones leads McGraw-Hill's initiatives in BIM, Interoperability and Integrated Project Delivery, as well as developing alliance relationships with major companies and organizations for technology and content.

Building Developer Applications for BIM

Real estate developer Optima is committed to the company-wide adoption of BIM and Virtual Building Technologies as means to advance design, sustainability, and project efficiency. This study highlights a series of integration BIM pilots that enable the award-winning company to support sustainable development, design review, and condominium buyer changes. This achievement will be a function of the new Strategic Innovation Division that integrates solutions into the master planning, creative development, design, engineering, production, sales, project management, and research/development components of the company. Presenter **Calvin Kam, Ph.D., AIA, P.E., LEED AP**, Optima's Vice President for Strategic Innovation, contributed to a new national pilot program in BIM with the U.S. General Services Administration, and served as GSA's first National 3D-4D-BIM Program Manager with the Office of the Chief Architect.

Application of BIM to Sustainability in Design, and Progressive Technology and Delivery Processes

Two RDG Planning & Design projects currently underway provide a prime example of how BIM and Integrated Project Delivery provide opportunities in today's market. Both projects excel in their sustainable approaches, progressive technology, and delivery processes. Presenter **Pete Evans, AIA**, will also touch on the National TAP BIM awards and related advances in technology. Mr. Evans is a practicing architect at RDG Planning & Design in Des Moines, Iowa, who organized the AIA Iowa 2006 Integrated Practice and Technology seminar focused on BIM and Integrated Technology and Practice.

BIM: Implementation, Innovation, and Lessons Learned

Jacobs Architecture and Engineering was an early implementer of Bentley TriForma, engaged as a beta-site during the early 1990s. Jacobs' initial efforts with BIM focused on Conceptual/Design Development Phases of projects that evolved to a 3D practice in which BIM Technology is used across all disciplines and project phases. Today, Jacobs has more than 40 active BIM design and construction projects. **Kurt Maldovan**, Design and Construction Visualization Coordinator for Jacobs, will cover the initial migration to a full BIM practice, lessons learned, and the future of the AEC industry. Mr. Maldovan has extensive knowledge of BIM, information technologies, 4-D modeling, and advanced visualization facilities, and is responsible for designing and constructing Jacobs' mobile and in-office Visualization Labs.

Expanding the Use of BIM on Complex Projects

For nearly ten years, Mortenson Construction has continued to advance the use of computer modeling and BIM as a critical component of the construction process. Currently, Mortenson is relying heavily on this technology on the Minnesota Twins Ballpark and TCF Bank Stadium at the University of Minnesota. The complexity of these projects has provided multiple opportunities to leverage this exciting tool resulting in both tangible and intangible improvements to the overall process. Presenter **Linda Morrissey**, Senior Preconstruction Manager with Mortenson, uses her knowledge of design and construction to better support customers during critical planning phases. Ms. Morrissey also manages Mortenson's local team of Integrated Construction Coordinators, and plays a key role in continuing Mortenson's leadership in the use of BIM.

Automated Code Compliance Checking

With advances in IT and the availability of a BIM, it is now possible for computers to check any building for code compliance. Learn what the International Code Council has done to make the code content "smart" through its SMARTcodes initiative to make automate code checking possible. Also get a glimpse of a future e-government environment where BIMs can be code checked and then processed electronically. Presenter **David Conover** is Senior Advisor to the International Code Council. A mechanical engineer who has been involved with codes and standards for more than 30 years, Mr. Conover leads the Council's SMARTcodes project. He chairs the the ASHRAE BIM Committee and is vice-chair of the buildingSMART alliance.

Panel Discussion

Moderator **Michael Colopy** is ICC's Senior Vice President for Strategic Marketing and Communications. One of America's highest-rated presenters on international communications for more than a decade, he brings much experience to this event from his work advising Members of Congress and later, guiding major private sector investment decision-makers. He has moderated conference panels more than 60 times and in 13 countries, including several in China where he has focused since 1982 on devising market-opening communications strategies that embrace both technological innovation and traditional cultural norms.