BLD125385

BIM Inside Out: Supporting the Owner's Vision for Smarter Project Outcomes and FM

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Learning Objectives

- Learn how to develop a business case for improving project turnover on the part of the project team and the owner
- Understand workflows and requirements specifications to collect, do QA, and make FM data flow to existing owner systems
- Discover resources and organizations to support BIM / data development and management for the facility lifecycle

Description

Facility managers face numerous challenges that are driving them to demand a better turnover experience to reduce productivity losses and establish a digital platform for facility operations and management. This class will cover the range of turnover and post-construction services requested from owners and the need to turn design and construction Building Information Modeling (BIM) inside out to support their vision and goals. We share our journey with leading owners, and how the growing gap between Division 1 specifications and emergent owner requirements force rethinking project turnover to deliver integrated and contextualized information for facility management. The owner cases highlight successful BIM implementations based on alignment of technology with process redesign and organizational development to produce smart project outcomes. The owner cases include examples of solutions using Revit software, BIM 360 Glue software, BIM 360 Field software, and other tools.

Speaker(s)

Andrew Arnold applies more than 28 years of experience in product design and management, product and process modeling for applications, and consultation to help DPR Construction customers establish appropriate lean construction, Building Information Modeling (BIM), integrated project delivery, and operations and maintenance practices. Andrew has assisted BIM for facilities management implementations for large-scale healthcare, aviation, bio-pharmaceutical, and public agency owners.

Andrew received his BA in Architecture from U.C. Berkeley, and PhD in construction engineering and management from Stanford University's Center for Integrated Facilities Engineering. His early career in architecture included work on hospitality, health science, and education projects. He also consulted in computerized-aided facilities management CAFM implementations. Following graduate school Andrew designed and managed BIM applications

including databases of product information, and BIM content management and analysis tools, including quantity takeoff, cost estimating, LEED contribution, and immersive visualization.

Bruce Mace Bruce Mace comes to us from the architecture, design, planning and construction world - but, crossed over to the dark side of Facilities Operations about twelve years ago. During this transition, Bruce found that many of the precepts and assumptions he had been harboring were actually misplaced and that the darkness was actually just a single burned out T-12 in a mechanical room, somewhere in the three million square feet of hospital floor space he was now responsible for. This then is the journey of a Facilities Director and his team of dedicated colleagues seeking to integrate the architecture and design of a Revit infused industry with the computerized maintenance management potential of Maximo..

Learn how to develop a business case for improving project turnover on the part of the project team and the owner

Owner
BIM can help owners develop a digital platform for facilities management. BIM can permit them to more accurately inventory and assess the condition of equipment they manage in their facilities. The potential benefits include:

- Extend the life of the capital spend
- Meet or exceed the building performance goals
- Emergency response
- Save Energy
- Environmental Stewardship
- Access to situational information
- Reduce FTE count

Builder
Owner requests for BIM and data about installed equipment can represent a project risk. Builders should address the following gaps to reduce risk and retain a good relationship with their customer:

- The Division 01 specification describes requirements for paper turnover, not digital turnover;
- BIM Guides support design and construction model, but not facility models;
- There is no budget, specification, standards or system integration roadmap to support CMMS, BMS, ERP requirements for data and visualization;
- No clear specification of use cases for model post construction

Understand workflows and requirements specifications to collect, do QA, and make FM data flow to existing owner systems

- Assess: understand the owner's goals, systems, capacity and capability to implement a digital FM platform;
- Specify: extend the BIMex plan to specify equipment nomenclature, common and asset specific performance attributes;
- Collect: develop workflows for incremental data collection during project delivery;

- Validate: specify and implement data verification methods to assure data quality;
- Integrate model visualization with owner systems and other data sources
- Maintain; develop the owner organization e.g., skills and training, outreach communications, and implement change management processes.

Discover resources and organizations to support BIM / data development and management for the facility lifecycle

- Autodesk Consulting
- Vue**OPS** Consulting

Acquire knowledge about tools to implement better turnover for owners

Authoring

- Revit
- AutoCAD MEP

Document Management

- Autodesk Collaboration for Revit
- Autodesk Docs

Data edit/extraction/verification

- Revit COBie Tookit
- Rushforth Toolki

Model Verification Tools

- Autodesk Field
- Invicara BIM Assure

Visualization

- Autodesk Forge PAAS