

Session Number: BLD500063

Managing Space, Assets, and Maintenance through BIM to FM

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Learning Objectives:

- Define the term “BIM to FM”
- Learn ways BIM helps manage space and assets
- Review “where do I start” strategies
- Define the term Facility Management (IWMS) system
- Review the key elements of a BIM Execution Plan for FM
- Understand what BIM to FM looks like in action

Description:

Building owners want to take rich data collected from BIM and transfer it directly to work-managing space, assets, and maintenance. AEC professionals want to deliver their carefully developed BIM data in a form that is immediately useful for building operations. Yet discussions around commissioning this information for lifecycle use can sound complex and daunting. This session demystifies BIM Execution Planning for the most important “BIM to FM” use cases – namely managing space and maintenance. The session walks through real world workflows, entities and object properties needed for professional facilities management. Demonstration sequences illustrate how to extend the usability of AutoCAD drawings and Revit models designed for construction, to easily flow hundreds of spaces and assets to FM management software and begin getting immediate results.

Industry Challenges:

Companies are trying to delicately balance the bottom line-striving to show profits, support their value, and provide customer workplace satisfaction all at the same time. Research has shown, however, that a disconnect between planning and design with asset management and facility maintenance can be disruptive to a company’s overall mission to achieve these goals, leading to energy waste, customer dissatisfaction, and maintenance failures.

30%

Wasted
Efficiency

40%

Employee
Dissatisfaction

80%

Maintenance
Related Failures

BIM to FM

BIM or Building Information Modeling is a collaborative project management process that is primarily used to manage the planning, design, and construction of complicated real estate projects. The process is common in the AEC universe but does not always extend beyond to the built-asset management phase, even though the building spends most of its useful life in it. Allowing facility stakeholders a seat at the table and providing design for maintenance and data transition plans or BIM to FM will:

- Improve design
- Reduce maintenance failure
- Enhance customer experience and satisfaction
- Reduce waste and energy
- Enable facilities professionals to hit the ground running once the building is commissioned and occupied

Transferring crucial facility data to a facility management system will also enable facilities professionals to integrate BIM data with information from other sources like BMS, IoT, or organizational ERPs. In addition, it allows managers to visualize and manage their information for better operational control.



Solve difficult Space and Facilities Challenges



BIM & BMS alone are incomplete solutions for operations



Integrated Solution

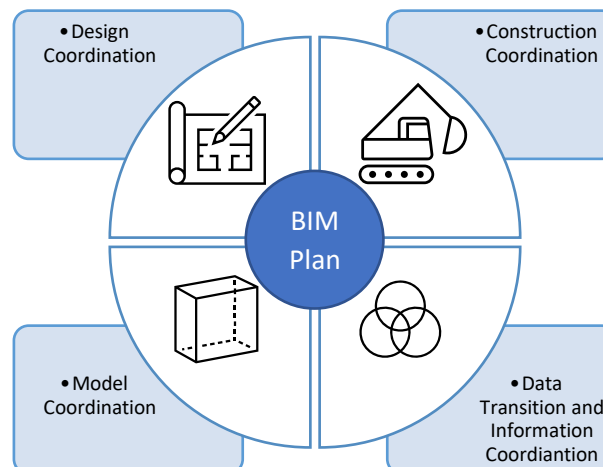


Visualize and Manage

BIM to FM plans and Considerations

Before embarking on a BIM to FM journey, it is important to plan and define the way forward. The following are basic considerations for proper planning:

- Clearly define the organizational needs: Understand the project goals, stakeholders and responsibilities, and the technical infrastructure supporting the effort is key for BIM to FM success.



- Designate your system of record: The model is the system where components and assets are assembled to assist with construction, however the FM system is where the same assets are being maintained. As data flows between systems, it is important to designate your system of record and direct your information flow accordingly.



- Define data standard and classifications: Maintain data accuracy and align with industry designation.
- Identify level of development and parametric data: The BIM project encompasses a wide variety of information. However, not all data stored in the BIM data aggregator (Model) is useful for facility management. For best results, it is important to clearly define your needs and expectations and coordinate them with the exact data extracted from the BIM system (Model).

LEVEL of DEVELOPMENT

LOD 100 LOD 200 LOD 300 LOD 400 LOD 500

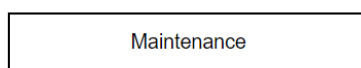
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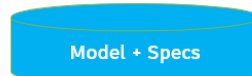
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- Define future data management: Create a plan to collect data throughout the AEC phases. Identify maintainable assets and design the appropriate processes to support operation.

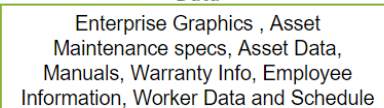
Post-Construction Fields of Operation



Data Source Required



Data



Archibus Smart Client Extension for Revit

The Archibus Extension for Revit is a powerful tool that facilitates the integration of your BIM data with your enterprise data. This integration ensures that your BIM data is up-to-date and validated against your enterprise data standards, so that it is relevant for the lifecycle management of your facility.

- Connects any type of Revit element to an Archibus Asset Type and its associated database table and fields. BIM Managers can extend the mappings from a dialog right inside of Revit.
- Connects and bi-directionally synchronizes any Revit shared parameter with Archibus table and field data – including tables and fields that your add-in manager might have added to Archibus.
- Automatically updates enterprise data if an area is expanded in the Revit model. As the enterprise users request and close move orders, for instance, Archibus can update your occupancy within the Revit BIM model. Or, if you edit a Revit parameter in the Revit properties dialog, Archibus will likewise make the change if you have mapped to that parameter.
- Publishes architectural backgrounds as well as the asset boundaries and allows for publishing single floors as well as the entire model.
- Commands, particularly those relating to finding and fixing synchronization and data-integrity errors, are easier and faster to use.

