



## **Optimize Ongoing Building Operations** with BIM for FM

### Making the Case for BIM for FM

Your company spends years planning and budgeting for new construction, but in the end, 75-80% of the total cost of ownership of your building takes place after it's built, in the operations and maintenance stages.

If you use BIM and an integrated workplace management system, you already have the data you need to run more efficient, cost-effective, and comfortable facilities — you just have to connect the data.



# **Understand the gaps** in the building management life cycle

In the drive to capture and leverage data for better business intelligence, many organizations still rely on different data sets for the separate life cycle phases, first with planning and construction and then ongoing operations and maintenance. By disconnecting the data between departments and teams, you slow down processes, reduce asset life cycles, and drive costs higher.

A lack of data flow between life cycle phases causes information to become segregated, and any benefit from the construction and planning phases' data is lost on future operations and maintenance. This impacts the total cost of ownership (TCO) for a facility and

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leads to a lack of support for the people who occupy the space.

For example, data used in the design phase, like how many occupants a space was intended to accommodate, could be helpful in the operations phase, and operational data, like average daily occupancy, could help inform future building designs.

Creating a clear path for data from building information modeling (BIM) systems to integrated facilities management (FM) systems closes the life cycle management loop and allows you to monitor and react to changing conditions in real time.



## **Implement BIM data for FM** with three core questions

**Creating a set of guidelines** for how you use BIM data in your facility management and operations is a process, and these guidelines evolve over time. Though the process may seem overwhelming, the best first step is just to start, even on a small scale. You continue to refine your process over time and from project to project.



First, you need to answer three critical questions with your team:

#### Who will use the data, and what problems are they trying to solve?

The goal of a BIM-for-FM pathway is to make it easier for your people to perform their jobs as efficiently as possible. Make it personal. List the different demands and challenges of each role to help match them with the most effective data. It's imperative to know who the final consumers in your organization are, and work to understand what data they need, how they will consume it, and what they will do with the information once it's delivered. The needs of a space manager are different than the needs of a commissioning manager or a space reimbursement analyst.

Be as specific as possible. A helpful exercise is to create personas for each role or type of data consumer and treat them like your team. Consider a maintenance

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manager who needs to access systems and component information, such as asset locations, maintenance histories, and repair instructions. The maintenance manager also needs to see how certain systems were designed to operate at optimal levels to be able to prioritize preventive maintenance activities.

Your chief operations officer doesn't necessarily need to see this level of detail, but they will be interested in efficiency and cost metrics.

Once you have outlined the roles and responsibilities of each person who will need access to building and operations data, you can clearly define what information they need and answer the next question.

#### What data will you collect and how will you do it?

**The role of the BIM-for-FM process** is to provide a platform so all your stakeholders can capture relevant information when it's available to them, and you can aggregate all of it into one data record within your facility management software, such as a computerized maintenance management system (CMMS) or an integrated workplace management system (IWMS).

The key here is making the move from data for an as-built perspective to data for an as-maintained perspective. Rather than including everything from the design and construction processes as a huge, static chunk of data, the process whittles that down to a lighter, more agile, basics-only data set for asmaintained. And it's this data that you feed into the CMMS or other facilities management software. To maintain an asset, you don't need every piece of information for how it was manufactured (materials, dimensions, design schematics). You just need the information directly related to its use and upkeep.

Take a door, for example. The BIM-for-FM process collects all as-built data from various stakeholders (schematic design, design development, construction drawings, shop drawings, final installation), with the ability to add information along the way. It then aggregates all the information into one data record that is transferred to your workplace management system and influences information for maintenance, such as the make, model, serial number, and type of hinges.



As-Built Data static, expansive, bulky



#### As-Maintained Data smaller, dynamic, constantly updating

#### How will you maintain and validate the data?

#### Everything you determined in the first two steps should lead you to the answer here.

This step is critical because, in the end, if you can't keep the data up to date, it quickly loses its value. Out-ofdate data also calls into question the accuracy of your other data. If even one data point become inaccurate or antiquated even slightly, people distrust the remaining data points — even if they're accurate.



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# Experience true BIM-for-FM integration with Eptura

The Autodesk partnership with Eptura creates a seamless solution to the challenge of connecting BIM and FM data.

<u>The Archibus Smart Client extension</u> synchronizes data between Autodesk and the Archibus IWMS so you can make smarter decisions about your space and assets.

You can see and interact with a digital twin of your building, capture your floor plan layout, and see architectural layers from Revit right within your workplace management system.

To learn more about how it works,

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