



HOW TO QUICKLY MOVE TO
PROACTIVE FACILITY
OPERATIONS WHILE
REDUCING ALARM FATIGUE

The Value is Not the Data...the Value is what you DO with the Data



Proactive operations and maintenance have always been a struggle...because we've been using the wrong tools.

Facility Managers share the common problem with thinking they need to react in their Operations and Maintenance (O&M) activities. Facility Teams are familiar with the standard alarming that Building Automation Systems (BAS) provide. In most cases, BAS alarms are nuisances that are generally ignored. We've all been there; we sit down in front of our BAS to check a piece of equipment or tweak a set-point and we're immediately met with dozens of alarms that must be "acknowledged" (or more likely "ignored") before you can proceed. More often than not, alarms are providing information after it's too late, or just before something bad happens. This gives just enough time to respond before something worse pops up. In order to quickly address the problem and avoid further issues, "band-aid" fixes are typically applied. Unfortunately, these rarely solve the "root cause" of the issues and can lead to recurring problems and inefficient, reactive operational maintenance.



By properly applying **Analytics and Fault Detection & Diagnostics (AFDD) systems and Monitoring-Based Commissioning (MBCx)** solutions, Synergy has helped clients move from costly reactive operational maintenance to a process where potential problems are detected before they cause a larger issue. By performing in-depth root cause analysis, Synergy helps customers pinpoint the true cause of issues, which allows clients to properly direct their corrective actions

Making the leap towards an optimized facility with a proactive team requires getting ahead of critical issues and moving beyond them...to do so requires the proper tool. AFDD is that tool. AFDD will position your facility for: proper compliance, proactive maintenance, increased energy savings, improved comfort, lower operational maintenance costs, and easier access to your building data.

Moving towards an AFDD solution with MBCx is not complicated, but it must be carefully planned out and deliberately deployed for long-lasting success. This is why we've included some questions to consider before moving toward this solution.

The "US Department of Energy's Operations & Maintenance Best Practices Guide has calculated the following impacts of Proactive Maintenance."

*Operations & Maintenance Best Practices Guide: Release 3.0.
https://www.energy.gov/sites/prod/files/2013/10/f3/omguide_complete.pdf*

Impacts of Proactive Maintenance

Reduction in maintenance costs	25-30%
--------------------------------	--------

Elimination of breakdowns	70-75%
---------------------------	--------

Reduction in downtime	35-45%
-----------------------	--------

Increase in production	20-25%
------------------------	--------

Return on Investment (ROI)	10X
----------------------------	-----



A FEW QUESTIONS TO CONSIDER BEFORE APPLYING AN AFDD AND MBCX SOLUTION

#1: What are your goals and what are you hoping to achieve with the AFDD system?

Before you start your AFDD journey, it is critical to determine the expectations desired for you and your team. Some of your goals might be:

- Access to actionable data
- Energy savings
- Increased operational and maintenance efficiency
- Improve occupant comfort
- Enhanced compliance
- Better equipment up-time

The application of AFDD is not a “one size fits all” solution. What is important to other building owners/directors may not be as critical to you and your team. Determining what you want your AFDD system to accomplish first will set up a clear path to success.

#2: Do you have a process in place to take the findings from your data and create actionable results?

Your AFDD system is going to provide you and your team with lots of actionable ideas and diagnostics. Take some time to review the capabilities of your team and determine what processes are needed in order to take all those ideas and diagnostics and create valuable change with them. A detailed understanding of your budget is critical as well and key to scaling your AFDD system to provide you with right types of fault detection and diagnostics.

You don't want an AFDD system that produces tremendous amounts of valuable data but is underutilized. Make sure your team is set up for success and ready to turn those ideas into valuable action.



#3: Who are the intended Users of the AFDD solution:

Everyone on your team has a different need for the data, a different skill set, and different capabilities when it comes to interacting with the AFDD system. Some possible Users might be:

- Facility Directors
- Facility Managers
- Energy Managers
- Monitoring-Based Commissioning (MBCx) Team
- Service Technicians
- Design Engineers
- Commissioning (Cx) Agents
- Chief Financial Officer (CFO)

Understanding the potential Users, and uses of your AFDD system, is crucial to its success.



#4 How do your intended Users need to best interact with the data in order to get the most value out of your AFDD solution?

When it comes to displaying and delivering AFDD system information, there are many options. The solutions that are best for you and your team will depend on what data is the most important, the interval at which you want it delivered, and who needs to receive it. A few options might be:

- Faults and Diagnostics delivered to your Team via your Centralized Maintenance Management System (CMMS)
- An interactive dashboard that gives real-time Key Performance Indicators (KPIs), equipment and system scores, and highlights the greatest areas of concern
- Advanced MBCx tools
- E-mailed reporting

There is a lot of buzz in the industry about AFDD systems and a lot of promises being made. At the end of the day, your path to success is built with a strong AFDD foundation with a focus on what matters most to you and your team and how the solution best delivers that value. Your team needs to be able to easily digest the information and validate how that data is improving their operational efficiency. As a facility manager, you need to confirm the shift toward proactive data is impacting your bottom line.

It's very important to remember that your end goal should be to solve problems, not just to identify them. Continuing along with archaic BAS alarming will never allow you to truly solve issues within your facility and you will always be reactive.

There is a tremendous amount of data in all your systems. For any AFDD solution to be successful, it is crucial to determine exactly what data you want to see, who needs to see it, and how are they going to use that insight to proactively achieve the goals you have laid out for success.

At Synergy, our engineering and AFDD experts have experience in all types of analytics and MBCx projects, and we look forward to working with you to determine your AFDD system needs and how we can make that system a long-term success!



Scan the QR code to talk to us about your AFDD and MBCx needs.

SCAN ME