



# **CopperTree Analytics:** Transforming Building Performance from Pre-Commissioning to Operations



**CopperTree**  
Analytics



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INNOVATIONS

**eBrain Innovations** is a CopperTree Analytics Authorised Partner

# A Data-Driven Approach with **Kaizen**

**Building performance** doesn't start and end with commissioning. CopperTree Analytics's family of solutions, Kaizen, plays a critical role across the entire building lifecycle, from **pre-commissioning to continuous optimization (MBCx)** and long-term operations, ensuring data-driven decision-making at every stage.

## **Pre-Commissioning: Laying the Foundation for Success**



### **Design & Data Strategy**

Define data requirements, system structure, and ensure commissioning readiness before commissioning begins.



### **Early Fault Detection**

Leverage Fault Detection and Diagnostics (FDD) to identify design flaws and configuration errors before commissioning and handover.



### **System Readiness Verification Insights**

Validate that equipment is properly installed and configured before functional testing begins, reducing delays and rework.

## **Commissioning: Smarter Testing & Validation**



### **Automated Commissioning (ACx)**

Automate system tests and performance verification for faster, more reliable functional performance testing (FPT).



### **Prefunctional Performance Testing**

Use FDD to remotely confirm system readiness before site visits, eliminating wasted trips and rescheduling.



### **Bulk Testing for Efficiency**

Instead of testing terminal units one by one, ACx enables batch testing, saving countless hours on large projects.



### **Real-Time Issue Tracking**

Every test result is automatically recorded, eliminating manual logs and providing live visibility into system performance.



## Warranty and Post-Substantial Completion: Monitoring-Based Commissioning (MBCx)

### Continuous Optimization



#### Live System Monitoring

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FDD continuously analyzes real-time data from the Building Automation System (BAS) and other data sources to detect inefficiencies and faults throughout the warranty phase and beyond.



#### Ongoing Performance Validation

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Ensure systems remain in peak condition post-occupancy, reducing energy waste, operational issues, and costly failures.



#### Automated Analytics-Driven Optimization

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Identify opportunities for ongoing system improvements and ensure persistent savings and compliant indoor conditions.



## **Operations: Proactive Maintenance & Long-Term Efficiency**

### **Predictive Maintenance:**

Use automated maintenance testing and analytics to detect performance degradation before failures occur, reducing downtime and maintenance costs. Reduce inspection and testing and increase repairs and proactive interventions.

### **Optimized Energy Efficiency:**

Continuously tune building systems for peak performance, ensuring compliance with sustainability goals.

### **Data-Driven Decision Making:**

Provide facility teams with real-time insights to prioritize maintenance efforts and optimize operational efficiency.



## How Kaizen Works: ACx + FDD in Action

At its core, Kaizen transforms complex building data into meaningful, actionable insights that drive efficiency at every stage.

### 1. Data Collection:

Kaizen integrates with your building's Building Automation System (BAS) amongst other data sources, collecting real-time data on MEP systems like HVAC, lighting, and critical systems without disrupting operations.

### 2. Fault Detection & Diagnostics (FDD):

Using advanced algorithms, Kaizen continuously monitors building performance, detecting anomalies, inefficiencies, and faults before they escalate.

### 3. Automated Commissioning (ACx):

Kaizen enables bulk system testing for commissioning teams, reducing labor costs and providing real-time performance validation with far greater accuracy and depth.

### 4. Actionable Reporting:

Insights are delivered through intuitive dashboards and automated reports, helping teams prioritize critical issues and streamline workflows.

### 5. Continuous Optimization:

Unlike traditional maintenance, Kaizen offers ongoing system monitoring and optimization, ensuring that your building operates at peak efficiency throughout its lifecycle.



## The Future of Building Performance: Smarter, Faster, and More Reliable

Kaizen ensures that buildings operate efficiently from design to long-term operations. These tools are becoming the new industry standard for smarter, data-driven building management.

## Proven Solutions for Thousands of Buildings

CopperTree's solutions have been trusted by thousands of buildings worldwide to optimize operations, reduce costs, and lower emissions. Imagine how Kaizen could transform your own buildings, offering detailed insights into your systems' performance and empowering you to meet your operational goals, energy efficiency aspirations and emissions reduction targets. Ready to transform your building operations?

**Contact our Authorised Partner eBrain Innovations to learn how our data-driven solutions can help you reduce costs, lower emissions, and achieve operational excellence.**

**Visit our Authorised Partner eBrain Innovations' website [here](#)**

### GET IN TOUCH

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