



Stop **Testing**. Start **Verifying**.

Kaizen ACx: Automated Commissioning
for Data-Driven Performance Assurance



CopperTree
Analytics



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The Manual Commissioning **Bottleneck**

Manual functional performance testing is essential, but the traditional process is plagued with **inefficiencies** that compromise project **timelines, budgets, and reliability**. Building owners and commissioning agents face mounting pressure to deliver systems that work flawlessly from day one, yet conventional methods consistently fall short of this expectation.

Slow & Expensive

Testing hundreds or thousands of terminal units manually takes immense time and labor, delaying project handover and driving up costs. Each VAV box requires individual attention, site visits multiply, and labor expenses compound rapidly across large facilities.

Prone to Inconsistency

Manual testing quality varies by technician and often lacks standardization, leading to missed issues and unreliable results. Different contractors apply different methodologies, documentation varies widely, and quality control becomes nearly impossible to maintain.

Lacks Granular Proof

Pass/fail checklists provide limited data. It's difficult to prove how well a VAV box is modulating or if a sensor is truly accurate. This creates risk and potential disputes during handover and throughout the warranty period.

The Result: A costly, slow, and often unreliable process that fails to guarantee optimal Day 1 performance, leaving building owners vulnerable to operational issues, tenant complaints, and energy inefficiency from the moment of occupancy.

Introducing **Kaizen ACx**

Kaizen ACx leverages your building's own data streams to automate the functional testing process, providing **rapid, consistent, and verifiable** proof of performance. By integrating directly with your building automation system through secure BACnet communication, **ACx** transforms commissioning from a labour intensive manual process into an intelligent, **automated verification system** that documents every component's true operational capability.



Automated Sequences

#1

ACx systematically commands terminal units (VAVs, FPU's, fan coils, and more) through pre-configured or fully customizable test sequences via secure, native BACnet communication. Tests run automatically across entire zones or buildings, eliminating the need for technicians to visit each unit individually.

Component-Level Verification

#2

Tests validate the full operational range of every component:

- Damper & Valve: Stroke Verification 3 Confirms full range of motion and proper modulation
- Fan Operation: 3 Validates on/off functionality and speed control
- Sensor Accuracy: 3 Tests airflow, temperature, and pressure readings against expected ranges



Data-Driven Reporting

#3

Generates detailed, auditable reports for every asset tested, showing precise performance data, not just pass/fail checkmarks. Each report includes time stamped test sequences, actual vs. expected values, trend data, and specific deficiency identification. Reports provide undeniable proof of performance for owners, contractors, and certification authorities.

Faster, More Reliable Commissioning

#4

Dramatically reduce testing time from weeks to days, ensure consistency across your entire project portfolio, and provide clients with undeniable proof of performance. ACx eliminates scheduling conflicts, reduces site visits, and allows commissioning agents to focus on analysis rather than data collection.





Minimize the **Performance Gap** from Day One

Kaizen ACx provides the assurance that your building starts its life operating exactly as designed, delivering the **energy efficiency, occupant comfort, and operational reliability** that your clients demand and deserve.

- Reduce Commissioning Time & Cost
- Improve Accuracy & Consistency
- Provide Auditable Proof
- De-Risk Project Handover
- Enable True Performance Contracting

Want to learn more? Reach out to our Authorised Partner eBrain Innovations

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