Benefits

Analyzing the performance of a facility to identify opportunities for improved operation

The persistent commissioning (PCx℠) process combines advanced analytics with the expertise of our HVAC and building controls professionals to identify energy savings. PCx often offers a larger return-on-investment (ROI) for energy efficiency than capital improvement projects. It can also help maintain energy savings after projects have been installed. Other benefits include the following:

• Monitor peak demand components
• Typically higher ROI than energy efficiency equipment upgrade projects
• Easily normalized performance data for benchmarking and comparative analysis
• Enable centralized reporting of energy information and predictive analytics
• Validate energy conservation measure savings against utility data consumption

Comprehensive Solution

Create an optimized system to continuously assess and sustain building performance

• Enable remote monitoring within a building or portfolio of buildings
• Collect and store building automation system (BAS) and environmental data in a centralized database
• Standardized data model to ease analysis and assessment
• Rules-based processing monitors key performance indicators (KPI)
• Simple, intuitive user dashboards
• Work order system integration offers a proactive approach to maintenance
• Easy subscription-based services available
• Owners’ IT security requirements
• Flexibility to store and compare data from systems of all types
• Real-time operational recommendations
• Reduce equipment downtime
• More “hands-on” solutions for clients with in-house controls expertise

The PCx Process

Visualize and notify performance deviations

• Collect—obtain data from a wide variety of sources; BAS, local utility, facility assets, weather, Excel, CSV, or others
• Manage—give the data meaning by adding “tags” needed to convey definition and associations
• Analyze—develop rules to define language; analytic “tags” to correlate and analyze data
• Act—customize reports to provide targeted information for each user’s specific role within the organization; work flow assignment, alerts, proactive maintenance, what-if scenarios

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Real-world sustainable solutions yielding smaller energy footprints

We approach each project with an emphasis on the life cycle performance of a building and can deliver the full spectrum of planning, repairing, renewing, and sustaining new and existing systems. In addition to designing, installing, and commissioning new buildings, we investigate, analyze, troubleshoot, and commission existing facilities to create a more comfortable and energy efficient environment.

These capabilities combined with a team possessing more than 25 years of new and existing building commissioning experience, enable us to evaluate, guide, and direct our clients’ decision-making process to ensure the best solution.

Key Elements of PCx:

- **System integration**—unifies the object model of building point data across the building portfolio. These are the first steps to normalization.

- **Baseline and normalization**—data must be normalized for time stamps, weather, building type, and other information to be actionable for energy reductions, operations, and maintenance actions.

- **System user actions**—present information to user’s needs. Dashboards, work orders, security, what-if scenarios, alerts, etc., to correct actions when needed.

Representative Clients

- Healthcare
- K-12 schools
- Infrastructure
- Municipal
- Commercial
- Federal government
- Industrial
- Colleges and universities