SMART GUIDE
MANUFACTURING

How building analytics enhances your BMS

Building analytics transforms raw BMS data into fact-based insights to facilitate better decision making.

CIM

Remove inefficiency and cost by combining building analytics with your BMS

Today's industrial buildings generate vast amounts of data. Technology has evolved to enable you to harness this data through building analytics and use it to gain a deeper understanding of how your buildings function, leading to increased operational efficiencies, improved sustainability outcomes and site profitability.

A BMS monitors day to day operations

Historically, site managers have relied on building management systems (BMS) to manage the day to day operations of their facilities. If an issue occurs and it is not flagged as a critical alarm by the BMS, they are unlikely to find out about it until they receive an abnormally high energy bill for example, or equipment fails resulting in unplanned downtime.

A BMS can control building operations such as heating, ventilation and air conditioning (HVAC) equipment to ensure it works to preset parameters or conditions. It is not designed to piece together the bigger picture of a large building's data set that you need to improve overall site performance.

Building analytics optimises performance

Building analytics enhances BMS data sets by providing much more proactive and meaningful information that can be used to optimise equipment performance and lifespan, remove inefficiencies and reduce energy consumption and cost.

Combining your BMS with advanced building analytics will help you make faster, more informed decisions, leaving more time for other priorities, and to create value for your site.

CIM's PEAK platform collects and analyses BMS data as well as granular equipment sensor data, HVAC and electricity usage feeds. It combines this information with weather data and other data sources to provide a new level of insight.

	BMS	PEAK
Purpose	Designed to operate systems to provide specific building conditions.	Designed to holistically analyse how building systems perform based on factors such as energy intensity and desired thermal comfort levels.
Design	Operates within the design constraints of the building.	Identifies system design issues within the controls and mechanical design of the building and suggests how to improve or rectify them.
Manual changes	Regards user adjustments to set-points as a fix to a problem.	Identifies when manual adjustments to set-points or equipment create an imbalance to the entire system.
Fault detection & diagnosis	Only identifies issues once they've occurred. Raises faults when alarm thresholds have been reached or systems suffer critical breaches.	Identifies any reduction in system performance and notifies you of issues before they turn into faults. Doesn't wait for alarm levels to be reached or breached. It analyses systems at the component level to identify any issues that need fixing to enable the system to run most effectively.
Building data quality	Collects data based on points to determine it's next control requirement. Can only collect data from systems connected to the BMS. Displays current information about building operations with historical trends.	Calculates virtual points even when meters are not available, allowing for a more in-depth unit analysis. Analyses current and historical data and presents it in an intuitive interface so the user can view a holistic representation of system operations in real-time. Makes the system easier to interpret enabling faster decision making based on component-level facts.
Fault prioritisation	The alert system triggers faults based on breaches of thresholds and set-points. Fault volume—the volume of "alarms" triggered within a complex multi-point system—can become overwhelming to the point they are ignored until they become real issues on site.	Enables proactive identification, prioritisation and impact assessment by analysing fault frequency and duration as well as other factors such as the building's energy cost, thermal comfort and equipment lifecycle impact.
Control logic	Operates within the barriers of the programmed control logic.	Analyses the control logic on each controller to ensure it is operating most efficiently. It also flags any faults and suggests solutions to fix these faults.
Independence	BMS service providers are incentivised to continually promote hardware and software upgrades.	Analyses the existing BMS to ensure the most benefit is being generated before upgrades are required.

The PEAK platform

CIM's award-winning* PEAK platform integrates building intelligence and technical engineering support to improve efficiency, sustainability and comfort across technology manufacturing sites.

Building analytics

PEAK unleashes the power of existing building data and automation to give site management teams more visibility and control over assets.

Technical engineering support

Our mechanical, mechatronic and electrical engineers provide dedicated expert support to quickly resolve issues and run better buildings.

Customer outcomes

Energy & OPEX savings

Better Environmental performance

Smarter contractor management

Greater team performance

Improved thermal comfort

Proactive capital planning

Data-driven maintenance

Reduced carbon emissions

Extended equipment lifespan

Increased site profitability

**CIM awarded CSIRO's "Best in Class" in an independent evaluation of building analytics technologies from Australia, the USA and Canada.*

Contact CIM to learn how we can help you drive more value from your BMS and technical systems.

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