We make data **big.**™

Next level building automation engineered
to help you make smart decisions.

WebCTRL®
BUILDING
ANALYTICS

The tools you need to maximize building efficiency in a **big** way.

We make data **big.**™

While there's a lot of buzz around big data in today's buildings, data is only powerful when it can be organized, understood and used to make smart decisions. That's where Automated Logic comes in. We're known throughout the industry for providing the native, integral set of analytical tools that deliver the understanding, prompt action and historical record you need. And in providing the resources that can simplify the analysis of building data, we make it big.

The WebCTRL® system

Every smart building needs a cornerstone.

A proven, industry-leading system from the original name in building analytics, WebCTRL® gives you the ability to fully understand your operations and analyze the results with tools that make sense to you.

The Power of Simplicity provides analytical tools that help you achieve all areas of building optimization.

- Maintain comfort and productivity
- Deliver operating efficiencies
- Balance occupant needs and operating costs
- Anticipate system issues
- Maintain sustainability
- Document your successful results

Look at your building automation system as the gathering place, the repository of all operating data and information related to your building. Whether it is temperature history, utility metering, trend data, or comfort measurement, your WebCTRL system effectively packages the information you need for management of your facilities.
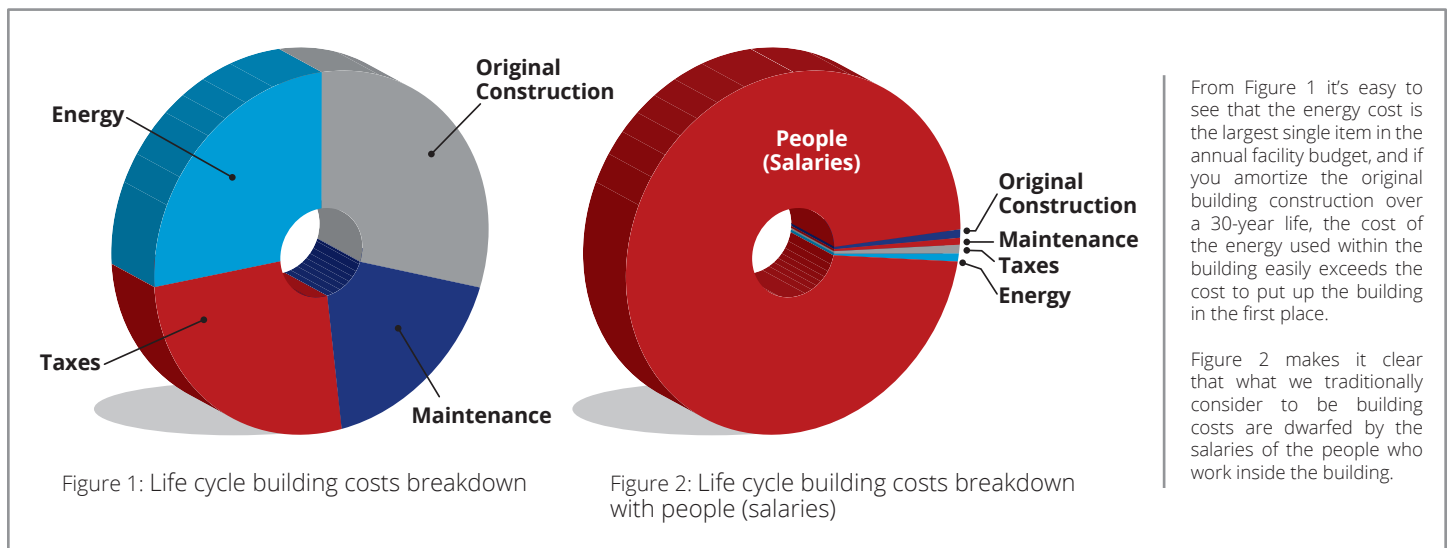
WebCTRL Environmental Index™ tool

The right tools make everyone comfortable.

Whether you're talking about office buildings, schools, healthcare facilities or any other occupied space, comfort is key. It cannot, however, come at the expense of optimum efficiency. That's why Automated Logic has the native tools to help you measure, analyze and compare data to help you balance comfort with efficiency.

The Automated Logic Environmental Index (also known as a Comfort Index) is the ideal tool for analyzing ongoing operations as well as assessing your sustainability targets. The index rolls up granular zone data, allowing you general operational insight with the ability to drill down to any zone in question.

The traditional approach of considering building operating and life cycle costs doesn't even take into account occupant salaries, which are far greater and of much more impact when productivity is considered. Notice the difference between the two pie charts when occupant salary costs are considered.

Figure 1: Life cycle building costs breakdown

Figure 2: Life cycle building costs breakdown with people (salaries)

From Figure 1 it's easy to see that the energy cost is the largest single item in the annual facility budget, and if you amortize the original building construction over a 30-year life, the cost of the energy used within the building easily exceeds the cost to put up the building in the first place.

Figure 2 makes it clear that what we traditionally consider to be building costs are dwarfed by the salaries of the people who work inside the building.

Actual breakdown may vary by specific building parameters.

The Environmental Index is your analysis tool for assessing how well systems are controlling, identifying problem areas, and delivering the justification for remedial action.

A live, dynamic dashboard provides real-time analysis of conditions so the operator has insight on exactly what is going on without having to rely on a remote "expert" in the cloud who's unfamiliar with your building.

98

Conditions Satisfied
99 % of Time

102 Zones Reporting
100 % of Total

— El Holland Tower ▼

Trend and Scatter Plot Tools

Assess your operations at your fingertips.

Information is power, and Automated Logic gives you both with the delivery of a fully capable trending tool. Trend all of the points in your system and have the full benefit of robust historical information.
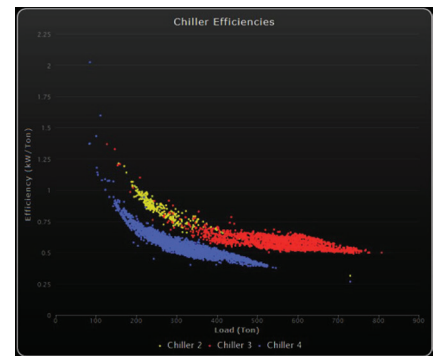
At Automated Logic, we deliver complete trending tools for your building. With our high-speed architecture and distributed trend gathering, all physical parameters (i.e., temperature, relative humidity, dew point, CFM, pressure) are historically trended and securely stored. In addition, all environmental data, both current and historical, can be shown in a tabular or graphical display.

Our scatter plot displays deliver a firsthand diagnostic perspective on your major equipment, allowing you to assess system efficiency versus load to further optimize your operation.

With the ability to simply create graphs from data anywhere in the system, the operator has the immediate ability to effectively analyze, diagnose and troubleshoot any aspect of their facility's operations in real time. That same capability provides the necessary backup and documentation to demonstrate your operating effectiveness.

Advanced trending engine enables operators to track and troubleshoot building conditions.

Scatter plot tool shows the relationship between two data sets, providing a quick comparison of hundreds of data points in a single view.

Dynamic color floor plans provide an immediate understanding of conditions in your building in a single glance.

Thermographic Floor Plan Displays

See your building in living color.

Few operators have the time to sit in front of the computer comparing actual space temperatures with their set points – and with Automated Logic, they don't have to. A timeless and unmatched assessment tool, thermographic floor plan displays allow instantaneous recognition of building and zone conditions. A quick analysis of colors allows the operator to determine if there is an issue.

By displaying information using colors rather than numerical data, we eliminate the need for human calculation and interpretation of set point and actual temperature difference, and help resolve whether there is a normal circumstance or an anomaly to be investigated.

No one has ever said that an analytical tool has to be complex. With this in mind, Automated Logic thermographs do the interpretation (read: analysis) of the real-time data and provide a result that is easily understood and acted upon.

Time-lapse™ Graphics

Forward-thinking technology that allows you to look back.

A powerful tool that allows you to play back hours of real-time data in just minutes.

The Automated Logic Time-lapse™ feature allows you to go back in time to look at and review any aspect of your system. Similar in function to your home DVR, Time-lapse™ provides the ability to look at floor plans, equipment graphics, trending, and alarms over a past period of time. What better way to analyze and assess your system operations?

Just by specifying a date and a time range, a simple click will grab the system data and deliver to the operator a view that can be stopped, backed up, and stepped forward to narrow down and zero in on a system variance.

Time-lapse™ lets you catch that unnoticed event, assess off-hours operations, and troubleshoot and compare functionality of buildings, systems and zones.

Fault Detection and Diagnostics (FDD)

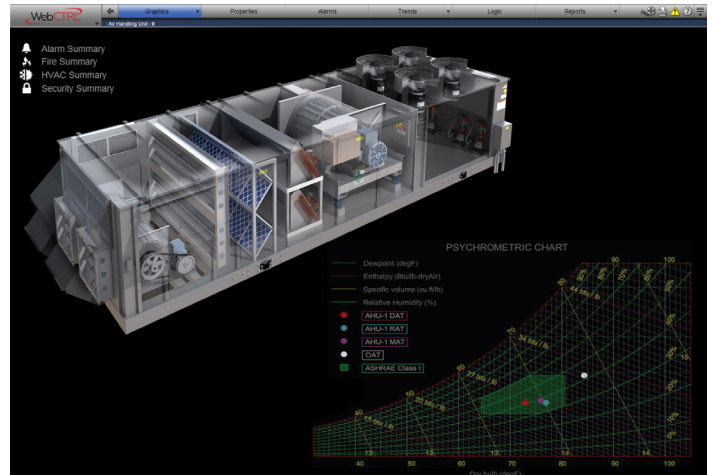**Identify and respond to issues when it matters most: before they happen.**

Fault Detection and Diagnostics (FDD) uses the power of robust algorithms, hard data and strong reporting of Automated Logic WebCTRL. FDD can measure, anticipate, provide insight, and automatically respond to system conditions that are not necessarily critical, but may be trending that way – all with the goal of improved operational performance.

There are two ways to handle FDD:

- **External** to the building automation
  - Requires thousands of points to be mapped to the FDD program
  - Mapping is fragile and can "break" with a system update
  - Requires significant bandwidth to communicate data
  - One-way communication; no feedback loop to the control

- **Internal** as part of the control sequences
  - No mapping required
  - Inclusive presence provides instant feedback
  - Can suggest common causes and possible effects
  - Promotes immediate action with immediate reporting

Consistent with our philosophy of helping you maximize your return on investment, FDD leverages the power of the WebCTRL system and your existing mix of inputs and outputs to automatically monitor, oversee and adapt to the constant dynamic of your building, minimizing or eliminating the need for human intervention in responding to operational issues.

Always on the cutting edge, Automated Logic is at the forefront of the steadily evolving FDD technology.

Automated Logic's Psychrometric logic takes the guesswork out of reaching comfortable conditions for building occupants.

Automated Psychrometric Chart

When it comes to economizing, seeing the big picture can make a big difference.

In most buildings, free cooling is high on the list of optimization routines. Economizer mode has been drilled into us as one of the prime ways of eliminating mechanical cooling and saving energy.

Yet it's common knowledge that basing free cooling on dry bulb temperature is only valid if the wet bulb, dew point, and enthalpy are relatively low. Automated Logic's Psychrometric logic takes the guesswork out of reaching comfortable conditions for building occupants.

The Automated Psychrometric Chart analyzes all of the outside air parameters, removes the human judgment call, and uses the psych chart that engineers rely on to only operate economizer at the right time.

EnergyReports™ (ER) package
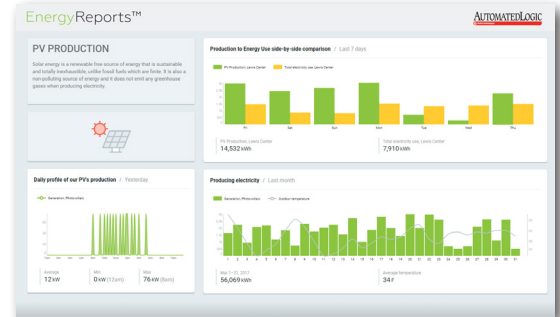
Your building officially reports to you.

The EnergyReports™ (ER) package provides on-the-fly report creation that is simple and intuitive to use. With access to every one of your metered energy loads, you have the ability to create a relevant and informative report in response to immediate demands. Like that favorite report you created? Schedule it to address a repeating need.

What's better than an easy-to-organize reporting package to compare and analyze loads or demand in your portfolio of meters? Easily shift from 3D bar, line or pie chart to a tabular format to optimize your review. Differentiate between occupied and unoccupied, and take into account cooling/heating degree days to achieve a definitive understanding. Change your engineering units relative to the conditions of occupancy (i.e., number of occupants, occupied hours, square footage, carbon pounds, etc.).
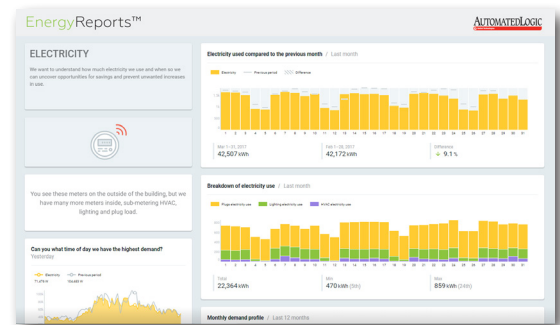
Face the natural conflict of occupant comfort and energy efficiency head-on. Include the current Environmental Index value for an instant comparison with your energy use.

Another aspect of our reporting functionality is using a dashboard to display those same dynamic values. This allows you to analyze, resolve, and, if necessary, make trade-offs between energy efficiency and comfort. You are now aware and in control.
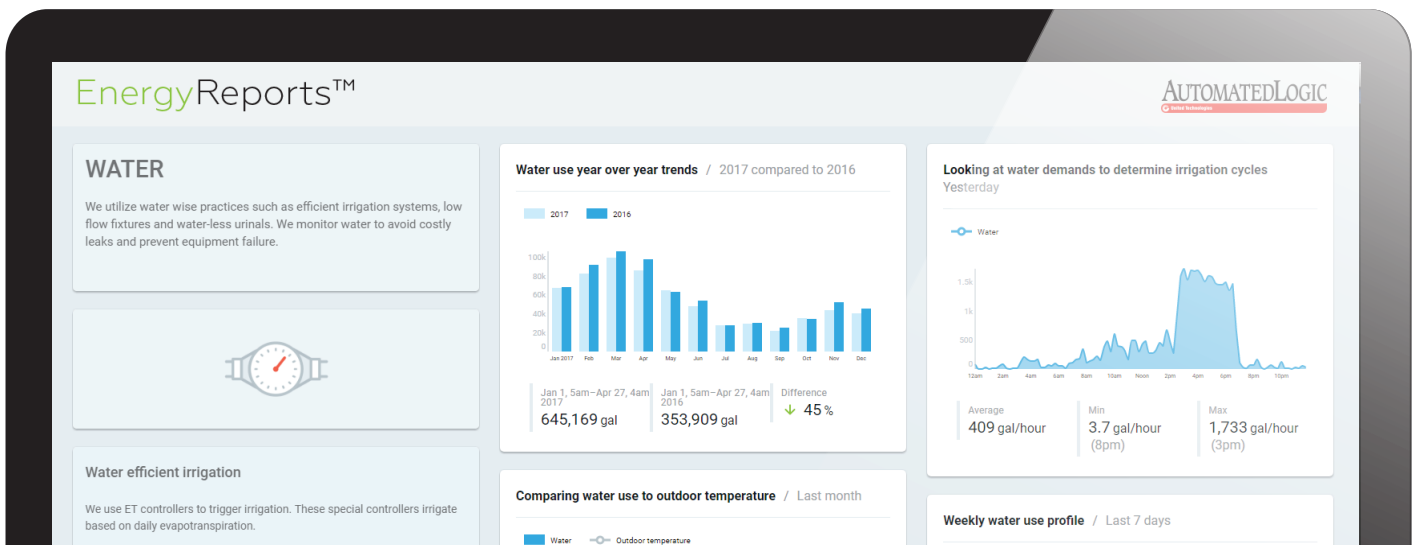
The EnergyReports™ package is another key component of the Automated Logic tool set – and one more way that we make building data powerfully simple.

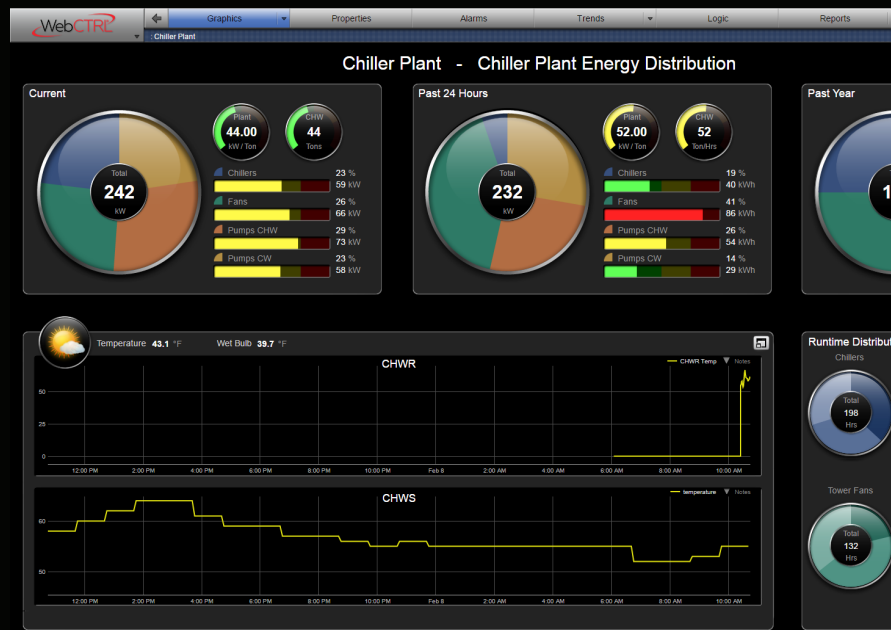EnergyReports™ is an incredibly flexible, easy-to-use reporting tool.

Using dynamic and animated color graphs, EnergyReports™ allows users to compare energy consumption or demand over different periods with simple drop-down menus and calendar controls.

At Automated Logic, we've been making building data powerfully simple for more than 40 years.

We design and develop intuitive analytics tools that allow building operators to run their facilities more efficiently.

The Automated Logic analytics toolset is a built-in aspect of every WebCTRL® system. Easily configured by you or the local ALC field office, these tools offer an efficient and practical way to analyze and troubleshoot the systems in your building. Perhaps most importantly, our tools give you control over your own system, eliminating the need to add expensive and unreliable third party overlays to decipher your building data.

It all adds up to a simpler, smarter way to analyze your building operations and optimize efficiency, comfort and performance. And any way you look at it, in today's buildings, that's a big deal.

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We make data **big.**™
Next level building automation engineered to help you make smart decisions.

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