Reliable® controls

People and technology you can rely on™

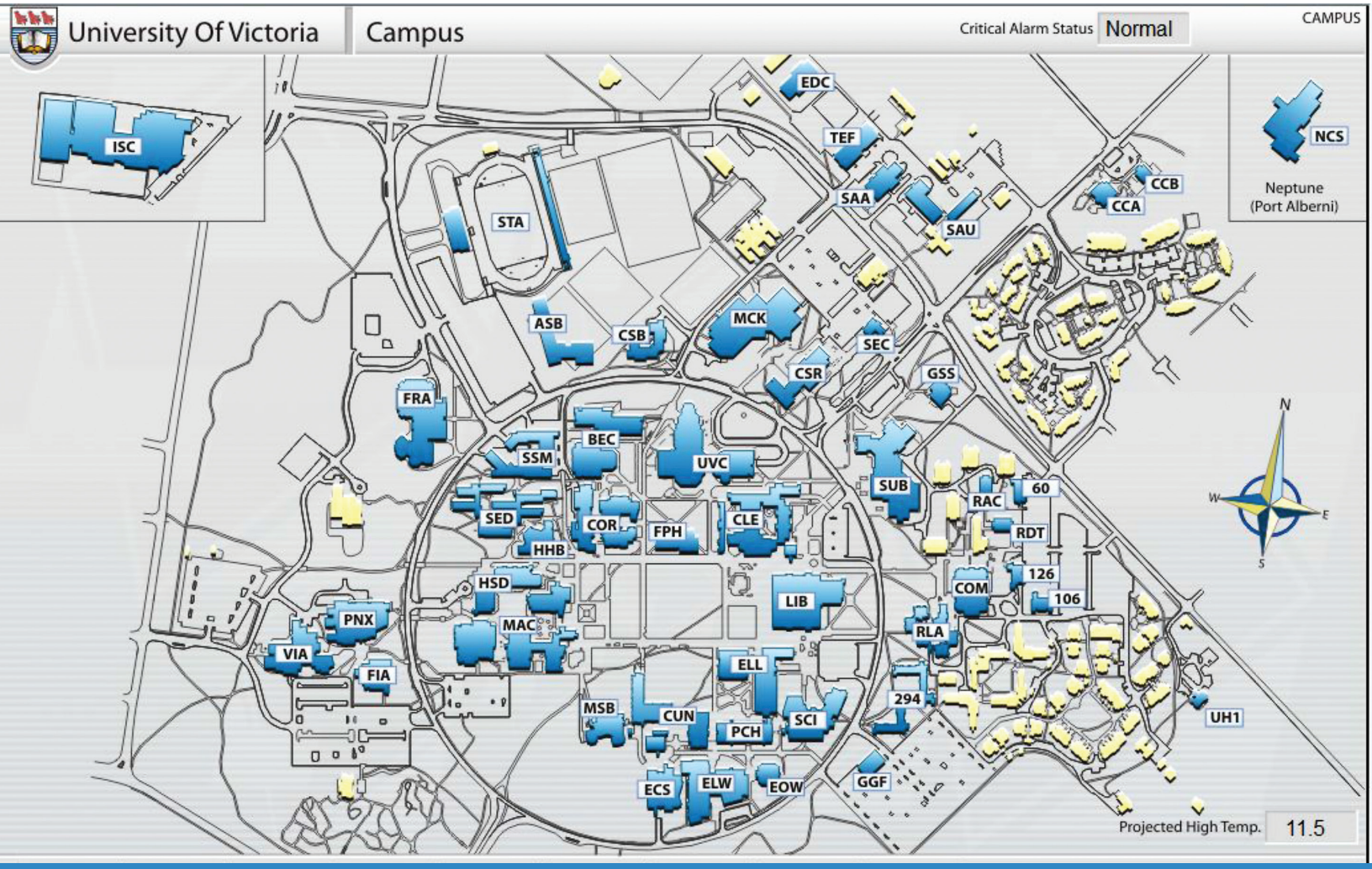
Sustainability standards place a high demand on facility managers to maintain a delicate balance of energy efficiency, client comfort, and environmental impact.

The ease of use, versatility, and resilience of the Reliable Controls system allows building operators to achieve that balance.

University Solutions

In January 1994 the University of Victoria awarded a controls retrofit contract that would replace the existing control systems in 12 major buildings and 3 major heating plants, with a single system from Reliable Controls. With a 'can do' attitude the project was completed in an astonishing 198 days, just in time for the university to host the 1994 Commonwealth Games.

Today, approximately 20,000 points of measurement and control are managed by Reliable Controls products at the University of Victoria. And since 2007 all new campus buildings have been constructed to LEED Gold standard or higher.



The Reliable Controls system installed on the campus consists of approximately 1,200 distributed controllers. Over 40 third party suppliers are currently integrated on the network providing 1,300 BACnet and Modbus objects.

Member of BACnet International

building performance

Situated against the stunning backdrop of Canada's west coast, the University of Victoria is ranked #**1** in Canada and #**11** globally among universities less than 50 years old. The campus consists of **172 buildings** that comprise approximately **362,000 m²** (3.9 million ft²) of conditioned space and accommodates a student population of over 20,000.

The payback of the original Reliable Controls system investment was within four years. Recent projects at the university have been approved with a three to five year payback.

UVic is currently in the process of implementing a continuous optimization strategy utilizing the Reliable Controls system and the RC-Reporter building performance software.

YORK UNIVERSITÉ UNIVERSITY

York University

Reliable Controls Authorized Dealer, Jade Logic Building Technologies Inc., completed this retrofit project for the busy, Toronto-based York University Student Centre, a 12,356 m2 (133,000 ft2) facility used for many different purposes and functions.

The system is connected to the university computer network (LAN) and is accessible through the network and over the Internet. The original fan coil units with pneumatic controls operated 365 days per year, 24 hours per day, and were replaced with new fan coils with DDC controls. The main air handling systems were all retrofitted with DDC valves and actuators, as well as new main controllers.

The new system allows for customized schedules due to the varied use of the building. Supply air temperatures are also monitored from each fan coil to provide alarms on any out-of-range temperatures.

*This successful retrofit project provides a savings of approximately **$35,000** per year in operating costs.*

Project Type:
Retrofit

Installation Type:
Fan Coil Unit, VAV

Total Area:
12,356 m^2 (133,000 ft^2)

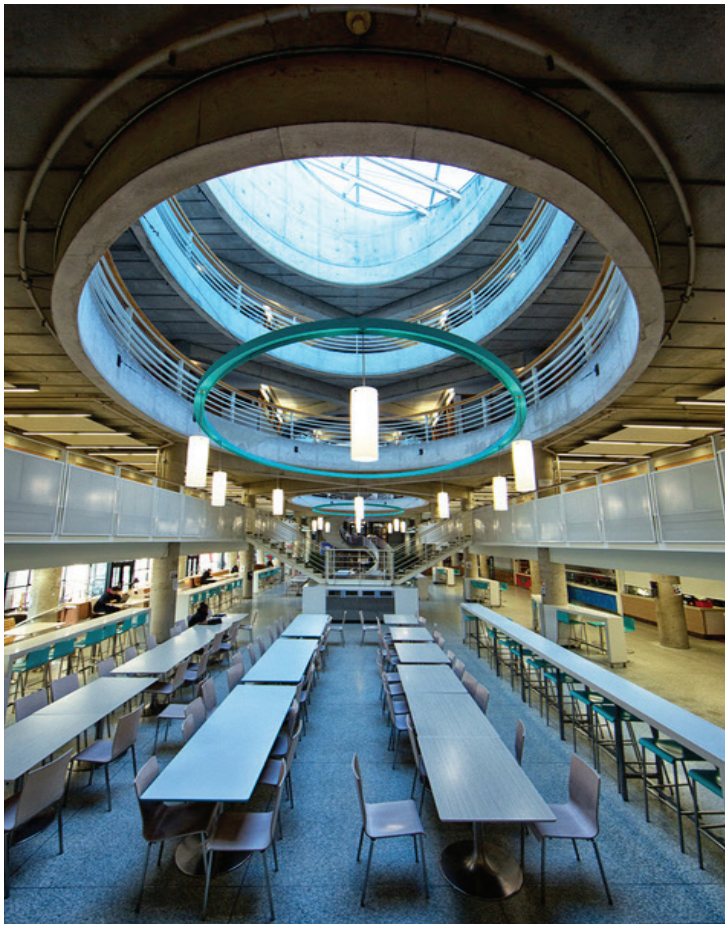
Equipment Installed:
150 SMART-Space™ controller
25 MACH-ProZone™
1 MACH-ProWebSys™
6 MACH-ProSys™
4 MACH-ProPoint™

Network:
EIA-485
Ethernet
LAN

Total System Points:
1600 points

Reliable Controls® Dealer:
Jade Logic Building Technologies Inc.

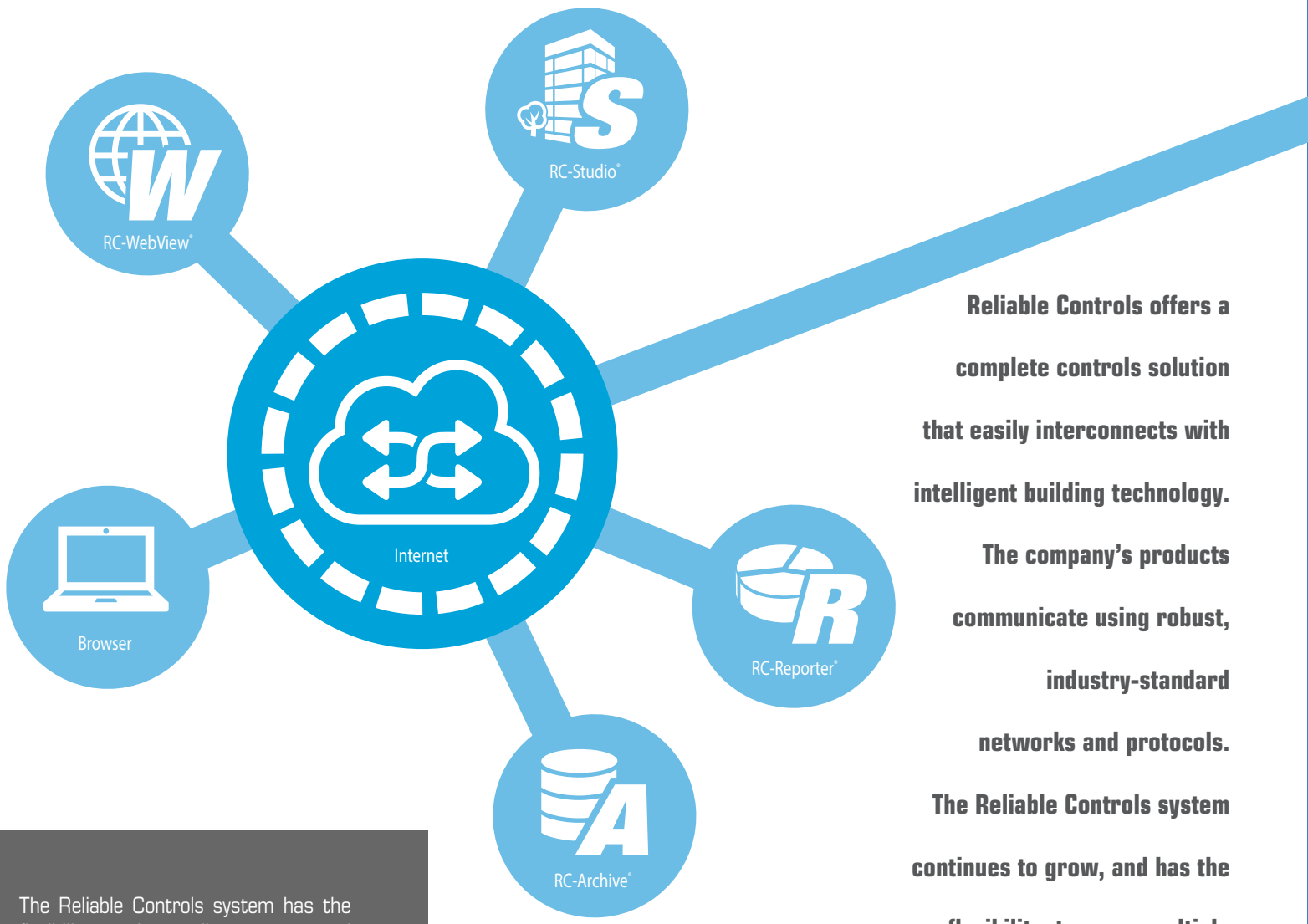
To learn more about projects using Reliable Controls visit
reliablecontrols.com/projects/overview



student centre profile

The York University Student Centre is the hub for students, and includes meeting rooms, offices, a large food court, pubs and bars, and a daycare. As the facility is literally occupied every day of the year, the Reliable Controls system retrofit was implemented "live", with the work revolving around the schedules of the occupants.

network flexibility



Reliable Controls offers a complete controls solution that easily interconnects with intelligent building technology. The company's products communicate using robust, industry-standard networks and protocols. The Reliable Controls system continues to grow, and has the flexibility to serve multiple simultaneous operators from numerous points of secure access.

The Reliable Controls system has the flexibility to keep clients connected using the latest technologies and the resilience to be effective for the life of the equipment controlled.

Every controller manufactured by Reliable Controls contains a BACnet communication stack on board and is BACnet Testing Laboratory listed for quality assurance. Reliable Controls provides an industry-recognized 5-year warranty on all programmable controllers.

5 yr WARRANTY

BTL BACnet TESTING LABORATORY

The Reliable Controls system supports Internet Protocol, Ethernet, Master/ Slave Token Passing, and Point-to-Point communications as well as Modbus, Simple Mail Transfer Protocol, and Simple Network Management Protocol.

ROUTER to Internet

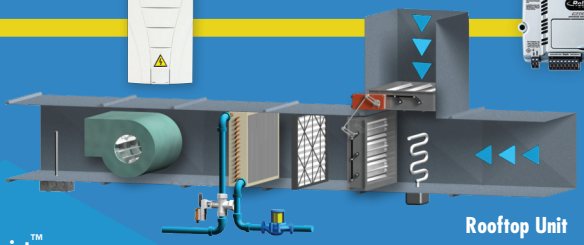
System Controls

MACH-ProWebCom™ in communication closet

MACH-ProSys™ in penthouse air handler

BACnet Variable Frequency Drive

MACH-ProZone™ exhaust fans

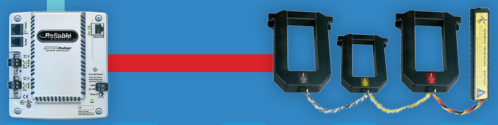


Rooftop Unit

MACH-ProPoint™ expansion module

MACH-ProWebCom™ in communication closet

MODBUS Power Monitoring



Zone Controls

MACH-ProCom™ in communication closet

MACH-ProAir™ on VAV box

MACH-ProZone™ on ceiling mounted heat pump

MACH-ProView™ in office space using Wi-Fi

MACH-ProPoint™ expansion module

SMART-Sensor™ EPD in office space

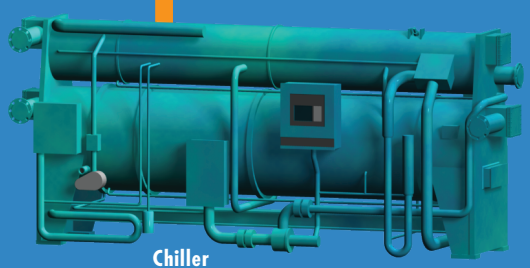
SMART-Sensor™ EPD in office space

MACH-ProView™ in office space

SMART-Space Controller™ in office space

Central Plant Controls

MACH-ProCom™ in central plant with expanded I/O Net



Chiller

BACnet® IP/Ethernet | BACnet® MS/TP | BACnet® PTP | MODBUS RTU | SMART-Net | I/O-Net

Reliable® controls

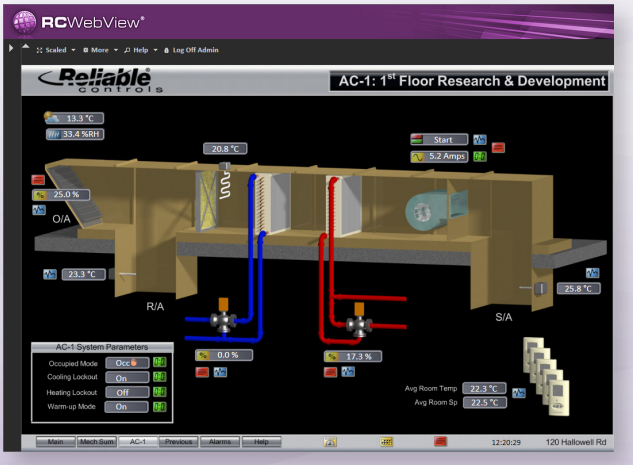
web access for the masses

Ideal for Progressive Facility Managers, RC-Webview® Provides Web Access for the Masses

RC-WebView from Reliable Controls is a powerful, BACnet Web server that allows users to conveniently access any Internet-connected BACnet controls system configured with RC-Studio System Groups. The software meets or exceeds the BACnet Operator Workstation profile (B-OWS).

Using a modern browser, operators can view, edit, and override BACnet Inputs, Outputs, Variables, Schedules, Groups, and Alarms, as well as graph and print Trend and Runtime Logs. The powerful enterprise hub and scheduling features allow managers to link multiple independent systems together and push hierarchical schedules across multiple facilities.

RC-WebView uses the same graphic structure as both RC-Studio® and the MACH-ProWeb™ graphical user interface, providing seamless integration to any existing system projects.



Client View: Manage your buildings from any where on the globe.

The Navigation Group feature allows users to create nested background image maps that can be populated with multiple objects and links for seamless navigation. Links can be web URLs and RC-WebView visual elements, such as Groups, Schedules, other Navigation Groups, or Alarm Summaries. Multiple Trees can be created and assigned to different users tailoring the experience based on each users' role.

RC-WebView offers Enterprise Scheduling that includes hierarchical and exception scheduling across multiple devices within multiple systems. Additionally, Block Scheduling allows existing schedules to be assigned as members of a named list that can be enabled and disabled according to a Block Schedule, which can be saved and recalled at any time.

Administrators will appreciate the powerful enterprise capabilities of RC-WebView and its flexible permission controls for managing user accounts and accessibility, which easily connects multiple independent systems.

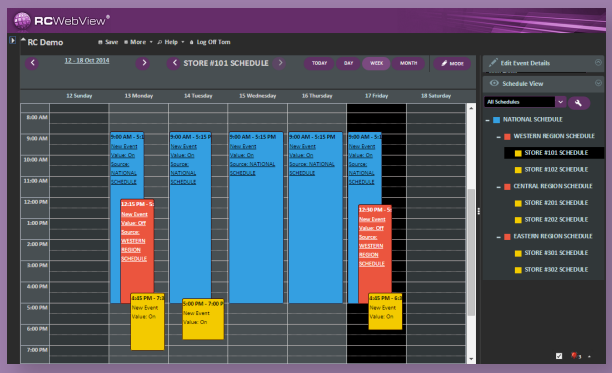
Operators can view and edit objects and acknowledge alarms across the entire enterprise using a single log-in, vastly increasing efficiency.

ASHRAE BACnet™

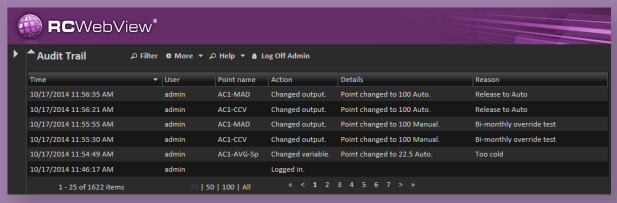
Recommended server requirements include:

- Intel Xeon E3 series (64-bit)
- 16 GB RAM
- 1 GB hard disk space free
- Internet connection for software installation
- Gigabit Network Interface Card (server quality)
- Microsoft Windows Server 2012 R2 or newer
- Router with firewall enabled
- Maximum Configuration: 500 connections per server

Designed to take full advantage of the latest web technologies and mobile platforms, RC-WebView is the ideal web solution for today's progressive facility manager.



Enterprise Schedule: A hierarchical scheduling system



Audit Trail: Logs all changes made by users

Navigation Group: Access entire system from one location

RCWebView®
BACnet® Operator Workstation Software

professional performance reports

Web-based building performance software that helps to improve operational decisions.

Extract intelligence from your building data to deliver actionable vital insights and improve operational efficiency. Pinpoint and rank opportunities then track progress and bring awareness to operators and occupants of the impact of continuous improvement. RC-Reporter brings clarity to your building performance with fully customizable reports which are automatically updated and delivered.

Using the latest in web technologies, RC-Reporter is designed to operate optimally with Windows Server 2012, SQL Server 2014, and Chrome under Windows or Mac OS. RC-Reporter supports Windows Server 2008 R2 and above, SQL Server 2008 R2 and above, IE 11+, and Chrome under Windows OS or Safari under Mac OS. Reports generated with RC-Reporter are sharable using email notifications. The software uses archived building data either from RC-Archive or from CSV files.

RC-Reporter delivers a simple, flexible, and sustainable web-based solution that provides analysis to help you focus on the bigger picture and be more confident in your long-term, operational decisions.

Innovation

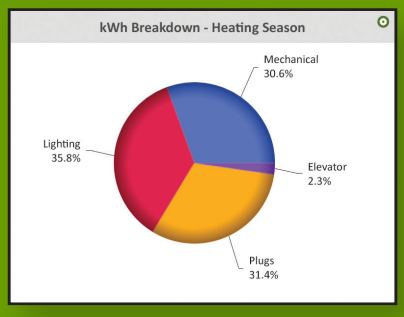
Create a wide variety of building reports from any BACnet, Internet-connected site and access using standard browsers on a desktop or mobile device.

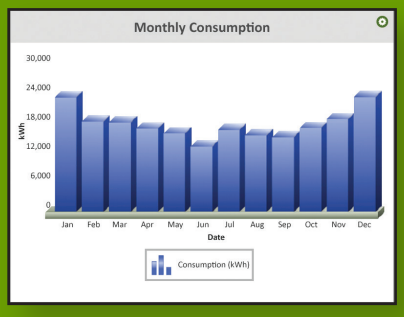
Impact

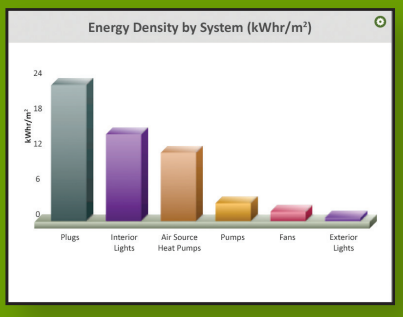
Derive meaningful analysis from the resulting reports and make informed operational decisions that impact your company's triple bottom line.

Value

With its powerful point filtering and categorization, standard and advanced querying, automated report distribution, and drag-n-drop ease of use, RC-Reporter allows you to author and share building performance reports with confidence and ease.

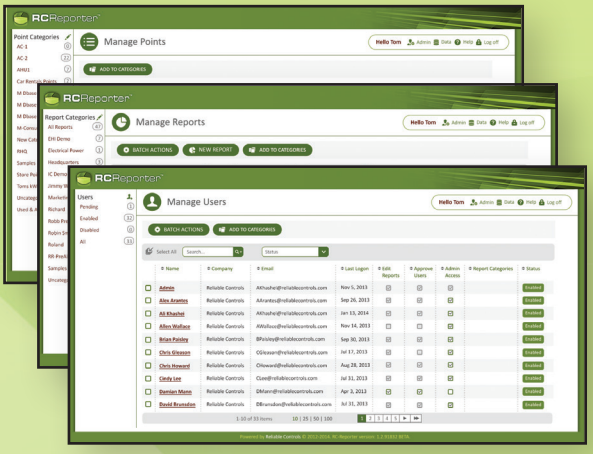






Easily produce a wide variety of charts using Date Range, Profile, Correlation, and Contribution components.

RCReporter®
Building Performance Reporting Software



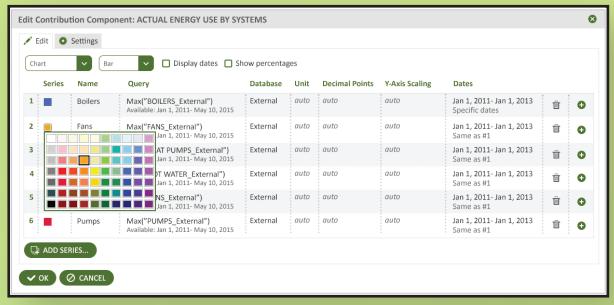
Manage points, reports, and users effectively and efficiently.

Effective Report Management

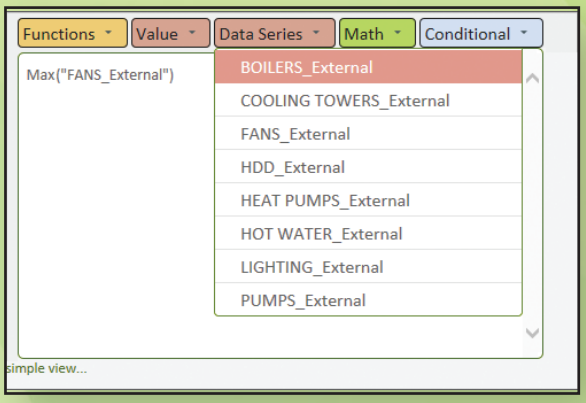
Powerful and intuitive filtering provides effective point retrieval and tagging. Reports can be categorized by application and user, and exported for sharing in other databases. Full permission controls allow numerous users to be managed efficiently.

Rich Component Editing

Rich component editing provides authors with the flexibility needed to produce creative and visually impressive reports. A wide selection of fonts, colors, borders, and headers are user selectable!



Choose formats and styles with feature rich component editing.



Leverage powerful query capabilities.

Powerful Query Capabilities

The query capabilities in RC-Reporter allow you to apply a wide range of math functions, transforms, and operators to your data, and extract intelligence from the data to display aggregates, exceptions, normalizations, and much, much more.

RCReporter®
Building Peformance Reporting Software

Reliable® controls

reliablecontrols.com

The University of Victoria is a excellent demonstration of the power, flexibility, and sustainability of the Reliable Controls system.

"We have tremendous control over the entire system at our finger tips"

"Over a four year period we have cut the energy consumption down to a level where the Building Automation System has paid for itself."

Claude Champagne - UVic HVAC systems specialist