



IN CONVERSATION WITH...
Jo-Anne MacLean from
SERV-ALL Mechanical Services

DEALER INSIGHTS:
Why automate a growing
operation?



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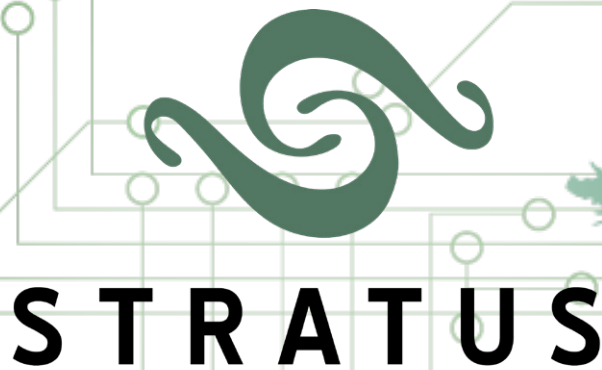
RUNtime

The official quarterly magazine of Reliable Controls® Corporation

Q4-2022

Introducing Stratus Designs

A Reliable Controls Authorized Dealer since 2020



PRESIDENT'S MESSAGE

Datafication



Tom Zaban, P.Eng.,
LEED Green Associate

It seems to me that almost every day our modern lifestyle requires us to make entries in someone's database. I recently learned about the word *datafication* and thought it appropriate discuss its meaning and how it relates to sustainability. Datafication is a technological trend that turns many aspects of our lives into data that can be subsequently turned into new information of growing value. It speaks to transforming invisible or previously undocumented processes into data companies can use to optimize business.

Datafication is of particular importance for stakeholders of large infrastructure projects. These projects are needed to keep humans safe, connected, and productive and include important things like airports, telecommunications, bridges, power and energy, railways, roadways, water management, and waste management.

According to Alastair March in a recent article on Bloomberg.com¹, by 2030 global investments in clean energy need to quadruple those currently made in fossil fuels to reach net-zero emissions by 2050. Through the Glasgow Financial Alliance for Net Zero², the world's largest coalition of financial institutions committed

to transition the global economy to net-zero greenhouse gas emissions; more than 550 firms in 50 countries have committed to cutting emissions across their portfolios to help reach this target.

In his November 9, 2022, article "Data Can Unleash Massive New Green Investment," Michael R. Bloomberg notes the move to net zero will benefit from improved transparency and standardization of three datafication activities.

First, the datafication of the world's numerous voluntary carbon markets will improve transparency and standardization for reporting carbon credits, which would attract badly needed public and private capital to finance clean energy projects. To help resolve these issues, Three Cairns Group³ and Bloomberg Philanthropies⁴ formed the Global Carbon Trust and the Carbon Storage Governing Council. These initiatives will drive innovation, transparency, and scale for voluntary carbon markets as well as provide governance and standardization for financial contracts and publicly accessible data. The datafication of the carbon market will mitigate investor risk and help accelerate new investments for adapting to climate change.

Second, the datafication of infrastructure projects will improve transparency and standardization by permitting project labeling. To that end, the Global Infrastructure Basel Foundation is developing an Infrastructure Sustainability Intelligence Tool.⁵ Currently in prototype phase, the tool uses data scraped from the internet and places a project's location on a map, then records its CO₂ emissions, water use, and air quality, followed by a geospatial analysis that identifies sustainability risks associated with the project's land use, sea level rise, and proximity to protected areas. It also flags the project with one of four labels that provide guidance to investors, project developers, and public-sector workers. The datafication of infrastructure projects will help people quickly identify and invest in critical projects around the globe that are aligned with the UN's Sustainable Development Goals.⁶

Finally, the datafication of corporate climate goals hosted by a central web portal would improve transparency and standardization by collecting emissions data using a common format and allowing public access to the portal. On June 3, French president Emmanuel Macron announced the launch of a steering committee to create the One Planet Data hub⁷, expected to launch at COP28, which will be used to monitor the actions of companies and track their alignment with the Paris Agreement. It is hoped the hub will also provide an effective means to mitigate the negative impacts of greenwashing. The datafication of corporate climate goals will make it easier for the public to select companies to invest in and to hold corporations accountable for their *actual* climate performance.

As stakeholders in the built environment, it is encouraging to see these activities initiated and moving forward. With so many climate and geopolitical challenges confronting us, it is helpful to appreciate how datafication is empowering stakeholders to bring standardization, transparency, and accountability into their sustainable development goals. If there is anything Reliable Controls and our Authorized Dealers can do to assist you with sustainable development goals in 2023, please reach out at any time.

1. [bloomberg.com/news/articles/2022-10-06/investment-in-renewable-energy-needs-to-quadruple-by-2030?leadSource=uverify%20wall](https://www.bloomberg.com/news/articles/2022-10-06/investment-in-renewable-energy-needs-to-quadruple-by-2030?leadSource=uverify%20wall)
2. [gfanzero.com](https://www.gfanzero.com)
3. [threecairnsgroup.com](https://www.threecairnsgroup.com)
4. [bloomberg.org](https://www.bloomberg.org)
5. <https://gib-foundation.org/infrastructure-sustainability-intelligence-tool>
6. <https://sdgs.un.org/goals>
7. elysee.fr/en/emmanuel-macron/2022/06/03/press-release-climate-date-steering-committee

WELCOME

New Reliable Controls Authorized Dealers

Acorn Plumbing & Heating, Inc.
Newburgh, New York, United States
[acorn-ph.com](https://www.acorn-ph.com)



Alpha Controls & Services
Rockford, Illinois, United States
[alphaacs.com](https://www.alphaacs.com)



CRV Import SAC
Lima, Surcos, Peru
[crv.com.pe](https://www.crv.com.pe)



Harmonized Energy Inc.
Loring, Ontario, Canada
[hecontrols.com](https://www.hecontrols.com)



Insight Controls
Charlotte, North Carolina, United States
[insightusa.com](https://www.insightusa.com)



South Pacific Air Conditioning
Papua New Guinea
[spac.com.pg](https://www.spac.com.pg)



Reliable Controls sales, installation, service, and support are all performed by a growing network of independent, factory-trained Authorized Dealers. Each dealer is committed to the green building controls industry and to providing total customer satisfaction.
To locate an Authorized Dealer near you, visit the dealer locator on the Reliable Controls website.



INTRODUCING STRATUS DESIGNS

A RELIABLE CONTROLS AUTHORIZED DEALER SINCE 2020

How do you go from a bronze to gold-tier Reliable Controls Authorized Dealer in less than 2 years? The team at Stratus Designs unanimously rates responsiveness as a key to success. Relationships thrive on clear communication and delivering what you promise. Yes, their unique combination of skills also helps. Adam Clarke, Eric Heel, Michael Richards, and Mark McLellan are referred to as “the cannabis guys” in British Columbia and beyond, but what these building automation experts are increasingly known for is their innovative business approach.

The Stratus team puts people first. When they choose to work on a project, they want that client for life. Rather than rapidly expand their business—and they certainly could—they prefer to grow sustainably. “Turning down projects is the most important thing I’ve learned to do,” says Adam Clarke, who started Stratus Designs with his lifelong friend Eric Heel with the vision of providing a level of service and flexibility they had yet to experience in this industry.

The company’s goal is to design and deliver solutions tailored to clients’ needs. They ask what’s best for the project and the client, then find a way to make it happen. “We don’t

want to be pigeonholed into doing things the way everyone else does,” says Eric. Adam has big ideas backed by extensive experience. His advice is forward-thinking. Candid conversations help clients see how the choices they make today will impact their business in the future. His selling point: Stratus will be there every step of the way.

Vertical integration means getting involved with planning and designs, handling the installation and operation of building management systems, then providing ongoing service. That’s a level of responsibility few controls dealers offer. It’s not about winning bids; this is about earning trust. Their reputation gets them in the door, and their dedication to excellence is what grows business.

“Reliable Controls has a very open approach, which is one of the reasons its products work so well for us.”



Adam Clarke, cofounder and CEO

Long-term investment in clients’ success pushes the team to continually do better. “Reliable Controls has a very open approach, which is one of the reasons its products work so well for us. Open integration and backward compatibility make a huge difference,” says Eric. “The company doesn’t try to force us down a certain track by saying their equipment can only talk to this specific brand, or we can use only that sensor. We’ve converted quite a few clients from other controls systems that use very closed ecosystems who were frustrated at the lack of freedom to do the most basic things.”



Eric Heel, cofounder and COO



Mark McLellan, controls manager



Michael Richards, senior controls tech



According to Adam, the single most important thing for anyone who has a controls company is to make sure you have great programmers. His technicians, Michael Richards and Mark McLellan, have roughly 35 years of experience between them, and they're both under 40. Mark's father, John McLellan, was one of the very first Reliable Controls Authorized Dealers. Before Mark even graduated from high school, he was honing his expertise. "I've been working with Reliable Controls products since before RC-Studio®, so I know all the generations and nuances. It's been cool to watch where they came from to where they are now," he says.

"I chose Reliable Controls because I have such good relationships with the people there."

Adam's own relationship with Reliable Controls is largely why he decided to align with the Victoria-based company. "Direct digital control basically started on Vancouver Island by a small group of people—Roland Laird (the founder of Reliable Controls) being one of them. I was trained by people closely connected to this group." Adam has worked in HVAC and refrigeration since 2006. He used to design and install ice rinks. His last project, the Langford Sportsplex, won the ASHRAE award for being the most efficient public assembly building in North America. "I chose Reliable Controls because I have such good relationships with the people there," says Adam. "That personal connection is more important to me than anything else."

Mutual respect is a qualifier to work with Stratus Designs. If the team doesn't enjoy working with you, they won't. Consider it a form of quality control. People tend to give their best to the projects that motivate them most and the people they care about. "I know most of my clients on a personal level, and I'm not just there to talk work all the time," says Michael, who advocates that authenticity builds trust. "Sometimes we have dinner. Sometimes we stand in the office talking about our personal lives. Those are the things that make me who I am. I like to know people. Part of the fun of going to work is relationship building. The majority of my long-term friendships within the business have been built on just having a conversation."

Adam is the first to admit being selective about clients is a privilege. He also knows his clients are equally discerning. The cannabis community is tight knit—everybody knows everybody. Adam has been in the market for a long time and cultivated contacts worldwide. His acute understanding of Health Canada regulations, reporting requirements, and the industry's legal nuances are part of what makes Stratus so successful.

Cannabis is a niche market within the building automation industry. It demands in-depth knowledge of growing cycles and the exact conditions plants need to thrive. "When plants are little, there isn't much load in the room, so you really need to fine-tune what the equipment does. It's like driving a Ferrari in a school zone," says Mark, who has suffered many sleepless nights when automating a new growing facility. Typically clients invest tens of thousands of dollars in their plants. "You can very easily kill the crop if it's too humid, too hot, or too cold. Conditions have to be steady to within a few degrees and percent; otherwise you can develop mold or burn the plant."

Until recreational cannabis was legalized in Canada in 2018, the industry was out of the public eye. Even now, discretion is still important. How they grow, which recipes they use, what seeds they use—people are growing for different tastes and aromas versus mass production. It's a lot like craft brewing. From a building automation standpoint, this means it's hard to make templates. Things will never be the same from one facility to the next.

The Stratus team's expertise extends beyond cannabis to the food and pharma worlds. Always looking ahead to what will be legalized or decriminalized next, either from a medical or recreational standpoint, Adam is constantly developing new projects. He's also on a mission to supply his local community with microgreens (radish, garlic, arugula, sunflowers), grown year-round in shipping containers—perfectly controlled environments—on his Gulf Island farm.

Galiano Grow House is fully automated with Reliable Controls products. It's the perfect setting for Mark and Michael to learn about indoor farming and practice their programming—often proving ways to use new products sent from suppliers for testing. Even though the guys are encouraged to experiment, they treat the farm with the same professionalism as any project. To Adam it's not just a testbed; he's serious about the well-being of his plants and the people he employs to help run the farm.

Eric, who manages company operations and alleviates Michael's and Mark's workloads by handling project details, sees the farm as a way for the team to have fun and prevent burnout. "Everybody loves fresh, locally



grown veggies. When we work on projects that make us feel good about helping the world on some small scale, I think it leads to a sustainable company." It's with that same logic that Stratus likes to take on clients and projects that are doing good things and help them do even better.

Timely responsiveness is a distinguishing factor for Stratus. "When a grower contacts us with an issue, they're often fully gowned in PPE, getting their hands dirty," says Mark. "They can see a problem with the environment in their grow room and need someone to respond quickly to help them troubleshoot."

The team is unanimous in how they approach customer service: when somebody calls, they answer. If a client needs something, they do it. Any small struggles are usually resolved within 5 or 10 minutes. Larger issues require an appointment.

The biggest complaint from users, according to Adam, is their inability to reach the contractor after an install. Adam experienced it himself, where the contractor messed up something so his buildings didn't work, and they wouldn't fix it because they were already working on a new job. "It's why I'm a Reliable Controls dealer today—to do things differently," he says. "My clients never have to worry about that."

Since becoming an Authorized Dealer in 2020, Stratus Designs has received the Reliable Controls Most Valuable Player of the Year and Entrepreneur of the Year awards, recognizing excellence, innovation, and collaboration. Stratus welcomes opportunities to share knowledge and experience with dealers in the Reliable Controls network. As Michael says, "Apprenticing makes the industry better."

If you'd like to know more about the Stratus team, head to the Newsroom on the Reliable Controls website to read an interview where Adam, Eric, Michael, and Mark share more insights on the cannabis industry and how they approach business.

Every growing facility needs an automation system. It's time-consuming and costly if you don't have a system running things for you. In a related article, Adam shares expert tips and common mistakes when automating greenhouses and growing operations. Read more on page 18.

"Stratus welcomes opportunities to share knowledge and experience with dealers in the Reliable Controls network."



The Stratus team with regional sales manager Robb Shipley and (far right) VP of sales and marketing for the Americas, Al McElhone

Visit the Stratus Designs website here



District of North Vancouver Municipal Hall

—WESTERN CANADA—



The District of North Vancouver, on the traditional territory of the Squamish and Tsleil Waututh Nations, is a district municipality in BC that surrounds the City of North Vancouver on three sides. One of the wealthiest areas in Canada, the District stretches from Deep Cove in the east to the Capilano River Canyon in the west and is today home to more than 85,000 people. The District of North Vancouver Municipal Hall houses government and administration services for the region, including the mayor and councillors; committees, boards, and panels; bylaw officers; permit and licensing staff; corporate planners and financial staff; and more.

Authorized Dealer Kerr Controls was pleased to install a Reliable Controls building automation system in the municipal hall that decreased natural gas consumption by 40 percent and electricity use by 31 percent—particularly impressive achievements given these improvements were made without changing any existing HVAC or mechanical equipment.

Prior to the retrofit, occupant comfort was a consistent issue, in part due to the building's layout (an atrium, offices, meeting rooms, council chambers). The existing control system did not allow appropriate control of spaces for their designated uses. Energy consumption was high; although the District had implemented some manual adjustments to moderate energy use, mechanical equipment was operating more than necessary. In addition to resolving these issues, the District needed a way to track building data so it could plan for mechanical equipment upgrades.

Kerr carefully designed the building automation system retrofit to achieve the following goals:

- To replace the existing, outdated system with a web-enabled automation system
- To add temperature sensors that collect data that could inform control strategies and capital equipment upgrades
- To use occupancy sensors to minimize heating and cooling of empty spaces and maximize energy savings
- To configure a complex scheduling strategy that meets the needs of the building and its occupants
- To implement a hot-water-heating setpoint strategy that maintains boiler-water temperature at a low setting while providing occupant comfort
- To identify areas of improvement with existing equipment (e.g., Kerr discovered oversize units that could not operate at a low enough speed to meet air-quality requirements)



The new building automation system controls all HVAC and water-heating systems in the building, including individual zone controllers. Kerr installed MACH-ProCom and MACH-ProSys devices to control large mechanical equipment. With their scalable inputs and outputs, extensive network routing abilities, and compact size, the MACH-ProCom and MACH-ProSys achieve an optimum balance between form and function. For control of midsize rooftop and small mechanical room equipment, Kerr used three MACH-Pro1 and 140 MACH-ProZone devices, each a fully programmable BACnet Building Controller. Packed with flexibility, the MACH-ProZone provides highly scalable inputs and outputs with jumper-selectable relay configuration. Designed to be a workhorse of the industry, the MACH-Pro1 is rugged, flexible, and ideal for applications like this one. For VAV control, Kerr Controls installed 10 MACH-ProAir devices with onboard damper motors and airflow sensors, eliminating the need for separate sensors and actuators.



Kerr used the power of RC-Studio software to integrate the BACnet values of all third-party controllers in the building so every piece of equipment is connected to the Reliable Controls system. Today facility operators access the system using RC-WebView, a time-saving browser-based building management solution that combines the power and accountability of enterprise tools with a simple interface. And thanks to RC-Archive software, the District now owns and controls all its building data. With continuous downloads of data logs to an industry-standard SQL database, RC-Archive delivers a robust, dependable record of building performance, so the District can easily monitor and continue to optimize efficiency and occupant comfort.

Today's building owners seek technology that provides not only intelligent control but also longterm sustainability. Although the District plans to update some HVAC equipment in future, the new building automation system will extend the useful life of existing equipment, reducing capital costs over time and minimizing the effects of planned obsolescence. Kerr Controls works hard to maximize its customers' return on investment by customizing solutions to the specific needs of each building and its occupants.

Installed Reliable Controls hardware

- 3 MACH-Pro1™ controllers
- 10 MACH-ProAir™ controllers
- 2 MACH-ProCom™ controllers
- 3 MACH-ProSys™ controllers
- 140 MACH-ProZone™ controllers

Installed Reliable Controls software

- RC-Archive® software
- RC-WebView® software

Total system objects

- 4,500

Total area

- 6,400 m² (68,889 ft²)

Integrated equipment

- IBC BoilerNet boiler system
- Liebert CRV in-row cooling system
- Critical Environment Technologies gas detectors
- pCOWeb air-source heat pump

KERR CONTROLS INC.

Building Automation Specialists



“Working in cooperation with the mechanical consultants and the District’s energy manager, exchanging ideas and strategies, was the reason this project was such a success,” said Chad Nichol, operations manager at Kerr Controls. “Additional projects to improve the system even further are coming up in the near future, and I look forward to being involved in the consulting, design, installation, and implementation.”

In conversation with...

Jo-Anne MacLean, Calgary branch manager at
SERV-ALL Mechanical Services (Alberta, Canada)

A Reliable Controls Authorized Dealer since 1987

Regional sales manager: Robb Shipley

Tell us about yourself.

I grew up in Cape Breton, Nova Scotia, surrounded by family and music. I have one brother, Michael, but my dad came from a family of 16 kids and my mom from a family of eight. There was never a shortage of cousins at family functions. And it's really family that shaped who I am. I moved across the country when I was 18 to follow a dream of skating in the Olympics. For a large portion of my life I was an athlete; I was a short-track speed skater. I trained in Calgary until I was 26. Even though I didn't get to skate in the Olympics, it was a very unique experience, and I took a lot of life lessons from it that I still rely on and use almost daily. After retiring from speed skating, I decided to focus on my education. I went back to school and took my electrical engineering degree. In my third year I met my husband, Blaine. We've been married now eight years, and we have two boys. Rohan is our oldest—he's six, and Isaac is two. They are my whole world. I also have two stepsons, Kayden and Soren. And we have two dogs and a cat. So the life we've created here in Calgary is a busy one, but I don't think I'd have it any other way.



*Jo-Anne MacLean,
Calgary branch manager*

How has skating served you professionally?

It taught me discipline and consistency. Being an athlete teaches you how to set a goal and achieve it and how to do it in a way that's smart—making sure it's measurable and attainable. Those are skills I apply in what we do today.



What else are you passionate about?

Family. Growing up, I spent all my summers in Washabuck, a small community on the Bras d'Or Lake in Cape Breton. My family has had ties to the community for nine generations. It has a strong Celtic heritage, so there was fiddle, and cèilidhs (step dancing), and stories around the campfire. My time there gave me a strong sense of family and community, of being part of something that's bigger than me. That's a passion I strive to instill in my children as well.

Describe your work responsibilities.

My job title is Calgary branch manager, but because we're a small office, there are all kinds of roles to fill. Five years ago, with the support of our other two offices, I started the branch here in Calgary, and since then I've been involved in all aspects of our business: development, marketing, estimating, project coordination, service coordination, budgeting, and process planning. I'm part of the level 10 team that consists of members from all three branches. We meet weekly to make decisions that impact the organization. I'm lucky to be part of a team that adapts well to change and has been willing to step up and take on responsibilities as we continue to grow. We now have six full-time people in Calgary and over 60 people in our organization. We all rely on one another's strengths and expertise.

What do you enjoy most about your job?

How every day is different. Every day has a unique challenge. Sometimes I'm out on site or answering calls, helping customers, or out meeting people. There are so many facets to the job that it always has something to keep me interested.

How did you get into building automation?

I always felt I was mechanically minded. When I took my engineering degree, it turned out I was most interested in the programming courses, so I switched my degree from mechanical engineering to electrical engineering. When I graduated, I started working in the consulting industry. That was my introduction to building automation and to the building industry. I still had an interest in mechanical systems, so I did a graduate training program in mechanical HVAC systems. That opened the door for a lot of things. Building automation is unique in that it has elements of the mechanical field as well as the electrical field, and that really spoke to me. When the opportunity came up to join the SERV-ALL team, I thought it would be a really good fit.



Do you have advice for up-and-coming industry professionals?

Relationships in this industry are important. Take the time to develop them. Know what you stand for—what your values are—then try to align yourself with people or a company or organization that share them. If you do that, it's usually a good fit. Last, try to really listen to another person's point of view and their experiences. It can bring clarity to a situation just to see something in a different light.

Hindsight is always 20/20. If you could go back, what might you do differently?

When I was asked to start up the office in Calgary, I really focused on existing building owners: I went to operators, knocked on doors, and called maintenance departments. I tried to understand what they needed. I then went to engineers—we did some presentations and lunch-and-learns and tried to get into specifications. As a third step, I started to address the mechanical contractors. In hindsight, addressing contractors earlier might have been a better move, since they're highly involved in the bid-spec process. We're now starting to win jobs through bid specification, but it took a long time. So I would probably change the order I went about making contacts.

Define success.

To be in a position where you can positively impact another person's life, whether that's at work or in your community. Just the ability to help others achieve their goals, to have passion and love what you do every day. To me that's success. When I think about my past year, the biggest success for me was stepping into the role of assistant coach for my son's hockey team. Having never played hockey growing up, I was pretty nervous. But being able to help the kids learn through having fun, and being part of the team, is a really rewarding experience.

What does sustainability mean to you?

Sustainability, to me and to the Calgary team, is the ability to maintain a healthy work-life balance. Since we're a growing office, sustainability means making sure my team has the resources they require to meet our growing workload. I always say, "Family first," and "It's important to take care of yourself," but I have to make sure my whole team has a healthy work-life balance and no one is overloaded for longer than is reasonably manageable. It's a fine balance.

How would you like to see the industry develop?

I'd like to see some change around the bid specification process. It would be really nice if customers had more input and had more decision-making power in that process. When the job is awarded to the lowest bidder, the solution may be inexpensive but in the long run can cost the customer more money. I find the process frustrating at times. I'd like to help the customer find a solution that's best for them.

How do you grow business, and what projects are you most proud of?

At first, here in Calgary, there was a lot of door knocking—finding buildings that had existing Reliable Controls systems we hadn't installed and trying to repair relationships. Doing that legwork, and

in-person visits, generated a couple of projects I'm proud of. There were a few renovation projects where we went in and completely renovated the building automation system. Through maintaining customer contact, and them being very happy working with us, we were sole-sourced on their next big build. When that customer expanded another building, we were basically sole-sourced again. That all came back to the relationship we had developed—taking time to have coffee, talk to the operators, see what their day looks like, what impacts them, and what would make life easier. And just *listening*. That extra little bit can go a long way. At the end of the day, they trusted us. And now they've asked us to come in and do all their service maintenance work.

Why do you choose to align with Reliable Controls?

At SERV-ALL our core values are *reliable, responsible, respectful*. If you work for SERV-ALL, these are also your personal values. Basically, everybody in our company has to represent those. SERV-ALL aligned with Reliable Controls because those values aligned. The two companies have been a great fit for many years.

“At SERV-ALL our core values are reliable, responsible, respectful. If you work for SERV-ALL, these are also your personal values. Basically, everybody in our company has to represent those. SERV-ALL aligned with Reliable Controls because those values aligned. The two companies have been a great fit for many years.”



The SERV-ALL team from left to right: Daniel Kantyluk, Tyler Szpytma, Logan LaBine, Jo-Anne MacLean, Curtis Termeer, Michael Jones

How do you demonstrate to clients that you are people they can rely on?

You have to earn that. It's a lot of work, and it's ongoing. I like to think our SERV-ALL team represents what we stand for; we're very customer focused. The big thing is consistency. It's not just the person in the business development role, seeing customers and talking over coffee, who makes an impression. I think of our field guys—they represent what the company is all about. How we treat operators, and the mechanics on site, matters. We look for those values when hiring new team members.

When caring about customers is part of my team's responsibilities, it changes their perspective. We enable people to fulfill that role by encouraging them to talk with customers and find out what their issues are. I tell my team it's not necessarily important to have the answers but to listen to the customer. Make sure they feel heard and trust you'll get back to them. When you're newer to a position, that can be a little intimidating, but it usually goes a long way in showing we're a company that can be relied on.

Do you expect your branch to grow?

Yes, we definitely will grow. It's a large market, and I think Reliable Controls should have a bigger portion of it. I believe in our products and our team. I believe in what we stand for. So if you ask me what I think is best for our customers, we should be in all their buildings.

When you first meet with a client, what's your goal?

To listen and keep them talking. The more I know about their concerns, what their day looks like, and what they expect, the more equipped I am to help them. The desired outcome is to discover what their pain is so we can fix it. That's usually what I think about, heading into meeting.

Have you had an opportunity to go above and beyond for a client?

Yes. I'm fortunate to be part of a team that is very customer oriented. At some point we've all answered after-hours calls on personal time. I have one technician in particular who received a call while he was on vacation. Without being asked, he turned around and went back to site to deal with the issue. When we first started here and were trying to create a reputation, we'd offer existing customers a free first visit. We'd go into buildings where we hadn't done the install work and do backups of their system to get an idea of what was in the building. That way, if there was ever a service call, we were well prepared. We try to go above and beyond consistently.

"I tell my team it's not necessarily important to have the answers but to listen to the customer."

What sets Reliable Controls apart?

It's the people. Everyone I've met from Reliable Controls has always been professional, knowledgeable, and very passionate about what they do. I remember one of our technicians calling tech support, and Roland—the owner of the company at the time—answered the phone. If that's not dedication, I don't know what is.

How has Reliable Controls come through for SERV-ALL?

I've done a number of trade shows with our regional sales manager, Robb Shipley, as have our other branch managers. Trade shows have given us the opportunity to get in front of customers we wouldn't otherwise have been able to meet. We've generated some key relationships over the years that blossomed into a lot of work for all our branches. Robb joins us at the school board trade shows as well as hospital trade shows because he knows those are two of our biggest customers and the markets we're interested in developing. That's been very beneficial. Robb always finds ways to help out. When we were switching between offices, he even had all our orders shipped to his house just so our technicians wouldn't have to be running around the city.

What do you enjoy most about working with Reliable Controls?

It's a product and a company that has a solid reputation and something you can be proud to stand behind. It doesn't hurt that it's a Canadian manufacturer, either. Customers always like that side of it.

"Everyone I've met from Reliable Controls has always been professional, knowledgeable, and very passionate about what they do."

Visit the
SERV-ALL
website



*People and technology
you can rely on™*



Kaye Edmonton Clinic

—ALBERTA, CANADA—



The Kaye Edmonton Clinic, a partnership of Alberta Health Services and the University of Alberta, consolidates 80 outpatient clinics under one roof, where multidisciplinary teams provide outpatient clinical care and numerous services and specialties to more than a million patients each year. The Kaye Edmonton Clinic allows rural Albertans to stay in their communities while keeping them connected via new technologies to the latest advances in diagnosis and treatment.



Authorized Dealer SERV-ALL Mechanical Services installed a Reliable Controls building automation system during construction of the Kaye Edmonton Clinic.

Networked hardware includes first- and second-generation Reliable Controls devices that communicate over BACnet/IP to control lighting, smoke fans, variable air volume boxes, fan-coil units, and HVAC equipment.

Four huge air-handling units made this a unique project for SERV-ALL Mechanical Services. The common supply for air-handling units and return plenums were a challenge in the control and distribution of air.

The Kaye Edmonton Clinic achieved LEED Silver certification from the Canada Green Building Council. LEED certification signifies a building conserves resources, reduces operating costs, prioritizes sustainable practices, lowers carbon emissions, and creates a healthier indoor environment.

Installed Reliable Controls hardware

- 4 MACH1™ controllers
- 1 MACH2™ controller
- 53 MACH-ProCom controllers
- 62 MACH-ProZone controllers
- 774 SMART-Space™ Controller devices

Total area

- 62,245 m² (670,000 ft²)

Total system objects

- 5,000



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DEALER INSIGHTS: WHY AUTOMATE A GROWING OPERATION?

Adam Clarke is a specialist in engineering building automation solutions for cannabis facilities, indoor/greenhouse food production, and specialty GMP processing facilities.

1. Why should you automate your growing operation?

The first rule of all growing operations is they're all different. Whether you're growing lettuce, flowers, or cannabis, your plants will always be different from your neighbor's next door. You could grow in rockwool, coco coir, soil, hydroponically, etc. Whatever your method, you're working with a living plant, and that plant requires specific parameters for optimal growth.

The most important parts of growing plants are plant yield and plant health. If you have big yields and healthy plants, you're in a position to improve the bottom line. Automation is the one thing most people don't pay enough attention to when it comes to growing plants.



Adam Clarke

For many years automation systems have existed for fertigation and other plant-specific aspects of a facility. However, often those systems are proprietary, or they don't play nice with other controls systems. Greenhouses should be automated in such a way that the operator can access all systems through one interface without the need for integrating many different systems. The ease of the interface is as important as the functionality of the automation. Once a grower is able to do full integration with fertigation, temperature, humidity, CO₂, O₂, O₃, etc., they will be able to reach optimal plant health and yield.

Automation gives farmers the ability to produce consistent, repeatable crops while helping improve efficiency, from both plant-yield and energy-reduction perspectives. Without automation in your growing facility, you'll spend more money on labor and have less/lower-quality product to sell.

2. What do people get wrong when they try to automate?

When most companies start to automate their growing facility, they don't realize what's available and tend to get stuck in the old way of automating. A few companies have been around a long time in horticulture, and as with many things, they haven't had a big need to modernize their systems.

When I first got into greenhouse design, I couldn't convince any of these long-standing companies to allow a BACnet or Modbus interface as they were scared we would "steal" their stuff. The majority of proprietary control in horticulture isn't that sophisticated in comparison to a large commercial or industrial automation system. Reliable Controls is perfectly suited to run the back end of a greenhouse, and we use it all the time—both in our own facility at Galiano Grow House and through Stratus Designs for our customers.

For horticulture, it's important to make sure your sensors and other elements are well suited for the environment. Typically, we find the only sensors that survive are the ones rated for full washdown; wipe-down sensors are ill suited for these applications. The best way to avoid control issues in growing is to write in plain words exactly what you want to accomplish. We need sequences tailored for each application and each site. Remember—the only thing growing facilities have in common is they are all different. Don't assume pre-canned and re-used programming is going to cut it. Plants are living things, which means the automation needs to be dynamic as well.



3. What's the best/worst greenhouse you've been in and why?

It's difficult to define the best or worst greenhouse I have ever been in as the best greenhouse is the one that's best suited for its application and conserves as much energy as it can while still producing an optimum crop. Some plants need only a bit of frost protection, and an uninsulated, unheated greenhouse is fine. Other plants need an environment with tight control of temperature and humidity so perhaps are never suited for a greenhouse.

The key to any successful greenhouse is to know the environment you need and determine whether you can achieve it. What level of automation will reach that sweet spot of plant yield and optimal plant health? If your crop is temperamental, don't put it in a bad greenhouse. Likewise, if a crop will grow in any conditions, don't put it in a greenhouse that is completely climate controlled. You won't get a proper return on your investment. Greenhouses, like any other structure, need to be built to suit the application they're intended for.

4. How does energy consumption factor into decisions when looking to become more efficient in your overall growing operation?

Understanding energy usage and best-use cases in greenhouses can be very difficult. Energy is not the only thing you need to calculate to determine profitability. To understand the efficiency to up-front capital on a greenhouse growing operation, you need to first understand exactly how the plant in question grows. Can you confirm what every degree of temperature does to that plant growth or how relative humidity affects the growth rate? Without these details you can't start to calculate energy savings or why to automate.



Less energy doesn't mean more savings; sometimes we need to increase energy consumption to increase crop yield, which means more money for the company in the end. In growing operations, I think there are more savings on higher plant yields and lower labor costs than in saving energy. If more energy gets more food, or more energy reduces labor costs, perhaps more energy isn't an issue. Consider we are growing a crop that needs to reach its full potential and needs to be used in society. We aim to deliver top-quality plants at a good price while not wasting energy. We do, however, use the amount of energy required to reach the optimal plant growth. Ultimately, when you have a healthy, happy plant with a higher yield, you use less power per unit of crop.



STRATUS

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