

CASE STUDY



City View Green Customer Profile

City View Green's highly automated plant in Brantford, Ontario, manufactures CBD- and THC-infused baked goods such as cookies, chocolates and confectionery, including gummies and mints.

- 12,200 sq. ft. phase one – January 2021 start-up
- 40,000 sq. ft. phase two – Q2 2021 start-up
- 10 core employees, 40 flexible employees
- At full capacity, per shift
 - o 100,000+ cookies
 - o 100,000 gummies
 - o 20,000 to 80,000+ chocolates

Challenge

- Software provider with controlled substance, pharma and food experience/expertise.
- Identify batch control software that meets cannabis/food security requirements.
- Batch control software that delivers operational efficiencies.
- 8 to 12 months to develop custom software delays time to market.
- \$300,000 to \$500,000 for custom software.
- Fulltime IT team required to maintain update custom software year to year.



Mar-Kov Helps Get City View Green's Edibles to Market 8 to 12 Months Faster

When City View Green chose Mar-Kov's off-the-shelf batch control software over custom platforms, they slashed their time to market by eight to 12 months and made sure each cookie, candy and chocolate would be 100% consistent.

City View Green will be generating revenue up to a year earlier than it could have with custom software because Mar-Kov already had the core capabilities and controlled substance expertise and experience they needed. The edibles company also recognized it needed a cannabis license to start production and Mar-Kov's licensing familiarity significantly reduced the likelihood of costly licensing application errors and related delays. As importantly, in an industry where customers and their consumers expect and demand consistency, Mar-Kov helps companies like City View Green manufacture products that have the identical effect on consumers every single time.

Mar-Kov has been proving itself with controlled substances and sectors such as pharma and food manufacturing over the course of 40 years. On top of that, Mar-Kov costs 80% less than custom software with comparable scope at \$300,000 to \$500,000 and eight to 12 months of build time. On top of the initial cost-to-build, custom software carries an additional annual cost in the form of the full-time, long-term IT team that's needed to maintain and update it.

"We had to get that license because we couldn't start manufacturing without it and the \$100,000 a year burn rate wasn't sustainable – those are the hard costs but there is also a very real psychological toll," says Randy Macleod, COO, City View Green. "I've seen people quit and even retire rather than endure what can be a years-long wait for licenses."

Overall, Mar-Kov's software provides the key capabilities and features required by customers like City View Green. In addition, Mar-Kov makes a point of configuring the software to customers' respective processes and requirements to ensure functionality across the companies' operations.

To expedite City View Green's path to revenue-generating production, the fledgling company's very first license application had to come as close to meeting Health Canada's stringent standards as possible. Based on the City View Green team's previous experience with license applications, they know that each "Intent to Refuse" letter with a list of clarification requests and "Request for More Information" letter will further delay the application process by at least 10 days. The cumulative impact can have a catastrophic impact on finances and morale.



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Solution:

- Mar-Kov's batch control software.

Results:

- Mar-Kov has controlled substances, pharma and food experience/expertise.
- Mar-Kov meets cannabis/food security requirements.
- Mar-Kov batch control software manages daily operations.
- Zero wait-time for out-of-the-box software.
- Costs 80% less than custom software.
- Mar-Kov handles implementation, configuration, routine maintenance and updates.



"Mar-Kov was recommended to us based on their extensive experience with controlled substances and pharma as well as food manufacturers," says Randy. "Mar-Kov's system was incredibly granular and already had the security, activity and ingredient tracking with the checks and balances we needed, in addition to weighing and bar code capabilities – we didn't need to add anything."

Experience with Controlled Substances/Pharma & Licensing

Mar-Kov tracks employees' access to the cannabis and their use (weighing, measuring, mixing) of all ingredients. It also sets out and records good production practices (GPP), standard operating procedures (SOP) and preventative control plans (protect food and cannabis from contamination).

How rigorous and exacting is it? City View Green needs an entire set of SOPs detailing the process flows for cannabis and how those cannabis process flows interact with the food process flows.

"Mar-Kov gave us a programmer and a documentation expert that created a working document that we included with our application," says Randy. "Because they took it on, it freed up our resources and saved us valuable time."

“Mar-Kov stepped up to provide the detailed documentation we needed for the license application.”

- Randy Macleod, COO, City View Green

Start to finish, City View Green's application, 10 sections in total, was completed and submitted in five months – a significant improvement on the 18 months the company's leaders had invested in applications for other firms.

"The physical security, good production practices and record-keeping and reporting components are always the most arduous and Mar-Kov stepped up to provide the detailed documentation we needed for the license application," says Randy. "We understand the controlled substance application process and needed someone that understood those requirements as well as the food manufacturing aspect of it – we got both with Mar-Kov."

Who had Access? Who did It? What was done?

Traceability and transparency are crucial in the event discrepancies are identified. Mar-Kov sets out and tracks the good operating practices and standard operating procedures designed to ensure food safety and protect it from biological, chemical, physical and other contamination. Dated digital signatures are a requirement whether someone is accessing the cannabis inventory, changing a recipe or confirming a cleaning.



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Mar-Kov's ensures, records and reports:

- dispensing equipment is in tolerance
- only approved users perform actions with permissions controlled by user role
- for example, these activities are typically reserved for particular user groups;
 - o Weighing materials
 - o Recording quality test results
 - o Quality disposition
 - o Executing manufacturing procedure steps
- each item lot is tested to conform with standards before it can be used
- operators clean and sanitize the equipment, and log those actions
- equipment that hasn't been cleaned, calibrated or regularly maintained is locked out
- prevents the use of expired or incorrect ingredients
- products are properly stored (refrigeration, allergen or cannabis-only area)
- packaging (e.g. printing labels, child-resistant containers)

"Mar-Kov's batch manufacturing software does everything Health Canada, CIFA and HACCP expects of us every single shift – it tracks the good production practices, details physical security/access and keeps the records and reports," says Randy. "Their platform's framework is beyond what we need which means we don't need to add or customize as we grow."

“ We love Mar-Kov because their software meets the specific regulatory requirements of an edibles company.”

- Randy Macleod, COO, City View Green

The software also generates to-do lists for each employee on every shift and employees expect that guidance. Pharma and food manufacturers and their employees appreciate and have come to expect the routine and predictability that also provides process and product consistency.

City View Green and its team quickly saw that Mar-Kov responds directly to Health Canada's requests for changes and implements them. Mar-Kov also lobbied to have the reviews and tracking updated and prepared dedicated documents for Health Canada review.

"They're sweet, personable and pleasant to deal with," says Randy. "We enjoyed our interactions with them, but above all, we love Mar-Kov because their software is the perfect cross-over and meets the specific regulatory requirements of an edibles company – which combines food and controlled substances and supports our daily business needs."

