

Steinbach, Manitoba

Sticking With Innovation That Works

Steinbach is the third largest city in Manitoba and one of the fastest growing census agglomeration areas in Canada with a population of about 50,000 people. Though Steinbach is primarily an agricultural community, it is also the regional economic hub of southeastern Manitoba. Due to the age of the wastewater control system, the city decided it was time for some new technology. This profile will describe the process of that upgrade and why they chose VTScada.

The Water System - The Waterworks Department is responsible for the treatment and distribution of potable water, along with the collection and treatment of wastewater for the residents of Steinbach. The city has three wells that draw water from the limestone aquifer. The distribution system consists of a network of more than 80 km of underground pipes used to carry the treated water from the water treatment facility to the homes, businesses, and fire hydrants in Steinbach. The four reservoirs' combined capacity is approximately 2-3 days of storage depending on demand. The treatment and storage of all water is designed for continual movement so the water never gets stale. Lastly, the Steinbach water system disinfects with chlorine gas and sodium hypochlorite.

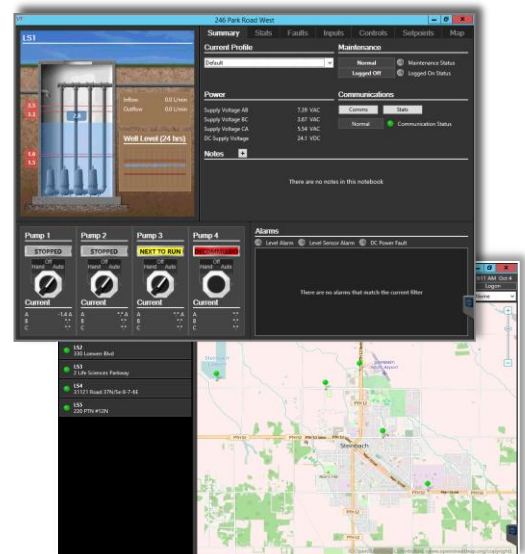
The Upgrade - Mike Heppner is the Waterworks Department Head and Manager; he oversees all aspects of the water and wastewater for the city. He states "The first part of our upgrade was to the wastewater system which includes five remote sewage lift stations, one lagoon blower building, six controllers with one main terminal receiving all data and compiling it on a central PC that is located in the office. There was only one issue with their current system: age. It had been in operation since 1993." Because the wastewater department was very familiar with operating a Xylem/Flygt/Aquaview SCADA system in place already, they decided to inquire what new technologies Xylem could offer.

Luc-Rejean Lepine, Monitoring and Control Area Sales Manager at Xylem Canada, says "Steinbach contacted Xylem through our Winnipeg Branch to inquire about the possibility to upgrade their Aquaview SCADA system with something of the latest technology." He continues "With the assistance of our Monitoring and Control Support Department based in Charlotte, North Carolina, an assessment of the existing system was done and an upgrade quotation was presented to the city. The integration was done in collaboration between our Xylem U.S. and Canadian M&C Support groups."

Mr. Heppner explains that once they saw what they could get with VTScada, it was a no-brainer! "There are too many things to describe for what we can do now than before."

Controllers were installed in fifty percent of the stations prior to the VTScada installation. "Xylem ran some in house sessions for us to send our guys to get familiarized with the units. It was very beneficial."

"We had one station that had an APP controller that was not working with VTScada so this unit was changed out a while later." Mr. Heppner says this was the only issue they encountered during the entire upgrade. "We are so glad to have real time information for the operators to see what is happening now" says Mr. Heppner. He continues with "We have had some efficiency increases with VTScada such as each station can be checked on and confirmed it is operating properly at a glance, and it is very easy to monitor multiple stations during storms or emergencies." Mr. Heppner also describes the features that are most beneficial as "the detailed information that gets tracked on the alarm page and the ability to see so many points of critical information on the front page of every station has been very helpful."



Auto-generated site pages created using the MultiSmart

Future plans will include incorporation of this into our water supply stations and all new lift stations will tie into the system.

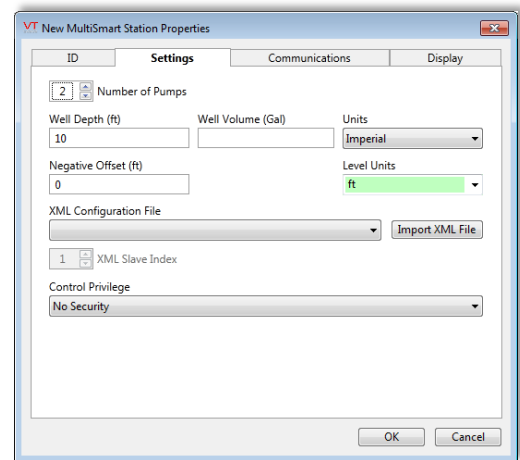
VTScada and Xylem – A History of Innovation

MultiSmart Pump Station Manager - In 2008, Trihedral began discussions with lift station control and monitoring specialist, Xylem (then MultiTrode), makers of the Multismart pump station manager. Barry Baker, VP of Trihedral, said, “We were very interested in working with the MultiSmart because we could see the appeal of this new generation of technology to the water industry and we had many customers who were starting to use it.” The MultiSmart features over 400 tags per site, providing unparalleled data for water and wastewater utilities for their lift stations. “We were very keen to work with Trihedral,” said the Group Marketing Manager of Xylem. “They have been winning a lot of customers in water and wastewater over to VTScada, and their technology and their engineering capability are both top class.”

Site Import Utility - Trihedral and Xylem worked together to create a Site Import Utility that users can launch each time they add a new MultiSmart device to their SCADA system. VTScada uses DNP3 to remotely download the device’s XML configuration file. Since many utilities employ radios with limited bandwidth, this file is compressed and decoded on the fly by both the MultiSmart unit and VTScada. The resulting small transmission size does not interfere with site polling. Alternatively, VTScada can also use a local configuration file in the case of Modbus protocol.

After prompting the user to make a few simple configuration choices, the utility automatically generates all the necessary tags and a selection of key application pages. (Users can easily create more specialized pages using VTScada’s drag-and-drop toolset.)

Removing user error from the setup process increases efficiency and reduces integration costs. This eases the burden on utilities faced with increasing pressure to do more with fewer tax dollars. “We were very impressed with the way that Trihedral has implemented this feature,” said the Group Marketing Manager of Xylem. “It makes it extremely easy for an end-user to set up a new site.”



The SCADA system remains fully operational during this process. This is a key feature of VTScada and a prime concern of utilities in order to maintain a watchful eye on operations at all times. The newly added site can be tested on one server and then the validated configuration settings can be automatically propagated to all hot back-up servers and clients in real-time. Offline servers are also updated automatically upon restart.

More About Xylem - Xylem is a vibrant and innovative global water technology company with a singular focus on helping to solve the world's most pressing water challenges. Their success is grounded in more than 100 years of water technology leadership and a proud heritage as a former part of ITT Corporation. The more than 12,500 people who work at Xylem share a passion for meeting the world's needs by offering the best water solutions to their customers. www.xylem.com

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