



Case Study

WISKI

Ontario Clean Water Agency (OCWA): A Case Study for Replacement of legacy Data Collection System



OCWA a Canadian Crown Corporation located in Ontario operates over 750 water and wastewater treatment facilities, pumping stations and other associated infrastructure. OCWA operates approximately 75% of Ontario's outsourced O&M services for water and wastewater treatment, predominantly under contract with municipal clients. In addition to municipal clients, they provide operations and maintenance services to First Nations, industrial, commercial and institutional organizations

Challenge

OCWA's current Process Data Collection System (PDC) was reaching the end of its useful life and another solution needed to be found, preferably a COTS solution. Through the RFI process OCWA decided to replace PDC with KISTERS WISKI, a COTS solution. OCWA required a proof of concept in the form of a pilot project for integration of streaming SCADA data, mobile devices and lab data. Provide a configuration for site, station, parameter and time series relationship to manage all incoming data. Provide two standard reports matching existing reports required by the Provincial government. Once the testing was completed the IT staff and managers were convinced that WISKI could replace PDC on a technical level. The next step would be to form an acceptance team made up of users and compliance officers, provide this group with training and allow them to work with the system to determine user acceptability.

Finding a solution

It was very clear from the beginning that WISKI could not only replace PDC, but also improve system efficiency. However, this information was difficult to get across to a group that never experienced anything other than PDC and SCADA solutions.

After several workshops it became clear that the WISKI solution must look and feel like PDC to the operators. This was achieved by extending two important components, the input mask and the Launch Pad. The launch pad allowed operators to directly access areas to do their daily job such as data entry using the Input Mask.



OVERVIEW

Customer Profile

- MISSION, VISION, AND VALUES
OCWA's mission, vision and values demonstrate our commitment to being the most trusted provider of clean water services.
- SOCIAL RESPONSIBILITY
OCWA's daily business activities have a direct connection to public health and the environment areas in which we play a role in protecting. We pride ourselves in stepping beyond basic business practices to embrace our responsibility to the people of Ontario.

Key Challenges

- Streaming SCADA > 20,000 tags daily
- Excess of 100 Labs providing data daily
- Excess of 50,000 lab samples daily
- Excess of 1,500 operators inputting data
- Excess of 100 compliance officers certifying data
- Integrate mobile data collection to reduce manual errors
- Configure WISKI to simulate PDC for user acceptance

Benefits

- Robust data historian functionality with ability to store, analyze, and report on fine resolution data (< 1 day)
- Adoption of commercially developed, well supported, and internationally recognized software solution for water time series management to replace in-house custom system at end of life
- Single system capable of managing both time series and discreet data
- Automated reporting
- User configurable
- Handheld Mobile Technology Integration
- Maintained and supported in perpetuity

"OCWA staff who use Wiski 7 find it extremely easy to use, and are impressed with its outstanding graphing and calculations engines. In addition, Wiski Web Pro offers our clients the opportunity to access information about their facility via the worldwide web at any time, from anywhere.

Our goal was to provide end users with an improved application to capture process and operational data. The new application will help OCWA's operational staff and clients keep up with regulatory changes and assist in data analysis. Wiski 7 has more than satisfied our needs, and I look forward to a continued collaborative relationship with Kisters."

- Cindy Spencer
Special Projects Manager
Ontario Clean Water Agency

Implementation

Two large facilities, Peel and Bellville, were selected for the pilot project. These two facilities will also be the first projects to go into production. These facilities represent all of the characteristics found in all of the other facilities allowing for a comprehensive Pilot Project. Multiple workshops were then scheduled to determine the best way to represent the information in the solution and provide an interface to this information for the users. It was determined, during the workshops, that certain areas of the solution would have to be extended to get acceptance of the users. KISTERS worked with OCWA to prepare the Use Cases to accomplish these tasks.

Results

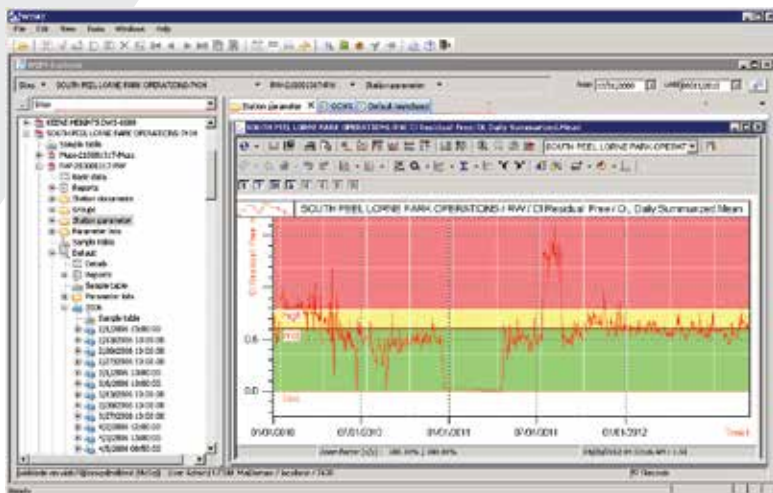
The uses cases were submitted for development, once completed they were rolled out to OCWA for approval and acceptance. The application is configured to run automatically and notify compliance officers of any value breaking any threshold for all data entering the system; this includes manual data or computed data. Automatic reporting will occur monthly, quarterly and annually, but only after the compliance officer accepts the data and locks it down. Final testing is taking place with rollout for the first two facilities April 2013.

KEY FACTS

- All data stored in a relational database
- All calculations are automatic
- All data validated based on OCWA Business rules
- Wide range of data granularity: hourly, daily, monthly and non-equidistant
- Multiple inputs: manual, SCADA, Lab results, Mobile devices and logger files

PROJECT DETAILS

- Project started 07/2011
- Pilot Project ended 03/2013
- Complete rollout to all facilities 12-2013
- Facilities 750
- Users 1800



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