

CUSTOMER CASE STUDY

A DECADE OF RELIABLE PROCESS INTELLIGENCE

How the City of Boca Raton broke through a critical historian tag limit to collect, store, and trend over 22,000 data points across their entire water and wastewater operation.

WASTEWATER TREATMENT

WATER REUSE

SCADA INTEGRATION

22,000+

TAGS COLLECTED & STORED

10+ yrs

UPTIME, ZERO DATABASE ISSUES

<10 min

NEW USER ONBOARDING TIME

FACILITY OVERVIEW

The City of Boca Raton’s Wastewater Treatment Plant serves a population of 86,000 with a mandate to meet the city’s treatment needs while minimizing environmental impact which includes operating at a 100% water reuse system.

SERVICE POPULATION 86,000	WWTP CAPACITY 17.5 MGD	LIFT STATIONS 240
LIME SOFTENING PLANT 30 MGD	NANOFILTRATION PLANT 40 MGD	WATER REUSE 100% Reuse

THE CHALLENGE

● SCADA PLATFORM: GE PROFICY IFIX

By 2011, Boca Raton’s utilities had grown to over 22,000 tags across their water and wastewater operation, all controlled via the GE Proficy iFIX SCADA platform. The problem: the classic iFIX historian carried a hard ceiling of 2,500 tags.

That left more than 19,500 tags with no path to collection, storage, or historical trending. Operators couldn’t compare current conditions against past events, troubleshoot instruments over time, or give engineers the complete datasets needed for energy studies.

BEFORE CANARY

- iFIX historian capped at 2,500 tags
- 19,500+ tag with no historical record
- No cross-team process data visibility
- Energy & chemical cost harder to optimize
- Consultants

AFTER CANARY

- All 22,000+ tags at 1-second intervals
- Full real-time & historical access for all teams
- Annotations tied directly to trend lines
- Chemical & energy usage tracked vs. production
- Zero database issues over 10+ years

THE SOLUTION

In 2011, Boca Raton deployed the Canary data historian alongside their existing GE Proficy iFIX SCADA platform — giving every tag a path to collection and storage with no cap on scale. The historian integrated directly into their HMI software with prebuilt trends, and all personnel from operations to administration gained instant access to real-time and historical data for any point across the facility.

Canary software is very easy to use and very intuitive – we use it all the way from operations to administration.

MIKE TUFTS - CONTROL & SCADA SUPERVISOR, CITY OF BOCA RATON

The annotation system became a cornerstone of daily operations: operators log lab results, hourly walk-throughs, and process changes as annotations appearing directly on the trend line at the exact moment they occurred — closing the communication gap between shifts and departments.

They can go back and compare today's events to historical events and see if anything in the process is operating differently — like higher or lower flows.

MIKE TUFTS - CONTROL & SCADA SUPERVISOR, CITY OF BOCA RATON

KEY OUTCOMES

- 01 FULL TAG COVERAGE**
 All 22,000+ tags — previously uncollectable under the iFIX historian — now have complete real-time and historical records.
- 02 FASTER TROUBLESHOOTING**
 Instrumentation teams trace anomalies to their origin instantly, separating true instrument failures from upstream process issues.
- 03 ENERGY COST REDUCTION**
 Flow and performance data on membrane skids drives continuous adjustments — with power bills in the millions annually, incremental gains compound quickly.
- 04 TIGHTER CHEMICAL BUDGETING**
 Every chemical draw is tied to production volume and flow data, enabling more accurate forecasting month-over-month and contract-to-contract.

RELIABILITY & SUPPORT

After more than a decade of continuous operation at 1-second collection intervals across 22,000 tags, Boca Raton has experienced zero database issues. The team is only now archiving the first 10 years of data — not because the system required it, but by choice.

SEE WHAT CANARY CAN DO FOR YOUR FACILITY

Whether you're managing a municipal water system, an industrial plant, or a distributed network of assets – Canary's historian scales to fit your process and team.

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