

# Case Study

## Coca-Cola Consolidated Automates their Data Testing with QuerySurge



As the largest bottler of Coca-Cola in the United States, *Coca-Cola Consolidated* handles critical business data from a multitude of sources with different technology implementations. Ensuring the validity of this data as it passes through integration points in their system is a key goal of the QA team as these integrations are used to conduct vital business operations. To achieve this goal, the team needed to find a comprehensive data testing solution that was easily adaptable. After reviewing several options, the Coca-Cola Consolidated team decided to implement QuerySurge, which provided them with the features needed to accomplish their data testing objectives.

### Background

*Coca-Cola Consolidated* sources a majority of their master and transactional data from the centralized Coke One North America (CONA) Bottler platform. The data from this platform, along with internal data, moves through several integrations that are connected to local systems which ultimately support their end users. These integrations utilize a variety of technologies such as SAP, web & mobile applications, encrypted flat files, APIs, as well as HANA and Snowflake data warehouse implementations. Their testing efforts focus on verifying that all this data is complete and accurate.

### Challenges

The demand associated with testing data from various sources and different technologies outpaced the QA team's capacity to complete full dataset verifications within the test-cycle timeline. Manual data validation efforts involved several approaches where different toolsets were being utilized to accomplish the data comparison tasks:

- RedGate for SQL database comparison
- WinMerge for file comparisons
- Excel for data validation in files and tables

“QuerySurge test results provide a comprehensive view into the current state of the data allowing for “quick and easy analysis” ”

**Remila Palaniappan**

IT QA Lead Analyst  
Coca-Cola Consolidated



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Incorporating results from different tools added additional overhead to an already time-sensitive process, especially when dealing with HR material, which contains PI (Personal Information), where the exported test data needed to follow a strict security protocol. Additionally, each of these toolsets came with limitations in their data verification capabilities, resulting in only a subset of the data being tested. Incidents of bad data often occurred late in the test-cycle.

## Solution

Implementing QuerySurge allowed the team to consolidate their data verification efforts into a single solution. Instead of focusing on only a subset of data, they are now able to fully validate large datasets from multiple sources in their test cycle. QuerySurge test results provide a comprehensive view into the current state of the data allowing for “quick and easy analysis” in a centralized location according to Remila Palaniappan, IT QA Lead Analyst.

With over 500 QueryPairs (automated tests) and counting, the team continues to build out new tests each cycle and incorporates existing QueryPairs to aid in regression efforts.

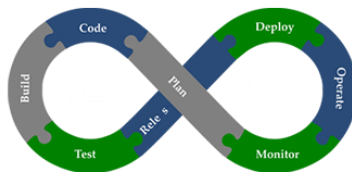
Average table validation:

- 500,000 records (400 MB)

Largest table validated:

- 3,500,000 records (3 GB)

All QuerySurge tests have been integrated into Coca-Cola Consolidated’s Azure DevOps pipeline, which has enhanced the team’s CI/CD capabilities. The tests are automatically executed with each pipeline run and results are passed back to Azure DevOps allowing them to continually detect data issues in the delivery pipeline.



Implementing QuerySurge was not without its challenges. When questions arose around configurations, connection set up, or upgrades, the Coca-Cola Consolidated team was able to rely on the top-rated QuerySurge support team for answers. According to Retha Williams, IT QA Sr. Manager

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for *Coca-Cola Consolidated*, “our experience with the QuerySurge support team has been excellent...they are extremely responsive and knowledgeable!” Upgrading to QuerySurge 8.0 and the new Projects feature allowed Coca-Cola Consolidated to sequester assets and assured that its PI data was securely protected.

## Benefits

QuerySurge has proven to be a valuable solution for many Coca-Cola Consolidated testing efforts, including their project for upgrading the HR platform. The data validation timeline was reduced from weeks to hours. Their initial manual testing effort estimate was for 5 resources and 20 days or 100 person/days. After installing QuerySurge, 2 resources spent 15 days developing QueryPairs, which took 12 hours to execute during the test cycle - for a total of 31 person/days. This resulted in a cost savings of about \$15,000 on that project alone. As with the benefit of all automated regression suites, any additional automated executions would take 1 day versus a manual effort of an additional 100 person/days.

The ability to relay the testing results to the development team quickly and easily has been another key benefit in Coca-Cola’s QuerySurge implementation. Instances of bad data were significantly reduced, and subsequent HR projects benefited from the issues found in their initial QuerySurge tests. Applying the lessons learned from earlier QuerySurge testing efforts prevented those same issues from reoccurring, resulting in much cleaner data.

“*Out of all our test automation tools, QuerySurge has provided us with our greatest ROI by enabling us to reduce resources and time needed for data validation testing, which ultimately results in cost reductions in our solution delivery processes.*”

- Retha Williams, IT Sr. QA Manager Coca-Cola Consolidated



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## About Coca-Cola Consolidated:

Coca-Cola Consolidated is the largest Coca-Cola bottler in the United States. Our Purpose is to honor God in all we do, serve others, pursue excellence and grow profitably. For over 118 years, we have been deeply committed to the consumers, customers, and communities we serve and passionate about the broad portfolio of beverages and services we offer. We make, sell and distribute beverages of The Coca-Cola Company and other partner companies in more than 300 brands and flavors across 14 states and the District of Columbia to over 66 million consumers.

We are based in the Southeast, Midwest, and Mid-Atlantic portion of the United States. We have 13 manufacturing facilities, 70+ distribution and sales centers, with our Corporate offices located in Charlotte, North Carolina.



## About RTTS & QuerySurge:

RTTS, the developer of QuerySurge, is the premier pure-play QA & Testing organization that specializes in Test Automation. Headquartered in New York, RTTS has had 1,000+ successful engagements at over 700 corporations since 1996.



QuerySurge is the smart data testing solution that automates the data validation and ETL testing of Big Data, Data Warehouses, Business Intelligence Reports and Enterprise Applications with full DevOps/DataOps functionality for continuous testing.

