

QuerySurge

ETL TESTING AUTOMATION TOOL

How QuerySerge is useful

QuerySurge Automates your Data Warehouse & ETL Testing

Improves Data quality

Reduces Cost and Risk

Accelerate your testing cycles

Reduces manual work

Integration with ETL tools

It has command line API which make it flexible to use

Through its command line API we can use it with DataStage

Execute Command stage in sequence job can be used for this purpose

Reporting in QuerySurge

It has highly customizable built-in Reports support

Multiple filters can be applied on reports

CMD line API SQL parameters

SQL paramets are not yet supported.

Expected in future releases



Jeff Bocarsly
RTTS

Asad

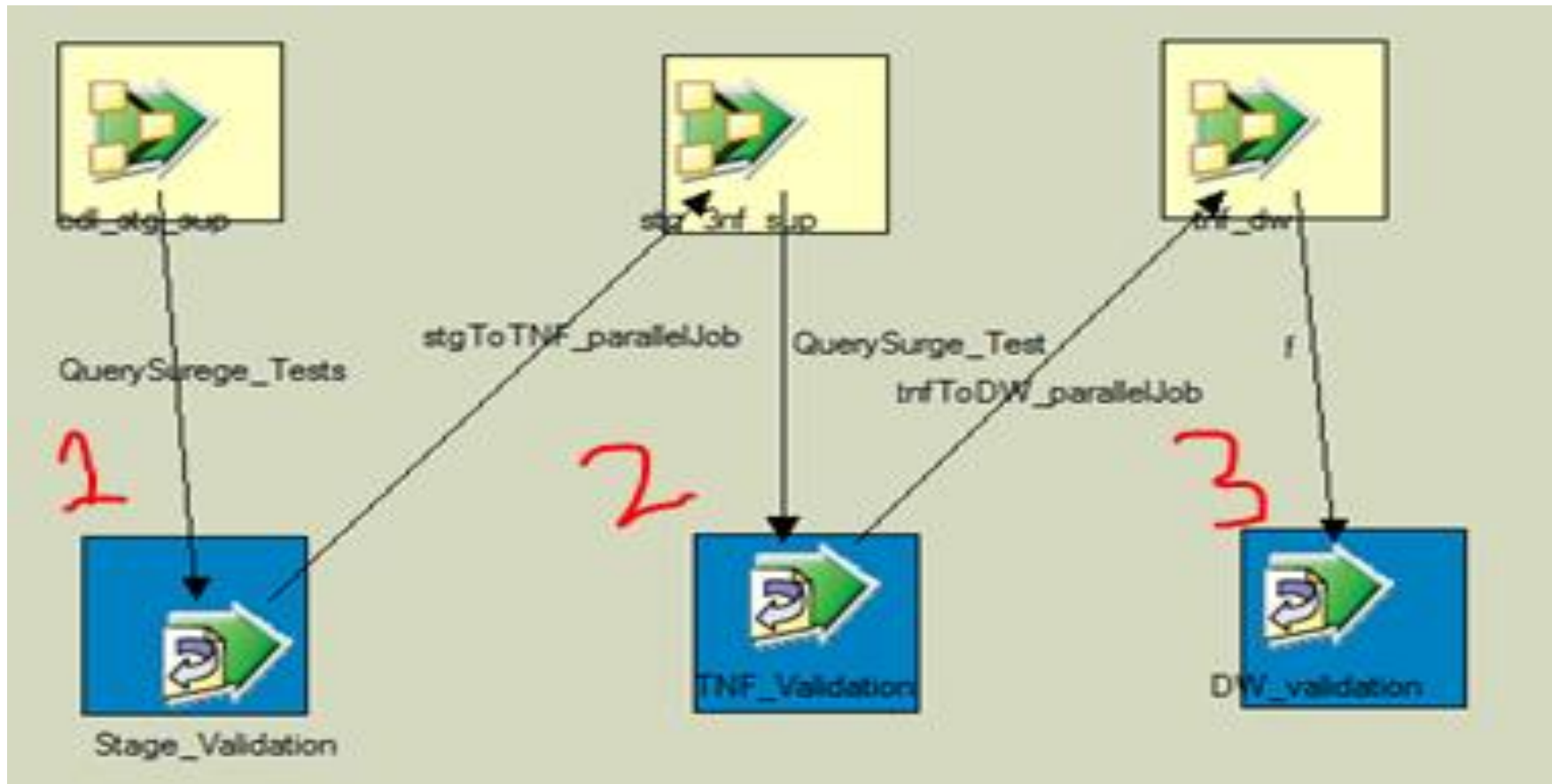
At this point the QuerySurge API does not have this feature. SQL Parameters is something that is on the product roadmap, however.

Regards
Jeff

December 26, 2014 08:34

Ref: <https://querysurge.zendesk.com/requests/672>

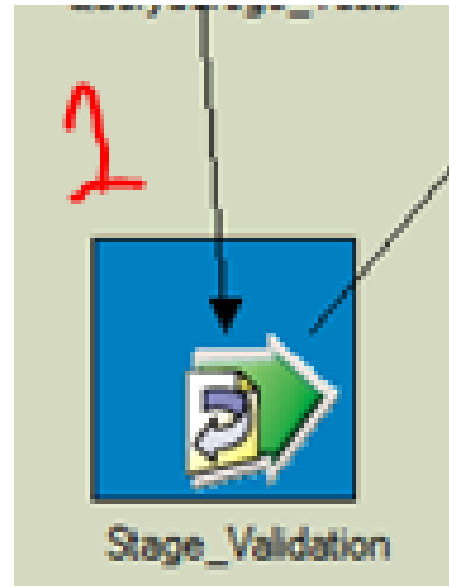
DataStage Example sequence job



DataSurge Suite after data loading

The component shown (Execute Command) will call a batch file from DataStage to execute Data Suite from DataSurge. The batch file has the commands which uses command line API to achieve the goal.

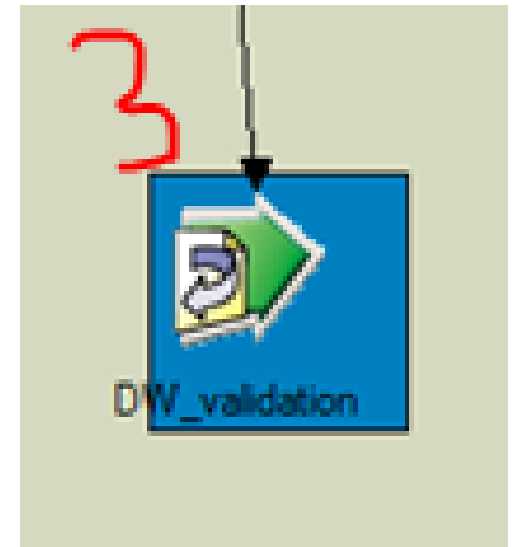
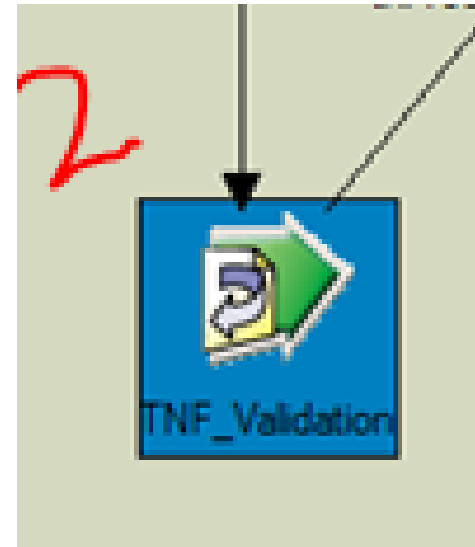
The test pass/fail report can be generated and notifications can also be sent, all this is handled automatically by QuerySurge



DataSurge Suite after data loading

These are similar calls to different suits written in QuerySurge. We can write different batch files which can call our test suits according to our need.

QuerySurge makes the testing process for ETL jobs really easy, manageable and streamlined.



QuerySurge: Making a Data Suite

Step 1: Creating a query pair

A query pair has a source and destination database for comparison.

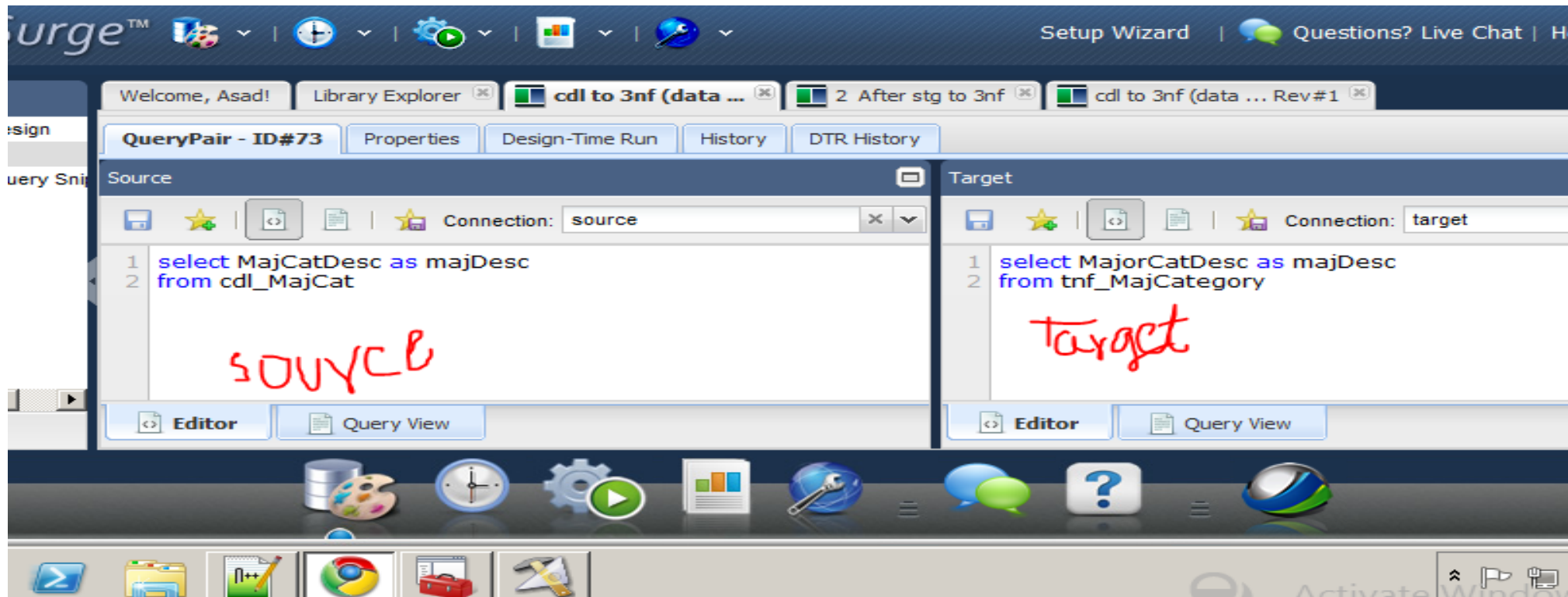
We write queries to test if expected behavior exists or not.

After running the query pair the result is either PASS/FAIL

A query pair fails if one database entry behaves unexpectedly

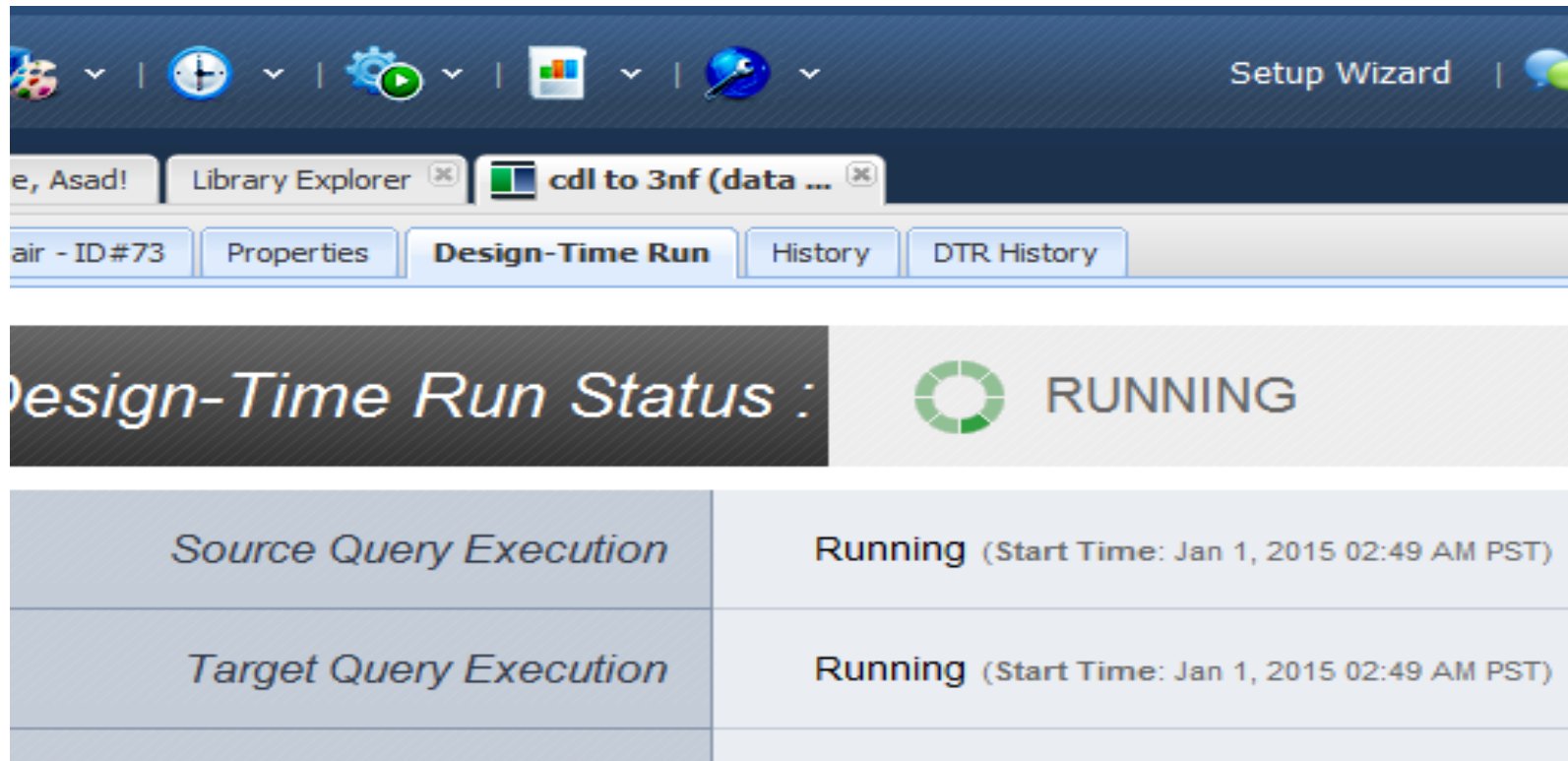
Step 1: Creating a query pair

Go to: Design Library > QueryPairs > Create New QueryPair



Step 2: Execute/Run QueryPair

After we click Design-Time Run > Run, the running state is shown below.



The screenshot shows the Design-Time Run status in a software application. The interface includes a top toolbar with icons for various functions, a window title bar with tabs for 'Library Explorer' and 'cdl to 3nf (data ...)', and a 'Setup Wizard' button. Below the toolbar, there are tabs for 'air - ID#73', 'Properties', 'Design-Time Run', 'History', and 'DTR History'. The 'Design-Time Run' tab is active, displaying a 'Design-Time Run Status' section with a green circular progress indicator and the word 'RUNNING'. Below this, a table shows the execution status of source and target queries.

<i>Source Query Execution</i>	Running (Start Time: Jan 1, 2015 02:49 AM PST)
<i>Target Query Execution</i>	Running (Start Time: Jan 1, 2015 02:49 AM PST)

Step 2: Execute/Run QueryPair (Failure)

One row mismatched in this scenario, Due to that the test failed; for a test to be successful all the data must match.

The screenshot displays the 'Design-Time Run' status for a QueryPair with ID #73. The status is 'FAILED', indicated by a red exclamation mark icon. The interface shows the following statistics:

5	5	View Query Results		Run
Source Rows	Target Rows			
0	1	-	-	
Row Count Difference	Failed Row Count	Non-Matching Source Rows	Non-Matching Target Rows	

Step 2: Execute/Run QueryPair (Failure)

The details can be seen, we can view source and column table, queries and the rows mismatched and eventually resulted in failure of the query pair.

QuerySurge

http://localhost:8080/QuerySurge/index.jsp#v=

Suggested Sites Web Slice Gallery

cdl to 3nf (data quality)

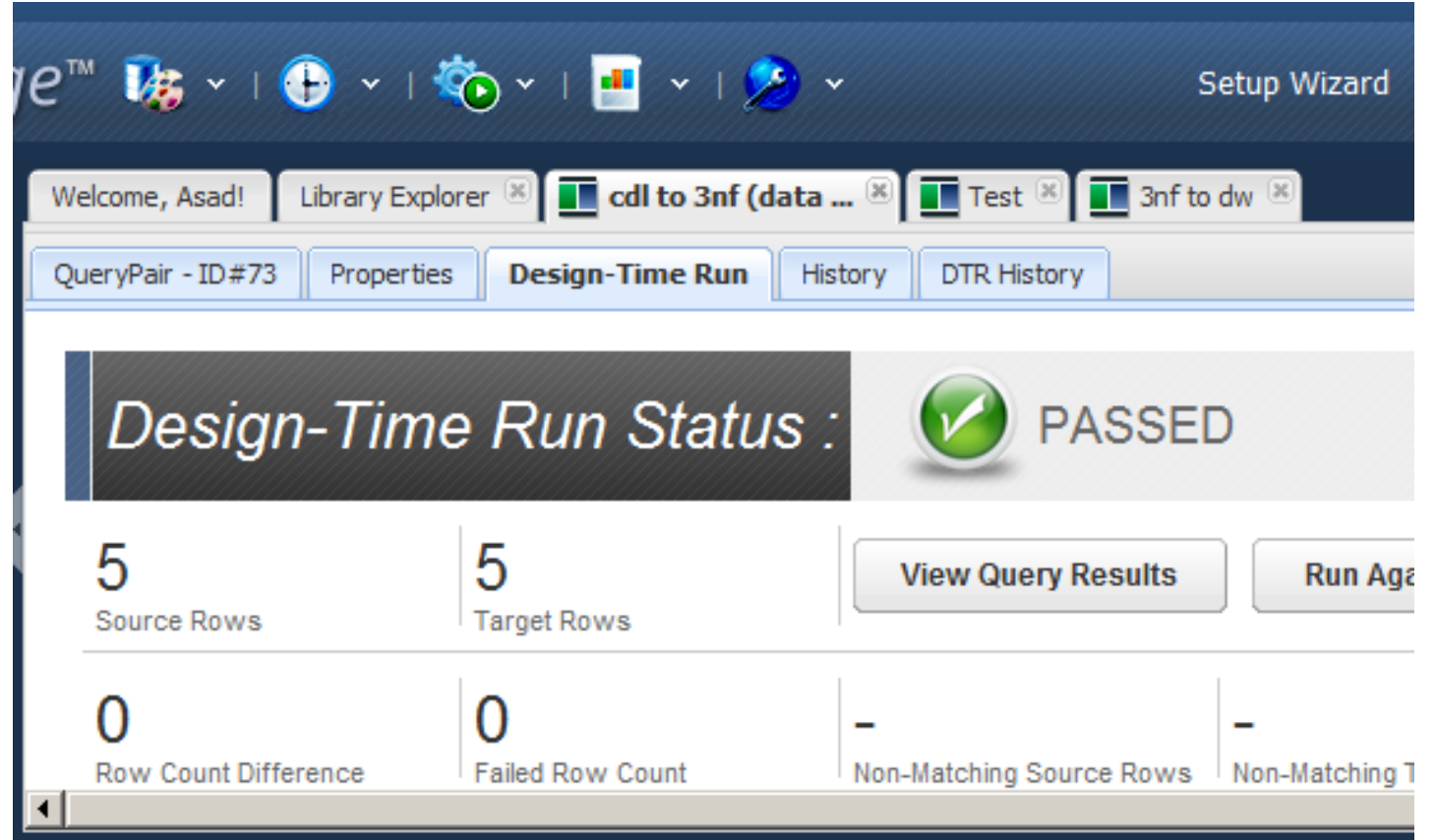
Source Target Failures Source Query Target Query

Export All Data Failure Non-matching Row

	majDesc
← 5	Cheese
→ 5	Cheese

Step 2: Execute/Run QueryPair (Success)

All the rows matched exactly according to the query pair source and target SQL queries.

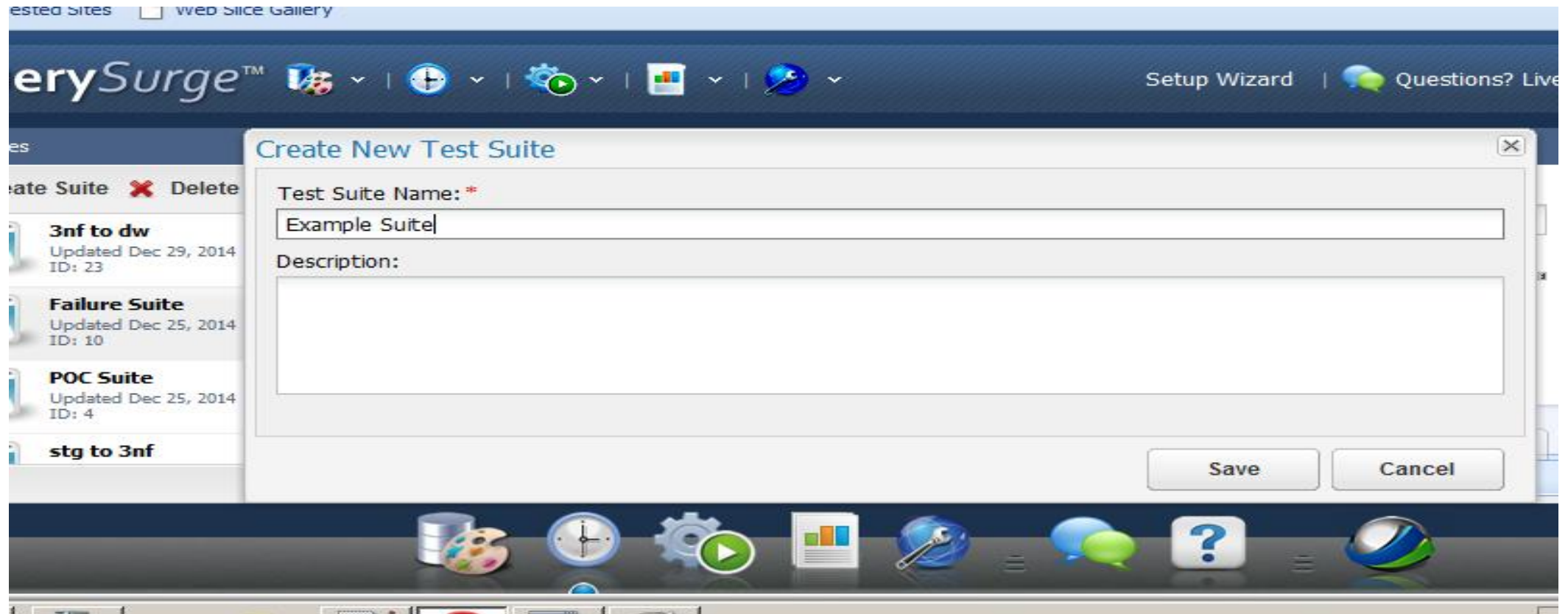


The screenshot displays a software interface with a dark blue header and a light blue sidebar. The main content area shows the results of a Design-Time Run. At the top, there are several tabs: "Welcome, Asad!", "Library Explorer", "cdl to 3nf (data ...", "Test", and "3nf to dw". Below these, there are sub-tabs: "QueryPair - ID#73", "Properties", "Design-Time Run", "History", and "DTR History". The "Design-Time Run" tab is active, showing a large green checkmark icon and the text "PASSED". Below this, there are four data points: "5 Source Rows", "5 Target Rows", "0 Row Count Difference", and "0 Failed Row Count". To the right of these data points are two buttons: "View Query Results" and "Run Again".

Source Rows	Target Rows	Row Count Difference	Failed Row Count	Non-Matching Source Rows	Non-Matching Target Rows
5	5	0	0	-	-

Step 3: Creating Test Suite

Go to: Menu > Create Test Suite



Step 3: Creating Test Suite

Include the required query pair/s in the test suite

Drag/Drop query pairs to include in a test suite

POC Suite

Test Suite Name: *

POC Suite

Description:

Connection Override Behavior:

Do Not Override Test Suite Mixed

POC Suite 1 test Date Modified: Dec 25, 2014 03:47 AM PST Modified by: Abdullah, Asad Save

ID	Name	Mapping	Created By
73	cdl to 3nf (data quality)		Abdullah, Asad

QueryPair Library

- QueryPairs
 - 3nf to dw
 - POC query pairs
 - Stg to 3nf
 - 2 After stg 1
 - XMART
 - ZCITY
 - Test

Step 4: Execute/Run Test Suite

Right Click a Test Suite and click 'Run Now' To run it

The screenshot displays a web-based interface for managing test suites. On the left, a list of test suites is shown:

- 3nf to dw**: Updated Dec 29, 2014 • 1 test, ID: 23
- Failure Suite**: Updated Dec 25, 2014 • 1 test, ID: 10
- POC Suite**: Updated Dec 25, 2014 • 1 test, ID: 4
- stg to 3nf**

A right-click context menu is open over the 'POC Suite' entry, with the 'Run Now' option highlighted by a red line. The menu options are:

- Run Now
- Edit Test Suite
- Delete

The right side of the interface shows the configuration for the selected 'POC Suite':

- Test Suite Name:** * POC Suite
- Description:**
- Connection Override Behavior:** Do Not Override Test Suite
- Date Modified:** Dec 25, 2014 03:00
- Modified by:** Abdullah, Asad
- Exec** button

The bottom of the interface features a taskbar with various icons, including a play button icon, indicating the execution step.

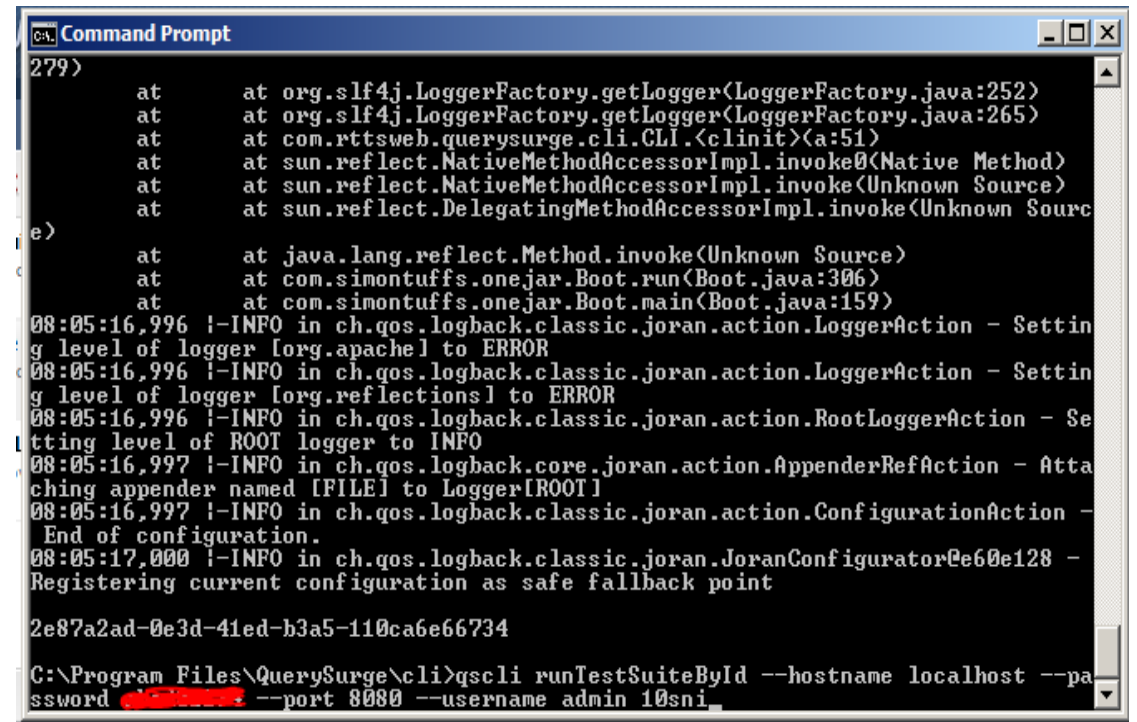
Step 5: Execute/Run Test from CMD

We can also run a test suite using command line API

Commands are given in the documents which come with the product

We can use command line API to run suits from any ETL tool

Step by step guide to run a suite from DataStage is give in word document in parent folder.



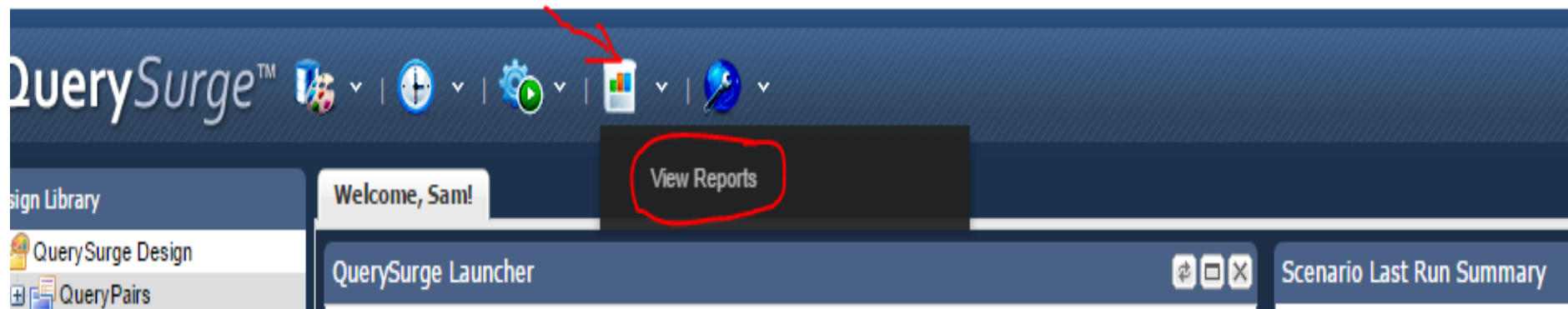
```
279)
    at org.slf4j.LoggerFactory.getLogger(LoggerFactory.java:252)
    at org.slf4j.LoggerFactory.getLogger(LoggerFactory.java:265)
    at com.rttswb.querysurge.cli.CLI.<clinit>(a:51)
    at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
    at sun.reflect.NativeMethodAccessorImpl.invoke(Unknown Source)
    at sun.reflect.DelegatingMethodAccessorImpl.invoke(Unknown Source)
    at java.lang.reflect.Method.invoke(Unknown Source)
    at com.simontuffs.onejar.Boot.run(Boot.java:306)
    at com.simontuffs.onejar.Boot.main(Boot.java:159)
08:05:16,996 !-INFO in ch.qos.logback.classic.joran.action.LoggerAction - Setting level of logger [org.apache] to ERROR
08:05:16,996 !-INFO in ch.qos.logback.classic.joran.action.LoggerAction - Setting level of logger [org.reflections] to ERROR
08:05:16,996 !-INFO in ch.qos.logback.classic.joran.action.RootLoggerAction - Setting level of ROOT logger to INFO
08:05:16,997 !-INFO in ch.qos.logback.core.joran.action.AppenderRefAction - Attaching appender named [FILE] to Logger[ROOT]
08:05:16,997 !-INFO in ch.qos.logback.classic.joran.action.ConfigurationAction - End of configuration.
08:05:17,000 !-INFO in ch.qos.logback.classic.joran.JoranConfigurator@e60e128 - Registering current configuration as safe fallback point

2e87a2ad-0e3d-41ed-b3a5-110ca6e66734

C:\Program Files\QuerySurge\cli>qscli runTestSuiteById --hostname localhost --password [REDACTED] --port 8080 --username admin1@sn
```

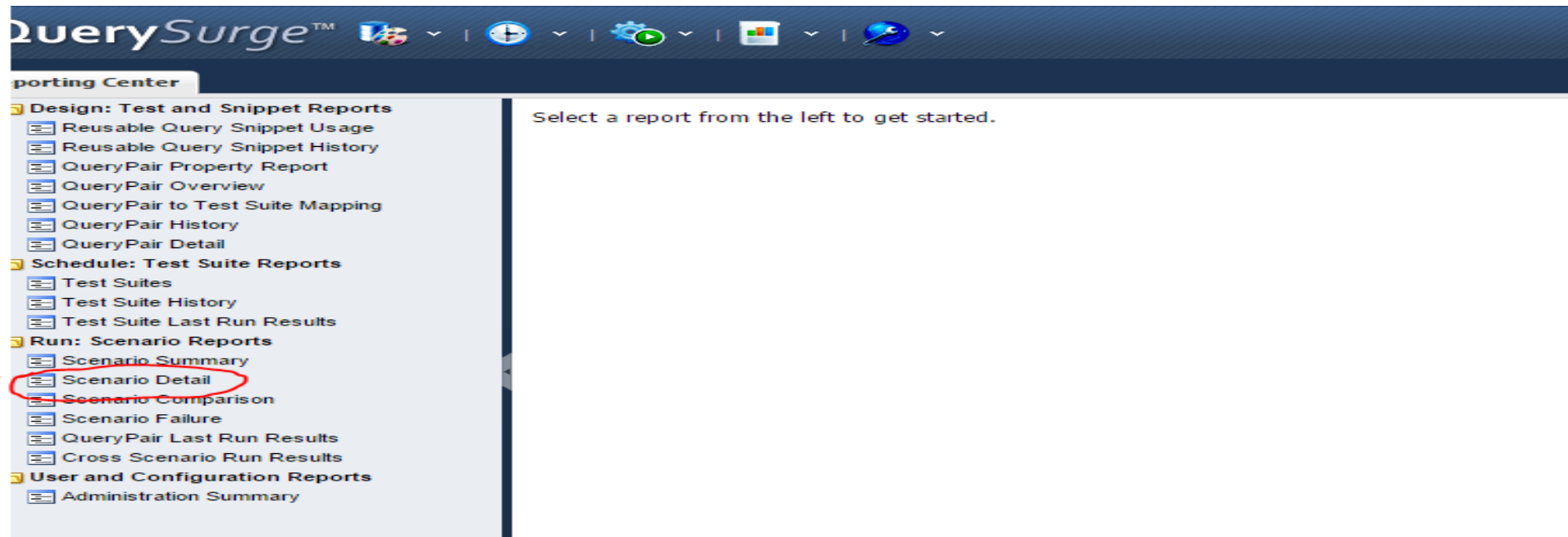
Step 6: Generating reports

After successful execution of the suite, we can generate reports to get insight. The reports give us detailed information about the error, successful or failed execution and the contaminated row number in case of contamination. We can export the reports in word or .pdf format.



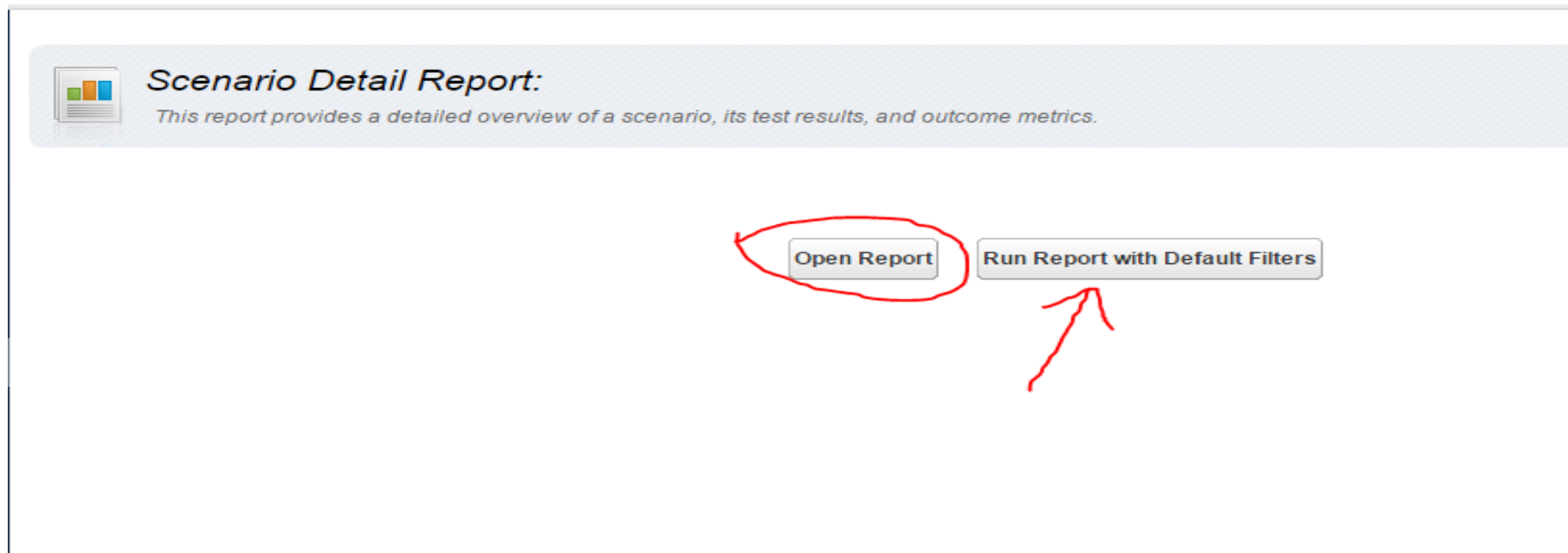
Step 6: Generating reports

Click of scenario details to get the details.



Step 6: Generating reports

Click on 'Run Report with default filters' to run the report. We can apply different type of filters to get required info. The log of the previous reports can also be seen by clicking of 'Open Report'



The Detailed view of report: Page1

Report Options

Select a Scenario:



POC - 2014-12-29 04:20:48
Created by: Smith, Sam



Run Report

Save as PDF

Export Report Data



Scenario Detail Report - **POC - 2014-12-29 04:20:48**

This report provides a detailed overview of a scenario, it's test results, and outcome metrics.

Scenario Outcome:



PASSED

Dec 29, 2014, 4:20 AM

Smith, Sam

Test Results

3

Total QueryPairs

0

Failed

3

Passed

100%

Pass Rate

Overview

0:0:10.803 Scenario Duration (hh:mm:ss.ms)	100% Data Reliability
51 Verifications	0 Data Failures
0 Column Type Mismatch Failures	0 Row Count Differences (# of QueryPairs)
0:0:0.376 Avg. Source Query Execution (hh:mm:ss.ms)	0:0:0.257 Avg. Target Query Execution (hh:mm:ss.ms)
4	4

QueryPair Outcome Distribution



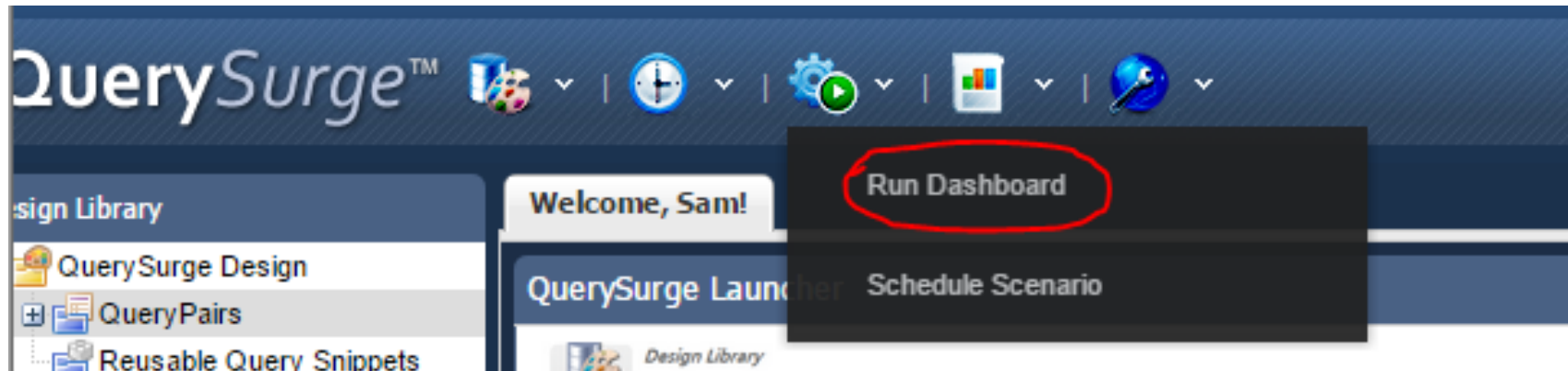
The Detailed view of report: Page2

Test Suite Details						
Name	# of tests	Agents	Failures	Passed	Errors	
POC	3	WIN2008DS1	0	3	0	

QueryPair Results						
POC						
ID	Name	Outcome	Source Row Count	Target Row Count	Row Count Difference	Data Failure Count
73	hamz	✔ Passed	5	5	0	0
74	MajCat	✔ Passed	6	6	0	0
75	POC	✔ Passed	1	1	0	0

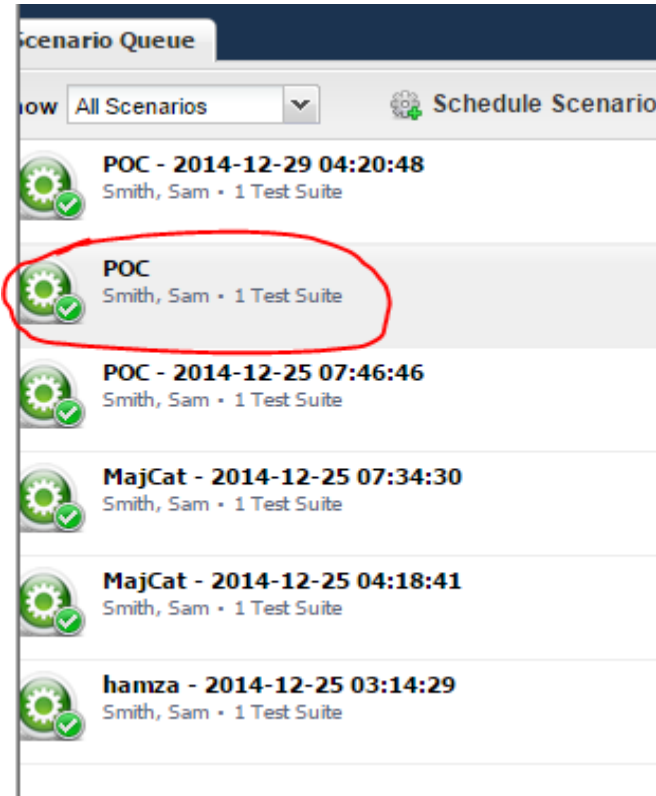
Step 7: Running Dashboard

Dashboard gives us the detailed view, statistics and graphs.



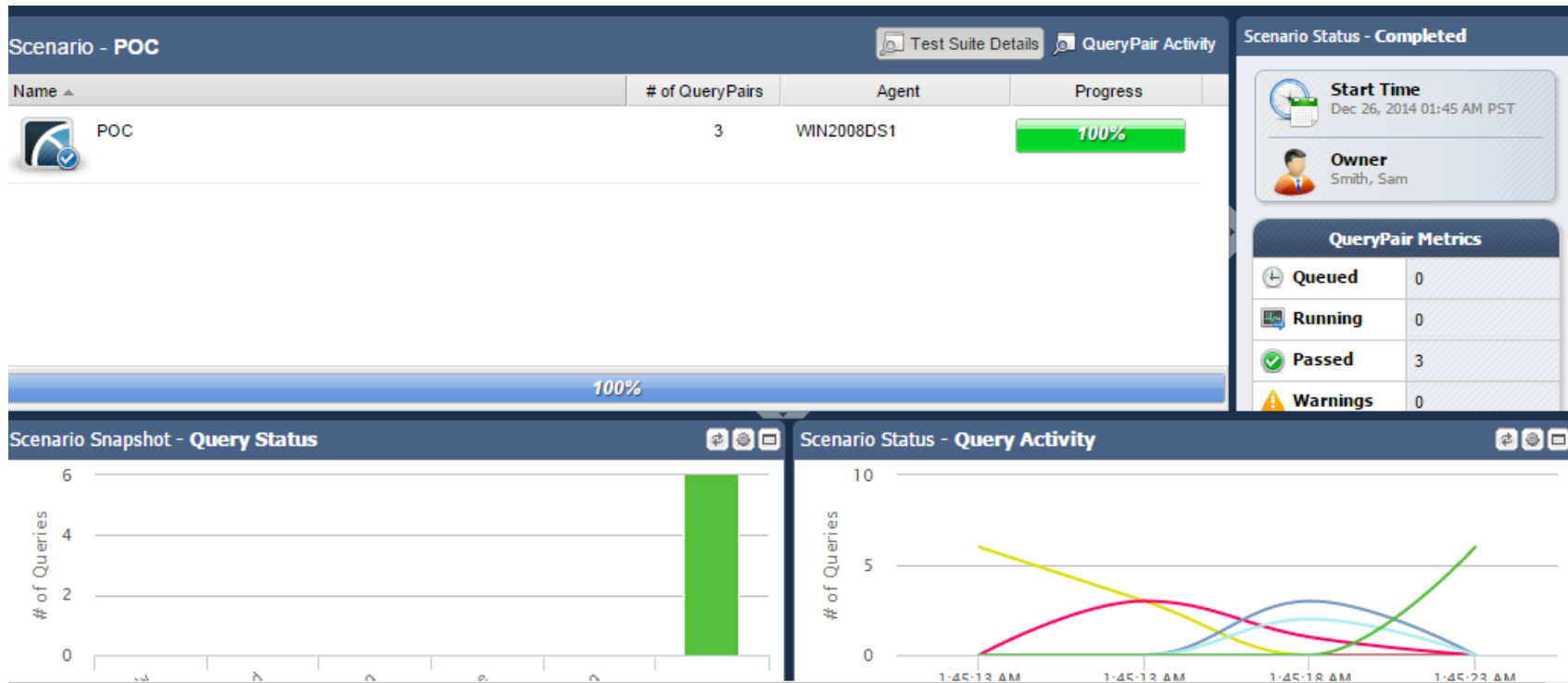
Step 7: Running Dashboard

Select a Test Suite to run its dashboard



Step 8: Charts and info

Below graphs give us the detailed information.



References

<http://talkcs.blogspot.com/2014/12/querysurge-and-datastage-etl-integration.html>

<https://querysurge.zendesk.com/requests/672>

QuerySurge Official Site: <http://www.querysurge.com/>