

QUIKLOOK Software Update

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TELEDYNE LECROY TEST SERVICES
Everywhereyoulook™

Quiklook Software Update



- Version 2015.208
 - Released August 2015

- Version 2015.210
 - Released March 2016

- Version 2016.???
 - Released August 2016





Software Error Notices

- Version 2015.208
 - Error Notice 2015.208-1
 - If a test is taken using encoders with Quiklook 2015.208 and then viewed with version 2014.058 the encoder channels will be deleted and lost



Software Error Notices

- Error Notice 2015.208-1
 - Workaround:
 - When upgrading to version 2015.208 and you are using encoders make sure all previous versions of Quiklook have been upgraded.
 - If the encoder channel cannot be viewed, retrieve the original test file from the QL3 acquisition computer and open it with version 2015.208.
 - The encoder channel will display since the original test will still contain the encoder data.
 - Notes:
 - Encoders were introduced in version 2015.208. Version 2014.058 does not understand this data and the test will be corrupted and the encoder channel data is lost and is not able to be displayed.





Software Error Notices

- Version 2015.208
 - Error Notice 2015.208-2
 - If Quiklook is set up for metric and the FlowScanner database is used for lookup, values retrieved from database will be in English units and must be manually converted to metric





Software Error Notices

- Error Notice 2015.208-2
 - Workaround:
 - After selecting the actuator from the dropdowns supplied by the database, convert the areas and moment arms (rotary valves) to metric.
 - Notes:
 - The FlowScanner database was introduced in version 2015.208 for use in AOV testing. The error does not apply to any previous versions or MOV testing.



Software Error Notices

- Version 2015.208
 - Error Notice 2015.208-3
 - If the Zero Time is moved to the middle of a trace
 - Then the user clicks on a different time
 - Then re-clicks the Zero Time mark
 - QL3FS has a fatal error.
 - This only occurs when the screen is zoomed far enough to allow for dragging and dropping of markers.
 - This will result in loss of changes and possible test files during acquisition if auto save is disabled





Software Error Notices

- Error Notice 2015.208-3
 - Workaround:
 - In the Preference menu un-check “allow dragging and dropping of markers” on the Trace tab.
 - Notes:
 - This error applies to version 2015.208 of **QUIKLOOK FS**.



Software Error Notices

- Version 2015.208
 - Error Notice 2015.208-4
 - In QL3FS the Preference for saving the file format is not working properly.
 - If C00 & CDB is selected and saved the setting returns back to CBD only when the system is restarted





Software Error Notices

- Error Notice 2015.208-4
 - Workaround 1:
 - Prior to acquisition Select File/Preferences/Acquisition and in the Save Mode box Select C00 & CDB.
 - The test output will include the C00 file and the CDB file. This setting will remain until the QL3FS system is restarted.
 - This setting for Save Mode must be selected and changed again after the system is restarted.
 - Workaround 2:
 - If workaround 1 was not performed and a C00 file is required contact Teledyne for instructions on how to create a C00 FILE.
 - Notes:
 - This error applies to version 2015.208 of **QUIKLOOK FS**.





Software Error Notices

- Version 2015.210
 - Error Notice 2015.210-1
 - If a FlowScanner test for a “Fail Open” valve is opened in Quiklook for the first time after translation then the following markers will be incorrectly located: msc, map, usf, sfo.
 - Background
 - When a test is translated from FlowScanner into Quiklook markers are not initially placed for the test.
 - Instead a flag is set so that when Quiklook opens the test for the first time the markers are automatically calculated and saved with the test.
 - Quiklook fails to properly identify Open/Closed in this case causing the markers to be incorrectly placed.





Software Error Notices

- Error Notice 2015.210-1
 - Workaround:
 - With the trace on the screen delete affected markers. Then go to the “Analysis” menu then “AOV” and select “Calculate Markers”. This will place the markers in the correct location.
 - Markers need to be deleted first. Quiklook will not replace or move an existing marker using this function
 - Notes:
 - This error only applies to FlowScanner translated tests for “Fail Open” valves and versions 2015.208 and 2015.210 QUIKLOOK FS.
 - ***This error does not apply to any tests acquired using a QL3 or QL3FS systems***





Customer Service Bulletins

- CSB 2016-03
 - Issue Description
 - When entering the QUIKLOOK FS acquisition screen, or while plugging a digital encoder into channel 15 or 16, you receive a message stating:

"You have plugged an Encoder into a system that does not support Encoders"
 - This may happen after a test when returning to the acquisition screen even though it was recognized the first time

Customer Service Bulletins

- CSB 2016-03
 - Reconciliation:
 - Quiklook in order to recognize the encoders needs to load the drivers for them.
 - These drivers are located in files which are installed with Quiklook.
 - Because of the location of where the driver files were installed Quiklook would not always find them.
 - A new installer has been created which will place these files in the correct location.
 - Note: To verify that you have used the correct installer check for the file “QDMSvr.dll” in the Quiklook directory. This file should not exist but should be present in the Windows\System32 directory.

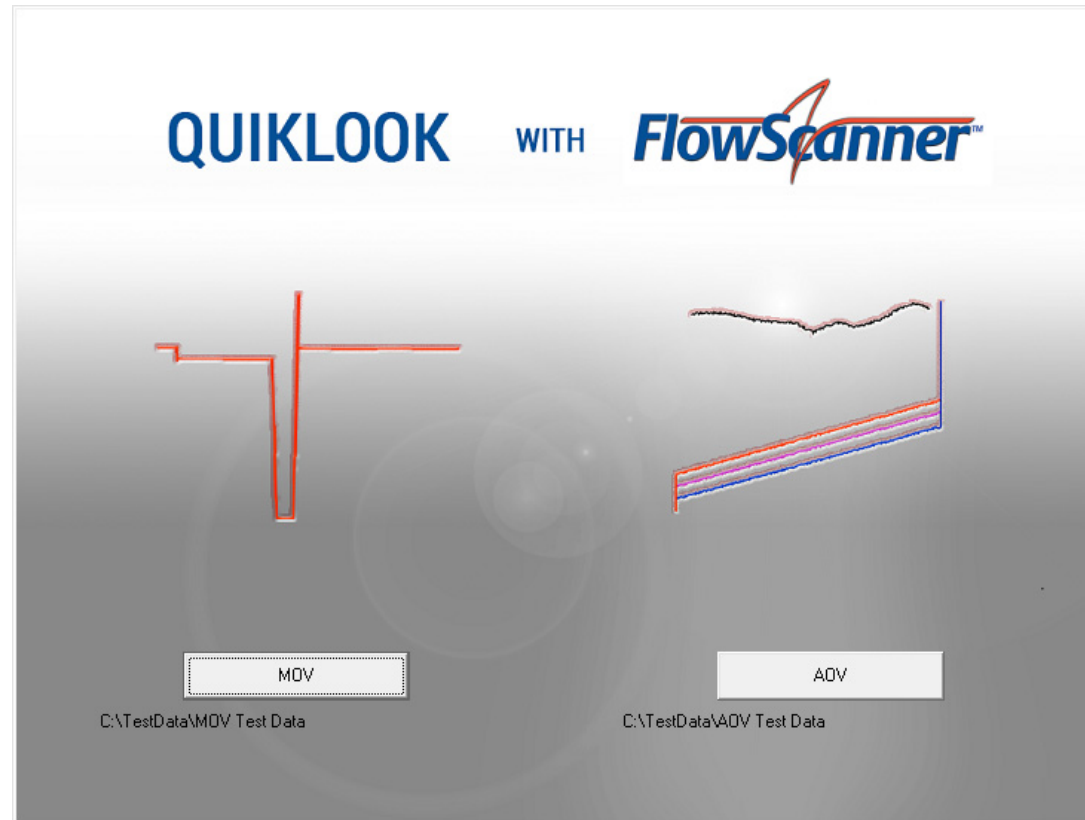




2015.208 – New Features



Power of the Partnership



**Teledyne Test Services and Fisher Lifecycle Services
have partnered to deliver an industry leading
AOV/MOV valve diagnostic system – QUIKLOOK 3^{FS}**

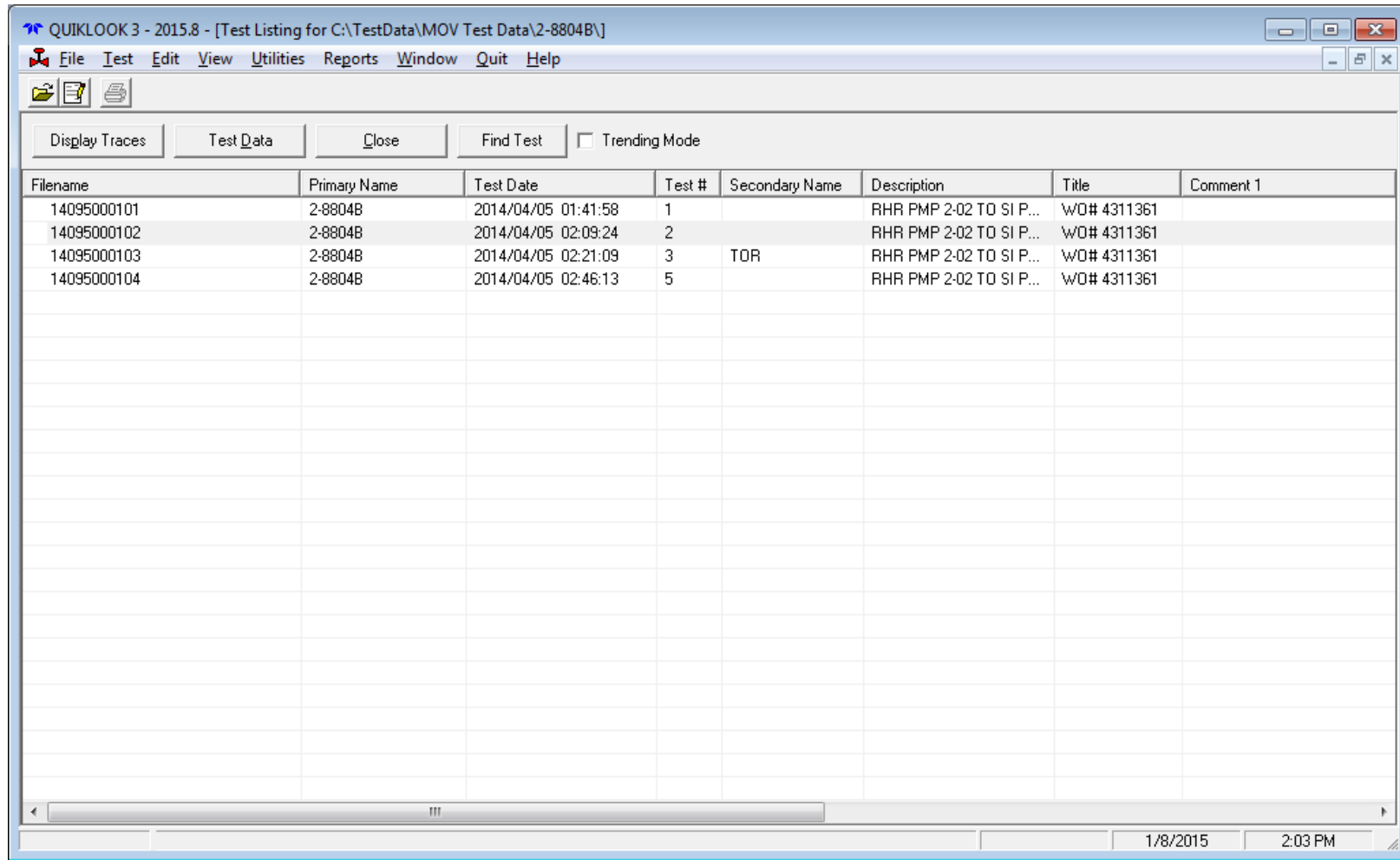


2015 – New Features – Interface Mode

- Interface Mode set with a Preference Setting
- Quiklook Mode
 - Standard Test Listing
 - Shows all the tests for one valve
 - Redirector for selecting valve for acquisition
- FlowScanner Mode
 - Directory Tree
 - Shows multiple valves and tests
 - Valve selected from tree for acquisition



2015 – New Features – Quiklook Mode



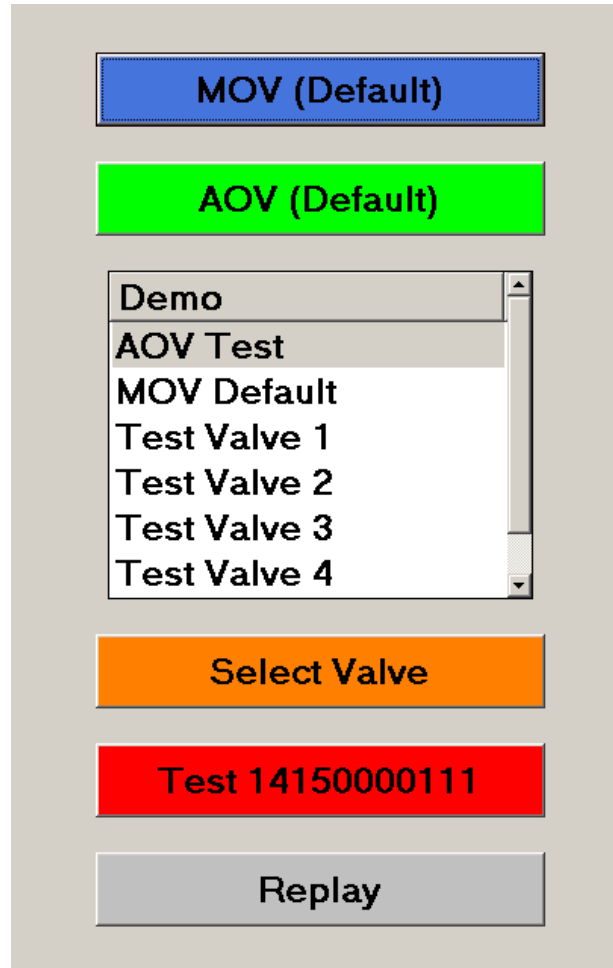
The screenshot shows the Quiklook 3 software interface. The window title is "QUIKLOOK 3 - 2015.8 - [Test Listing for C:\TestData\MOV Test Data\2-8804B\]". The menu bar includes File, Test, Edit, View, Utilities, Reports, Window, Quit, and Help. Below the menu bar are icons for file operations and a toolbar with buttons for "Display Traces", "Test Data", "Close", "Find Test", and a checkbox for "Trending Mode". The main area contains a table with the following data:

Filename	Primary Name	Test Date	Test #	Secondary Name	Description	Title	Comment 1
14095000101	2-8804B	2014/04/05 01:41:58	1		RHR PMP 2-02 TO SI P...	WO# 4311361	
14095000102	2-8804B	2014/04/05 02:09:24	2		RHR PMP 2-02 TO SI P...	WO# 4311361	
14095000103	2-8804B	2014/04/05 02:21:09	3	TOR	RHR PMP 2-02 TO SI P...	WO# 4311361	
14095000104	2-8804B	2014/04/05 02:46:13	5		RHR PMP 2-02 TO SI P...	WO# 4311361	

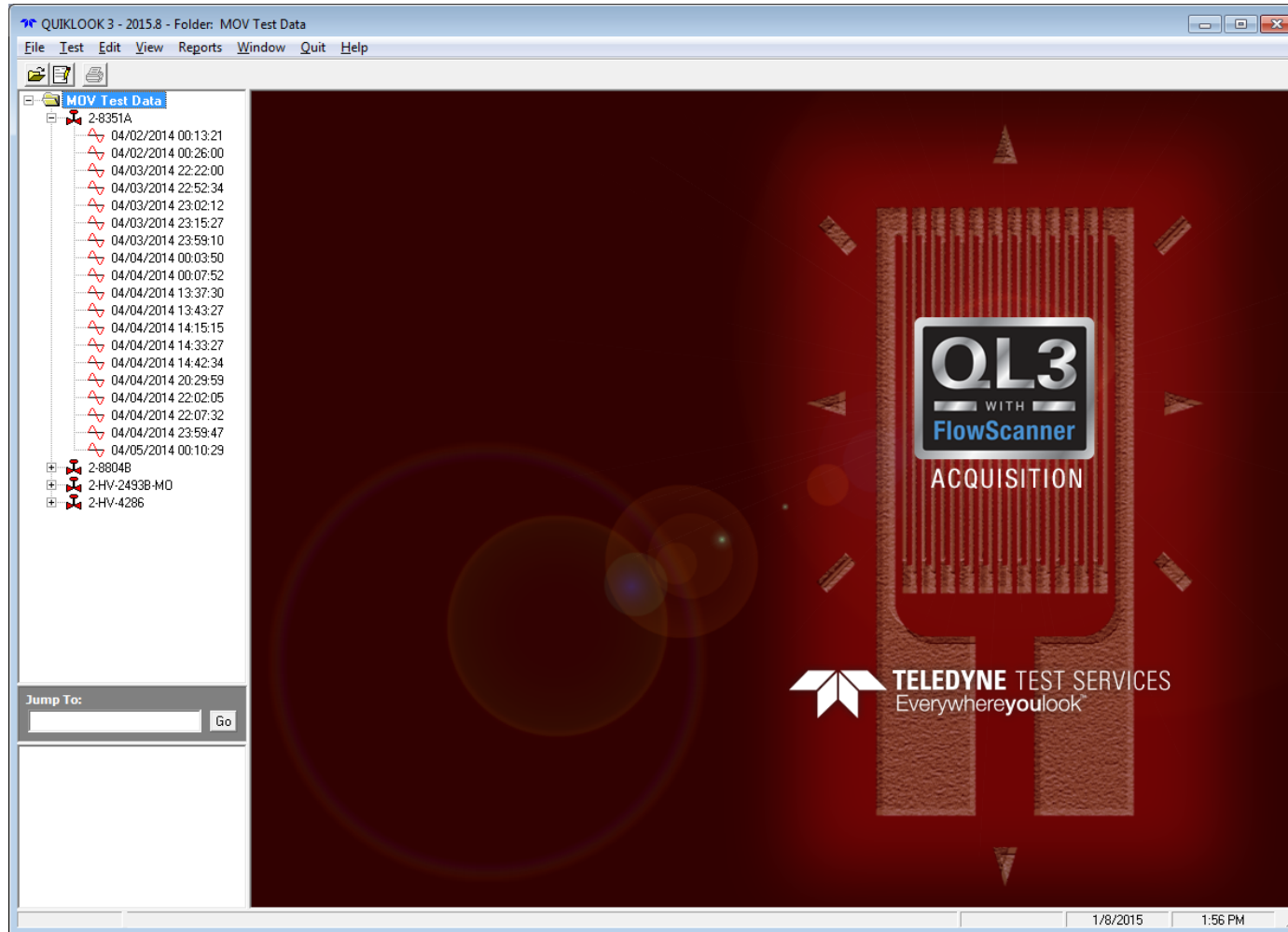
The status bar at the bottom right shows the date "1/8/2015" and the time "2:03 PM".



2015 – New Features – Quiklook Mode

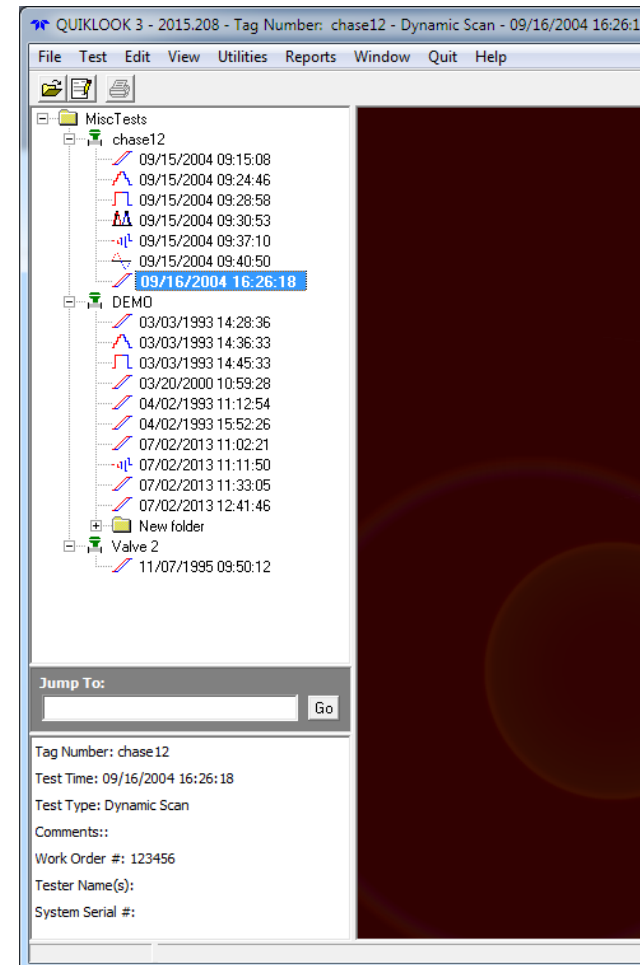


2015 – New Features – FlowScanner Mode - MOV

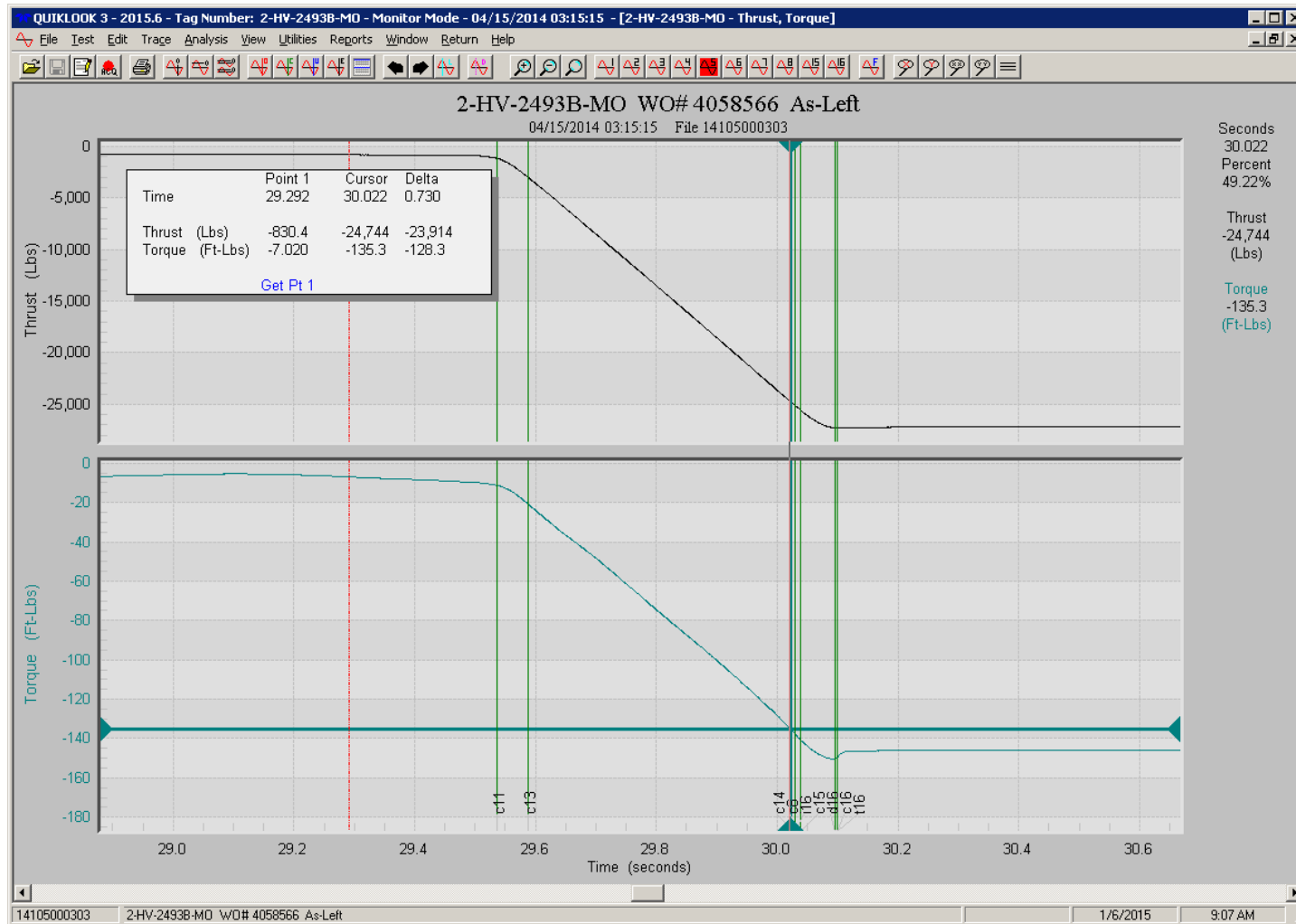


2015 – New Features – FlowScanner Mode - AOV

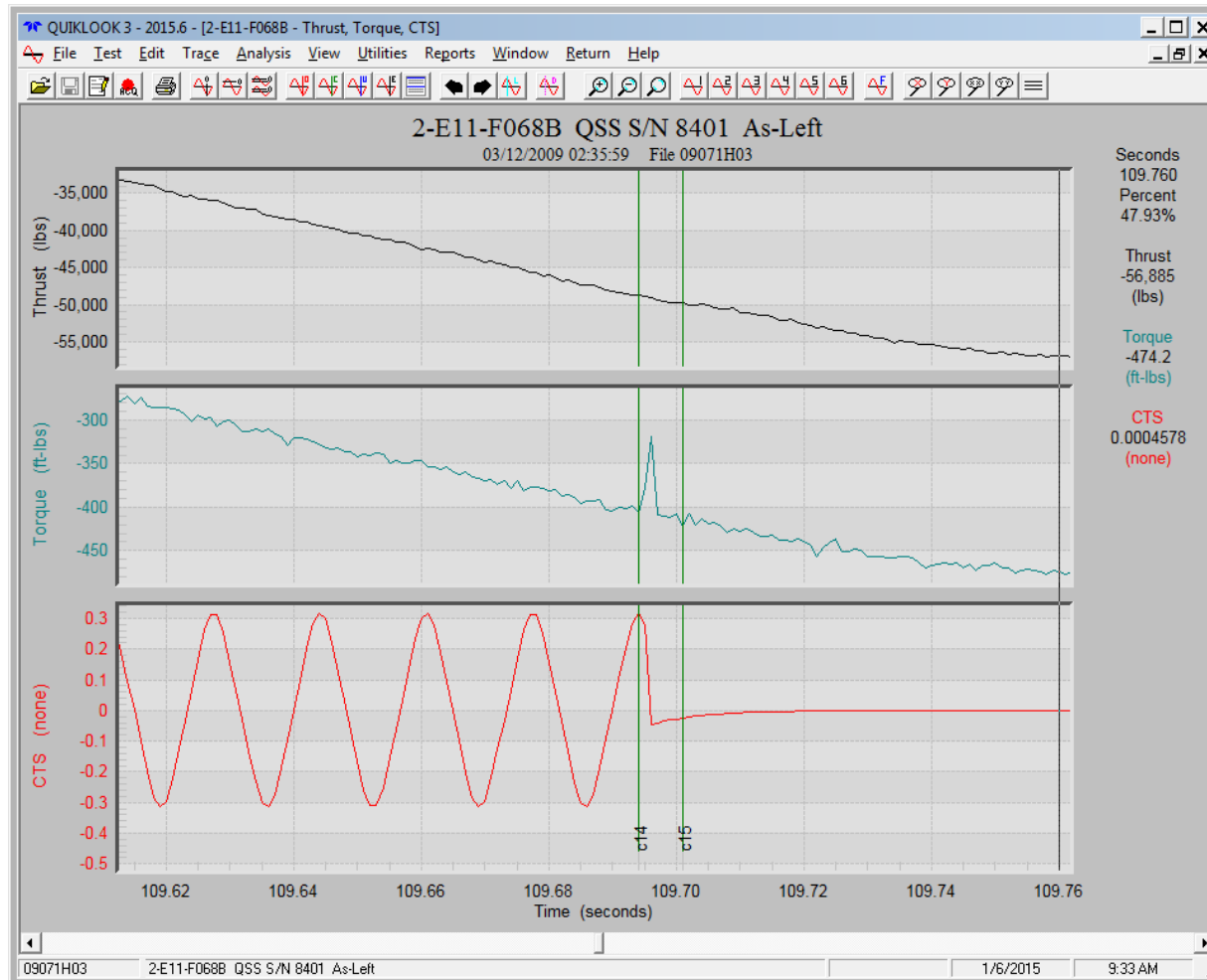
- Caption identifies test
- Icon next to valve identifies valve type
- Icon next to test identifies test type
- Quick view box at bottom gives summary of valve / test



2015 – New Features – Delta Y Function

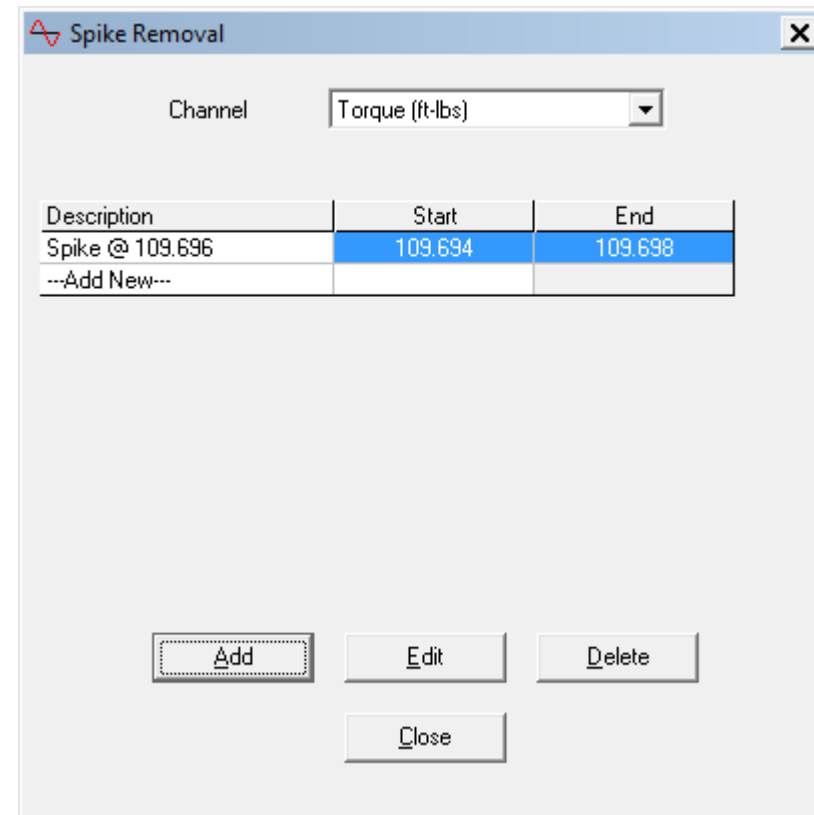


2015 – New Features – Spike Removal

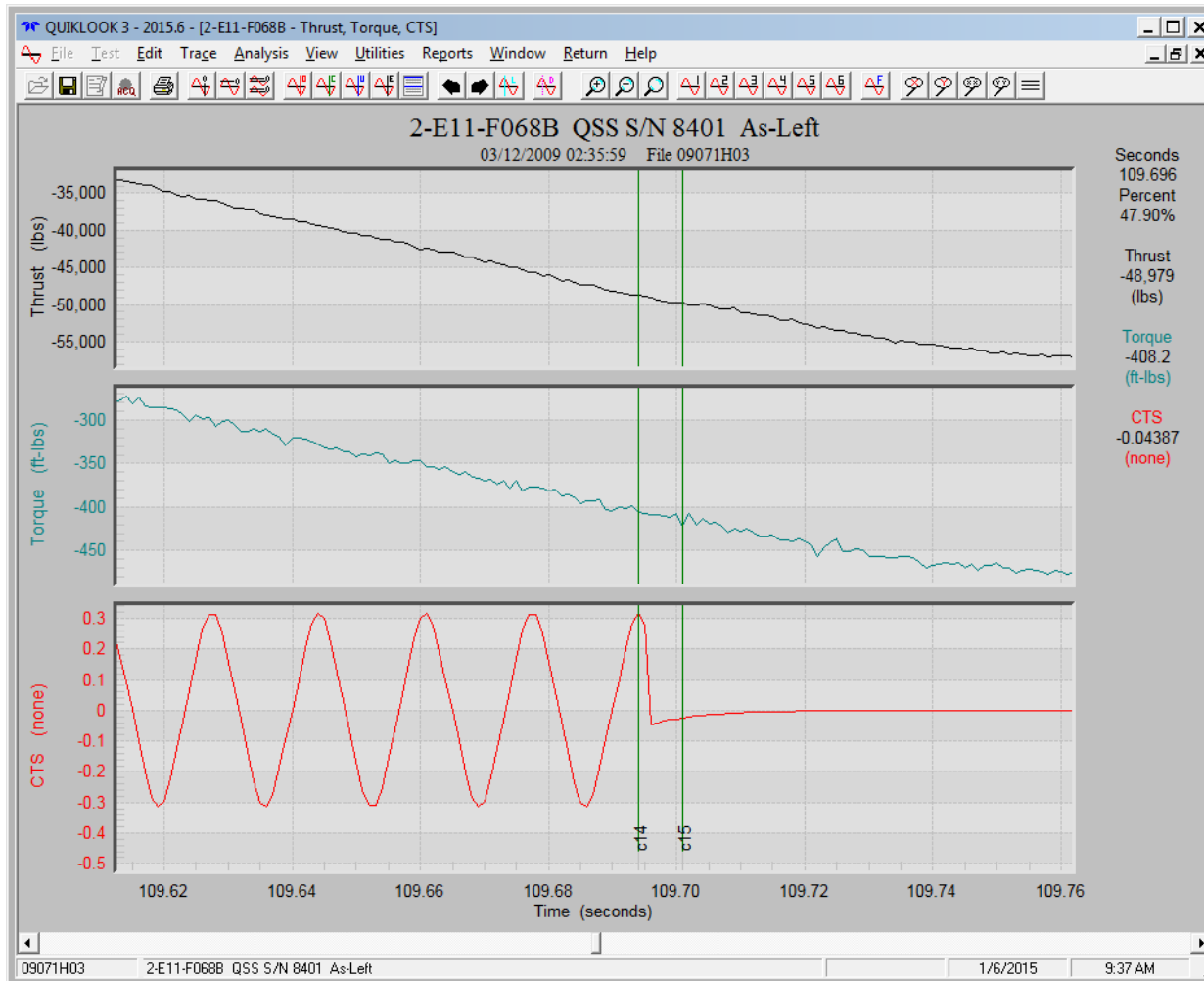


2015 – New Features – Spike Removal

- Select Channel
- Select Start & End Time
- Does not alter original data
- May be turned On / Off
- May be edited or deleted

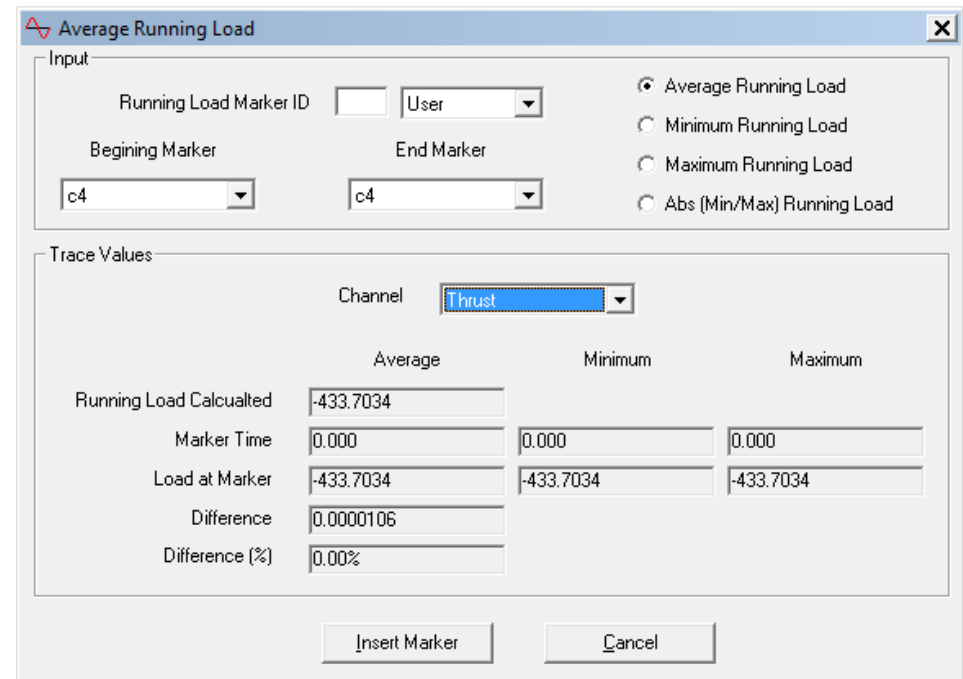


2015 – New Features – Spike Removal



2015 – New Features – Average Running Load

- AVG Running Load Marker dialog box stays open until all selections have been made.
- Absolute MIN/MAX option added
- Selectable channel dropdown added



The screenshot shows the 'Average Running Load' dialog box. It has an 'Input' section with 'Running Load Marker ID' set to 'User', 'Beginning Marker' set to 'c4', and 'End Marker' set to 'c4'. There are four radio button options: 'Average Running Load' (selected), 'Minimum Running Load', 'Maximum Running Load', and 'Abs (Min/Max) Running Load'. Below is a 'Trace Values' section with a 'Channel' dropdown set to 'Thrust'. A table displays calculated values for Average, Minimum, and Maximum.

	Average	Minimum	Maximum
Running Load Calculated	-433.7034		
Marker Time	0.000	0.000	0.000
Load at Marker	-433.7034	-433.7034	-433.7034
Difference	0.0000106		
Difference (%)	0.00%		

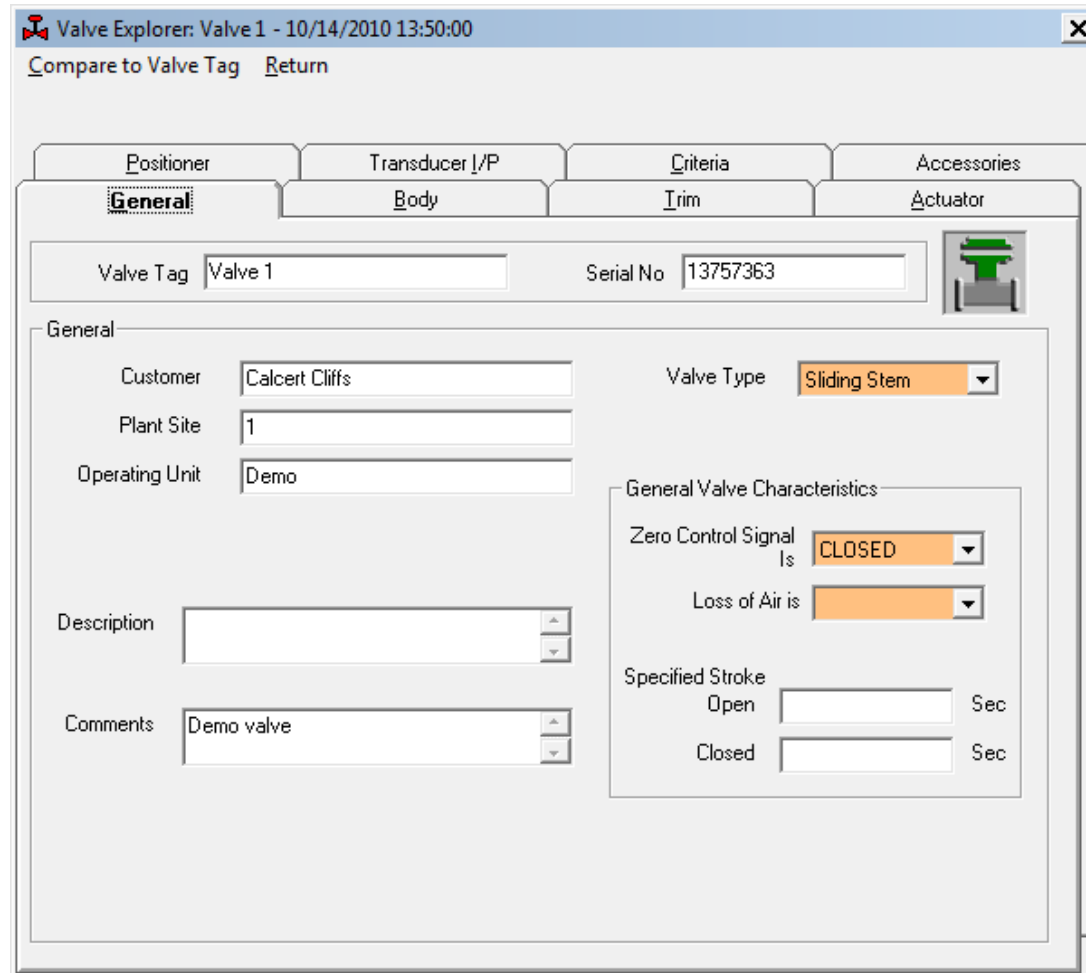


2015 – New Features – Valve Tag Data

- Quiklook Properties combined with FlowScanner Properties
- Over 80 Additional Valve Properties Added for Quiklook Users
- Lookups for most valve and actuator properties
- Over 40 Test Criteria Added for Quiklook Users
- Criteria evaluated for Pass/Fail
- All valve properties are stored with the test and are editable
- Changing Valve Tag will not change test results



2015 – New Features – Valve Tag Data



Valve Explorer: Valve 1 - 10/14/2010 13:50:00

Compare to Valve Tag Return

Positioner Transducer I/P Criteria Accessories

General Body Trim Actuator

Valve Tag Serial No

General

Customer Valve Type

Plant Site

Operating Unit

Description

Comments

General Valve Characteristics

Zero Control Signal Is

Loss of Air is

Specified Stroke

Open Sec

Closed Sec

2015 – New Features – Valve Tag Data

Compare Test to Valve Tag

- Identifies Differences
- Show only Differences

Valve 1 - 10/14/2010 13:50:00 - Comparison to Valve Tag

Return

Update As-Tested Tag Show All

Parameter	Units	Valve Tag	As-Tested Tag	Flag
Valve Tag		Valve 1	Valve 1	
Valve Serial Number		13757363	13757363	
General				
Customer		Ed. Ctr.	Plant Name	X
Plant Site		Plant 1	1	X
Operating Unit			Demo	X
Tag Description				
Tag Comment			Demo valve	X
Valve Type		Sliding Stem	Sliding Stem	
Zero Signal Closed Flag		Closed	Closed	
Fail Mode				
Stroke Speed Close		0.0000000	0.0000000	
Stroke Speed Open		0.0000000	0.0000000	
Body				
Valve Manufacturer		FISHER	FISHER	
Body Model		EZ	EZ	
Valve Action		Push Down To Close	Push Down To Close	
FlowDirection		UP	UP	
Pressure Opens Flag		Opens	Opens	
Body Size		1"	1"	
Body Class		250	250	
Inlet Pressure	psig	260.00	0.00	X

2015 – New Features – Valve Tag Data

Compare Test to Valve Tag

- Identifies Differences
- Show only Differences
- One Click Update
- Updates Test with Tag Data

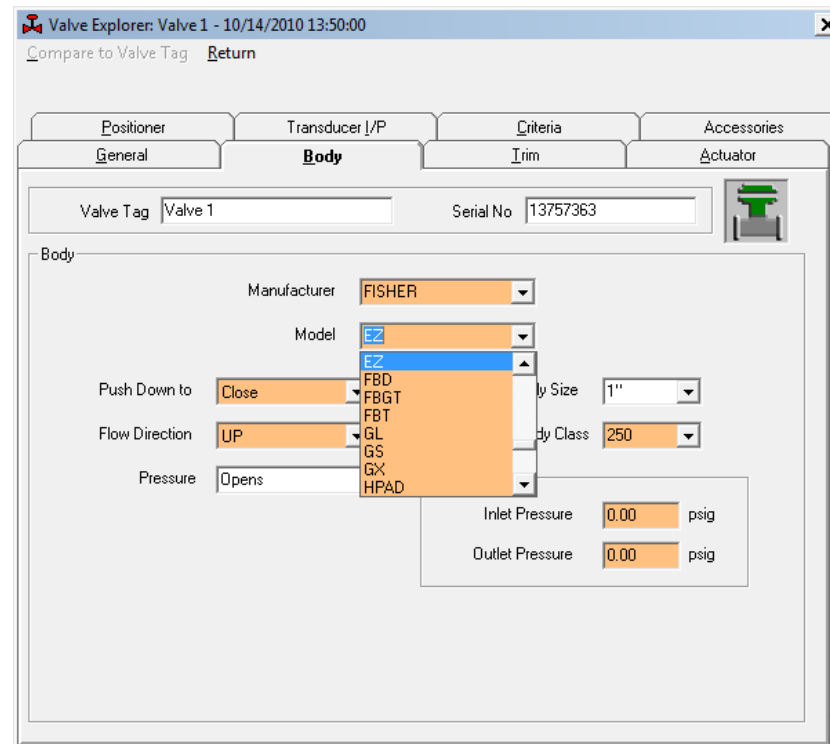
Valve 1 - 10/14/2010 13:50:00 - Comparison to Valve Tag

Return Update As-Tested Tag Show All

Parameter	Units	Valve Tag	As-Tested Tag	Flag
Customer		Ed. Ctr.	Plant Name	X
Plant Site		Plant 1	1	X
Operating Unit			Demo	X
Tag Comment			Demo valve	X
Inlet Pressure	psig	280.00	0.00	X
Actuator Spring Rate	lbs/in	491	0	X
Positioner Model		3582	3582i	X
Positioner Input Type		0	1	X
Positioner Input Full Span	psig	15.00	20.00	X
Positioner Input Zero	psig	9.00	4.00	X
Positioner Resistance		0.000000	144.0	X
Transducer Manufacturer		FISHER		X
Transducer Model		646		X
Transducer Resistance	psig	144.00	0.00	X
Transducer Input Zero	psig	4.00	0.00	X
Transducer Input Full Span	psig	20.00	0.00	X
Transducer Output Zero	psig	3.00	0.00	X
Transducer Output Full Span	psig	15.00	0.00	X
Transducer Smart Type		NONE		X

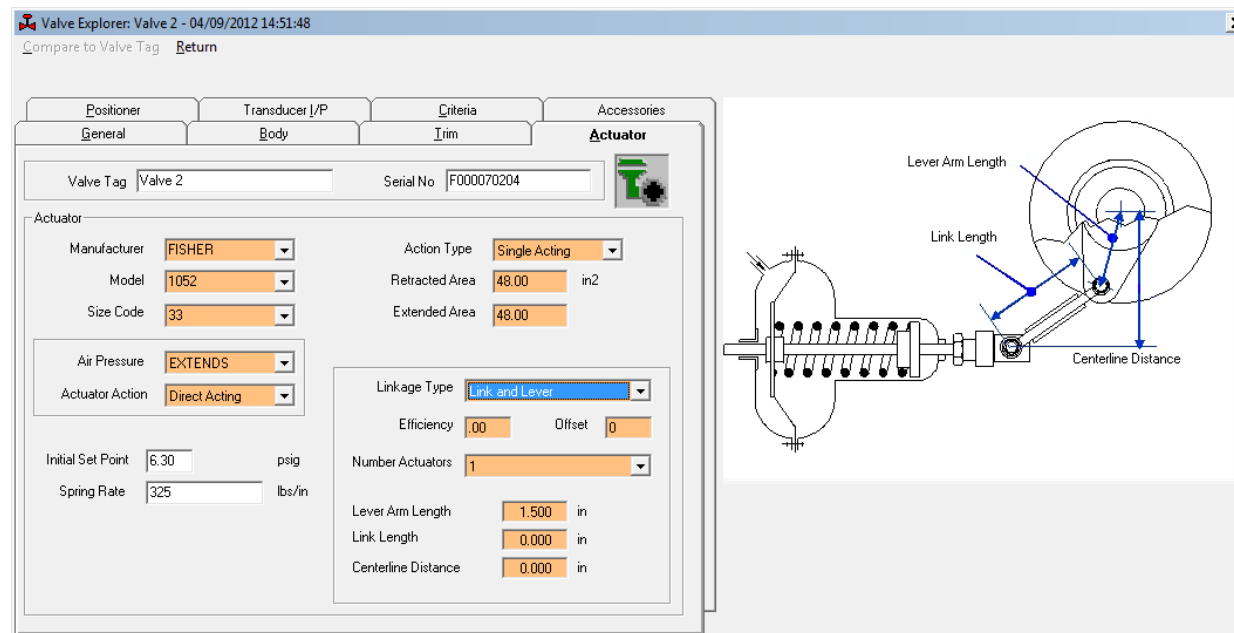
2015 – New Features – Valve Database

- Fisher Valve database added for populating valve data



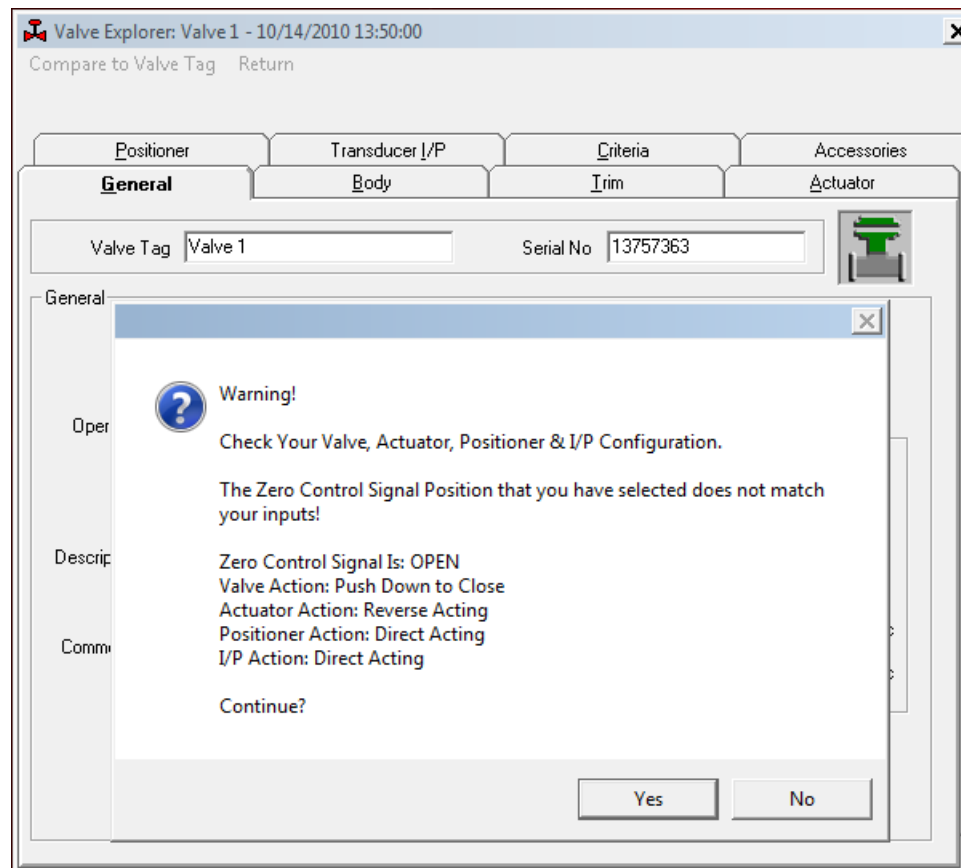
2015 – New Features – Actuator Data

- Retracted / Extended Areas (FS users)
- Complete Link & Lever geometry (FS users)
- Diagram showing Dimensions (FS users)
- Number Actuators (FS users)
- Efficiency & Offset for all actuator types (FS & Quiklook users)



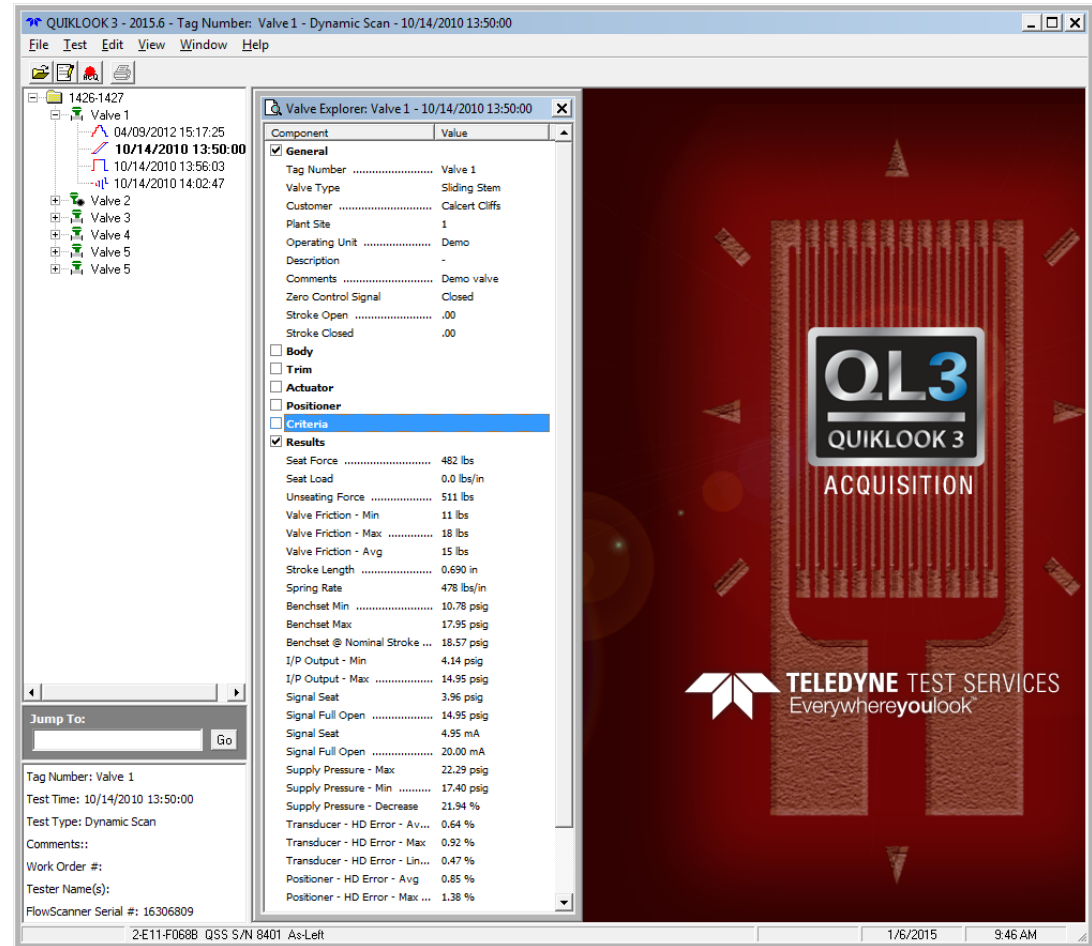
2015 – New Features – Consistency Checks

- “Zero Control Signal” & “Loss of Air” are checked for consistency with other inputs



2015 – New Features – Valve Explorer

- Explore Test or Tag
- Results Added for Tests
- Caption Identifies Test



Valve Explorer: Valve 1 - 10/14/2010 13:50:00

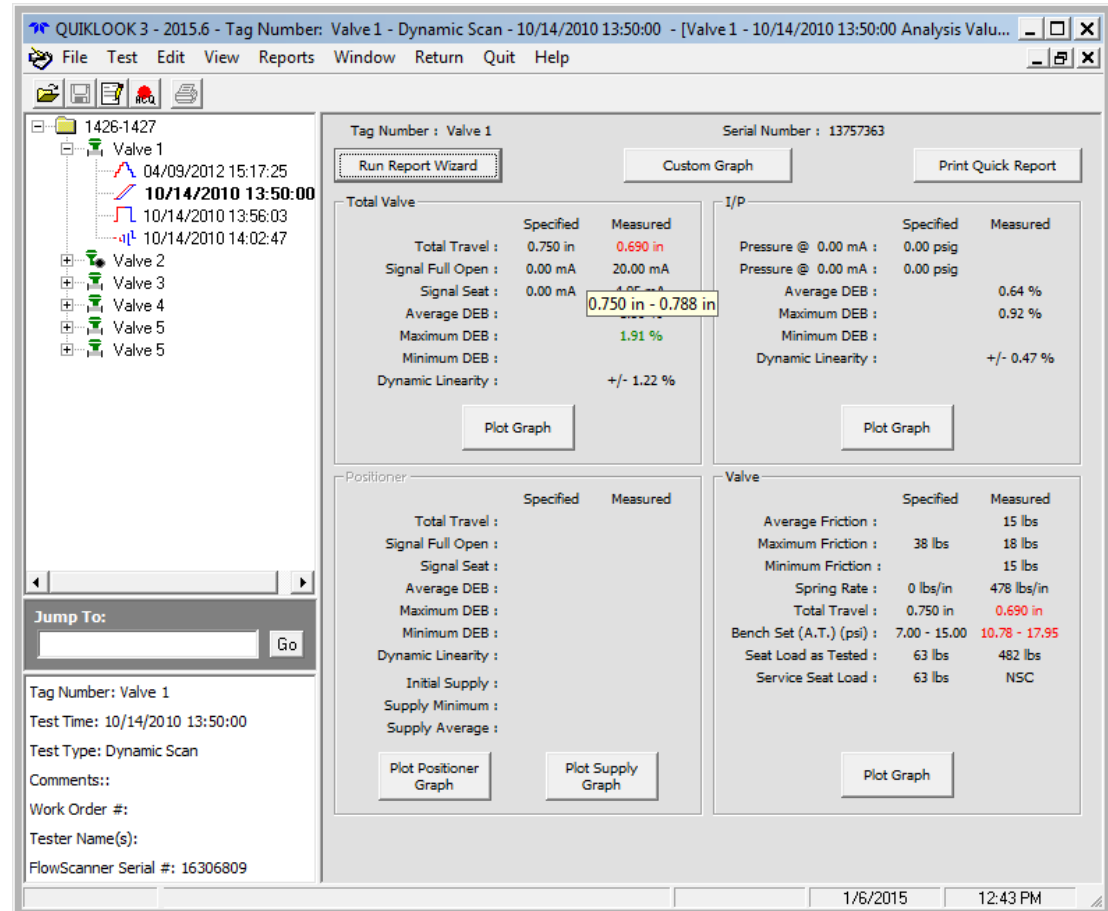
Component	Value
General	
Tag Number	Valve 1
Valve Type	Sliding Stem
Customer	Calcert Cliffs
Plant Site	1
Operating Unit	Demo
Description	-
Comments	Demo valve
Zero Control Signal	Closed
Stroke Open	.00
Stroke Closed	.00
Body	
<input type="checkbox"/> Trim	
<input type="checkbox"/> Actuator	
<input type="checkbox"/> Positioner	
<input type="checkbox"/> Criteria	
Results	
Seat Force	482 lbs
Seat Load	0.0 lbs/in
Unseating Force	511 lbs
Valve Friction - Min	11 lbs
Valve Friction - Max	18 lbs
Valve Friction - Avg	15 lbs
Stroke Length	0.690 in
Spring Rate	478 lbs/in
Benchset Min	10.78 psig
Benchset Max	17.95 psig
Benchset @ Nominal Stroke	18.57 psig
I/P Output - Min	4.14 psig
I/P Output - Max	14.95 psig
Signal Seat	3.96 psig
Signal Full Open	14.95 psig
Signal Seat	4.85 mA
Signal Full Open	20.00 mA
Supply Pressure - Max	22.29 psig
Supply Pressure - Min	17.40 psig
Supply Pressure - Decrease	21.94 %
Transducer - HD Error - Av...	0.64 %
Transducer - HD Error - Max	0.92 %
Transducer - HD Error - Lin...	0.47 %
Positioner - HD Error - Avg	0.85 %
Positioner - HD Error - Max	1.38 %

Tag Number: Valve 1
Test Time: 10/14/2010 13:50:00
Test Type: Dynamic Scan
Comments:
Work Order #:
Tester Name(s):
FlowScanner Serial #: 16306809

2-E11-F0688 QSS S/N 8401 As-Left 1/6/2015 9:46 AM

2015 – New Features – Analysis Review

- Results shown
- Pass / Fail shown
- Tool Tip identifies Criteria



The screenshot displays the Quiklook 3 software interface for a dynamic scan analysis of Valve 1. The main window shows a table of results with columns for Specified and Measured values. A tooltip is visible over the '0.750 in - 0.788 in' range for the Total Travel measurement.

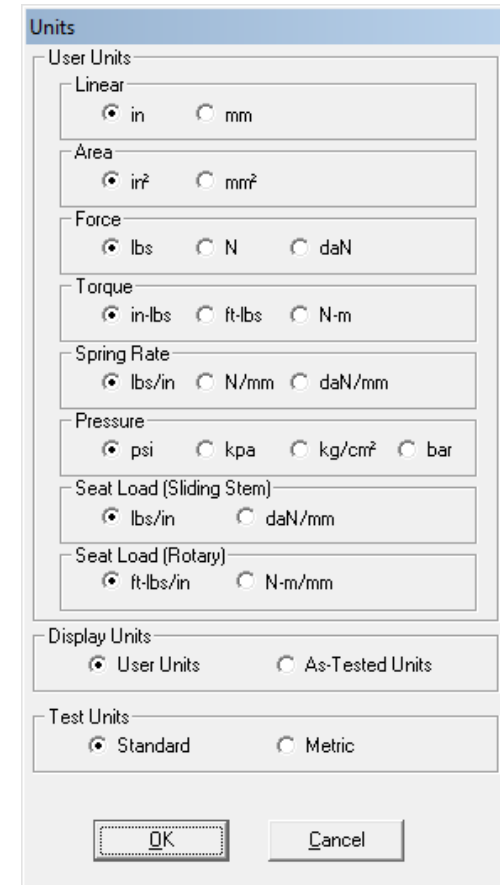
Measurement	Specified	Measured
Total Travel	0.750 in	0.690 in
Signal Full Open	0.00 mA	20.00 mA
Signal Seat	0.00 mA	0.00 mA
Average DEB		0.64 %
Maximum DEB		0.92 %
Minimum DEB		
Dynamic Linearity		+/- 1.22 %

Additional data shown in the interface includes:

- Tag Number: Valve 1
- Serial Number: 13757363
- Positioner: Total Travel: 0.750 in, Signal Full Open: 0.00 mA, Signal Seat: 0.00 mA, Average DEB: 0.64 %, Maximum DEB: 0.92 %, Minimum DEB: 0.00 %, Dynamic Linearity: +/- 1.22 %
- Valve: Average Friction: 15 lbs, Maximum Friction: 18 lbs, Minimum Friction: 15 lbs, Spring Rate: 0 lbs/in, Total Travel: 0.750 in, Bench Set (A.T.) (psi): 7.00 - 15.00, Seat Load as Tested: 63 lbs, Service Seat Load: 63 lbs

2015 – New Features – Units

- Preference Setting
- User Units – AOV Only
 - Similar to FlowScanner Configuration
 - Added:
 - Torque
 - Seat Load
- Display Units - AOV / MOV
 - User Units
 - As-Tested Units
- Test Units – AOV / MOV - used for testing and sensors
 - Standard
 - Metric



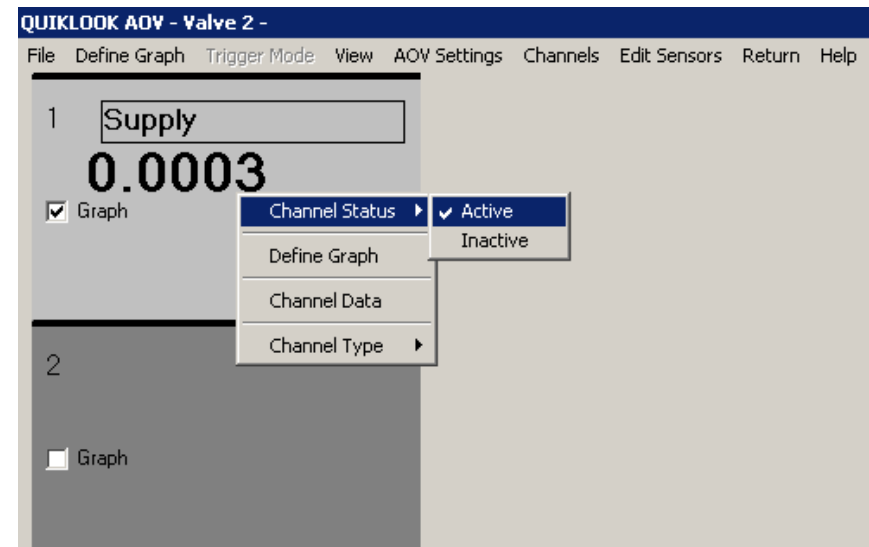
The screenshot shows a 'Units' dialog box with the following settings:

- User Units:**
 - Linear: in, mm
 - Area: in², mm²
 - Force: lbs, N, daN
 - Torque: in-lbs, ft-lbs, N-m
 - Spring Rate: lbs/in, N/mm, daN/mm
 - Pressure: psi, kpa, kg/cm², bar
 - Seat Load (Sliding Stem): lbs/in, daN/mm
 - Seat Load (Rotary): ft-lbs/in, N-m/mm
- Display Units:** User Units, As-Tested Units
- Test Units:** Standard, Metric

Buttons: OK, Cancel

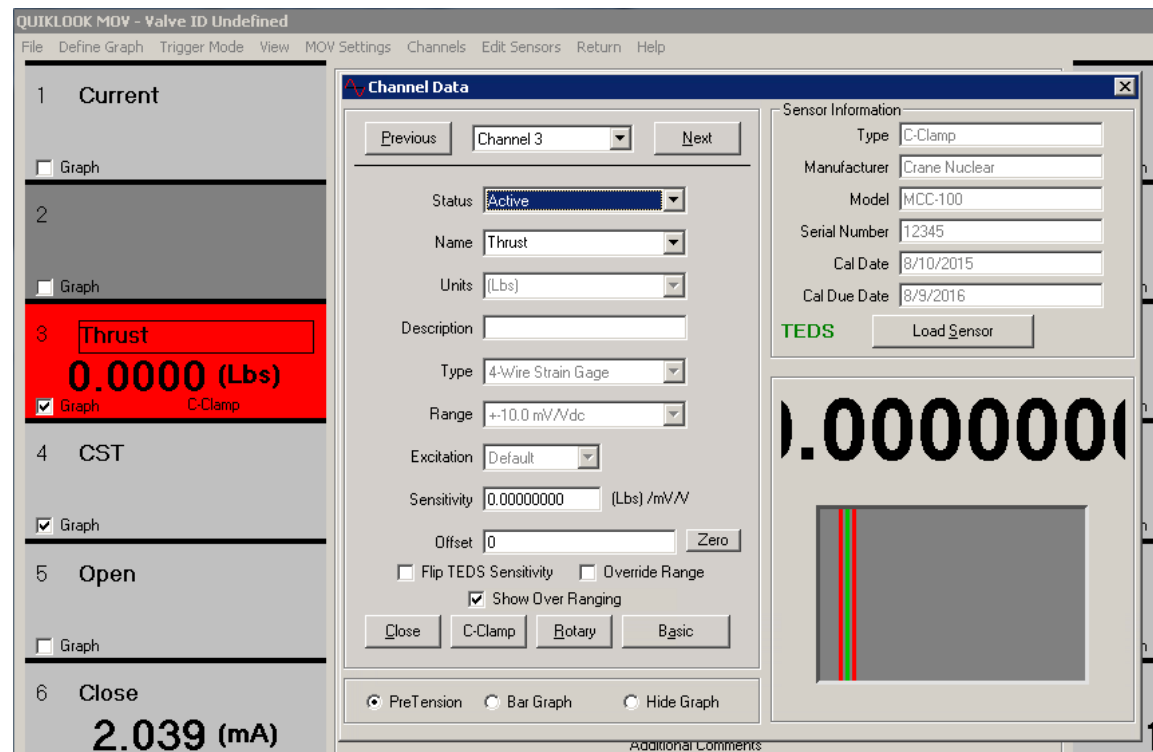
2015 – New Features – Acquisition

- Added Right Click menu to Acquire form for Channels Menu Options:
 - Channel Status
 - Define Graph
 - Channel Data
 - Channel Type (AOV)



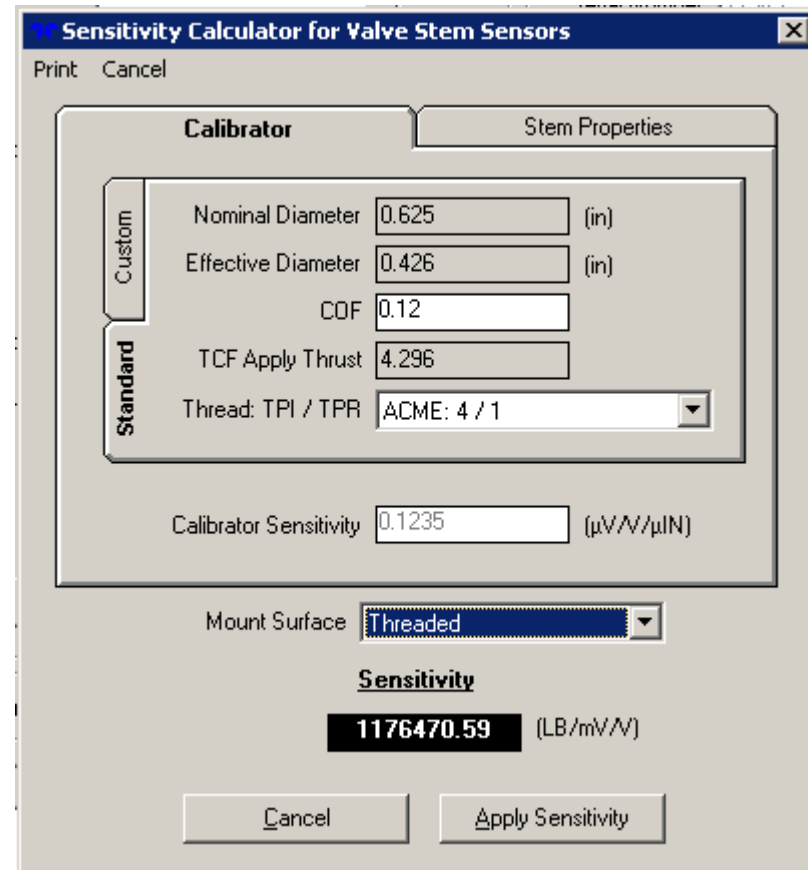
2015 – New Features – C-Clamp

- C-Clamp is identified by Model Number on TEDS
- Will default to PreTension graph
- Acq screen will show **RED** if pretension is not in correct range
- Acq screen will show **Green** if pretension is in correct range



2015 – New Features – C-Clamp

- Sensitivity calculator is built into Quiklook



The screenshot shows a software dialog box titled "Sensitivity Calculator for Valve Stem Sensors". It has a "Print" and "Cancel" button at the top left. The dialog is divided into two tabs: "Calibrator" (selected) and "Stem Properties".

Under the "Calibrator" tab, there are two sub-sections: "Custom" and "Standard".

- Custom:** Nominal Diameter (0.625 in), Effective Diameter (0.426 in), CDF (0.12).
- Standard:** TCF Apply Thrust (4.296), Thread: TPI / TPR (ACME: 4 / 1).

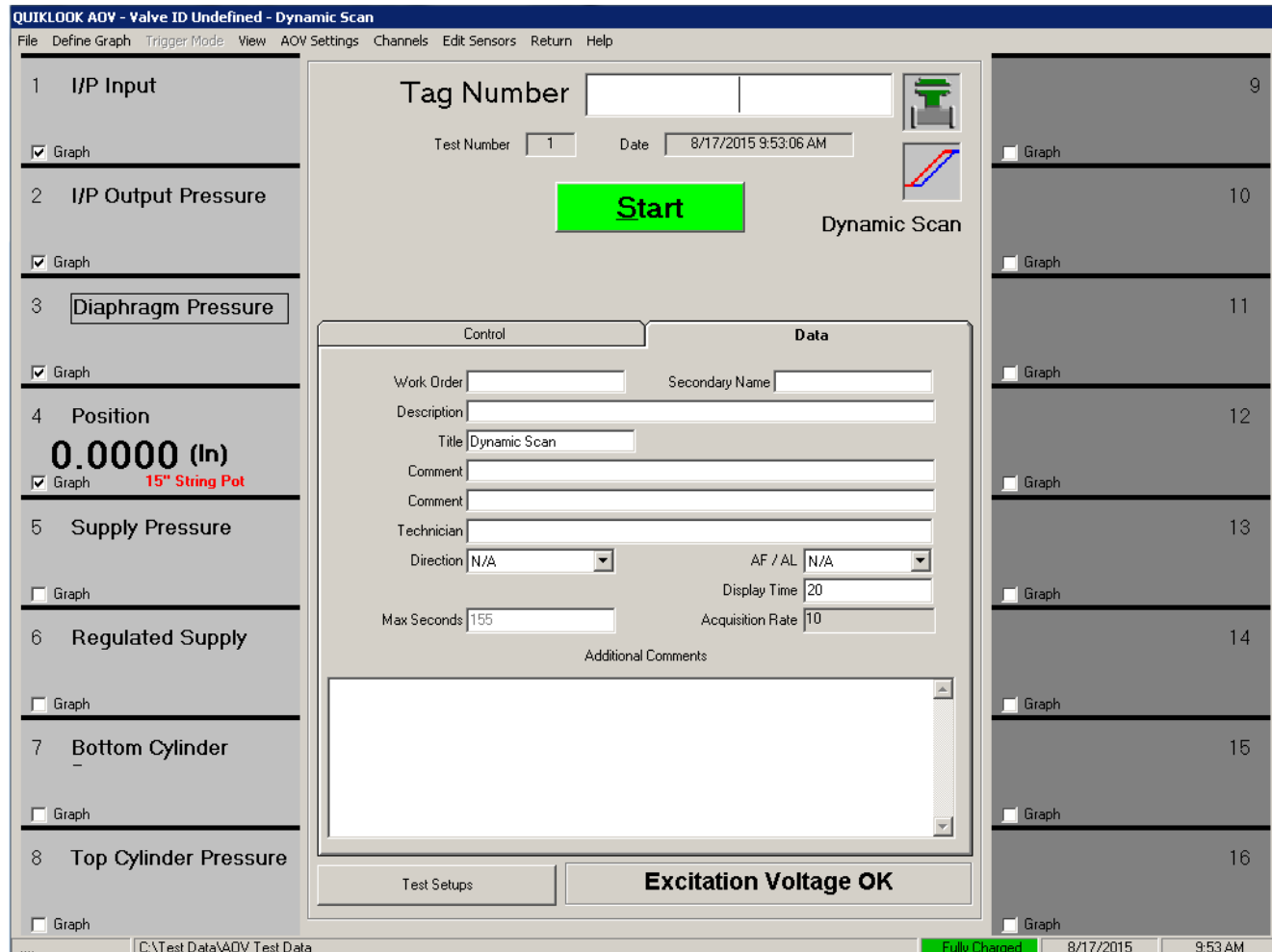
Below these sections, there is a "Calibrator Sensitivity" field with the value 0.1235 (μV/μIN).

At the bottom, there is a "Mount Surface" dropdown menu set to "Threaded".

The "Sensitivity" result is displayed in a large black box with the value 1176470.59 (LB/mV/V).

Buttons for "Cancel" and "Apply Sensitivity" are located at the bottom of the dialog.

2015 – New Features – Acquisition - AOV



The screenshot displays the Quiklook AOV software interface for a dynamic scan. The main window is titled "QUIKLOOK AOV - Valve ID Undefined - Dynamic Scan" and includes a menu bar with options: File, Define Graph, Trigger Mode, View, AOV Settings, Channels, Edit Sensors, Return, and Help.

On the left side, there is a list of channels:

- 1 I/P Input (checked Graph)
- 2 I/P Output Pressure (checked Graph)
- 3 Diaphragm Pressure (checked Graph)
- 4 Position (checked Graph) **0.0000 (In)** **15" String Pot**
- 5 Supply Pressure (unchecked Graph)
- 6 Regulated Supply (unchecked Graph)
- 7 Bottom Cylinder (unchecked Graph)
- 8 Top Cylinder Pressure (unchecked Graph)

The central area contains a "Tag Number" field, a "Test Number" field (value: 1), and a "Date" field (value: 8/17/2015 9:53:06 AM). A prominent green "Start" button is visible, along with a "Dynamic Scan" label and a small graph icon.

Below the "Start" button is a "Control" and "Data" section with the following fields:

- Work Order: []
- Secondary Name: []
- Description: []
- Title: Dynamic Scan
- Comment: []
- Comment: []
- Technician: []
- Direction: N/A (dropdown)
- AF / AL: N/A (dropdown)
- Display Time: 20
- Max Seconds: 155
- Acquisition Rate: 10
- Additional Comments: []

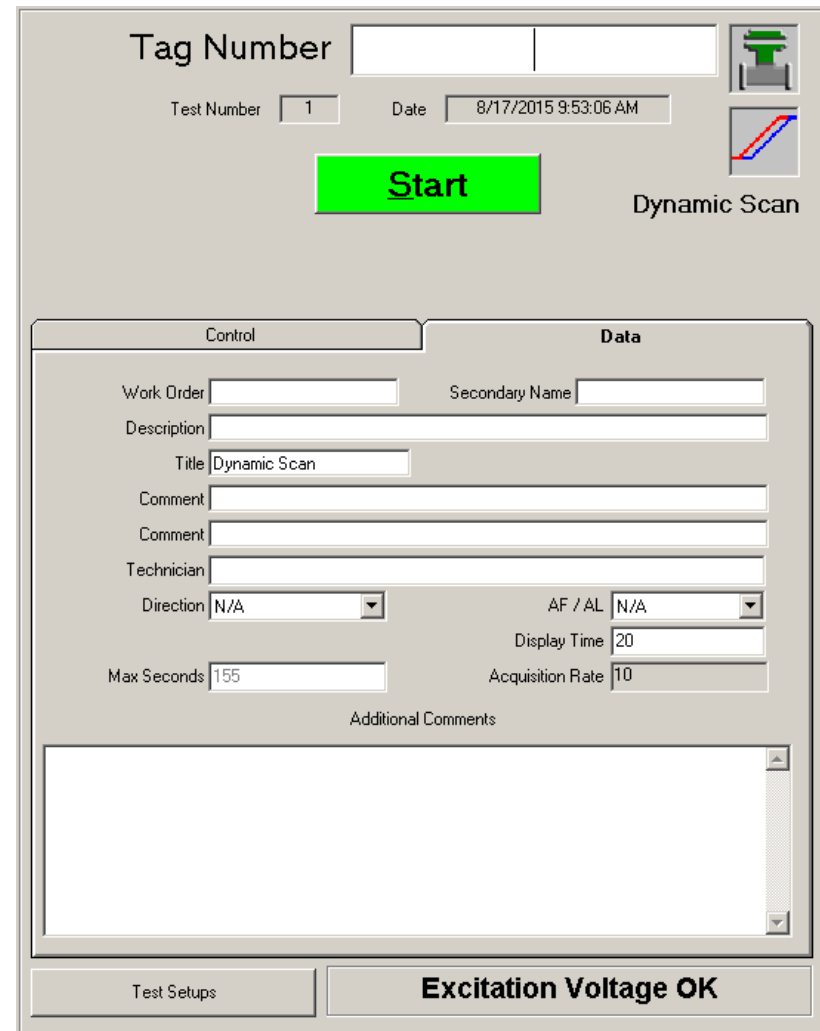
At the bottom of the control panel, there are "Test Setups" and "Excitation Voltage OK" buttons.

The right side of the interface shows a vertical list of channels with "Graph" checkboxes and numerical values (9, 10, 11, 12, 13, 14, 15, 16).

The status bar at the bottom indicates "Fully Charged", the date "8/17/2015", and the time "9:53 AM".

2015 – New Features – Acquisition

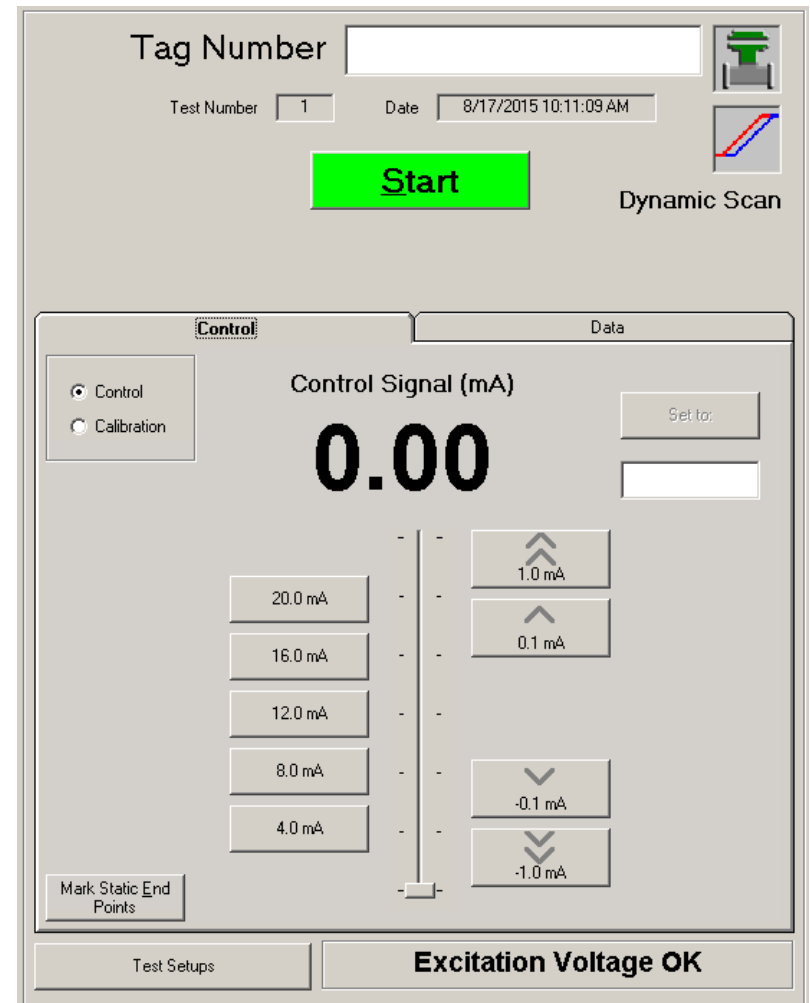
- Added Icon to identify valve type
- Added Icon to identify test type
- Added label to identify test type
- Added tabs for data & control



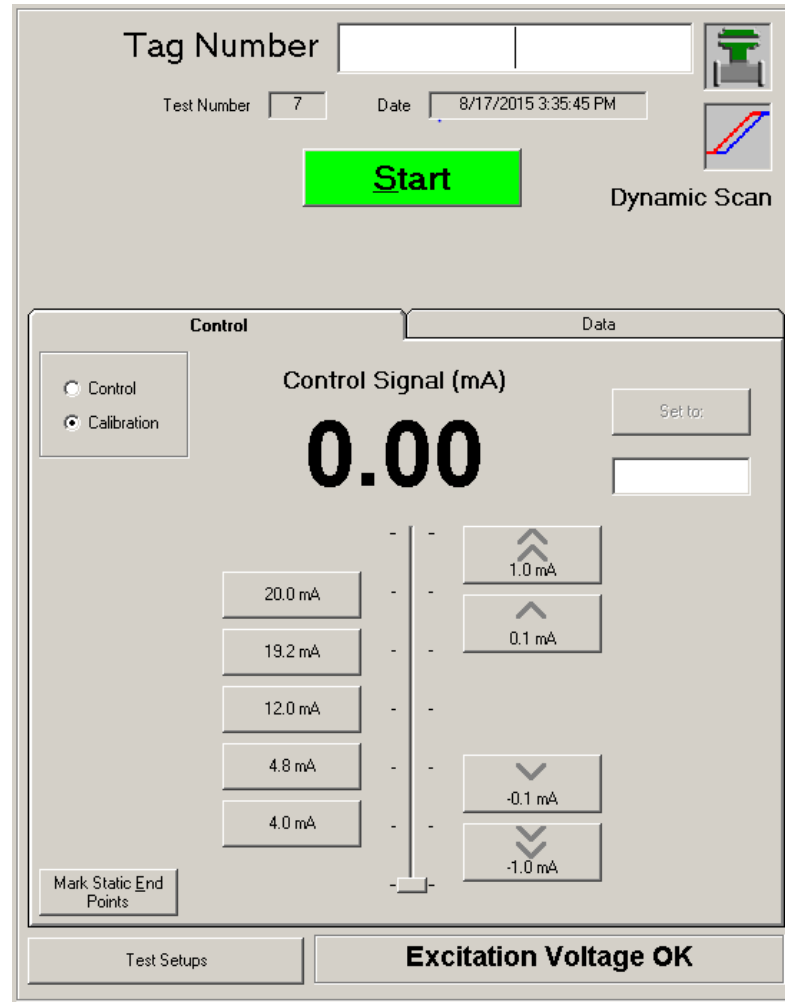
The screenshot displays the software's acquisition interface. At the top, there are input fields for 'Tag Number' and 'Test Number' (set to 1), and a 'Date' field (8/17/2015 9:53:06 AM). A prominent green 'Start' button is centered. To the right, there are two icons: a valve icon and a graph icon, with the text 'Dynamic Scan' below them. Below the 'Start' button, there are two tabs: 'Control' and 'Data'. The 'Data' tab is active, showing fields for 'Work Order', 'Secondary Name', 'Description', 'Title' (set to 'Dynamic Scan'), two 'Comment' fields, 'Technician', 'Direction' (set to 'N/A'), 'AF / AL' (set to 'N/A'), 'Display Time' (set to 20), 'Max Seconds' (set to 155), and 'Acquisition Rate' (set to 10). An 'Additional Comments' text area is located below these fields. At the bottom, there are two buttons: 'Test Setups' and 'Excitation Voltage OK'.

2015 – New Features – Acquisition - Control

- Scroll bar is vertical (Similar to FS)
- Larger Buttons
- Set to box
- Calibration Mode
- Mark Static End Points



2015 – New Features – Acquisition - Calibration Mode



2015 – New Features – Acquisition

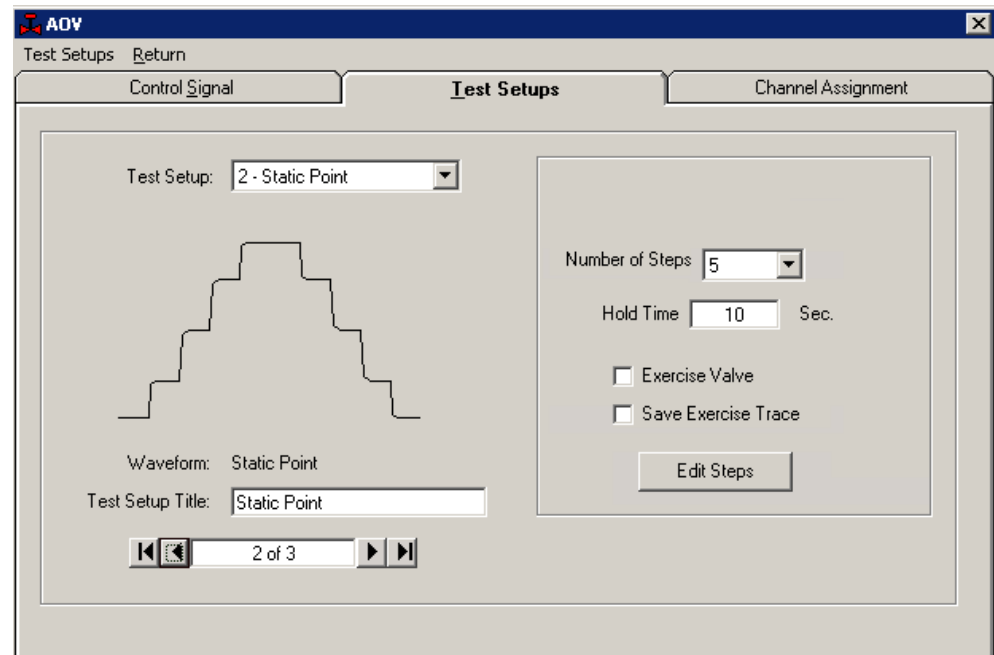
Mark Static End Points

- When calibrating a valve positioner, the process of calibration is done in a static condition, where the input signal is stopped and the output is allowed to fully react to the static input signal.
- The Dynamic Scan test is conducted with a continuously moving input signal, where the output (travel or pressure) is always lagging in time behind the changing input.
- You can't tell the static calibration with a Dynamic Scan test, because you can't tell where the instruments would have fully saturated if the input signal had been stopped at any point.
- To show the actual calibration of instrument, the Quiklook software has the ability to mark the Static End Points for display on the Dynamic Scan report.
- These points must be selected by the tester and are subject to human error.



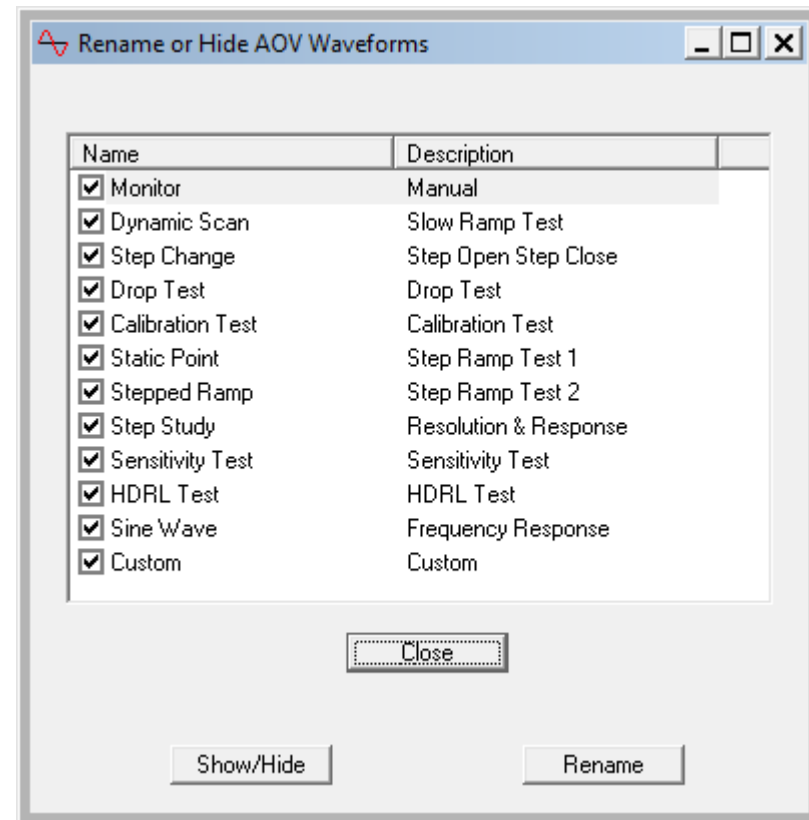
2015 – New Features – Test Setups

- Changed terminology to Test Setup
- Waveform is a part of the Test Setup
- Adding a Test Setup will prompt for Waveform



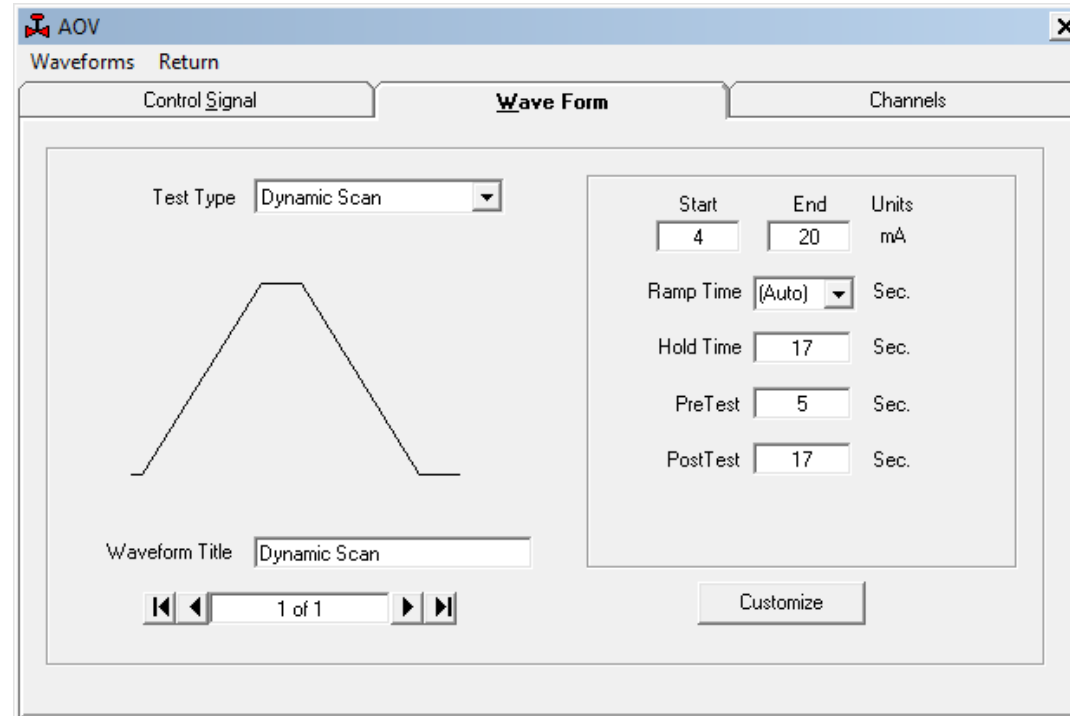
2015 – New Features - Waveforms

- Standardizing Names to FlowScanner
- User option to rename tests
- Option to exclude test from test selection



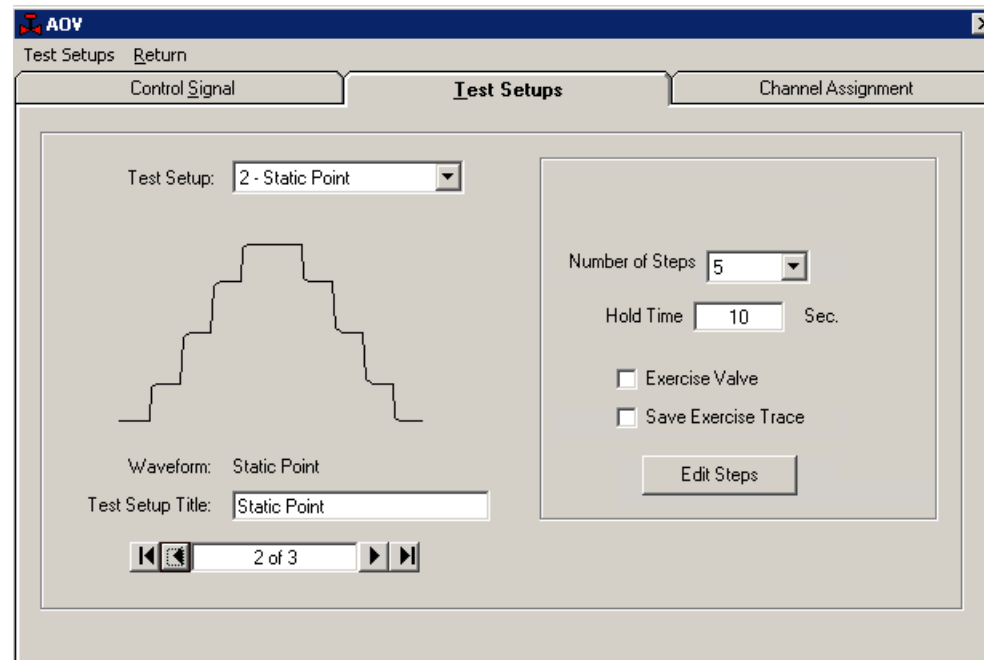
2015 – New Features – Test Setups

- Added “Auto” option for Dynamic Scan (Slow Ramp Test)



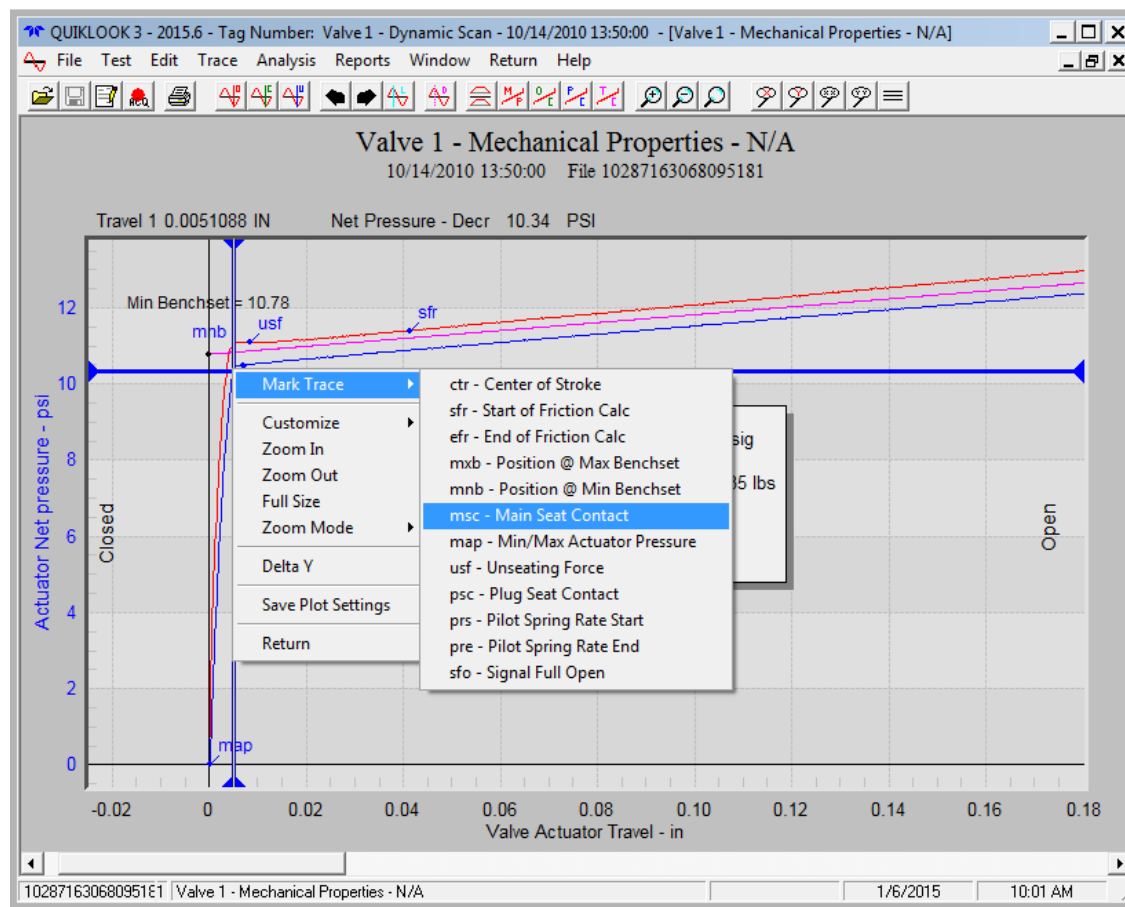
2015 – New Features - Test Setups

- Static Point Test (Step Ramp Test 1)
- Editable Steps
- Step is actually a fast ramp followed by a slow ramp to avoid overshoot
- Exercise Valve option



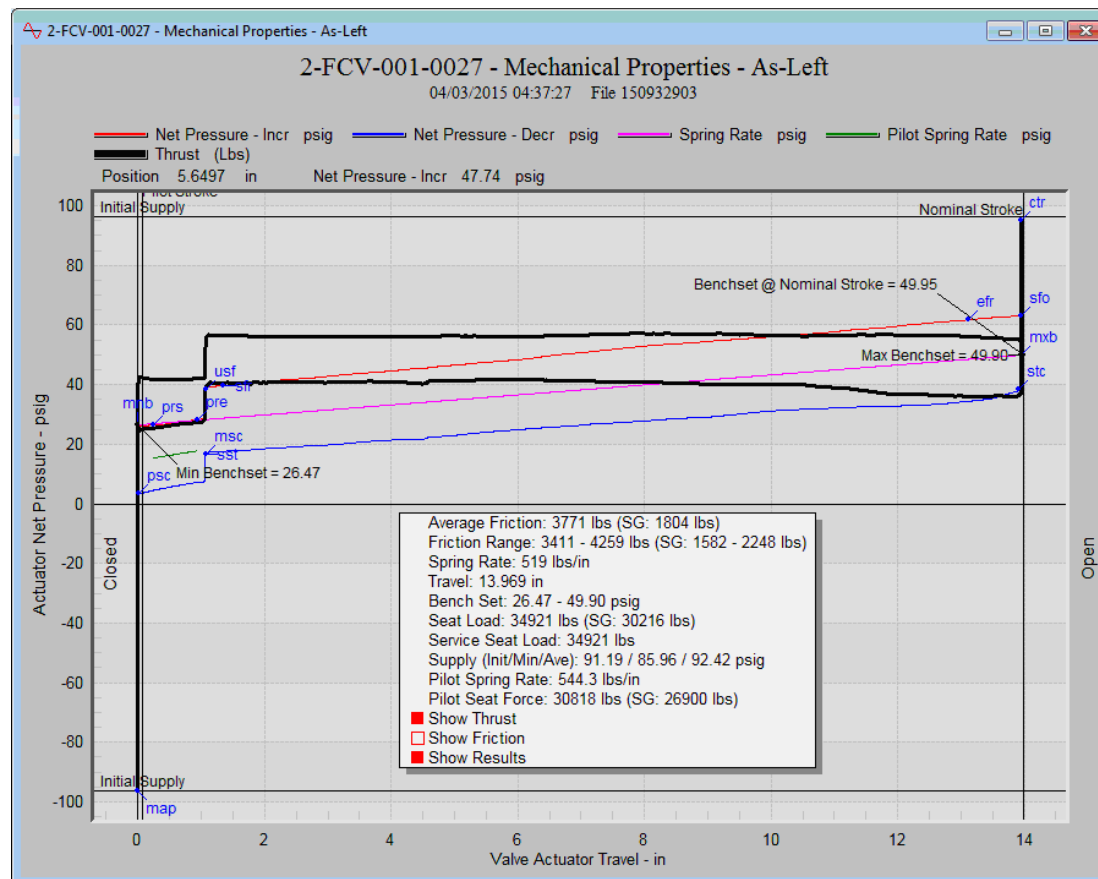
2015 – New Features - Replay

- Right Click Marker menu for AOV



2015 – New Features - Replay

- Overlay of Torque or Thrust on Mechanical properties Plot



Quiklook Software Update



- Overlay via drag & drop
- Overlay tests with different acquisition rates

The screenshot displays the Quiklook 3 software interface. The main window title is "QUIKLOOK 3 - 2015.208 - Tag Number: 2-8351A - 04/02/2014 00:13:21 - [Display Traces]". The interface includes a menu bar (File, Test, Edit, View, Utilities, Reports, Window, Return, Help) and a toolbar. On the left, a tree view shows "MOV Test Data" with a sub-entry "2-8351A" containing a list of test dates and times. Below this is a "Jump To:" field with a "Go" button. A metadata section shows "Tag Number: 2-8351A", "Test Time: 04/02/2014 00:13:21", "Test Type: MOV Test", "Comments:", "Work Order #:", "Tester Name(s):", and "System Serial #: 16351, TX1537". The central area features a table with columns: (#) - Filename, Primary Name, Test Date, Test #, Secondary Name, Description, Title, and Comment 1. Two rows are checked, showing test files from 04/05/2014 and 04/02/2014. Below the table is a "Channels" section with "Available Channels" and "Selected Channels" lists. The "Available Channels" list includes items like Current, Thrust, Torque, Close, Open, Red Light, Green Light, Spring Pack, Plant Computer, Compensator Pack, and RMS-Current, each with associated units and test numbers. The "Selected Channels" list is currently empty. To the right of the channel lists are buttons for "Add >>", "<< Remove", and "<< Clear All", along with radio button options for "Single Pane", "Multiple Pane", "Multiple Overlay" (which is selected), and "Multiple Windows". There are also buttons for "Display", "Save Plot Settings", and "Saved Plots". A "Between Markers" checkbox is at the bottom. At the bottom of the interface are buttons for "Save Changes", "Discard Changes", and "Test Data". The status bar at the bottom right shows "1/12/2016" and "9:05 AM".



2015 – New Features

- Encoder Channels
- Changes to TEDS – Separate presentation

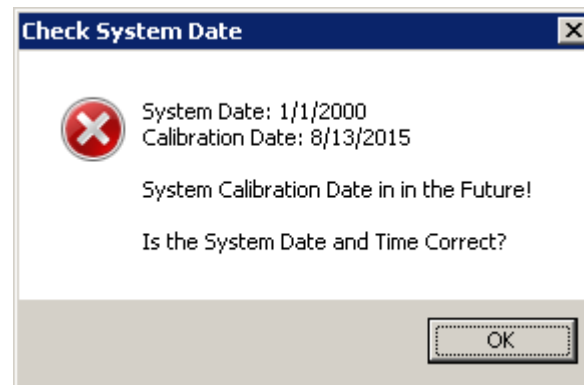




2016.??? – New Features

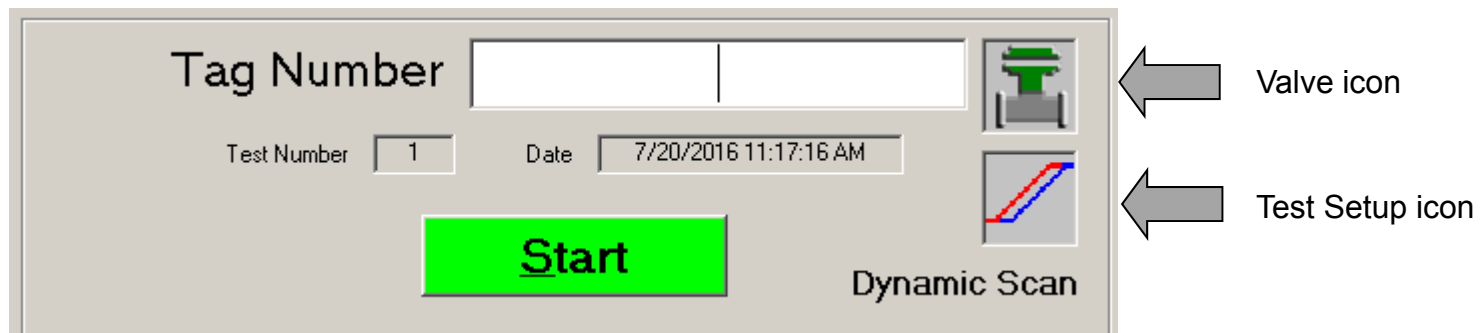
2016 – New Features – Startup

- When Quiklook is first started it will compare the system calibration date to the current date on the system.
- If the calibration date is later than the system date then you will be prompted to confirm the date.
- This should only happen if the CMOS battery is dead and the system BIOS has been reset to a default date.



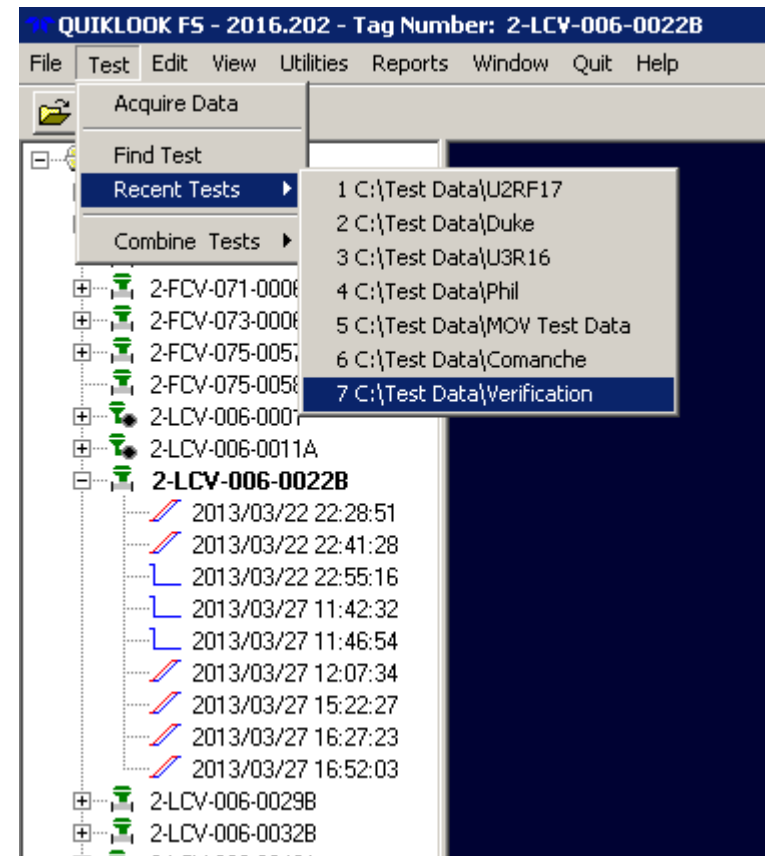
2016 – New Features – AOV Acquisition

- Double clicking on the Valve icon will open the Tag Data for editing
- Double clicking on the Test Setup icon will open the Test Setup dialog



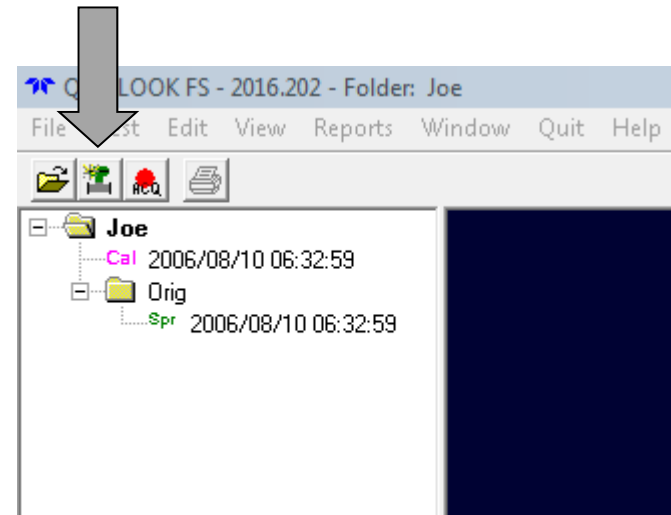
2016 – New Features – Test Listing

- Added Recent List for FlowScanner mode
- Changed test format to "yyyy/mm/dd hh:nn:ss" so it sorts properly



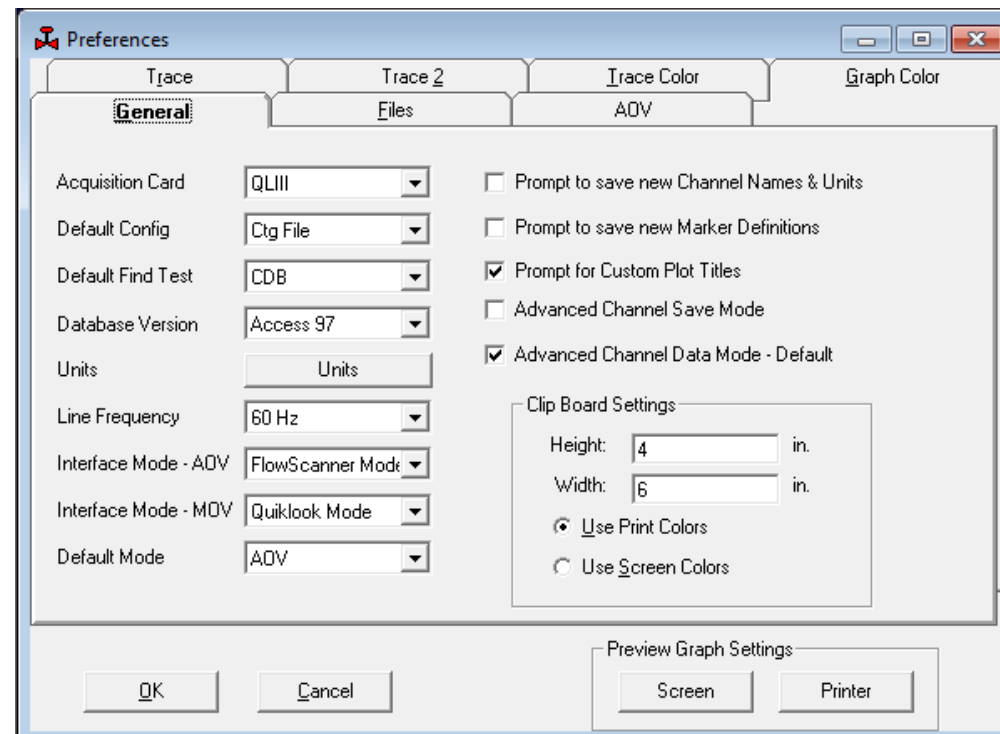
2016 – New Features – Test Listing

- Added icon to toolbar to create New Tag (Same as right click menu)
- Added Spring Pack Cal & Calibration icons to FlowScanner Tree



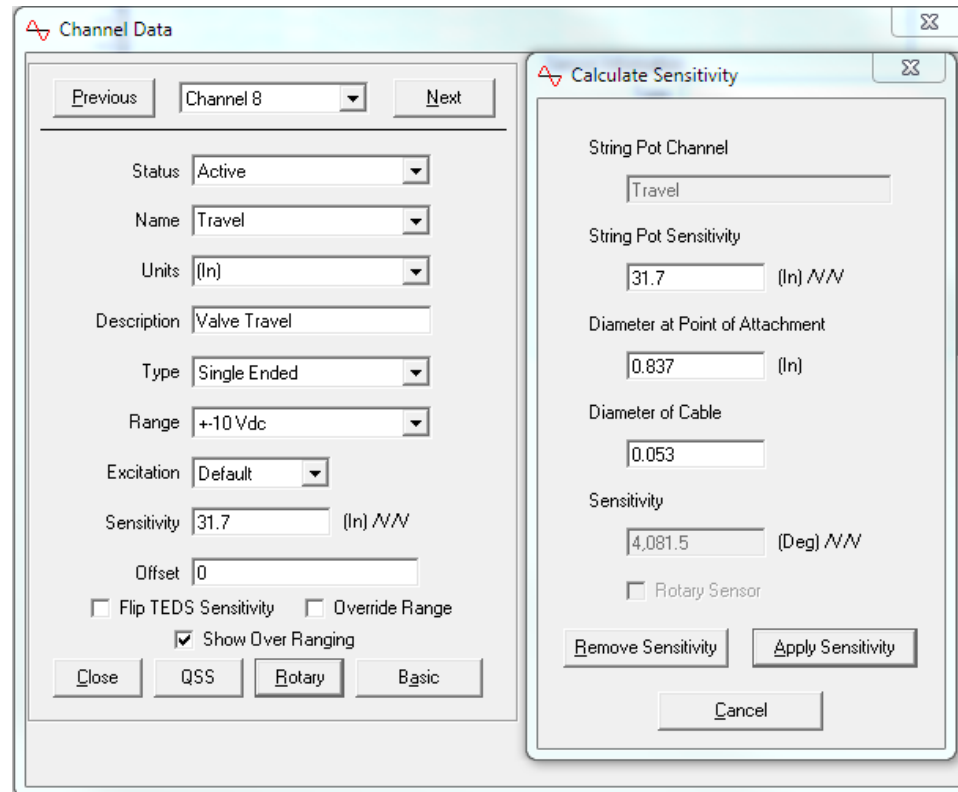
2016 – New Features – Preferences

- Added separate interface modes for AOV & MOV
- Removed preference for save test after acquisition - Always True



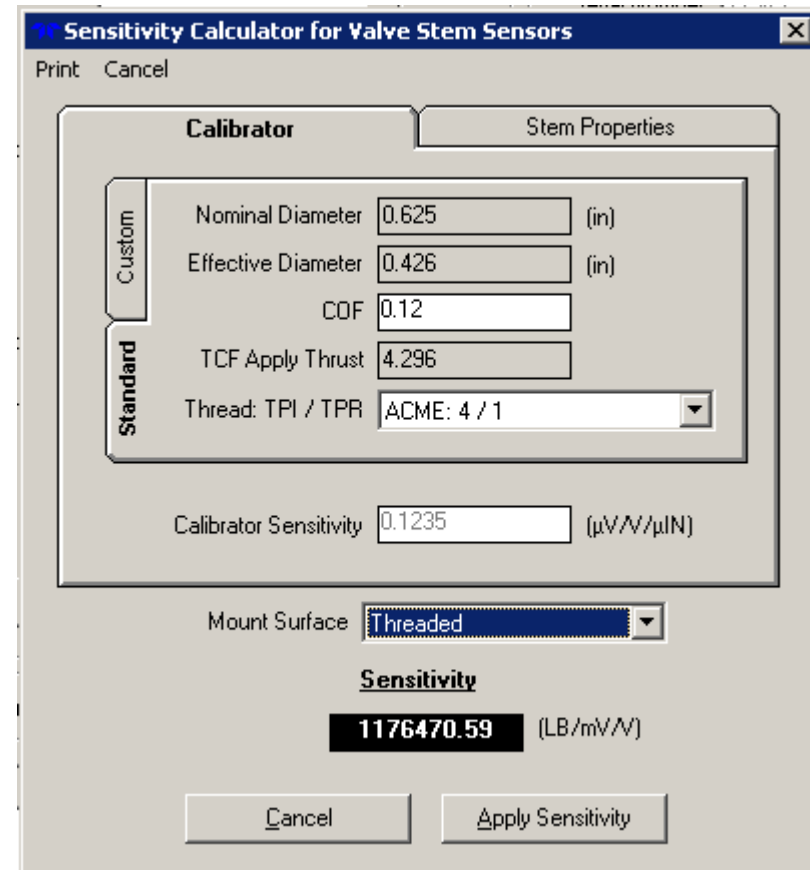
2016 – New Features – Configuration

- Added “Diameter of Cable” to rotary sensitivity calc



2016 – Changes – C-Clamp

- Both tabs of calculator must be clicked on before applying sensitivity
- This ensures that all inputs on both tabs are reviewed before applying



Sensitivity Calculator for Valve Stem Sensors

Print Cancel

Calibrator Stem Properties

Custom

Nominal Diameter 0.625 (in)

Effective Diameter 0.426 (in)

CDF 0.12

Standard

TCF Apply Thrust 4.296

Thread: TPI / TPR ACME: 4 / 1

Calibrator Sensitivity 0.1235 ($\mu\text{V}/\mu\text{IN}$)

Mount Surface Threaded

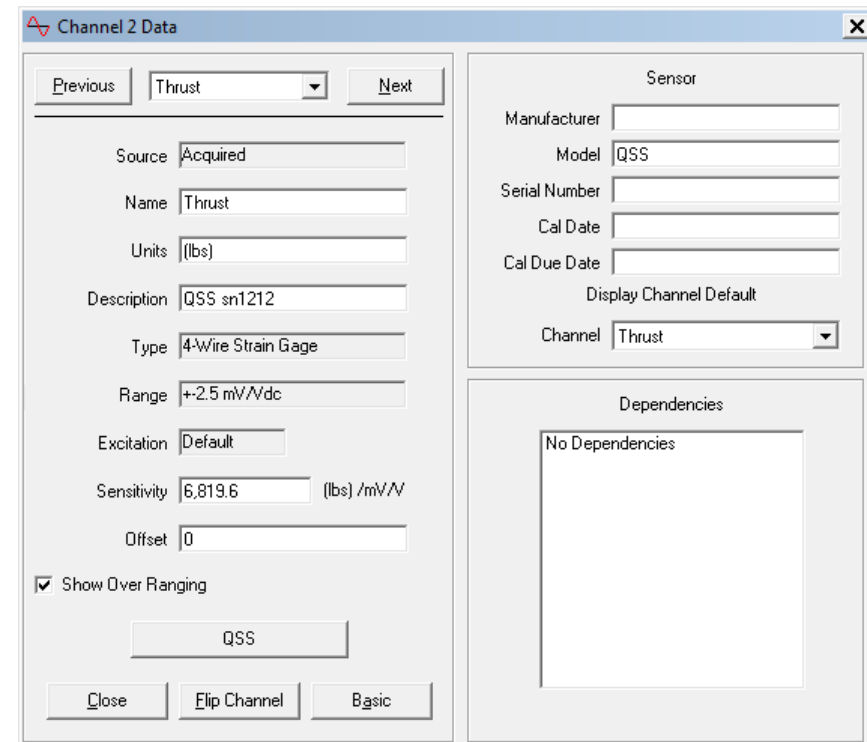
Sensitivity

1176470.59 (LB/mV/V)

Cancel Apply Sensitivity

2016 – New Features – Replay

- Model number of the sensor matches a model number Quiklook recognizes as a QSS
- A QSS button will appear.
- This will allow you to bring up the QSS calculator, same as in configuration, to recalculate the sensitivity.



Channel 2 Data

Previous Thrust Next

Source: Acquired

Name: Thrust

Units: (lbs)

Description: QSS sn1212

Type: 4-Wire Strain Gage

Range: +-2.5 mV/Vdc

Excitation: Default

Sensitivity: 6,819.6 (lbs) /mV/V

Offset: 0

Show Over Ranging

QSS

Close Flip Channel Basic

Sensor

Manufacturer: []

Model: QSS

Serial Number: []

Cal Date: []

Cal Due Date: []

Display Channel Default

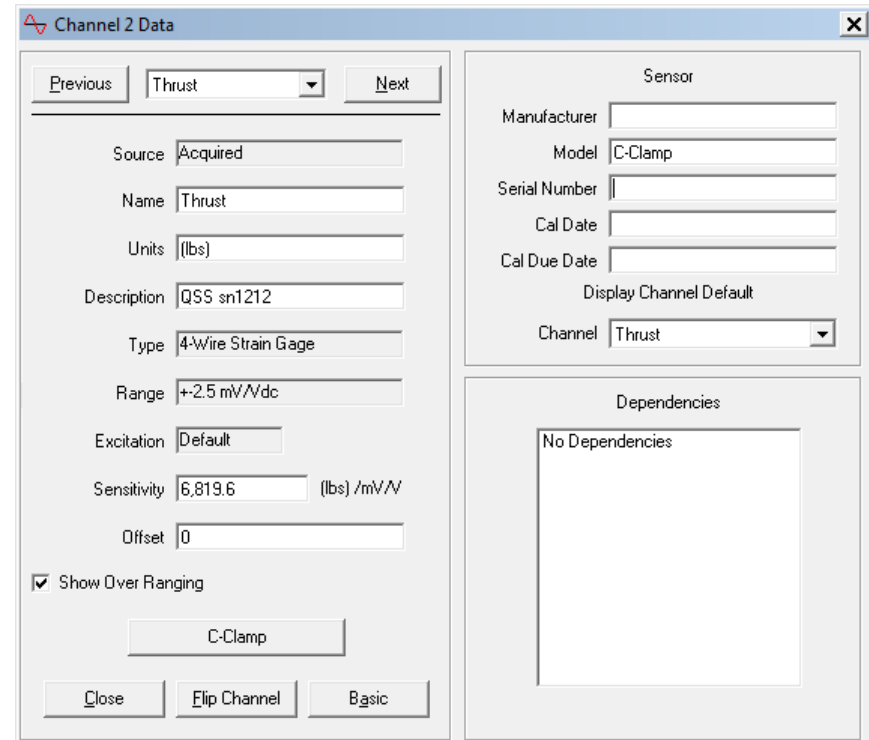
Channel: Thrust

Dependencies

No Dependencies

2016 – New Features – Replay

- Model number of the sensor matches a model number Quiklook recognizes as a C-Clamp
- A C-Clamp button will appear.
- This will allow you to bring up the C-Clamp calculator, same as in configuration, to recalculate the sensitivity



Channel 2 Data

Previous Thrust Next

Source: Acquired

Name: Thrust

Units: (lbs)

Description: QSS sn1212

Type: 4-Wire Strain Gage

Range: +2.5 mV/Vdc

Excitation: Default

Sensitivity: 6,819.6 (lbs) /mV/V

Offset: 0

Show Over Ranging

C-Clamp

Close Flip Channel Basic

Sensor

Manufacturer: []

Model: C-Clamp

Serial Number: []

Cal Date: []

Cal Due Date: []

Display Channel Default

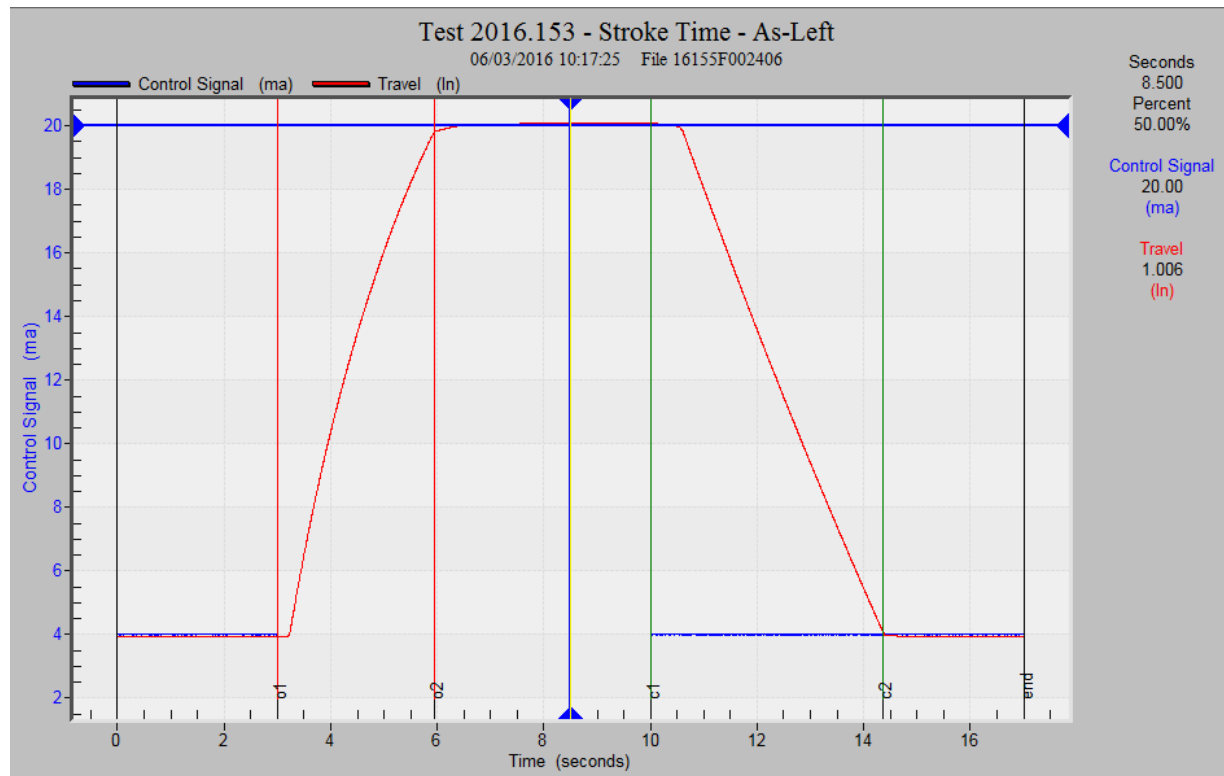
Channel: Thrust

Dependencies

No Dependencies

2016 – New Features – AOV Analysis

- Added Stroke Time standard plot
- Added o1, o2, c1 & c2 as standard markers

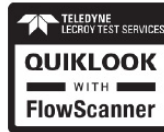


Quiklook Software Update



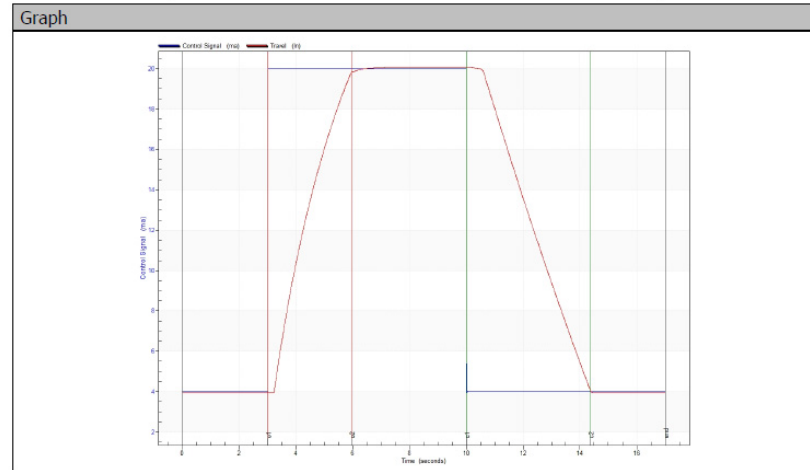
Step Change Report

AF / AL: As-Left
 Tuesday, July 26, 2016
 2:39:56 PM



Tag # **Test 2016.153**
 Serial # FCV612
 WO #
 Test Time 06/03/2016 10:17:25

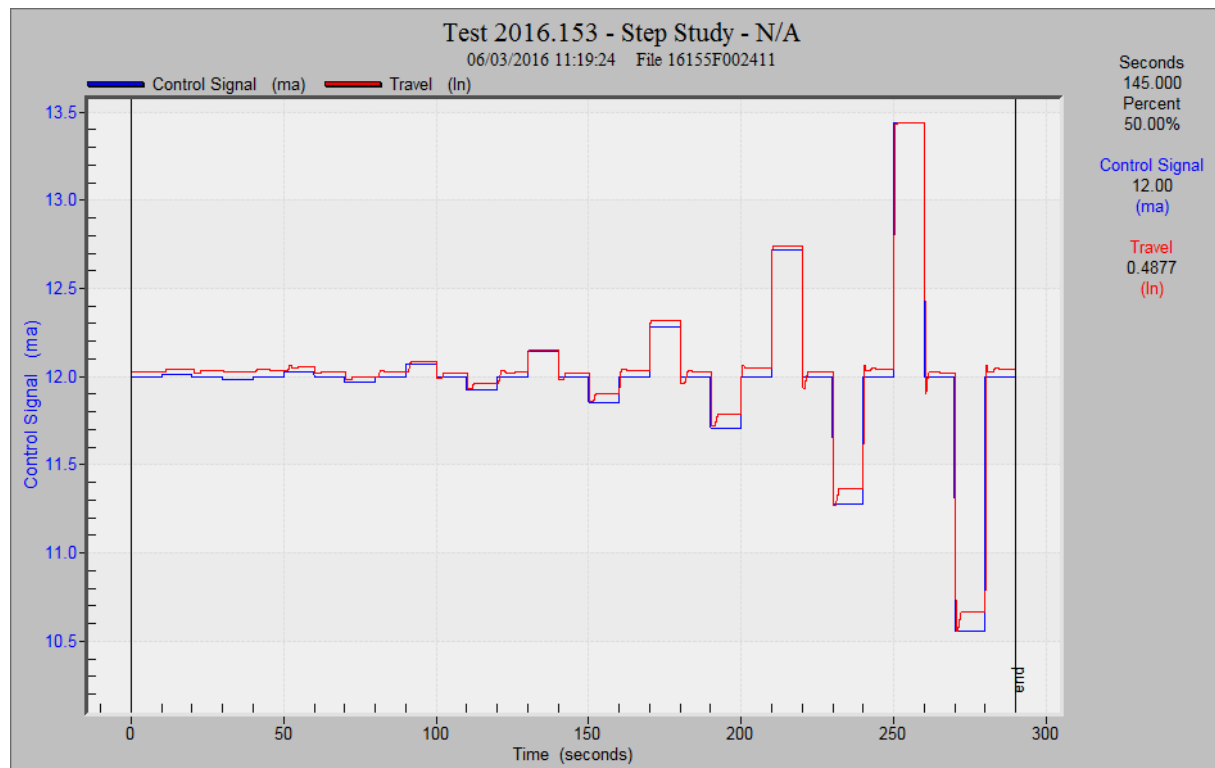
Step Change Analysis		
Marker	Time	Time Difference:
o1	3.0008 sec	
o2	5.9543 sec	3.0 sec To Open
c1	10.0008 sec	
c2	14.3708 sec	4.4 sec To Close



Test Setup: (16155F002406)	Additional Comments
Start: 4 mA PreTest: 3 sec End: 20 mA Hold Time: 7 sec Test Frequency: 25000 Hz PostTest: 7 sec Comment:	

2016 – New Features – AOV Analysis

- Added Step Study standard plot
- Previously called Resolution Response

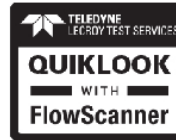


Quiklook Software Update

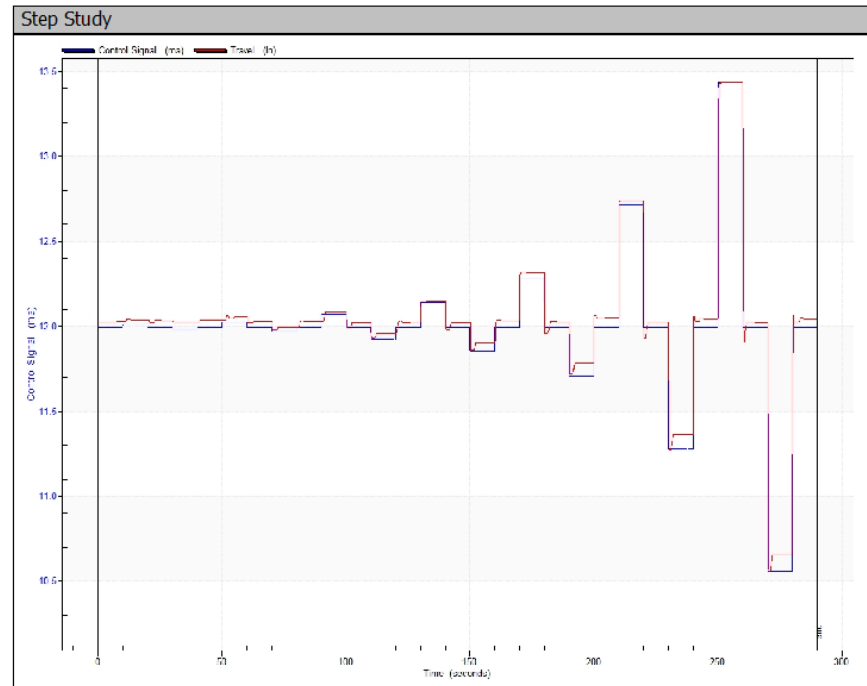


Step Study Report

Tuesday, July 26, 2016
3:13:52 PM



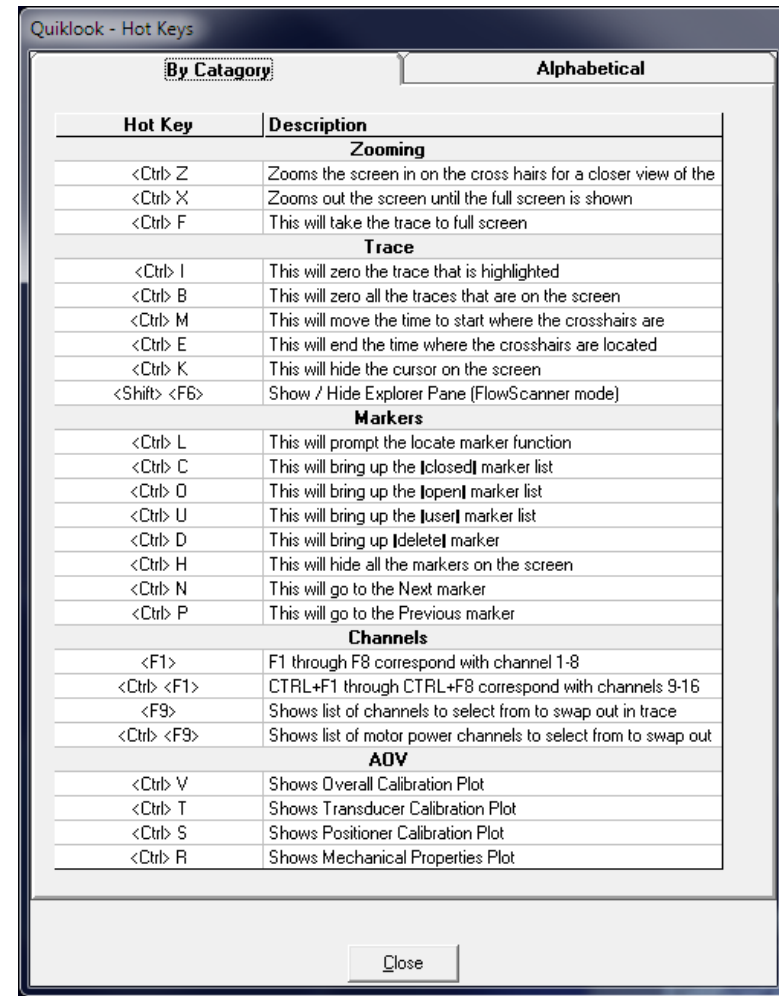
Tag # **Test 2016.153**
Serial # FCV612
WO # CSD12346879
Test Time 06/03/2016 11:19:24



Test Setup: (16155F002411)	Additional Comments
Start: 12 mA Hold Time: 10 sec # of Steps: 7 Min Signal: 4.8 mA Test Frequency: 50 Hz Max Signal: 19.2 mA Comment: Report Generation Test Complete test at 50Hz	

2016 – New Features – Hot Keys

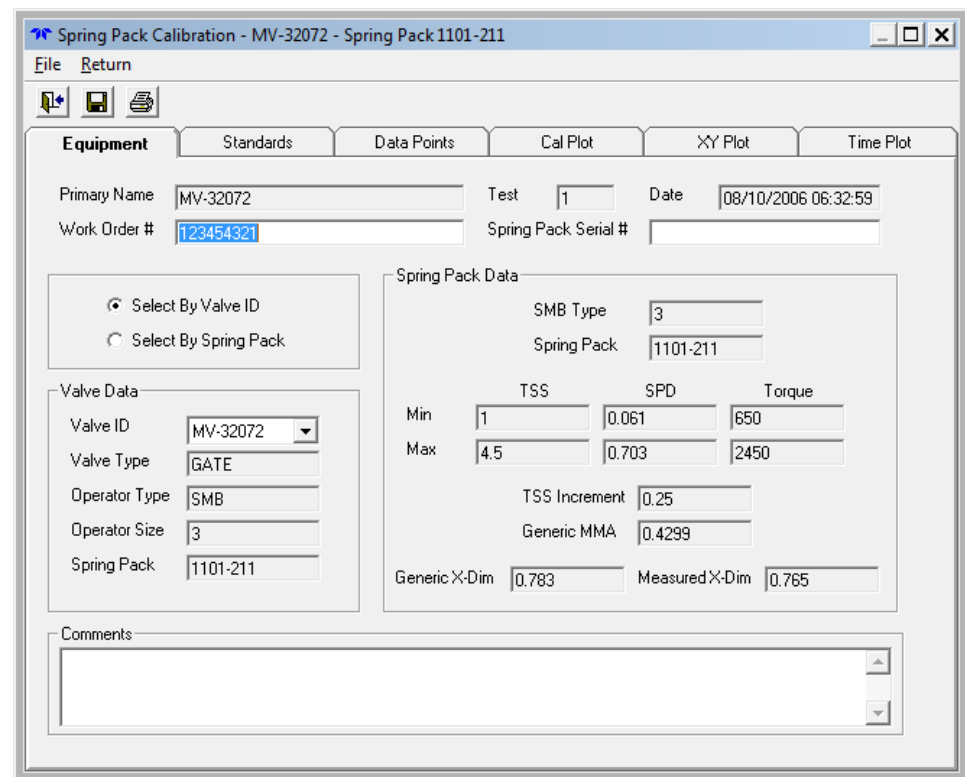
- Added Hot Key definitions off of Help menu



Hot Key	Description
Zooming	
<Ctrl> Z	Zooms the screen in on the cross hairs for a closer view of the
<Ctrl> X	Zooms out the screen until the full screen is shown
<Ctrl> F	This will take the trace to full screen
Trace	
<Ctrl> I	This will zero the trace that is highlighted
<Ctrl> B	This will zero all the traces that are on the screen
<Ctrl> M	This will move the time to start where the crosshairs are
<Ctrl> E	This will end the time where the crosshairs are located
<Ctrl> K	This will hide the cursor on the screen
<Shift> <F6>	Show / Hide Explorer Pane (FlowScanner mode)
Markers	
<Ctrl> L	This will prompt the locate marker function
<Ctrl> C	This will bring up the [closed] marker list
<Ctrl> O	This will bring up the [open] marker list
<Ctrl> U	This will bring up the [user] marker list
<Ctrl> D	This will bring up [delete] marker
<Ctrl> H	This will hide all the markers on the screen
<Ctrl> N	This will go to the Next marker
<Ctrl> P	This will go to the Previous marker
Channels	
<F1>	F1 through F8 correspond with channel 1-8
<Ctrl> <F1>	CTRL+F1 through CTRL+F8 correspond with channels 9-16
<F9>	Shows list of channels to select from to swap out in trace
<Ctrl> <F9>	Shows list of motor power channels to select from to swap out
AOV	
<Ctrl> V	Shows Overall Calibration Plot
<Ctrl> T	Shows Transducer Calibration Plot
<Ctrl> S	Shows Positioner Calibration Plot
<Ctrl> R	Shows Mechanical Properties Plot

2016 – New Features – Spring Pack Calibration Report

- Work Order carried forward from Quiklook



The screenshot displays the 'Spring Pack Calibration' software window. The title bar reads 'Spring Pack Calibration - MV-32072 - Spring Pack 1101-211'. The interface includes a menu bar with 'File' and 'Return', and a toolbar with icons for home, save, and print. Below the toolbar are several tabs: 'Equipment', 'Standards', 'Data Points', 'Cal Plot', 'XY Plot', and 'Time Plot'. The 'Equipment' tab is active, showing the following fields:

- Primary Name: MV-32072
- Work Order #: 123454321
- Test: 1
- Date: 08/10/2006 06:32:59
- Spring Pack Serial #: [Empty]

Below these fields are two radio buttons: 'Select By Valve ID' (selected) and 'Select By Spring Pack'. To the right is a 'Spring Pack Data' section with the following fields:

- SMB Type: 3
- Spring Pack: 1101-211
- Min TSS: 1
- Max TSS: 4.5
- Min SPD: 0.061
- Max SPD: 0.703
- Min Torque: 650
- Max Torque: 2450
- TSS Increment: 0.25
- Generic MMA: 0.4299
- Generic X-Dim: 0.783
- Measured X-Dim: 0.765

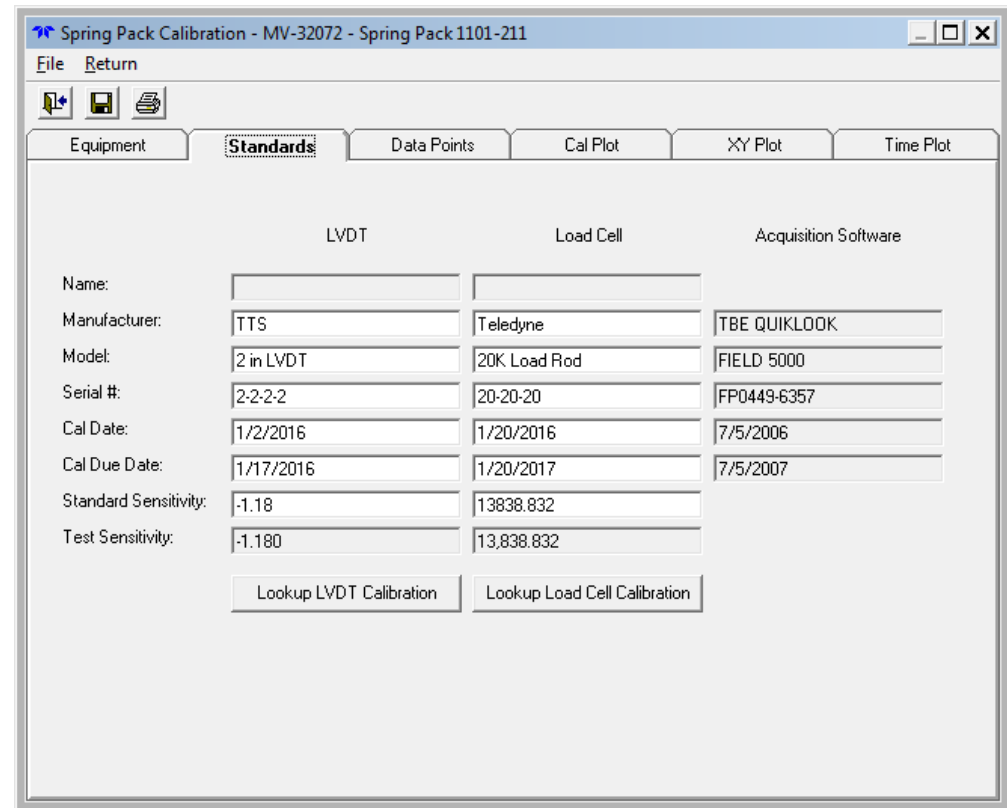
At the bottom left, there is a 'Valve Data' section with the following fields:

- Valve ID: MV-32072
- Valve Type: GATE
- Operator Type: SMB
- Operator Size: 3
- Spring Pack: 1101-211

At the bottom of the window is a 'Comments' text area.

2016 – New Features – Spring Pack Calibration Report

- M&TE carried forward from Quiklook



Spring Pack Calibration - MV-32072 - Spring Pack 1101-211

File Return

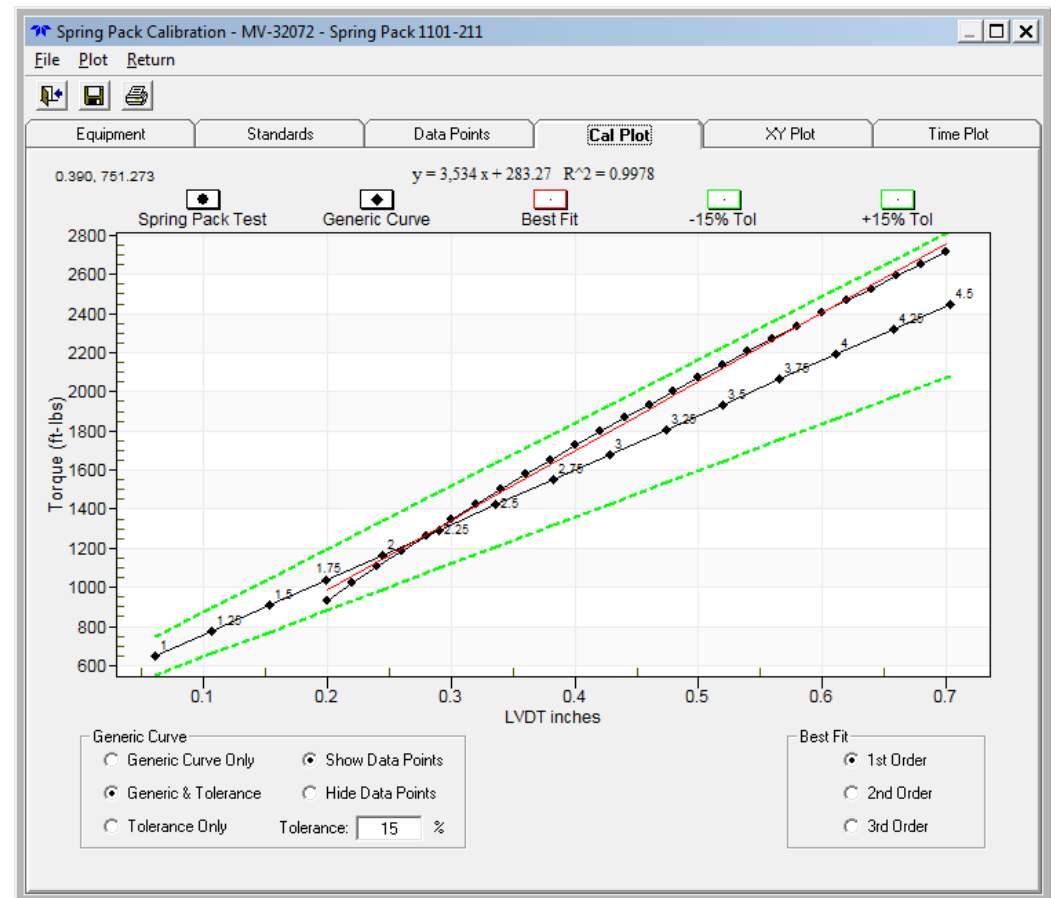
Equipment Standards Data Points Cal Plot XY Plot Time Plot

	LVDT	Load Cell	Acquisition Software
Name:			
Manufacturer:	TTS	Teledyne	TBE QUIKLOOK
Model:	2 in LVDT	20K Load Rod	FIELD 5000
Serial #:	2-2-2-2	20-20-20	FP0449-6357
Cal Date:	1/2/2016	1/20/2016	7/5/2006
Cal Due Date:	1/17/2016	1/20/2017	7/5/2007
Standard Sensitivity:	-1.18	13838.832	
Test Sensitivity:	-1.180	13,838.832	

Lookup LVDT Calibration Lookup Load Cell Calibration

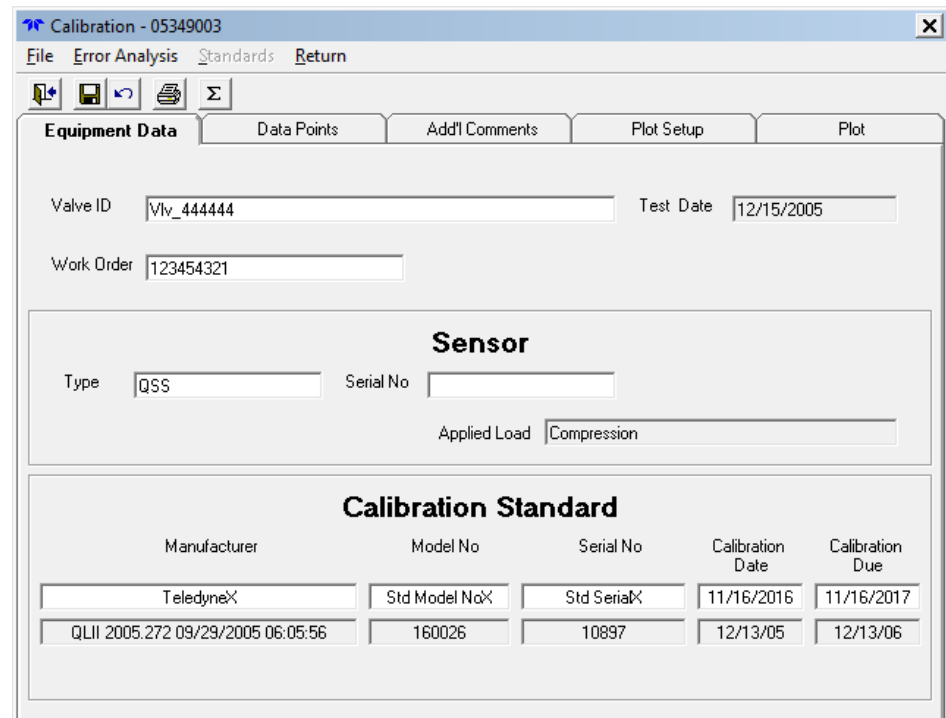
2016 – New Features – Spring Pack Calibration Report

- Tolerance Band Added
- Option to Show Tolerance Band
- Tolerance user defined
- Hide / Show Data Points



2016 – New Features – QSS Calibration Report

- Changed Client to Valve ID and carried forward from Quiklook
- Changed Project No to Work Order carried forward from Quiklook
- M&TE carried forward from Quiklook



The screenshot shows a software window titled "Calibration - 05349003" with a menu bar (File, Error Analysis, Standards, Return) and a toolbar. The main area is divided into sections:

- Equipment Data:** Contains input fields for Valve ID (vlv_444444), Test Date (12/15/2005), and Work Order (123454321).
- Sensor:** Contains input fields for Type (QSS), Serial No, and Applied Load (Compression).
- Calibration Standard:** A table with columns for Manufacturer, Model No, Serial No, Calibration Date, and Calibration Due.

Manufacturer	Model No	Serial No	Calibration Date	Calibration Due
TeledyneX	Std Model NoX	Std SerialX	11/16/2016	11/16/2017
QLII 2005.272 09/29/2005 06:05:56	160026	10897	12/13/05	12/13/06

2016 – New Features – QSS Calibration Report

- Added %Reading Error to main report

Calibration - 05349003

File Error Analysis Standards Return

Equipment Data **Data Points** Add'l Comments Plot Setup Plot

Data Pt	Standard (Lbs)	QSS (mV/V)	Best Fit (Lbs)	Deviation (Lbs)	%Read Error
1	0.08	-0.0009	-18.16	-18.24	0.00
4	-1.63	-0.0008	-15.08	-13.44	0.00
7	-589.57	-0.0103	-591.38	-1.81	0.00
10	-3567.86	-0.0593	-3575.59	-7.73	0.22
13	-7797.67	-0.1285	-7793.63	4.04	-0.05
16	-8680.13	-0.1431	-8683.60	-3.47	0.04
19	-11446.19	-0.1886	-11452.18	-5.99	0.05
22	-14101.10	-0.2322	-14107.94	-6.84	0.05
25	-14600.74	-0.2404	-14609.43	-8.68	0.06
28 *	-16172.15	-0.2661	-16173.25	-1.10	0.01
29	-16150.28	-0.2658	-16152.91	-2.64	0.02
32	-16116.36	-0.2654	-16126.52	-10.16	0.06
35	-16092.23	-0.2647	-16086.31	5.91	-0.04
38	-16066.11	-0.2644	-16067.72	-1.61	0.01

Sensitivity for Compression = 60906.7677 (Lbs) / (mV/V)
 Y-Intercept for Compression = 35.10
 Coefficient of Determination (Rsquare) = 1.0000



2016 – New Features – Audit Trail Report



Quiklook Audit Trail

Valve ID: 3HD-122

Test Date: 04/23/2012 01:42:38

File: 3HD0122_A6_20120423_014238.CDB

Dates of Usage = 2/26/2016 to 4/30/2016

Use Date	User Name	Computer	Software Revision	Function	Description
2/26/2016 2:17:35 AM	Michael Richard	MOVXPS	V5Bcon4 2016.55		
4/27/2016 3:39:19 PM	rjhuty1	3209EK4MJ358BZ	QUIKLOOK 3 - 2015.208	Save Changes	Primary Name: 3HD0122 to 3HD-122 Rotary Type: Other to Pivoting Retracted Area: 1.000 to 105.0 Bottom Cylinder: 1.000 to 105.0 Extended Area: 1.000 to 105.0 Seat Diameter: 1.000 to 4.375 Actuator Manufacturer: to FISHER Actuator Model: to 657.0
4/30/2016 10:17:37 AM	rjhuty1	3209EK4MJ358BZ	QUIKLOOK 3 - 2015.208	Save Changes	Ch # 5 - I/P Input - Channel Name: CONTROL to I/P Input
4/30/2016 10:19:37 AM	rjhuty1	3209EK4MJ358BZ	QUIKLOOK 3 - 2015.208	Save Changes	Number of Markers: 0 to 7 ctr - New Marker msc - New Marker map - New Marker sfr - New Marker efr - New Marker mxb - New Marker mnb - New Marker Service Seat Load: 0.0000000 to 1,284 Seat Force: 0.0000000 to 1,284 Seat Load: 0.0000000 to 93.43

2016 – New Features – FlowScanner Reports

Dynamic Scan Report

Dynamic Scan Report

Wednesday, July 27, 2016
5:25:02 PM



Tag # **Test 2016.103 2**
Serial #
WO #
Test Time 04/15/2016 11:51:31

Total Valve (Signal vs Travel)			Positioner (I/P Output vs Travel)		
	Specified	Measured		Specified	Measured
Total Travel	90.00 deg	91.07 deg	Total Travel	90.00 deg	91.07 deg
Dyn. Zero Travel	20.00 mA	0.00 mA	Dyn. Zero Travel	15.00 psig	N/A
Dyn. Full Travel	4.00 mA	0.00 mA	Dyn. Full Travel	3.00 psig	N/A
Avg. Dyn. Err. Band		2.62 %	Avg. Dyn. Err. Band		1.58 %
Max Dyn. Err. Band		3.56 %	Max Dyn. Err. Band		1.97 %
Min Dyn. Err. Band		2.28 %	Min Dyn. Err. Band		1.34 %
Dynamic Linearity		0.44 %	Dynamic Linearity		0.53 %
Zero Static Endpoint	0.00 mA		Supply Pressure (Initial)	60.00 psig	62.14 psig
Full Static Endpoint	0.00 mA		Supply Pressure (Min)		61.04 psig
			Supply Pressure (Avg)		61.98 psig
			Zero Static Endpoint		0.00 psig
			Full Static Endpoint		0.00 psig

I/P (Signal vs I/P Output)			Valve (Positioner Output vs Travel)		
	Specified	Measured		Specified	Measured
Pressure at (zero signal)	3.00 psig	3.01 psig	Average Friction		6.7 ft-lbs
Pressure at (full signal)	15.00 psig	15.02 psig	Maximum Friction	0.0 ft-lbs	7.9 ft-lbs
Avg. Dyn. Err. Band		0.83 %	Minimum Friction	0.0 ft-lbs	6.0 ft-lbs
Max Dyn. Err. Band		2.36 %	Spring Rate	0 lbs/in	0 lbs/in
Min Dyn. Err. Band		0.00 %	Bench Set (Low)	0.00 psig	N/A
Dynamic Linearity		0.44 %	Bench Set @ Rated Travel		1.84 psig
			Bench Set (High)	0.00 psig	N/A
			Total Travel	90.00 deg	91.07 deg
			Seating Torque		N/A
			Break Out Torque	0.0 ft-lbs	N/A

Test Setup: (16106F000104)		Additional Comments	
Start:	4 mA	End:	20 mA
Ramp Time:	-50 sec	Hold Time:	17 sec
PreTest:	5 sec	PostTest:	17 sec
Test Frequency:	50 Hz		
Comment:			

QLReportFlowScanner 2016.193
MRNENPC34.Etc

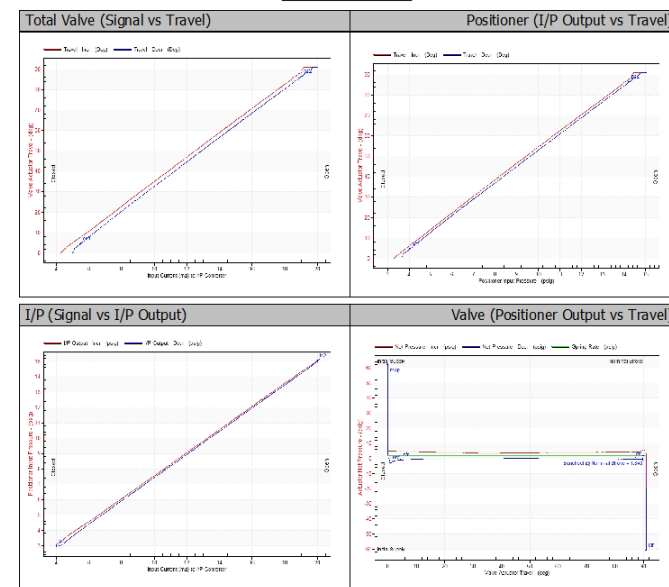
Page 1 of 2

Dynamic Scan Report

Wednesday, July 27, 2016
5:25:02 PM



Tag # **Test 2016.103 2**
Serial #
WO #
Test Time 04/15/2016 11:51:31



QLReportFlowScanner 2016.193
MRNENPC34.Etc

Page 2 of 2



2016 – New Features – FlowScanner Reports

Static Point Report

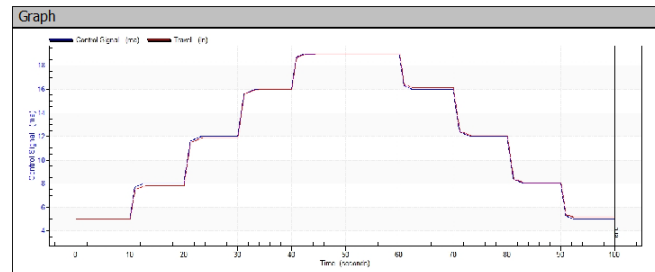
Static Point Report



Tag # **Test 2016.153**
 Serial # FCV612
 WO # CSD12346879
 Test Time 06/03/2016 11:16:07

Wednesday, July 27, 2016
 5:30:53 PM

Static Point Analysis Values						
Up' Stroke		Down' Stroke		Difference		Max Hysteresis & Dead Band 1.75% Linearity 0.65%
Input	Output	Input	Output	Input	Output	
5.00 in	0.018 in	5.00 in	0.027 in	0.00 in	-0.009 in	
8.00 in	0.207 in	8.00 in	0.220 in	0.00 in	-0.013 in	
12.00 in	0.479 in	12.00 in	0.488 in	0.00 in	-0.009 in	
16.00 in	0.750 in	16.00 in	0.758 in	0.00 in	-0.008 in	
19.00 in	0.949 in	19.00 in	0.949 in	0.00 in	0.000 in	



Test Setup: (16155F002410)	Additional Comments
# of Steps: 5 Hold Time: 10 sec Test Frequency: 50 Hz Exercise Valve: No Comment: Report Generation Test Complete test at 50Hz	

2016 – New Features – FlowScanner Reports

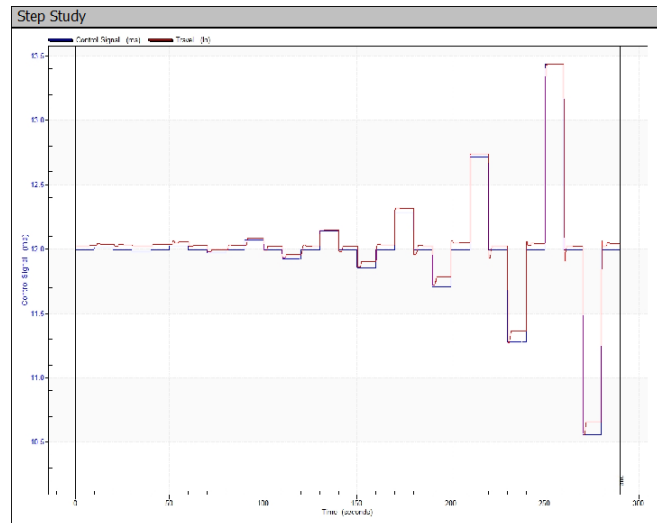
Step Study Report

Step Study Report

Wednesday, July 27, 2016
5:33:31 PM



Tag # **Test 2016.153**
Serial # FCV612
WO # CSD12346879
Test Time 06/03/2016 11:19:24



Test Setup: (16155F002411)	Additional Comments
Start: 12 mA Hold Time: 10 sec # of Steps: 7 Min Signal: 4.8 mA Test Frequency: 50 Hz Max Signal: 19.2 mA Comment: Report Generation Test Complete test at 50Hz	



2016 – New Features – FlowScanner Reports

Step Change Report

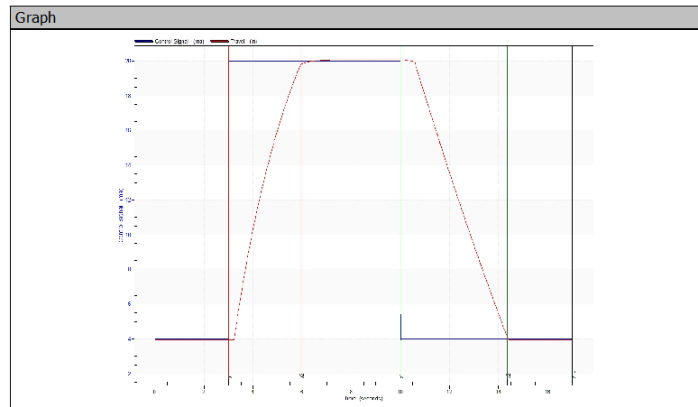
Step Change Report

AF / AL: As-Left
 Wednesday, July 27, 2016
 5:47:12 PM



Tag # **Test 2016.153**
 Serial # FCV612
 WO #
 Test Time 06/03/2016 10:17:25

Step Change Analysis		
Marker	Time	Time Difference:
o1	3.0008 sec	
o2	5.9543 sec	3.0 sec To Open
c1	10.0008 sec	
c2	14.3708 sec	4.4 sec To Close



Test Setup: (16155F002406)	Additional Comments
Start: 4 mA PreTest: 3 sec End: 20 mA Hold Time: 7 sec Test Frequency: 25000 Hz PostTest: 7 sec Comment:	



2016 – New Features – FlowScanner Reports

Drop Test Report

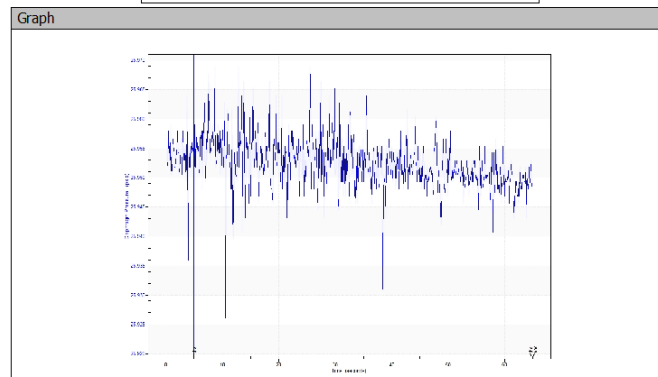
Drop Test Report

AF / AL: As-Left
 Wednesday, July 27, 2016
 6:05:25 PM



Tag # **2-LCV-006-0061B**
 Serial #
 WO #
 Test Time 03/22/2015 10:45:58

Drop Test Analysis		
	Measured	
Elapsed Time:	60	sec
Starting Pressure:	25.95	psig
Ending Pressure:	25.95	psig
Pressure Drop:	0.003672	psig
Pressure Drop:	0.003672	psig/min



Test Setup: (15081a01)	Additional Comments
Start: 3.7 ma Hold Time: 60 sec End: 20 ma PreTest: 5 sec Test Frequency: 10 Hz Comment: A/L AFTER REPLACING POSITIONER AND REGUL 1ST RUN after MMG replaced diaphragm	



Enhancements / Wish List

Thursday morning

Any Questions?

THANK YOU



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