



Valve Diagnostic Testing and Maintenance

# QUIKLOOK 3 SOFTWARE New Program Features

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QUIKLOOK MOV - Valve ID Undefined	MOV Settings Channels Edit Sensors Return	Help		
1 Current	Primary Name	. Teh		<b>Va</b> 9
C.980 (Amps) Graph 200 Amp Probe	Test Number 5	Date 8/7/2013 2:56:32 PM	🔲 Graph	
2 Thrust	S	tart		<b>la</b> 10
1.002 (Lbs)			Graph	
3 Torque			,	<b>Vb</b> 11
	Secondary Name			
🔽 Graph	Title		Graph	
4 CST	Comment			<b>Ib</b> 12
	Comment			
🔽 Graph	Technician	🔲 Limits	🔲 Graph	
5 Open	Type of Test N/A	Thrust/Torque		<b>Vc</b> 13
	Direction N/A	Open TSS 0		
🖵 Graph	Stroke N/A	Close TSS	🔲 Graph	
6 Close	AF / AL N/A	Display Time 20	_	<b>Ic</b> 14
	Max Seconds [371			
🔲 Graph	Additiona	i comments	Graph	
7 ByPass				15
🔲 Graph				
8 SprPack			·	16
0.0001 (ln)		Excitation Voltage OK		
Graph			Eully Charged 8/7/2013	2:56 PM

TEDS – Transducer Electronic Data Sheet IEEE Standard - IEEE P1451.4/2.0

- All Sensors will have a TEDS Chip
  - TEDS Chip may contain all none of the configuration data.
  - When sensor is present Channel Values and Units Appear
- Sensor Description is Shown
  - Green All sensor data is on chip no further configuration is necessary
  - Red Some configuration data is missing. Configuration should be reviewed
  - Black Configuration has been reviewed
- Dark Gray Box Channel Inactive
- Light Gray Box Channel Active
- Red Box Channel is Over Ranging
- Channel Name Shows for Active Channels
- Channels without Sensors will Not be Acquired and will be Turned Off







QUIKLOOK MOV - Valve ID Undefined		
<u>File</u> <u>Define Graph</u> <u>Trigger Mode</u> <u>View</u>	MOV Settings Channels Edit Sensors Return Help	
1 Current	Primary Name	<b>Va</b> 9
2.986 (Amps) Graph 200 Amp Probe	Test Number 5 Date 8/7/2013 2:56	5:32 PM
2 Thrust	Start	<b>la</b> 10
1.002 (Lbs)		E Grade
3 Torque		Vb 11
	Secondary Name	
🔽 Graph	Description	🖵 Graph
4 CST	Comment	<b>Ib</b> 12
	Comment	
🔽 Graph	Technician 📃 🗌 Lii	mits Graph
5 Open	Type of Test N/A	hrust/Torque Vc 13
	Direction N/A	0
🖵 Graph	Stroke N/A	0 Graph
6 Close	AF / AL N/A   Display Time	<sup>20</sup> Ic 14
0 01030	Max Seconds 571 Acquisition Rate	1,000
🖵 Graph	Additional Comments	Graph
7 ByPace		15
1 Dyr 435		10
🖵 Graph		
8 SprPack		- 16
0.0001 (ln)	Excitation Volt	tage OK
Graph		
U:NI est DataNQLIIN		Fully Charged   877/2013   2:56 PM

## **Battery Status**

- Run Time to Empty
- Battery Status:
  - Voltage
  - Current
  - Charge
  - Capacity
  - Temperature

🕫 Battery Status				×
<u>R</u> eturn				
Current	-2.!	511	Amps	
Power	40	).7	Watts	
Avg Charg	e 99	3%		
Status	Disch	arging	9	
Run Time	to Empty 4 hrs	53 mi	ns	
Battery	1		2	
Status			Fc	
Voltage (volts)	16.229		16.199	
Current (amps)	-1.5		-0.98	
Temp C	28.1		27.1	
Charge	99 %		100 %	
Capacity (Amp-hrs)	6.45		5.85	



QUIKLOOK MOV - Valve ID Undefined				
File Define Graph Trigger Mode View	MOV Settings Channels Edit Sensors <u>R</u> eturn <u>H</u> elp			
1 Current	Primary Name			<b>Va</b> 9
2 986 (Amps)				
Graph 200 Amp Probe	Test Number 5 Date 8/	7/2013 2:56:32 PM	🔲 Graph	
2 Thrust	Chart	1		<b>la</b> 10
1 002 (Lbs)	<u> </u>			
Graph QSS - Thrust			🔲 Graph	
3 Toraue				<b>Vb</b> 11
	Secondary Name			
I▼ Graph	Description		— □ Graph	
1 007	Title		_	
4 CS1	Comment		-	<b>ID</b> 12
J✔ Graph		☐ Limits	j_ Graph	
Б Open	Condition N/A	Thrust/Torque		<b>Vc</b> 13
	Direction N/A 🔽	)pen TSS 0		
🔽 Graph	Stroke N/A	Close TSS 0	🔲 Graph	
6 Close	AF / AL   N/A   Dis	play Time 20		<b>Ic</b> 14
	Max Seconds   271 Acquis	ition Hate [1,000		
🖵 Graph	Additional Comments		Graph	
7 ByPass			<b>^</b>	15
,				
☐ Graph				
8 SprPack				16
	Excitatio	n Voltage OK		10
		<u> </u>		
C:\Test Data\QLIII\		Fu	ly Charged 8/7/2013	2:56 PM

## **Excitation Check**

- Each Channel has independent Excitation
- Shorting out one channel will not effect the others
- Only Channels with Excitation are Checked
- Board Temperatures are shown
- Excitation Voltage
- Excitation Current

T Excitatio	on Check	• •	×
Return			
	Date:	08/13/2013	
	Time:	10:51:16	
	Board 1 - Temperature:	114.8	Deg F
	Board 2 - Temperature:	0	Deg F
Channel	Status	Voltage (volts)	Current (mA)
1	Off		
2	On	9.88	25.07
3	On	10.00	26.12
4	Off		
5	Off		
6	Off		
7	Off		
8	On	10.00	0.26



QUIKLOOK MOV - Valve ID Undefined				
<u>File</u> <u>D</u> efine Graph <u>Trigger Mode</u> <u>V</u> iew	MOV Settings Channels Edit Sensors Return	<u>H</u> elp		
1 Current	Primary Name			<b>Va</b> 9
Graph 200 Amp Probe	Test Number 5	Date 8/7/2013 2:56:32 PM	🗖 Graph	
2 Thrust	<u>S</u> ta	art		<b>la</b> 10
Graph QSS - Thrust			🔲 Graph	
3 Torque				<b>Vb</b> 11
	Secondary Name			
🔽 Graph	Description		🔲 Graph	
4 CST	Title			<b>Ib</b> 12
	Comment			
🔽 Graph	Technician	T tina.	Graph	
E 0	Type of Test N/A	Thrust/Torque		N/- 10
6 Open	Condition N/A			VC 13
	Direction N/A	Open TSS 0		
j uraph	Stroke N/A		j_ urapn	
6 Close	Max Seconds 571	Acquisition Rate 1,000		<b>Ic</b> 14
	Additional Cr	amments		
🗖 Graph			Graph	
7 ByPass				15
☐ Graph				
8 SprPack	1			16
0.0001 (ln)	E	Excitation Voltage OK		
C:\Test Data\QLIII\			Fully Charged 8/7/201	3 2:56 PM

## **Available Acquisition Rates**

- 10 Hz (AOV Default)
- 25 Hz
- 50 Hz
- 100 Hz
- 200 Hz
- 500 Hz
- 1,000 Hz (MOV Default)
- 2,000 Hz
- 5,000 Hz
- 10,000 Hz
- 20,000 Hz (CV Default)
- 50,000 Hz
- 100,000 Hz (Optional)
- 200,000 Hz (Optional)

📕 Select Acqu	uisition Rate (Sai	mples / Sec)	×
Frequency	50,000	<b>•</b>	
	<u>0</u> K	<u>C</u> ancel	



Lie Untrent       2.986 (Amps)         2 UD Amp Probe       Tet Number         2 Thrust       1.002 (Lbs)         2 Booph       055 - Thrust         3 Torque       Vb 11         Graph       Seconday Name         V Graph       055 - Thrust         3 Torque       Vb 11         Graph       Seconday Name         V Graph       Description         Title       Description         Tet Number       Example         V Graph       Open         Graph       Tet Number         5 Open       Tet Nume         Graph       Tet Number         6 Close       VA         7 ByPass       Storde         Graph       Addional Comments	QUI	KLOOK MOV - Valve ID Undefined					
1 Current   2 Open   0 Graph   2   1   1   2   1   1   2   1   1   1   2   1   1   1   1   1   2   1    1    1    1   1 <tr< th=""><th>Elle</th><th>Define Graph <u>Irigger Mode</u> <u>View</u></th><th>MOV Settings Channels Edit Sensors I</th><th><u>R</u>eturn <u>H</u>elp</th><th></th><th></th><th></th></tr<>	Elle	Define Graph <u>Irigger Mode</u> <u>View</u>	MOV Settings Channels Edit Sensors I	<u>R</u> eturn <u>H</u> elp			
200 Amp Probe         2 Thrust         1.0022 (Lbs)         055 - Thrust         056 - Thrust         057 - Acquistion Rate 1000	1	Current	Primary Name	e		Va	9
2 Thrust   1.002 (Lbs)   055 - Thuat     3   7 Stque     Seconday Name     Seconday Name     Descripton   Tale   Open   Comment   Comment   Toppen   Stock W/A   Condition N/A   Direction N/A   Consertiss 0   Consertiss 0   Ic 14     Stroke     Additional Comments	<b>P</b>	Graph 200 Amp Probe	Test Number 5	Date 8/7/2013 2:56:32 PM	🔲 Graph	1	
Image: Secondary Name       Image: Secondary Name         Image: Secondary Sirite       Image: Secondary Sirite	2	Thrust		<u>S</u> tart		la	10
3     Terque       2     Graph       4     CST       0     Description       1     Graph       5     Open       6     Close       6     Close       6     Stocke       1     Graph		1.002 (Lbs) Graph QSS - Thrust			🖵 Graph		
Image: Secondary Name       Image: Secondary Name         Image: Secondary Name       Image: Secondary Name <td>3</td> <td>Terque</td> <td></td> <td></td> <td></td> <td>Vb</td> <td>11</td>	3	Terque				Vb	11
Image: Construction			Secondary Name				
4 CST   6 Close   7 ByPass		Graph	Description		🗖 Graph		
4 Cost     Image: Comment indication indi	4	COT.	Title			lh	10
Image: Commert indication indicat	4	001				ID	12
Image: Graph   Image: Graph <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
5 Open   5 Open   6 Close   Graph Stroke   AF / AL N/A   Open TSS   Open TSS   Open TSS   Direction   N/A   Open TSS		Graph	Technician	🖂 Limits	🔲 Graph		
Condition N/A   Direction N/A   Direction N/A   Direction N/A   Open TSS 0   Graph Stroke   AF / AL N/A   Max Seconds 571   Additional Comments Graph     Ic 14     Graph     15	5	Onen	Type of Test N/A	Thrust/Torque		Ve	13
Graph   Graph   Stroke   N/A   Stroke   N/A   Close   AF / AL   N/A   Display Time   20   Max Seconds   571   Additional Comments     Graph     Ic   14     Graph     Ic	Ŭ	opon	Condition N/A	<u> </u>			10
Graph       Stroke       N/A       Close TSS       0         6       Close       AF / AL       N/A       Display Time       20         Max Seconds       571       Acquisition Rate       1,000       Ic       14         Graph       Additional Comments       Graph       Ic       14         7       ByPass       Ic       15       Ic			Direction N/A	Open TSS			
6     Close     AF / AL  N/A     Display Time  20     Ic 14       Max Seconds  571     Acquisition Rate  1,000     Ic 14       Graph     Additional Comments     Graph       7     ByPass     Ic 14		Graph	Stroke N/A	Close TSS 0	_ Graph		
Graph     Max Seconds  571     Acquisition Rate  1,000       Graph     Additional Comments     Graph       7     ByPass     Image: Comment Seconds   571     Image: Comment Seconds   571       Graph     Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571       7     ByPass     Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571       Image: Graph     Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571       Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571       Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571       Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571       Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571       Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571       Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds   571       Image: Comment Seconds   571     Image: Comment Seconds   571     Image: Comment Seconds	6	Close	AF / AL N/A	Display Time 20		Ic	14
Graph     Additional Comments     Graph       7 ByPass     Image: Comment State of the state of			Max Seconds   571	Acquisition Rate  1,000			
7 ByPass 15		Count	Ade	ditional Comments			
7 ByPass 15		uraph			Graph		_
☐ Graph	7	ByPass					15
☐ Graph							
		Graph					
8 SprPack	8	SprPack			*		16
Excitation Voltage OK	0			Excitation Voltage OK			10
		U.UUU1 (In)		Excitation voltage OK			
Graph         C\Text Data\01.0012         2.55 DM		Graph			Fully Charged	8/7/2013 2-50	S PM

- Same Basic Setup Form as Previous Versions
- Information fill in by TEDS:
  - Same as "Load Sensor"
  - Type
  - Range
  - Excitation
  - Sensitivity
  - Sensor Information
- Graph showing live values
- Actual Voltage on left
- Scaled values using setup on right
- Green band shown representing noise band
- (Peak to Peak values for current)
- Zero button next to offset to zero channel

🕁 Channel Data	Sensor Information	x
Previous Channel 4   Next	Type Potention	eter
	Manufacturer Teledyne	
Status Primary	Model PT 1	
Name CST	Serial Number 12345	
	Cal Date 7/1/2013	
Units (mA)	Cal Due Date 7/1/2014	
Description	TEDS Load Se	nsor
Type Single Ended	Voltage	Scaled Value
Range +-10 Vdc 💌		- 1 (mA)
Excitation Default	1 0/0	
Sensitivity 1.0000 (mA) /V/V	0.4832 V/V	— 0.4832 (mA)
Offset 0 Zero		
🔽 Show Over Ranging		
<u>Close</u> <u>Q</u> SS <u>Rotary</u> B <u>a</u> sic		
C PreTension 💿 Bar Graph C Hide Graph	-1 V/V	-1 (mA)

#### Hide Graph

#### • Gives access to Calculated Channels (MOV only)

🚭 Channel Data	×	
	Sensor Information	
Previous Channel 2   Next	Type Strain Gauge	
	Manufacturer Teledyne	
Status Primary 💌	Model Volt 1	
Name Thrust	Serial Number 22345	
	Cal Date	
Units (Lbs)	Cal Due Date	
Description	TEDS Load Sensor	
Type 4-Wire Strain Gage 🗨	Calculated Channels	
Range +-3.0 mV/Vdc 🗨	Generate Calculated Channel	
Excitation Default	Display Channel Default	
Sensitivity 1.0000 (Lbs) /mV/V	Low Pass Filter 👤 Cut Off Frequency 50	
Offset 0. Zero	Apply Calibration	
	Apply Calibration	
Show Over Ranging	🔲 Display Channel Default	
<u>C</u> lose <u>Q</u> SS <u>R</u> otary B <u>a</u> sic	Apply Calibration to Calculated Channel	
C PreTension C Bar Graph © Hide Graph	Load Calibration	

- Red on Sensitivity Field indicates that setup information was not on the TEDS chip
- Red background will only appear on first review
- After review TEDS description on main form will turn Black

🔶 Channel Data	×			
Sensor Information				
Previous Channel 2 💌 Next	Type Strain Gauge			
	Manufacturer Teledyne			
Status Primary 💌	Model Volt 1			
Name Thrust	Serial Number 22345			
	Cal Date			
Units (Lbs)	Cal Due Date			
Description	TEDS Load Sensor			
Type 4-Wire Strain Gage	Calculated Channels			
Range +-3.0 mV/Vdc 🗨	Generate Calculated Channel			
Excitation Default	Display Channel Default			
Sensitivity 1.0000 (Lbs) /mV/V	Low Pass Filter 🚽 Cut Off Frequency 50			
Offeet 0 Zero	Apply Calibration			
	Apply Calibration			
Show Over Ranging	🔲 Display Channel Default			
<u>C</u> lose <u>Q</u> SS <u>R</u> otary B <u>a</u> sic	Apply Calibration to Calculated Channel			
C PreTension C Bar Graph 📀 Hide Graph	Load Calibration			

- An out of date calibration will **also** cause a Red Flag
- This Red Flag will not go away and will remain on main screen

🔶 Channel Data		×
	Sensor Information	
Previous Channel 1   Next	Type Volta	ge
	Manufacturer Telec	lyne
Status Primary 🗸	Model Volt 1	
Name Current	Serial Number 1122	33
	Cal Date 8/1/2	2012
Units (Amps)	Cal Due Date 8/1/2	2013
Description	TEDS Loa	d <u>S</u> ensor
Type Single Ended	Voltage	Scaled Value
Range +-30 mVdc 💌	+onage	
Excitation N/A	30 mV	30 (Amps)
Sensitivity 1.0000 (Amps) /mV		
Offset 0 Zero	2.983 mV	2.983 (Amps)
🔽 Show Over Ranging		
<u>C</u> lose <u>Q</u> SS <u>R</u> otary B <u>a</u> sic		
C PreTension <ul> <li>Bar Graph</li> <li>C Hide Graph</li> </ul>	-30 mV	-30 (Amps)

- PreTension Graph (C Clamps)
- Same as Monitor Screen in QLII
- Turns Green between -2.7 & -3.0 mV/V

🕁 Channel Data	×
	Sensor Information
Previous Channel 2   Next	Type Strain Gauge
	Manufacturer Teledyne
Status Primary 💌	Model Volt 1
Name Thrust	Serial Number 22345
	Cal Date
Units (Lbs)	Cal Due Date
Description	TEDS Load Sensor
Type 4-Wire Strain Gage	
Range +-3.0 mV/Vdc 💌	-2 997
Excitation Default	-2.331
Sensitivity 17,187.8 (Lbs) /mV/V	
Offset 24586 Zero	
Show Over Ranging	
<u>Close</u> <u>Q</u> SS <u>R</u> otary B <u>a</u> sic	
PreTension     C Bar Graph     C Hide Graph	



QUIKLOOK MOV - Valve ID Undefined				
<u>File</u> <u>Define</u> Graph <u>Trigger</u> Mode <u>V</u> iew	MOV Settings Channels Edit Sensors Return	n <u>H</u> elp		
1 Current	Primary Name			<b>Va</b> 9
Graph 200 Amp Probe	Test Number 5	Date 87779013 2:56:32 PM	🔲 Graph	
2 Thrust		tart )		<b>la</b> 10
Graph QSS - Thrust			🖵 Graph	
3 Torque				<b>Vb</b> 11
	Secondary Name			
🔽 Graph	Description		🗖 Graph	
4 CST	Litie Comment			<b>Ib</b> 12
	Comment			
🔽 Graph	Technician	🗖 Liroite	🖂 Graph	
E. Onen	Type of Test N/A			Ma 10
o open	Condition N/A			VC IS
C Crash	Direction N/A	Open TSS 0	- Crash	
j diapri	Stroke N/A	Close ISS U Display Time 20		
6 Close	Max Seconds 571	Acquisition Rate 1,000	_	<b>Ic</b> 14
	Additional	Comments		
🔲 Graph			Graph	
7 ByPass				15
☐ Graph				
8 SprPack	1		· ·	16
0 0001 (lp)		Excitation Voltage OK		
Graph				
C:\Test Data\QLIII\			Fully Charged 8	/7/2013 2:56 PM





QUIKLOOK AOV - Valve ID Undefined		
<u>File Define Graph</u> <u>Trigger Mode</u> <u>View</u>	<u>A</u> OV Settings <u>C</u> hannels Edit Sensors <u>R</u> eturn <u>H</u> elp	
1 I/P Input	Primary Name	9
🔽 Graph	Test Number 6 Date 8/7/2013 3:16:36 PM	
2 I/P Output Pressure	Start	10
33.59 (psig) Graph 100 psi		
3 Diaphragm Pressure		11
	Secondary Name	
✔ liraph	Title Slow Ramp Test	
4 Position	Comment	12
0.0000 (ln)	Comment	
Graph 0 - 15 SPI	Technician	
5		13
	Direction N/A	
	AF / AL N/A	
6 Regulated Supply	Max Seconds 145 Acquisition Rate 10	14
	Additional Comments	
j urapn	A	
7		15
	-	
8		16
C:\Test Data\QLIII\	E Fully Cl	harged 8/7/2013 3:19 PM



QUIKLOOK AOV - Valve ID Undefined		
<u>File</u> <u>D</u> efine Graph <u>T</u> rigger Mode <u>V</u> iew	<u>A</u> OV Settings <u>C</u> hannels Edit Sensors <u>R</u> eturn <u>H</u> elp	
1 I/P Input	Primary Name	9
🔽 Graph	Test Number 6 Date 8/7/2013 3:16:36 PM	
2 I/P Output Pressure	Start	10
33.59 (psig)		
3 Diaphragm Pressure		11
	Secondary Name	
✔ Graph	Title Slow Ramp Test	
4 Position	Comment	12
0.0000 (ln)	Comment	
5	0         12         24           Set         Set         Set           0         12         24	13
6 Regulated Supply	Control Signal (mA)	14
🔽 Graph	*     4     8     12     16     20     ×       <<<<< <i>&lt;&lt;&lt;<i>&lt;&lt;&lt;<i>&lt;</i></i></i>	
7	0.00	15
8	Hide Control Excitation Voltage OK	16
C:\Test Data\QLIII\	- Fully Ch	narged 8/7/2013 3:19 PM





#### **Embedded Windows**

#### Advantages:

- Increased Virus & Malware
   Protection
- Only necessary programs and services will be installed
- System will run faster
- System will always reboot to the same state each time.

#### Disadvantages:

- Upgrade to system will be more difficult
- System will no longer act as a computer but will be a piece of test equipment

## **Software Compatibility**

- Tests taken with Quiklook 3 will be incompatible with previous versions of Quiklook.
- Tests taken with previous versions of Quiklook will be compatible with QL 3
- The c00 file will still be maintained for compatibility with Midas
- When purchasing a Quiklook 3 all desktop installs of Quiklook should be upgraded
- Quiklook II systems do not have to be upgraded but may be
- Marker Names will be increased from 3 characters to 5

#### **Software Compatibility**

🛪 QUIKLOOK II - [Test Listing for C:\TestData\TestData 2013\QLIII\2013-07-18\]						
📕 <u>F</u> ile <u>T</u> est <u>E</u> dit	<u>V</u> iew <u>U</u> tilities	Reports <u>W</u> indow (	Quit <u>H</u> e	lp		_ 8 ×
Display Traces Test Data Close Find Test Trending Mode						
Filename	Primary Name	Test Date	Test #	Secondary Name	Description	Title
13199404	QL2.5 Baseline	2013/07/18 14:44:35	4		Full Sensor Test QL2.5	Test 3
1319906 2013	QL3 Valve Test	2013/07/18 15:31:13	6		Test 1	
Ø 1319906	QL3 Valve Test	2013/07/18 15:31:13	6		Test 1	
(III) (IIII) (III) (IIII) (III)						
8/12/2013 4:11 PM						

#### **Redirector built into Quiklook**

- Preference Setting would set a base directory
- Each Subdirectory Name would be a Valve ID
- Each Directory will contain one configuration file
- When Quiklook starts you will be presented with a list of Valve IDs based on directory names

• Quiklook will then go directly into the acquisition screen using the configuration for the selected valve

# **QUESTION?**

Does there need to be a preference setting so that acquisition may be performed using the QLII approach with separate Configuration / Test / Monitor screens?



# Thank you

## **USER FEEDBACK?**