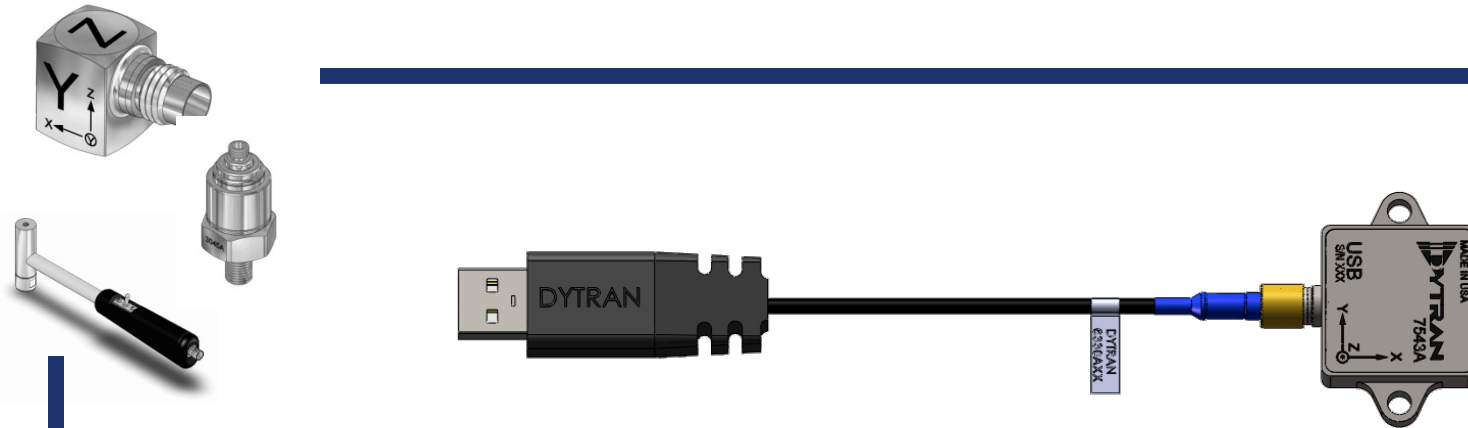


VibraScout™

Model 5340 Vibration Measurement System



Dytran Instruments, Inc.



VibraScout Description

- A new and novel way to quickly collect triaxial vibration data, X-Y inclination information and temperature
- Only required items are the model 5340 VibraScout sensing system and a capable computer with a USB port
- The VibraScout sensing systems allows the end user to quickly collect vibration data from any type of structure and come back to the office or lab with quantitative, actual vibration data, in both time and frequency domain as opposed to just a qualitative feel as to what the condition of the test article was in terms of vibration



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sales@absolutegauge.com; www.absolutegauge.com,
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System Components

- Model 7543 accelerometer
- Model 6330A15 4-pin to USB cable assembly
- Model 9001 VibraScout™ Acquisition Software
- Model 9002 VibraScout™ Post Processing Software
- OG5340 Operator Guide

Note: Patent Pending



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Common Uses for the VibraScout

- End of line testing
- Natural frequency testing
- Vibration survey on plant equipment (rotating machinery)
- Vibration survey on riding equipment (from autos to tractors to motorcycles, etc.)
- Centrifuge application
- And many more!
 - If your application calls for small, portable, USB based vibration measurement with the ability to record data, the VibraScout is the tool for the job!
- We know our customers will think of many more ways to use this innovative new product to streamline their processes.



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Sensor Features and Capabilities

- +/-16G range with 13bit ADC resolution and 3.9mG noise floor
- USB 2.0 compatible
- Temperature measurement
- 3-Axis Vibration measurement and X & Y axis inclination measurement using smart sensor technology with a built in micro controller
- Maximum 1100Hz usable bandwidth, 3200Hz Sampling Rate (Data oversampled using post processor)
- Windows compatible client application or API (7543.dll .NET file) available for custom application development or integration with existing client application in LabVIEW, C#, etc.



Test Setup Tab

DYTRAN 7543A - VibraScoutTM Real Time Module - Release 1.0c - c(2013) by WinTek

File Edit Operate Tools Window Help

Trend View One Channel View Three Channel View **Test Setup**

DYTRAN
INSTRUMENTS, INC.

Recording Time [s]
00:00:00

Max Record Time [s]
00:06:00

Dim [MByte] Free [MByte]
6.47 72693.4

FFT Averages FFT Window
1 Hanning

Delta Freq [Hz] Time Refresh [s]
0.982 1.018

DC Coupling Int Meas Units

	Min	Instant	Max
Acc X	0.000	0.000	0.000
Acc Y	0.000	0.000	0.000
Acc Z	0.000	0.000	0.000
Incl X	0.000	0.000	0.000
Incl Y	0.000	0.000	0.000
Temp	0.000	0.000	0.000

Accelerometer ID 7543A102

START **STOP**

REC OFF **EXIT**

TEST INFO

Test Info
TestDemo_1

Test Name
TestDemo_1

Test Number Test Date
001 10/23/2013

TEST PARAMETERS

Sampling Rate [S/s]	Display Buffer [Pts]	Record Time [s]
3200	800	360.00
785.7		

TRIGGERS PARAMETERS

Trigger Type Trigger Channel Trigger Ch Selection
Free Run CH0 Acceleration X Single Channel

Trigger Level [Eu] PreTrigger Time [s]
1 1.018

SAVING DATA FILE PARAMETERS

File Name Radix

Manual Data Path Directory
C:\Users\ssherian\Desktop\SN102DataRecording

FILE PATH INDICATORS

Raw Data File Path
C:\Users\ssherian\Desktop\SN102DataRecording\20131018-082449.bin

Setup File Path

CHANNEL INFO

Accelerometer Channels	Optional Channels
Channel Name Acceleration X	Channel Name Inclination X
Engineering Unit ms-2	Engineering Unit deg
Channel Name Acceleration Y	Channel Name Inclination Y
Engineering Unit ms-2	Engineering Unit deg
Channel Name Acceleration Z	Channel Name Temperature
Engineering Unit ms-2	Engineering Unit deg C

LOAD SETUP **SAVE SETUP** **SETUP RESET**



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Test Setup Tab

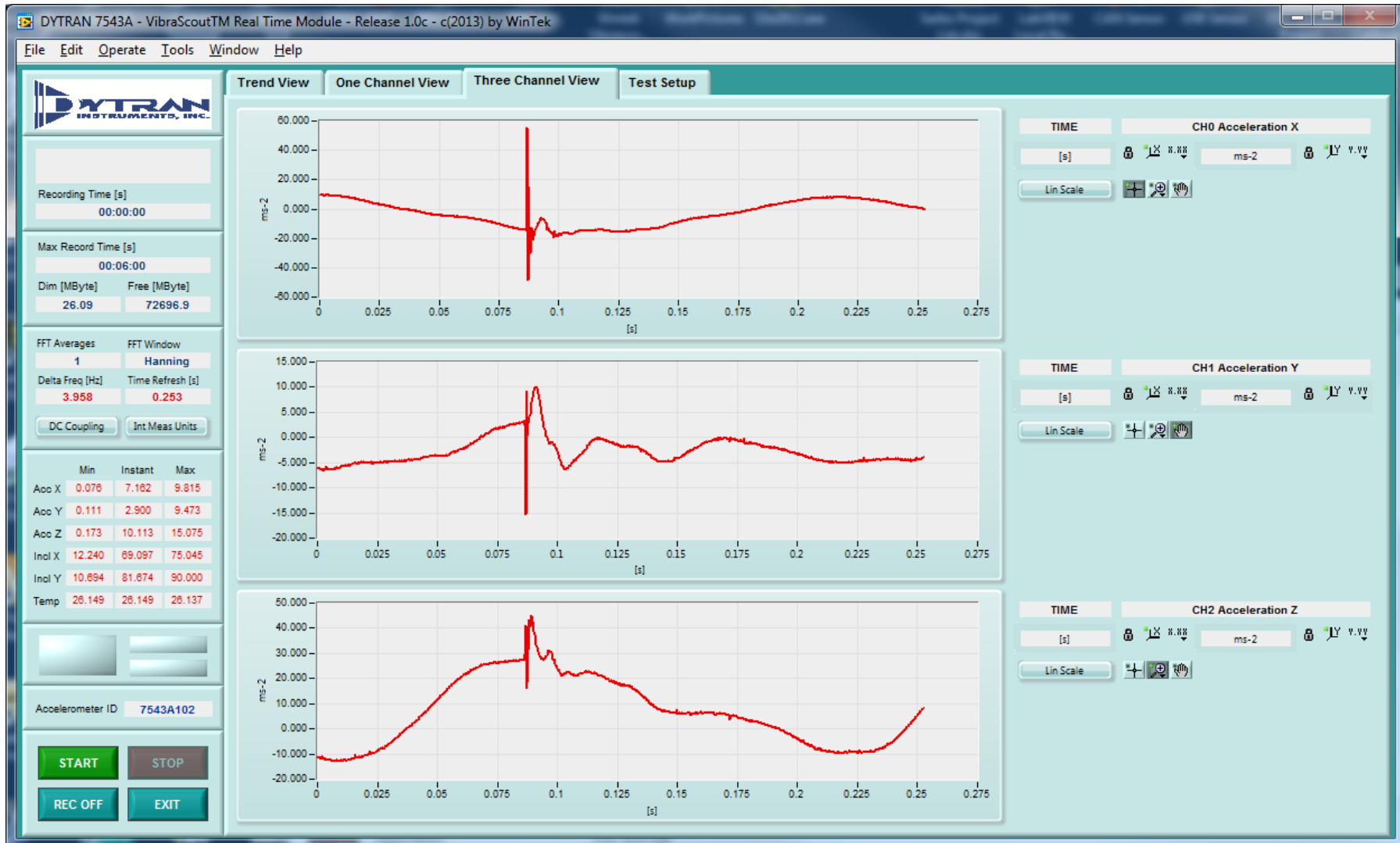
- Model and serial numbers displayed on bottom left side
- Select Bandwidth which sets the sampling rate : $\text{Sampling Rate} = 2 \times \text{BW}$
- Maximum sampling rate 3200Hz with 1600Hz BW (only 1100Hz maximum usable BW)
- Select data file location by clicking the File icon at the bottom of the screen
- AC or DC coupled for absolute or relative acceleration measurements
- Save setup file for repeated testing
- International or Imperial Units of measurement
- Triggering capabilities with Pre-trigger samples



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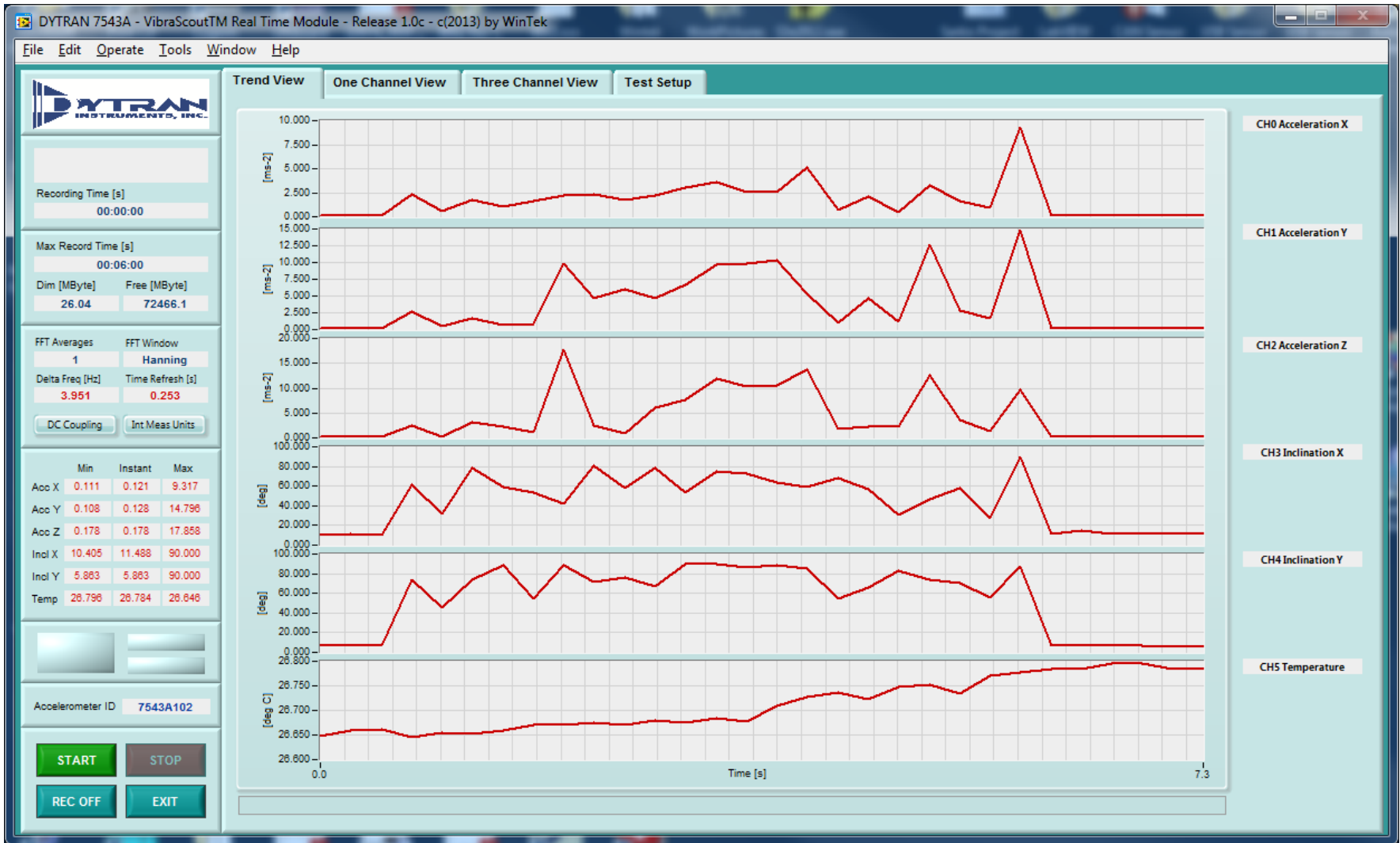


Acquisition Window





Trend View





Acquisition Features

- Absolute and relative measurement modes.
- Real time Frequency or Time display of use selectable channel
- Only one sensor at a time running per each session of software
- One Channel, Three Channel, and Trend View tabs
- Monitor only or with recording enabled



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9002 Post Processor Tool

DYTRAN 7543A - VibraScoutTM Post Processing Module - Release 1.0c - c(2013) by WinTek

File Edit Operate Tools Window Help

TEST VIEW SCOPE PREVIEW TEST LOG SCOPE FFT CPB MULTI GRAPH VIEW FILTER SETUP

TEST INFO

Test Date: 4/16/2013
 Test Number: 0002
 Test Name: ContShake100Hz
 Test Info: ContinuousAcquisition
 File Path: L:\labview\Sarkis\Wintek\Luchsinger\LoggedData\Cont100HzShake_20130416-091116.bin

ANALYSIS PARAMETERS

Overlap %: 0
 Analysis Pts: 1600

FFT ANALYSIS PARAMETERS

FFT Window: Hanning
 Averaging Mode: Rms Average (dB Off)
 Averaging Type: Exponential (Unwrap Phase Off)
 Number of Averages: 4 (Rad)

CHANNEL LIST & OPERATIONS

Channels	Meas Unit [Eu]	Integration	Filter	Filter Names
Acceleration X	ms-2	None	Filter Off	
Acceleration Y	ms-2	None	Filter Off	
Acceleration Z	ms-2	None	Filter Off	
Inclination X	deg	None	Filter Off	
Inclination Y	deg	None	Filter Off	
Temperature	deg C	None	Filter Off	

CPB ANALYSIS PARAMETERS

Average Type: Exponential
 Min Frequency [Hz]: 10.0
 Max Frequency [Hz]: 20000.0
 Time Constant Type: Fast
 User Time Constant [ms]: 0.0

OPTION PARAMETERS

High Pass Integration Filter [Hz]: 1.00 (Coupling AC)

FILE SELECTION
 Original Files

FILE SELECTION ANALYSIS DATA

dT [s]: 0.500
 dF [Hz]: 2
 Sample Rate [S/s]: 3200.0

118 | 59.5 [s]

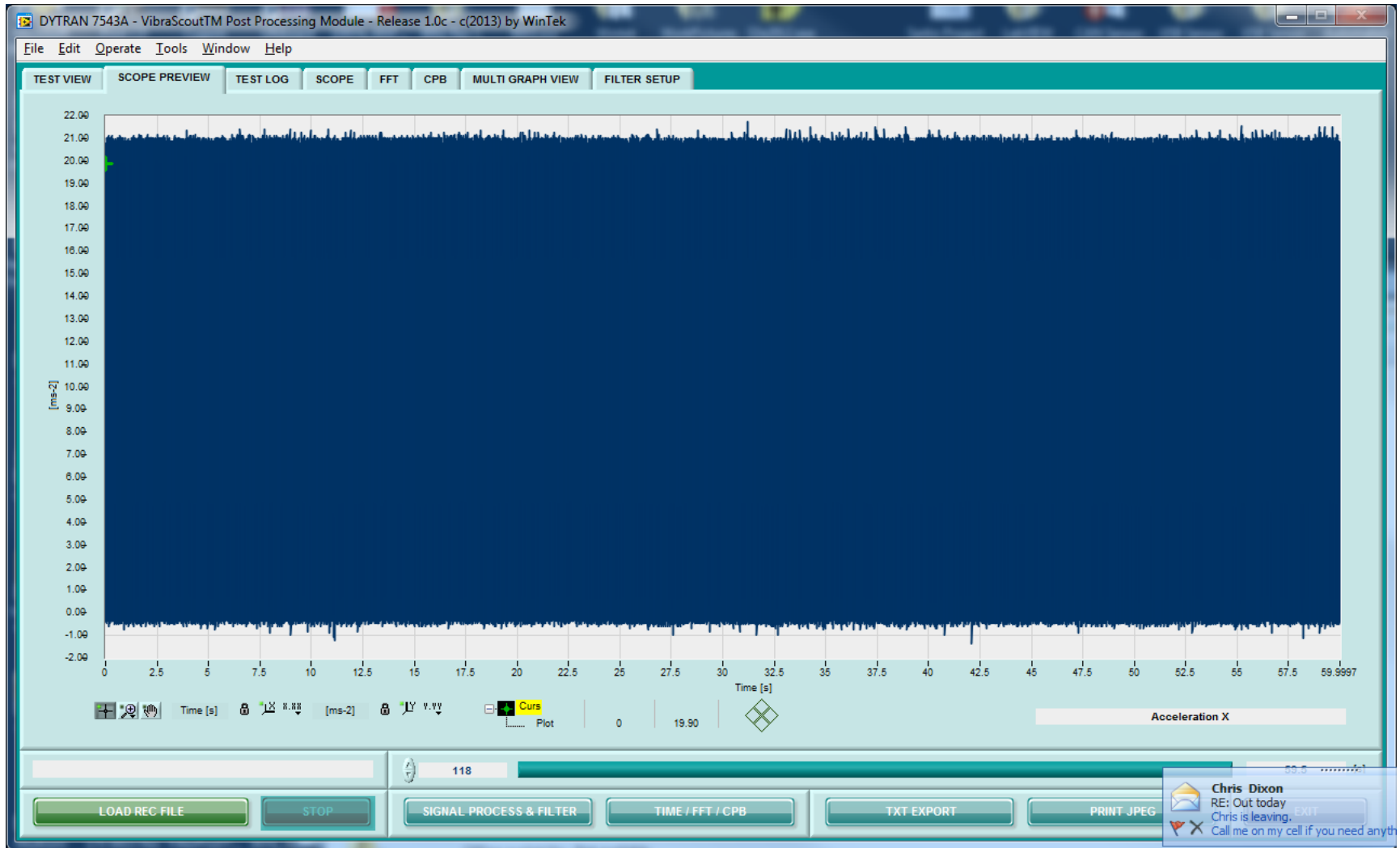
LOAD REC FILE STOP SIGNAL PROCESS & FILTER TIME / FFT / CPB TXT EXPORT PRINT JPEG EXIT



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Scope Preview

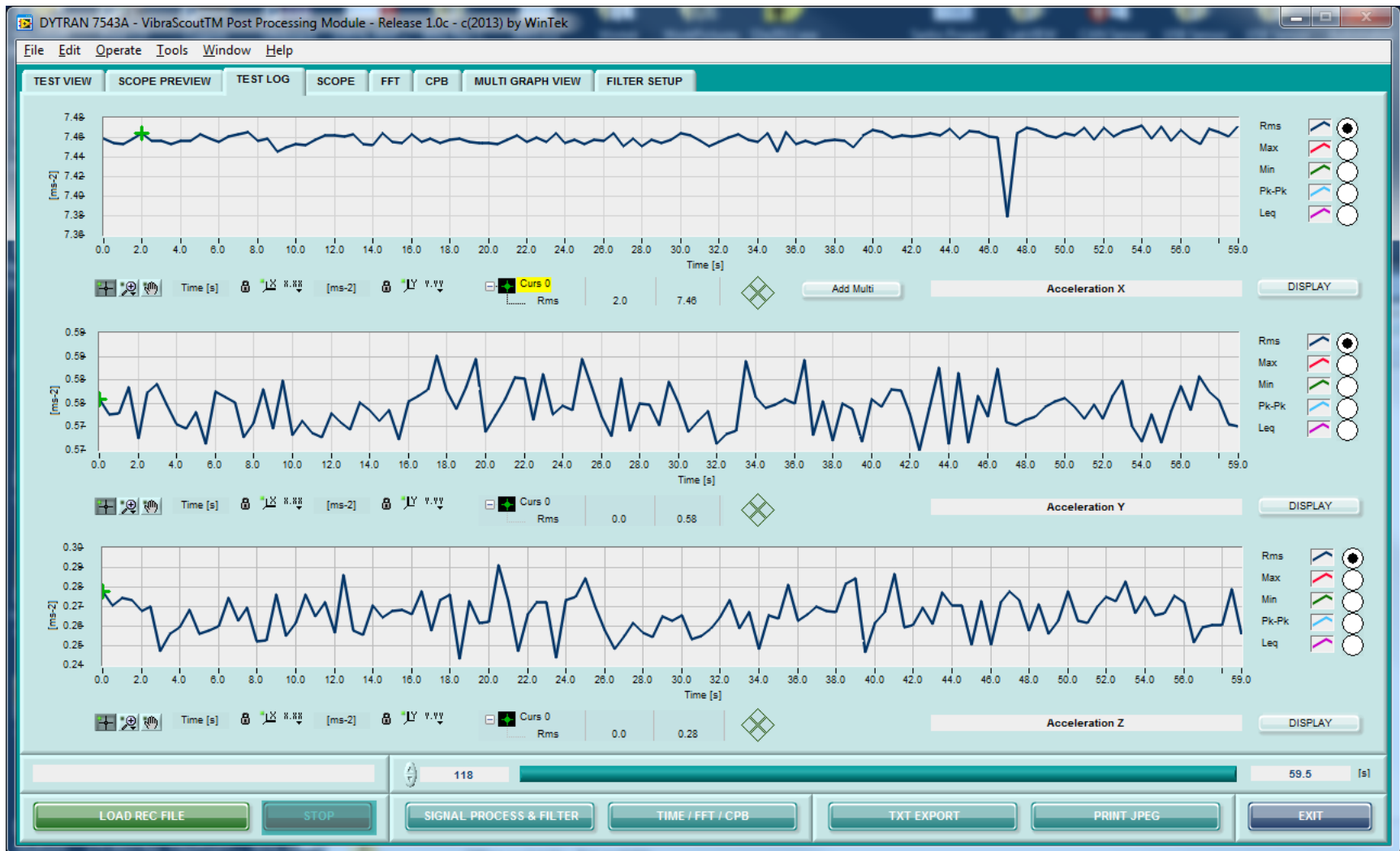


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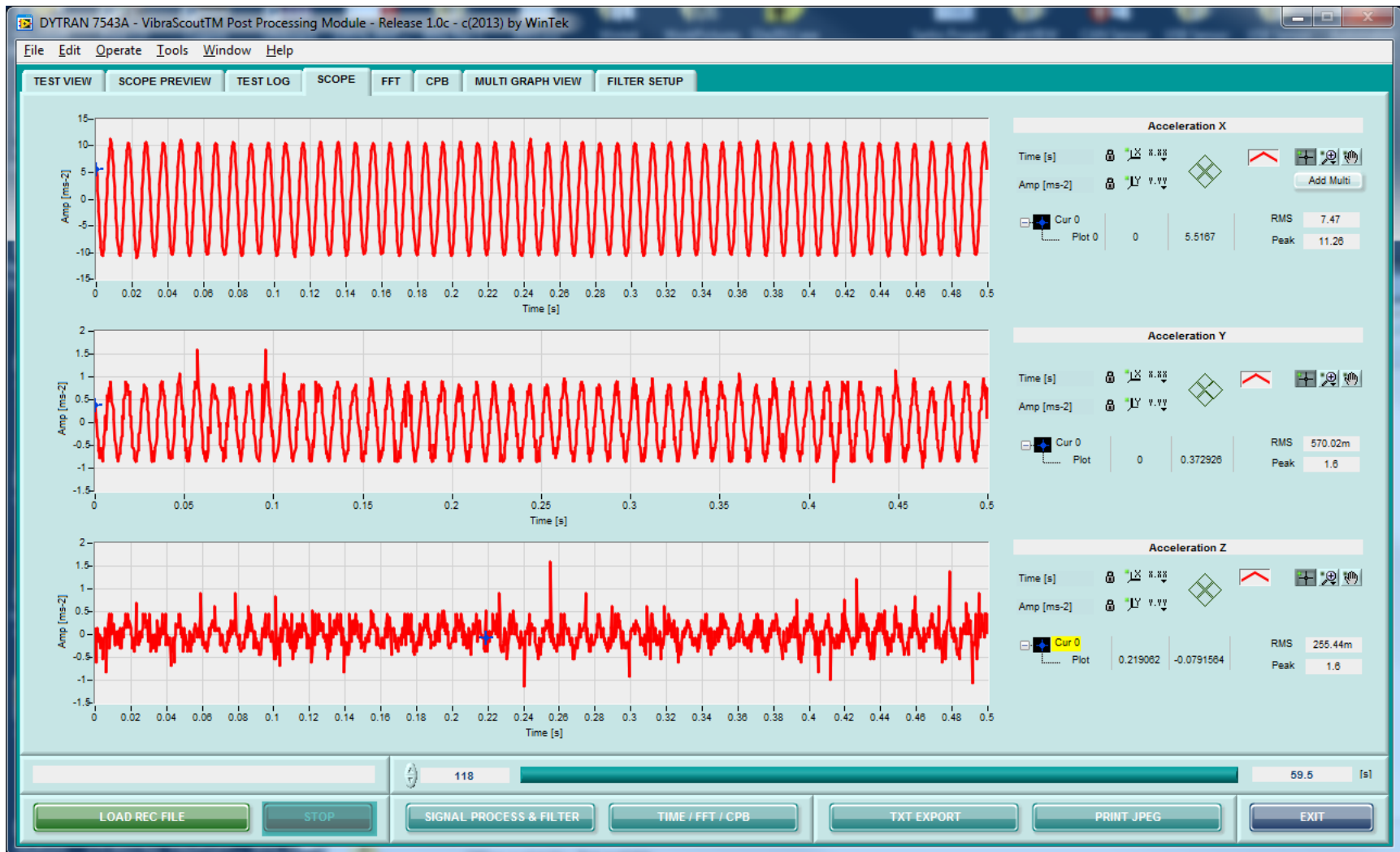
9002 Post Processor Tool



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Data Play-back (Scope)



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FFT Analysis



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Octave Analysis



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Post Processor Features

- Apply post analysis to recorded data from VibraScout™ sensor
- Indicator for data processing completion
- Scope Preview for data playback
- Single and double integration for velocity and displacement calculation
- User defined filters for each individual channel
- FFT and octave analysis
- Multi-channel overlays
- One click export of all plots and text files to data file directory



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Youtube Link

<http://www.youtube.com/watch?v=3mVNu3J3AMY>



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Operator's Guide

Users Manual



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