Calibration Verification 2016

Today's Presenter: Will Kooiker

We will begin shortly!

VIBRATION RESEARCH

Meet VR

Will Kooiker
Laboratory Supervisor

VIBRATION RESEARCH

Confidence In Measurement

VR9500 Calibration Verification

- Factory Calibration
- Automated Verification
- On-site Calibration
- A2LA Accreditation– ISO17025/ANSI Z540.1

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Factory Calibration

- Hardware Testing
- Software Testing
- Calibration
- Verification

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Factory Calibration

- Visual Inspection
- Hardware Diagnostics
- Software Diagnostics
- Verification (1-year Tolerance)
- Calibration (if necessary)
- Verification (24-hour Tolerance)

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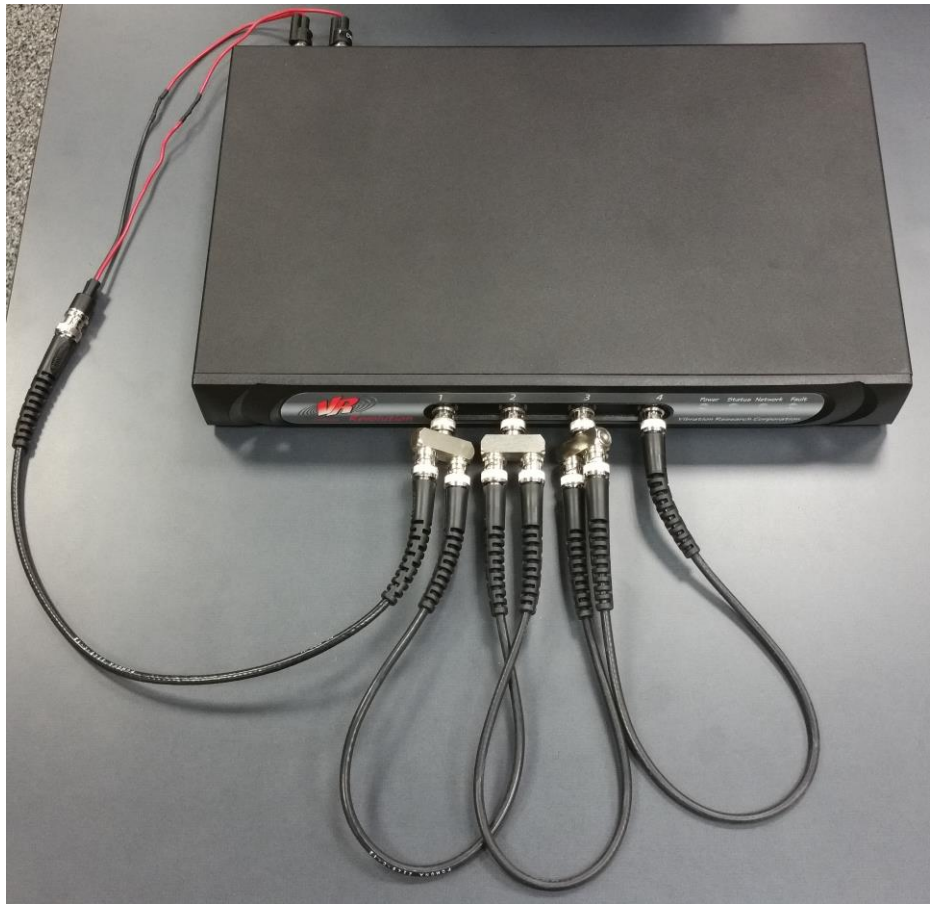
Automated Verification

- Requires Hardware
  - 1 Agilent 34410A or 34401A DMM
  - 4 BNC T's
  - 5 1ft. BNC cables
  - 1 Differential Cable



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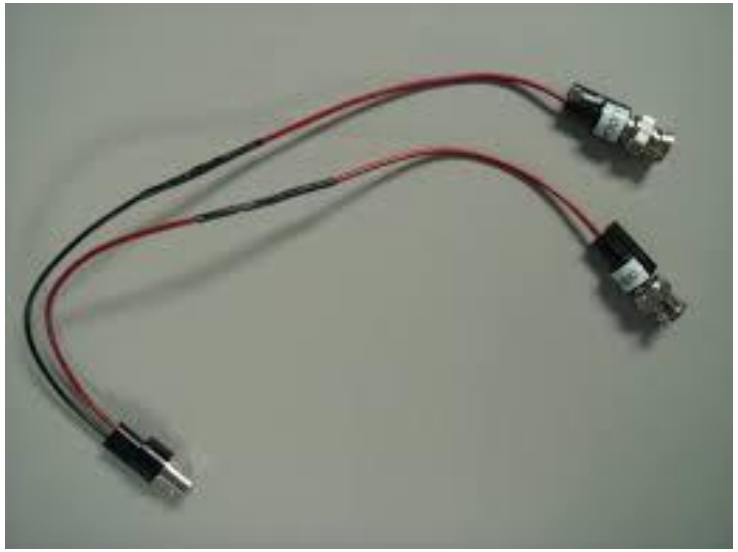
What is a differential cable?

Build your own differential cable: https://www.youtube.com/watch?v=f3AiOlNmObM



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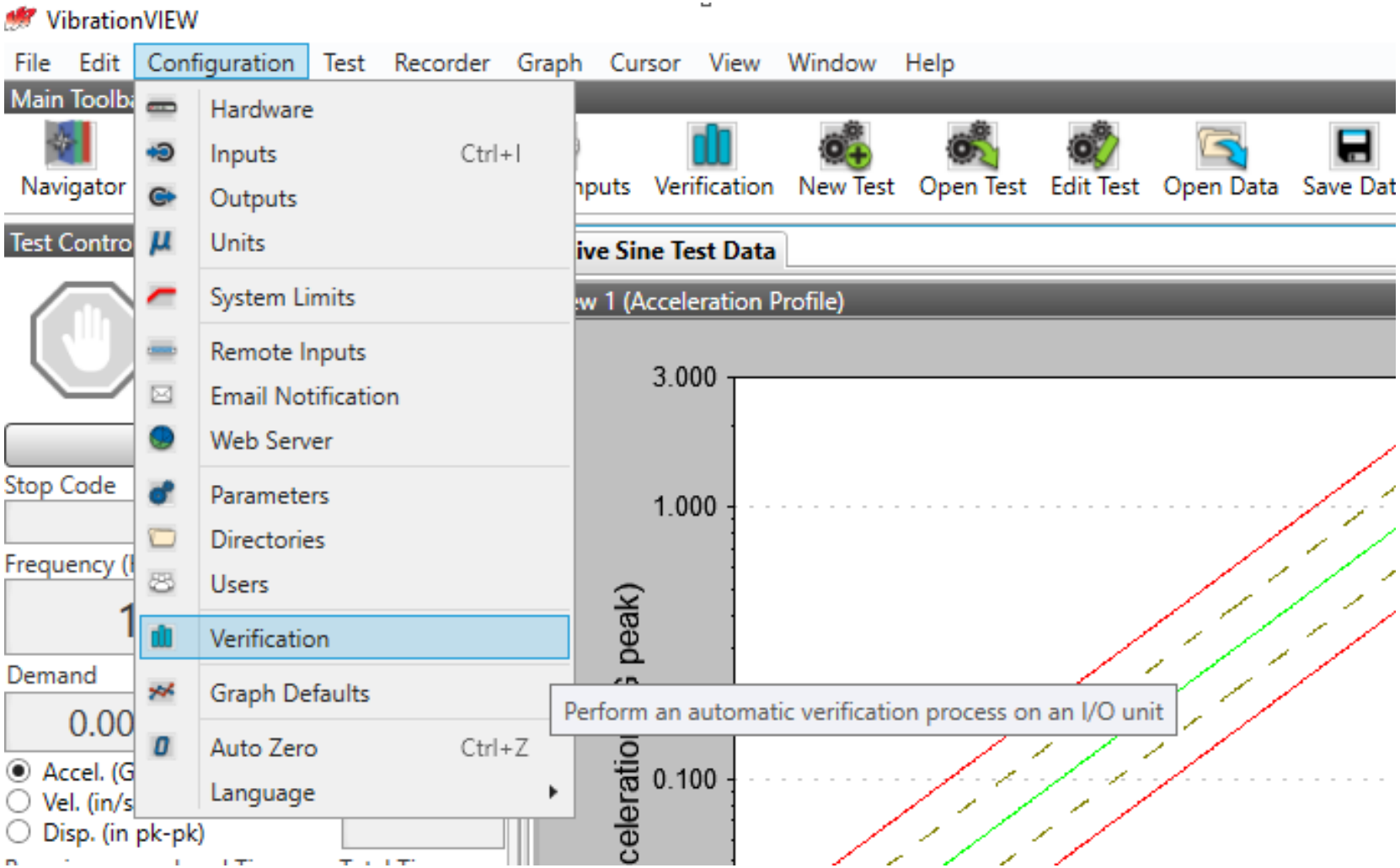
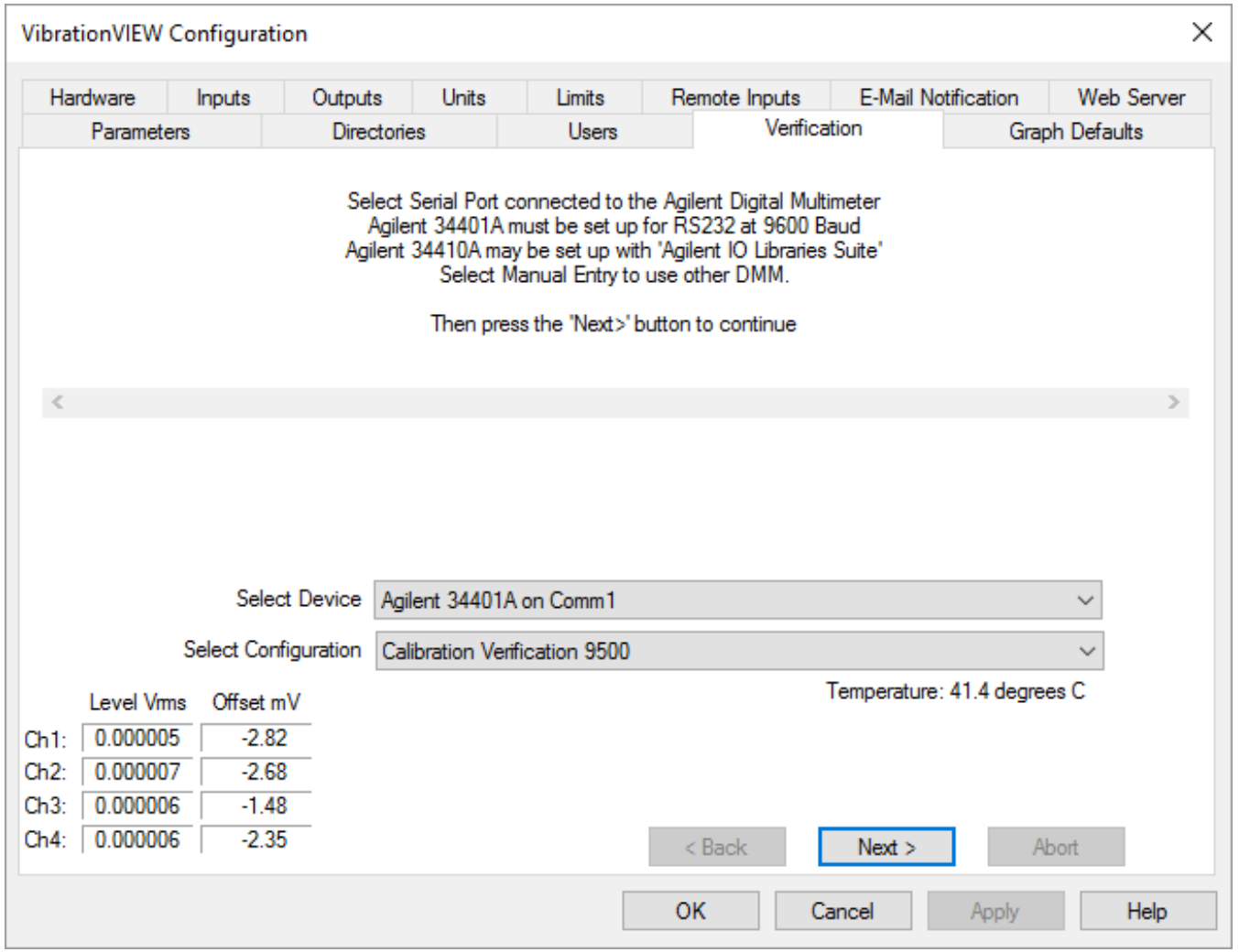
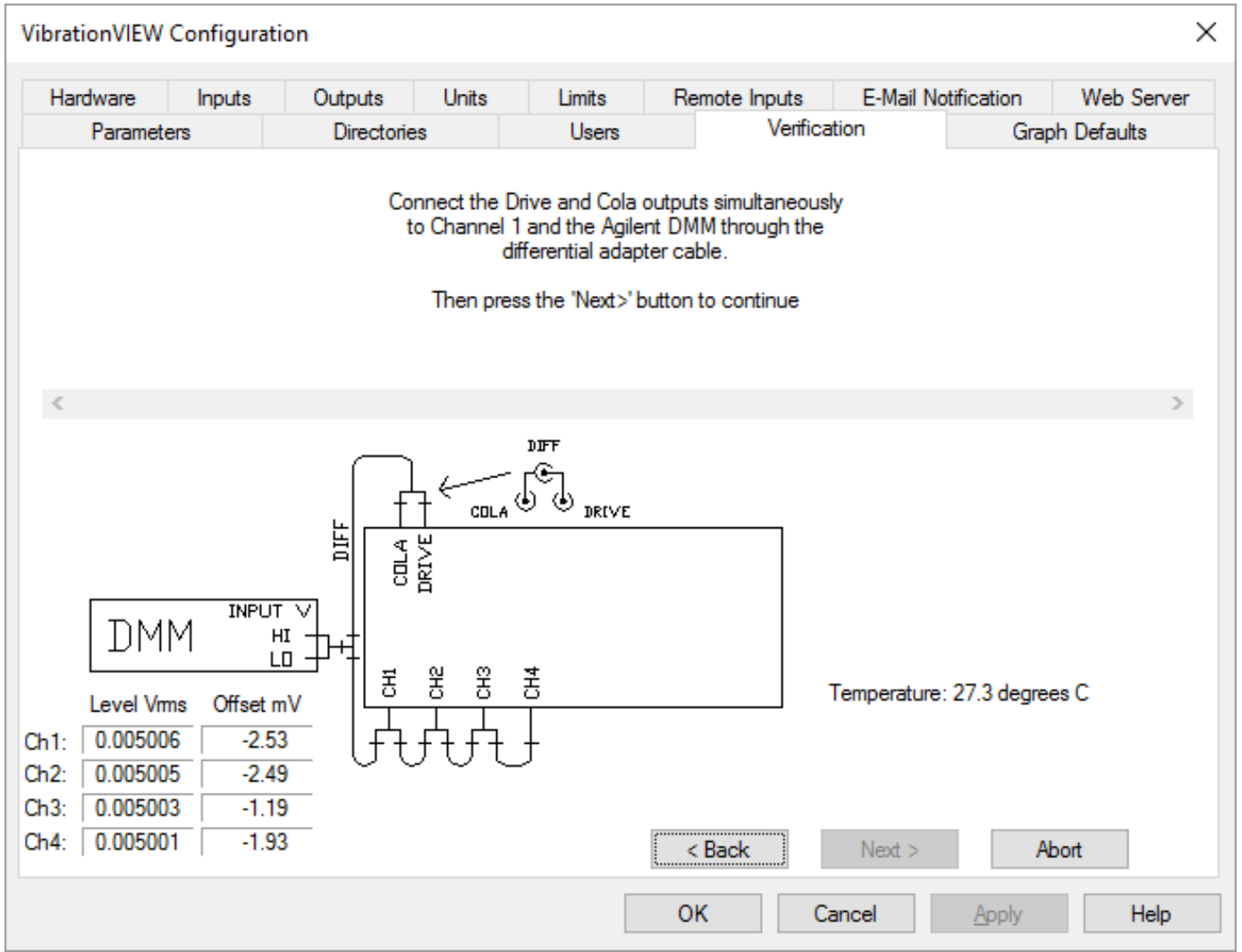
Automated Verification



Automated Verification



Automated Verification



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Automated Verification

- LAN Connection
  - Agilent IO Library
  - Connection Expert
- Serial Connection
  - DB9 Connection
  - Null Modem Cable
- USB Connection
  - USB to Serial Converter
  - B&B Smartworx: 232USB9M
  - USB to USB
- GPIB

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Automated Verification

- Verification FAILED!
  - Check the temperature range
  - Outlier?
  - Cable Issue
  - Correct DMM?
  - Correct Controller?

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Automated Verification

- Verification PASSED!
- Save and print the Verification Document
- Review the document
- Save and print the Calibration Certificate
- HTML page will be saved to the controller

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On-Site Calibration

- We bring the meter
- We bring the PC
- We bring the cables
- You provide your controller

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Expedited Calibration

- Send your controller to us Next Day Air Early AM
- We will receive the controller before 10 AM
- We will Calibrate your controller
- We can have it back to you the next day

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Accredited Calibration

- Conforms to ISO 17025:2005
- Conforms to ANSI/NCSL Z540-1-1995
- Includes Uncertainties of Measurement
- Traceable to NIST
- Accredited by A2LA

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Confidence In Measurement

- Accuracy is key.
- Thanks for your time!
- Questions?

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