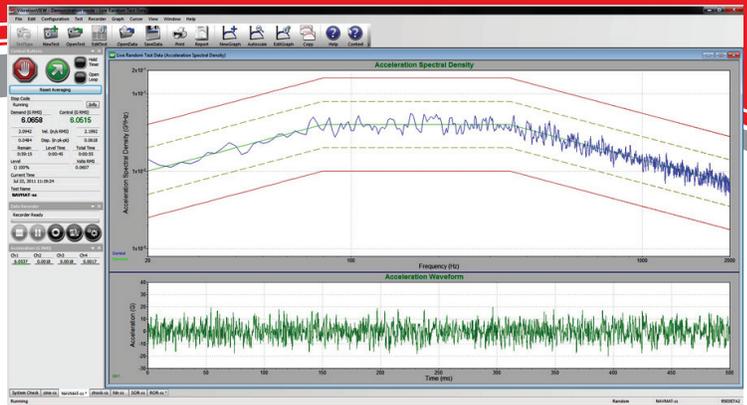# VR9500

Advantages
Functionality

VibrationVIEW software is very intuitive. Many customers have set up their Vibration Research control system and configured a test within minutes of unpacking the box. Additionally, our customer support team is available to further assist you with questions regarding your Vibration Research products or to assist you in making the proper selection for your new control system purchase.

Features

Shaker Compatibility
VibrationVIEW works with any electro-dynamic, servo-hydraulic or servo-electric shaker and includes single axis, multi-axis, multi-loop and seismic control options.

Unparalleled Analysis
Our latest software release has even more analysis capabilities including cross spectrum, transfer functions, coherence and the ability to apply math functions to any graph trace.

Easy Integration
Applications such as Microsoft Excel, LabVIEW, Matlab and more can easily interace by way of Active-X functions.

Test and Level Scheduling
Tests can be scheduled to run a user-defined length of time and the spectrum level can be scaled by a specific dB level, either a percentage or scaled for a specified RMS acceleration. Tests can be programmed to run for various periods at different intensity levels and amplitude levels can be changed while the test is running.

Graphs
All packages share a common easy-to-use graphing system. Graphs can be auto-scaled or zoomed. Graph images and raw data can be copied to any word processing or spreadsheet.

Data Plots
Many graphical display options are available including acceleration spectral density, output voltage spectral density and channel-to-channel transmissibility. Cursors can be used to locate peaks and highlight particular data points.

Easy Test Entry
Frequency/amplitude breakpoints are in an easy-to-read table form. You can select to control constant or ramped acceleration, velocity or displacement. Automatically calculate and enter the frequency of intersection between any combination of constant acceleration, velocity or displacement lines. Up to 1,024 separate frequency/amplitude breakpoints can be entered.

System Check
All VibrationVIEW software packages include a system check mode that provides manually controllable sine wave output and oscilloscope and spectrum analysis plots of the accelerometer inputs. This test mode is used to calibrate the system and verify operation of the controller, amplifier, shaker and accelerometers.

Test Sequence
A test sequence provides the capability to automatically execute a sequence of tests. All of the tests may be the same type of application or you can switch modes as part of the test sequence.

Data Storage
All of the test data can be stored to the disk for later retrieval. Data storage can be done manually or programmed to automatically save at user-defined intervals.

Multi-Channel Extremal
Used to allow more than one input channel for control in a control strategy where the highest, lowest or average acclerometer reading will be used for control of the test. This option is included standard with both RandomVIEW and SineVIEW on controllers running VibrationVIEW version 6 software and higher.
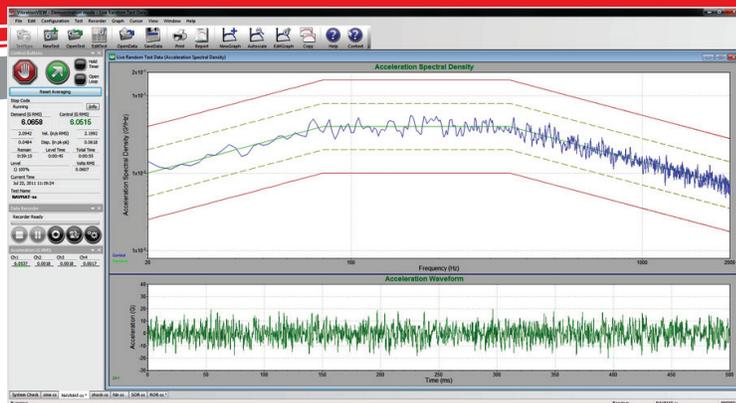
VIBRATION RESEARCH

VR9500

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Features

Configurable Safety Limits
To protect your test article and shaker system, configurable acceleration limits, line limits and drive limits can be set by any user. The control input is also verified against shaker acceleration and displacement limits.

Equalization
The controller automatically equalizes the response of the shaker/fixture/product prior to running the test. The equalization can be memorized and stored with the test to quickly start a test at a full-equalized level.

Tracking Filters
Each input channel has the ability to enable/disable tracking filters. This allows you to remove harmonics and out-of-band noise from the measurements. The tracking filter bandwidth and signal averaging is user configurable.

Calibration Standard
Calibrate the VR9500 Revolution system in your own calibration laboratory using your own calibration instruments with the Automated Calibration Verification software and an Agilent/HP 34401A or 34410 digital multimeter.

Hardware Features
The VR9500 Revolution control system uses state-of-the-art hardware:

- < -100dB THD+N 24 bit dynamic range

- Control Sine, Random or Shock Vibration to 50,000 Hz

- Use an incredible 26,000 spectral lines - an industry maximum

- 24 bit dynamic range

- > 100dB random dynamic range

- > 130dB sine dynamic range

- > 140BFS spurious-free dynamic range