DNA Software

SLM/RTA Software

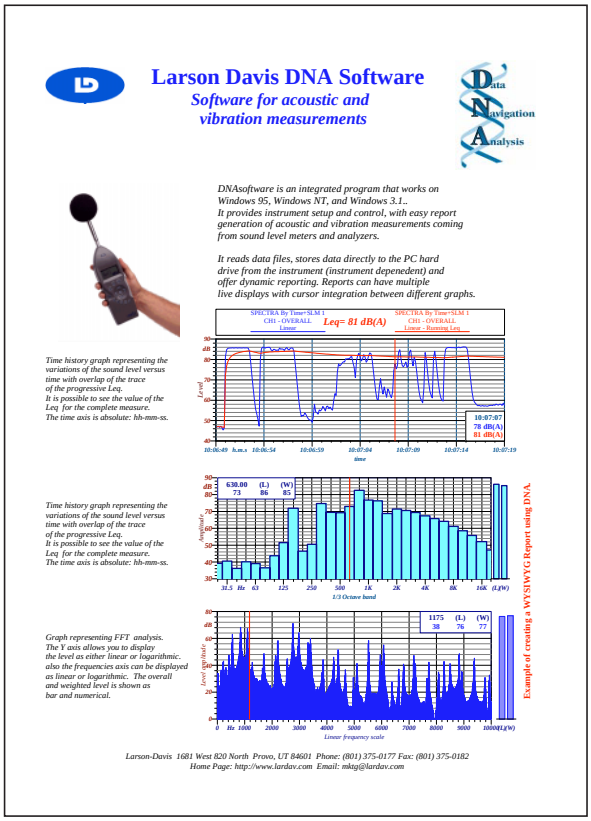
Larson Davis

Acoustic and vibration measurement software!

Analyzing noise and vibration data can be difficult. It's not often easy to see the patterns or recognize the nuances of complex data sets. Furthermore, presenting data in a way that is meaningful can be challenging, yet perhaps our most important task.
DNA (Data, Navigation, and Analysis) makes maneuvering through extensive data a simple operation and putting together meaningful reports has never been easier. Some of DNA's many features include:

1 to 9

- **Windows 95™/NT™ setup** and control of Larson•Davis Models 812, 814, 820, 824, 870B, 2800, 2900, & 3200.
- **Multiple** live data displays on the PC screen.
- **Stream data** directly from analyzer to PC hard drive, including sound files.
- **Read** stored data files from analyzer or disk.
- **Create report** templates for easy graphing and printing.
- **Organize templates**, graphics, and measurements for easy recall.
- **Reports** can integrate text, graphics, pictures, or embedded objects (OLE 2.0) such as MS Word™, MS Excel™, and .wav files.
- **Graph** 1/1, 1/3, 1/12, 1/24 octave, FFT and zoom FFT, SLM parameters; statistical distribution and more!
- **Cursor synchronization** between different types of graphics with 'drag and drop' functionality.



DNA's incredible reporting features allow integration of graphs, text, and images.

For use in a wide variety of applications

Research and Development

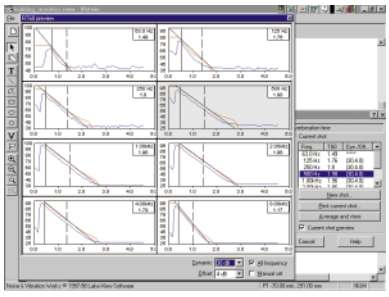
- Building Acoustics
- Sound Power Determination
- Vibration Measurements
- Statistics
- Pass-by
- Sound Intensity
- Simple Point and Shoot
- Transient Capture

Environmental

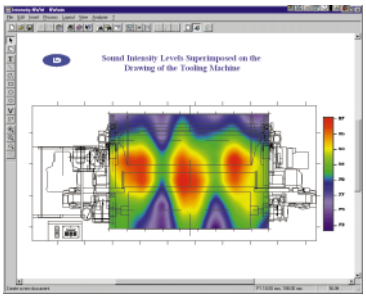
- Aircraft Noise
- Industrial Noise
- General Surveys
- Transportation Noise
- Community Noise
- Events and Tone

Worker Safety

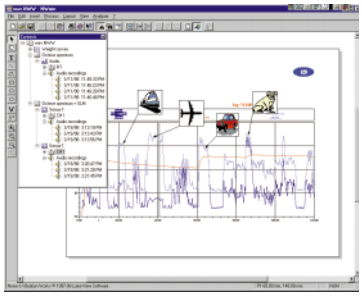
- Work Place Surveys
- Machinery Noise



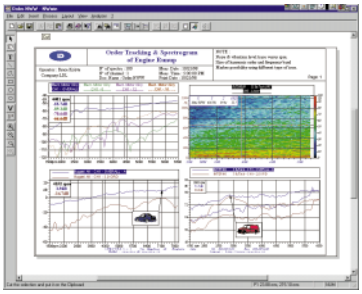
Building Acoustics - RT60s at multiple frequencies



Acoustic Intensity superimposed on a drawing of a machine



Environmental noise - ".WAV" audio files attached to measure SPL Time Histories



Automotive - Order Tracking with spectrogram

DNA Software

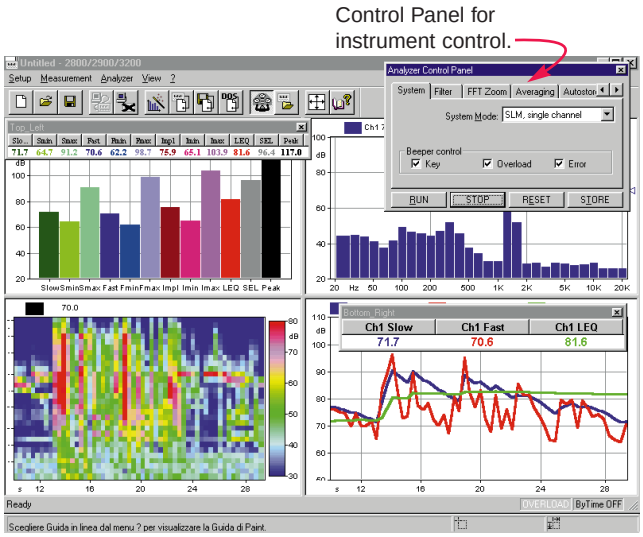
SLM/RTA Software

One Software Package for Unlimited Needs...

DNA was developed to integrate and fully support all types of measurements made with Larson•Davis' noise and vibration instrumentation. It replaces the need for several different software applications to achieve what you *really* want–display, analysis, and reporting of all project measurement data. DNA quickly produces high quality charts, reports, and presentations.

Real-time Display Mode

DNA displays and controls measurement data on a PC in real-time, while maintaining access to all of the instrument's measurement and analysis functions.



Display real-time data with a spectrogram

WYSIWYG

DNA is "What You See Is What You Get" software. You place, resize, and manipulate graphical objects, images, graphs, text, and other types of objects on a page. What you see displayed on the screen remains unchanged on the printed report.

Instruments Supported

DNA software interfaces with the Larson•Davis Models 812, 814, 820, 824, 870B, 2800, 2900, & 3200 via RS-232 and RS-422. It provides instrument setup and direct conversion and display of data files.

Measurement Organization

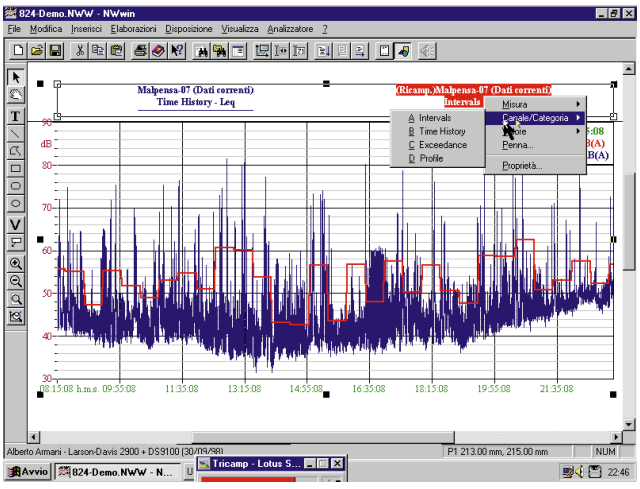
DNA saves all measurement-related files as elements of a project file. Project files can contain measurement data, page descriptions, images, audio files, etc. All data are organized in a *tree* structure (like Windows Explorer™). In addition, DNA allows you to *drag & drop* any object onto project reports.

Graphics

It is possible to perform any kind of graphic presentation with dimensions, scaling, dotted lines, bar graphs, overlaying, linear and log scales, EU, cursor synchronized among the graphics displayed, etc. Any combination of graphs and objects (even an entire document) can be saved as a template. In addition, you can perform cumulative distribution versus time and for each frequency band, percentile Ln versus time and frequency; frequency versus time, speed, distance or rpm; order analysis, RT-60, etc.

Data Post-Processing

DNA calculates functions including all mathematical operations from data blocks, spectra, multi-spectra, levels versus time, engine revolution or speed, and more. Levels of selected spectral bands can be modified or cancelled, both in frequency and in time domain, for data matrix or multi-spectra. Several weighting curves are included with the software. The statistical calculation is made on temporal sequence of levels, or spectra in 1/3, 1/12, 1/24 octave or FFT.



DNA allows you to post-process your data.

Larson•Davis Software

It's easy!

Choose your Larson•Davis driver
- 824
- 814
- 2800, 2900, 3200
- 812, 820, 870

What do you want to do?
- Acoustic intensity
- Building acoustics
- Order tracking
- Data stream
- WAV audio recording
- Other

Call us! →

PH: (801) 375-0177
FAX: (801) 375-0182
E-mail: mktg@lardav.com

Optional Modules

DNA can be expanded to meet your measurement needs with the following modules:

PC Direct Store
- Stores data directly to a PC's hard drive
- Intended for applications where instrument memory is not sufficient, e.g. environmental monitoring, passby's, and long run-ups

File Audio
- Stores time domain signal from the instrument to the PC sound card, and then to the hard drive
- Sound file can be attached to a graph or page
- Creates ".WAV" files

Order Tracking Analysis
- Order extraction from autostore by-Tach
- Graphics template for order analysis
- Spectrum vs RPM or Speed for frequency or order

Building Acoustics
- RT-60 with backward Schroeder integration
- ISO R140 & ISO 717
- ASTM E90-E336 & ASTM E007

Acoustic Intensity
- Support for ISO 9614
- Contour plotting (planar only)
- Overlay on DXF Autocad file of the measurement surface

Specifications

General
- WYSIWYG display. The working page is the same as the printout.
- Support for 812, 820, 814, 824, 870, 2800, 2900, 3200

Data Input
- Import data via floppy disk, RS-232, RS-422, and modem.
- Real-time control of all measurement and analysis functions of the instrument.
- Automatic identification of noise events.
- Easy management of the various instrument setup parameters.
- Data files for waveforms, statistics, frequency analysis in 1/1, 1/3, 1/12, 1/24 octave and FFT with any kind of spectral resolution, crosspectra, module, phase, real and imaginary part, spectrum, multispectra, harmonic orders, meteorological signals, voltage, current, etc.
- Measurement file with icons (Measurements Organizer) with Drag and Drop functions for quick selection.

Graphics
- Management of graphics, numerical tables, comments, dynamic markers, digital photos, and video clips.
- Direct import of image files as metafile WMF and EMF or bitmap as DIB or BMP.
- X, Y, and Z axis definable as linear or logrithmic with selectable values, or using autoscale.
- Single or multiple cursors synchronized among the displayed graphs.
- Alignment of graphics and objects.

Post Processing
- Cut & paste between sequences acquired in the time domain.
- Measurement recalibration and level modification in frequency and time domain.
- Spectrograms and 3D graphics (waterfall).
- Mathematical functions, masks in time and frequency domain, automatic identification of the events, tonal components, etc.
- Creation of the curve family as ISO-NR, ISO-2633, Isophonics ISO-226, etc.
- Weighting curves.
- Statistics on the overall value and per frequency band, also in FFT

Other
- OLE 2.0 (client) with all Microsoft™ applications
- Copy and paste through clipboard both for graphics and numerical tables
- Undo
- Email documents
- On-line help
- Print preview with multiple pages of a document

Options
- Pass-by data calculation
- Direct data acquisition in to PC ".WAV" files of an event

DNA software features and functions apply only to Larson•Davis products which support them.

Specifications are subject to change without notice.

Listen with Larson•Davis

Leading edge noise and vibration assessment

Larson•Davis offers a full range of noise and vibration instrumentation to help solve your specific sound analysis problems. Since 1981, Larson•Davis products have been the equipment of choice for analyzing and understanding the effects of noise.

Please contact your local Larson•Davis representative or reach us directly for more information.

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