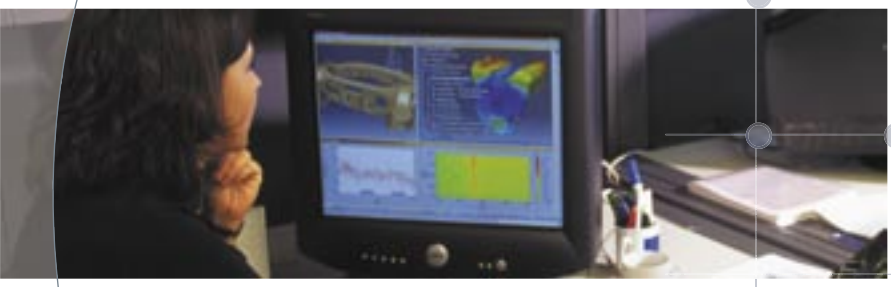


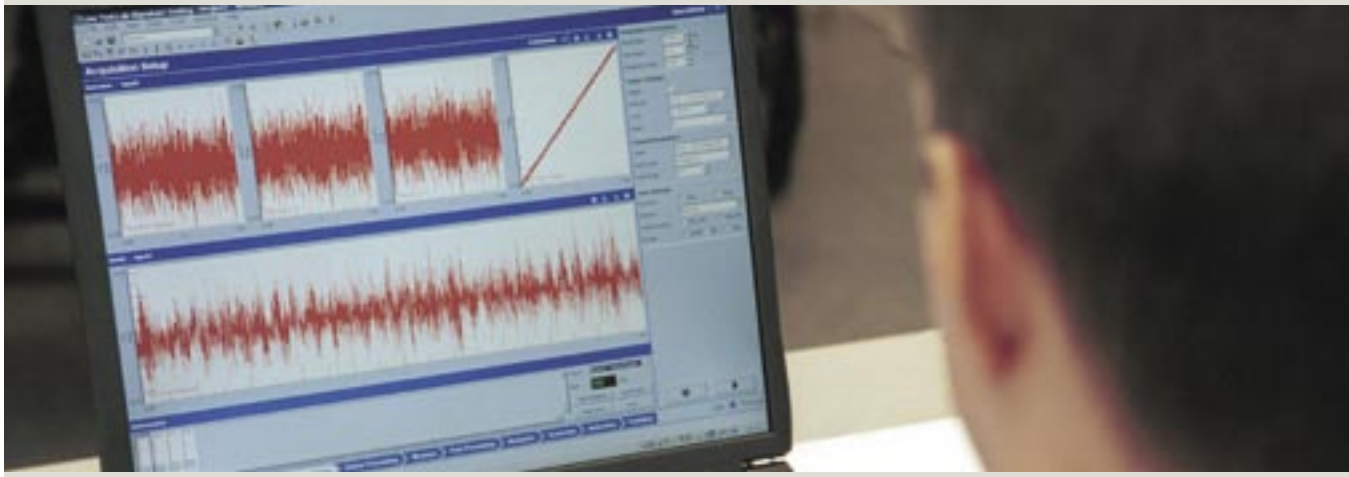
LMS Solutions Guide

LMS Test.Lab Desktop

LMS ENGINEERING INNOVATION

LMS Test.Lab Desktop

Transforming Test Data into Effective Reports



Even in the days of e-mail and the Internet it's still true: "The job's not over till the paperwork's done". Marketing wants to see competitive benchmarks to set targets for next-generation products. Product managers need to see how far the current prototype is from the design target. The simulation department needs to find the appropriate load data for their models. The Test engineer wants to make a report on a measurement campaign. It's a challenge to keep up with the workload.

Flexible reporting, powerful communication

The amount of data that exists in most testing departments – and the investment it represents - is truly impressive. But how can you find the data that lies 'somewhere out there'? How can you visualize the data taken by someone else without having to learn all the application programs that have measured them? How can you make reports and share information with the minimum of fuss?

The LMS Test.Lab Desktop is not just the launch platform of all other Test.Lab applications; it is an essential application for everyone in the organization - management, engineers, and technicians - who need to access your work, process the data, and make reports themselves. Distributed test preparation and post-processing frees up the expensive test cell and shows the process-centric approach of Test.Lab.

Turning data into insights

The LMS Test.Lab Desktop enables anyone in the organization to access Test data and to effectively visualize, analyze, report, and share their work with others. The LMS Test.Lab Desktop allows engineering teams to:

- Create convincing Test reports and presentations with a minimum of fuss
- Reproduce company standard plots using Microsoft Office
- Access your LMS CADA-X, Roadrunner or Pimento data
- Focus on your reports – not the program used to collect data
- Gain Test insight through application-tuned graphics
- Share your Test information with others

"Anyone can sit down, log in, and start leveraging Test information."

For Anyone, from Any Source

General in usability, focused in application

Picking up data from practically any source, manipulating them in any way, and then creating great reports is easy with Test.Lab Desktop! And anyone with basic Windows skills can operate it.

Browse over and into data files using a familiar Explorer-like interface. Just click on a function and the data automatically load onto the display. Search for data using context strings - such as the name of the person that performed the test, the configuration of the subject, date of the measurement, or other vital details. You can even bookmark important data so that you can find them easily weeks later.

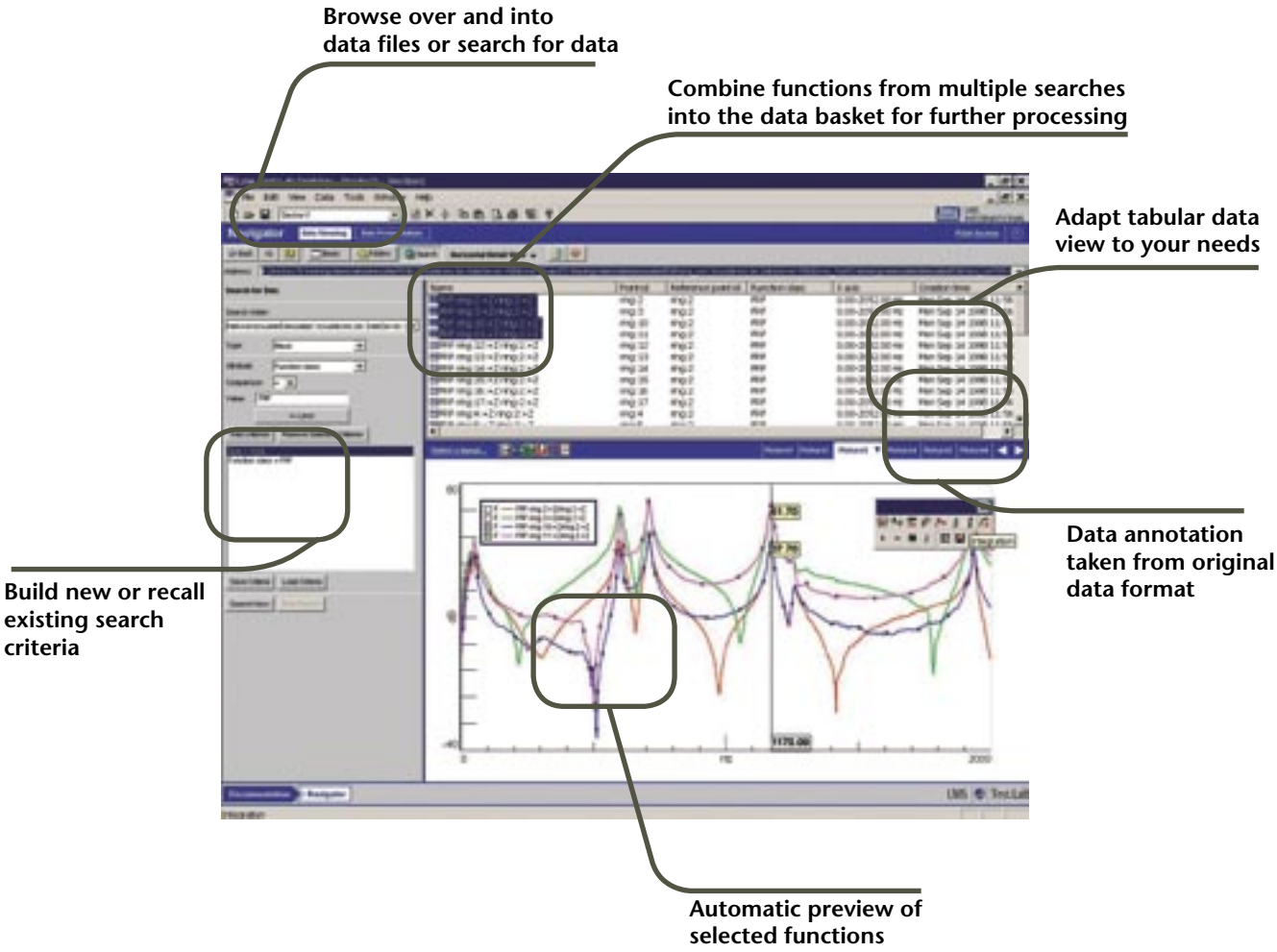
Data can be accessed without anyone needing to know which particular application program was used to acquire them. Or how it operates. The Desktop eliminates the trouble of having to learn another code just to make a report.

Total transparency

The Desktop works transparently with data from any source. In fact, there's no need to copy, convert or even know where the data resides. Data acquired by legacy systems can easily be compared to something measured today using the latest equipment. You can access competitive benchmarks acquired by another department - or compare the status of the latest prototype with the results of the previous model measured years ago. Being able to access all these data in a transparent way means you can leverage the investments you made in the past.

- Supports all LMS Test.Lab, CADA-X, Roadrunner and Pimento data
- Handles third-party file formats such as Universal File, SDF, MATLAB® or RPC3®
- Allows data to reside on PCs or Unix workstations

"Test.Lab Desktop supports all major Test data formats: no time-consuming data conversion, no loss of information."



From Graphics to Insights

Reveal the hidden problems

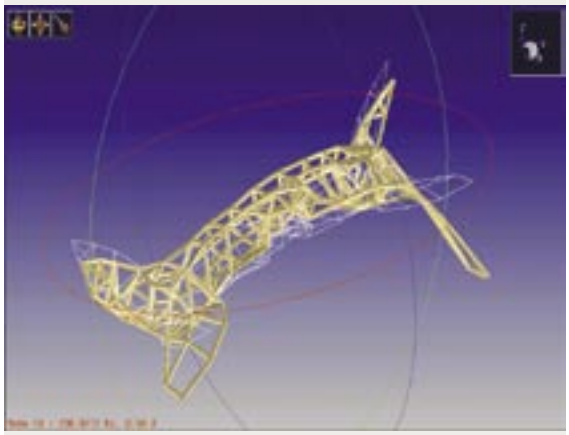
Noise and vibration problems are often caused by subtle events: the troublesome 3rd order that is nearly but not quite masked by background noise; the local mode just at the point where you need to connect a sensitive component; the annoying rattle that develops over time… To spot small details, you need powerful graphical displays with very flexible display limit settings, a choice of viewing angles, and even a choice of color scales and line formats. The Desktop graphics provide you with everything you need for noise and vibration engineering – and everything has been tuned by years of LMS experience.

- Unlimited number of traces
- Portable Avi files to distribute animations
- No overlapping windows, everything is clear
- Point-and-click to change fonts, lines, colors, limits,…
- User-configurable and moveable legends

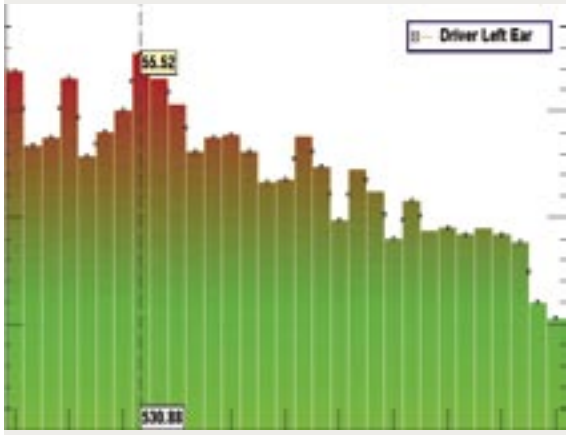
Compare and you will understand

Often insight only comes by comparing data - which may not be an easy job when measurements were made by different people, incompatible equipment or even at different times. With Test.Lab Desktop you can align spectra with different resolutions into PSDs, scale them, change acoustic weightings, smooth curves, and perform a host of other operations – at the click of an icon. The system automatically takes care of unit conversion - so you can never make a mistake overlaying data measured in millimeters, meters, or inches, for example. Don't worry about your original data: they remain unchanged. Cursors will help you to jump to the peak in the overall level and read-out the difference with the status of a year ago. Reference curves stored with the display layout will immediately tell you whether you meet the target, or not. You can even make comparisons by listening to the data.

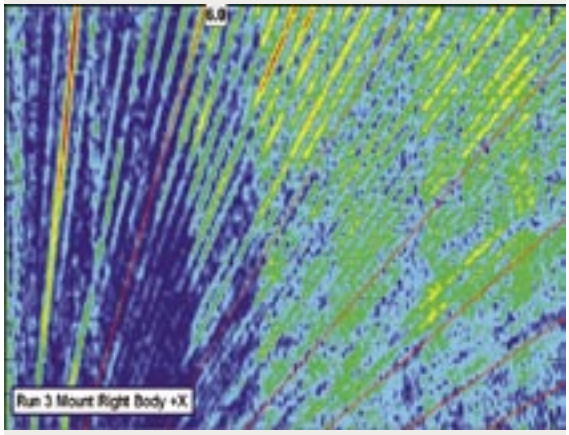
- Data processing operations
- Reference curves saved with display layouts
- Mixed units automatically handled
- Sound replay
- Raw data are never overwritten



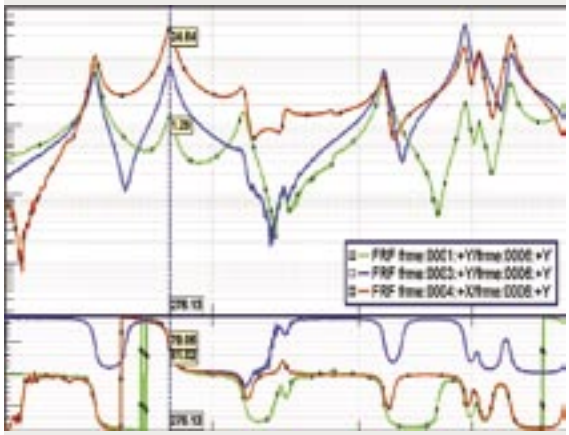
You manipulate viewing angles, scales, animation speed and much more to see what is really happening



Intelligent displays show octave and narrow-band spectra in a familiar acoustic analyzer format.



Color maps with powerful cursors reveal the physical phenomena from a number of spectra.



Clear legends tell what you see. You define their contents and drag them to the most appropriate location.

Flexible Reporting, Powerful Communication

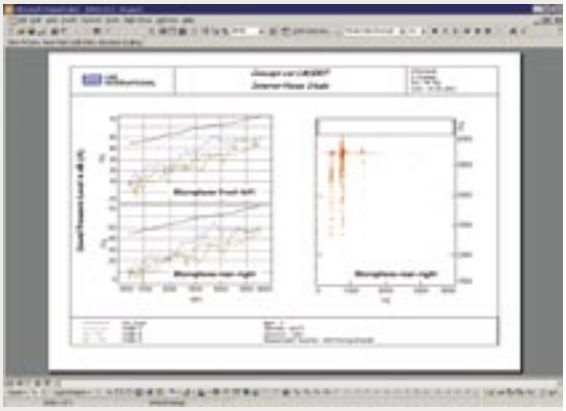
Document your data

Test.Lab helps you to document the huge amount of data that a typical laboratory generates every week. You can add key information to the raw data, such as measurement set-up and operator details, descriptions of the test object and testing conditions for data traceability, as well as digital images showing the actual test set-up. Better documentation means your data will retain their value long after the testing phase has been completed.

Make compelling reports

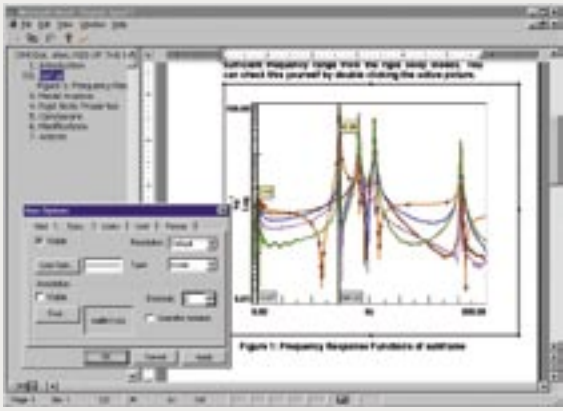
To make your point to your customer, your supplier or your manager, you need a report that really does justice to your work. Test.Lab will help. You can combine trace, waterfall, and surface-shaded animations along with labels, lines, logos,... to maintain corporate standards. Use arrows, text balloons, … and all the features Microsoft Office provides to highlight the really important elements. Once you have a template, the Desktop automatically fills in the data-specific details - such as channel number, axis limits, cursor readouts,… as the report is produced. At a stroke, the need for tedious copy and paste work is eliminated - and consistency within the company guaranteed.

- Flexible reports and company standard plots
- Automatic report generation from templates
- Full annotation with data legends, images, videos, sound tracks,…
- Absolute scaling (e.g. 1cm = 10dB)
- Export to Universal File, Microsoft, Excel and wav



Bring reports to life

The reports can be made in the traditional Word and PowerPoint applications, and saved in PDF and HTML e-reporting standards. With OLE/ActiveX technologies your documents are not static dry reports, but dynamic entities so that other readers can manipulate the data formats and animation viewpoints to suit their particular requirements.



"If you know how to use Microsoft Office you can start making your plot."

Deeper Insights and Sharing of Knowledge

The gateway to extended analysis

Sometimes you need more than just data visualization: you need to see the level of a critical order, calculate the average of multiple runs, or to visualize the measurements as an animation. The Desktop is the gateway to advanced post-processing options, such as signature processing, operating deflection shapes (ODS), real-time animation, time data analysis or modal analysis. They appear together in the Desktop 'workflow bar', so you can arbitrarily flip from a waterfall display to an ODS animation - and back again - by just a click of the mouse.

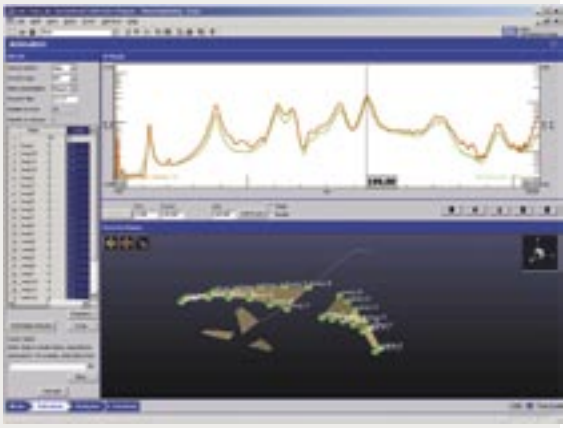
Organize your data

As the amount of Test data grows, it becomes essential to keep track of them. You need a system that makes data annotation over multiple users consistent - one that relates measurement results to the structure of your product, one that speeds up data search and retrieval. You can extend the LMS Test.Lab Desktop with LMS Tec.Manager, specifically developed for the organization of engineering data from the test, analysis, and other departments, and fully integrated with Test.Lab. Anyone in the extended enterprise with a web browser will be able to find data stored 'somewhere on the network'. Finally, the Desktop also supports the ASAM/ODS test data standard, currently being adopted by the automotive industry.

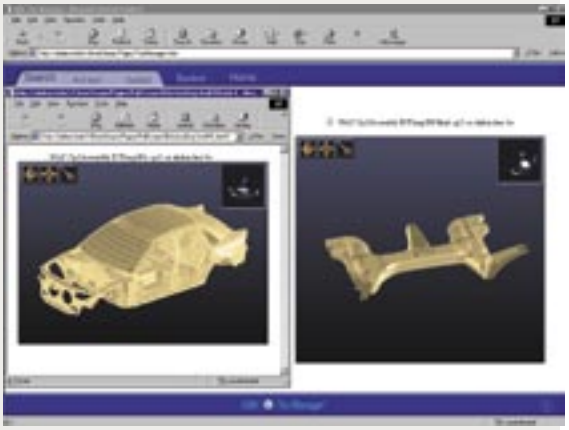
Proceed to Noise and Vibration Testing

Test.Lab Desktop is the launch point for the LMS Test.Lab testing modules. All use the same 'workbook' approach, including the Desktop functionality for data retrieval, visualization and reporting.

- Launch of rotating machinery, structuress, acoustics and environmental testing modules
- Capture corporate procedures
- Customization via Windows Automation® using Visual Basic or Visual C++



An animation tells more than 100 measurement functions: analysis worksheets can be added as part of the Desktop workflow



The LMS Test.Lab Desktop is compatible with LMS Tec.Manager for advanced search and retrieval

www.lmsintl.com

LMS INTERNATIONAL
Researchpark Z1, Interleuvenlaan 68
B-3001 Leuven, Belgium
phone: +32 16 384 200 • fax: +32 16 384 350
info@lms.be • www.lmsintl.com

LMS FRANCE
Paris • Phone: +33 1 69 35 19 20 • info@lmsfrance.fr
Lyon • Phone: +33 4 37 49 13 25

LMS DEUTSCHLAND
Leonberg • Phone: +49 7152 97 97 90 • info@lms-gmbh.de

LMS ITALIANA
Novara • Phone +39 0321 445 011 • info@lms.it

LMS UK
Coventry • Phone +44 24 7647 4700 • info@lms-uk.co.uk

LMS N. AMERICA
Detroit • Phone: +1 248 952-5664 • info@lmsna.com
Los Angeles • Phone: +1 714 891-4205
Washington D.C. / Baltimore • Phone: +1 410 203-1200

LMS JAPAN
Yokohama • Phone: +81 45-478-4800 • info@lms-ja.co.jp

LMS KOREA
Seoul • Phone: +82 2-571-7246 • sales@lmskorea.com

LMS CHINA
Beijing • Phone: +86 10 8497 6463 • info@lmschina.com

LMS INDIA
Bangalore • Phone: +91 80 511 51 512 • info.lmsindia@lms.be

WORLDWIDE
For the address of your local representative, please
contact LMS International, Belgium.

LMS TEST DIVISION
Leuven (Belgium) • Phone: +32 16 384 200 • info@lms.be
Breda (The Netherlands) • Phone: +31 76 573 6363
Göttingen (Germany) • Phone +49 551 50 48 50

LMS CAE DIVISION
Leuven (Belgium) • Phone: +32 16 384 200 • info@lms.be
Kaiserslautern (Germany) • Phone: +49 631 30322 100
Coralville, IA (United States) • Phone: +1 319 626 6700

LMS ENGINEERING SERVICES DIVISION
Leuven (Belgium) • Phone: +32 16 384 200 • info@lms.be
Kaiserslautern (Germany) • Phone: +49 631 30322 100
Detroit, MI (United States) • Phone: +1 248 952 5664

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