



SenHELNS-NS Non-Stationary Sound Field Reconstruction

SenSound's powerful software tools allow you to diagnose noise sources faster and more accurately.

Using new and patented acoustic holography techniques, SenSound tools allow you to make acoustics measurements and visualize acoustic pressure, intensity and particle velocity in three dimensions.

With our suite of tools, you can:

- Pinpoint noise sources for interior or exterior sound fields,
- Link source images to order tracking or changes over time,
- Determine the vibration modes responsible for sound radiation, and
- Identify the contribution of different noise sources to the overall noise level.

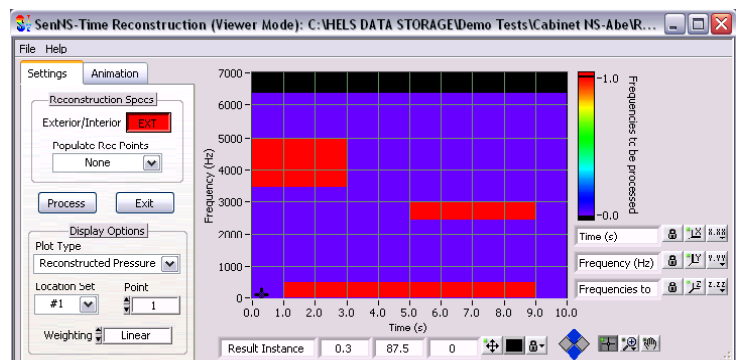
The bottom line is that SenSound tools give you a competitive advantage by delivering the insight into noise necessary to reduce engineering, warranty and quality control costs, design and build quieter products faster, and demonstrate that your products meet customer specifications in an objective, credible and easy to understand manner.

SenHELNS-NS accurately reconstructs non-stationary sound fields utilizing data acquired by SenDC. SenHELNS-NS reconstructs 3D acoustic field, including pressure, velocity and intensity, varying with time or rpm, in frequency domain.

SIGNAL PROCESSING

SenHELNS-NS's signal processing module takes the data acquired by SenDC and converts them to the frequency domain data with respect to time or rpm. It processes the measured data with respect to the reference microphone, then displays the array and reference microphone FFT spectrograms.

A unique feature of SenHELNS-NS is that you can process the acquired time signals at user-selected time or rpm intervals and get a very detailed frequency history vs time or rpm map of the sound field.



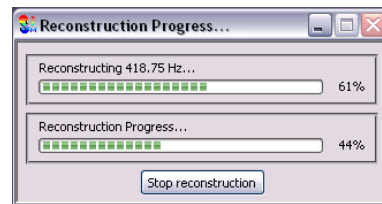
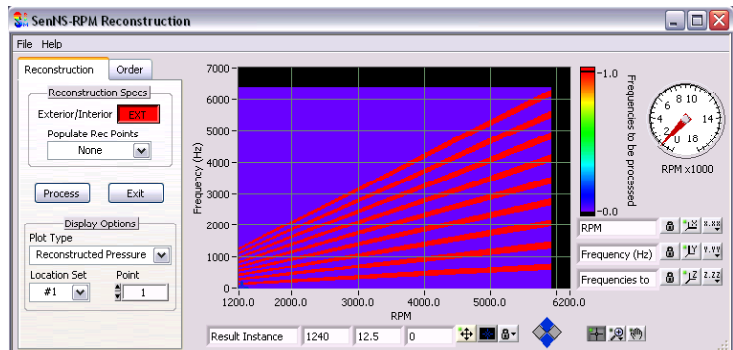
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SenSound • 440 Burroughs St., Suite 170, Detroit, MI 48202
Tel • 313-882-1065 • Fax 313-731-0432 • info@SenSound.com

RECONSTRUCTION

Finally, SenHELNS reconstructs the frequency domain data over different time or rpm intervals, allowing you to view acoustic parameters in 4D. You can select the start frequency, end frequency, frequency step start time/rpm, end time/rpm, and time/rpm interval to use in the reconstruction. Once all the required parameters are selected, SenHELNS computes reconstruction results at user-selected locations at each frequency and time/rpm instant. For RPM-based analysis, you can also select specific orders and order bandwidths for reconstruction analysis.

Once you start the reconstruction process you can see the progress of analysis and also see the reconstructed parameters on the 3D surfaces in 3D contour plot windows simultaneously in real-time.



SYSTEM REQUIREMENTS

- Windows 98 or higher
- IBM PC or equivalent with a Pentium 2GHz or higher processor
- XGA 1024x768 resolution (we suggest using a higher resolution monitor for better graphic interfaces)
- 512 MB of RAM (1-2 GB suggested; higher the memory, better the performance)
- 200 MB of free disk space for installation. More disk space is required for data storage depending on the use and data management practices.
- CD-ROM drive
- Mouse or other pointing device

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