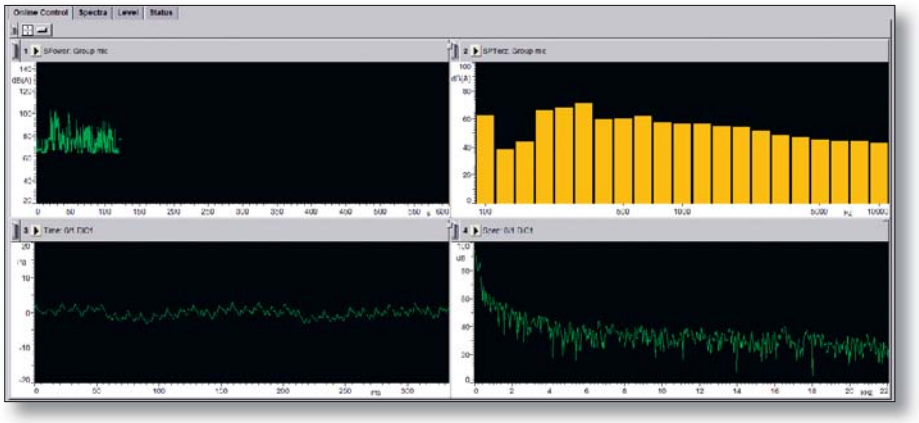
siSoundpower

Sound power measurement with the sound pressure method



Real-time sound power with 6 – 24 channels *

Precision

The multi-channel measurement system determines the standardized sound power and meets the conditions for class 1 measurements.

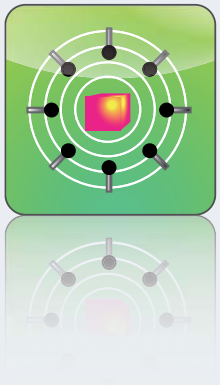
Speed

Real-time processing makes it possible to save and display the third-octaves of all channels as well as the sound power incl. room corrections. This makes the system ideally suited for measuring the sound power over a long period of time, such as e.g. with laundry machines.

Flexibility

Depending on the number of channels of the front end, further data (status variables, acceleration channels etc.) can be recorded and processed simultaneously.

** The number of channels is scaled with the computing power of the CPU and can be expanded if needed.*



Applications

- Sound pressure determination in a reverberation room and/ or an acoustically dead room, e.g. for household appliances (laundry machines, laundry dryers and dishwashing machines) and small appliances (electric razors, coffee machines).
- Sound pressure determination in a free field, e.g. for construction machines.

Relevant standards

- General standards for determining the sound power: DIN EN ISO 3740 - 3747 Sound power determination, sound pressure method
- Special standards for various devices, e.g. laundry machines: 60704-1/-3 Measurement of electrical household appliances

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Real-time analysis and post-processing

All channels can be processed and saved in real time. At the same time, the channels can be divided up into groups, such as e.g. microphones, vibration transducers and various status channels. Time data can be recorded without interruption in short individual files - this makes fast post-processing possible for special analyses, even in the case of time data.

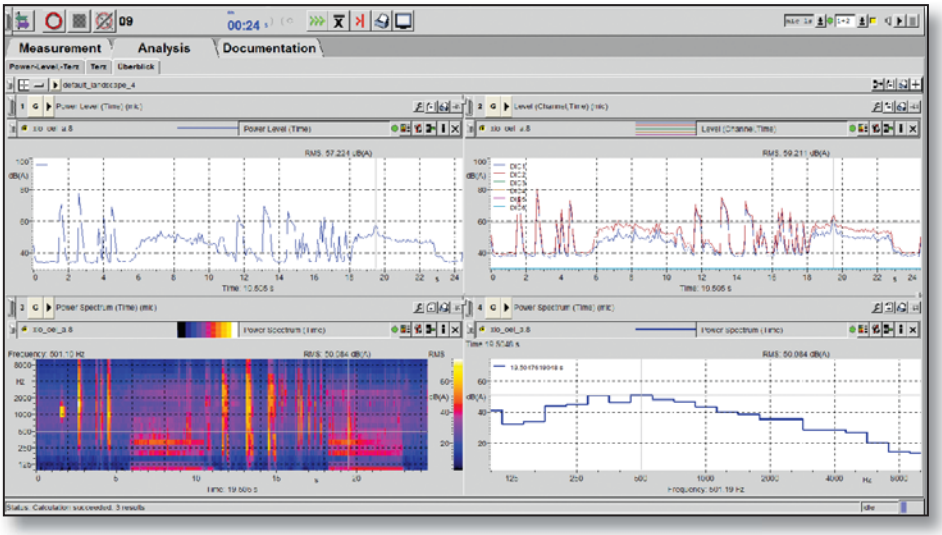
Operation

The individually configurable real-time display makes it possible to monitor the sound power and allows many other analyses during measurement as well. Since the results are already precalculated, further calculations in the post-process are very fast. The project management makes it easy to organize different measurement tasks, such as e.g. different types of devices with different set-ups.

Calibration

The system can be used to measure the room correction (K2) when a sound power source is available.

Comfortable analysis in si++Workbench



Administration, measurement, tables and results interpreted in one window for easy handling.

Presented by:

Hardware

- Standard PC
- Large selection of front ends for data recording
- Total configuration at the PC
- Support of all commercially available measurement microphones

Software

- Automatic microphone calibration for one-person operation
- Support of project management
- Integration in si++**Workbench** possible
- Recording of time data can be switched off
- Parallel calculation of all recorder groups: third octaves, FFT, single level, sound power, sound-power third octave, slow DC (status)
- Channels, RPM - all sound power results can be calculated from the precalculated third-octave data
- Consideration of all corrections for class 1 calculations
- Calculation of the room correction K2 with sound power source
- Sliding averaging with freely selectable window length for third octaves and level course
- Calculation of the sound power level from freely selectable sections
- Support of enveloping surfaces: cuboids, cuboids in front of a reflecting wall and hemispheres
- Convenient input of geometric data
- Support of measurement in a reverberation room
- Printing out of all results with siReport (incl. MS-Word®-compatible exporting)
- Network-capable, economical network licensing possible

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