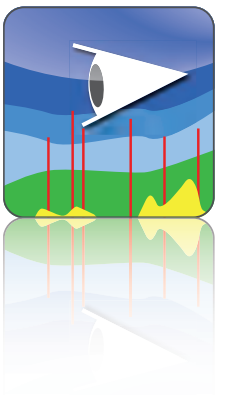
SOUNDTEC



siVision on LivePad-X

The LivePad-X is a smart, intuitive, and extremely powerful system for acoustic analysis. The system combines three functions in a single unit:



- Real-time acoustic analysis for analyzing noise and vibration
- Comparison and filtering of acoustic variants
- Test system for automatic noise testing

This means that all main functions for noise testing and development are united in a single system.

The performance of all three functions is unsurpassed. The LivePad is impressively easy to use.

si**Vision** on LivePad now analyzes sound components in real time, so you see any disturbances in machine noise straight away. Its intuitive operation and plethora of options often makes finding the cause of noise child's play.

Highlights

- 4 or 6 dynamic channels with 30 kHz bandwith + X-range technology (no range shifting necessary) + DC/AC coupling + ICP® supply + 2 pulse channels 250 KHz + 2 channels digital AES/EBU input 48 kHZ + 4 slow DC channels + CAN bus interface ISO 11898, galvanically isolated
- Real-time analysis with breakdown into tones, noise, and modulations with spectral display and order display
  The display provides all of the usual technical noise parameters in a unique, highly developed display format. All noise components can be seen immediately on the distinctive siVision display.
- Parallel display of structure-borne sound spectrum to localize the source in the machine
  This enables the immediate visualization and investigation of the correlation with the structure-borne sound signal.
- Verification of disturbance components by means of immediate filtering in real time during listening and during reproduction
  Unparalleled analysis and filter functions take the form of special tonality and modulation filters. The filters enable the identification of disturbance components, the elimination of disturbance noises, and the design of target noises.
- Recording and comparative playback of different variants with seamless switchover
  Up to 240 sounds can be directly compared.
- Comparison and testing of noises with freely definable limit curves
  Individual noises and complete lists can be tested against limit curves. Thanks to separate limit curves for tonal components, noises, and modulation components, complex tests can also be carried out easily by any user. Scripts can be used to enhance testing opportunities in line with special requirements. This means that the system can also be used to configure sound tests for production usage.

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siVision on LivePad-X

Hardware:

- Latest high-performance tablet PC with Windows®8
- The USB front end is tailored to match the design and forms a unit with the tablet PC
- 4 / 6 dynamic channels with 130 dB range
- 2 pulse channels (250 kHz)
- 2 channels digital AES/EBU input 48 kHZ
- 4 slow DC channels
- CAN-Bus interface ISO 11898, galvanically isolated
- DC/AC/ICP coupling
- - 10V bis +20 V input
- >130 dB dynamic range / 2 x 24 bit converter/channel

Recording:

- Up to 4 channels for sound and vibrations with 48 kHz sampling rate
- CAN bus parameter channels can also be configured via .dbc files
- Recording of all analysis parameters in calibrated format
- More than 24 hours recording with SSD (can be extended with additional memory cards)
- Configuration and additional online analysis possibilities with the tried-and-trusted siRecord **siRecord** Interface

Real-time analysis:

- Real-time spectral display and filtering
- Automatic breakdown of sound spectra into acoustically relevant components
- Display of noise parameters such as frequency, noise level, modulation depth, evaluation of tonal components etc.
- Structure-borne sound spectra can also be displayed
- Frequency and order display with RPM from CAN bus or pulse input
- Displayable limit curves
- FFT, third-octave, and level display can also be shown for all four channels

Listening:

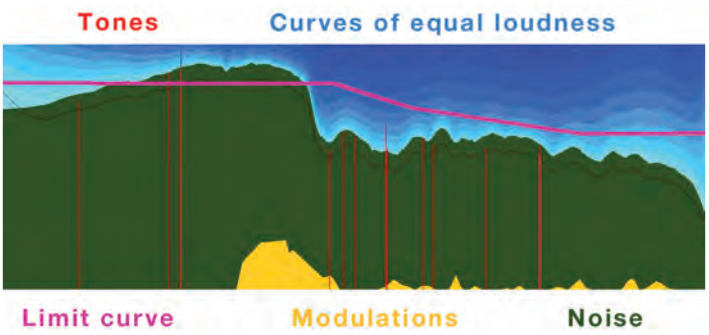
- Seamless switchover for playing back recordings you just made
- Playback modes: Single/circular/list
- Selection of individual and multiple extracts for playback
- Time or speed-synchronous switchover between recordings
- Direct, seamless comparison from matrix of up to 240 recordings with keys 0-9 and A-Z
- Loading of .wav files and other formats for comparing existing sound recordings

Filtering:

- Multiple filter groups for total sound, tonal components, noise components, and modulations
- Filters with different characteristics such as narrow band, bandwidth, high-pass, and low-pass
- Each sound has its own filter set that can also be stored and loaded to other sounds
- Each filter can be defined by means of time configurations so that only certain extracts are filtered
- Additional limiter for tonal components to restrict the loudness of tonal components to the defined limit

Testing:

- Each sound can be compared with the limit curves using a selectable tolerance
- Three different limit curves can be defined for tonal, noise, and modulation sound components
- Limit curves can be freely edited by users or loaded from existing spectra
- The list mode test compares all loaded noises with the limit curve and creates a table with "OK"/"Not OK" results
- The test function can be extended as required using scripts to add functions from the analysis kit of the si++ system
- Configured test functions can be transferred to test systems in production if required



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