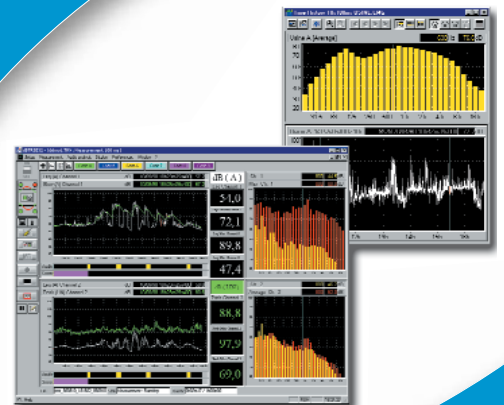




dBenv32

Environmental noise and vibration acquisition and processing software suite



01dB

MVI technologies group

dBENV32 is a unique environmental software suite composed of **dBTRIG32** for data acquisition and **dBTRAIT32** for data processing.

Used with **Symphonie** or **Jazz** acquisition units, **dBTRIG32** transforms a computer into an intelligent noise or vibration monitoring station.

Much more than a simple sound level meter, **dBTRIG32** can record the raw signal (like a digital tape recorder) and at the same time, perform real time digital frequency analysis (octaves or third octaves).

The two channel option with any combination of microphones or accelerometers can be connected with the same data logging capability for extended analysis.

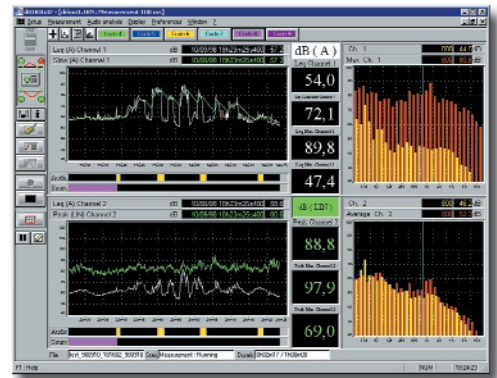
Advanced trigger functions allow the user to generate alarm signals and start / stop event recordings (signal, spectrum) for different time periods and according to one or several conditions.

As the system is designed for automatic calibration and remote access, it is perfectly suited for unattended monitoring applications.

Unrivalled in terms of performance and flexibility, **dBTRIG32** is an intelligent noise surveillance tool that adapts and interacts to any disturbance of a given environment.

Data processing is performed by **dBTRAIT32** with unequalled ease of use and analysis capability - source identification by playback of audio records being one of the most attractive features of this software.

dBENV32 is therefore well suited to solve any type of noise and vibration measurement problem in both time and frequency domains.



dBEnv32 main functions

Combining the functions of a sound level meter, a digital tape recorder and a real-time frequency analyser, **dBENV32** is a powerful investigation tool that can be used for a wide range of applications such as noise complaints or impact noise studies.

- Noise and / or vibration monitoring
- 115 dB maximum dynamic (option) for measuring from 20 dB to 135 dB without gain shift
- A, B, C, G weighting curves for acoustics
- ISO2631 weighting functions for vibration
- Programmable digital audio recording
- 20 Hz (1 Hz option) - 20 kHz bandwidth for octave and third octave spectra
- Noise source coding
- Manual or automatic (remote) calibration
- Multitasking with external applications (weather data acquisition, remote access and control by modem)
- Auto reboot facility in case of power shortage
- Down to 1/48th octave band analysis
- Real-time loudness, PNL, EPNL global levels
- Advanced triggering functions (audio records, spectrum, multispectrum, source codes and alarms) under user-defined multiple threshold conditions (absolute and / or relative)
- Extensive analysis in time and frequency domains
- Direct printing or cut-and-paste of results into reports

dBTRIG32

Measurement System	
Hardware platform	Symphonie, Jazz
Accuracy	Type 1 according to IEC 651 and IEC 804 Type approval at PTB and LNE (Symphonie and dBTRIG)
Measurement range	Typically 20-140 dB up to 6 ranges
Protection	Auto-reboot facility to protect against power failure
Sound Level Meter Mode	
Measured	Slow, Fast, Impulse, short Leq, Peak
Time step	From 20 ms to 1s
Weightings	A, B, C, G, Lin, Independent peak weighting
Trigger	Manual, clock, according to user-defined periods
Audio Recording	
Pass band	Up to 20kHz
Duration	From 1s to 80min (20kHz) or 60 days (40Hz) per record
Number	Only limited by hard disk size
Trigger	Manual, clock or threshold with pre-trigger facility
Threshold	According to monitored level (global or frequency band) with many conditions
Frequency Analysis	
Spectra	Octaves or third octaves from 20 Hz to 20 kHz by digital filtering (IEC1260 class 0)
Time step	Same as global values
Storage	Continuous or threshold conditions, average spectra on events
Data Storage	
Storage	Free or daily/weekly regular periods
Capacity	Only limited by hard disk size
Example	< 16 MB of data corresponds to 3 months of Leq (1s)
Calibration	
Type	Manual or automatic
Automatic	Start and end of each measurement session, Periodic check possible
Options	
2 channels	Same specifications on both channels with independent settings (except time step and audio pass band)
115dB max. dynamic Vibrations	From 20dB to 135dB 1/3 octave spectra down to 1Hz, ISO2631 weightings, pass band of signal recording down to under 40Hz (upper limit)
Psychoacoustics	Loudness (Zwicker ISO 532B), PNL, PNLT in real-time
Expert mode	Advanced triggering with user defined multiple threshold conditions (audio, source code, freq. analysis, alarms)
External control	DDE interface

dBTRAIT32

Display	
Type	Time history, spectra, multispectra of any measured value over user-defined periods
Time step	Selectable (recombination of short Leq)
Cursors	2 cursors with zoom, Leq between cursors, etc.
Curves	Multi-curves' display, automatic autoscale
Source Identification	
Type	Manual or automatic (time or threshold conditions)
Coding	Source ranking, event detection and elimination
Time and Frequency Analysis	
Type	Tables or color graphics
Results	Overall Leq and statistical analysis over selectable time periods, and for noise events
Sources	Leq by source and occurrence
Statistics	Cumulative and probability distribution, user defined indices
Periods	Loudest and quietest periods
Regulation	Occupational noise : noise exposure and OSHA indices
Spectra	Octave and third octave , Instantaneous, minimum, maximum, weighted, unweighted, etc.
Report	Direct to printer, copy/paste to standard office software
Advanced Processing	
Time	Detailed analysis of audio records (time step down to 1 ms)
Decimation	Undersampling of audio records
Options	
Script	Automatic processing scripting tool
1/N octave	Multispectrum analysis (N from 6 up to 48) of audio records (time step down to 1 ms)
Audio Playback	
Type	Direct replay of audio records from time history plot
Hardware platform	Symphonie, Jazz or PC multimedia sound system

PC set-up

Computer Configuration	
Minimum	Pentium 75 with 16MB RAM and Windows 95/98 (also Windows NT 4.0 + Service Pack 3 for dBTRAIT32)

dBenv32

Benefits

- 2 channels
- Type 1 approved with Symphonie
- Audio recordings
- Real time
- Multitasking
- Psychoacoustics
- Expert system



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