



# Opus Suite

Multi-Platform Measurement Software Suite



**Alto**  
USB DSP Analyzers



**Concerto**  
Portable DSP Analyzer



**Conductor**  
Rugged Laptop DSP Analyzer

The **Opus Suite** is a collection of measurement software modules to be used with all the measurement tools such as the **Concerto**, the **Alto** and the **Conductor** system. The **Opus Suite** is made by noise and vibration engineers for noise and vibration engineers. It packs all the functions to perform the most advanced measurements that a noise and vibration specialist can encounter with intuitive use and improved efficiency.

Appropriate both for laboratory and field use, the **OPUS Suite** along with the **Soft dB** family of analyzers is the ultimate tool for the modern noise and vibration professional.

- **3-Axis Vibration & 1-Channel SLM Class 1 Module**
- **Class 1 Sound Intensity Module**
- **4-Channel SLM Class 1 Module**
- **Building Acoustics Modules**
- **4/6-Channel Data Logger Module**
- **Building Vibration Module**
- **And More!**

## 3-Axis Vibration & 1 Channel SLM Class1 Module

The 3-axis Vibration & 1 Channel SLM Class 1 Module takes advantage of the multi-channel analyzers by simultaneously measuring vibration and SLM metrics. It is highly suited for human vibration and machinery analysis.

### Vibration Specifications

Wb, Wc, Wd, We, Wf and Wk Weighting Filters (ISO 2631)

Global, 1/3 Octave Band and FFT Spectrum

200, 250, 400, 500 or 1000Hz Bandwidth

0.05, 0.1, 0.25, 0.5 and 1.0Hz FFT df

ISO 2631 Automatic Setup and Custom Setup

Conforms to ISO 8041

Weighting Filters conforms to ISO 2631

Octave and Fractional Octave Filters conform to ANSIS1.11

### SLM Specifications

Fast, Slow, Impulse, Peak, Leq and SEL

A, C and Z Weighting

Global, 1/3 Octave Band and FFT Spectrum

6.3 Hz to 20 kHz 1/3 Octave bands

Conforms to IEC 61672 and ANSI S1.43

Octave and Fractional Octave Filters conform to ANSIS1.11

### Features

1 to 4 Graphs Real-Time Display

Time History, 1/3 Octave Band, FFT, Numeric Data and Statistics

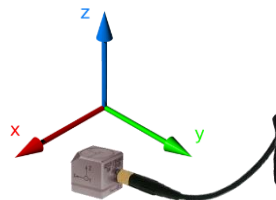
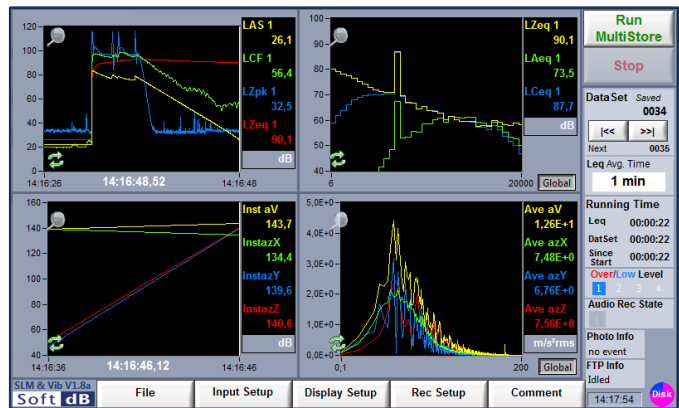
Programmable Averaging Period

Instant or Average Dataset

.wav and .mp3 audio recording (triggered or always on)

Camera snapshot (triggered or regular intervals)

Text Annotations



## 4-Channel SLM Class1 Module

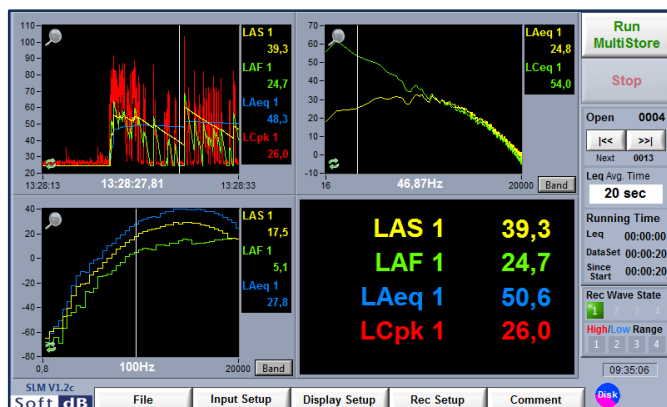
The 4-Channel SLM Class 1 Module is the state-of-the-art in sound level measurement. It performs various acoustical measurements from transient events to long environmental surveys.

### SLM Specifications

- Fast, Slow, Impulse, Peak, Leq and SEL
- A, C and Z Weighting
- Global, 1/3 Octave Band and FFT Spectrum
- 6.3 Hz to 20 kHz 1/3 Octave bands
- Conforms to IEC 61672 and ANSI S1.43
- Octave and Fractional Octave Filters conform to ANSI S1.11

### Features

- 1 to 4 Graphs Real-Time Display
- Time History, 1/3 Octave Band, FFT, Numeric Data and Statistics
- Programmable Averaging Period
- .wav and .mp3 audio recording (triggered or always on)
- Camera snapshot (triggered or regular intervals)
- Text Annotations
- Remote Monitoring Capabilities
- Local Data Storage or Remote FTP Storage
- Available Remote Monitoring Web Service



### Available Remote Monitoring Web Service:



## Sound Intensity Module

The Sound Intensity Module provides real-time measurement and display of sound intensity, sound pressure and PI index.

### Specifications

Intensity, Pressure and PI Index

A, C and Z Weighting

Global, 1/3 Octave Band and FFT Spectrum

Conforms to IEC 61672, ANSI S1.43, IEC 1043 and ISO 9614

Octave and Fractional Octave Filters conform to ANSI S1.11

### Features

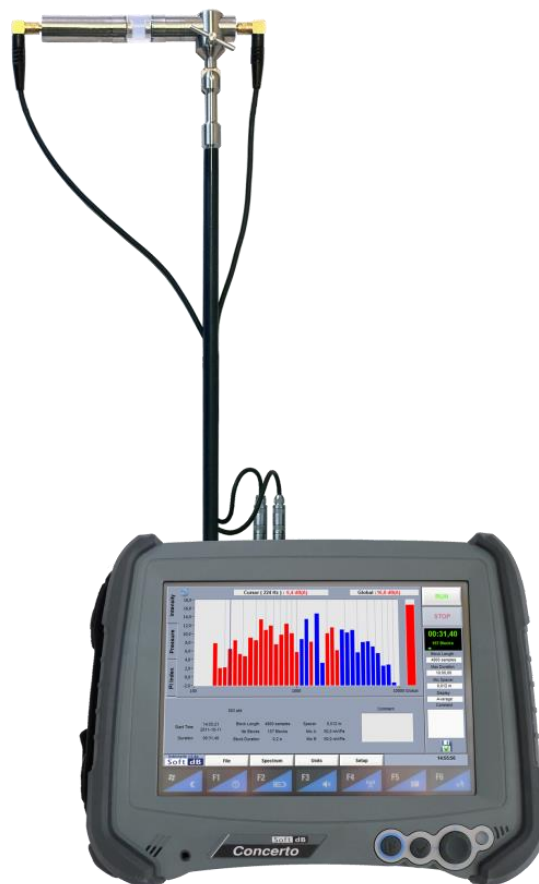
Simultaneous display of Intensity, Pressure and PI Index

Text Annotations

Automatic power calculation

A single dataset contains all info (FFT, fractional octave, A, C, etc.)

Automatic save function avoids losing data



## RT-60 Module (Part of the Building Acoustics Suite)

The RT-60 module is part of the Building Acoustics Suite and provides the best reverberation measurement tool available. It offers four different measurement modes to adapt to every situation, from large musical rooms to small offices the RT-60 Module will perform at its best.

### Specifications

Automatic Interrupted Noise (using internal generator)

Schroeder Integrated Impulse (using internal generator)

Auto-Detection of manually interrupted noise

Auto-Detection of impulsive noise

T20, T30, EDT and T10

Clarity ( $C_{80}$ ), Definition ( $D_{50}$ ), Central Time ( $T_s$ )

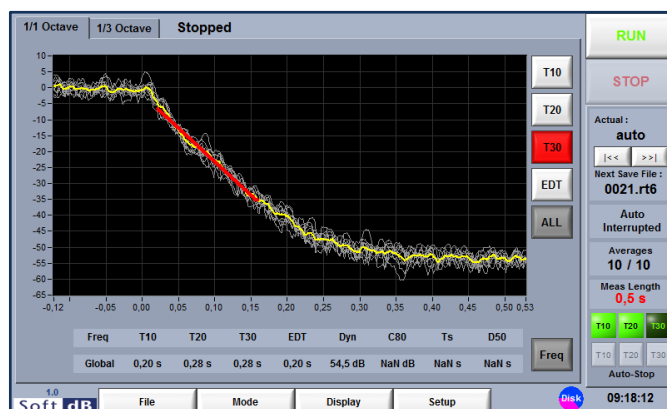
Automatic alignment and average of decay curves

1/1 Octave bands (125Hz to 4kHz)

1/3 Octave bands (100Hz to 5kHz)

Conforms to IEC 61672 and ISO 3382

Octave and Fractional Octave Filters conform to ANSIS1.11





## STC Module (Part of the Building Acoustics Suite)

The STC Module offers an integrated solution for the measurement of sound transmission through a partition.

Designed with efficiency in mind, the STC module gathers all the measurements related to a project in a single file containing multiple partitions. Measurements can be repeated for each partition or imported from a previous measurement.

Both the measurement and the data processing is performed using the same interface allowing in-the-field results.

### Specifications

Conforms to ASTM E336 and ISO 140-4

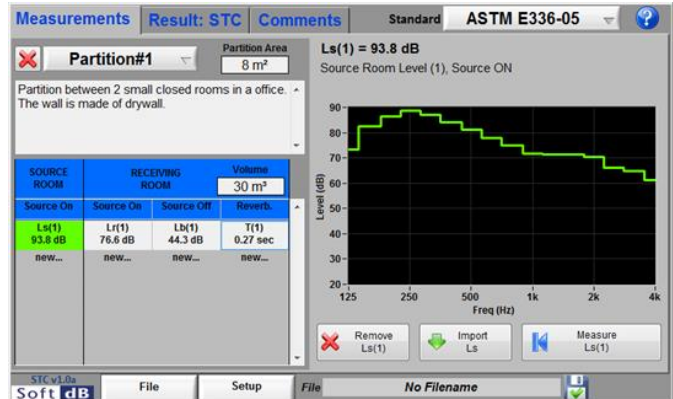
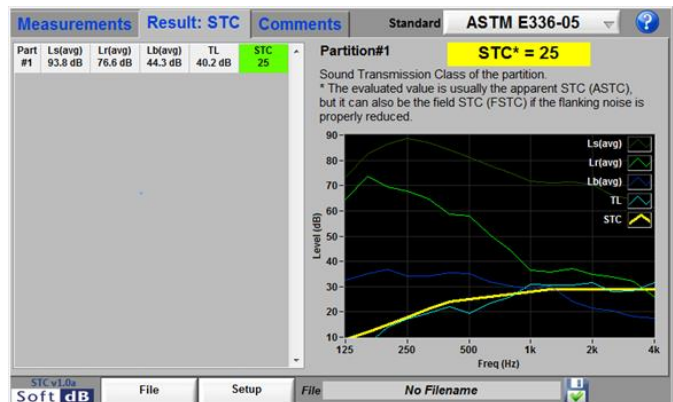
RT-60 by Automatic Interrupted Noise (using internal generator)

Octave and Fractional Octave Filters conform to ANSI S1.11

Automatic Sound Transmission Index/Class Calculation

Text Annotations for each Partition

Volume and Area Recorded with every partition



## Data Logger Module

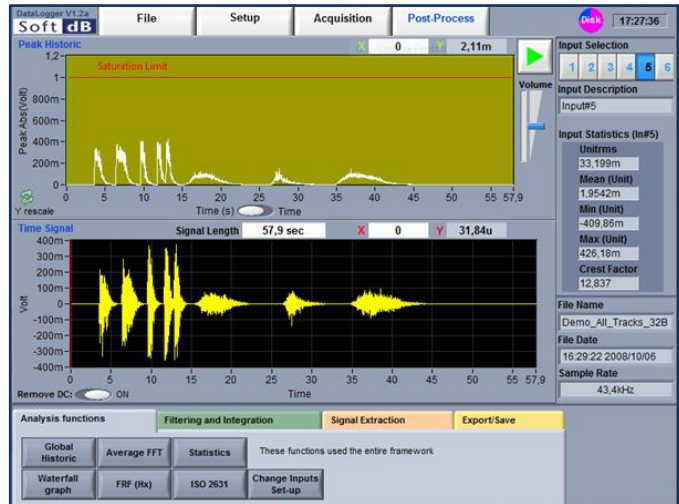
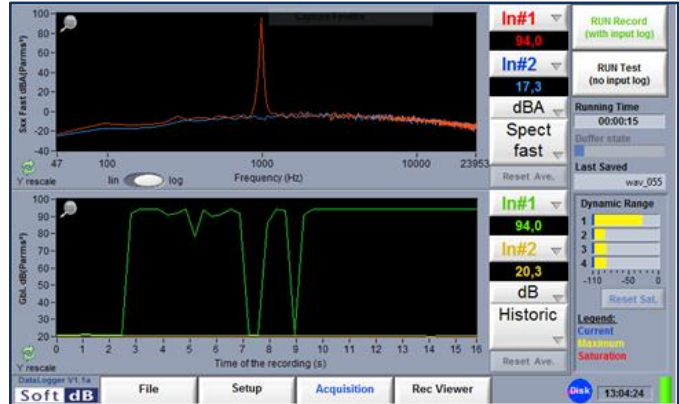
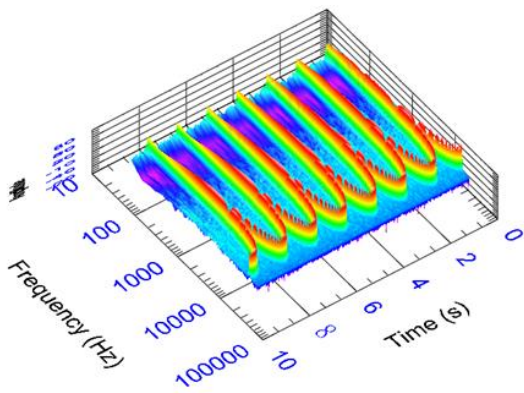
The Data Logger Module provides highly versatile measurement system allowing the recording of multi-channel \*.wav files and to perform post-processing on the recorded files. The built-in post-processing software packs together several signal processing functions and offers efficient visualisation of large files using a streaming approach.

### Specifications

- 1 to 4 simultaneous .wav recordings (1 to 6 using Alto-6 Pro)
- Sampling Frequency from 4kHz to 48kHz
- 24 bit .wav recording
- 2 fully independent signal generators
- Real-time monitoring of Time signal, FFT and Global Level

### Post-Processing

- Time History, FFT, Statistics, Waterfall, FRF
- Filtering, Integration, ISO 2631 vibration analysis
- Signal extraction



## Building Vibration Module

The Building Vibration Module contains a complete ground vibration monitor and noise/overpressure monitor.

### Vibration Specifications

Conforms to ANSI S2.46 and DIN 45669-1

Acceleration, Velocity and Displacement recording

Peak Particle Velocity

Conforms to ISEE Specifications for Blasting Seismographs

USBM RI 8507 and DIN 4150 Guidelines

Velocity and Displacement from Integration of Acceleration Time Signal

Continuous Recording or Event Triggered Recording

### SPL Specifications

Air-Blast Level Measurement Conforms to USBM RI 8508

Fast, Slow, Impulse, Peak, Leq and SEL

A, C and Z Weighting

