



AcoustiTrack

Speaker & room measurement

Fact sheet

The features in the build that exists today, one line each

Version 0.1.0 · pre-release



A iOTrack application · macOS · 30OCT2026

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What it is: Speaker and room measurement

Platform: macOS · Apple Silicon + Intel · Windows planned

Microphones: Up to eight measurement microphones

You need: A Mac, an audio interface with an output to your speakers and an input for a measurement microphone. A cable from a spare output to a second input is optional: without it, the interface's own delay and response are counted in the reading.

Status: In development — not released yet.

Real-time analyser

- Fractional-octave bands, 1/1 to 1/48 octave
- Narrowband spectrum
- Peak hold
- FFT sizes from 256 to 131,072 points
- Hann, Hamming, Blackman-Harris and rectangular windows
- Averaging by count: none to 32, or infinite
- Averaging by time: 1, 2, 5 or 10 seconds
- Instant trace behind the average
- Bands the FFT size cannot resolve marked as such
- Track peak, with its musical note
- Cursor readout in frequency, level, wavelength, note, time and distance
- THD and THD+N with a sine

Spectrograph

- Spectrograph pane under the spectrum
- Adjustable history length
- Automatic or fixed colour range
- Colour or greyscale

Transfer function

- Dual-channel transfer function
- Magnitude, phase and coherence

- Live impulse response beside the transfer function
- Trace fades where coherence is low
- Coherence plain or squared
- Blanking below a coherence threshold
- Phase wrapped, unwrapped or as group delay
- Multi-time-window (MTW) mode: three window lengths at once
- RMS (power) or polar (complex) averaging
- Fractional-octave smoothing, 1/48 to 1 octave
- Target curves: flat, X-curve, two house curves, or your own file
- A, C or Z display weighting
- Compare view: one stored measurement subtracted from another
- Captures: store, overlay and offset

Delay

- Find delay, per microphone
- Delay tracking that follows drift
- Delay nudged by hand
- An unclear correlation peak is refused, not guessed

Impulse response and room acoustics

- Swept-sine impulse response
- Several sweeps averaged on request
- T20 and EDT per octave band
- Schroeder decay curve
- All Bands table of decay and clarity
- C50, C80, D50 and centre time
- Energy-time curve (ETC)
- Impulse in dB
- IR spectrograph
- IR frequency response
- Impulse filters: high-pass 100 or 200 Hz, low-pass 5 kHz, or 100 Hz – 5 kHz

Speech intelligibility

- STI from the impulse response
- %ALcons from the STI
- STIPA
- STIPA test signal built to IEC 60268-16

Sound level

- Calibration to dB SPL, per microphone
- 94 dB, 114 dB or any stated calibrator level
- Clipped, unsteady, short or implausible calibrations refused
- Fast, Slow and Peak
- Leq since reset, over 1, 10 or 15 minutes, or your own period
- C – A
- A, C or Z weighting
- Meter grid: one meter per microphone
- Level history with Max, L10, L50 and L90
- Notes and a report on the level history
- Venue limit, e.g. 100 dB(A) LAeq over 15 minutes, with the room left
- Level alarms per microphone
- NIOSH and OSHA daily noise dose
- Maximum SPL by an AES75-style stepping procedure

Signal generator

- Pink, white, pseudorandom (periodic pink) and speech-weighted noise
- Sine
- STIPA test signal
- WAV and AIFF playback
- Swept sine
- Level steps, and a ceiling that follows the signal type
- Noise fade-in
- Presets
- The same signal on extra outputs, each trimmed

- Nothing plays until the output is armed
- Disarms on any device, sample-rate, channel or output change
- Armed-but-silent shown as such

Microphones

- Up to 8 measurement microphones
- Name, colour, visibility and reference channel per microphone
- Microphone correction files: .txt, .csv, .frd, .cal, .dat
- Spatial averaging: the energy mean of the microphones shown
- Internal reference: no Y-splitter
- Loopback output: a plain cable replaces the Y-splitter

Venues, reports and data

- Venue folders: details, pictures, files and saved readouts
- Settings templates
- Reports in HTML, PDF or both, with your logo and footer
- CSV export: bands, bins, transfer function or impulse
- Choice of decimal mark

Working with it

- Remote view on a phone or tablet over your local network, off by default
- Read-only unless a password is set; arming only at the Mac
- Control Panel for a Sidecar iPad
- Second Chart Window, with its own view and mic
- Illustrate Routing: a live drawing of the signal flow
- Quick Help on every control
- Light and dark appearance
- Support report as one text file; nothing is sent by the app

Platform

- Standalone macOS application