

3D acoustic impulse response – measurement and visualisation.

The IRIS room acoustics measurement system, developed by Marshall Day Acoustics, is an integrated hardware and software tool for capturing and analysing room impulse responses in 3D. A compact tetrahedral microphone array is used to capture the sound data which is analysed immediately by powerful and user friendly software.

IRIS plot

- The 3D impulse response data is visualised as an IRIS plot, a colour coded representation of incoming sound rays
- Length indicates level, angle is the ray direction, and colour represents the time of arrival
- 3D rotation and zoom
- Specific angle, level and timing information for individual rays
- Broadband and octave band filtered views

Waveform view

- Omni-directional waveform view
- Interaction between the IRIS plot and waveform view
- Automatic detection of onset time with manual adjustment

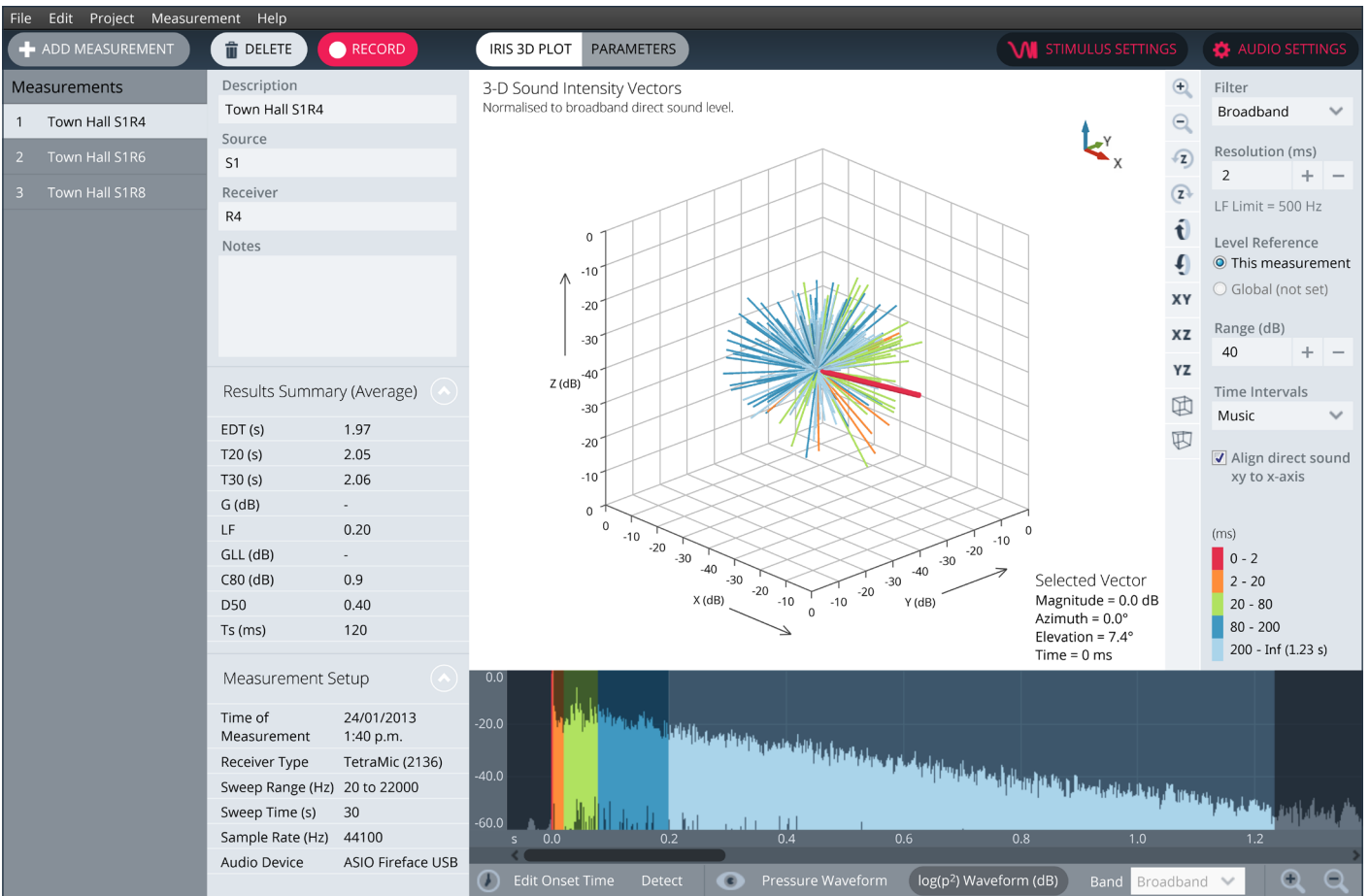
Room acoustic parameters

- Room acoustic parameters calculated in octave bands according to ISO 3382-1:2009
- Laboratory validated LF measurement
- Sound strength calibration and measurement
- Results are displayed in graphs and tables



Simplified measurement process

- Integrated software and hardware measurement system
- Reliable, easy to use and efficient
- Hardware (excl. speaker) fits into a regular Pelican case
- Ideally suited to time-critical measuring environments



Top: An IRIS microphone set up for measurements in a theatre. Bottom: The easy to use IRIS software.

For more information about IRIS visit www.iris.co.nz