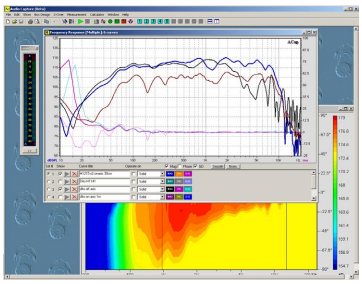
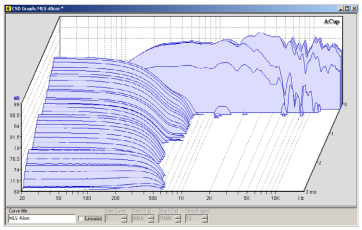
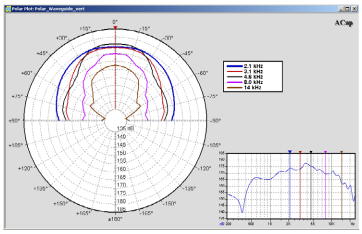
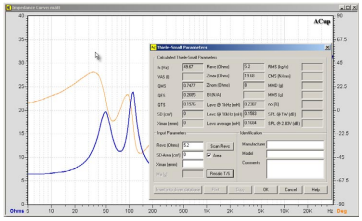
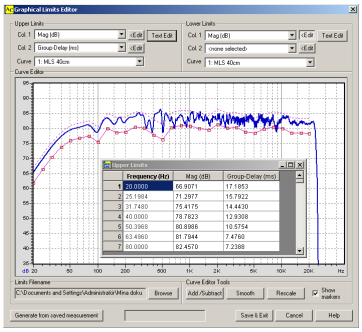
WaveCapture a Bävholm/ Grenander Mission











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Audio Component measuring system

Audio-Capture

The Audio Capture is a PC based multifunction audio testing system that is ideal for designing, verification and quality check of audio components such as loudspeakers, acoustics and audio electronics.

Audio-Capture acquires complex frequency response by applying either a maximum-length sequence (MLS) stimulus, Sweep tone (time-domain chirp), Gated Sine or Multitone to the unit or acoustic environment under test.

Audio-Capture interfaces to a quality stereo or four to eight channel soundcard. Simultaneous measurements can be made on multi-channel units or in multiple positions.

For production quality tests or performance check a Quality Check module can perform Pass / Fail judgement of up to three parameters at the same time. A user-friendly graphical interface creates the tolerance limits.

For the loudspeaker designer, loudspeaker boxes can be simulated by either a database of Thiele-Small parameters or acquired by impedance measurement. Active and passive crossover networks can be simulated. Polar- and Directivity-plots can be acquired. Audio-capture supports several industry standard turntables.

For bench test of electronics and sound reinforcement distortion test, Audio-Capture offers several software instruments such as; Spectrum analyser, Dual channel oscilloscope, AC Volt and Watt meter, IM-Distortion analyser, Function generator and LCR-meter.

Benefits

- Multiple measurements can be taken at several measurement locations and averaged.
- Quality check with tolerance limits for Pass / Fail with post-processing reporting.
- Fast and reliable measurement using MLS stimulus using up to 4 millions points.
- Accelerated Log Sine Sweep (Chirp) increases the dynamic measured range at low frequencies.
- Measurements can be presented as Waterfall graphs or Polar plots.
- Loudspeaker box and crossover simulation using impedance measurement and Thiele-Small parameters.

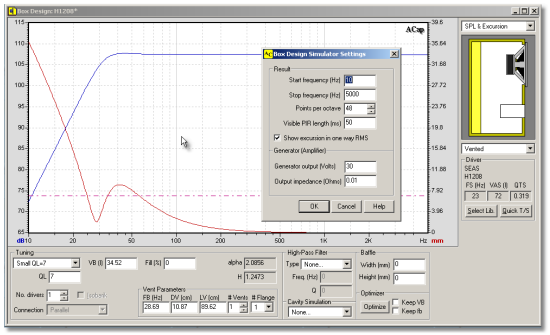
Features

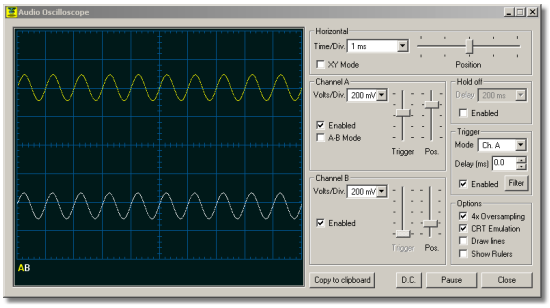
Time-Domain Stimulus Types

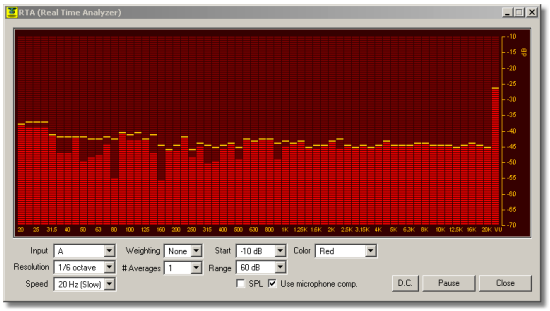
White MLS	- Length: 255 – 4.194.303 points for all MLS types
Pink MLS	
Chirp	- Log Sine Sweep that is converted to time-domain
Spike	- The oldest method for impulse measurement
Sin2 pulse	- Squared sine pulse
External Wave File	- One shot Dual Channel FFT with music as stimulus

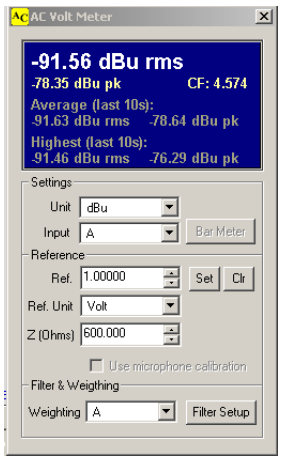
Frequency-Domain Stimulus Types

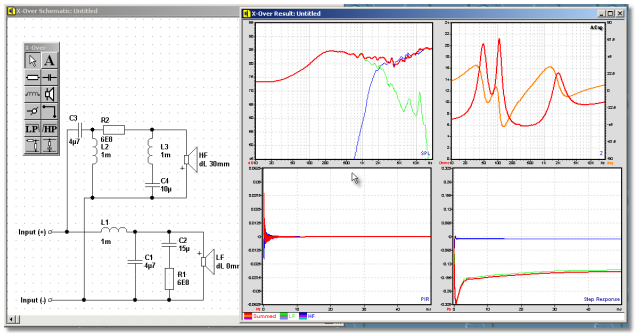
Gated Sine Wave	- Sine bursts used for distortion measurements
Log Sine Sweep	- Sweep time up to 10s per octave and a maximum resolution of 4096 ppo
Multitone	- Ideal for Rub'n Buzz measurements in production
Amplitude Sweep	- Sweeps Level, Power or THD vs. amplitude











Analysis Result Windows

Frequency Response - Industry standard windowing and convenient operations such as Smoothing, Normalize, Average etc.

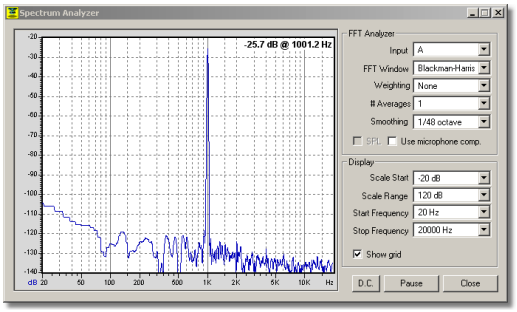
Polar-Plot - This window is combined with a frequency graph where you can select which frequencies that is visible in the polar-plot. Support for industry standard turntables. It also has directivity-plot.

Impedance - This can show both single impedance curves and complete Thiele-Small impedance curve pairs. A Nyquist plot can also be shown.

Impulse (PIR) - This window also have these result curves: Step Response, Shroeder Plot, ETC, Log Square and Cepstrum.

CSD (Waterfall) - This can be shown in standard 3D form or as a sonogram where the colour show the magnitude.

Multi-Graph - Can show several frequency and/or impedance curves at the same time (good for comparison and documentation).



Instruments

- Mille-volt and dB meter with RMS, Peak and Average detectors, weighting and band-pass filters
- Distortion Analyser; THD, IMD, SMPTE, CCIF and DIM
- L-C-R meter
- Function Generator; with sine, triangle, saw tooth, square, white/ pink-noise and bursts waves
- Oscilloscope, with trigger filtering and phosphor emulation
- Spectrum Analyser
- RTA ; with 1, 1/3, 1/6 octave resolution and weighting filters
- Microphone Calibrator; in conjunction with a calibrated microphone is it very easy to calibrate an unknown microphone

Requirements

- PC with Win 2000 SP4 or XP
- Soundcard with 2 inputs and 2 outputs (duplex mode) or up to 8 channels
- For loudspeaker equalization:
  A flat measurement microphone and pre-amp
  Loudspeaker power amplification
  Digital/analog equalizer or loudspeaker digital signal processor

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