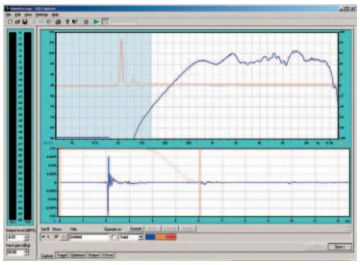
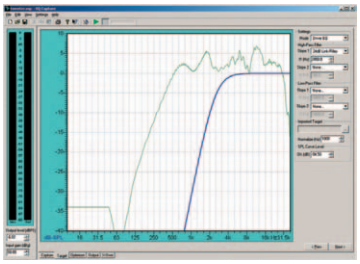
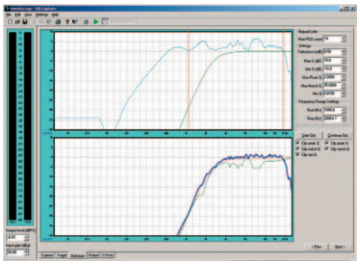
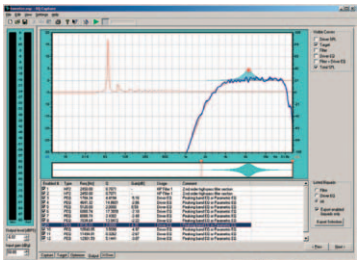
Determine Your Parametric Filters!

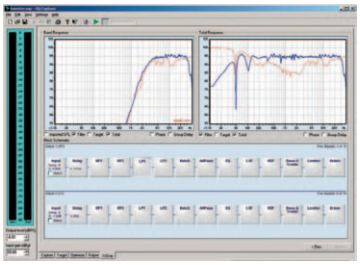
WaveCapture a Bävholm/ Grenander Mission











GSW and 7dBmore proudly presents new equalization synthesis software

EQ-Capture

EQ-Capture is a powerful PC-based software tool that is ideal for loudspeaker or sound reinforcement system optimization.

EQ-Capture acquires complex frequency response by applying either a maximum-length sequence (MLS) stimulus or Sweep tone (time-domain chirp) to the loudspeaker or sound reinforcement system under test.

After specifying the number of parametric filters available plus the target band-pass response, EQ-Capture then runs an optimization algorithm and produces a list of parametric equalization parameters (Frequency, Q and Gain). For further optimization, eq parameters can be manually fine-tuned using a convenient graphical user interface.

For the loudspeaker designer, multi-way active crossovers can be simulated in the Crossover Window by assigning blocks of band-pass filters to different output channels. Corrective component equalization and relative gain structure can be optimized for each band and since phase data is included, component time alignment delays can be determined while viewing the overall system transfer function.

For room tuning and sound reinforcement system optimization, EQ-Capture supports spatial averaging. This allows the user to perform a series of measurements throughout the coverage pattern of the sound reinforcement system and base system eq on the weighted, spatially-averaged response. Sophisticated windowing functions allow the user to window out room reflections and focus on equalizing the direct sound while retaining low frequency resolution. Once system eq parameters have been determined and programmed, equalization can be verified in Analyze EQ mode by electronically sweeping the system equalizer or loudspeaker processor, thus providing an accurate, efficient technique for system optimization.

Benefits

- PC-based loudspeaker or sound reinforcement system measurements
- Automatically determines parametric eq parameters (Frequency, Q and Gain)
- Analyze EQ mode determines analog or digital filter parameters when electronically-sweeping equalizers or loudspeaker processors
- Multi-way crossover simulations including component time alignment
- Convenient, powerful measurement/optimization tool for the loudspeaker designer or sound reinforcement system installer

Features

- Acquires complex frequency response
- MLS (up to 512k points), Log Sine Sweep (Chirp) and Dual FFT (with external Wavefiles)
- Import of text-files from Audio-Capture, Clio, MLSSA (frequency and impulse-response)
- Smoothing (up to 24 points per octave)
- Average multiple measurements taken from several measurement positions
- Different Q for peaking or notch eq can be defined
- High peak or notches can be defined to be ignored or clipped
- Filter parameters can be edited graphically
- Variety of output formats for direct transfer to most common digital loudspeaker processors
- Latency compensation for several DSP-algorithms
- Built-in frequency response and microphone compensator
- Any full duplex stereo soundcard supported

Requirements

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

Contact

GSW
Johny Grenander
johny@wavecapture.com
+46 31 49 77 42

7dBmore
Dan Bävholm
db@7dbmore.com
+46 31 93 39 85