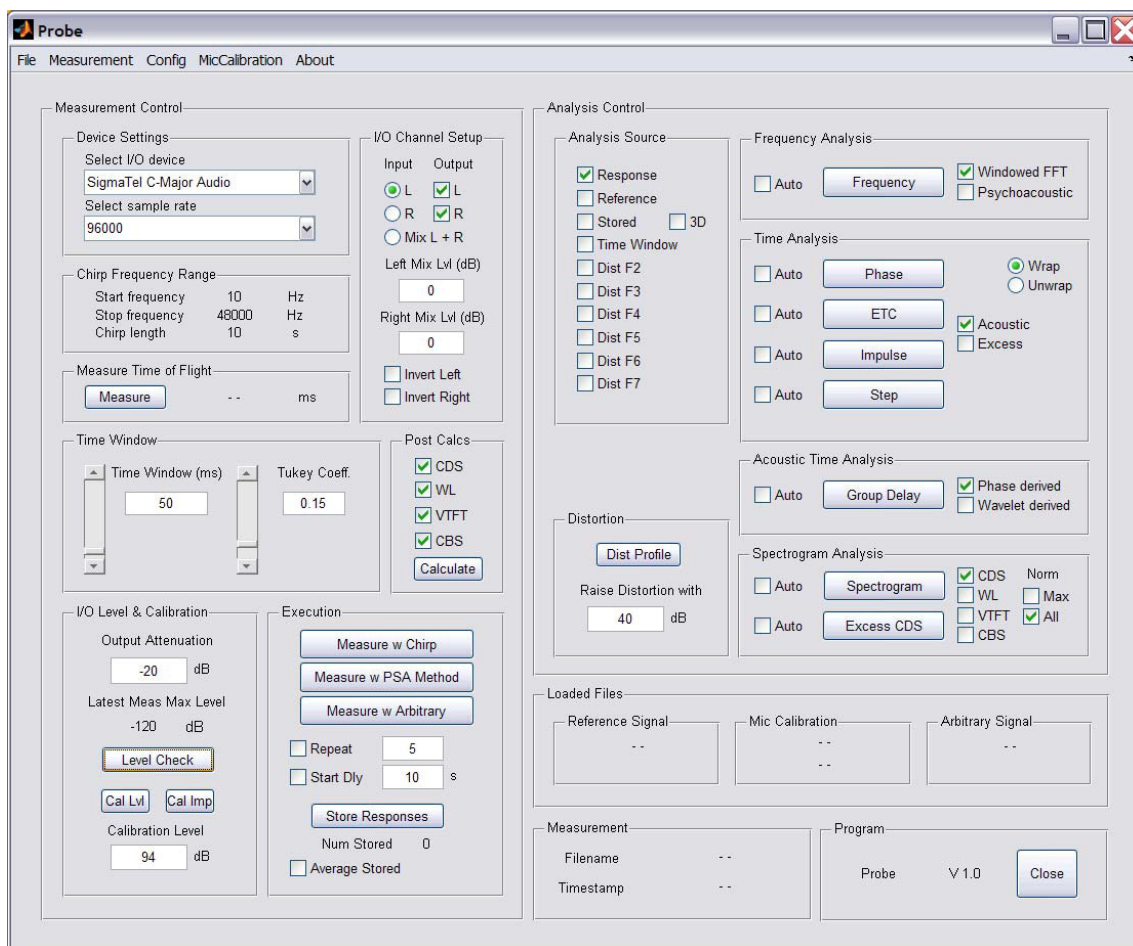




## Digital OEM-platform for hifi applications - Software Modules -



### A toolbox of world-class audio software

*The philosophy behind the Böhmer Audio software platform is to cut your cost and development time.*

The Böhmer Audio software platform offers OEMs a user-friendly, graphical development environment. It consists of three modules, ranging from intelligent sound measuring, configuration tools for the loud-speaker manufacturer and an optional sound utility for the end-user. The three modules work seamlessly and effectively in order to configure, develop and at the end optimize the DSP based system.

### Probe sound measuring system

The Probe software module is a professional acoustic measurement system for performance analysis of your loudspeakers. This package contains several features which will radically simplify and reduce your development time and speed-up the time-to-market.

### Sycon configuration package

Using the Sycon software module you will be able to configure the whole platform including the look and functionality for the end-user. Based on the output from the Probe module, you can configure the system and includes features like response EQ, time adaption, time shift, dynamic processing, surround sound extraction, room compensation method (pat pend) and more.

### UCI user interface

This optional PC-software module represents the user interface for the end-user. It contains functionality for adjustments of the system, including measurements and settings for room correction. This module can easily be modified to harmonize with your corporate "look and feel".



## OEM System Software Technical Specifications

<b>Probe Software</b>	Professional level Acoustic Measurement software for speaker performance analysis.
<b>Functions</b>	<p>Chirp signal used for normal measurements. Additionally any arbitrary measurement signal (e.g. MLS, impulse, music, etc) can be used.</p> <p>Measures; Frequency response, Phase acoustic and excess, impulse acoustic and excess, step acoustic and excess, ETC acoustic and excess, group delay phase and wavelet derived, 3-D CDS acoustic and excess, 3-D Wavelet, 3-D CBS, 3-D VTFT, distortion (only with chirp stimuli) PSA frequency response.</p> <p>Supports saving and loading of several different preset measurement configurations, calibration files and more.</p> <p>Support for microphone frequency response calibration text files.</p>
<b>Output</b>	<p>Measurement data file with complete data set from D.U.T.</p> <p>Wav file impulse response and txt file frequency and phase response from measured speaker.</p> <p>Microphone frequency calibration text file.</p> <p>Measurement data set files are in Matlab format and importable into Matlab for extended analysis.</p>

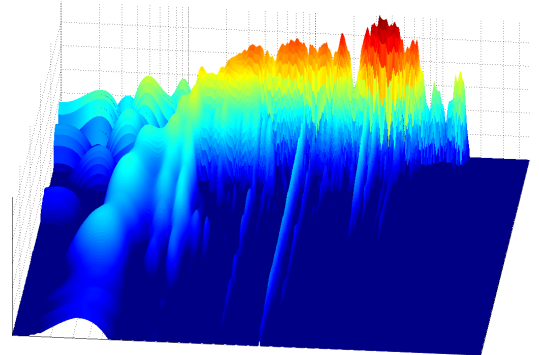


Figure 1: Cumulative Decay Spectral Response

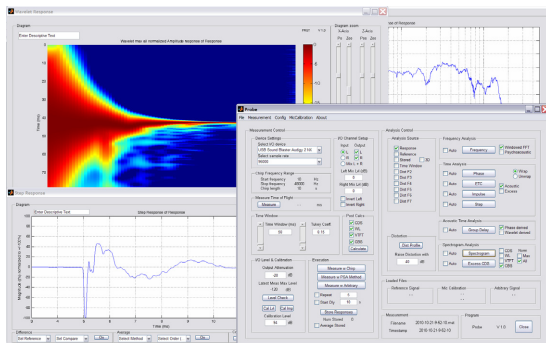


Figure 2: Probe Software Interface

**Sycon Software** System configuration software for setup and configuration of the complete DSP-speaker/amplifier system including system appearance and functionality in the UCI Software Module.

Speaker system design software; imports measurement data set files, configuration set files and provides a complete development environment with signal processing control and resulting audio performance analysis including Frequency response, Phase acoustic and excess, impulse acoustic and excess, step acoustic and excess, ETC acoustic and excess, 3-D CDS acoustic and excess, 3-D Wavelet, 3-D CBS, 3-D VTFT, PSA frequency response.

**Input** Measurement data set files from Probe Software Module, one data set for each speaker chassis or one for the whole system or a combination thereof.

**Output** System configuration txt file for loading into embedded DSP system to configure system behavior; product name, number of inputs and outputs, input and output names, configuration of available user settings accessible from www control pages, UCI software control pages their names, behavior and appearance.

Compiled DSP code supporting the selected configuration.

UCI software configuration file configuring UCI software appearance, user control names and available functionality.

Measurement data file with complete data set from the whole speaker design, one single speaker chassis or any combination thereof.

<b>UCI Software</b>	Optional User Control Interface PC-Software Module.
	Room correction system using the proprietary room correction measurement method and compensation algorithms (pat pend).
<b>Input</b>	Configuration set files from Sycon PC-Software describing available system functionality; product name, number of inputs and outputs, input and output names, configuration of available user settings, and appearance.

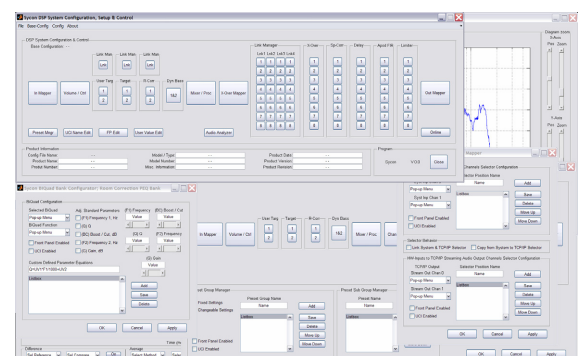


Figure 3: Sycon Software Interface