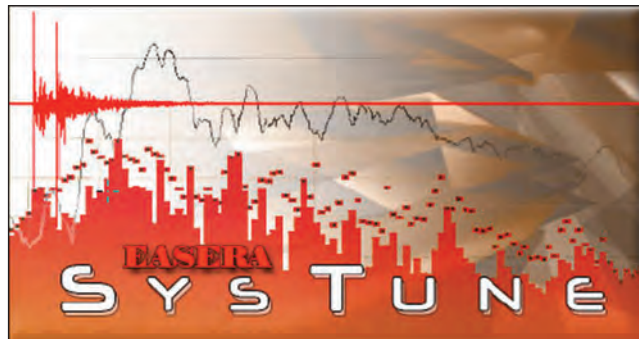


EASERA **SysTUNE**

LIVE SOUND MEASUREMENT IN REAL TIME



SysTune represents a remarkable- if not incredible - step forward in its ability to take accurate acoustical measurements in real time even when an audience is present.



EASERA SysTUNE

LIVE SOUND MEASUREMENT IN REAL TIME



SysTune 1.1

Since its introduction 2 years ago **SysTune** has gained recognition for its accuracy, speed and ease of use. **SysTune 1.1** with its many new features and the new and advanced **SysTune Pro** set the bar even higher and are destined to become the standards by which all other measurement systems will be judged.

They measure live sound accurately in real time, simultaneously displaying both time-domain and frequency-domain information at high refresh rates (all the data you need to tune your system) - - even during the show when the audience is present. Both go far beyond direct sound input and transfer function displays; they calculate RT (reverberation time) and STI (intelligibility) in real time too, can process up to 8 inputs while calculating and displaying spatial averages.

Both are sophisticated, yet easy to use, measurement systems that are especially useful for live sound measurement and system tuning.

Just Imagine....

No more rushing to complete your final tuning before the crowd arrives - and then hoping you correctly accounted for the crowd's effect on performance.

No more having to take acoustical measurements in an empty room or stadium and then factor in the difference an audience will make.

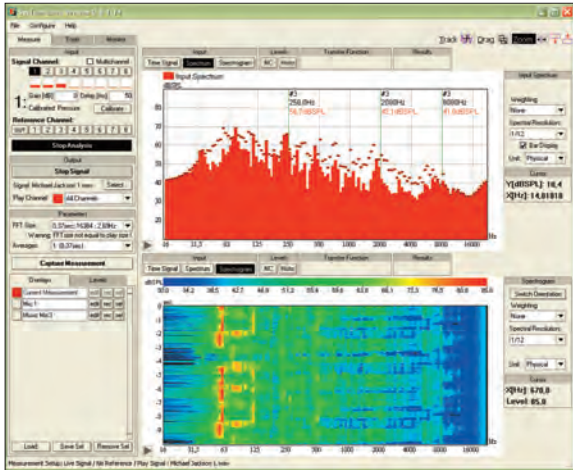
No more having to guess at delay settings and suffer with erratic measurement results.

No more running around in a venue with a single microphone or hand held RTA and then trying to equalize the system blindly.



SysTune 1.1's capabilities include:

- Real-Time data acquisition & display in both time and frequency domains at high refresh rates using live sound, pink noise, sweeps or other stimulus signals
- Real-Time Deconvolution (RTD™) for analysis of impulse response and complete frequency response based on a signal channel and a reference channel (Dual-Channel FFT)
- Real-time impulse response, magnitude, phase and group delay displays. Newly developed time-frequency-constant (TFC™) window to investigate early energy arrivals in detail
- Precise real-time spectrogram display for feedback analysis
- Input spectrum and frequency response of up to 8-channels can be averaged (Multi- Channel-FFT)
- Plug-in DSP interface allows you to view and control many manufacturer's DSP devices from within SysTune; supported by major manufacturers such as Renkus-Heinz, Electro-Voice, Linea Research, Tannoy, Turbosound, Outline, FZ Audio, Salzbrenner Stageteq, Harvey Audio and others
- Virtual Equalizer allows you to simulate the effect of a parametric EQ on any measurement in real-time or "off-line" on stored measurements
- Health feature measures, records and stores SPL, LEQ and Peak level data assuring compliance with health regulations regarding the exposure of human hearing to high sound levels
- New Spectrally Selective Accumulation - SSA™ noise rejection filter (patent pending) provides superior noise rejection and better measurement results when using speech or music excitation signals
- Group delay display, extended graph and formatting options, frequency and time axis synchronization in dual graphs, and much more...
- SPL, LEQ and NC measurements; Level histograms.
- Coherence and IR stability displays allow quick and easy time alignment of loudspeakers using real-time impulse response data
- Cursors and overlays for easier comparison of captured curves
- Integrated signal generator for log-sweep and pink noise stimuli of standard FFT time lengths
- Windows Direct Sound, Wave/MME, ASIO audio drivers; interface to EASERA Gateway; full support for Multi-threaded, multi-processor computers



Spectrum Display Window.



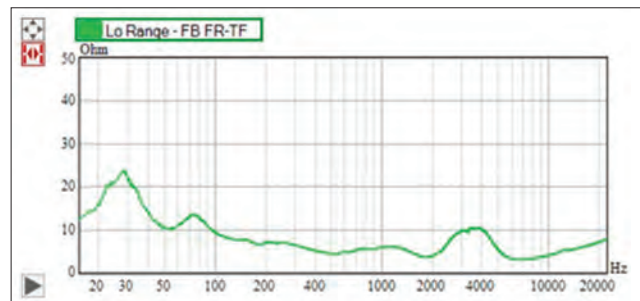
SPL Measurement Window.

SysTune Pro

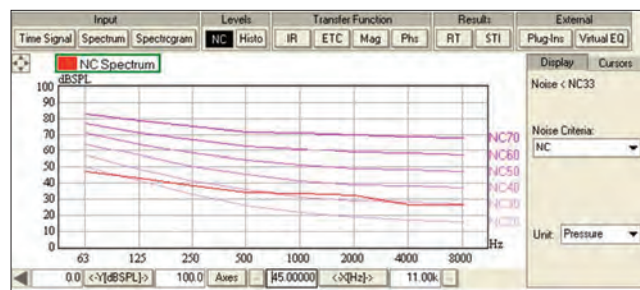
SysTune Pro adds functions that may not be needed by everyone, such as Impedance measurements, but are essential in specialized applications.

Additional SysTune Pro features:

- STI intelligibility measurements in accordance with IEC Standard 60268-16 (R 2003)
- Ability to measure and chart impedance curves
- Simple harmonics displays
- Measurement and display of RC, PNC, NR Noise criteria
- Playback analysis of previously recorded raw data, infinitely repeatable measurements for optimizing results in difficult environments
- Expanded Virtual Equalizer for simulating the effect of a parametric EQ on any measurement in real-time or "off-line" on stored measurements.
- Normative reference for transfer function
- Capability to include reference and compensation curves, channel mapping for using any selection and order of input channels of a soundcard, modification of graph and curve properties and much more...



Loudspeaker Impedance Measurement



Noise Criteria

Free 30 Day Trial

For a free 30 day trial of either SysTune 1.1 or SysTune Pro go to www.EASERASysTune.com and fill out the registration form. For more information on SysTune 1.1 and SysTune Pro go to www.renkus-heinz.com/SysTune.

Equipment Requirements

SysTune runs under Windows 2000, Windows XP, Windows Vista and Windows 7 operating systems on PC's with a minimum graphics resolution of 960 x 720; 1024 x 768 resolution is preferred. Multi-threading, multi-core PC's are supported. Windows 95, 98, NT and ME (Millennium) are not supported. CPU should be at least 1 GHz, available memory (RAM) should be at least 256 MB (excluding the OS) and at least 1 GB or more of free hard disk space should be available. Support for the Intel SSE instruction set is recommended.

A soundcard is required. SysTune supports all common soundcards with up to 8 input channels, bit-resolutions up to 32 Bit and sampling rates of up to 192 kHz. Windows, DirectSound, Wave and ASIO drivers are supported, if more than two input channels will be used, ASIO drivers are required. For one or two input channels Direct Sound (MSDirectX) can be used as well as Wave/MME drivers (MS Windows Audio-API). See also the Audio Device Information Viewer on www.EASERA SysTune.com. For precision measurements an EASERA GATEWAY high performance AD/DA converter/preamp is recommended.

EASERA

EASERA is a comprehensive test and measurement system designed for working professionals. EASERA puts dual-channel FFT (Fast Fourier Transform), RTA (Real Time Analyzer), MLS (Maximum Length Sequence) and TDS (Time Delay Spectrometry) measurement tools inside your laptop.

Its extensive post processing facilities make it a natural companion to SysTune and SysTune Pro and many professionals use SysTune to take their measurements and then transfer the measurement data to EASERA for in depth analysis.

Accurate enough for any anechoic chamber, EASERA is built for the real world. Use any test signal you like: music or speech, tones, sweep or MLS signals, even external stimuli such as gun shots or balloon bursts. The 48 kHz sampling rate, built in noise compensation and averaging functions deliver accurate results even in noisy conditions.

EASERA collects measurement data with precision and repeatability; results are stored, enabling instant push-button access and post-processing at any time. Accurate intelligibility figures (STI and ALCons) can be produced in seconds.

EASERA delivers accurate results with most PC sound cards, so there's no need for an expensive external AD/DA converter and preamplifier. Most audio devices that provide WAVE/MME Direct Sound or ASIO drivers are supported. EASERA can make 2-channel measurements, even without 2-channel hardware by storing the reference in memory. A wide range of stereo and binaural microphones can be used.

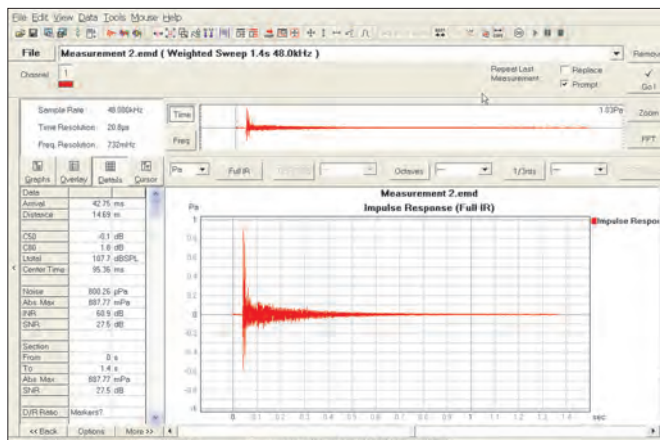
EASERA PRO

EASERA Pro is a faster and even more powerful version of EASERA.

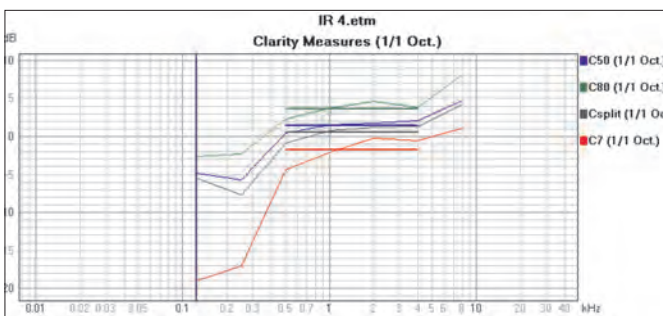
It features 32-channel operation and sampling rates up to 192 kHz, includes MLS (Maximum Length Sequence) measurement capabilities with Hadamard Transform Correlation.

Other features include In Situ material absorption measurements which allow the acoustical properties of unknown materials to be measured in the field, harmonic distortion analysis and expanded post-processing power.

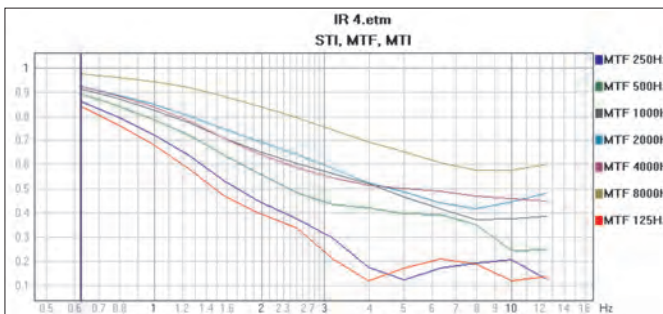
For additional information on EASERA and EASERA Pro or to register for a free 30 day trial, please go to www.renkus-heinz.com/EASERA.



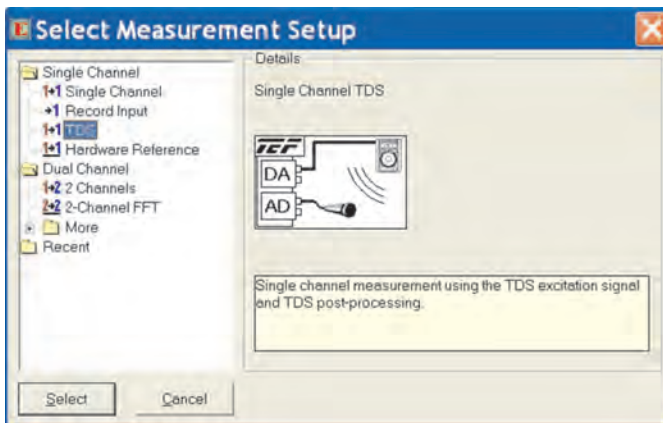
Impulse Response Measurement



Clarity Measurements



STI Measurements



Measurement Setup Window

