



Transform Your PC Into A Powerful Real-Time FFT Spectral Analysis Workstation

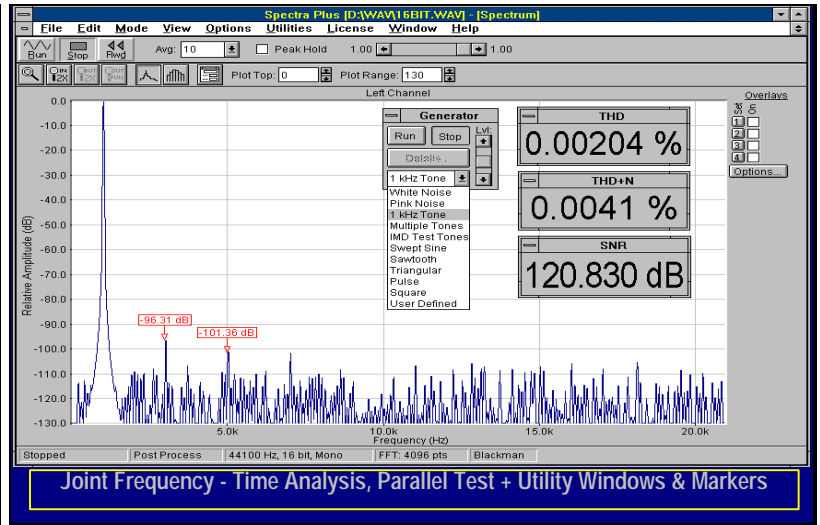
Setting the pace - Located in the heart of Silicon Valley, Sound Technology, a spin-off from HP has been developing, manufacturing and marketing advanced Test & Measurement Instruments (ATS) Automated Test Systems, Portable Intelligent Split-Site Broadcast/Satellite Test Systems, RTA Acoustic Analyzers, Tape Recorder Test Systems, PC-Based Spectral Analysis Software & Integrated Data Acquisition Systems for a wide array of industry worldwide for the past 30 years.

In the trench or on the bench - No expensive proprietary DSP cards necessary. Spectra is the next generation in advanced portable/desktop/workstation PC-based signal analysis, processing & data acquisition software using your existing windows sound card system.

Get the complete picture - run simultaneous multiple analyzer functions, real-time markers, cursors, 2/D, 3/D color visualizations & on-the-fly sizeable utility windows all in parallel and watch productivity increase.

Remarkable value & performance - Operating in native windows environment, Spectra minimizes time spent training or learning a new GUI. The robust modular operating system is a highly reliable platform designed to support your present and future T&M needs.

... *ST - The Best In Test* ...



Joint Frequency - Time Analysis, Parallel Test + Utility Windows & Markers

A New Era - Today, powerful PC's are setting the standard's for a new wave of PC-Based Instrumentation. ST plans to move forward and leverage off the powerful, cost effective and advancing PC industry to deliver the next generation of virtual instrumentation technologies to our customers and partners - Advanced, Flexible, User Customizable, Pre-Defined, Integrated PC-Based test & measurement and data acquisition solutions.

Designed for future expansion: Take advantage of our extensive features, great value and super performance - our **robust Native 32-Bit Digital Engines** accelerate at up to 200% faster speed running Windows 95/NT. If you are interested in **"just enough test"** our advanced asynchronous modular code block architecture allows you to easily add enhancements anytime!

SPECTRA MODES

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|------------------------|---------------------------------------------------------------------------------------------------|
| Real-Time Recorder | Continuous waveform acquisition, processing and display. |
| Post-Process JFTA | Direct-To-Disk Recording for waveform acquisition, time capture, processing and playback. |
| Parallel Test Channels | Analyze and process captured (pre-recorded) files and waveforms. |
| Generator | Joint Frequency - Time & Analysis |
| | Simultaneous Parallel Analysis + Real-Time Markers, Cursors & on-the-fly sizeable Utility Windows |
| | Single, Dual, Differential |
| | Advanced Integrated Signal Generation |

SPECTRA VIEWS

- | | |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FFT Narrowband | Amplitude vs Frequency Spectrum Line Displays with selectable Linear/Log Scaling, Autoscale or user adjustable plot top & video zoom. |
| Octaveband Analysis | Amplitude vs Frequency Spectrum Bar Displays with selectable 1/n Octave Scaling & selectable Peak Hold. |
| Distortion Measurements | On-The-Fly real-time sizeable windows: THD, THD+N, IMD, SNR, Multitone. |
| Utility Windows | Real-Time Peak Frequency, Peak Amplitude, Total Power digital readout. |
| Vibration Measurements | Spectrum Integration: Acceleration, Velocity, Displacement. (PRO/LAB). |
| Stereo Phase Scope | Left vs Right X/Y: Right vs Left Y/X. |
| Delay Finder | The delay finder utility computes the delay between the left and right channels with delay displayed in milliseconds, feet or meters, Speed of Sound. |
| Time Series | Amplitude vs Time for Digitized Tbase O'Scope functions or Energy Curves vs Time for RT-60, Decay, Impulse, Complex Delay Measurements. |
| Time Slice | User selectable Time segments to edit, playback, filter, compute or transform 2D/3D views. |
| Phase | Phase vs Frequency - relative phase difference between channels (L/R, L-R, R-L, Transfer Functions) |
| 3-D Surface & Waterfall | Frequency vs Time vs Amplitude. This is a side perspective view of the spectral data over time with amplitude shown in multicolors for advanced dynamic testing. |
| Spectrogram - Sonogram | Frequency vs Time vs Amplitude. This is a top perspective view of the spectral data over time with amplitude shown in full color for sound, noise, voice prints. |
| PSD | Power Spectral Density normalizes the spectrum to a 1 Hz band. This is useful for making noise power measurements. |
| Transfer Functions | The ratio between two channels computed in one of two ways . . . |
| | · Real - this is the simplest method and is the ratio between the auto-spectrum (magnitude) of each channel. |
| | · Complex - this is the ratio between the cross-spectrum of the two channels and the auto-spectrum of the reference channel. |
| Dual Channel Processing | · IFFT - Inverse FFT & Cross Channel Delay. |
| | · Auto-spectrum - calculated by multiplying a spectrum by its complex conjugate (opposite phase). Auto-spectrum is real and identical to magnitude response. |
| | · Cross-spectrum - calculated by multiplying one spectrum by the complex conjugate of a second spectrum. |
| | · Coherence Function - is the ratio of the squared magnitude of the cross-spectrum and the product of the auto-spectrum = linearity between channels. |
| Hilbert Transform | Computes the complex modulation Envelope (magnitude) of the selected time segment using the Hilbert Transform as opposed to an FFT. |
| Schroeder Integration | Computes a reverse integration (right to left) based on M. R. Schroeder's method. |
| Data View | Popup window of underlying data values. |
| DDE | Dynamic Data Exchange: Seamless integration to Excel, Visual Basic, plus advanced integration for Nicolet ProView/Instruments & HEMdata Nova-SnapMaster. |
| Import/Export | ASCI, Binary, WAV, WFT (Nicolet Products) |
| Data Logging | Multichannel Logging with Event/Time & Date Stamp + Limit Testing. |
| Other | Digital Filters: Low Pass, High Pass, Band Pass, Notch. Standard ANSI Weighting Curves: Flat, A, B, C. Windowing: Spectral Computation & Transformation |

