

The Tenor 24-bit Datalogger is an 8-channel input and a 4-channel output datalogger system dedicated to acoustic and vibration measurements. Based on DSP technology, the Tenor 24-bit allows the acquisition and the storage of all channels simultaneously on a PC through a high speed USB 2 link.

Hardware Technical Data

- Eight 24-bit analog inputs and four 24-bit analog outputs
- Sampling rate: 48.8 kHz per channel for 8 inputs
- SNR: 105 dB (input and output)
- Input types: ICP, Direct DC, Direct AC
- Input dynamic range: ± 4.5 V
- Output dynamic range: ± 2 V
- Anti-aliasing filter on outputs and inputs
- LED status light on each input and output
- External Power Supply: 12 VDC power pack included
- Dimensions (WxHxD): 77 x 217 x 274 mm (3 x 8½ x 10¾ in.)
- Weight: 2.4 kg (5.2 lb)

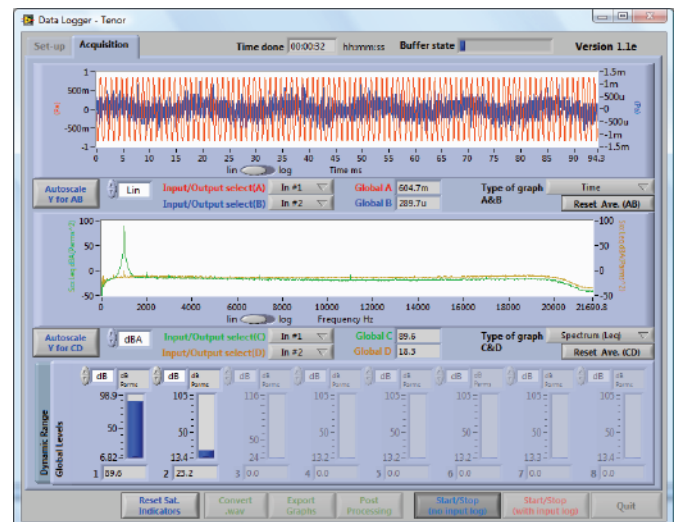
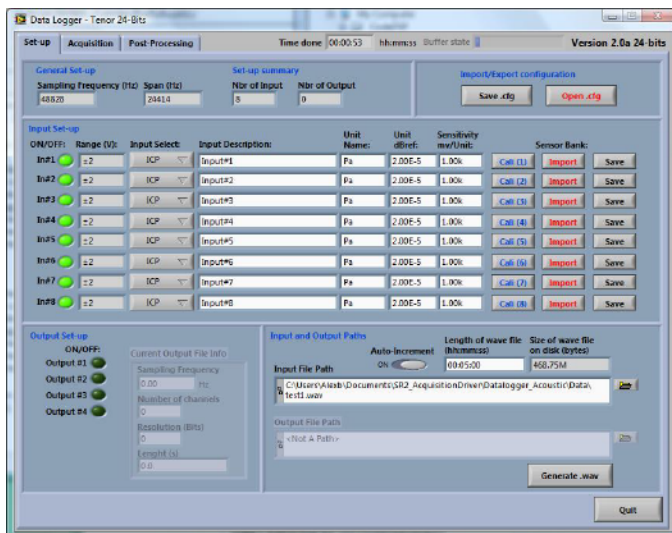


Software Technical Data

- Real time acquisition/data-logging for 8 inputs simultaneously
- Sensor calibration module and management of a sensor bank
- Complete post-processing module
- Data-logging in a standard .wav file format
- Real time dynamic and saturation monitoring of 8 input channels
- Real time monitoring of input and output signals (time signal, global levels historic and average Sxx)
- Real time signal generator on 4 outputs (sine wave, square wave, white noise, impulse, periodic random noise and more)

Acquisition and Monitoring Functions

- Real time monitoring of time signal, global levels historic and Sxx
- Dynamic range and saturation indicators on 8 inputs
- Monitoring the percentage of saturation on all 8 inputs
- Instantaneous global levels monitoring on all 8 inputs

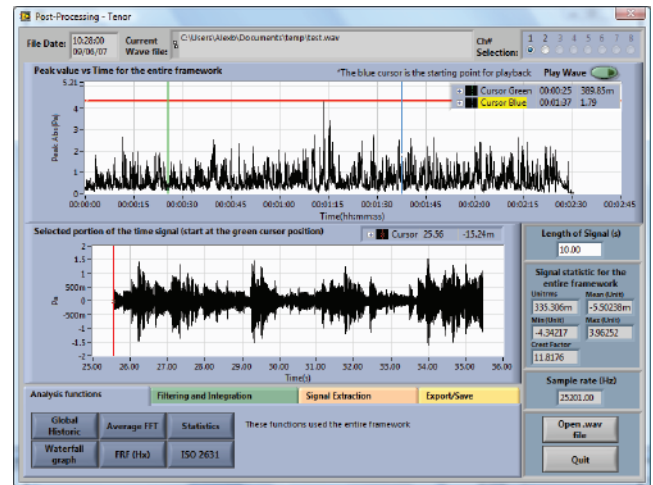


Set-up and Calibration Functions

- Inputs and outputs visual configuration
- Sensor bank management for quick set-up of the inputs
- Save and recall of the entire instruments configuration
- Calibration module to automatically determine the sensitivity of a sensor

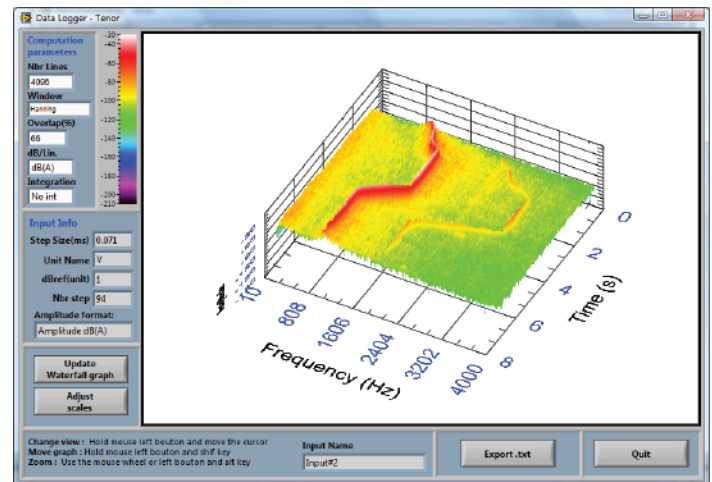
Post-Processing Modules

- Various analysis functions: global levels historic, average FFT, statistics, waterfall, FRF and ISO 2631
- Filtering and time integration operations
- Signal extraction allows removing portions of the signal
- Playback function to listen to a specific section of a selected channel
- Export functions in a single .wav or a .txt file
- Linear, dB or dB(A) scales
- Simple or double integration on the spectrum



Average Sxx Function

- Compute the average Sxx of the entire signal with a user-selectable overlap and time window
- Octave, 1/3 octave and 1/12 octave graphs available
- Narrow band graphs available, 1024 to 8192 lines resolution



Waterfall Functions

- Shows the instantaneous Sxx over the time
- User selectable overlap and time window
- FFT number of lines from 1024 to 8192
- 3D rotation and zoom

Global Levels Historic

- Compute the global levels historic
- User selectable time step

Statistical Function

- Compute the standard L% statistics of the global levels
- User selectable time step

FRF Function

- Compute H1, H2 or H3 transfer functions
- Amplitude, phase and coherence graphs

