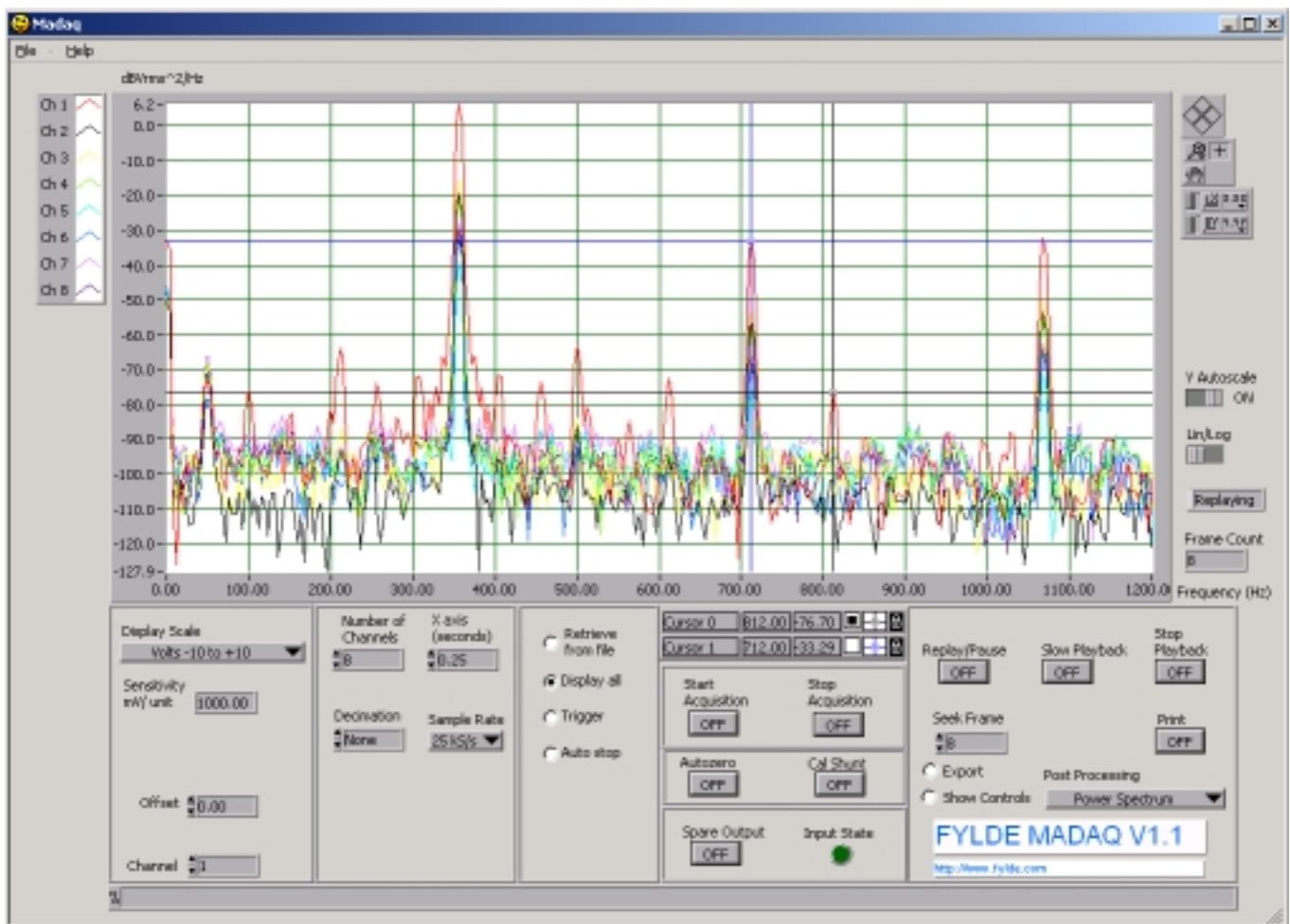


MADAQ Acquisition and Playback Software



- FREE with all FE-MM8 USB Data Acquisition Systems
- Simultaneous Record and Display at 400 kHz.
- Set up sensitivity, sampling rate, display timebase.
- Record and display with trigger, pre-trigger, auto-stop.
- Control FE-MM8 functions during record.
- Replay with many post-processing signal analysis functions.
- Export and print all or subset of acquired data.
- Extremely simple operation.

General Description

MADAQ is data acquisition, replay and analysis software for the Fylde FE-MM8 USB signal conditioning system. It combines exceptional ease of use with comprehensive data capture features and powerful signal processing. It is supplied free with all FE-MM8 USB systems. MADAQ provides simultaneous acquisition to disk and on screen display of up to 8 channels scaled in mechanical units at 50 kHz per channel. Data can also be retrieved and replayed from files.

Specification

Required Hardware		Any Intel compatible running Windows 2000 , XP or later. USB 1.1 port required for connection to FE-MM8.
Help		Built in context sensitive help supporting HLP and CHM.
Set up options	Y (Units)	Scaling for each channel can be defined or retrieved from disk. Choice of predefined units or user defined units. Offset and sensitivity may be set as calibration parameters ($y = ax + b$).
	X (Timebase)	Display can be configured to display up to 300,000 data points simultaneously. This equates to a maximum timebase of 0.75 seconds for 8 channels at 50 kHz. Less channels or slower sample rates allow longer time bases. The quantity of data in a time base period is called a "frame".
	Sample rate	Selectable from 1 kHz to 50 kHz simultaneously on 8 channels.
	Decimation	Full on screen resolution can be combined with decimated save to disk for reduced disk file size. Decimation from 1 to 1000.
Trigger options	Pretrigger	One entire time base period (frame) of pre-trigger data is stored.
	Trigger types	Any level on any analogue signal. High or Low state of digital input.
	Auto-stop	Stop after number of frames or on level of digital input.
Display options		Single or multiple channel display. In multichannel display mode, the selected channel selects the Y axis units. Screen may be zoomed and scaled during acquisition.
Recording		File header information contains time and date of acquisition with scaling and time base. Data is written to disk during acquisition with decimation if selected.
Playback		Full speed, slow or manual step forward and back. Jump forward or back to any data frame. Display overlaid or individual channels.
Signal Processing		Conversion from raw data to microStrains based on strain gauge configuration parameters Filters : Butterworth, Bessel, Chebyshev FFT windows : Hanning, Flat Top, Blackman, Hamming, B-Harris, Low Sidelobe Spectrum : Amplitude (FFT) and Power with linear and log display. Mechanical units converted to volts and autoscaling in a range of units (dB, V, Vrms etc.) may be selected for frequency domain playback.
Printing		Selected frame may be printed with choice of colour schemes.
Data Export		Full data set or selected frame range exported to Excel spreadsheet format.