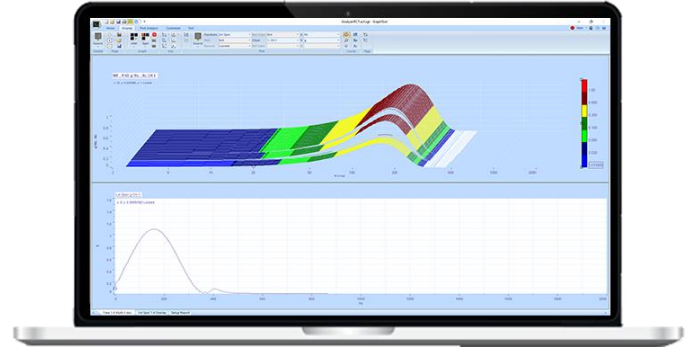




Lynx™ Analyzer program provides comprehensive data acquisition, signal analysis, Modal excitation, Modal data collection with DOF increment capability, and many more features that make Lynx™ Analyzer the most complete real-time data acquisition and analysis tool available today.

Graphics Performance without EQUAL

Use the built in tools to annotate screens that lead you directly to report ready documentation. Let the pictures talk for you in your reports.



Features:

- Up to 16 simultaneous input channels
- Sample rates up to 102.4 K sa/sec (bandwidth 40,000 Hz – HW Dependent)
- Output generator with random, burst random, sine, and chirp
- Highly versatile GUI
- Math Operations
- Overlay current with historical data
- Customer designed annotation



Lynx™ Analyzer - Technical Specifications

Input

Input channels	4 to 16: all simultaneously sampled
Input dynamic range	92 dB
Maximum input	±12V
Voltage ranges	17 ranges, 27 mV to 12V full scale, in 3 dB steps
Overload detection	Full scale on all channels, analog and digital detection
Voltage coupling	AC or DC
ICP power	4 mA (20 V maximum into open circuit)
Maximum rated input signal	±35 Volts peak
Sampling rate	51,200 samples per second
Frame size	256, 512, 1024, 2048 samples; 4096, and 8192 samples optional (Premier)
Frame duration	5 ms to 128 seconds

Output

Output channels	1
Output dynamics range	90 dB
Maximum output amplitude	± 12 Volts peak
Maximum output current	16 mA
Voltage range attenuator	Programmable 48-bit
Attenuator range	0 to -160 dB
Sampling rate	51,200 samples per second
Drive signals	
Random	Broadband; up to 3 Vrms
Sine	1 to 10000 Hz; up to 10 Vpeak
Pseudo random	Broadband; up to 3 Vrms
Sine chirp	Fast sine sweep
Burst random	Windowed random burst with variable duration
User-defined	User-defined shaped broadband output

Analysis

Frequency range (DC to)	50, 100, 200, 500, 1000, 2000, 5000, and 10000 Hz; 20000 Hz optional (Premier)
Frequency resolution	100, 200, 400 and 800 lines; 1600, 3200 lines optional (Premier)
FFT windows	Hanning, Blackman, calibration, force/impact, and correlation

Averaging

Types	Summation, exponential, continuous, peak hold (max)
Number	1 to 1000

Triggering

Modes	Free run, automatic, manual
Source	Any Input channel, external trigger
Threshold	±mV, ± percent of full scale
Slope	Rising/failing
Delay	Specified in ms or percent of frame
Pre/Post-trigger duration	Specified in ms

Channel Setup

Channel type	Measurement, inactive
Sensitivity	0.001 to 1,000,000 mV/g or mV/(m/s ²)
ICP power	On/Off
Coupling	AC, DC
Channel label	Up to 8 characters for each channel
Transducer serial number	Up to 10 characters for each channel

On-Line Controls

Start/Stop test	Initiates or stops data acquisition
Auto-range	Automatically set Input channel voltage ranges
Manual Trigger	Set trigger to Manual arm mode
Arm Trigger	Initiate trigger threshold detection
Output	Turn output drive signal on/off

On-Line Status Monitors

Average count	Current number of frames averaged
Channel Status	RMS levels for all active channels
Message log	Records all test operations, including operator commands, and reports on any error conditions

On-Line Analysis

Real-time displays	Spectra or time histories for all available channels may be simultaneously, displayed
Functions analyzed during the test	
Time	Windowed and un-windowed
Auto spectra	Linear, PSD
Cross spectra	Magnitude, phase, real, Imaginary
Transfer	Magnitude, phase, real, Imaginary, coherence
functions	
Statistical	Probability density, auto correlation, cross correlation
functions	
1/n Octave	1/3, 1/6, 1/12, 1/24
Real-time/Stored data	Simultaneous display and overlay of spectra or time histories for real-time data and any stored data

Modal Data Acquisition

Modal DOF	Data stored and recalled according to modal DOF label
Auto increment	Automatic incrementing of modal DOF during acquisition
DOF Table	Set up multiple tables of DOF numbers and directions for efficient management of modal data
Data storage format	CATS™ binary format, STAR™ binary, and Universal File Format

Transient Analysis

Frequency range (DC to)	25 Hz to 10 kHz; dependent on pulse duration and over-sample ratio
Functions	Acceleration, Velocity, Displacement, SRS (Primary+, Primary-, Maxi-max)
Frame size	Automatic selection of 512 – 8192 samples, in powers of 2 steps
Reference profile	User-defined SRS reference

Swept Sine Analysis

Sweep range	User-defined sweep range from 5 to 2000 Hz; 1 to 5000 Hz (Intermediate) and 0.01 to 10000 Hz (Premier) optional
Sweep resolution	User-defined resolution of 450 to 800 points per sweep; 450 to 2400 points per sweep (Premier) optional
Measurement processing	RMS, or tracking filter processing for all channels in parallel; processing type individually selectable for each channel
Tracking filter types	Proportional to drive frequency, 1 to 200% and fixed bandwidth, 1 Hz to 1,000Hz
Reference profile	User-defined reference

Data Storage

Format	Spectral Dynamics binary or Universal File Format
Setup options	Select from all available functions, new data file or append data to file
Playback	Automatic play of entire test data file, with adjustable display update delay; manual selection; select by input channel of modal DOF
Run message log	Text file records all system status messages displayed during test run

Export Manager (Optional)

File formats	STAR™, I-DEAS™, MATLAB™, UFF
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