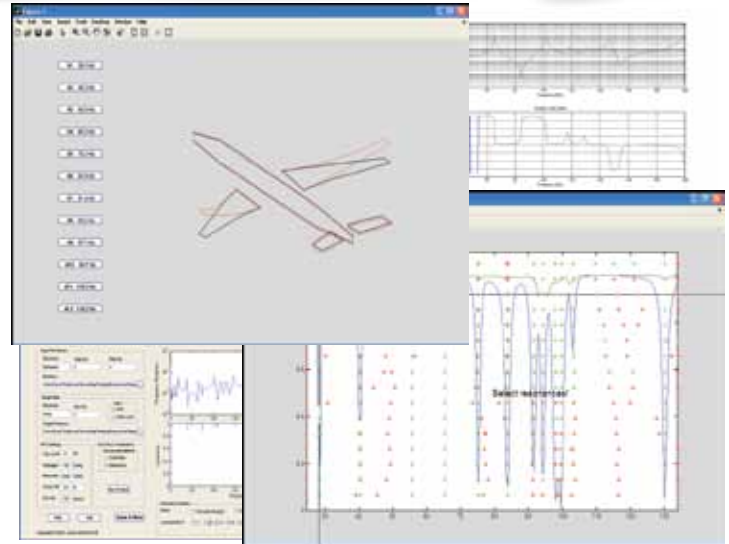


VibraTools Suite™

ModalTools™

The software for modal analysis, mechanical simulation and system identification

- Complete modal package
- User friendly
- Powerful reporting capabilities
- Compatible with most hardware platforms¹
- Rapid Forced Response calculation – very fast
- Full MIMO analysis
- MATLAB®-based for superior power and flexibility



Key Benefits

Modal Analysis ModalTools™ is ideal for experimental modal analysis or mechanical simulation applications. After completing a measurement, ModalTools™ allows selection of a number of different modal parameter extraction methods to extract resonance frequencies, damping factors, and mode shapes. The methods range from several SDOF approaches to a least squares time domain (poly-reference) implementation allowing simultaneous extraction of modes from data taken with multiple references (multiple shakers, or several accelerometers during an impact hammer test with roving hammer). Viewing and analysis of measured data is achieved using animation to enable viewing of plots from all angles. [Click — Done!](#)

Structural Modification With this function, changes in mass stiffness or damping can be easily investigated relative to changes in frequency response functions. The methods implemented are so-called SMURF (Structural Modification Using Frequency Response functions) algorithms. Changes can be added mass or stiffer/damper between a degree-of-freedom and ground, an added tuned damper etc. [Click — Done!](#)

Mechanical Simulation Computing the output response of a mechanical system for a known force input is a common and important task. For transient inputs, forced response must be computed in time domain. ModalTools™ includes bleeding-edge technology to perform time domain forced response simulations up to 2000 times faster than other commonly used techniques. By using models from experimental modal analysis or FEM, rapid and accurate results are achieved. In addition, ModalTools™ includes calculation of eigenfrequencies and eigenmodes and synthesis of frequency response functions from M , C and K matrices. ModalTools™ is a powerful platform for developing simplified mechanical models from your experimental data.

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Main Features

The SAFE way to

- Keep data under *your* control
- Make traceable scripts
- See and understand what you're doing at all times
- Add your own application-specific commands
- Add Matlab's flexibility and numerical tools
- Import and export data to/from popular file formats



...in addition, you get

- Easy-to-use software with powerful commands for spectral analysis, filtering, modal analysis, etc.
- Easy handling of large channel counts
- Easy graphical user interface (GUI) tools for customizing your applications
- VibraTools™ is included when you purchase ModalTools™: substantial sound and vibration analysis capabilities on top of a very powerful and competent modal package!
- Excellent price/performance ratio

¹ Contact us for details of product compatibility

Distributor/Representative



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