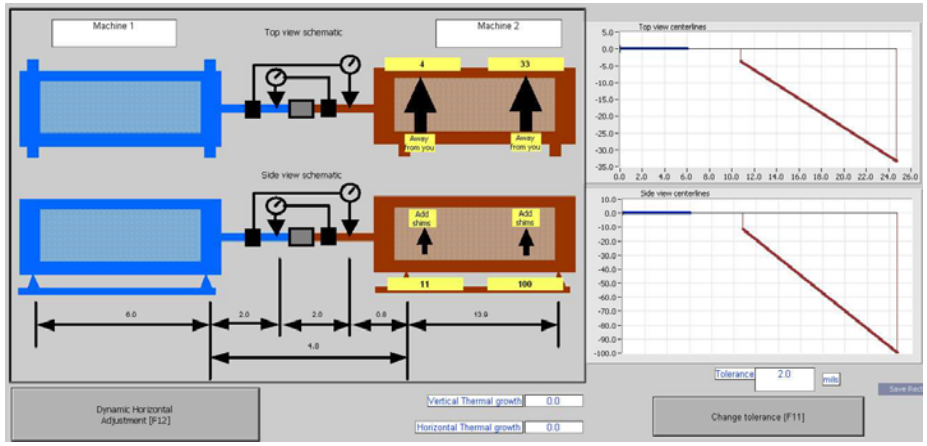
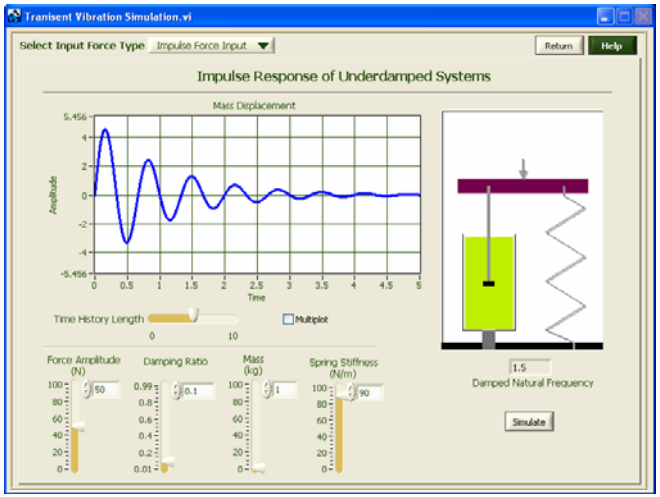
# SpectraQuest Software

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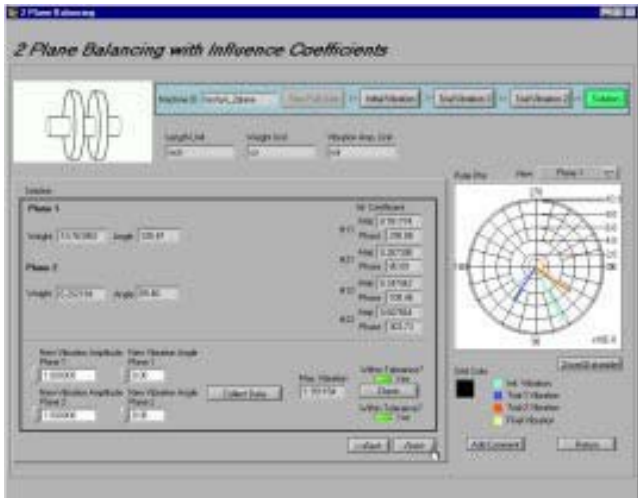
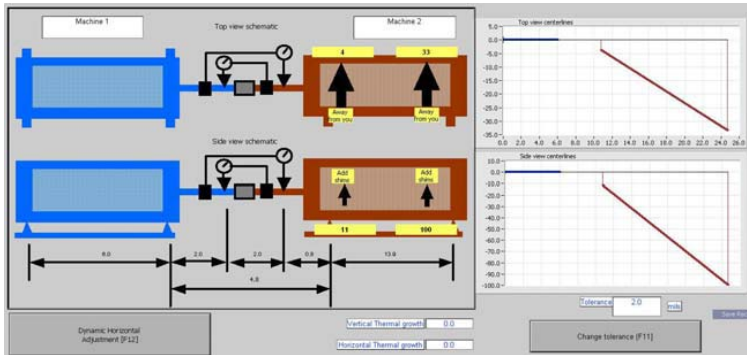
# BalanceQuest

- BalanceQuest is comprehensive, user friendly software for balancing common rotating equipment using the SpectraQuest data acquisition system or manual data input. The software offers three different methods to resolve balancing issues.
  - Most common methods of balancing
  - Maintains machine data and balancing history
  - Solutions available both graphically and in spreadsheet format
  - Step by step procedure provided on screen
  - Import digital pictures for future balancing reference
  - Simple, intuitive user interface
  - ISO tolerance is embedded to check balance quality
  - Four run method allows balancing with a vibration meter



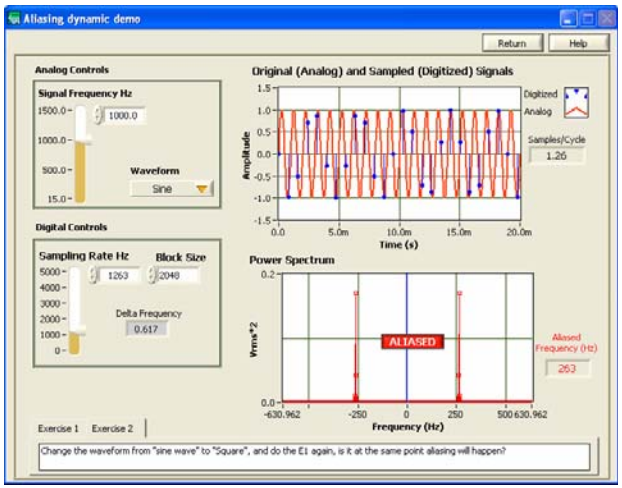
# AlignmentQuest

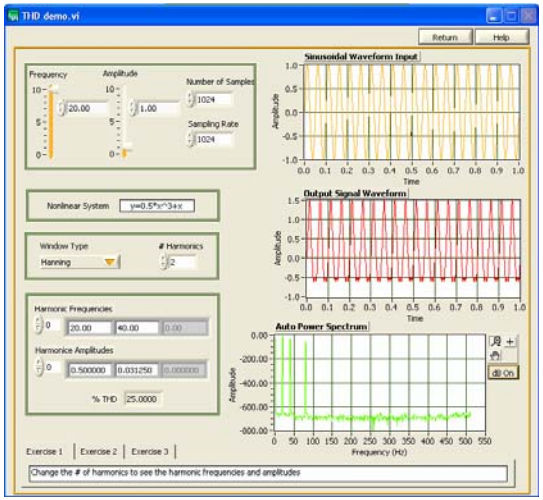
- Multi-machine shaft alignment software using conventional and readily available dial indicators
  - Vivid, easy to view color graphics.
  - Align multiple machine trains, horizontally or vertically mounted.
  - Built-in step by step tutorial with intuitive, easy to remember procedures.
  - Perform shaft alignment under limited swing conditions using any amount of angle. Self diagnostics to detect human and hardware errors.
  - Fixed and adjustable machines can be interchanged.
  - Sag compensation indicator.
  - Adjustable tolerance limit.
  - Creates a 360 degree rotational map of the shaft rotation, useful in visualizing the fulloperation of the machine.
  - Create a machinery database for the entire facility.
  - Archive alignment data.
  - Export data for further analysis.
  - Generate comprehensive custom reports.



# Signal Processing and Simulation

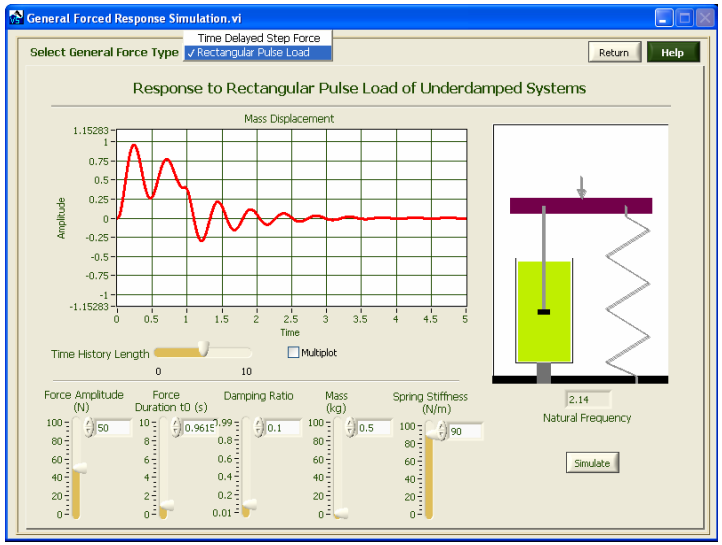
- Signal Processing and Simulation is comprehensive and powerful software for expediting digital signal processing learning. It provides full theoretical structure and visually simulates most common but hard to understand signal processing concepts.
  - Comprehensive - 17 topics from signal definition to full digital signal analysis
  - Expedite learning - theory plus visual simulations
  - Clarify concepts - learn with exercises for each topic
  - Verify analysis - signal generation provides tools to verify the diagnosis
  - Advanced features - averaging, windowing, zero-padding and more



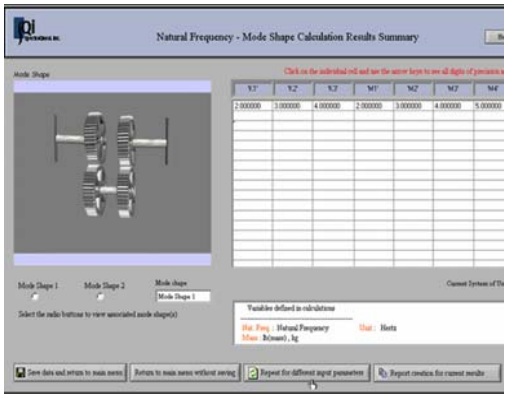
# Vibration Fundamentals

- Vibration Fundamental is designed to teach basic concepts of vibration using an interactive and visual simulations. Each concept is explained theoretically and simulated to expedite learning.
  - Simple harmonic motion and mass-spring system
  - Free vibration, damped vibration, and forced vibration
  - Undamped, underdamped and overdamped systems
  - Logarithmic decrement
  - Transient response – step input and impulse input
  - Combined vibration -- harmonic excitation with initial displacement and velocity
  - General forced response--delayed step input and rectangular pulse input
  - Displacement and force transmissibility
  - Frequency response function
  - Free 2 DOF
  - Forced DOF
  - Tuned mass damper



# Structural Dynamics Calculations

- Structural Dynamics Calculations is software for calculation and animation of vibration properties to optimize design. The properties of more than forty engineering structures, including plane area section, solid bodies, spring systems, natural frequency, and mode shape, are calculated and simulated.
  - Easy and fast calculation of fundamental vibration properties of commonly used mechanical systems
  - Provides most cost-effective solution for calculating structural design parameters
  - User does not need to purchase expensive FAE software for dynamics calculation
  - Graphical interface for depicting and understanding different mode shapes
  - Reporting feature with facilities for exporting to popular word processing software's
  - All in one package that helps to determine the natural frequency of several systems starting from the basic structure properties
  - Customize reports in HTML, Word, and Excel formats, presenting graphics, tables and text



# Mechanics of Materials

- Calculates shear force, bending moment, and deflection for over 100 loading conditions for beams and structures.
  - Beams: reaction forces, shear forces, bending, maximum and fixed end moments, slope and deflection of various beam systems, under varying loading conditions
  - Rigid frames: the maximum bending moment and moments at varying sections of the beam, the vertical and horizontal components of the frame reactions.
  - Graphical display for each loading condition
  - User can perform calculations with variety of structural geometries and material to determine the most effective structure to meet design requirements
  - Reports can be customized and presented with graphics, tables and text