WaveMaker™ Cyclic Fatigue Software Operator's Course

Realise the potential of your operator personnel and investment in Instron® equipment through comprehensive 'hands-on' interactive instruction.
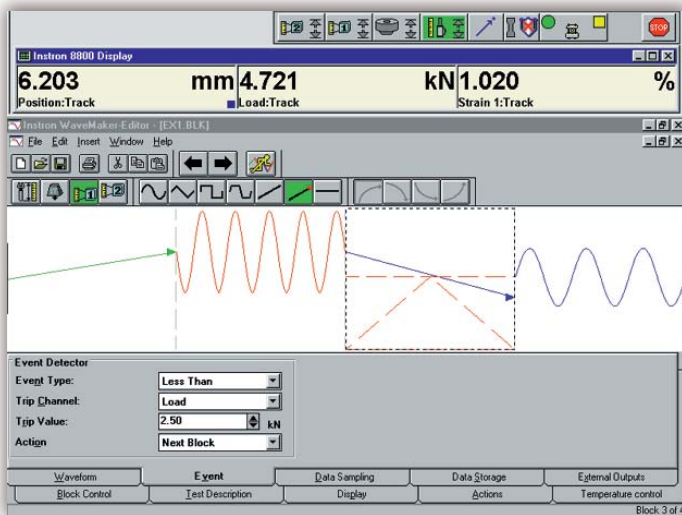
Duration: 2 days

Who Should Attend?

- New WaveMaker operators
- Test instrument operators
- Lab supervisors
- Product engineers, product inspectors
- Anyone who installs, customises or administrates Instron WaveMaker software
- New 8800 operators

Block control

Course Description

Comprehensive computer and system training on WaveMaker complex fatigue software. Students will learn how to design and run tests and create waveforms (sine, square, triangle, haverwaveforms) using WaveMaker editor and runtime programs. Instruction on the setup of statistics, calculations and result tables will also be covered. You will learn how to start, monitor, halt a test and create standard load history playback files.

Course Objectives

After completing this course, students will be able to:

- Design a test, create waveforms with Waveform generator
- Use WaveMaker editor and runtime programs
- Configure your display screen and control panel
- Set-up control test parameters
- Set-up limits and closed loop control gains (PID)
- Start, monitor and halt a test
- Generate runtime graphs
- Set-up various data logging options
- Electronically calibrate and balance your transducers
- Run waveform preview feature
- Set-up statistics, calculations and result tables
- Save and retrieve your test methods
- Set-up various fatigue testing applications
- Import CSV files for spectrum loading
- Run your tests, generate graphs/reports and product results
- Create ramp and cyclic waveforms (sine, square, triangle, haverwaveforms)
- Perform data Logging, random cycling, labmanager functions
- Create standard load history (SLH) playback files

Course Outline

Day 1

9:00 a.m. - 4:45 p.m. (approximately)

- Introduction to WaveMaker™ software WaveMaker flexibility/capabilities
- Typical tests and applications
- WaveMaker editor program
- WaveMaker runtime program
- System set-up
- System parameters
- Calibrating the 8500/8800 system
- AutoTuning and PID procedures
- Software and hardware limits
- WaveMaker editor software
- Display conventions
- Blocks, sequences
- Scaling options
- Preview limitations
- Designing a test
- Block control tools
- Waveform tool bar
- Waveform
- WaveMaker run time software
- Display conventions
- System set-up
- Starting/monitoring/halting a test
- Run time graphs
- Post processor
- Recalling data, printing/plotting results
- Storing and recalling plotting setup
- Using calculations

Day 2

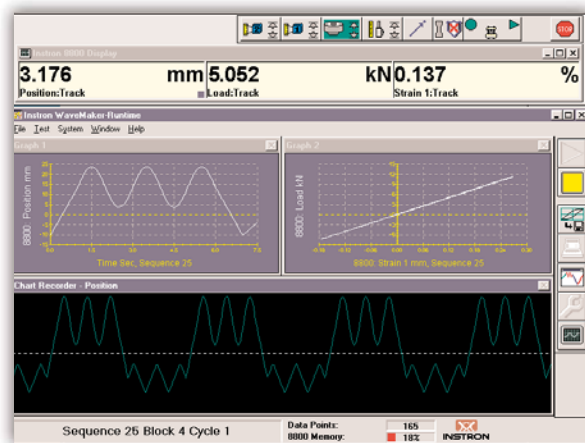9:00 a.m. - 4:45 p.m. (approximately)

- Design tests
- Design function
- Ramp waveforms
- Cyclic waveforms
- Data logging
- Condition control
- Random cycling
- Playback control
- Labmanager functions
- Performance envelopes

Prerequisites:

- A fundermental operating knowledge of modern PC's including the basic use of MS Windows●
- A familiarity with materials testing concepts and principles
- Test instrument operation experience would be an advantage
- Completion of the single axis 8800 series operators course

Training Material:

- Comprehensive training manual included

WaveMaker test information display.

To register for a course, please contact us at
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