Learn how to analyze measured test data using nCode GlyphWorks

nCode GlyphWorks: Digital Signal Processing and Test Data Analysis provides an overview of data analysis techniques and offers hands-on sessions where you will learn how to use nCode GlyphWorks software to quickly and efficiently turn raw data into actionable information.

The course is aimed at engineers who need to analyze measured test data. This data is typically channels like strain, acceleration, load, temperature, etc. from the field, proving ground or laboratory. It is assumed that attendees are familiar with data measurement practices and general signal processing concepts. No prior knowledge of nCode software is required.

Learning objectives

- Solve engineering problems by applying analysis techniques including signal processing, statistical analysis and durability assessment with pre-designed engineering functions called ‘glyphs’
- Display results by time series, histogram, charts and reports, synchronizing measured signals with GPS and video and interpret results
- Identify and correct errors and problems with measured data
- Identify and analyze channels of interest
- Identify and extract key sections of measured signals
- Perform math operations on single, multiple and combined channels
- Classify data into rainflow cycle counts, FFT-PSD and other statistical measures
- Perform durability analysis, including strain gauge rosette processing, fatigue analysis and crack growth
- Replace frequently used groups of glyphs with a SuperGlyph
- Create custom glyphs using Python or MATLAB
- Import/export third party data formats

Topics included - 2 days

- Learning the nCode interface
- Importing and exporting data
- Graphically displaying data
- Manipulating and analyzing data
- Cleaning and editing bad or anomalous data
- Tips and tricks
- Using metadata in automated calculations
- Automated report generation
- Advanced analysis techniques
  - Fatigue analysis
  - Crack growth
  - Optimized proving ground testing
  - Custom scripting glyph (GlyphBuilder)

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