What’s New in nCode 2018 (GlyphWorks and VibeSys)

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DesignLife

GlyphWorks

VibeSys
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GlyphWorks

VibeSys
There is a significant increase of the processing speed when GlyphWorks is used interactively.

This was obtained by modifying the refresh rate of the interface depending on the activity performed in the background.

The gain is typically up to **5 times faster** for more complex analyses.

This example flow is 7 times faster to process.
nCode GlyphWorks 13.1: Reporting

- Studio now has a choice of PDF export type which can be set using a new preference.

  - The Bitmap type exports each page as a single bitmap image,

  - The new VectorGraphics type draws directly into the document, leading to a higher resolution and a smaller file size. In this case, any text is selectable and searchable.
The ASCII Input glyph is a new glyph which allows ASCII text files to be converted into time series, histogram or multi-column data as part of a flow.

It uses the same conversion methods as the ASCII Translate application.

Files with extensions CSV, ASC or TXT appear in the available data window under ASCII Files.

A new option has been added to ASCII Translate to automatically calculate the sample rate from the data if required by the user.

Save time by seamlessly reading ASCII files in a workflow
nCode GlyphWorks 2018: File Formats

- New file formats are supported:
  - Vector BLF
  - IPETronik IAD

- File format enhancements:
  - HBM Catman file format now supported on Linux.
  - OROS OXF file format now available on Windows 64-bit platform.
  - Faster access to Dewesoft DXD files.
  - New preferences for the ETAS and Vector MDF files to resample multi-column data into time series.

Streamline customer monitoring and ADAS validation activities by reading native data from the vehicle network.
nCode GlyphWorks 2018: Enhanced Display Capabilities

- **XY Display:**
  - New preference to set the number of decimal places of the cursor position labels.
  - Ability to select channels to display using a comma separated list of channel titles.
  - Ability to move selected channels up or down in the list.
  - Y Cursors and annotations can be added to plots with multiple Y-axes.

- **Data Values Display – Performance Enhancements when sorting columns**
- **nCodeViewer – additional command line argument to use a configuration file when viewing data**
Stress-Strain Conversion is a new glyph that uses material data to perform conversions from:

- elastic strain to elastic-plastic stress and strain.
- elastic-plastic strain to elastic stress and strain.
- elastic-plastic strain to elastic-plastic stress and strain.

The two outputs can then be combined in an XY Display glyph to plot hysteresis loops.
nCode GlyphWorks 2018: Running Statistics Glyph

- Statistics on a per feature basis
  - New property in the Running Statistics glyph to extract a statistical value from each feature, showing the chronological evolution of the statistical value on a feature by feature basis.

Assess how a given metric evolves on an event basis
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VibeSys
• Psycho-Acoustic Metrics
  • **Sound quality**: metrics such as Loudness, Sharpness explain how sounds are perceived by the human ear
  • **Speech Metrics**: Articulation Index
    ➢ Benefit for end user: increase chances of consumer adoption

• Orbit plot - Rotating Machinery
  • Used to check stability in journal bearings.
  ➢ Benefits: Avoid failures during service and minimise maintenance downtime
nCode VibeSys 2018: New Entry in Vibration Manager

- Vibration Manager now includes the vibration curves from the ISO 16750-3:2012.
- Cf. webinar “Quantify the Reliability of Automotive Electronic Components Subjected to Vibration” available from http://www.ncode.com/resources/videos

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<thead>
<tr>
<th>INTERNATIONAL STANDARD</th>
<th>ISO 16750-3</th>
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Applications:
- General purpose Test-CAE correlation.
- Modal Assurance Criterion when comparing FE-based vs. test-based mode shapes.
nCode VibeSys 2018: ODS Display Enhancements – Animations

- The ODS Mapping dialog now offers two new properties:
  - Plot Fixed Nodes
  - Plot Displaced Nodes

- Used to mark mapped nodes using triangles (fixed nodes) or triads (displaced nodes).

- It is now possible to plot channel numbers next to displaced nodes.

Ensure the mapping was done correctly.
Live Demo
www.hbmprenscia.com

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