User Guide: conanair Vibration Trend Analysis Tool

A quick guide to analyzing vibration trends using your conanair sensor data.

Overview & Workflow

This tool runs completely in your local web browser. Your data is processed client-side and is never uploaded to any remote server.

[Step 1: Definition File] ——> [Step 2: Measurement Data] ——> [Step 3: View Results]

Step 1: Point Definition File (Optional)

Upload a CSV file containing your measurement point numbers, names/tags, management types, and Caution/Warning thresholds.

1. **Upload File**:
    - Drag and drop your Point Definition CSV file into the drop zone, or click the box to browse.
    - The file will automatically load, displaying a preview of defined points and threshold values.
    - Click **"Next: Upload Measurement Data →"**.
2. **Skip This Step**:
    - If you do not have a definition file, click **"Continue without Point Definition File →"**.
    - Points will be labeled by point numbers or tags without baseline threshold lines.

Step 2: Upload Measurement Files (.cna or CSV)

Import measurement data files downloaded from your conanair vibration sensors. Both Manual Mode (e.g., 01_20241225101736.cna) and Auto Mode (e.g., 20250113015959.csv) are supported. In manual mode, the measurement point number (00–99) is added as a prefix to the measurement data file name.

- **Upload Files Directly**:
    - Drag and drop multiple .cna and .csv files into the drop zone.
    - Or click the drop zone to select multiple files at once.
- **Upload via Folder**:
    - Drag and drop a folder directly into the box, or click **"📁 Select Folder to Load"** to select a directory.
    - *Note*: All valid files located directly inside the chosen folder will be loaded (subfolders are not scanned).
- **Proceed**:
    - Once the progress bar reaches 100%, review the import summary and click

"View Results →".

Step 3: View Results & Analysis

1. Axis Selection

Switch between different vibration components using the axis buttons at the top:

- **X Axis**
- **Y Axis**
- **Z Axis** *(Default)*
- **3-Axis (3D) Combined** (Vector sum magnitude)

Important: Threshold lines (Caution / Warning) and alert badges are evaluated based on the **Z-axis standard** as specified in the conanair definitions. Alert counts remain consistent when switching displayed axes.

2. Evaluation Criteria & Thresholds

- **Caution Over**: Triggered when the latest reading exceeds the Caution threshold (Orange dashed line).
- **Warning Over**: Triggered when the latest reading exceeds the Warning threshold (Red dashed line).
- *Note*: Threshold checks apply to measuring points where the management type matches (VR for Velocity RMS, AR for Acceleration RMS).

3. Interactive Charts & Data Tables

- **Hover Details**: Move your cursor (or tap on touch screens) over any data point to inspect exact measurement values, units, and timestamps.
- **View Data Table**: Click **"View Data Table"** at the bottom of any point card to expand the full chronological measurement history.
- **Save Image**: Click **"Export PNG"** above either graph to download a high-resolution chart image.

4. Filtering & Export

- **Search / Filter**: Use the search box to find specific point numbers, tags, or names. Check **"Show alerts only"** to display only points with Caution or Warning flags.
- **Sort**: Sort items by severity (Warning first) or by point number.
- **Summary CSV**: Click **"📥 Summary CSV (Latest Values)"** to export an overview of all points and their latest status.
- **All Data CSV**: Click **"📥 All Data CSV (All Records)"** to export the entire measurement history across all axes.
- **Print / PDF**: Click **"🖶 Print / Save PDF"** to format and print a clean report or save it as a PDF.