23/11/2024, 12:44 Augurey

#### Operation

This API was developed to classify stages of degradation of mechanical components based on vibration data collected in horizontal and vertical directions (in CSV), as well as collection frequency (in Hz), intervals between data collections, and data collection windows (both in seconds).

If the user has any doubts or curiosities about the stages of degradation, <u>click here</u> for more information.

#### Inspiration

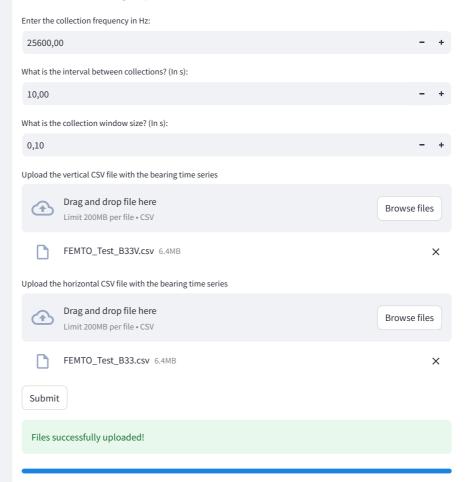
A skinny, sorrowful-looking bird that resembles a small, malnourished vulture, the <u>Augurey</u> is dark greenish-black. It is extremely shy, only flying in heavy rain, and otherwise stays hidden in its tearshaped nest. The Augurey has a low, sobbing song that was once believed to herald death. However, over time, patient research revealed that this bird merely announces the coming of rain.

Analogously, the Augurey bearing the bearing degradation analysis API does not simply announce the end of a device's lifespan and, consequently, the machine's, which is somewhat inevitable. The system aims to prepare the analysis and maintenance team for the changes that will occur as a normal process of rolling device degradation. Thus, prepared for the impending changes in the device due to the degradation process, the team can take action to avoid damage to components working alongside the bearings, extending the life of the machine the bearing belongs to.

## **Augurey**



The sad song that precedes the rain.



Analysis completed

# **Analysis of Stages**

This application displays the time spent in each stage and the time intervals.

### Time spent in each stage:

Stage 0: 0h 9min

Stage 1: 0h 21min

Stage 2: 0h 20min

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Stage 3: 0h 16min

## Time intervals for each stage:

#### Stage 0:

- Start: 0h 0min, End: 0h 3min
- Start: 0h 4min, End: 0h 11min

#### Stage 1:

- Start: 0h 3min, End: 0h 4min
- Start: 0h 11min, End: 0h 30min
- Start: 0h 50min, End: 0h 50min
- Start: 0h 51min, End: 0h 51min
- Start: 0h 51min, End: 0h 51min

#### Stage 2:

- Start: 0h 30min, End: 0h 50min
- Start: 0h 50min, End: 0h 51min

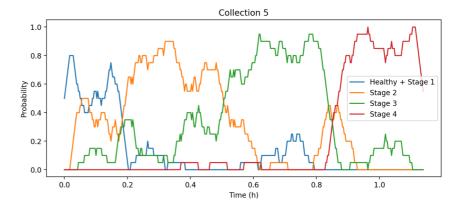
#### Stage 3:

- Start: 0h 51min, End: 0h 51min
- Start: 0h 51min, End: 1h 8min

## **Current stage:**

The system is currently in Stage 3. This phase is concerning and requires urgent corrective action. The probability of being in this stage is 90.00%.

The degradation evolutionary chart can be analyzed below:



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