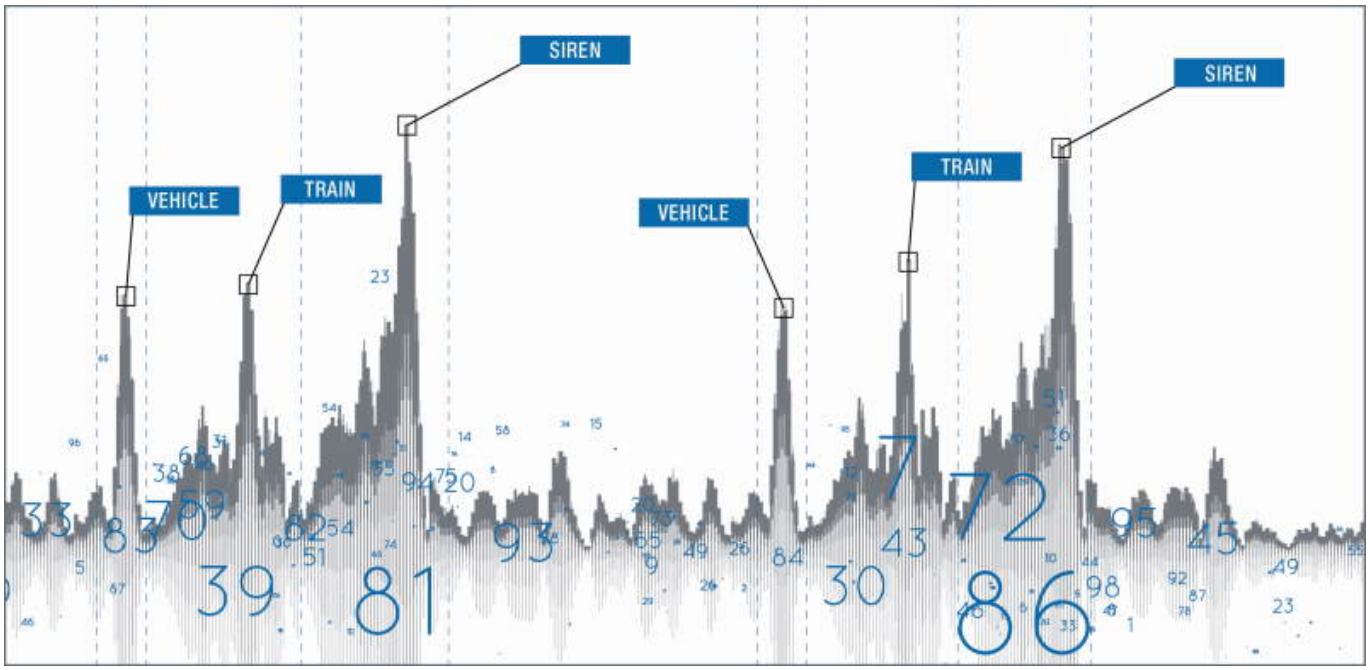
NTi Audio Introduces AI for Noise Classification



To assist in identifying the cause of a noise level alarm, NoiseScout now provides a text description of the content of the wav files that are recorded during an alarm event. This is achieved using AI analysis and Noise Classification. The text indicates what the possible cause of the alarm could have been, and therefore reduces the necessity to listen to the actual wav file.

In NoiseScout, wav files of audio samples from intervals where levels were high are compared to a library of classified sound samples with a pretrained audio event classifier that predicts audio events based on a dataset on the NTi Audio internal servers.

The functions of this classifier form the central part of our AI system. These functions use pattern matching to determine the closest matches between the current audio sample and the library. The result is then weighted according to the sound pressure levels within the wav file. Each pattern is assigned to predefined classes, and the class labels of the closest matches chosen.

A score value is assigned to each match. The score is a measure of the accuracy and precision of a best-match classification aggregated across the whole wav file. Scores are higher when there is less background noise. The text description and associated score are displayed when the score is greater than 20.

This AI analysis and Noise Classification assist in identifying the cause of noise level alarms, reducing the necessity to listen to the actual wav file, and thereby saving time. Of course, the wav files are still available for a more in-depth analysis.

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