

## Description

You are tasked with providing a preliminary analysis of a heterogeneous set of vertical acceleration measurements recorded by MYSTARTUP sensors. The final aim of the analysis is to classify these signals by train type, switch, and speed. There is no assertion that the amount of data provided is sufficient to uniquely determine these attributes.

## The Data

- 20 acceleration traces from a range of train types, train speeds, and locations, i.e. different switches;
- 2 kHz sampling rate; and
- binary data files storing G values as 32 bit floats.
- A sensor power up phase manifests as a rise in average signal (from large negative G values) over the initial few hundred milliseconds.
- The file name format is
- <yyyymmdd>\_<HHMMSS>\_<sensor-id>\_<deployment-id>\_channel<channel-id>.dat
- The date-time-stamp reflects the start of data recording.
- acceleration.tar.gz