

Problem Statement:

1. The folder raw.zip has raw files which were measured in a station. As the name indicates, there are 2 inverters, 1 energy meter (named MFM) and 1 meteorological substation (named WMS)
2. The raw data is a stream of data which gets recorded by the sensors on the field and is sent over the cloud.
3. The raw data is cleansed into a Gen-1 data format, here the following operations are performed:

a. For Inverters

- i. For inverters, column i32 indicates the timestamp of the row. Make this as the first column in the Gen1 file and rename the column header to 'Timestamp').

b. For Energy meters (MFM)

- i. Same rules as above, only difference is timestamp column is m63

c. For Energy meters (WMS)

- i. Same rules as above, only difference is timestamp column is w23

Sample Gen-1 data for some of the raw days is also provided (sampleGen1.zip)

*****The data in the sample gen1 files have been bucketed into 5-min intervals. Ignore this operation*****

Expected output format:

There needs to be a Gen-1 file for every raw data file. The attached raw.zip has data for each substation. The output format needs to be as follows:

[Station ID]

 |---> [Year]

 |---->[Year-Month]

 |--->[Substation-ID]

 |---> [Gen-1 Data.txt]

The station ID for the given raw data is IN-023C

Year needs to be determined based on the timestamp of the file

Year-Month needs to be determined based on the timestamp of the file

Substation-ID depends on the substation read (example Inverter-1, MFM, WMS etc)

Gen 1 Data.txt has the same name as the raw file.txt

Attached an example for your reference:

Files to be submitted:

Gen-1 data (Zipped file maintaining folder structure described above)

Python Code used to generate Gen-1 data with comments