AI on Hi-ASAP 2020: Q&A

**Contact information:**

Speaker:

Chun-Hu: [lch0909@gate.sinica.edu.tw](mailto:lch0909@gate.sinica.edu.tw)

Vincent Wang: [phdzen@gate.sinica.edu.tw](mailto:phdzen@gate.sinica.edu.tw)

Joanne: [joannehu@gate.sinica.edu.tw](mailto:joannehu@gate.sinica.edu.tw)

Mark Tsou: [marktsou09@gate.sinica.edu.tw](mailto:marktsou09@gate.sinica.edu.tw)

1. Get calibration factor

**Question 1:** From Ha Chi

I got the .csv output for date 4/10/2020 only (in attachment). But I copied all csv and xlsx files from the "ASLung\_Calibration\_Factor\_RawData" folder you provided into the same name folder of pycharm\_project. Why couldn't I get the calibration factors results of date 04/08 and 04/09 even when I have modified the data time format of time column to be consistent with date 04/10?

**Answer:**

The fully data comparison period is from 4/8 to 4/10, we set the last date of 4/10 as “Start\_date”.

The aslung device save data day by day, you will have, so there are three data files in a fully comparison period.

**Question 2:** From Ha Chi

Could you please explain more clearly the slice No.4 about "Modify the data time format of time column"?

**Answer:**

The data time format should be “yyyy/mm/dd hh:mm:ss”, “yyyy-mm-dd hh:mm:ss” or "mm/dd/yyyy hh:mm:ss", you can modified the data time format in the excel file.

Ex:

yyyy/mm/dd hh:mm:ss=>2020/10/06 09:46:00

yyyy-mm-dd hh:mm:ss=>2020-10-06 09:46:00

mm/dd/yyyy hh:mm:ss=>10/06/2020 09:46:00

**Question 3:** From Thiha

When I run the maximum concentration of the PM, I am getting these error messages. How can I fix the error? Thank you.

Please kindly see the attached file.

Error Message:

AS-Lung ID :

AL-0339

C:\Users\hp\PycharmProjects\ASLung\_AI\venv\lib\site-packages\pandas\core\frame.py:4163: SettingWithCopyWarning:

A value is trying to be set on a copy of a slice from a DataFrame

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user\_guide/indexing.html#returning-a-view-versus-a-copy

return super().drop(

as\_id: AL-0339

………………….(Omit)

packages\numpy\core\fromnumeric.py", line 87, in \_wrapreduction

return ufunc.reduce(obj, axis, dtype, out, \*\*passkwargs)

ValueError: zero-size array to reduction operation minimum which has no identity

**Answer:**

The data set is not correct. Thiha copied data cleaning data set to get calibration factor folder.

Please check the data set is correct.

**Question 4:** From Thiha

I get another error message. How can I fix it?

**Error messages**

Maximum concentration of standard PM: 200

AS-Lung ID :

Traceback (most recent call last):

File "ASLungCalFractor\_2Segment\_Regesssion\_AI.py", line 49, in <module>

std\_df\_list = std\_df(Standard\_file\_path[0])

IndexError: list index out of range

AL-0400

Process finished with exit code 0

**Answer:**

Did you copy the reference PM to the folder of “ASLung\_Calibration\_Factor\_RawData”

**std\_df\_list = std\_df(Standard\_file\_path[0])**

**IndexError: list index out of range**

This error code mean that “run.py” cannot find reference PM

Please check that “standard\_2020\_Lab\_Grimm026\_0410.xls” is in “ASLung\_Calibration\_Factor\_RawData” folder.

1. Data cleaning

**Question 1:** From Ha Chi

I followed the guideline in the presentation but there is no any outputs if I use the google link provided in GoogleSheetAndAPI.xlsx (I had copied the output of calibration factors to this link before copy to run.py)

I tested with the original run.py, it run well. So I believe the step of getting calibration factors might go wrong somewhere. Could you please help to solve this problem?

**Answer:**

The data set of get calibration factor and calibrate AS-Lung data are different.

There is no calibration factor to fit the test data set of AS-Lung in yours google sheet, so you cannot see any output in the folder.

If you want to try how to calibrate AS-Lung data, please do not change the calibration factor API or copy the factors to yours google sheet(GoogleSheetAndAPI.xlsx). I have modified the out in the running window, it will show “**There is no calibration factor at the sampling time of XXXXX !**”

The factors of calibrate AS-Lung are in the google sheet (<https://docs.google.com/spreadsheets/d/1yuvjPvsr1sEzm_pXpZWpnMxEC3WbsKn65V-apohp86E/edit#gid=0>), the link also show in the PDF file(page 10)

BTW, I found a little bug when write aslung id into the calibration factor file, it has been fixed.

If you download the source code before 10/6, please update it.