Empa.QATool CSV Import file format specification

Introduction

The QATool used for ACTRIS, provided by Empa, supports the import of custom csv files. This import can be used to import custom datasets for visualization and flagging in the QATool, without having to go through the EBAS submission process.

These CSV files can contain any type of data (does not necessarily have to be VOC's listed as valid by EBAS).

This document will explain how such a CSV file has to look like, for it to be imported into the QATool.

CSV Format

The CSV Importer of QATool will use ";" as delimiter between columns, so make sure your file uses this delimiter!

Important: For correct import, the csv file should be saved with UTF-8 encoding!

There are 2 main parts in the csv file: A mandatory part and an optional part

Mandatory part

The mandatory part includes these two columns:

- Starttime
- Endtime

Dates have to be in the format "yyyy-MM-dd HH:mm:ss", for example "2018-09-04 14:30:00"

These two columns are used to describe during which timeframe the data has been taken. If the measurement a punctual (with just one date time, and no time range), just leave Endtime empty and enter your date in Starttime. However, both columns should always be at the beginning of each row.

Also, mandatory of course is the header of the dataset, containing stuff like substance names, etc. For example (more further down in this document):

```
Start;End;CO-Value;CO-Flag;CO-Precision;CO-Accuracy;NO-Value;
```

Optional part

The optional part includes all the data. There are 4 types of data:

- **Value**
- **Precision**
- **Accuracy**
- **Flag**

These are represented as 4 columns each, per measured substance / object:

- [Substance]-Value (mandatory)
- [Substance]-Precision (optional)
- [Substance]-Accuracy (optional)
- [Substance]-Flag (optional)

So each substance has 1-4 columns. The measured value is obviously mandatory, while the others are optional and will be stored as NULL in the internal database when not provided.

Examples

Some CO2 and NOX data without end-time

Lets make an example. Lets assume we want to import a dataset containing CO2 measurements (with a flag column) and NOX measurements with no other optional columns: Where the data is a punctual measurement (End always empty)

```
Start;End;CO2-Value;CO2-Flag;NOX-Value
2018-09-07 00:00:00;;234;1.000;42
2018-09-08 00:00:00;;232;1.000;45
2018-09-09 00:00:00;;242;1.000;37
```

Some simple data with only mandatory fields, containing an end time

Lets assume one wants to import just some simple data, with start and end time defined for these substances:

```
Start;End;CO2-Value;NOX-Value;Wind-Speed-Value
2018-09-07 00:00:00; 2018-09-07 01:00:00;234;42;34
2018-09-08 00:00:00; 2018-09-07 02:00:00;232;45;36
2018-09-09 00:00:00; 2018-09-07 03:00:00;242;37;25
```

VOC data with optional fields

```
Start;End;Ethane-Value;Ethane-Precision;Ethane-Accuracy;Ethane-Flag
2018-09-07 00:00:00; 2018-09-07 01:00:00;234;42;34;0.127
2018-09-08 00:00:00; 2018-09-07 02:00:00;232;45;36;0.127
2018-09-09 00:00:00; 2018-09-07 03:00:00;242;37;25;0.127
```