

Interactive comment on “Evaluation and optimization of ICOS atmospheric station data as part of the labeling process” by Camille Yver-Kwok et al.

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We would like to correct the answer to two comments that were switched around:

What are the criteria that go into validating the data at hourly timescales as shown in Figure 3? For example, is there a % or minimum data amount requirement to flagging the hourly data as valid/invalid?

The hourly means are computed automatically using minutes means which are themselves computed using raw data. If there is at least one valid raw data within a given minute, the corresponding minute mean is considered as valid. Similarly, if there is at

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least one valid minute mean to compute an hourly mean, the hourly mean is considered valid. There is no automatic quality control criterion applied to the hourly means, only the criteria are applied on the raw data.

[P19L7-12] Meteorological measurements - Can the authors specify what checks the ATC performs on the meteorological measurements? My understanding is that verifying the instrumentation and checking the accuracy of the meteorological data is quite challenging, and it would be interesting to know the ATC's specific procedures.

The ATC performs simple filtering on the raw data based on valid ranges (min/max values) for the five mandatory species which are pressure, temperature, relative humidity, wind speed and wind direction. Except for relative humidity, the data are also marked as invalid if the measurement is constant for more than X minutes in a row. X is set to ten for the wind variables and to 60 for the other species. The second criterion is used to cope with blocked sensors. We are working on a comparison with the ECMWF data to highlight potential drifts or outliers. In terms of instrumentation, we are working on instating a two-year recalibration for the humidity sensors that are the one drifting the fastest over time.

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