ETH zürich

Department of Environmental Systems Science | Institute for Atmospheric and Climate Science

Global Energy Balance Archive

Flags

A GEBA quality string belongs to every energy flux value in the GEBA database. It consists of 7 characters. Each character is associated with a QCP. The result of QCP no. 1 is stored in character no. 7 (from left to right), the outcome of QCP no. 2 is saved in character no. 6, the result of QCP no. 3 in character no. 5, etc. Thus a GEBA quality string contains the outcomes of up to seven QCPs applied to the energy flux value, to which the string belongs.

The result of a QCP applied to an energy flux monthly mean is coded with the following quality flags:

Flag	Meaning of Flag
blank	note yet controlled by the QCP
1	judged to be erroneous by the GEBA climatologist
2	suspect of being afflicted with error by the QCP: "flagged by the procedure"
3	suspect of being not representative for a larger region by the QCP: "flagged by the procedure"
5	cannot be checked by the QCP: "not found to be erroneous"
6	"unflagged" by the climatologist with very small probability of type 1 QCP error
7 or 8	found to be correct by the QCP: "passed the procedure"

The following rules are used to calculate the quality flags:

1. A QCP sets its associated character in a quality string according to the codes in the above table. The climatologist may correct the outcome of

Data Availability and Exchange

The GEBA data are available at no cost for bona fide research.New users register by filling in the **registration form** in the retrieve data menu.

Institutions willing to offer data to the GEBA are kindly invited to **contact us**.

For commercial applications, write to Meteotest: Fabrikstrasse 14, CH-3012 Bern, Switzerland or **office@meteotest.ch**

the QCP setting the character to 6 or 1.

2. Upon inserting or changing an energy flux monthly mean in the GEBA database, the first QCP is performed. Thus, every energy flux monthly mean has a quality string with the last character 1, 2, 6 or 8.
3. The quality string of a yearly mean is the minimum of the quality strings of the monthly means after the monthly strings have been converted to integers.
4. Upon deleting an energy flux monthly mean from the database, the quality string is deleted as well.

Energy flux monthly or yearly mean retrieved from the GEBA database are written together with their quality strings to the **GEBA energy flux file**. The information coded in its associated quality string should be taken into account when an energy flux value is used.
For example, integer quality values q, q1, q2, q3, ... are calculated by converting the characters in the quality strings to integer values:

q: all characters

q1: character no. 7

q2: character no. 6, etc.

q1 is thus the outcome of QCP no. 1, q2 of QCP no. 2, etc.

With these values, conditions are written, e.g., if q1 >= 6 and q2 >= 6 and q3 >= 5, the energy flux value passed QCP nos. 1, 2 and 3 or passed QCPs nos. 1 and 2, but QCP no. 3 could not be applied.

Page URL: http://www.geba.ethz.ch/data-quality/flags.html
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