About climate database
At MHSC we have been using relational database since 2007. The climate database has been developed in IT Department of MHSC.

Technical data
- Database: PostgreSQL 8.4.20
- Platform: Linux CentOS 6.4
- HTTP Server: Apache 2

Responsibility
Database administration, creating queries, monitoring, backing up is a responsibility of IT Department of MHSC.

Tools
For designing tables, creating users, privileges, etc. we use graphical tools pgAdmin and phpPgAdmin.

Those features are also available in command line.

Developers
- IT Department of MHSC
- programming languages and tools: PHP, JavaScript, HTML, CSS, SQL, Google maps, ...

Users
- employees of MHSC
- data input, providing quality controls, corrections, running reports, exchanging data etc.

Input control
- Control of users’ privileges
- On-screen control of data ("sanity check")

Data storage
After input, data are automatically stored in two copies.

- One copy is kept unchanged (see dataset 1).
- Other copy is controlled and corrected if necessary (see dataset 2). This set of data is used for reports, etc.

Verification
Verification indicators are stored in a separate table, for later use.

Backup
Entire database is regularly backed up on the remote location.

MAINTENANCE

DATA STORAGE

DATA INPUT
2 copies

DATASET 1
- KEEPING ORIGINAL DATA
- NO CORRECTIONS ALLOWED *
- USED FOR COMPARISON WITH CORRECTED DATA **

DATASET 2
- QUALITY CONTROL
- CORRECTIONS
- VERIFICATION
- REPORTS ***

* except for typing mistakes
** see poster "The influence of subjective corrections on climate data"
*** see section "Reports"

USER INTERFACE

Input form for climatological station, accessed through a web browser.
Data are controlled on screen before being stored in the database.

Graphical interface of pgAdmin tool (locally installed)
Graphical interface of phpPgAdmin tool (web-oriented tool)

POSTGRESQL:
- free
- cross-platform
- open source

CONFIGURATION

MHSC

10th EUMETNET Data Management Workshop - “High quality climate data - the foundation of Climate Services”, St. Gallen, Switzerland, 28th – 30th October 2015