

The CERGOP2 Database Information for Geodynamic in Central Europe

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CERGOP2 Project

Central European Regional Geodynamics

Project Purpose: monitoring of crustal movements in the central part of Europe, covering an area of 15 % of the continent, with the aim to determine the velocities of selected points in seismic active areas over decades.

Partners (Austria, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Germany, Hungary, Italy, Poland, Romania, Slovakia, Slovenia, Ukraine) + EU

Duration: 2003-2005

Connection CERN Consortium – <http://www.fomi.hu/cegrn>

Data Retrieval – Partners Only

GPS observations (stations, campaigns);
GPS solutions (SINEX, normal equations);
Other observations;
Non public results;
Non public papers;
(Form sheets + PHP scripts generating active links to servers).

Realization

Front-end:

HTML forms;
PHP scripts accessing meta-database;
Generated HTML pages for info download or direct access (ftp, http).

Middleware:

Meta-database at central server;
Robots for information search of different servers;
Scripts updating meta-database.

Backend:

Backup (disk array) of central server;
ftp- and http-servers at different locations (distributed data holding).

Meta-Database

- Relational database, organized in tables;
- Primary key: station code + domes number;
- Access by SQL statements;
- Extendable to stored procedures (e. g. transformations);
- PostgreSQL or MySQL.

Tables (examples):

Station description (name, epoch or permanent, administration info, pictures, ...);
Occupation info (time, equipment);
Permanent observations (sites, outages, types, data holding);
Campaign info (name, time span, data holding for observations + results);
Epoch observations (sites, campaigns, data holding);
Results1 (sites, coordinates, velocities, timestamp).

...

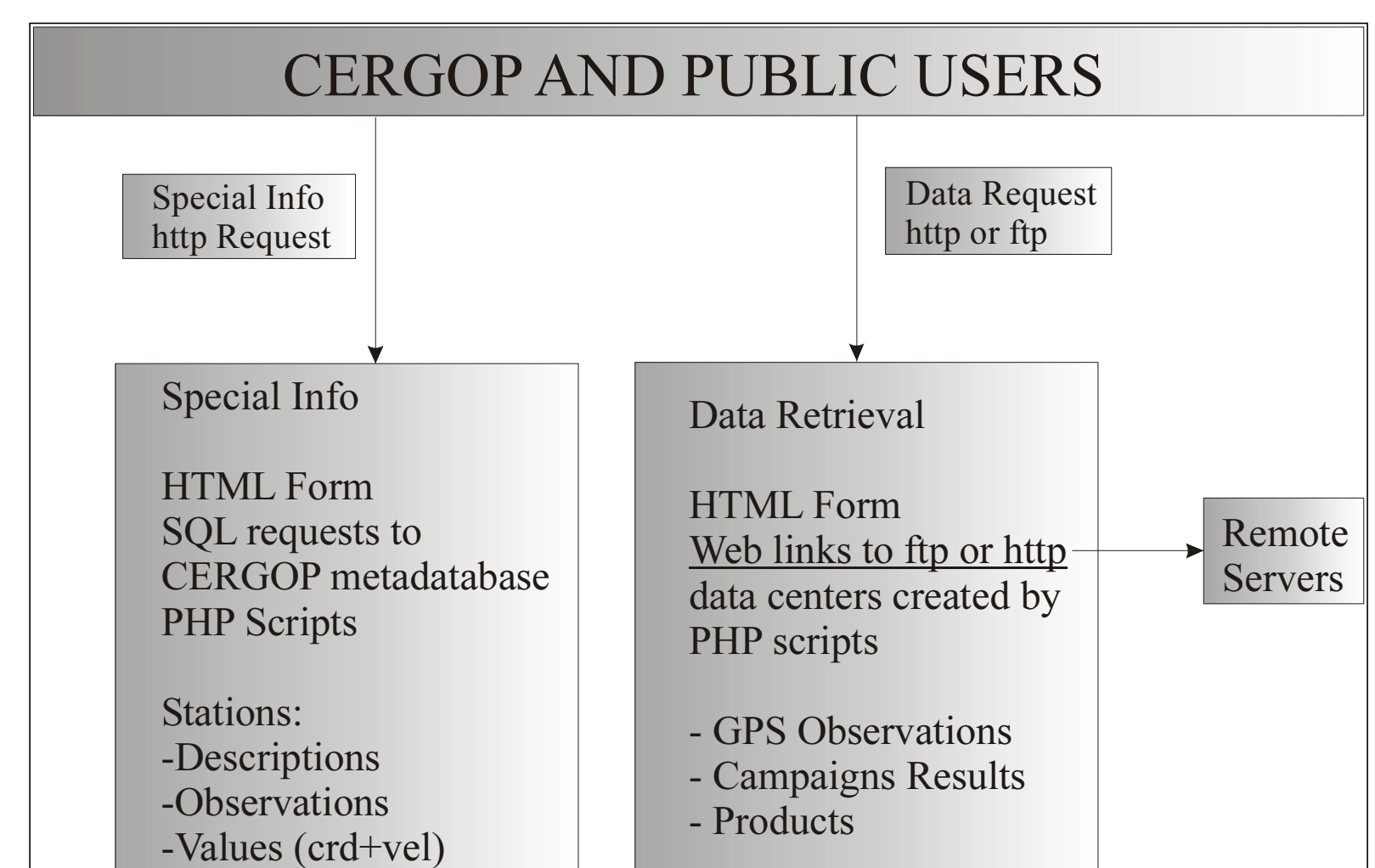


Figure 2 – CERGOP2 Database - Structural Design

Entry Page (Mandatory)

Overview-> [General Info](#)

Project tasks-> [List of work packages](#)

Project partners-> [Homepages](#)

Project results-> [Special info](#)

Links-> [Institutions, e.g. IGS](#)

Partners only-> [Data retrieval](#)

Special Info (Key: Station Names)

- Station description;
- Station coordinates;
- Station velocities;
- Station quality;
- Station zenith delays;
- Occupation times;
- Reference frames;
- Hazard zones;
- (Form sheets + PHP scripts creating HTML pages)