

How and why to use SQL to store your weather data

Background:

Until the end of 2018 most private weather station (PWS) owners used WeatherUnderground (WU) to upload their weather data to their servers. The PWS owners helped to improve the WU data and forecast that way. And the PWS-owners could download their historical data very easily from the WU servers by requesting a .CSV for any period they wanted. There are multiple scripts loading that historical data and displaying graphs, or analyzing the data, printing high-low reports a.s.o. All with the PWS-data as stored on the WU-servers.

All good things come to an end, also this easy download of ones own PWS data. WU announced that another way using an API is necessary as from February 15, 2019. And it will not be possible to retrieve longer periods than 6 days.

What do the weather34 scripts need

The scripts can display graphs for rainfall, barometer, wind and temperature values for a period of "this day", "this month" and "this year".

How did we do that in the past?

The script will load the data from the WU servers and cache the data as long as it remains valid.

And after February 15, 2019

The scripts will store the uploaded weather-data in a SQL database-table. The uploaded data will also be stored in the "daily.csv" file for the "this-day" graphs. Every day, "just before midnight" the SQL database-table will be read by a cron-job and the high-lows will be stored in the "tmonth.csv" and "year.csv". Just after midnight the SQL database-table will be cleared of old data by another cron-job. The "only" thing, you the PWS-owner has to do is the setup of the SQL database-table

How to setup your SQL database-table.

1. Setup the database to use

You have to use the cPanel of your host to setup a new database and add the username and password. The privileges you give that "user" (= you and the scripts) should allow create and write to the database. You should give the database the name "**weatherstation**" but some providers add (part of) your website name in front. so your database -name will look like "**user-abc_weatherstation**"
You have to enter the database-name, user-name and database-password in easyweather-setup later



2. Setup the only table for this database

Two ways of doing this once you have setup the database, either use cPpanel => phpadmin, or use a script which you will find in the download.

2.1 phpadmin Import

The file to import is already in your pwsWD/ folder. This is a good way to do it, you will gain some knowledge about browsing the table a.s.o. There are a few example lines imported also, use the "TRUNCATE" option in the "BROWSE" window to remove them.

2.1 Run a script

After you have set in easyweathersetup the correct name password a.s.o. run in the browser:

pwsWD/w34_util_createdb.php