Ecotron variables - Description

This document describes the variables from the UHasselt Ecotron that are stored in databases. The databases contain measurements from the running experiments as well as values used for climate control in the ecotron units. A detailed list of these variables can be found in the spreadsheet “Ecotron variables”.

# Database “ecotron”

The database “ecotron” is used to store measurement data from the atmosphere and soil in the ecotron units, as well as some data from the climate control equipment and other systems. The database includes the following sets of tables:

## loggen[n]

There are 12 loggen tables, from loggen\_1 to loggen\_12. These keep record of the conditions of the air in the domes and climate chambers, as well as some parameters of the equipment that is regulating these conditions. Some of the atmospheric conditions, like for example air temperature and CO2 levels, are actively controlled to a setpoint. Note that the CH4 levels are not controlled in the current setup, but only recorded.

## lysimeter[nn]

The tables lysimeter01 to lysimeter12 are used to record the conditions in the soil in the lysimeters. Some of these parameters are measured at different locations in the soil: these are arranged in three profiles with five depths each. These are listed in the table with [d] in the name, here [d] corresponds with a depth of 10cm, 20cm, 35cm, 60cm or 140cm.

## lysimeter[nn]weight

The weight of the lysimeter as well as the leachate tank is recorded, to allow keeping track of how much water enters the lysimeter, and how much leaves either by evaporation or by permeating through the soil completely.

# Database “forcing”

The forcing database contains variables used to steer the climate conditions in the Ecotrons twelve domes. This contains climate models as well as data gathered from the ICOS weatherstation in a nearby location. Below follows a list of the tables in the forcing database.