

Data Dictionary

Weather Station Site and Data System

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Data Dictionary

HWS stores all collected weather data in the database table REPORTS where each row represents a one minute snapshot of the current conditions. This data can be browsed on the *Latest Data* page and is available for download from the *Data Archive* page. The dynamic charts include average, minimum, and maximum values which are calculated from this table using SQL aggregation and group by techniques. No weather data is cached or stored any other tables. Listed below are short descriptions for each column in the REPORTS table.

REPORT_ID One-up identifier for each row. Unique primary key, required. Since keys are generated in order, this column can be used as a quick way to sort data chronologically.

AVERAGE_WIND_SPEED Average wind speed in MPH for the previous 10 minutes.

BAROMETER Current barometer level in inches of mercury.

BAROMETER_TREND Barometric pressure trend based on the previous three hours. Possible values are: Falling Rapidly, Falling Slowly, Steady, Rising Slowly, Rising Rapidly, and Unknown

DAY Day of the year (1 - 366). This data point can be used to group data and make comparisons over periods of several years.

DAY_RAIN Total cumulative rainfall in inches for the current 24-hour period. Value is reset at 00:00.

DEW_POINT Temperature in degrees Fahrenheit when moisture will condense and begin collecting on outside surfaces. Calculated using relative humidity and temperature.

EVENT_DATE Date time stamp associated with the collected weather data. Values are recorded at one minute intervals using whatever local time is appropriate (EST or EDT depending on the season).

HOURLY Hour of the day (0 - 23). This data point can be used to group data and make comparisons over periods of several days.

INSIDE_HUMIDITY Humidity percentage collected at the VantagePro2 console in Hodson Room 238.

INSIDE_TEMPERATURE Temperature in degrees Fahrenheit collected at the VantagePro2 console in Hodson Room 238.

MONTH Month of the year (1 - 12). This data point can be used to group data and make comparisons over periods of several years.

RAW_DATA Raw data returned from the VantagePro2 LOOP commands. This data is stored internally so that future changes or modifications to the data fields can be re-parsed from the original LOOP response.

OUTSIDE_HUMIDITY Humidity percentage collected at the remote weather station.

OUTSIDE_TEMPERATURE Temperature in degrees Fahrenheit collected at the remote weather station.

RAIN_RATE Current rate of rainfall in inches per hour.

SHORT_DATE Date stamp (Year/Month/Day). This data point can be used for grouping data to calculated daily averages, highs, and lows.

STORM_RAIN Total cumulative rainfall in inches for the current storm. Values are reset after 24 hours of no rainfall.

SUNRISE Date time stamp indicating sunrise for the local timezone. Values are calculated using location and date.

SUNSET Date time stamp indicating sunset for the local timezone. Values are calculated using location and date.

WIND_DIRECTION Current wind direction in degrees from North. 0 degrees indicates North, 180 degrees indicates South. Due to the remote weather station's height relative to neighboring buildings, this value varies greatly.

WIND_SPEED Current wind speed in MPH.

WIND_VECTOR_X Current X component of the wind direction and speed. Useful when calculating average wind direction.

WIND_VECTOR_Y Current Y component of the wind direction and speed. Useful when calculating average wind direction.