

Open Water Swim Data Dictionary

Introduction

This document provides a dictionary for the data included in the Open Water Swim project. This serves as a support to the data model described in the project documentation.

Dictionary

Provided Data

In this section, we'll describe the data related to the provided datasets:

- Buoy data
- Swims data
- Swimslog data

Buoy Data

Data Element	Description
YYYY	4-char representation of the year.
YY	2- or 4-char representation of the year when the data was collected by a buoy (00-99).
MM	2-char representation of the month (1-12).
DD	2-char representation of the day (1-31).
Hh	2-char representation of the hour (0-23).
Mm	2-char representation of the minutes (0-59).
WDIR	Wind direction expressed in degree (0 to 360) from true North.
WSPD	Wind speed expressed in miles per hour.
GST	Peak 5 or 8 second gust speed (m/s) measured during the eight-minute or two-minute period.
WVHT	Wave height expressed in meter per second.
DPD	dominant wave period (seconds) is the period with the maximum wave energy.
APD	average wave period (seconds) of all waves during the 20-minute period.
MWD	mean wave direction corresponding to energy of the dominant period (DOMPD). The units are degrees from true North just like wind direction.
PRES	Atmospheric pressure expressed in HectoPascal (hPa).
ATMP	Atmospheric temperature.
WTMP	Water temperature.
DEWP	Dew point temperature.
VIS	Visibility expressed in miles.

TIDE	the water level in feet above or below Mean Lower Low Water (MLLW).
BUOYID	Unique ID associated to each buoy.

NOAA provides a useful glossary [here](#).

Swims Data

Data Element	Description
SwimID	Unique ID representing a swim.
Location	Location associated to the swim.
Coordinates	Longitude and Latitude.
BuoyID	ID of the Buoy located close to the swim.
Date	Date when the swim occurred.

Swimslog Data

Data Element	Description
eventID	Unique ID representing a swim event (checkin or check out)
Location	Location where the checkin or check out event occurred
Swimmer	Swimmer who initiated the event (checked in/out)
eventLocation	Location where the swimmer initiated the event. This may be different than the location of the actual swim, like the swimmer's home for example.
SwimID	ID of the swim for which the swimmer checked in/out.
swimStatus	Boolean (True/False) to indicate if the swimmer attended the swim or not.

STAR Model Data

In this section, we'll describe the data related to the STAR model that we created in this project

- Locations data
- Conditions data
- Swimmers data
- Time data
- Swimslog data

Locations Data

Data Element	Description
locationIdx	Unique ID representing a location associated to a swim.
Location	Location where a swim occurred. We decided to ignore the locations of where swimmers check in/out.
Latitude	Latitude coordinates associated to the location
Longitude	Longitude coordinates associated to the location.

Conditions Data

Data Element	Description
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conditionsIdx	Unique ID representing the conditions associated to a swim.
ATMP	Atmospheric temperature
WTMP	Water temperature
TIDE	Water level in feet above or below Mean Lower Low Water
WVHT	Wave height
WD	Wind direction expressed in degrees from the North point.
WSPD	Wind speed
Year	Year when the conditions were observed
Month	Month when the conditions were observed
Day	Day when the conditions were observed

Swimmers Data

Data Element	Description
swimmerIdx	Unique ID representing a swimmer.
firstName	Swimmer's first name.
lastName	Swimmer's last name.
Email	Swimmer's email address.

Time Data

Data Element	Description
Date	Date for which we observed a swim event.
YYYY	Year part of the date expressed in 4 positions.
MM	Month part of the date expressed in 2 positions.
DD	Day part of the date expressed in 2 positions.

Swimslog Data

Data Element	Description
SwimslogIdx	Unique ID representing a swim event.
firstName	firstName of the swimmer who checked in/out for a swim.
lastName	lastName of the swimmer who checked in/out for a swim.
swimmerIdx	ID associated to the swimmer who checked in/out for a swim.
Location	Location of the swim for which the swimmer checked in/out
LocationIdx	Unique ID to represent the location.
WTMP	Water temperature associated to the swim.
ConditionsIdx	Unique ID to retrieve more conditions information if needed.
YYYY	4-position representation of the year when the event occurred.
MM	2-position representation of the month when the event occurred.
Date	Date on when the swimmer checked in/out
swimStatus	Indicates if the swimmer checked in or out to a swim.