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](https://forecast.weather.gov/glossary.php).

**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 |
| 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. |