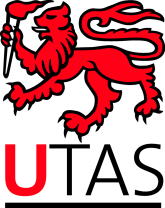
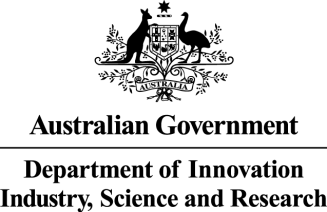
IMOS_logo-wide

**AATAMS Bulk Upload File Format Specification**

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IMOS is supported by the Australian Government through the National Collaborative Research Infrastructure Strategy and the Super Science Initiative. It is led by the University of Tasmania on behalf of the Australian marine and climate science community.

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## Introduction

This document describes the required file format for automated upload of bulk data set to the AATAMS database.

## General notes

* CSV files must include a header line, with comma separated column names (given by the relevant field names).
* date/time format is ISO8601, e.g. “2012-10-09T12:56:12+10:00” (this is one example, ISO8601 allows variations on this, see <http://en.wikipedia.org/wiki/ISO_8601>)
* “String” fields should be quoted, in case the values contain commas (,)
* duplicate records (i.e. already in the system) will be ignored, rather than causing the upload to fail – report on duplicates.
* primary key field(s) will be used to determine duplicates (the fields with ‘\*’ in the PK column denote the primary key formation).
* each field is marked mandatory (M) or optional (O).
* for valid values coming from a set (e.g. [“ARRAY”, “CURTAIN”, “SINGLE”]), values may be added – but this must be decided by the data committee.
* boolean values are represented by the strings “true” or “false”
* the ordering of columns is given by the order of “field names” in tables below
* coordinate system WGS84 is assumed
* latitude is –ve for South, +ve for North
* longitude is –ve for West, +ve for East
* for each file, a corresponding output file will be produced by the processor, which includes the input data and additionally, a “status” column and a “message” column. The “status” column will have one of the following values:
  + [“ADDED”, “DUPLICATE”, “ERROR”]
* for those records with status “ERROR”, the message column will contain a description of the error

It is assumed that the following entities can all be entered manually, as there will not be many of each:

* Organisation
* Project
* People
* Project Role

## Formats

### Installation

Filename: “installation.csv”

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | M/O | Valid values | PK |
| name | M | string | \* |
| project name | M | any existing project name | \* |
| configuration | M | [“ARRAY”, “CURTAIN”, “SINGLE”] |  |

### Station

Filename: “station.csv”

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | M/O | Valid values | PK |
| installation name | M | any existing installation name | \* |
| name | M | string | \* |
| latitude | M | [-90,+90] |  |
| longitude | M | [-180,+180] |  |
| array position | O | integer |  |

### Receiver

Filename: “receiver.csv”

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | M/O | Valid values | PK |
| model name | M | [“VR2”, “VR2W”, “VR3UWM”, “VR4”] | \* |
| serial number | M | string | \* |
| manufacturer name | M | [“Vemco”] |  |
| organisation name | M | any existing organization name |  |
| comment | O | string |  |

### Receiver Deployment

Filename: “receiver\_deployment.csv”

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | M/O | Valid values | PK |
| deployment date/time | M | date/time | \* |
| receiver model name | M | any existing receiver model name | \* |
| receiver serial number | M | any existing receiver serial number | \* |
| station name | M | any existing station name | \* |
| mooring type |  | [“FIXED”, “FLOATING”] |  |
| acoustic release id | O | string |  |
| battery life (days) | O | integer |  |
| bottom depth (m) | O | float |  |
| comments | O | string |  |
| depth below surface (m) | O | float |  |
| latitude | O | [-90,+90] |  |
| longitude | O | [-180,+180] |  |
| mooring descriptor | O | string |  |
| receiver orientation | O | [“UP”, “DOWN”, “SIDEWAYS”] |  |
| scheduled recovery date | O | date (and must be after deployment date/time) |  |

### Receiver Recovery

Filename: “receiver\_recovery.csv”

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | M/O | Valid values | PK |
| deployment date/time | M | date/time | \* |
| receiver model name | M | any existing receiver model name | \* |
| receiver serial number | M | any existing receiver serial number | \* |
| station name | M | any existing station name | \* |
| initialisation date/time | M | date/time ( <= deployment date/time) |  |
| latitude | M | [-90,+90] |  |
| longitude | M | [-180,+180] |  |
| recoverer name | M | any existing username (from “people”) |  |
| recovery date/time | M | date/time ( > deployment date/time) |  |
| status | M | [“RECOVERED”, “RETIRED”, “LOST”, “STOLEN”, “DAMAGED”, “RETURNED TO VENDOR”] |  |
| comments | O | string |  |

\* note that an associated deployment (given by these fields) must exist

### Receiver Events

Filename: “receiver\_event.csv”

- (Vemco/VUE CSV format)

### Tag (Sensor)

Filename: “tag.csv”

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | M/O | Valid values | PK |
| code map | M | ["A69-1303", "A69-1601", "A69-9001", "A69-9003", "A69-1206", "A69-1105", "A69-9002", "A69-9004", "A180-1303", "A180-1601", "A180-9001", "A180-9003", "A180-1206", "A180-1105", "A180-9002", "A180-9004"] | \* |
| ping code | M | integer | \* |
| transmitter type | M | ["PINGER", "PRESSURE", "TEMPERATURE", "ACCELEROMETER"] | \* |
| model name | M | ["V6-180kHz", "V7", "V8", "V9", "V9AP", "V13", "V16", "V13AP", "V16AP" |  |
| project name | M | any existing project name |  |
| serial number | M | string |  |
| intercept | M\* | float |  |
| slope | M\* | float |  |
| unit | M\* | string |  |
| expected life time (days) | O | integer |  |

\* mandatory only if transmitter type is not “PINGER”

### Tag Release

Filename: “tag\_release.csv”

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | M/O | Valid values | PK |
| capture date/time | M | date/time | \* |
| project name | M | any existing project name | \* |
| animal id | M | unique numeric identifier | \* |
| animal CAAB code | M | valid CAAB code (see <http://www.cmar.csiro.au/caab/>) |  |
| animal sex | M | [“MALE”, “FEMALE”, “UNKNOWN”] |  |
| capture locality | M | string |  |
| capture method | M | ["ELECTROFISHING", "HATCHERY-REARED", "NET", "LINE", "LONG LINE", “TRAP", "HAND CAPTURE", "FREE-SWIMMING", "TRAWL", "OTHER", "POLE AND LINE" ] |  |
| release date/time | M | date/time |  |
| release locality | M | string |  |
| capture latitude | O | [-90,+90] |  |
| capture longitude | O | [-180,+180] |  |
| comments | O | string |  |
| embargo period (months) | O | [0, 6, 12, 36] |  |
| release latitude | O | [-90,+90] |  |
| release longitude | O | [-180,+180] |  |

## Animal Measurement (related to release)

Filename: “animal\_measurement.csv”

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | M/O | Valid values | PK |
| capture date/time | M | date/time | \* |
| project name | M | any existing project name | \* |
| animal ID | M | unique numeric identifier | \* |
| type | M | ["LENGTH", "WEIGHT", "TOTAL LENGTH", "CARAPACE LENGTH", "FORK LENGTH", "WIDTH", "OTHER"] | \* |
| estimate | M | boolean |  |
| unit | M | ["mm", "g", "cm", "m"] |  |
| value | M | float |  |
| comments | O | string |  |

\* there must be an associated release, given by the capture date/time and project name PKs.

### Tagging (related to release)

Filename: “tagging.csv”

|  |  |  |  |
| --- | --- | --- | --- |
| Field name | M/O | Valid values | PK |
| capture date/time | M | date/time | \* |
| project name | M | any existing project name | \* |
| animal ID | M | unique numeric identifier | \* |
| tag serial number | M | any existing tag serial number | \* |
| timestamp | M | date/time |  |
| treatment type | M | ["ANESTHETIC", "NO ANESTHETIC"] |  |
| type | M | [“INTERNAL, “EXTERNAL”] |  |
| comments | O | string |  |

\* there must be an associated release, given by the capture date/time and project name PKs.

### Tag Detection

Filename: “tag\_detection.csv”

- (Vemco/VUE CSV format)

## Appendix

### Templates

<http://aatams.emii.org.au/bulk_upload/templates>

### Examples

[http://aatams.emii.org.au/bulk\_upload/examples](http://aatams.emii.org.au/bulk_upload/templates)