

# How to fill spreadsheets for uploading of data in COMARGE database?

## - User Guide -

The user interface that allows uploading information in COMARGE base is a modified version of the logbook software called Alamer, developed at the deep-sea department at Ifremer and used on board French Research Vessels. In order to facilitate uploading of historical data, functions have been added that allows filling in the logbook from standardized spreadsheets.

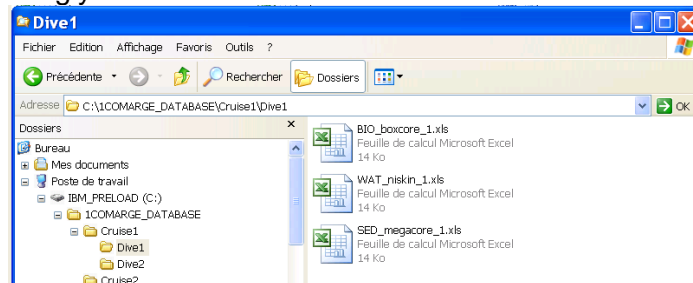
Though you can use the software on your own to upload historical data, we strongly suggest that you provide the filled spreadsheets to the COMARGE-base manager who will be in charge of uploading the data in the database.

### Five files have to be used to upload data into COMARGE database:

1. [Cruise\\_dive\\_moorings.xls](#): To provide information on the ship, submersible, ROV, moorings, participants, dates. In any case this file has to be provided to the COMARGE-Base manager who will update the database with the specifics of the cruise and provide back a folder to be used with the Alamer software.
2. [OperationSAM.xls](#): To list information on sampling operations during a cruise like equipment used, latitude, longitude, depth, date, location, substrate,.... These information are referred as to the METADATA. Sampling for fauna, for water chemistry and for sediment geochemistry are treated separately in the database. Operations relative to these three kinds of sampling purposes must be listed in three different files.
3. [OperationMES.xls](#): To list metadata on peculiar operations that are intended to produce either a single measure of an environmental parameter (e.g. a temperature probe) or a continuous measure of an environmental parameter saved in a file (e.g. a current meter).
4. [Data\\_Biology.xls](#): To list information on a biological sample like taxa, number, weight,...thereafter referred as to the DATA. One file must be filled for each biological operation (e.g. one file per core).
5. [Data\\_wat&sed.xls](#): To list information on a water or sediment sample like the parameter measured, the method used, the observed value,... thereafter referred as to the DATA. One file must be filled for each sampling operation (e.g. one file per core).

**Please note:**

- For each of these files, **yellow fields are mandatory**; blue cells indicate that you have to choose in a list.
- **Columns** in the files must **NOT** be deleted even if the field is not mandatory and is not used.
- **Organize folders** by cruises and sub-folders by dives. Save the files accordingly:



- **Latitude and longitude** should ideally be provided in the following format: **HDD MM.mmm** where H are the hemispheres (N/S or E/W), DD are degrees, MM are minutes and mmm are decimals of minutes  
Examples: Latitude S7 10.79, Longitude, E105 50.00
- **Date and time:** the formats respectively are **dd/mm/yy** and **hh:mm:ss**

## 1. The Cruise\_dive\_mooring File

One file has to be filled for each of the cruise that produced data to be uploaded in the database. Please name and save this file with the name of the cruise in the cruise folder.

**Cruise spreadsheet** - All fields are mandatory.

The list of participants must include at least the chief scientist and should additionally include others participants who may hold data.

**Dive spreadsheet** – List in this spreadsheet all relevant dives during the cruise

- Dives are identified by their absolute number. The dive number during the cruise can be precised but is optional.
- The location of the dive is mandatory however if you leave it blank it will be automatically filled in the database by the name of *geographical area* entered in the Cruise spreadsheet.
- Dive start and dive end dates are mandatory although if you don't know the exact dates, use the dates for the first and last operations during the dive instead.
- Participants should have been defined in the Cruise spreadsheet, enter at least one participant per dive, choose the name in the list provided.

**Moorings spreadsheet** – List in this spreadsheet all relevant moorings during the cruise. Mooring makes a special case in the database because they may involve two cruises and dives (to be moored and recovered) and they can hold several equipments (e.g. current meter and nephelometer) or an equipment can be divided in sub-samples (e.g. the bottles of a sediment trap).

- In any case dates for mooring and recovery must be specified as well as the name(s) of the cruise(s) and the number(s) of dive(s).
- Latitude, longitude, depth and location are mandatory. However if the location is left blank it will be automatically filled in the database by the name of the *geographical area* specified in the Cruise spreadsheet.
- If the mooring hold several equipments or if the equipment is sub-divided, all equipments or sub-equipments must be listed individually, one per line. The metadata for the mooring, as described above, have to be copied and pasted for each of its equipment/sub-equipment.
- Altitude refers to one equipment (e.g. a current meter), Equipment date (trigger) is used for sequential sampling to indicate the starting date of a sample.
- Comments can be added for the mooring itself during mooring and recovery phases or for the equipments. Add here any information useful for you to later search data into the database or useful for the description of the mooring/equipment.

**Equipments spreadsheet** – List in this spreadsheet all equipments that have been used or are intended to be used during the cruise.

- Please precise:
  - If the equipment is used for sampling (SAM) or measurements (MES), see § 2 for details regarding the difference between samples and measurements.
  - If the equipment is deployed from the ship (ship), a submersible/ROV (sub) or a mooring (moor).
- “Equipment description” can be used to precise the area or volume sampled or any other information that you feel is relevant.

## 2. The operation files

In the database, the **samples** and the **measurements** are treated separately. A **sample** refers to an operation that generates discrete series of data after post-sampling analysis. A **measurement** refers to an operation that generate either continuous series of data (e.g. a current meter) or a single value read on an instrument (e.g. a temperature probe). Operations related to samples or measurements are treated in two different spreadsheets.

### a. The OperationSAM file

In this file are listed **sampling** operations done during either one cruise (for sampling from the ship) or one dive (for sampling from a submersible/ROV).

Sampling can be done for biological or geochemical purposes, on sediments or sea water. Three cases are considered in the database, which have to be uploaded from different spreadsheets:

1. Sampling for fauna -> Fill in the operationSAM file and save it with the extension “\_BIO”, e.g. operationSAM\_”cruisename”\_DIVE\_”number”\_BIO;
2. Sampling for water chemistry -> Fill in the operationSAM file and save it with the extension “\_WAT”, e.g. operationSAM\_”cruisename”\_DIVE\_”number”\_WAT;
3. Sampling for sediment geochemistry -> Fill in the operationSAM file and save it with the extension “\_SED” e.g. SAM\_”cruisename”\_DIVE\_”number”\_SED

Save those files in the relevant cruise/dive folders.

The information contains in the OperationSAM file referred as to the **metadata**. Please note that:

- “equipment\_name”, “serial\_number”, “date”, “latitude”, “longitude”, “depth” and “location” are mandatory. If the location is leaved blank it will be automatically filled in the database with the name of the *geographical area* specified in the Cruise spreadsheet (see Cruise\_dives\_moorings file).
- “volume\_sampled” is only used for operations relative to water chemistry or sediment geochemistry.
- “Heading” and “out\_board\_line” are optional but may be useful in the case of trawling for example.
- Use “operation\_comments” to add any information useful for you to later search data into the database like your own labels for samples or useful for the description of the sample like sieve size, sediment layer.

#### **b. The OperationMES file**

In this file are listed operations of measurements done during either one cruise (for sampling from the ship) or one dive (for sampling from a submersible/ROV).

Two cases are considered in the database, which have to be uploaded from different spreadsheets:

1. Discrete measurements, generating a single value -> Fill in the OperatinMES spreadsheet and save it with the extension “\_DIS” e.g. operationMES\_”cruisename”\_DIVE\_”number”\_DIS;
2. Continuous measurements, generating a large set of values -> Fill in the OperatinMES spreadsheet and save it with the extension “\_CON” e.g. operationMES\_”cruisename”\_DIVE\_”number”\_CON;

Save those files in the relevant cruise/dive folders.

The information contains in the OperationMES file referred as to the **metadata**. Please note that:

- “equipment\_name”, “serial\_number”, “date”, “latitude”, “longitude”, “depth”, “location” and “parameter” are mandatory. If the location is leaved blank it will be automatically filled in the database with the name of the *geographical area* specified in the Cruise spreadsheet (see Cruise\_dives\_moorings file).
- “value” is only used for operations relative to discrete measurements.
- In the case of continuous measurements, please provide a data file of any format and precise the name of the file in the “operation\_comments”, this file will be archived.
- Use “operation\_comments” to add any information useful for you to later search data into the database like your own labels or useful for the description of the measurements.

### 3. The Data files

#### a. The Data\_Biology file

This file is used to upload faunal data relative to one sampling operation. Please name the files as follow: BIO\_”equipment name”\_”serial number” and save it in its cruise/dive folder.

Please note that:

- “taxon\_name”, “preservation mode” and “holded\_by” are mandatory.
- “preservation\_mode” has to be chosen in a list. If preservation is the same for all samples you can just copy and paste to all lines in the spreadsheet. If the preservative you used is not in the list please contact lenaick.menot@ifremer.fr.
- “holded\_by” must be filled with the name of a participant as specified in the Cruise spreadsheet (see Cruise\_dives\_moorings file).
- “identified\_by” and “identification\_date” are optional but if one is filled, the second has to be filled as well.

#### b. The Data\_wat&sed file

This file is used to upload data on water chemistry or sediment geochemistry relative to one sampling operation. Please name the files as follow: WAT\_”equipment name”\_”serial number” or SED\_”equipment name”\_”serial number” and save it in its cruise/dive folder.

Please note that:

- “parameter”, “method”, “value”, “unit”, “quality” and “holded\_by” are mandatory.
- “preservation\_mode” has to be chosen in a list. If preservation is the same for all samples you can just copy and paste to all lines in the spreadsheet. If the preservative you used is not in the list please contact lenaick.menot@ifremer.fr.
- “holded\_by” must be filled with the name of a participant as specified in the Cruise spreadsheet (see Cruise\_dives\_moorings file).