

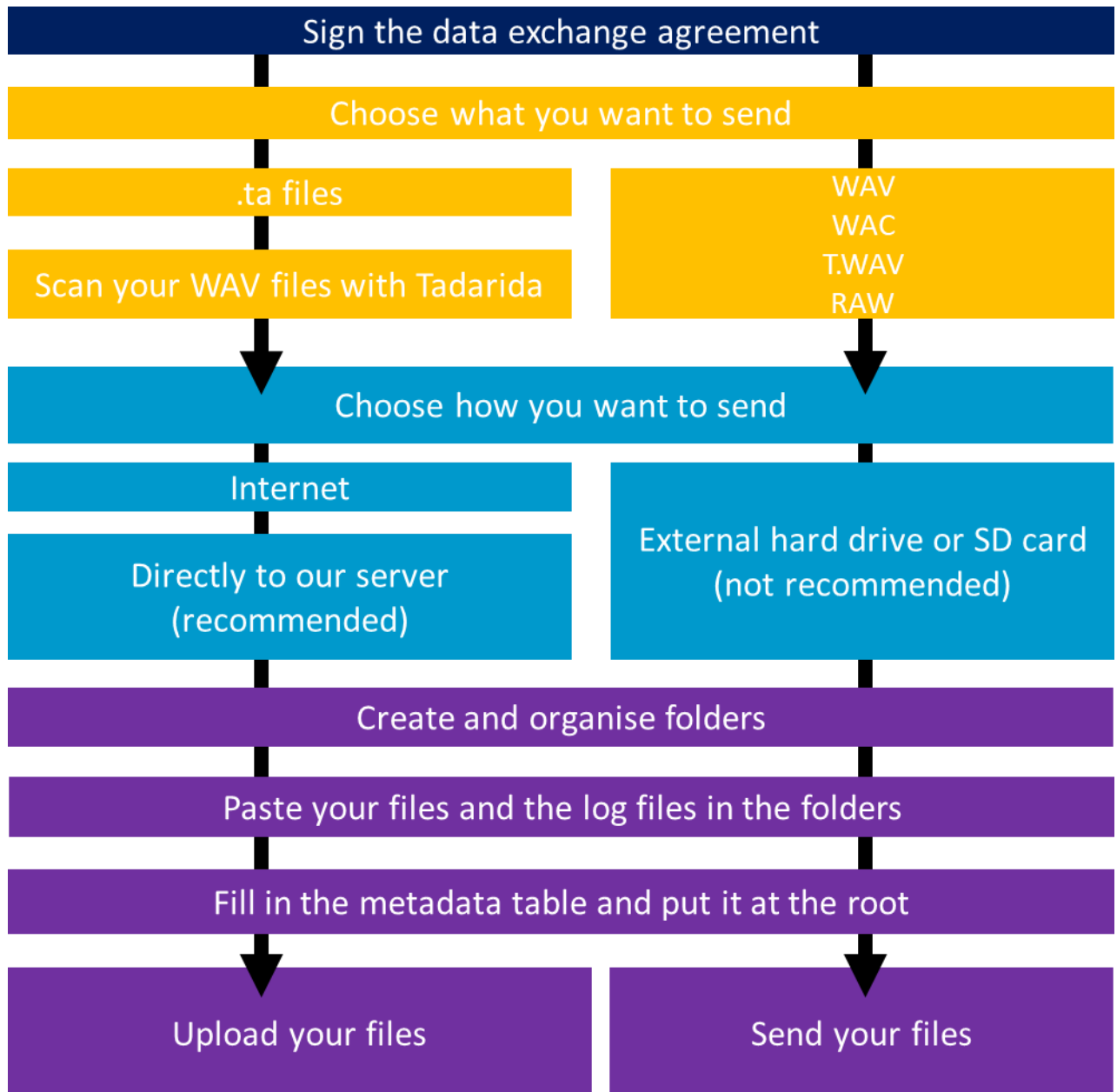
How to organise and send a copy of your data

A tutorial by Charlotte Roemer and Yves Bas, August 2024

Summary

1.	What to expect from the process.....	3
2.	Sign the data exchange agreement.....	3
3.	Select the data that you will send	3
3.1.	Protocol used.....	3
3.2.	File format	4
3.3.	File duration	4
3.4.	Time expansion.....	4
3.5.	Additional possibility for Tadarida users	4
4.	Organise folders	4
5.	Put the WAV or RAW files in the participation folders	5
6.	For Batcorders and Batloggers: put the log files in the participation folders	5
7.	Fill in the metadata table and put it at the root.....	6
8.	Send your data	6
9.	You're done	6

Summary of the different steps of this tutorial



1. What to expect from the process

In the scope of this project, data is collected to build a European database of bat acoustic activity. Our capacity of processing files is very limited right now as only one person is working full time on this project. The steps of this work are as follows:

- Develop the methodology to build maps: 90% achieved
- Develop the workflow to process European files: 90% achieved
- Develop the methodology to standardise European files: 25% achieved
- Collect files: see the [participation map here](#).
- Process files: not started
- Build European maps: not started yet

For the moment, files are collected on our server and will not be processed until the development of the methodology is finished. You will receive regular updates via the newsletter about the development. When the files will be processed, we plan to send the results of the process to you.

There are other means to obtain a quick analysis of your files. For instance, if you use an Audiomoth or an SMBAT, have a look at the [citizen science program of the Granollers Museum](#) to see if their protocol and their analysis can match your needs. If you use their portal, your data can contribute automatically to the project Bat migration Routes in Europe if you are not opposed to this request.

2. Sign the data exchange agreement



Each contract has its own reference number, so please send an email to Charlotte Roemer at this email address to obtain a contract form: charlotte.roemer1@mnhn.fr

Please fill in the contract and sign it before you send it back. If you need to clarify certain points in the contract please send an email to Charlotte Roemer.

Once you have received the agreement signed from the French Museum of Natural History, you may send us the data!

3. Select the data that you will send

If you have more than 2 To of WAV files that could be sent to the project, you are encouraged to ask us which sites are the most important. This will help us to be quicker and more efficient to achieve data transfer for all partners.

3.1. Protocol used

Remember that we can only work with full-night passive recordings, which means:

- The recorder is left on the same location all night long
- The recordings started at sunset (or before) and stopped at sunrise (or after)
- The use of an automatic trigger is possible, to only record in the case where bat sounds are detected

- No forced pauses were used during the night. Some protocols schedule a pause of 15 min each hour for instance, and we cannot use this kind of data unfortunately.

These rules are important to be able to compare recordings made in one country with recordings made in another country.

3.2. File format



We now accept the following formats: .wav, .wac, .raw, T.wav.

Do not forget to include all log files (.txt, .xml...) present in the sound folder, especially for Batcorders and Batloggers (see below).

3.3. File duration

- We will automatically cut your files in 5s maximum length in case it is not done already. If you cut your files to shorter or longer lengths, we will arrange the analysis accordingly.

3.4. Time expansion

- We will automatically expand your files by a factor 10 if it is not already done.

3.5. Additional possibility for Tadarida users

It is preferable to send the sound file itself, such as .wav, .wac, .raw or T.wav. But you can also choose to scan these files with the Tadarida software, which will produce .ta files, which contain the acoustic parameters of each detected sound event in your sound sequences. .ta files are similar to .txt files and are much lighter than WAV files. To produce .ta files, please follow the [tutorial here](#).

4. Organise folders



Please prepare folders in this order: Site, Participation. This is an example:

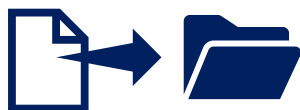
- Site_1
 - Participation_1
 - Participation_2
- Site_2
 - Participation_1
- Site_3
 - Participation_1

A **site** is a unique location that will be described in the metadata table by only two attributes: latitude and longitude. The height of the microphone does not matter here. You can name the folder as you

like, for example “National_Park_Cevennes_Florac_Hilltop” or “Site_1”. Please avoid special characters and spaces.

A **participation** is one recording session on your site. Each recording session will be described in the metadata table by a lot of different attributes, including starting and ending date and time of the recordings, recorder type, recorder settings, microphone height, etc. You can name the participation folders as you like, for example “Participation_1”, “Participation_2” or “October_2020”, “Spring_2021”. Please avoid special characters and spaces.

5. Put the WAV or RAW files in the participation folders



Put the WAV or RAW files in the participation folders.

You can use as many different participation folders as you like but each folder must contain at least one complete night.

If you recorded several nights in a row but did not record during one night in the middle, please split the recordings into two different participation folders so that there is no discontinuation in one folder. It is not a problem if two participation folders have the same metadata (excluding the starting and ending dates obviously).

If you used a stereo recorder, please contact us to agree on how to organise this data.

6. For Batcorders and Batloggers: put the log files in the participation folders

These recorders have log files which contain the information about the date and time of recording. For the other recorders, this information is already included in the file name.

For Batcorder, the logfile.txt should be included directly in the folder containing the sounds. This is an example:

- Site_1
 - o Participation_1
 - 00001.raw
 - 00002.raw
 - Logfile.txt
 - o Participation_2

For Baloggers, each .xml file accompanying a sound should be included in the folder containing the sounds. This is an example:

- Site_1
 - o Participation_1
 - 00001.wav
 - 00001.xml
 - 00002.wav
 - 00002.xml
 - o Participation_2

7. Fill in the metadata table and put it at the root



Please download [the complete metadata table](#) and [the tutorial about how to fill each column](#). This complete table contains all metadata that will be important for the analysis of the data. Once you have filled this table, put it at the root of your space.

This is an example:

- Site_1
 - o Participation_1
 - o Participation_2
- Site_2
 - o Participation_1
- Site_3
 - o Participation_1
- **Metadata_table.csv**

Please keep in mind that data without metadata will be useless!

8. Send your data

We recommend that you send your files directly to our server. If it is not possible for you, please contact us at charlotte.roemer1@mnhn.fr



Please follow [instructions to transfer data directly to the CC-IN2P3](#).

9. You're done

A big thank you! You will be able to see a summary of your contribution on the [map of participations](#) when we update it. The cells of this map are 50 km wide to preserve the confidentiality of your study locations.