

2. Recover data

In this document, we will see how *.aion files work with this tool and how to modify those files. It is recommended to first read the [Get Started](#) file in order to learn about the folder organisation.

2.1. How Aiôn reads the file

An .aion file looks like this:

```
Experience: 20150822 ExperimentName
Version: Original
Dataset: DataSetName

BeginSubject: 1. Sub 1
BeginSequence [120] 1. Seq 1
InitialPosition: 1. Pos A
[2709] MoveTo: 2. Pos B
[5610] MoveTo: 4. Pos D
[30692] MoveTo: 2. Pos B
[...]
EndSequence

BeginSequence [120] 2. Seq 2
InitialPosition: 2. Pos B
[2885] MoveTo: 3. Pos C
[43606] MoveTo: 2. Pos B
[44066] MoveTo: 1. Pos A
[...]
EndSequence

[...]
EndSubject

[...]
EndExperience
```

The tool adds many instruction like `EndSubject` along useful informations like experiment's name and sequences' length to produce humanly readable files. In fact, it does not process most of the file when it read it. It only processes three types of lines:

1. `InitialPosition: 1. Pos A` Starts a new sequence and tells the initial position.
2. `[2709] MoveTo: 2. Pos B` Moves the subject to the given position.
3. `EndExperience` Ends the experiment and writes the .csv file.

The tool does not even process the position's name. Consequently, this file is the same that the file above:

```
InitialPosition: 1.
[2709] MoveTo: 2.
[5610] MoveTo: 4.
[30692] MoveTo: 2.
InitialPosition: 2.
[2885] MoveTo: 3.
[43606] MoveTo: 2.
[44066] MoveTo: 1.
[...]
EndExperience
```

The number inside square the brackets is the number of milliseconds since the beginning of the sequence. The number before the point is the position's number, according to the configuration. The first position's number is 1 (not 0, like in many computer systems).

2.2. Fix an unfinished experiment

If for some reason, the tool is not able to finish the experiment (misclick, computer crash, etc.), you have two options depending on the case.

If the experiment is almost finished and all the subjects have been tested, then the only missing part is the last line `EndExperience`. Add this line and the file is complete. Then, you can reopen the experiment and the dataset with Aiôn and generate the .csv file with the simulation tool.

If some subjects are missing, this is a little bit more complicated but nothing is lost. First you may reopen the experiment, create a new dataset and finish the experiment with missing subjects. That done, you may merge the two files. Open the second dataset file (DataSet2/origin.aion) and copy everything from the first `BeginSubject: 1. Sub 1` to the last `EndSubject` into the first dataset file (DataSet1/origin.aion), at the end of the file. If missing, add the `EndExperience` instruction at the end.

If you are not confident, you may back up your Data folder or create a third dataset in order to leave every file unmodified, which is a good way of not losing data. In order to do that, create a folder with the name of the DataSet in the experiment folder, then create a file named `original.aion` and put parts of other files in it. As said before, file headers with experiment informations are not mandatory.

2.3. Contributors

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