README.md

Fish tracing

Scripts fro plotting fish traces

Instalation

This step need to be done only first time using this script on the machine.

1. Open the `Terminal` app
2. Install Python

   ### MacOS

   Check if `Homebrew` is installed with typing in the Terminal:

   ```
   brew help
   ```

   If you get `command not found` output then install brew:

   ```
   /usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"
   ```

   If not then install `Python`:

   ```
   brew install python3
   ```

   ### Windows

   Go to https://www.python.org/downloads/ and download and install the latest version of `Python`.

3. If Terminal (MacOS or Linux) or Command prompt (Windows) is not open yet open it:
4. Install `virtualenv`:

   ```
   sudo pip install virtualenv
   ```

   While installing you will be asked for a password. Type your user account password.

   Create the virtual environment:

   ```
   virtualenv -p python3 ~/venv/fish_tracing
   ```

   `~/venv/fish_tracing` can be replaced with a custom path.

5. Activate the virtual environment:

   ```
   source ~/venv/fish_tracing/bin/activate
   ```

6. Move to the package directory:

   ```
   cd <path>
   ```

7. Install requirements

```
pip install -r requirements.txt
```

Usage

1. Mac or Linux: open the Terminal app: cmd+space, then type Terminal
   Windows: open the command prompt.

2. Activate the virtual environment:

   ```
   source ~/venv/fish_tracking/bin/activate
   ```

3. Move to the package directory:

   ```
   cd <path>
   ```

   e.g.

   ```
   cd Downloads/Tracking\ Instructions\ and\ Script/fish-tracking
   ```

4. Copy excel files with traces to the package subdirectory (`<source dir>`).

5. Run the tracing script:

   ```
   python trace_fish.py --source <source dir> --destination <destination dir>
   ```

   e.g.

   ```
   python trace_fish.py --source 3-08-15\ Nicotine\ Experiment/Export\ Files/ --destination 3-08-15\
   Nicotine\ Experiment/Orange_Generated_Tracings
   ```

   `<source dir>` is the path to the directory with the excel files.
   `<destination dir>` is the path to the directory where results files will be saved

   There are two additional arguments that can be used when default settings are sufficient.

   `--start` defines the second when we start to plot traces (default 10). E.g. value 10 means that we start to plot traces 10 seconds after the start of the recording
   `--end` defines the second when we end to plot traces (default 600). E.g. value 600 means that we end to plot traces 600 seconds (10 minutes) after the start of the recording.

6. Results are now available at `<destination dir>` .