Import Data to RAVE without GUI

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Run RAVE module to import Native Structure as pipelines without GUI. Please make sure RAVE is installed prior to following this document.

- 1. Please prepare all the raw data in the ~/rave_data/raw_dir
- 2. Open RStudio, create a new R script. You can type and save R commands here. To run the code, simply move the cursor to the corresponding line and enter CTRL/Command + Enter.

```
# Load pipeline
pipeline = raveio::pipeline("import_lfp_native")

# View the pipeline structure
pipeline$visualize(glimpse = TRUE)
```

3. Set inputs

You can list all current inputs here

```
# List all inputs
pipeline$get_settings() |> dput()
## list(skip_validation = TRUE, import_setup__subject_code = "DemoSubject",
##
       import_setup__project_name = "test", import_channels__unit = "NA",
       import_channels__sample_rate = 2000L, import_channels__electrodes = "14-15",
##
       import_channels__electrode_file = "auto", import_blocks__session_block = "008",
##
##
       import_blocks__format = ".mat/.h5 file per electrode per block",
       force_import = TRUE)
##
To modify the inputs, use pipeline$set_settings function
pipeline$set_settings(
  skip validation = FALSE,
  import_setup__project_name = "test",
  import_setup__subject_code = "DemoSubject",
  import_channels__sample_rate = 2000,
  import_channels__electrodes = "13-16,24",
```

The above script tells RAVE to create a subject

- Project test;
- Subject DemoSubject;
- Sampling frequency: 2000 Hz;
- Import the following electrode channels: 13,14,15,16,24;

import blocks session block = c("008", "010"),

import_blocks__format = ".mat/.h5 file per electrode per block"

• Import the following session folders: 008 and 010 (under ~/rave_data/raw_dir/DemoSubject);

• The raw data format is ".mat/.h5 file per electrode per block".

The following data formats are supported

- ".mat/.h5 file per electrode per block": Channels are stored in separate Matlab or HDF5 files in each session block;
- "Single .mat/.h5 file per block": All channels are stored in one matrix in one Matlab or HDF5 file in each session block (only one data is permitted in the file).
- "Single EDF(+) file per block": All channels are stored in one EDF file in each session block
- "Single BrainVision file (.vhdr+.eeg, .vhdr+.dat) per block": All channels are stored in one set of BrainVision files in each session block
- "Single BlackRock file (.nev+.nsx) per block": All channels are stored in one set of BlackRock Neurosignal files (.nev + ns1/ns2/.../ns6) in each session block
- 4. Run the pipeline

Execute the pipeline

pipeline\$run()

Congratulations! You have imported a subject in RAVE. You can launch RAVE GUI or preprocess this subject in the next pipeline (raveio::pipeline("notch_filter")).