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",
  import_blocks__session_block = c("008", "010"),
  import_blocks__format = ".mat/.h5 file per electrode per block"
)
```

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 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")`).