HOPLAB: BIDSify nifti dataset

Some valuable links first:

<https://bids-specification.readthedocs.io/en/stable/01-introduction.html>

<http://reproducibility.stanford.edu/bids-tutorial-series-part-1a/#man13>

<https://en.wikibooks.org/wiki/SPM/BIDS>

<https://github.com/bids-standard/bids-starter-kit/wiki>

Step 1: create folder structure

Example (with project, sub, and ses label):

A screenshot of a cell phone

Description automatically generated

Step 2: transfer nifti files to correct folders

Meaning, per subject, per session (if relevant), to func anat or beh (or e.g. dwi if you have this)

Step 3: rename your nifti files

Example: sub-01\_ses-01\_task-experimental\_run-1\_bold.nii = func

sub-01\_ses-01\_T1w.nii = anat

PS: if you have a lot of files to rename, do it using matlab/python to save you time

PS.PS: I also have a folder beh to store my behavioral data in, I need to store it but don’t plan to use any BIDS app on this beh data, but this doesn’t mean you can’t store this in your BIDS project folder

Step 4: create .tsv file for every SPM onsets file you have

Use Ineke’s script as a good starting point; or if you don’t have SPM onsets file yet -> <https://github.com/bids-standard/bids-starter-kit/blob/master/matlabCode/createBIDS_FullExample_events_tsv.m>

%for each task; each run, you'll need a .tsv with the name

%sub-01\_ses-01\_task-XXX\_run-01\_events.tsv OR

%if it's the same for all runs but not all subs, you can have only 1 per sub

%if it's the same for all subs and all runs, you can have only 1 for all subs

%if it's the same for all subs but not all runs, you can have 1 per run for all subs

%!place accordingly in folder hierarchy

Step 5: create .json file for every nifti file you have

<https://github.com/bids-standard/bids-starter-kit/blob/master/matlabCode/createBIDS_bold_json_full.m>

<https://github.com/bids-standard/bids-starter-kit/blob/master/matlabCode/createBIDS_anat_Full_T1w_json.m>

Different script from Ineke for the anat and for the func

!If you have DICOMs available, use dcm2niix since this will create both nifti and json files for you

PS: make your life easier by collecting not just nifti from the scanner ;)

Step 6: create dataset\_description.json file to put in project/ (e.g. project/Nifti)

Step 7: create participants.tsv to put in project/ (e.g. project/Nifti)

Last step: run BIDS validator (& MRIQC)

<https://bids-standard.github.io/bids-validator/>

python script that runs MRIQC on your BIDS dataset: <https://gist.github.com/marcoaqil/c0e0584513fd482d6ea8e9b164b7c1f4>

Now you’re ready for any BIDS app ;-)