T1 PRE-PROCESSING (CAT12)

Inputs:

* T1 images from the IMAGEN database.
* Longitudinal pre-processing was only possible for images that were available at all relevant time points.

Methods:

* All these data were pre-processed at the end of 2021/early 2022, using the CAT 12.8 (r1907) toolbox.
* Standard CAT12 procedure was used, with default settings.

(ex: batch\_long\_420s\_1-420.m file)

Outputs:

TRANSVERSAL

/data/imagen/2.7/FU3/imaging/CAT12/BL

/data/imagen/2.7/FU3/imaging/CAT12/FU2

/data/imagen/2.7/FU3/imaging/CAT12/FU3

4 sub-directories at each time point

You can find the meaning of all file types in Cat12's manual. (joint)

LONGITUDINAL

4 different CAT12 longitudinal pre-process were carried out to cover the 4 possible cases of longitudinal analyses:

* /data/imagen/2.7/FU3/imaging/CAT12/longit/bas\_fu2
* /data/imagen/2.7/FU3/imaging/CAT12/longit/bas\_fu3
* /data/imagen/2.7/FU3/imaging/CAT12/longit/fu2\_fu3
* /data/imagen/2.7/FU3/imaging/CAT12/longit/bas\_fu2\_fu3

The name of each main directory corresponds to the longitudinal pre-processing carried out. (e.g. fu2\_fu3: T1 images available from Follow up 2 and Follow up 3)

Ex. of images:

mwmwp1r00…a1001.nii : modulated, normalized, segmented, GM at Baseline

mwmwp1r00…\_fu2.nii : modulated, normalized, segmented, GM at FU2

mwmwp1r00…\_fu3.nii : modulated, normalized, segmented, GM at FU3

mwmwp2r00…a1001.nii : modulated, normalized, segmented, WM at Baseline

…

m: modulated w: normalized p1: GM p2: WM

Quality Control:

* There was no specific visual quality control for these data.

* Only the quality control data produced by cat12 for cross-sectional processing is available (attached file: IQR = quality index; GMV : grey matter volume; GMT, Grey matter thickness; TIV Total Intracranial Volumes.)
* All images information is in the "report" folders

Data are for use within the framework of scientific proposals approved by the IMAGEN consortium Executive Committee.

Be cautious that their use in association with other data might arise personal information (e.g. raw T1 face reconstructions, genomic databases crossing & automatized learning), and have to be submitted to data transfer agreement.