

# 201208 Starter: BRAINSABC trials

## 201208 - Description of Notes

This page should fill in any important notes about the project. Think of it as a page in a global lab notebook.

1. Description of data to be processed
2. Scripts used to process the data
3. Failed processing attempts
4. Successful processing attempts



### New Meeting Notes Instructions -- Remove this note when finished!

- Remove this note when ready to publish
- Recommended Page Notes Name: YYYYMMDD <<Note contents>>
- OPTIONAL Includes :
- OPTIONAL Dynamic Tasklist :  
{dynamictasklist:ToDo DESCRIP YYMMDD}
- OPTIONAL Table of Contents: {toc:style=outline|maxLevel=2}

## Data Description

Directory: /hjohnson/HDNI/ABCPaper/PreliminaryTest

## Tasks attempted description

### Working version ( out of BAW nipyne)

#### Running on terminal

```
bash command.sh /ipldev/scratch/eunyokim/src/BRAINS2012Jun/build/
```

**Working version test: /hjohnson/HDNI/ABCPaper/PreliminaryTest/PreliminaryTest/command.sh**

```
binary=$1;
$binary/lib/BRAINSABC \
  --atlasDefinition $binary/ReferenceAtlas-build/Atlas/Atlas_20120627/AtlasPVDefinition.xml \
  --atlasToSubjectInitialTransform /IPLlinux/hjohnson/HDNI/PREDICT_TRAINING/regina_ann/TrainingModels
/BRAINSAutoWorkUpTest/B4AUTO.Regina/BAW_20120104_workflow/_uid_PHD_024_0132_38235/05_BLI
/landmarkInitializer_atlas_to_subject_transform.mat \
  --atlasToSubjectTransform atlas_to_subject.mat \
  --debuglevel 0 \
  --filterIteration 3 \
  --filterMethod GradientAnisotropicDiffusion \
  --gridSize 28,20,24 \
  --implicitOutputs t1_average_BRAINSABC.nii.gz \
  --implicitOutputs t2_average_BRAINSABC.nii.gz \
  --inputVolumeTypes T1,T1,T2,T2 \
  --inputVolumes /IPLlinux/hjohnson/HDNI/PREDICT_TRAINING/regina_ann/TrainingModels/BRAINSAutoWorkUpTest
/B4AUTO.Regina/BAW_20120104_workflow/_uid_PHD_024_0132_38235/01_BCD/BCD_ACPC.nii.gz \
  --inputVolumes /paulsen/MRx/PHD_024/0132/38235/ANONRAW/0132_38235_T1-30_3.nii.gz \
  --inputVolumes /paulsen/MRx/PHD_024/0132/38235/ANONRAW/0132_38235_T2-30_4.nii.gz \
  --inputVolumes /paulsen/MRx/PHD_024/0132/38235/ANONRAW/0132_38235_T2-30_5.nii.gz \
  --maxBiasDegree 4 \
  --maxIterations 3 \
  --outputDir ./ \
  --outputDirtyLabels volume_label_seg.nii.gz \
  --outputFormat NIFTI \
  --outputLabels brain_label_seg.nii.gz \
  --outputVolumes 0132_38235_T1-30_2_corrected.nii.gz \
  --outputVolumes 0132_38235_T1-30_3_corrected.nii.gz \
  --outputVolumes 0132_38235_T2-30_4_corrected.nii.gz \
  --outputVolumes 0132_38235_T2-30_5_corrected.nii.gz \
  --posteriorTemplate POSTERIOR_%s.nii.gz \
  --interpolationMode Linear
```

**Developing version ( copy one of T2 image and see if that works: NO)**

**Developing version : /hjohnson/HDNI/ABCPaper/PreliminaryTest\_CPT2/command.sh**

```
binary=$1;
$binary/lib/BRAINSABC \
  --atlasDefinition $binary/ReferenceAtlas-build/Atlas/Atlas_20120627/AtlasPVDefinition.xml \
  --atlasToSubjectInitialTransform /IPLlinux/hjohnson/HDNI/PREDICT_TRAINING/regina_ann/TrainingModels
/BRAINSAutoWorkUpTest/B4AUTO.Regina/BAW_20120104_workflow/_uid_PHD_024_0132_38235/05_BLI
/landmarkInitializer_atlas_to_subject_transform.mat \
  --atlasToSubjectTransform atlas_to_subject.mat \
  --debuglevel 0 \
  --filterIteration 3 \
  --filterMethod GradientAnisotropicDiffusion \
  --gridSize 28,20,24 \
  --implicitOutputs t1_average_BRAINSABC.nii.gz \
  --implicitOutputs t2_average_BRAINSABC.nii.gz \
  --inputVolumeTypes T1,T1,T2,T2,T2 \
  --inputVolumes /IPLlinux/hjohnson/HDNI/PREDICT_TRAINING/regina_ann/TrainingModels/BRAINSAutoWorkUpTest
/B4AUTO.Regina/BAW_20120104_workflow/_uid_PHD_024_0132_38235/01_BCD/BCD_ACPC.nii.gz \
  --inputVolumes /paulsen/MRx/PHD_024/0132/38235/ANONRAW/0132_38235_T1-30_3.nii.gz \
  --inputVolumes /paulsen/MRx/PHD_024/0132/38235/ANONRAW/0132_38235_T2-30_4.nii.gz \
  --inputVolumes /paulsen/MRx/PHD_024/0132/38235/ANONRAW/0132_38235_T2-30_5.nii.gz \
  --inputVolumes /hjohnson/HDNI/ABCPaper/PreliminaryTest_CPT2/0132_38235_T2-30_5_copy.nii.gz \
  --maxBiasDegree 4 \
  --maxIterations 3 \
  --outputDir ./ \
  --outputDirtyLabels volume_label_seg.nii.gz \
  --outputFormat NIFTI \
  --outputLabels brain_label_seg.nii.gz \
  --outputVolumes 0132_38235_T1-30_2_corrected.nii.gz \
  --outputVolumes 0132_38235_T1-30_3_corrected.nii.gz \
  --outputVolumes 0132_38235_T2-30_4_corrected.nii.gz \
  --outputVolumes 0132_38235_T2-30_5_corrected.nii.gz \
  --outputVolumes 0132_38235_T2-30_5_copy_corrected.nii.gz \
  --posteriorTemplate POSTERIOR_%s.nii.gz \
  --interpolationMode Linear
```

Above script will fail with following messages:

```
....
LowHigh Thresholds: [560,2147483647]
Correlation value between image 0 and image 1: 0.998312
Correlation value between image 0 and image 2: 0.843364
Correlation value between image 0 and image 3: 0.845546
Correlation value between image 0 and image 4: 0.845546
Correlation value between image 1 and image 2: 0.843438
Correlation value between image 1 and image 3: 0.84578
Correlation value between image 1 and image 4: 0.84578
Correlation value between image 2 and image 3: 0.995434
Correlation value between image 2 and image 4: 0.995434
Correlation value between image 3 and image 4: 1
Marking highly correlated image as duplicate :4
WARNING: Found images that were very highly correlated.
WARNING: The image /hjohnson/HDNI/ABCPaper/PreliminaryTest_CPT2/0132_38235_T2-30_5_copy.nii.gz must be removed from further processing
WARNING:
EXITING because 1 duplicates found.
```