

# autobids

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4 February 2019

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- Tool developed in Ali Khan's lab to automatically download DICOM files from the CFMM server and convert them to nifti format following the BIDS file name convention

```
[switt4@gra-login2 sub-A010]$ tree .
.
├── ses-1x
│   ├── anat
│   │   ├── sub-A010_ses-1x_acq-MP2RAGE_run-01_T1map.json
│   │   ├── sub-A010_ses-1x_acq-MP2RAGE_run-01_T1map.nii.gz
│   │   ├── sub-A010_ses-1x_acq-MP2RAGE_run-01_T1w.json
│   │   ├── sub-A010_ses-1x_acq-MP2RAGE_run-01_T1w.nii.gz
│   │   ├── sub-A010_ses-1x_acq-UNI_run-01_MP2RAGE.json
│   │   ├── sub-A010_ses-1x_acq-UNI_run-01_MP2RAGE.nii.gz
│   │   ├── sub-A010_ses-1x_inv-1_run-01_MP2RAGE.json
│   │   ├── sub-A010_ses-1x_inv-1_run-01_MP2RAGE.nii.gz
│   │   ├── sub-A010_ses-1x_inv-2_run-01_MP2RAGE.json
│   │   └── sub-A010_ses-1x_inv-2_run-01_MP2RAGE.nii.gz
│   ├── fmap
│   │   ├── sub-A010_ses-1x_dir-AP_epi.json
│   │   ├── sub-A010_ses-1x_dir-AP_epi.nii.gz
│   │   ├── sub-A010_ses-1x_dir-PA_epi.json
│   │   ├── sub-A010_ses-1x_dir-PA_epi.nii.gz
│   │   ├── sub-A010_ses-1x_magnitude1.json
│   │   ├── sub-A010_ses-1x_magnitude1.nii.gz
│   │   ├── sub-A010_ses-1x_magnitude2.json
│   │   ├── sub-A010_ses-1x_magnitude2.nii.gz
│   │   ├── sub-A010_ses-1x_phasediff.json
│   │   └── sub-A010_ses-1x_phasediff.nii.gz
│   └── func
│       ├── sub-A010_ses-1x_task-cuereactivity_run-01_bold.json
│       ├── sub-A010_ses-1x_task-cuereactivity_run-01_bold.nii.gz
│       ├── sub-A010_ses-1x_task-cuereactivity_run-01_events.tsv
│       ├── sub-A010_ses-1x_task-cuereactivity_run-01_sbref.json
│       ├── sub-A010_ses-1x_task-cuereactivity_run-01_sbref.nii.gz
│       ├── sub-A010_ses-1x_task-cuereactivity_run-02_bold.json
│       ├── sub-A010_ses-1x_task-cuereactivity_run-02_bold.nii.gz
│       ├── sub-A010_ses-1x_task-cuereactivity_run-02_events.tsv
│       ├── sub-A010_ses-1x_task-cuereactivity_run-02_sbref.json
│       ├── sub-A010_ses-1x_task-cuereactivity_run-02_sbref.nii.gz
│       ├── sub-A010_ses-1x_task-green_run-01_bold.json
│       ├── sub-A010_ses-1x_task-green_run-01_bold.nii.gz
│       ├── sub-A010_ses-1x_task-green_run-01_events.tsv
│       ├── sub-A010_ses-1x_task-green_run-01_sbref.json
│       ├── sub-A010_ses-1x_task-green_run-01_sbref.nii.gz
│       ├── sub-A010_ses-1x_task-green_run-02_bold.json
│       ├── sub-A010_ses-1x_task-green_run-02_bold.nii.gz
│       ├── sub-A010_ses-1x_task-green_run-02_events.tsv
│       ├── sub-A010_ses-1x_task-green_run-02_sbref.json
│       ├── sub-A010_ses-1x_task-green_run-02_sbref.nii.gz
│       ├── sub-A010_ses-1x_task-movie_run-01_bold.json
│       ├── sub-A010_ses-1x_task-movie_run-01_bold.nii.gz
│       ├── sub-A010_ses-1x_task-movie_run-01_events.tsv
│       ├── sub-A010_ses-1x_task-movie_run-01_sbref.json
│       ├── sub-A010_ses-1x_task-movie_run-01_sbref.nii.gz
│       ├── sub-A010_ses-1x_task-rest_run-01_bold.json
│       ├── sub-A010_ses-1x_task-rest_run-01_bold.nii.gz
│       ├── sub-A010_ses-1x_task-rest_run-01_events.tsv
│       ├── sub-A010_ses-1x_task-rest_run-01_sbref.json
│       └── sub-A010_ses-1x_task-rest_run-01_sbref.nii.gz
```

# How it works

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- You register your study for autobids conversion
- I create the necessary configuration file to ensure that your scans are correctly converted into BIDS format
- You receive an email from either Ali or me with a link to download your data via globus



# New study request: autobids-cfmm

Please use this form to submit information for initiating a new autobids project

**\*Required**

**Email address \***

Your email address

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**Your name \***

Your answer

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## General information

The following questions are used to better understand resource requirements and needs of users

**Your current status: \***

- Undergraduate student
- Graduate student
- Staff
- Post-doc



autobids-cfmm: [REDACTED].7T import complete

To: Suzanne Witt

BIDS conversion for [REDACTED].7T completed for the following participants:  
A012

Use the following link to access the files via globus:

[https://www.globus.org/app/transfer?origin\\_id=e72fe18c-02ce-11e9-9345-0e3d676669f4&origin\\_path=%2F](https://www.globus.org/app/transfer?origin_id=e72fe18c-02ce-11e9-9345-0e3d676669f4&origin_path=%2F)

BIDS validator output (abbreviated):

1: [WARN] Not all subjects contain the same files. Each subject should contain the same number of files with the same naming unless some files are known to be missing. (code: 38 - INCONSISTENT\_SUBJECTS)

```
./sub-A015/ses-1z/func/sub-A015_ses-1z_task-cuereactivity_run-03_bold.json
Evidence: Subject: sub-A015; Missing file: sub-A015_ses-1z_task-cuereactivity_run-03_bold.json
./sub-A015/ses-1z/func/sub-A015_ses-1z_task-cuereactivity_run-03_bold.nii.gz
Evidence: Subject: sub-A015; Missing file: sub-A015_ses-1z_task-cuereactivity_run-03_bold.nii.gz
./sub-A015/ses-1z/func/sub-A015_ses-1z_task-cuereactivity_run-03_events.tsv
Evidence: Subject: sub-A015; Missing file: sub-A015_ses-1z_task-cuereactivity_run-03_events.tsv
./sub-A015/ses-1z/func/sub-A015_ses-1z_task-cuereactivity_run-03_sbref.json
Evidence: Subject: sub-A015; Missing file: sub-A015_ses-1z_task-cuereactivity_run-03_sbref.json
./sub-A015/ses-1z/func/sub-A015_ses-1z_task-cuereactivity_run-03_sbref.nii.gz
Evidence: Subject: sub-A015; Missing file: sub-A015_ses-1z_task-cuereactivity_run-03_sbref.nii.gz
./sub-A015/ses-1z/func/sub-A015_ses-1z_task-cuereactivity_run-04_bold.json
Evidence: Subject: sub-A015; Missing file: sub-A015_ses-1z_task-cuereactivity_run-04_bold.json
./sub-A015/ses-1z/func/sub-A015_ses-1z_task-cuereactivity_run-04_bold.nii.gz
Evidence: Subject: sub-A015; Missing file: sub-A015_ses-1z_task-cuereactivity_run-04_bold.nii.gz
./sub-A015/ses-1z/func/sub-A015_ses-1z_task-cuereactivity_run-04_events.tsv
Evidence: Subject: sub-A015; Missing file: sub-A015_ses-1z_task-cuereactivity_run-04_events.tsv
./sub-A015/ses-1z/func/sub-A015_ses-1z_task-cuereactivity_run-04_sbref.json
Evidence: Subject: sub-A015; Missing file: sub-A015_ses-1z_task-cuereactivity_run-04_sbref.json
./sub-A015/ses-1z/func/sub-A015_ses-1z_task-cuereactivity_run-04_sbref.nii.gz
Evidence: Subject: sub-A015; Missing file: sub-A015_ses-1z_task-cuereactivity_run-04_sbref.nii.gz
... and 29 more files having this issue (Use --verbose to see them all).
```

2: [WARN] Not all subjects/sessions/runs have the same scanning parameters. (code: 39 - INCONSISTENT\_PARAMETERS)

```
./sub-A012/ses-1x/func/sub-A012_ses-1x_task-cuereactivity_run-02_bold.nii.gz
./sub-A012/ses-1x/func/sub-A012_ses-1x_task-green_run-02_bold.nii.gz
./sub-A012/ses-1x/func/sub-A012_ses-1x_task-green_run-03_bold.nii.gz
./sub-A012/ses-1x/func/sub-A012_ses-1x_task-green_run-04_bold.nii.gz
./sub-A015/ses-1z/func/sub-A015_ses-1z_task-cuereactivity_run-01_bold.nii.gz
./sub-A015/ses-1z/func/sub-A015_ses-1z_task-green_run-01_bold.nii.gz
./sub-A015/ses-1z/func/sub-A015_ses-1z_task-green_run-02_bold.nii.gz
./sub-A015/ses-1z/func/sub-A015_ses-1z_task-green_run-03_bold.nii.gz
./sub-A015/ses-2x/dwi/sub-A015_ses-2x_run-02_dwi.nii.gz
./sub-A015/ses-2x/func/sub-A015_ses-2x_task-cuereactivity_run-02_bold.nii.gz
... and 21 more files having this issue (Use --verbose to see them all).
```

3: [WARN] Tabular file contains custom columns not described in a data dictionary (code: 82 - CUSTOM\_COLUMN\_WITHOUT\_DESCRIPTION)

```
./sub-A012/ses-1x/func/sub-A012_ses-1x_task-cuereactivity_run-01_events.tsv
```

# Transfer Files

RECENT ACTIVITY ○ 0 ▽ 0 ⬡ 0

Endpoint



Endpoint



Path

Go

Path

Go

select all ↶ up one folder ↻ refresh list permissions ☰

code	Folder
sourcedata	Folder
sub-A001	Folder
sub-A002	Folder
sub-A012	Folder
sub-A015	Folder
sub-A016	Folder
CHANGES	364 B
README	138 B
dataset_description.json	693 B
participants.tsv	87 B
task-cuereactivity_bold.json	2.06 KB
task-green_bold.json	2.05 KB
task-movie_bold.json	2.55 KB
task-rest_bold.json	2.56 KB

Start by selecting an endpoint.

Label This Transfer

This will be displayed in your transfer activity.

- Transfer Settings
- sync - only transfer new or changed files ?
  - delete files on destination that do not exist on source ?
  - preserve source file modification times ?
  - verify file integrity after transfer ?
  - encrypt transfer ?

[Get Globus Connect Personal](#)  
Turn your computer into an endpoint.

# What you need to do

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1. Register your study using the google form (please email me for the link)
2. Create a globus account ([globus.org](https://globus.org))
3. Add 'bidsDump' is an authorized user for your PI's scans on the CFMM DICOM server, if not already
4. Decide on a single scheme for naming your scans on the CFMM DICOM server

Questions?