

iEEGWorkflow_OCT2020_ZHANG

Part1-Locate & Import iEEG Data

STEP#1. Make new block/run folder under the subject folder (if it's not already there):

e.g. a folder named '017' inside:

/Volumes/ecog/ECoG_Data/YDJDatafile/DATA/

STEP#2. Copy the raw data into the corresponding block/run folder, each block should include the following files:

e.g. YDJDatafile017.ccf

YDJDatafile017.nev

YDJDatafile017.ns3

YDJDatafile017.ns5

YDJDatafile017.ns6

STEP#3. Convert the (.ns3, .ns5, .ns6) files into one big .mat file:

1) **Method #1**--use a fully automatic one-piece script:

```
/Volumes/ecog/Foster_Lab/CODE/MASTER/BASICS/Call_convert_code_server_256.m
```

2) **Method #2**—convert them manually in matlab:

```
>> addpath /Volumes/ecog/Foster_Lab/CODE/EMU_code  
addpath /Volumes/ecog/Foster_Lab/CODE/BASICS
```

```
>> openNSx('YDJDatafile017.ns3','p:double');
```

```
openNSx('YDJDatafile017.ns5','p:double');
```

```
openNSx('YDJDatafile017.ns6','p:double');
```

```
>> save('YDJDatafile017_rawData', 'NS3', 'NS5', 'NS6', '-v7.3');
```

Now the one big .mat file will be automatically stored in:

/Volumes/ecog/ECoG_Data/YDJDatafile/DATA/017

STEP#4. Split the one big .mat file into individual channel files using this one-piece script:

```
/Volumes/ecog/Foster_Lab/CODE/MASTER/BASICS/ecog_rawData2mat.m
```

In matlab,

```
>> ecog_rawData2mat('YDJ',017,121)
```

Where 'YDJ' is the subject code. In this folder, the data is organized by recording blocks. '019' is the block number, and '121' is the channel number.

NOTE: HOW TO CHECK THE CHANNEL NUMBER FOR A SUBJECT?

this can be found in the subject folder (e.g.):

```
/Volumes/ecog/ECoG_Data/YDJDatafile/INFO/YDJ_montage.xls
```

x

OR you can manually add the numbers from each box together by combining the channel numbers from:

```
/Volumes/ecog/ECoG_Data/YDJDatafile/INFO/YDJ_montage_BOXA.jpg
```

&

```
/Volumes/ecog/ECoG_Data/YDJDatafile/INFO/YDJ_montage_BOXB.jpg
```

Although in this subject, there are only 60 active channels in BOXA, you still need to count the last four blank channels, for example, for YDJ, the total channel number is 64 from BOXA (although only 60 of them are active) + 57 from BOXB = 121 channels.

STEP#5. Copy all the individual channel files into Beauchamplab shared drive:

```
/Volumes/data/rave_data/raw/YDJ/017
```

ALL the future processing will happen in:

```
./data/rave_data/ent_data/EMU_NoisyWords/$subj
```