

# Extracellular Electrophysiology (ecephys) BIDS BEP032 Dataset

```
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    └── custom_probe.json
```

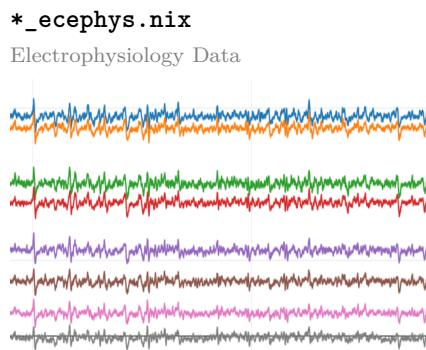
```
sub-01/
├── sub-01_sessions.tsv
├── sub-01_acq-photo1_photo.png
└── ses-001/
    ├── sub-01_ses-001_scans.tsv
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```

```
ses-002/
└── ecephys/
    ├── sub-01_ses-002_task-reaching_ecephys.nix
    ├── sub-01_ses-002_task-reaching_ecephys.json
    └── sub-01_ses-002_task-reaching_events.tsv
```

**\*\_ecephys.json**

Recording Metadata

```
{
  "TaskName": "discrimination",
  "TaskDescription": "Two-alternative forced choice...",
  "SamplingFrequency": 30000,
  "PowerLineFrequency": 60,
  "SoftwareFilters": "n/a",
  "HardwareFilters": {
    "HighpassFilter": {"Half-amplitude cutoff (Hz)": 0.1}
  },
  "Manufacturer": "ManufacturerName",
  "ManufacturersModelName": "AcquisitionSystemModel",
  "SoftwareName": "RecordingSoftware",
  "SoftwareVersions": "1.0.0",
  "PharmaceuticalName": ["AnestheticAgent"],
  "BodyPart": "BRAIN",
  "BodyPartDetails": "TargetBrainRegion",
  "SampleEnvironment": "in-vivo"
}
```



**\*\_probes.tsv**

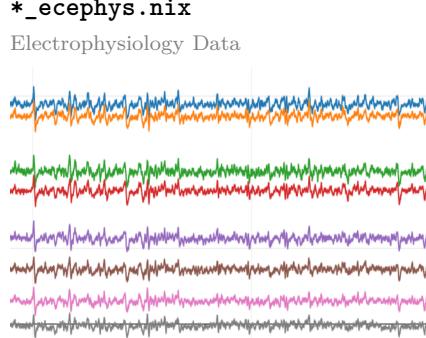
Probe Specifications

probe_name	type	AP	ML	DV	AP_angle	hemisphere	electrode_count
probe01	silicon-probe	-2.5	1.5	-4.0	15	L	384
probe02	tetrode	-1.2	-2.1	-3.5	0	R	4

**\*\_channels.tsv**

Channel Properties

name	reference	type	units	sampling_frequency	hardware_filters	gain	status
ch001	ref01	HP	uV	30000	HighpassFilter	500	good
ch002	ref01	HP	uV	30000	HighpassFilter	500	good
ch003	ref01	LFP	uV	1000	HighpassFilter	500	bad
sync01	n/a	SYNC	V	30000	n/a	1	good



**\*\_space-\*\_coordsystem.json**

Coordinate System

name	probe_name	hemisphere	x	y	z	impedance	shank_id	material	location
e001	probe01	L	0	0	0	1.2	0	iridium-oxide	RegionA
e002	probe01	L	0	0	25	1.1	0	iridium-oxide	RegionA
e003	probe01	L	0	0	50	1.3	0	iridium-oxide	RegionA
e004	probe01	L	0	0	75	1.4	0	iridium-oxide	RegionA

**\*\_space-\*\_electrodes.tsv**

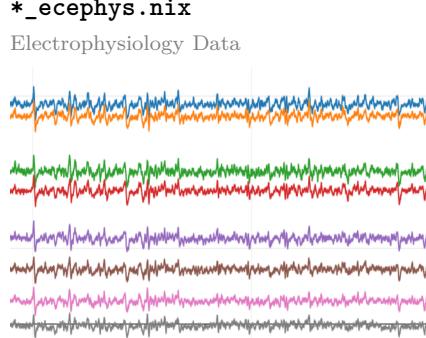
Electrodes (stereotaxic)

name	probe_name	hemisphere	x	y	z	impedance	location
e001	probe01	L	-2.50	1.50	-4.00	1.2	RegionA
e002	probe01	L	-2.50	1.50	-4.02	1.1	RegionA
e003	probe01	L	-2.50	1.50	-4.05	1.3	RegionA

**\*\_probes.json**

ProbeInterface

```
{
  "model": {
    "Description": "Probe model, referencing ProbeInterface",
    "Levels": {
      "ModelA": {"TermURL": "https://raw.githubusercontent.com/bids-standard/bids-specification/main/doc/datasets/probe-interface.md#probe-interface-model-a"},  
      "ModelB": {"TermURL": "https://raw.githubusercontent.com/bids-standard/bids-specification/main/doc/datasets/probe-interface.md#probe-interface-model-b"}  
    }
  },
  "type": {
    "Levels": {
      "silicon-probe": "Multi-electrode silicon probe",
      "tetrode": "Bundle of four twisted wires"
    }
  },
  "coordinate_reference_point": {
    "Levels": {
      "tip": "Probe tip"
    }
  },
  "anatomical_reference_point": {
    "Levels": {
      "Bregma": "Coronal/sagittal junction"
    }
  }
}
```



MicrophysCoordinateSystem	MicrophysCoordinateUnits	MicrophysCoordinateSystemDescription	AP	ML	DV	IntendedFor
"StereoTaxic"	"mm"	"Stereotaxic coords rel. to Bregma. Right-handed: AP (anterior-posterior, + = anterior), ML (medial-lateral, + = right), DV (dorsal-ventral, + = ventral). Origin at Bregma."				"sub-01/ses-001/ecephys/sub-01_ses-001_task-discrimination_ecephys.nix"

**\*\_space-\*\_electrodes.json**

Coordinate System