File name/url	Summary	Features	NWB explorer status	Possible actions
test_VoltageClampStimulusSeries.nwb	VoltageClampStimulusSeries inside acquisition references an intra-cell electrode	VoltageClampStimulusSeries, IntracellularElectrode	Correctly loads the time series. Does not show the reference to the electrode and the meta data	Add electrode information to general meta data. Add widget to show specific object meta data
test_VoltageClampSeries.nwb	VoltageClampSeries inside acquisition references an intra-cell electrode	VoltageClampSeries, IntracellularElectrode	Correctly loads the time series. Does not show the reference to the electrode and the meta data	Add electrode information to general meta data. Add widget to show specific object meta data
test_Units.nwb	Object of type Units https://nwb-schema.readthedocs.io/en/latest/format.html#sec-units inside acquisition	Units (DynamicTable)	No errors loading the file. The table is not displayed	Units is a object of type DynamicTable. The backend is loading dynamic table data but there is no specific widget. We may develop a widget to present dynamic table objects and subtypes
test_TwoPhotonSeries.nwb	Object of type TwoPhotonSeries (ImageSeries) in acquisition, device, ImagingPlane inside imaging_planes. TwoPhotonSeries object references the imaging plane	TwoPhotonSeries (ImageSeries), ImagingPlane	Loads but the plot shows nothing. ImagingPlane is supported for meta data	Add specific component to plot ImageSeries. Being data possibly big evaluate subsampling in space and time
test_timestamps_linking.nwb	The timestamps object is reused in two time series	Reuse timestamps	Everything works as if the time stamps were not linked	The linking may be preserved in order to save sending the same data multiple times when loading the time series
test_TimeSeries.nwb	Simple time series	TimeSeries	OK	Add time series meta data information. Show derived time series data (e.g. duration, number of spikes, number of samples, max, min, other stats)
test_TimeIntervals.nwb	Two time series and epoch specification as TimeIntervals	TimeIntervals (epochs)	Shows the time series but does not show intervals	We can represent epochs in a table. The referenced time series objects could be shown clicking on their name
test_SweepTable.nwb	One time series and a related sweep table (DynamicTable) -> see https://nwb-schema.readthedocs.io/en/latest/format.html#sec-sweeptable. The sweep table is another dynamic table which references time series objects	SweepTable	OK	
test_Subject.nwb	Subject description at top level. See https://nwb-schema.readthedocs.io/en/latest/format.html#sec-subject. It's an object with well known fields but we can see also as a key-value pair dictionary	Subject	OK	Add subject to general information
test_RoiResponseSeries.nwb	We have a RoiResponseSeries (https://nwb-schema.readthedocs.io/en/latest/format.html#roiresponseseries) with ROIs defined as a plane segmentation object https://nwb-schema.readthedocs.io/en/latest/format.html#sec-planesegmentation	RoiResponseSeries - PlaneSegmentation	OK. RoiResponseSeries is shown as a base time series	"ROI responses over an imaging plane. Each row in data[] should correspond to the signal from one ROI.". There are multiple time series, one for each roi. We should think at a proper representation in order to link each time series to its ROI and the ROI to the imaging plane
test_PlaneSegmentation.nwb	Plane segmentation of imaging plane	PlaneSegmentation - ImagingPlane	Shows nothing	Plane segmentation has an image mask and a pixel mask. We could start from there and design how to show it. Maybe graphically we can show a rectangle with a different color for each segmentation?
test_PatchClampSeries.nwb	Includes a PatchClampSeries https://nwb-schema.readthedocs.io/en/latest/format.html#sec-patchclampseries. Similar to VoltageClampStimulus. It references a sweep and a electrode	PatchClampSeries, IntracellularElectrode	Correctly loads the time series.	We could find a way to show the links sweep_table<->timeseries<->electrode. Show specific meta data for PatchClampSeries (e.g. gain, sweep_number)
test_OptogeneticStimulusSite.nwb	Defines a stimulus site https://nwb-schema.readthedocs.io/en/latest/format.html#sec-optogeneticstimulussite	OptogeneticStimulusSite	No errors but the stimulus site is not shown	Add the stimulus site information to the general section (ogen_sites section). The stimulus site has relationship with a device.
test_OptogeneticSeries.nwb	OptogeneticSeries has a relationship with a stimulus site	OptogeneticSeries	OK. Stimulus site is shown as meta data	Specific visualization for stimulus site?
test_LFP.nwb	Two ElectricalSeries nested inside LFP https://nwb-schema.readthedocs.io/en/latest/format.html#sec-lfp	LFP, ElectricalSeries	The time series are properly loaded. We can see that they belong to LFP and what electrical series from the name. Further specific relationships and electrodes are not shown	"The electrode map in each published ElectricalSeries will identify which channels are providing LFP data. Filter properties should be noted in the ElectricalSeries description or comments field". This relationship could be represented in some way
test_IZeroClampSeries.nwb	IZeroClampSeries. Has a reference to an intra-cellular electrode and specific meta data	IZeroClampSeries, IntracellularElectrode	Correctly loads the time series. Does not show the reference to the electrode and the meta data	see also test_VoltageClampSeries.nwb
test_IntracellularElectrode.nwb	Intra-cellulare electrode. It is located into the field ic_electrodes	IntracellularElectrode	The electrode is ignored. Nothing is shown	Show the ic_electrodes (see https://nwb-schema.readthedocs.io/en/latest/format.html#intracellularelectrode). We have to decide whether to show the electrodes only when referenced by a time series. An electrode contains meta data and a reference to a device
test_ImagingPlane.nwb	Only an imaging plane is specified with related data	ImagingPlane	Nothing is shown	Show the imaging plane meta data and related objects. As for the electrodes, we have to figure out where and how display the data to the user avoiding the generic tree display
test_FilteredEphys.nwb	Shows two ElectricalSeries within a FilteredEphys (https://nwb-schema.readthedocs.io/en/latest/format.html#sec-filteredephys). Each series has 2 dimensions and is related to electrodes	FilteredEphys, ElectricalSeries	Only 1 of the 2 dimensions of the time series is shown. Electrodes and other specific meta data is not shown. We can see from the name the containment relationship in the FilteredEphys object	Further investigate the meaning of filtered elecrophysioligy representation (why 2 dimensions?). A component able to show a Dynamic table can handle elecrodes. Electrodes have coordinates, we may also show on a 3D view. Represent relationship electrode/electrode_groups. Better wait for a real use case
test_FeatureExtraction.nwb	Defines a FeatureExtraction (https://nwb-schema.readthedocs.io/en/latest/format.html#sec-featureextraction) on acquisition	FeatureExtraction	Nothing is shown.	Feature extraction represent the features extracted for different events. There is a reference to electrode. Need to understand the experimental scenario. Better wait for a real use case
test_EventWaveform.nwb	Contains an EventWaveform https://nwb-schema.readthedocs.io/en/latest/format.html#sec-eventwaveform which references a SpikeEventSeries https://nwb-schema.readthedocs.io/en/latest/format.html#sec-spikeeventseries. The spike event series has a reference to electrodes	EventWaveform, SpikeEventSeries	The SpikeEventSeries is shown as a normal time series, without any other specific data. We can see from the path the containment relationship in the SpikeEventSeries	no events are shown
test_EventDetection.nwb	An EventDetection related timeSeries (see https://nwb-schema.readthedocs.io/en/latest/format.html#eventdetection). The timeseries should be the source of the spike events. Being an electrical series it is related to electrodes. The event times are indicated in a separate vector times	EventDetection	Shows the time series. The path doesn't help here seeing the relationship	We could show the event as a marker on the plot
test_ElectrodeGroup.nwb	Only defines an electrode Group. It looks a generic NWBInterface with two field and a relationship with a device	ElectrodeGroup	Nothing is shown	Maybe this is something we want to present as an additional information while showing the electrodes
test_ElectricalSeries.nwb	Shows two ElectricalSeries. The series has 2 dimensions and is related to electrodes	ElectricalSeries, Electrode	Only 1 of the 2 dimensions of the time series is shown. Electrodes and other specific meta data is not shown.	See filteredEphys
test_DynamicTable.nwb	A Units dynamic table on units	DynamicTable, Units	Nothing is shown	Can be a starting point to implement a component to show a DynamicTable. We need to think how to display secondary first level sections such as Units
test_Device.nwb	Shows a device within a device	Device	Nothing is shown	We could show the devices in the general section, same as the subject
test_DecompositionSeries.nwb	A time series in acquisition and a spectral analysis on the modules section (why not analysis?). It holds the spectral analysis of a source time series on different bands (DynamicTable). See https://nwb-schema.readthedocs.io/en/latest/format.html#decompositionseries	DecompositionSeries	The decompositionSeries is shown but we cannot see the data in the plot. The other time series breaks on the backend	Add support for decomposition series expliciting the relationship with the source time series and the bands table
test_CurrentClampStimulusSeries.nwb	see test_VoltageClampStimulusSeries.nwb	CurrentClampStimulusSeries	see test_VoltageClampStimulusSeries.nwb	see test_VoltageClampStimulusSeries.nwb
test_CurrentClampSeries.nwb	see test_VoltageClampSeries.nwb	CurrentClampSeries	see test_VoltageClampSeries.nwb	see test_VoltageClampSeries.nwb
test_ClusterWaveforms.nwb	Shows deprecated (and complex) https://nwb-schema.readthedocs.io/en/latest/format.html#clusterwaveforms	ClusterWaveforms (deprecated)	clusters appear under acquisition	Maybe there is a non-deprecated equivalent?
test_Clustering.nwb	Shows deprecated clustering https://nwb-schema.readthedocs.io/en/latest/format.html#clustering	Clustering (deprecated)	clusters appear under acquisition	Maybe there is a non-deprecated equivalent?

File name/url	Summary	Features	NWB explorer status	Possible actions
http://download.alleninstitute.org/informatics-archive/prerelease/H19.28.012.11.05-2.nwb	The content of the file is summarized here: http://download.alleninstitute.org/informatics-archive/prerelease/H19.28.012.11.05-2.pdf. 63 stimuli and 63 acquisitions, a sweep table relating the information. 67MB totoal	VoltageClampSeries, IntracellularElectrode, CurrentClampSeries, SweepTable	OK	The relationship time series - electrode may be also of interest
http://download.alleninstitute.org/informatics-archive/prerelease/H19.28.012.11.05-3.nwb	86 acquisitions and 86 stimuli, 89MB total	see above	OK	See above
http://download.alleninstitute.org/informatics-archive/prerelease/H19.28.012.11.05-4.nwb	60 acquisitions and 60 stimuli, 89MB total	see above	OK	See above
http://download.alleninstitute.org/informatics-archive/prerelease/H19.29.141.11.21.01.nwb	40 acquisitions and 40 stimuli, 7.8MB total. Summarized here: http://download.alleninstitute.org/informatics-archive/prerelease/H19.29.141.11.21.01.pdf	see above	OK	See above
http://download.alleninstitute.org/informatics-archive/prerelease/behavior_ophys_session_775614751.nwb				
http://download.alleninstitute.org/informatics-archive/prerelease/behavior_ophys_session_778644591.nwb				
http://download.alleninstitute.org/informatics-archive/prerelease/behavior_ophys_session_783927872.nwb				
http://download.alleninstitute.org/informatics-archive/prerelease/behavior_ophys_session_784482326.nwb				
http://download.alleninstitute.org/informatics-archive/prerelease/ecephys_session_715093703.nwb.bz2				
http://download.alleninstitute.org/informatics-archive/prerelease/ecephys_session_759228117.nwb.bz2				
http://download.alleninstitute.org/informatics-archive/prerelease/ecephys_session_764437248.nwb.bz2				
http://download.alleninstitute.org/informatics-archive/prerelease/ecephys_session_785402239.nwb.bz2				

File name/url	Source	Summary	Features	NWB explorer status	Possible actions
Bon04.nwb	Frank Lab (UCSF) (May, 2019)	The data was recorded from hippocampus regions CA1 and CA3 (or MEC and CA1) from nine male Long-Evans rats before, during and after the animals performed an alternate choice task in one of two W-shaped tracks. The data was used to determine relationships between activity in hippocampus neurons to information representation, learning and decision making. See also here: https://crcns.org/data-sets/hc/hc-6/about-hc-5, generated with the folowing notebook https://github.com/LorenFrankLab/franklab-nwb-hack/blob/master/hackathon-6/create_franklab_nwbfile.ipynb. The notebook well describes the experiment and how was mapped with pynwb objects. Animal position is given with a spatial series, animal speed with BehavioralTimeSeries	Electrode, LFP, ElectricalSeries, Position, CompassDirection, BehavioralTimeSeries, SpatialSeries (series related to a position). Specific extensions	NWB fails loading the file because the extension is missing	Do we want to support extensions? Try to regenerate the file with the notebook, removing the error

File name/url	Dataset Name	Section	Summary	Features	NWB explorer status	Possible actions
https://portal.nersc.gov/project/crcns/download/ssc-7/data.tar.gz	ss-7: Yu/Gutnisky et al Nat Neurosci 2016	/VPM_silicon_probe/	The experiment is described in https://portal.nersc.gov/project/crcns/download/ssc-7/docs/crcns_ssc-7_data_description.pdf. Comes with sample matlab analysis code. Each session is included in a different nwb file (more than a hundred)		breaks pynwb "No data type found for builder root"	The file are not read by pynwb. Probably because they are made with matlab? The experiments are well described though, it may be worth looking at?
https://portal.nersc.gov/project/crcns/download/alm-1					Same as above	

File name/url	Dataset Name	Section	Summary	Features	NWB explorer status	Possible actions
https://buzsakilab.nyumc.org/datasets/NWB/SenzaiNeuron2017/YutaMouse*			Experimental data from http://www.buzsakilab.com/content/PDFs/Senzai2017Neuron.pdf.	TimeSeries, SpatialSeries, extracellular electrodes, units (with spike times), ProcessingModule, LFPSpectralAnalysis, Position, AnnotationSeries (for events). Trial table, epoch table (without time series)	Time series ok. Spatial data not supported; LFP non supported; problems with big time series	