Neuraview Quickstart

Neuraview

This guide will focus on giving a brief introduction to the Neuraview data viewing software. The look and many of the options for Neuraview have changed or been renamed from previous versions when we released version 2.0.0. The goal is to allow you to install and begin viewing and navigating data quickly. Please send any feedback or questions to support@neuralynx.com

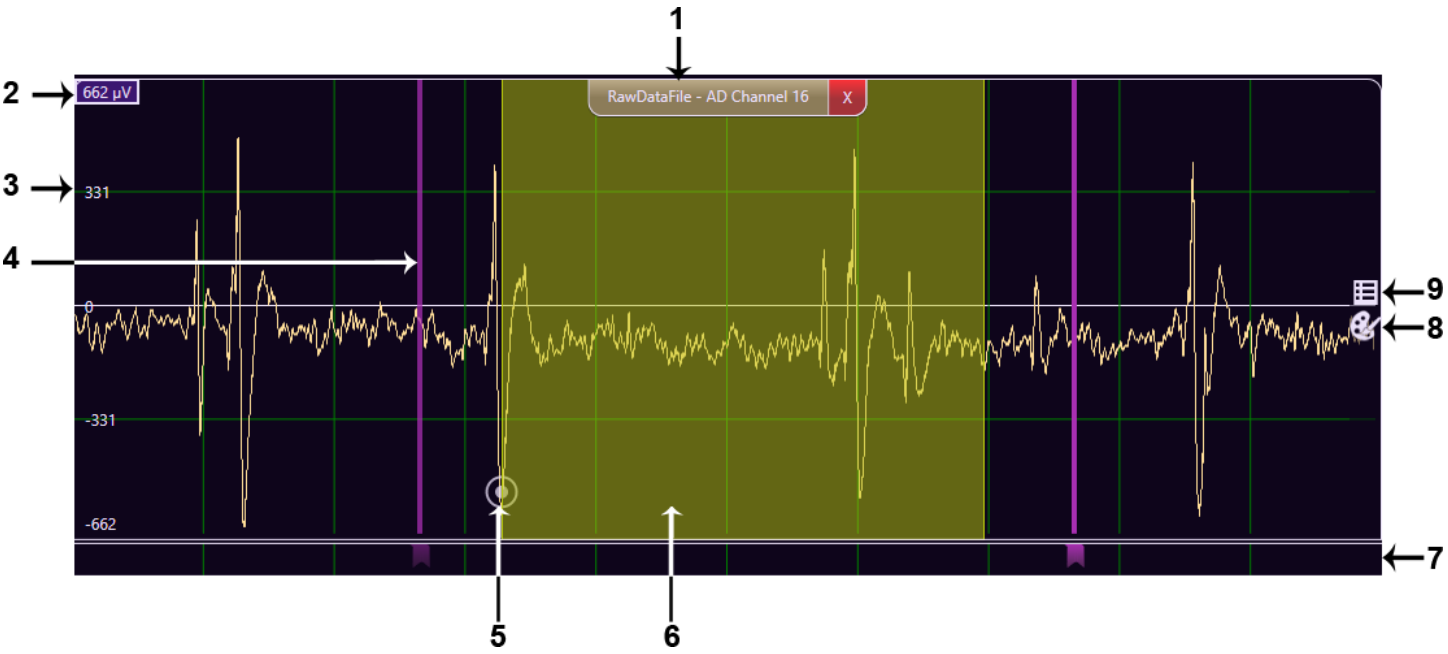
The Main Menu

Neuraview's main menu is used to access many of the features of the program. You can show the main menu by moving your mouse over the purple bar at the top of the program.

1. **Open Files (Ctrl+O):** Opens a file browser that allows you to select one or more files to open. NRD and NVT files will prompt you to select which subchannels in the file to open.
2. **Navigate Time Backward (Left Arrow):** Moves the current time window backward to see data prior to the currently displayed data.
3. **Go to Timestamp (Ctrl+G):** Allows you to enter a specific timestamp and moves the time window so that it is centered on that timestamp.
4. **Navigate Time Forward (Right Arrow):** Moves the current time window forward to see data after the currently displayed data.
5. **Zoom Out (Ctrl+Right Arrow)**: Increases the amount of time visible in the current window to the next larger predetermined time window size.
6. **Zoom In (Ctrl+Left Arrow):** Decreases the amount of time visible in the current window to the next smaller predetermined time window size.
7. **Increase Y Axis (Ctrl+Up Arrow):** Increases the maximum visible Y axis value for all opened plots.
8. **Decrease Y Axis (Ctrl+Down Arrow):** Decreases the maximum visible Y axis value for all opened plots.
9. **Add Event Marker (Ctrl+Shift+N):** Adds an event marker to the center of the current time window. This marker can be moved via dragging with the mouse and have its event string edited.
10. **Go to Previous Event Marker (Ctrl+[ ):** Moves from the current event marker to the previous event marker. This may cause the time window to shift to make the previous marker visible.
11. **Go to Next Event Marker (Ctrl+]):** Moves from the current event marker to the next event marker. This may cause the time window to shift to make the next marker visible.
12. **Save Event Markers:** Allows you to choose to save all opened event markers or only manually added event markers to a file for later use.
13. **Split Files:** Opens the file splitting window which will allow you to split all opened files using all available events.
14. **View Data Details (Ctrl+D):** Shows the data details view which shows the exact values for both the header and the data portions of an opened file.
15. **About:** Shows information about the program.

Plotting Area

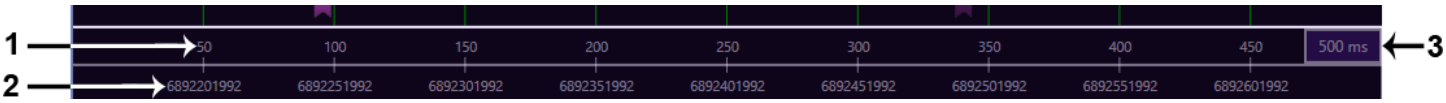
All opened data in Neuraview is shown in the plotting area of the window. The data currently visible is all part of the same time window, which is shown in the timeline bar. If no data is visible for a plot, that means there is no data from that source in the current time window.



1. **Plot Title Bar**: Shows the name of the data being displayed. Clicking on the X closes the plot. You can also click and drag on the plot name to rearrange the order of the visible plots.
2. **Max Y Axis Value:** Shows the maximum Y axis value that is currently visible. This can be adjusted by clicking on the value.
3. **Y Axis Label:** Shows the value of the horizontal grid line.
4. **Event Marker:** Shows the location of an event marker in this plot. Hovering over the event marker shows information about this event. Event markers from all opened event files are shown in their respective file colors. If too many event markers occupy the same location, they will not be overlaid on the plot.
5. **Data Cursor:** Allows you to see the data values and timestamp associated with a particular point by hovering over the cursor. The timestamp shown for a particular sample may not be shown in the data view since only record timestamps are shown in the data view. The sample whose timestamp is used for a record timestamp varies by the record type.
6. **Zoom Selection:** Clicking and dragging the mouse horizontally in a plot will allow you to zoom all opened plots to a particular time window.
7. **Event Marker Display:** Each event marker file as well as manually added event markers have a separate display area beneath all opened data plots. Event markers that do not have a lock icon can be moved by dragging the event with the mouse; have their event strings edited or be removed. Individual event marker files can be closed by clicking on the X. If multiple event markers occupy a single location, only the number of event markers occupying that pixel will be visible when hovering over the event marker. Either zoom in or view the data details for that event marker file to see details for those events.
8. **Change Plot Color:** Changes the base plot color used to display data. Plots with multiple channels (e.g. spikes) will set subchannel colors based on the base color.
9. **Show Data Details View:** Shows the data details view and selects the data source from this particular plot.

Timeline Bar

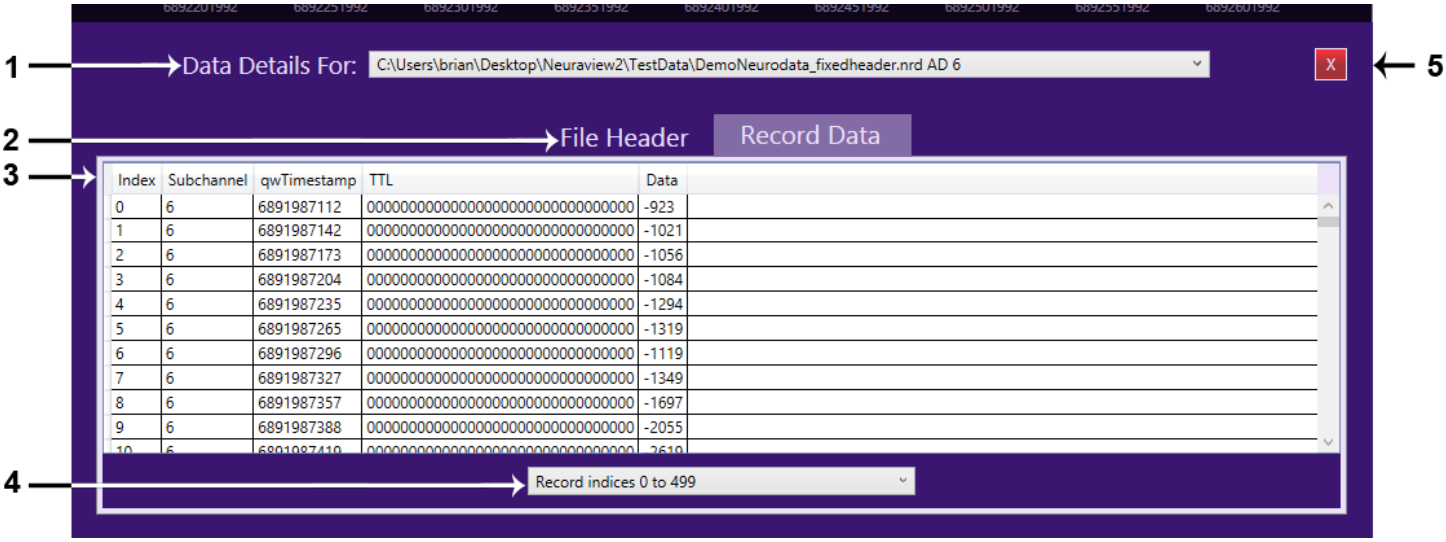
Neuraview displays data for all plots aligned to a single time window. The current time window is shown by the timeline bar beneath all opened data files.



1. **Offset Times:** The amount of time from the beginning of the current time window represented by a vertical grid line. The units of time are shown by the current time window.
2. **Timestamp:** The recorded timestamp of the data represented by a vertical grid line.
3. **Current Time Window:** The amount of time visible in the current time window. Clicking on this button or using the *Ctrl+T* hotkey combination will allow you to manually edit the current time window.

Data Details View

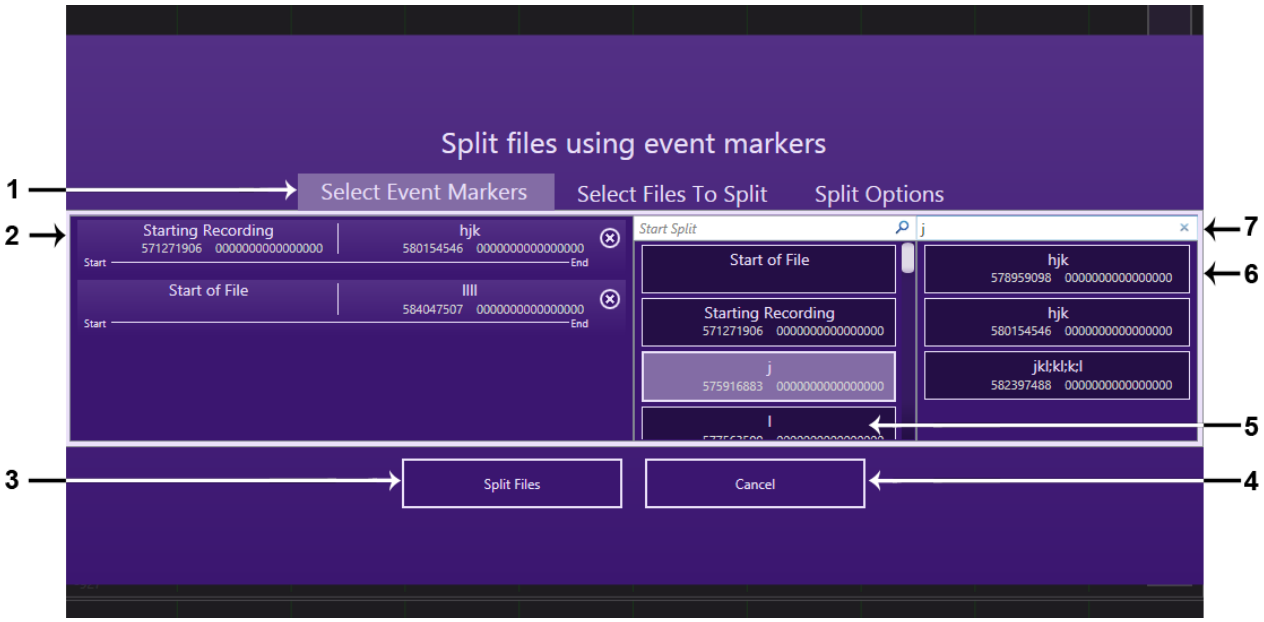
The data details view will display information about an open data file exactly as it was written to the file.



1. **Displayed Data Source:** Shows the data source whose data is being shown. This list contains all opened data sources.
2. **Data View Selection:** Allows you to select display of either the file header or the record data.
3. **Data Listing:** Lists the raw record data for the indices shown in the index selection.
4. **Index Selection:** Allows you to select the indices whose data is shown.
5. **Close Button:** Hides the data details display.

Split Files Window

All opened data files can be split into smaller files based on a series of start and end event marker pairs. Start by selecting the event marker pairs that represent sections of data you would like split from the larger data files in the *Select Event Markers* section. Then, click on *Select Files To Split* to choose the opened data files that you would like to split. You can change other split options under the *Split Options* section, or just click *Split Files* to perform the split using default options. All files will be named <data_file>_<start_timestamp>_<end_timestamp>.<data_extension> (i.e. CSC1.ncs split between 575916883 and 582397488 would be CSC1_575916883_582397488.ncs and contain all the data from CSC1.ncs between those two timestamps). Be aware that it is possible for files to either contain no data or contain data slightly before or after the specified timestamps based on where the selected start and end timestamps fall within each data file.



1. **Split Setup Sections:** Allows you to choose between event marker selection, file selection and other split options. Start and stop events and the files that are to be split based on those events must be selected before splitting can occur. If the output location on the *Split Options* section is not changed, all split files will be placed in the same directory as the original file.
2. **List of Split Pairs:** The list of the start and end event markers used for each split. All selected files will be split according to the timestamps of each pair of start and end event markers. Each selected file under the *Select Files To Split* section will have an output file whose data corresponds to each split shown in this list. If no data is available in a selected data file for a given split pair, the resulting output file will contain no data.
3. **Split Files:** Splits the files selected in the *Select Files To Split* section according to the current list of start and end pairs.
4. **Cancel:** Closes this window and performs no splits.
5. **Start Split Event Marker List:** List of available event markers to use as the starting point for a split.
6. **End Split Event Marker List:** List of available event markers to use as the ending point for a split.
7. **Event Marker Filter:** Both the start and end lists can be filtered independently of each other. Entering text in the filter box will only show event markers that contain the specified text in their event string.

This guide is intended as an introduction to Neuraview. Send any comments or ideas on how Neuralynx can make Neuraview better to support@neuralynx.com.