

## Offline Sorter x64 Change Log (Last updated 3/31/10)

### Version 3.1 3/14/10

#### New Features:

- Added support for .plx file format version 107, which includes support for large channel counts.
- Added control of the directory for output files, added the Set OutputDir batch command.

#### Improvements:

- Box sorting boxes are now saved/restored to .tpl files
- Scan files saved during batch now named for the saved output file instead of the input file
- Improvements to batch syntax and reporting

#### Bug Fixes:

- Fix crash problem that occurred if the Control Grid window was closed
- Fix problem with saving/restoring custom key assignments
- Fix problem where remapping a .plx file to stereotrode/tetrode would result in extra copies of the events
- Fix potential problem with loading strobed events from .nev, .nlx, and Neuroshare files
- Export as PLX now writes out the modified spike threshold resulting from re-thresholding.
- Files with 16-bit waveform data now always use the non-MAP fit tolerance for template sorting, ignoring the
- 'Use MAP-Compatible Fit Tolerance' setting.
- Fix issue with invalidating waveforms for file formats where the timestamp frequency is not the same as the
- waveform digitization frequency.
- Fix potential issue with SortEnd not being properly read in from trodal .plx files
- Fix issue with the full-scale voltage edit box on the timeline view not being updated after a waveform extraction.
- Fix problem with exporting to .plx when file containing only continuous channels was imported from certain formats
- Fix issues with handling gains/voltages from MCS files

### Version 3.0.1 7/11/09

#### Bug Fixes:

- Fix issues with exporting upsampled continuous data to Nex
- Export functions now compatible with latest releases of Matlab
- Can no longer circle clusters when in box sorting mode
- Fix issues with events during Export to New .plx when data was read in from Neuroshare.

### Version 3.0.0 5/26/09

#### New features and changes for version 3.0:

##### Time Segments

- The 'Select Time Segment' function has been replaced by the much more extensive ability to divide the file into time segments, with support for viewing and using only a specific segment in all operations.
- Added an option to automatically create time segments when loading a file.
- Added a new Clusters Vs Time view that shows how clusters evolve as a function of time
- Added Sort Quality vs Time Segment graph to display how sort quality changed through the file

##### Sorting Changes

- Added ability to sort with adaptive templates
- Added box sorting
- Added a new Templates vs Time view to display how the template adapted through the file
- Added ability to quickly save and recall sortings for a channel, which is useful for comparisons
- Added a new Scan Graphs view that graphically displays the contents of the Scan View

- Scan results can be saved to and loaded from .SCAN files. A new option exists to automatically load the companion .SCAN file for each channel as it is loaded. Together with the new batch scan commands, this enables a useful mode of operation where you set up a batch OFS job to do sorting scans all night, then manually review the sorting and choose the most appealing sort for each channel.
- Added new sorting methods based on scanning a parameter and picking the best sort according to a selected sort quality metric.

### Continuous Data Handling

- Added upsampling, with linear or spline interpolation
- Can now (optionally) save upsampled and filtered continuous data in the Export To New .PLX operation
- Added an FFT view to show the frequency spectrum of continuous data
- Waveform detection/extraction will now appropriately treat differences in voltage scales between waveform and continuous data.
- The Channel Parameters and File Summary views show more information related to gains and voltage ranges. The Channel Parameters view allows modification of the continuous or spike channel gains if they are not correct in the data file, and there is a new Adjust Gains tool

### General UI Changes

- A new user interface toolkit has been used, which provides for added flexibility and customizability.
- The buttons on the Waveform and Cluster views have been turned into toolbars.
- The bottom Timeline View has been enhanced so that it can show continuous and waveform data simultaneously with a resizable splitter. The controls have been simplified.
- Added an option to show dots at the sample locations for continuous data.
- The Contours and W/f Crossing sorting methods have been combined into one, and this sorting method is always "in effect" no matter which other sorting method you have selected.
- Crossing in the waveform view is now 'symmetric' with circling in the cluster views for all operations.
- The views showing waveform or continuous data show the time and voltage corresponding to the mouse position in the status bar
- The currently selected unit is always drawn 'on top' in the Waveforms view
- New Select main menu item to select the next/previous channel, unit, waveform, or segment
- The electrode enable checkboxes have moved into the control grid
- New 'Run' menu allows easily starting other applications from with Offline Sorter

### General Changes

- Performance enhancements for loading data files
- Batch enhancements
  - New commands for scanning
  - Added a menu item to edit batch files with a user-selected editor
  - OFS remembers previous batch file locations
  - New Quick Batch Reference showing all batch commands
  - Added a menu item to show the log file resulting from the last batch run
- There are new options to automatically load the first channel after opening a new file (on by default), and to automatic load companion scan results
- The following features have been deprecated
  - 3D Phase Space view
  - The Sort toolbar
  - The "Show 0 to scroll pos" feature of the waveform display
  - The ability to time-magnify just the spikes (without zooming the time range) in the waveform display
  - The "Control cluster display" and "Control Waveform display" are no longer independent, it is just "Control Displays" now.
- Added options for handling sort start/end imported from .plx files
- Can now save and restore all Offline Sorter options and settings to/from a file. Can also reset all options to the factory defaults.
- Dumping PowerPoint slides now creates the output ppt file in the data directory to work around a file protection issue in Vista.
- Now available as a true 64-bit executable

