Media Contact: Stacie Hyatt
Phone +1 (214) 369-4957
Fax +1 (214) 369-1775
stacie@plexon.com
www.plexon.com

FOR IMMEDIATE RELEASE

Plexon Inc Announces Offline Sorter™ v4 to Launch Next Month with Amazing New Functionality

DALLAS, TX -- (March 25, 2015) - Plexon Inc, the leader in advanced hardware and software solutions for neuroscience and behavioral research, is thrilled to announce that it will be launching the fourth version of Offline Sorter™ Software (OFS), the industry's most trusted offline neural spike sorting software, in April, 2015. Version 4 is loaded with new sophisticated algorithms and functionality including the ability to analyze overlapping waveforms, perform signal-to-noise ratio (SNR) computations, apply high-cut filtering to continuous channels and exploit digital referencing among many more features.

Researchers will now have the power to enable the analysis of overlapping waveforms. Occasionally, where the neural firing rate is high, spikes can be lost from the analysis because of overlapping waveforms. One neural firing may result in a threshold crossing and initiate the capture of a spike, but before the spike window is completed (i.e. before all the samples within the Waveform Window have been collected), another neural firing is picked up on the same electrode. This results in an overlapping waveform and will have a spike waveform that is not shaped like the unit template of either of the neurons involved. These overlapping waveforms typically show up as outliers, and usually are not sorted into any unit by automated sorting algorithms. The new Overlaps Analysis view can be used to help "rescue" some of these overlapping waveforms, by first detecting that a given waveform may have been produced by overlapping unit firings, and then resolving them by reconstructing the non-overlapped versions of the two overlapping spikes. This then allows the formerly-overlapping spikes to be properly sorted.

Through the new Threshold Scan Graph view, researchers will be able to scan through a range of threshold values, then create and display a graph of the number of extracted spikes and the signal-to-noise ratio as a function of the threshold. When activated, every time a spike extraction is done at a specific threshold, a SNR calculation is done following the extraction, and the SNR value along with the number of spikes extracted is plotted on the graph. This can assist in deciding where to set the threshold for extracting spikes from continuous data.

To complement the ability to select low-cut filtering, OFS version 4 now also offers high-cut filtering. This can be used to obtain local field potentials (LFPs) from a wideband continuous signal by removing the high-frequency spike activity. The same filter parameters apply to the high-cut filter, except the sense of the filter is reversed to remove the high frequency signal energy instead of the low frequency signal energy.

New digital referencing provides the researcher an automated tool for subtracting noise from channels that contain interesting spike data. Specific continuous sources can be selected for noise reduction, and there are several options for selecting and averaging the reference channels (the channels that contain the noise) such as using either Common Average Reference (CAR) or Common Median Reference (CMR) techniques.

Compounding the above, OFS version 4 is further packed with additional new functionality including but not limited to the ability to load multiple PL2™ files simultaneously; new L-Ratio and Isolation Distance sort quality metrics; support for Band and Line sorting methods; ability to name and manipulate Time Segments and save as NeuroExplorer® files; new scan modes including the ability to scan using different random initial seed clusters; support for multiple spike Sources; ability to display arbitrary combinations for continuous and spike data together for a channel in the Timeline View; the ability to use standard deviation or Median Absolute Deviation (MAD) to calculate fit or band fit tolerances and much more.

Neuroscientists will also appreciate the countless improvements, a few customary bug fixes and the complete *Offline Sorter, Offline Spike Sorting Software Version 4 User Guide* that comes packaged with the program.

In appreciation for research labs that recently purchased one or more new licenses of Offline Sorter version 3 from Plexon in the past six months, Plexon is extending special upgrade offers. Labs that placed an order from October 1 to December 31, 2014 qualify for a deep discount of 70% off of the standard upgrade. Labs that placed an order between January 1, 2015 and this announcement will receive a FREE upgrade to version 4. Offers expire on December 21, 2015.

OFS version 4 has been six years in the making and will empower researchers to take neural signal sorting to a whole new level. For more information regarding purchasing or upgrading to OFS version 4, contact info@plexon.com.

About Plexon Inc

Plexon is a pioneer and leading innovator of custom, high performance data acquisition, behavior and analysis solutions specifically designed for scientific research. We collaborate with and supply thousands of customers including the most prestigious neuroscience laboratories around the globe driving new frontiers in areas including basic science, brain-machine interfaces (BMI), neurodegenerative diseases, addictive behaviors and neuroprosthetics. Plexon offers integrated solutions for *in vivo* neurophysiology, optogenetics and behavioral research -- backed by its industry-leading commitment to quality and customer support. www.plexon.com.