CED eNews

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News

US Training Days

Our US training days will take place on the 13th and 14th November at the Doubletree Hotel, Washington DC, prior to the Society for Neuroscience annual meeting. The training days are suitable for both existing and prospective users of Spike2 and Signal and include introductions to the software along with sessions on script writing, stimulus generation and on-line control. Our popular workshop thread, where you can discuss your questions and requirements with a CED engineer or programmer in a small group, will also be available.

If you or any of your colleagues are interested in attending, please follow the links to view the <u>training day program</u> and complete the <u>registration form</u>.

Meetings and events

<u>**3rd International Conference on TMS and Direct Current Stimulation**</u> University of Gottingen Gottingen, Germany October 1st – 4th 2008

Biomedical Engineering Society

Renaissance Grand Hotel St. Louis, MO, USA October $2^{nd} - 4^{th}$ 2008

6th Chinese National Conference on Cardiovascular and Kidney Physiology ChengDu Grand Hotel

ChengDu City, Sichuan Province, China October $10^{th} - 13^{th}$ 2008

Beijing Joint Conference of Physiological Sciences

Beijing Xijiao Hotel Beijing, Haidian District, China October 19th – 22nd 2008

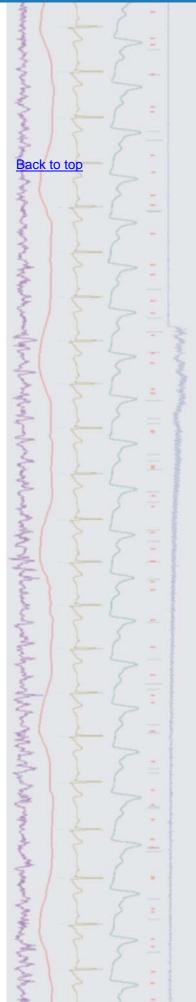
Society for Neuroscience

Washington Convention Center Washington, DC, USA November 15th – 19th 2008

Latest versions of Spike2 and Signal

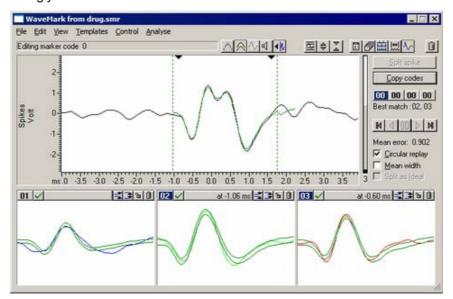
Updates for Spike2 and Signal are available from the <u>CED downloads</u> page, or by clicking on the links in the table below. Demonstration versions of the latest software are also available.

Spike2 downloads	Signal downloads
Spike2 version 6.09	Signal version 4.02
Spike2 version 5.20	Signal version 3.10
Spike2 demo	Signal demo





- Q. Is there any way to classify spike collisions that occur in WaveMark data?
- A. There is a collision analysis mode available from the Analyse menu in the Edit WaveMark dialog that can be used to search for pairs of templates whose sum is most similar to the spike collision. These collisions can then be classified accordingly.



Collision analysis mode dialog

The main oscilloscope type display shows the current spike, which is overlaid with the best match combination of templates. You can select which templates to include in the matching procedure by clicking the \checkmark (include) or \Join (exclude) button in the template display area and assign the best match template codes to the current spike using the Copy codes button in the dialog.

If the WaveMark channel being analysed is a memory channel and the current spike can be usefully separated, then the option to 'split spike' will also be available.

Further details and information regarding the matching algorithm can be found in the Spike2 on-line help.



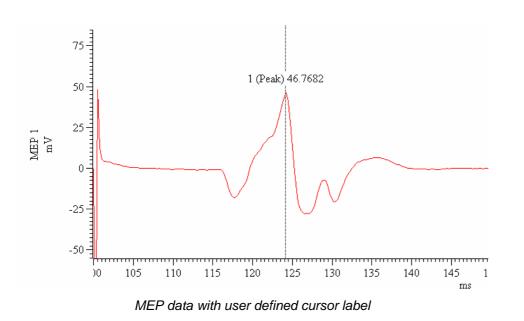
- Q. Is it possible to enter your own text for the display of a vertical cursor in Signal?
- A. The displayed cursor label can be changed by right-clicking on the cursor and following the Cursor option in the context menu. This leads to a list of options for the selected cursor which includes Set label...



Cursor label dialog

Options for the display includes User defined where you can enter a combination of text and selected values such as position, cursor number and channel value. The settings entered above are used for the display of the cursor on the MEP data below.

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Scripts: Spike2

- Q. I am running a force feedback experiment and would like to display the current waveform value in a separate window, perhaps as a histogram type bar. Is there a script available for this?
- The attached script, BarDisplay.s2s, is an example of displaying an on-line Α. channel value in a separate window for use in a force feedback experiment, for example. The script contains an idle routine that updates the bar display in response to incoming waveform data in channel 1.

Scripts: Signal

- Q. Is there a patch export script available that will export all data files in a directory to text files?
- Α. The attached script, BatchExport.sgs, allows the user to select a directory of files for export to text. This script could be modified to export data to other supported data types such as metafile or MATLAB data.

Did you know...?

The Power1401 mkll can be set to use ± 5 or ± 10 Volt range using the Try1401 application software.

Recent questions

- Q. I am interested in R-R interval analysis for heart rate variability studies. Using the examples from previous newsletters (enews #28 and #29) I have managed to generate a data channel measuring the R-R interval values and plot them as RealMark data. I would like to perform power spectrum analysis on this channel but this option doesn't seem to be available.
- The Power spectrum analysis is only valid for a waveform or RealWave (32-bit A. waveform) channel, but you can convert a RealMark channel to a RealWave channel using a Virtual channel in Spike2. When you create a new Virtual Channel you can enter an expression that creates a waveform channel using the RealMark data values.

Virtual channels i	for AP & ECG.smr			×	
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Expression:					
RM(401,5,0)				>>	
Help	[Save expression	Close	Waveform from channel Generate waveform	
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				Add another item Subtract another item Multiply by another item	+ - *
				Divide by another item	1



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vious virtual channel expr

Follow the >> button to the right of the expression field and select Waveform from Channel and then select RealMark data item... You can then edit the settings for maximum gap and interpolation method to generate a waveform from this.

Virtual channel from RealMark		
<u>R</u> ealMark channel	m1 RR Int (RealMark)	
Data item to display	0 -	
Interpolation method	Linear	
Maximum gap to cross	5 seconds (0=no limit)	
RM(401,5,0)	Cancel OK	

Settings to create a RealWave channel from RealMark data

User group

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