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News

Travel disruption due to volcanic activity

On Wednesday 14th April the Eyjafjallajökull volcano in Iceland erupted, creating a cloud of ash and debris that has since spread to European airspace and caused the cancellation of flights to and from the UK and much of Europe. Although some restrictions on flights to and from European airports have now been lifted the major UK airports remain closed at this time and, due to these travel restrictions, we regret that we will be unable to attend the following meetings:

[6th European Conference on Comparative Neurobiology](#)

Science Museum Principe Felipe,

Valencia, Spain

April 21st – 23rd 2010

[FASEB Experimental Biology 2010](#)

Anaheim Convention Center,

Anaheim, CA, USA

April 24th – 28th 2010

Our sincere apologies to those people who were planning to see us at these meetings and to those who had arranged to meet with us in their laboratories during these visits. The widespread cancellation of flights leaving the UK has also introduced a delay to our deliveries of recent orders, but we remain hopeful that the situation will improve in the next few days.

Future meetings and events

[UCL Neuroscience Symposium 2010](#)

Senate House, University of London

London, UK

April 29th 2010

[10th International Basal Ganglia Society Meeting](#)

Ocean Place Resort,

Long Branch, NJ, USA

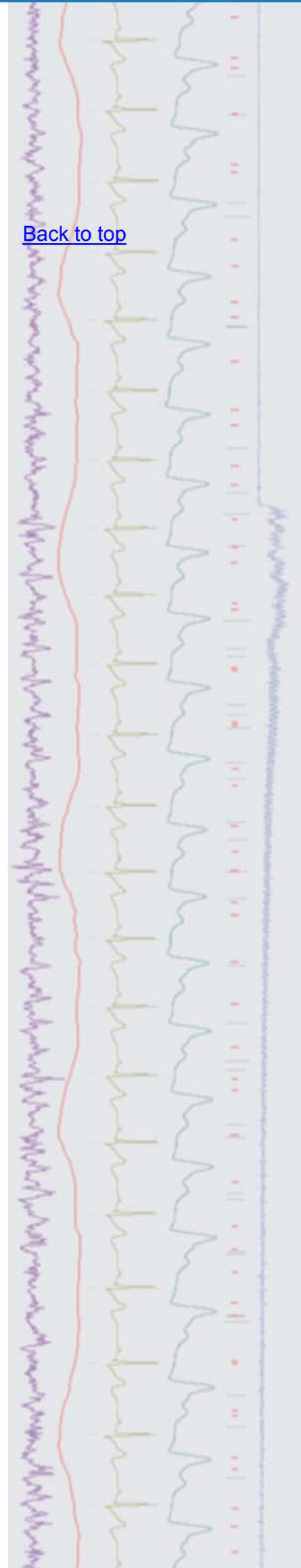
June 20th – 24th 2010

Latest versions of Spike2 and Signal

Updates for Spike2 and Signal are available from the [CED downloads](#) page, or by clicking on the links in the table below. Demonstration versions of the latest software are also available.

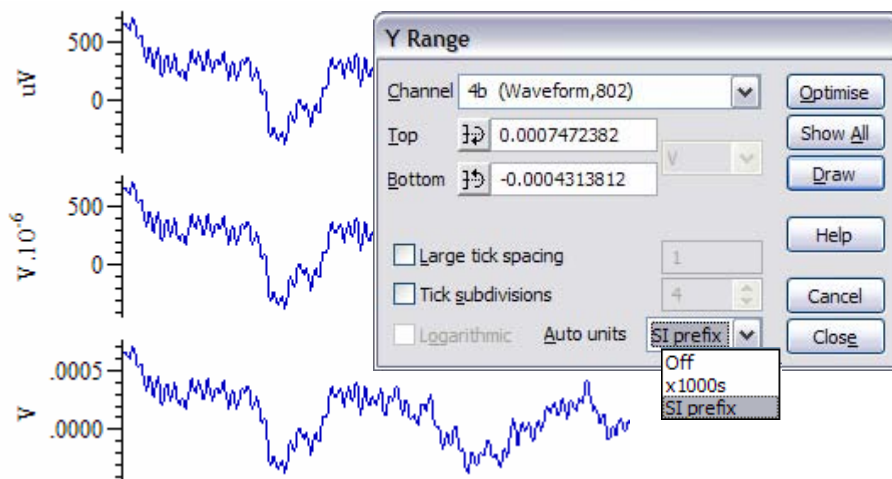
Spike2 downloads	Signal downloads
Spike2 version 7.03	Signal version 4.07
Spike2 version 6.14	Signal version 3.12
Spike2 demo	Signal demo

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Spike2

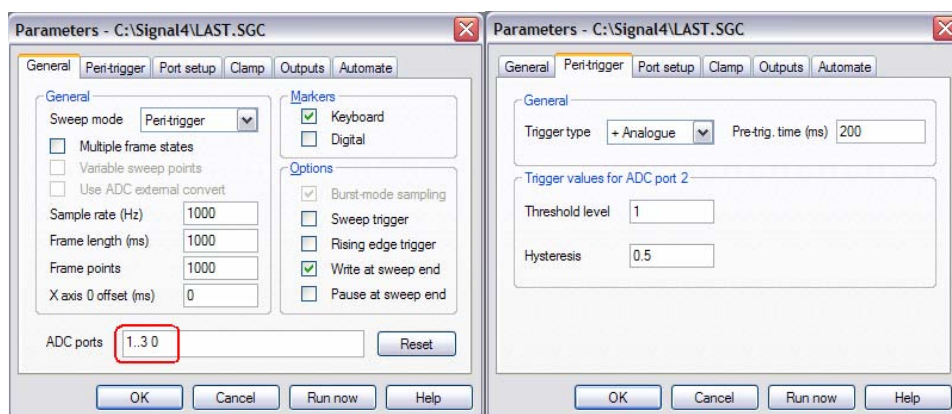
- Q. It would be very nice if Y-axis units in Spike2 could automatically scale when zooming in to view a small area of interest.
- A. From version 7.03, the X and Y axes in Spike2 can be set to automatically scale the units by powers of 1000 and can be displayed using SI scaling prefixes (M, k, m, u, n, ... etc.). This option is available in the X and Y Range dialogs. The display change is purely cosmetic so while values displayed on screen by horizontal cursors and interactive measurements (made by holding down the ALT key and clicking and dragging on a channel) will take the Auto-units setting into account, this does not affect the actual values associated with the axis as seen by the Spike2 program or by the script language.



Y-axis display showing the different auto-units display modes on duplicated channels

Signal

- Q. I would like to be able to monitor a waveform channel to trigger sampling in response to a level crossing. Are there options available for this in the standard sampling configuration?
- A. Signal can use the built-in Peri-trigger sweep mode to trigger pulse outputs based on digital and event markers or threshold crossings on a sampled waveform channel. The highest numbered channel in the data file is always used to monitor triggering based on a waveform input. The trigger type and pre-trigger time of data to display can be set in the Peri-trigger tab of the sampling configuration, which is enabled when the Peri-trigger sweep mode is selected in the General tab.



Peri-trigger settings and configuration using a rising threshold trigger

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For triggering based on a waveform channel you can select between rising threshold (Analogue +), falling threshold (Analogue -) or outside a pair of thresholds (Analogue =). You can set a default threshold value and a hysteresis level to avoid triggering from noise in the waveform. When using a rising threshold, the hysteresis value sets a level that the signal must fall below before being able to trigger the threshold again.

You can adjust the threshold and hysteresis level during sampling by clicking and dragging the horizontal cursors on the highest numbered data channel in the file.

Scripts: **Spike2**  

- Q. I want to generate a sinusoid stimulus with a frequency that increases linearly. Is this possible using a script and sequence? Ideally I would also like to have the option of generating a quadratic increase in frequency as well.
- A. Following the above request we have written an example script `ZAPexample.s2s`, and associated sequence file, `ZAPexample.pls`, which can be used with Spike2 version 7 to generate a sine wave with a linear or quadratic increasing frequency from DAC 0. To view the output sine wave, set up a waveform channel with a sample rate of 10kHz, connect DAC 0 to the ADC port required for this channel and load the sequencer file into your sampling configuration before running the script. The script opens a new file ready to sample based on the current sampling configuration. Sine wave settings are controlled from a script toolbar button and can be updated during sampling.

Scripts: **Signal** 

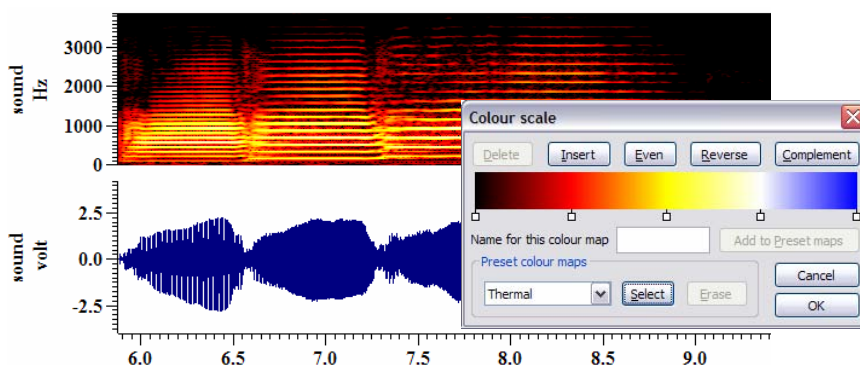
- Q. Is there any way to replay a Signal data file? This would be very useful for presentations.
- A. The example script, `Rerun.sgs`, can be used to replay a Signal data file, along with any associated memory views or trend plots, on a frame by frame basis. Each frame is overdrawn to show the changes in data over the course of the recording.

Did you know...?

The maximum number of horizontal cursors available has been increased from 4 to 10 in Signal and from 4 to 9 in Spike2. We are reserving a special horizontal cursor 0 in Spike2 for future use.

Recent questions

- Q. I am interested in creating a spectrogram to show the amplitude of the different frequencies in a waveform, so the X axis would show time and the Y axis would show frequency content.
- A. You can display the frequency content of a waveform over time using the Sonogram drawing mode. Right-click in the data area of the waveform channel and select the Channel Draw mode... option and then select Sonogram from the drop-down list. This enables some other fields in the dialog that you can use to set Block size, window type and range. Clicking Draw will re-draw the waveform as a sonogram. The default display is Monochrome, but you can select different colour layouts and customised colour maps by right-clicking on the sonogram channel and selecting the `Sonogram Colours...` option from the context menu.



Sonogram display of a speech waveform using the Thermal colour map

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