

## Contents

- [News](#) – Updates & meetings
- [Spike2](#) – Control of external equipment
- [Signal](#) – Gap-free sampling
- [Spike2 Script](#) – Colour data sections for publication
- [Signal Script](#) – Colour palette
- [Did you know...?](#) – Set pulse interval in Hz
- [Recent questions](#) – Quick measurements

## News

### Local Training Sessions

In addition to our annual UK and US training days, we are also happy to offer on-site local training sessions for Spike2 and Signal. These smaller training sessions can be tailored towards particular requirements for research groups or departments. If you are interested in organizing a local training seminar for your group or department, please contact us.

### Euro price changes

Due to the strength of the Euro in recent months we have decreased our Euro prices for hardware and software to more closely match the current exchange rate. These price changes took effect from the 1<sup>st</sup> of May 2008.

### Meetings and events

#### International Society of Electrophysiology and Kinesiology (ISEK)

Sheraton on the Falls Hotel  
Niagara Falls, Canada  
June 18<sup>th</sup> – 21<sup>st</sup> 2008

#### FENS (6th Forum of European Neuroscience)

Palexpo Conference Center  
Geneva, Switzerland  
July 13<sup>th</sup> – 16<sup>th</sup> 2008

#### Physiological Society Main Meeting

University of Cambridge  
Cambridge, UK  
July 13<sup>th</sup> – 16<sup>th</sup> 2008

#### 5th Symposium for Chinese Neuroscientists Worldwide

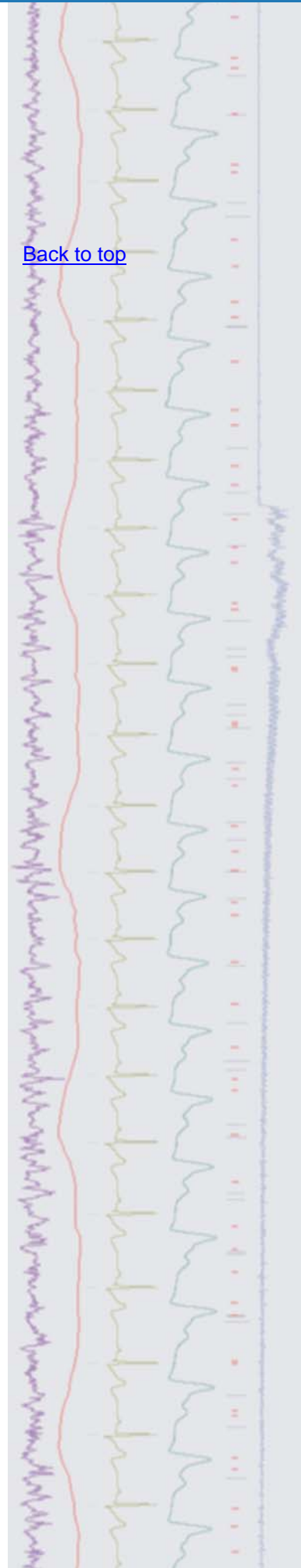
Changsha City  
Hunan Province, China  
July 25<sup>th</sup> – August 1<sup>st</sup> 2008

### Latest versions of Spike2 and Signal

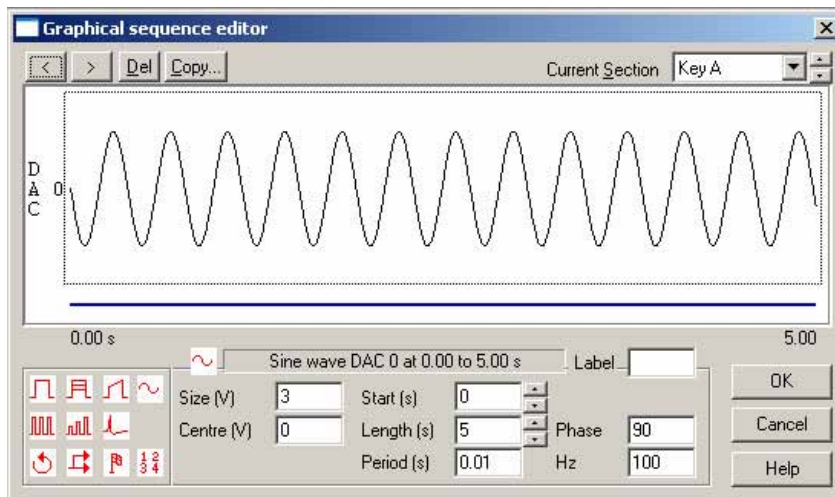
Updates for Spike2 and Signal are available from the [CED downloads](#) page, or by clicking on the links in the table below. Demonstration versions of the latest software are also available.

Spike2 downloads	Signal downloads
<a href="#">Spike2 version 6.08</a>	<a href="#">Signal version 4.01</a>
<a href="#">Spike2 version 5.20</a>	<a href="#">Signal version 3.10</a>
<a href="#">Spike2 demo</a>	<a href="#">Signal demo</a>

[Back to top](#)



- Q. Can the output sequencer in Spike2 be used to control external equipment? I would like to be able to control a Digitimer DS5 Isolated Bipolar constant current stimulator and update the settings during the recording.
- A. Spike2 can generate stimulus sequencing and complex experiment control in real-time during sampling using its built-in output sequencer and a 1401 interface. This can be in the form of simple output pulses used to time stimulus delivery or be used to control intensity and duration of stimulus while simultaneously monitoring and responding to the incoming recorded data in real-time. Output sequences can be created quickly in a user-friendly graphical editor or written directly in sequencer instruction code for more complex requirements. Multiple stimulus protocols can then be controlled at the click of a button or press of a key.



*Spike2 graphical editor*

The output sequencer can also be controlled via the script language, which allows reading and updating of the output values in real-time and can be used to control specific equipment, such as the Digitimer DS5 stimulator, during an experiment. The attached script, `DS5control.s2s`, and associated sequence, `DS5control.pls`, is an example of using a DAC output from the 1401 to control the DS5 stimulus output during sampling.



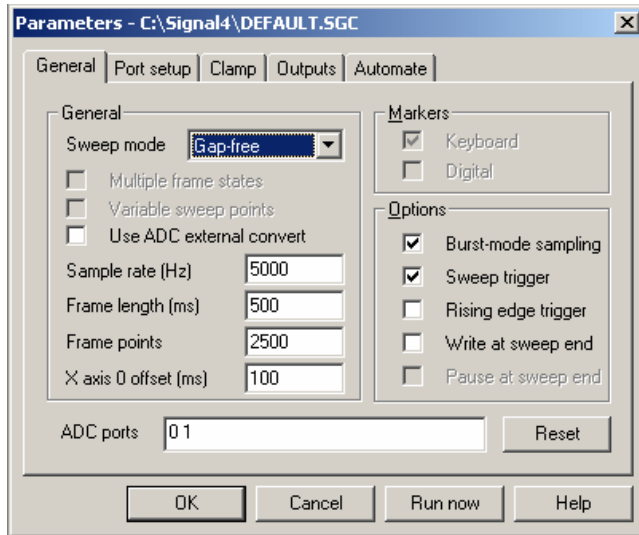
For more information on the output sequencer, see the on-line help.



## Signal

- Q. I would like to start recording single channel patch clamp data over a long period of time. Is there a 'continuous type' sampling mode available in Signal?
- A. Signal has a gap free sampling mode that can be used for long recordings. In gap free mode only the first frame is triggered; subsequent frames start immediately after the previous frame finishes with no loss of data in between. Because of the continuous nature of sampling in this mode, multiple frame states and outputs using incremental pulses (amplitude or duration changes between sweeps) are disabled.

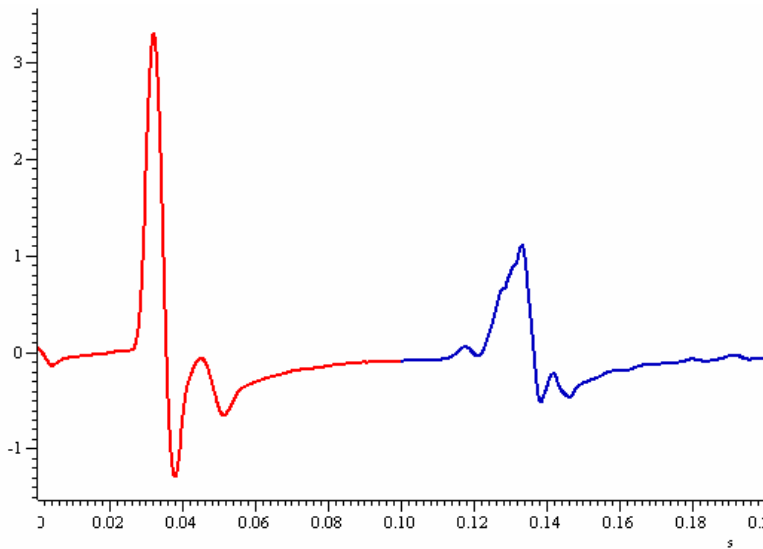




Gap free sampling mode

**Scripts: Spike2** 

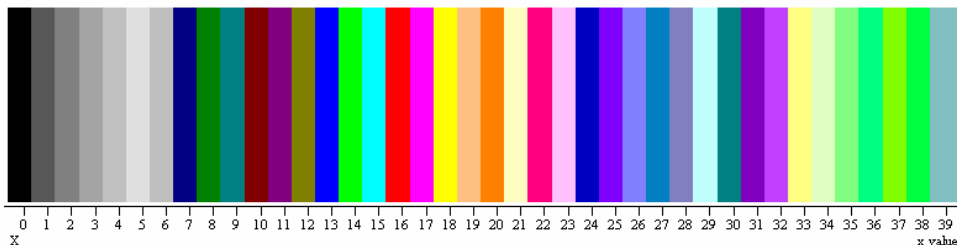
- Q. I would like to be able mark sections of data in an average result view to differentiate between two separate responses.
- A. The attached script, `ColourResponses.s2s`, allows the user to display selected two time ranges in a result view in different colours in a new time view window. This could be used to mark multiple responses in a result view so that they are displayed in different colours for publication.



Responses marked in different colours

**Scripts: Signal** 

- Q. Is there an easy way to show the numbers relating to each colour of the colour palette for use in a script?
- A. The attached script, `ColourPalette.sgs`, displays the colour palette range, along with numbers for each colour, in an XY view. This gives script writers a quick and easy display of the associated script numbers for any supported colour.



Colour palette XY display

[Back to top](#)

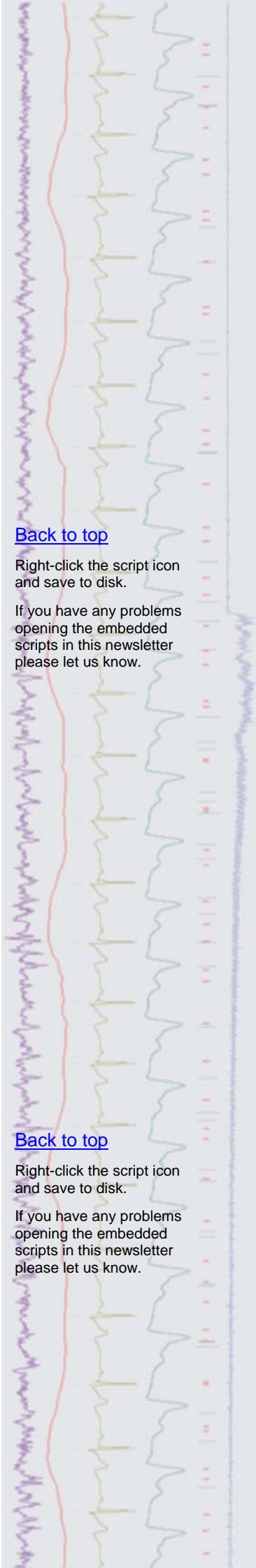
Right-click the script icon and save to disk.

If you have any problems opening the embedded scripts in this newsletter please let us know.

[Back to top](#)

Right-click the script icon and save to disk.

If you have any problems opening the embedded scripts in this newsletter please let us know.



### Did you know...?

The pulse interval for pulse trains and cycle length for sine wave output can now be specified as a frequency in Hz in the Signal pulse editor and Spike2 graphical editor.

[Back to top](#)

### Recent questions

- Q. Is there any way to take quick measurements in a data file using the mouse pointer?
- A. You can take measurements quickly from a data file by using the interactive measurement feature in Spike2 and Signal. Simply hold down **Alt** and left click, then drag the cursor. The measurements show the values that correspond to the X axis units of the data file, and the Y axis units of the channel being measured.

These measurements can be saved by releasing the **Alt** key (but keep the mouse button down) and using either **C** or **L** to copy the values to the clipboard or Log window.

[Back to top](#)

### User group

If you have any comments about the newsletter format and content, or wish to unsubscribe from the mailing list for this newsletter, please notify [sales@ced.co.uk](mailto:sales@ced.co.uk).

[Back to top](#)

All Trademarks are acknowledged to be the Trademarks of the registered holders.

