NAME
  neuro – data capture and analysis for neurosciences

SYNOPSIS
  neuro [X-options]

DESCRIPTION
  Neuro provides a front-end menu to the Spinal Cord Research Centre's data capture and analysis software for neurosciences. Before beginning, it will check to see if the **NEURODIR** environment variable has been set. If not, it will run all the commands in the environment variable setup file, **/usr/neuro/lib/setup.sh**, so that all variables are set as required for proper operation of this software package.

  You can start up any of the major applications in this package by pressing the key corresponding to it. On an X terminal, you can also select an application by using the pointing device to move the cursor to the menu entry you want, then press button **A** or **B** to select it. Below is a description of all of these menu entries, and the keys used to select them.

D Directory
  This selection allows you to select the directory in which applications will be started. When prompted, type in the name of the directory you want, and *neuro* will position itself there, provided it is a valid directory to which you have access. This directory name will be remembered from one invocation of *neuro* to the next, as it will be stored in the file **.neuro.ini** in your home directory when you quit.

S Set Calibration
  This selection invokes the *calibrate*(1) application, so you can set up the calibration information prior to capturing data.

C Capture
  This selection invokes the *cap*(1) application, to capture raw data for analysis.

B Capture & Average
  This selection invokes the *cavg*(1) application, to capture data and average it on the fly.

F Frame Selection
  This selection invokes the *frmsel*(1) application, to select frames for analysis. By default, it begins with the most recently modified run in the directory, but you can easily pick another run using its *File* selection.

V View List of Runs
  This selection invokes *lsrun*(1), to list run files available for analysis in the current directory.

A Analysis
  This selection invokes the *analysis*(1) application, to analyse run files in the current directory. By default, it begins with the most recently modified run in the directory, but you can easily pick another run using its *Load* operation.

M Quick Measure
  This selection invokes the *qm*(1) application, to obtain cursor measurements from run files in the current directory. By default, it begins with the most recently modified run in the directory, but you can easily pick another run using its *Set/File*, *Set/Next-File* or *Set/Prev-File* operation.

E Exponential Peeling
  This selection invokes the *peel*(1) application, to perform and exponential peel analysis on a trace from a run file in the current directory. By default, it begins with the most recently modified run in the directory, but you can easily pick another run using its *File-select* operation.

R Raster Graphs
  This selection invokes the *raster*(1) application, to produce a pseudo-3D raster graph, or waterfall plot, of traces from a run file in the current directory. By default, it begins with the most recently modified run in the directory, but you can easily pick another run using its *File* selection.

W Weighted Sums

This selection invokes the *wtsum*(1) application, to produce weighted sums of traces from a run file in the current directory, or a number of run files. By default, it begins with the most recently modified run in the directory, but you can easily pick other runs, in this or other directories, using its *File-select* operation.

L Layout

This selection invokes the *layout*(1) application, to prepare final graphs from your HPGL plot files. You can select an existing layout file using its *Layout* selection, or you can begin a new layout from scratch.

T List of Files

This selection invokes the *ls*(1) program, to list all files in the current directory. The options given to *ls* are specified via the **O** selection described below.

O Options for List

This selection allows you to specify which options will be used by *ls*(1) when you select the **T** operation above. When prompted, type in any valid option arguments you want, complete with the leading hyphen (−). These options will be remembered from one invocation of *neuro* to the next, as they will be stored in the file **.neuro.ini** in your home directory when you quit.

U Unix Shell

This selection invokes the Unix shell, to allow you to type in Unix commands, or run any of the utility programs that come with this package but aren't in the menu. Normally, it will run the same shell as you have set for your login shell, which is typically *sh*(1) or *csh*(1). When running on an X Window terminal, this selection invokes *xterm*(1) instead, which in turn starts up your shell. Many options are passed on to *xterm*, but additional or overriding options can be specified via the **X** selection described below.

P Print Window Dump

This selection, available only when running on an X Window terminal, allows you to print out an image of any window currently displayed on your X terminal. It does this by invoking *sdump*(1), with no window ID specified in the **WINDOWID** environment variable. The target window is selected by clicking the mouse in the desired window, when the cursor changes to a crosshair. There is a pause of about 2 seconds before this happens, to give you time to bring the window you want up to the front, so it is not partly obscured.

X Options for Xterm

This selection, available only when running on an X Window terminal, allows you to specify which options will be used by *xterm*(1) when you select the **U** operation above. When prompted, type in any valid option arguments you want, complete with the leading hyphen (−) if needed. These options will be remembered from one invocation of *neuro* to the next, as they will be stored in the file **.neuro.ini** in your home directory when you quit.

The options "**−132 −cu −rw −sb −sl 480 −ls**" are always passed on to *xterm*, but the options you specify are given after these, so you can override any you wish to. The **−n** and **−title** options are also passed on to *xterm*, but these are given after any you specify here.

! Shell Escape

This selection allows you to run a single Unix shell command. After it runs, you are returned to the menu. This is of use primarily on non-X terminals. On an X terminal, you are better off running commands from an *xterm* window, so the standard input, output and error streams are dealt with properly.

Q Quit

This selection allows you to quit the *neuro* program. You are prompted for confirmation before it actually quits. Press **Y** to quit, or **N** to resume.

X WINDOW SUPPORT

When *neuro* is run from an *xterm* (or *kterm*) window on an X Window terminal, a new window will be shown for the menu. Like the other X Window programs in this package, *neuro* will recognise the usual X command line options, such as **−display**, **−geometry**, **−font**, etc. The environment variables for

setting these options will also work. (This is provided that the **DISPLAY** environment variable is set, and **TERM** is set to xterm or kterm, or that the **–display** option is used.) See *analysis*(1) for details on X options and environment variables.

When running this way on an X terminal, *neuro* will start applications in the background, so that you can return to the menu at any time to start up another application. Applications that must be run from an *xterm* window, such as *calibrate*, *cap*, *lsrun*, *ls* and the Unix Shell, will each have their own *xterm* application started up in the background. Error messages from the standard error output of any of these applications will be sent to the file **.neuro.err** in your home directory.

FILES

$HOME/.neuro.ini	user's initialisation file
$HOME/.neuro.err	user's error log file for X
/usr/neuro/lib/setup.sh	environment setup file
/usr/neuro/lib/parmgrps/neuromnu.ini	configuration file (non-X)
/usr/neuro/lib/parmgrps/xneurmnu.ini	configuration file for X

SEE ALSO

calibrate(1), cap(1), cavg(1), frmsel(1), lsrun(1), analysis(1), qm(1), peel(1), raster(1), wtsum(1), layout(1), ls(1), sh(1), csh(1)