

pCLAMP 10

Conventional Electrophysiology Data Acquisition and Analysis Software

The pCLAMP 10 software suite fulfills many different experimental needs, such as synchronized stimulation, event detection, and online analysis. It is the most widely-used data acquisition and analysis program for the control and recording of voltage-clamp, current-clamp, and patch-clamp experiments. Three separate programs are included: Clampex 10, AxoScope 10, Clampfit 10.

Clampex 10 expands the range and quality of your data acquisition experiments. These improvements should prove useful for a wide variety of applications, allowing more flexibility in your experimental protocols.

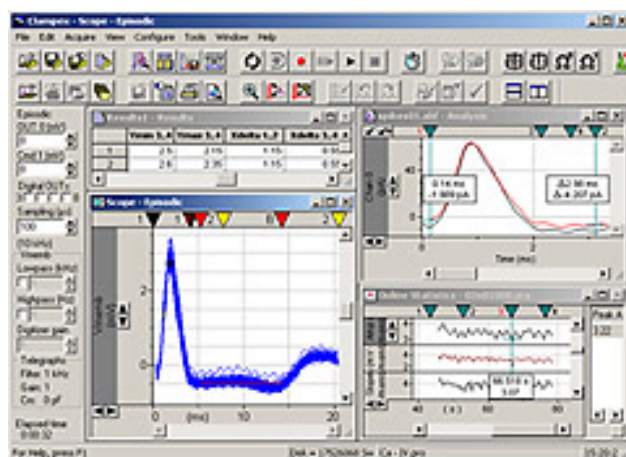
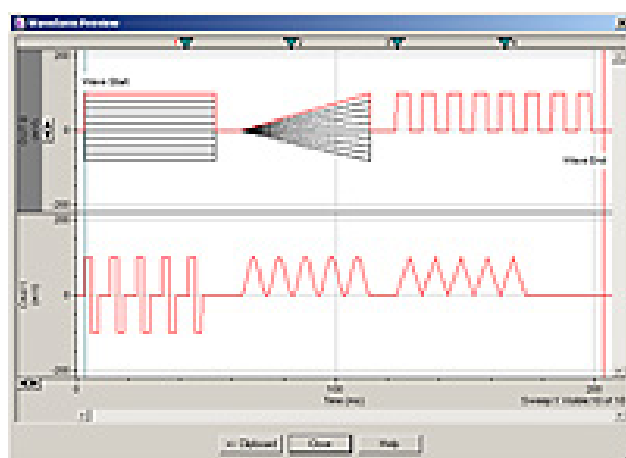
NEW FEATURES

New features include:

- Membrane Test calculates R_a and C_m per sweep during a recording
- Membrane and Seal Tests combined into a single resizable window
- Support for four stimulus waveforms (with the Digidata 1440A)
- Control of eight digital outputs per epoch during a sweep
- Control of split-clock sampling per epoch during a sweep
- Leak subtraction automatically saves both raw and corrected traces
- All protocol durations are entered in time units
- Support of the new Digidata 1440A digitizer
- Support of the new Axoclamp 900A amplifier
- New ABF 2.0 file format

Existing functionality includes the ability to automate the execution of protocols, a variety of recording modes from continuous to waveform stimulation, online filtering and leak subtraction, and online statistics/graphs.

AxoScope 10 provides a convenient way to produce background recordings with the included MiniDigi 2-channel digitizer. You can monitor cells during intra-sweep periods, or create an overview of the entire day's activities including voice tags



The Clampex 10 protocol editor provides several recording options

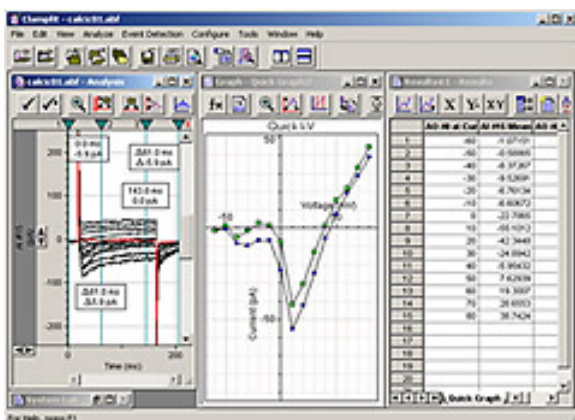
Clampfit 10 is a powerful solution for analyzing, graphing and layout of all of your Clampex and AxoScope data. Clampfit includes an extensive array of filtering and fitting routines. Functionality includes I-V graphs, power spectrums, and special "linked data views" for threshold (AP), template (minis) and single-channel modes of event detection and analysis

APPLICATIONS

pCLAMP 10 is suitable for a wide variety of applications, ranging from electrophysiology to general physiology, from individual cells to networked cells, and from low-noise patch clamping to high-speed sodium channels.

Uses:

- Action Potentials (APs)
- Current-clamp
- Electromyography (EMG)
- Electrooculography (EOG)
- Excitatory Post-Synaptic Currents (EPSCs)
- Excitatory Post-Synaptic Potentials (EPSPs)
- Inhibitory Post-Synaptic Currents (IPSCs)
- Inhibitory Post-Synaptic Potentials (IPSPs)
- Long-Term Depression (LTD)
- Long-Term Potentiation (LTP)
- Miniature excitatory potentials (Minis)
- Ratio dyes (with PMTs)
- Single-channels
- Slices
- Spike trains
- Synaptic networks
- Voltage-clamp
- Whole-cell



An example of patch clamp analysis (I-V graph) by Clapfit Software

PCLAMP 10 SYSTEM REQUIREMENTS

Minimum

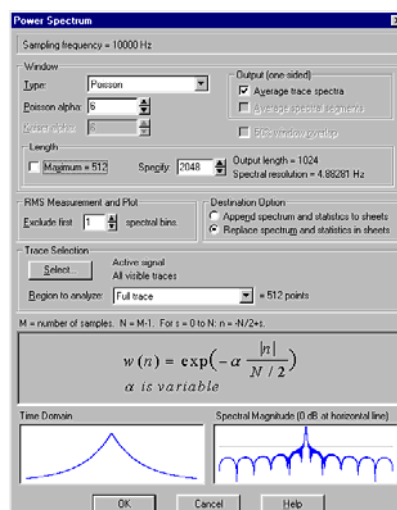
- Windows 2000
- 1.2 GHz CPU
- 512 MB RAM
- 500 MB hard disk
- 1024 x 768 display
- CD-ROM drive
- 1 USB 1.1 port
- Digidata 1320 series digitizer
- 1 PCI slot (full height)

Recommended

- Windows XP Pro**
- 2.4 GHz CPU
- 1 GB RAM
- 32 GB hard disk
- 1024 x 768 display
- CD-ROM drive
- 2 USB 2.0 ports
- Digidata 1440A digitizer
- Network connection

** The Windows Vista operating system is not presently supported by pCLAMP 10. Vista support is currently under development for a future version of pCLAMP 10.

pCLAMP 9 included a MiniDigi digitizer, so upgrades from pCLAMP 9 to pCLAMP 10 do not include an additional MiniDigi digitizer.



An example of patch clamp analysis (power spectrum) by Clapfit Software