



## Chart Software

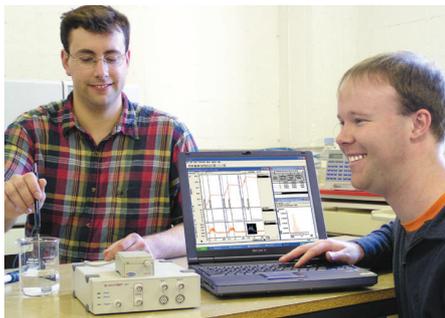


Chart software running with an **e-corder** hardware unit

- Virtual multi-pen chart recorder
- Up to 16 display channels
- 0.1 /min to  $2 \times 10^5$  /s sampling speed
- Windows or Macintosh
- No programming required – just plug and play
- Many analysis features
- Free plug-in Chart extensions
- Pre- or post triggering
- Ideal for educational or research use

### Description

Turn your computer into a multi-pen chart recorder! Chart™ software runs on Windows or Macintosh computers with an **e-corder**® hardware unit.

Chart is suitable for recording analog voltage signals up to  $\pm 10$  V, and can be used with a wide range of instrumentation. It is also fully compatible with the range of eDAQ Amps and Pods, providing full software control of these devices.

### Display Modes

Signals are displayed as a continuous record. You can scroll backwards or forward to review data, compress or expand the time and amplitude axes, zoom in for close inspection, overlay channels, or even plot the data on one channel versus the data on a second channel (XY plotting).

You can stop and start recording, with new settings if required, while new traces are appended to the existing file, keeping your hard disk free of clutter.

### Signal Calibration

The signal can be displayed in true physical units, using single, double or multi-point calibration.

### Data Pad

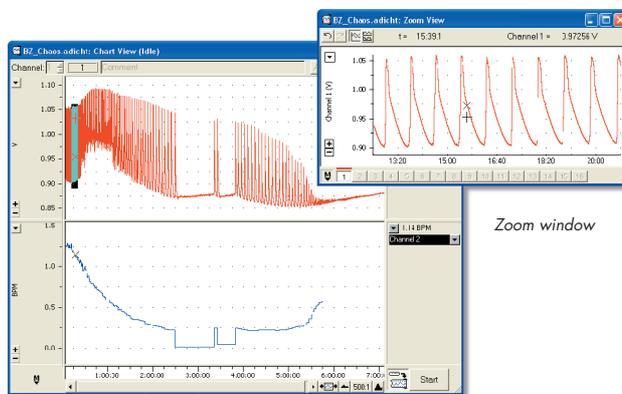
The Data Pad is an internal mini-spreadsheet that helps analyze data by extracting useful parameters (mean, standard deviation, slope, integral, etc.) from selections of data.

### Notebook and Comments

Store your experimental description and observations with the data file in the internal Notebook. Comments let you add information at particular times of the recording.

### Transform Data

Functions include smoothing, integrating or differentiating data. The raw data is always maintained internally and can be recovered. Inter-channel arithmetic is allowed (e.g. channel 3 = channel 2  $\div$  channel 1).



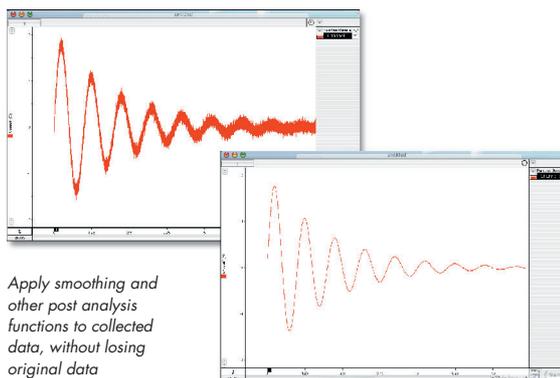
Main Chart window

Set Start	Channel 1 Mean	Channel 1 S.D.	Channel 1 Max-Min	Channel 3 Mean	Channel 1 Integral
51:35	0.928523	0.004531	0.016875	1.410	109
2:50	0.952071	0.001662	0.159250	7.320	66.64
5:35	0.908164	0.045790	0.164812	5.229	86.23
8:40	0.923950	0.046684	0.169188	5.850	106.3
12:35	0.896251	0.043250	0.170813	2.860	89.83
19:00	0.880330	0.043251	0.169250	1.796	184.8
26:20	0.857716	0.039414	0.159125	1.297	151.5
34:05	0.848784	0.030681	0.140188	1.002	127.3
44:05	0.836940	0.011680	0.070750	1.249	217.6
51:35	0.838523	0.004531	0.016875	1.410	109

The Data Pad window also includes a 'Notebook' section with text: 'Monitoring changes in redox potential and bromide ion concentration during a Belousov-Zhabotinsky oscillating reaction.' and 'Reagents: 4.3 g Malonic Acid, 1.4 g Sodium Bromate, 0.16 g Ceric Ammonium'.

Use the Data Pad to extract parameters from selected data

Record notes on an experiment in the Notebook



Apply smoothing and other post analysis functions to collected data, without losing original data

## Export Friendly

You can export raw signals (as graphics or tabular data), Data Pad reports, and Notebook contents to other graphing software, word processors, and spreadsheets, to prepare publication quality reports. Data files can be exchanged between Windows and Macintosh computers.

## Virtual Channels

Chart can record signals from all the channels of the **e-corder** hardware, and extra channels are provided (up to 16 in total) for the display of calculated signals (differentials, integrals, etc.)

## Triggering

An extensive array of trigger options allow you to synchronize recording with an external device. Pre- and post-trigger facilities are offered, as well as triggering from a rising or falling slope.

## Macros

Macros can be used to automate a sequence of commands, either for data collection or analysis.

## Chart Extensions

Chart extensions are free software plug-ins that add extra analysis capabilities to Chart. Download them from our web site, [www.eDAQ.com](http://www.eDAQ.com).

## Menu Editing

Delete, or lock, menu items to simplify the appearance of the software for routine student or technician use.

## Computer Requirements

Chart requires Windows XP, 2000, MacOS 9 or later. A USB port (2.0 or 1.1) is required to collect data.

## Specifications

Number of real channels: 2 (**e-corder** 201), 4 (**e-corder** 401)  
Number of display channels: 16  
Recording speeds: 0.1 /min to  $2 \times 10^5$  /s  
Input ranges:  $\pm 2$  mV to  $\pm 10$  V in 2:5:10 steps  
Signal resolution: 16 bits  
Low pass filters: 1 Hz to 2 kHz  
Bandwidth: 20 kHz  
Analog output ranges:  $\pm 200$  mV to  $\pm 10$  V in 2:5:10 steps  
Waveform output: Pulse, Pulse Train, Ramp  
Output resolution: 16 bits  
Trigger modes: External, signal, or line (mains).  
External trigger: TTL or contact closure

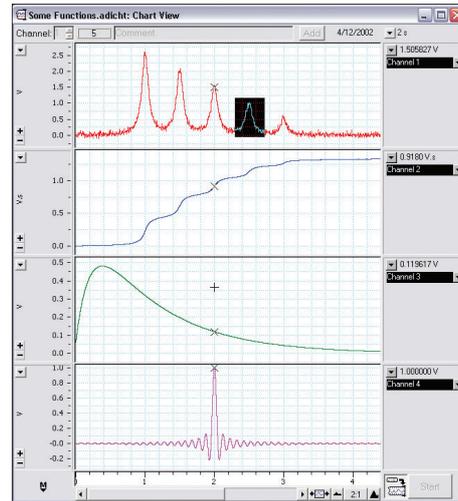
## Ordering

Chart software is supplied as part of an **e-corder** system, but can also be ordered as individual licenses, including Scope software (ES500).

[www.eDAQ.com](http://www.eDAQ.com)

E-mail: [info@edaq.com](mailto:info@edaq.com)

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Display real data (the number of channels depends on e-corder model) and up to 16 virtual channels

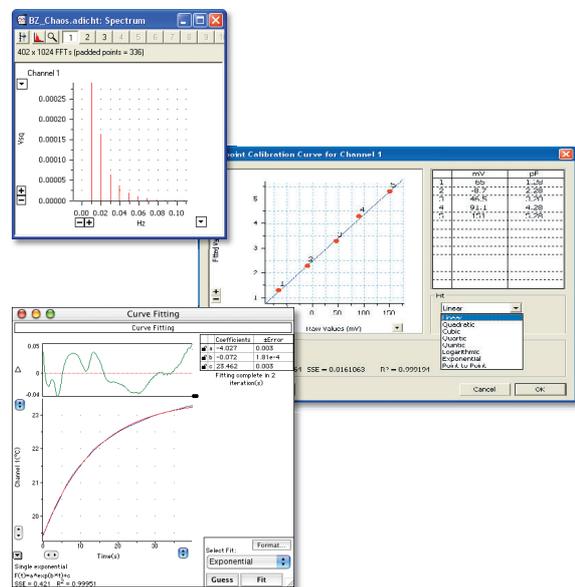
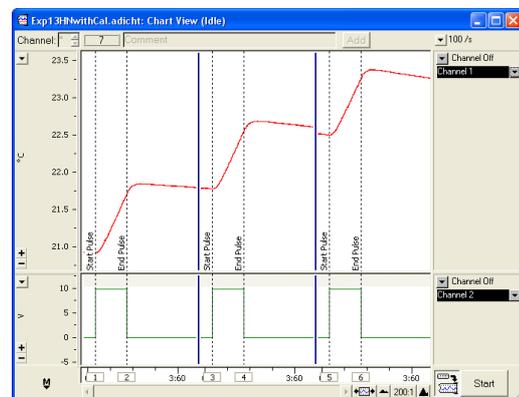


Chart extensions add specific functionality to Chart. Examples include FFT (Power Spectrum), multi-point calibration and curve fitting extensions.



Multiple blocks of data, comments and all settings are stored in the one file