LabChart 8 - Online access courses

Be the expert in **your** data

Learning Outcomes

- Confidently set up channel settings for optimal signal capture and maximal accuracy.
- Display incoming signals in meaningful units.
- Make use of relevant display and calculation features in LabChart.
- Extract numerical values from your data into a spreadsheet and generate associated plots.
- Understand the different options for saving and exporting LabChart data.
- Apply the best analysis features for your specific data set.

Please see overleaf for a more detaiked overview of the course content. Logistic and fee information will be available on the last page of this document.

LabChart 8 - Free access course

Content overview

Lesson 1: PowerLab and Data Acquisition Basics.

- An overview of the PowerLab hardware and how it connects to your computer.
- Sampling Rate.
- Range.
- Filtering.

Lesson 2: Recording and Saving Data.

- Selecting the number of recording input channels that are required for your experiment.
- Optimise the settings for Data capture.
- Different LabChart File types including data files and settings files.

Lesson 3: Data Visualisation.

- Scaling options and compression features.
- Split Screen option.
- Digital Volt Meters.

Lesson 4: Comments, Selections and Calibration.

- Adding comments during and after recording.
- Selecting Data, Find Option.
- Applying meaningful units to a voltage signal using a 2-point units conversion.

Lesson 5: Signal Conditioning.

- Adding a Digital Filter to your signal.
- Using Cyclic Measurements to calculate and display features of your waveform.
- Integral Function - how to display the area under a signal waveform.
- Derivative Function - how to display the differential of your signal waveform.

Lesson 6: LabChart reader.

- An overview of our Read-only version of LabChart.

Content overview continued...

Lesson 7: The Welcome Center.

- Search for files, manage folders and links.
- ADI Package files.
- Feature Manager for installing Extensions and Modules.

Lesson 8: Data Pad.

- Setting up Data Pad and choosing which variables to extract.
- Manually adding sections of data to Data Pad.
- Automating data extraction into Data Pad with “Multiple Add to Data Pad.”
- Adding to Data Pad during experiments with “Timed Add to Data Pad.”

Lesson 9: Data Plots (windows only).

- Creating plots based on Data Pad data.

Lesson 10: Devices, Outputs and Event Manager.

- Searching for Devices on Start-up.
- When and How to use Fast Response Output.
- When and How to use Event Manager.

Lesson 11: Arithmetic and Macros.

- When and How to use Arithmetic.
- When and How to use Macros (Windows Only).
- Create your own Macro.

Lesson 12: Stimulator and Spectrum.

- Utilizing the Stimulator Dialog and Customizing Waveforms.
- Distinguish component waveforms.
- Display Power Spectral Density & Spectrogram.

Lesson 13: Custom Sampling and Scope view.

- Customize Sampling and looking at the various Trigger options.
- When and How to use Scope View.

LabChart 8 - Premium course
Additional content overview

Lesson 1: Introduction to Modules and Extensions.
- Discover Extra LabChart Functionality.

Lesson 2: Blood Pressure Module.
- Display and Analysis of Parameters from Arterial or Ventricular Pressure Waveforms.

Lesson 3: DMT Normalization Module.
- Calculating optimal Pretension conditions for Microvascular Experiments.

Lesson 4: Dose Response Module.
- Measuring Responses to Chemical Agonists or Electrical Stimulation.

Lesson 5: ECG Module.
- Display and Analysis of ECG parameters.

Lesson 6: HRV Analysis.
- Analysing Variability in ECG or Arterial Pulse recordings.

Lesson 7: Metabolic Module.
- Display and Calculation of Metabolic Data from Ventilatory parameters.

Lesson 8: Peak Analysis Module.
- Detection and Analysis of Multiple Signal Peaks.

Lesson 9: PV Loop Module.
- Tools for Analysis of Left or Right Ventricular Pressure-Volume Data.

Lesson 10: Spike Histogram Module
- Detect, Discriminate and Analyze extracellular Neural Spike Activity

Lesson 11: Video Capture Module
- Record Video and Audio in Synchrony withLabChart Data recordings

Premium LabChart 8 Course
Continued...

The Premium Course additionally offers **one-to-one training with a LabChart Specialist** to discuss any of the content listed in this document and how to apply it to your own experimental data.

Please note, this course is appropriate for Windows users only.

Course Options Summary and Information

LabChart 8 - Free access Course:

Access to a wealth of interactive Lt lessons and media-rich 'How-to' video guides on LabChart 8.
Register here.

LabChart 8 - Premium Course:

LabChart 8 - Free access course, **plus:**
- Additional training modules in LabChart 8.
- **One-to-one** training with a LabChart 8 expert.
- Two sessions x 1 hour.

Please note that support sessions are limited to discussing course content only.
Register here.

Payment Information:

The Premium course is at a fee of 335 Euro/300 GBP.
Please pay by raising a purchase order and sending it to training.eu@adinstruments.com

If you have any questions or require any further help, please reach out to training.eu@adinstruments.com

LabChart