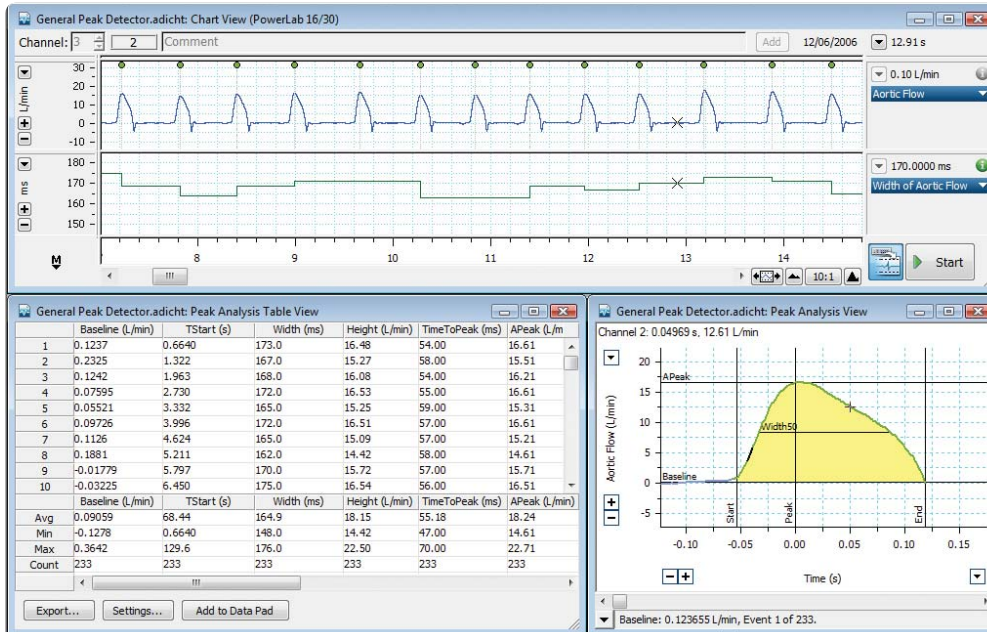# Waveform Peak Analysis

Peak Analysis Module for LabChart® Software & PowerLab®

LabChart recording (top) of aortic flow from a dog, analyzed with the Peak Analysis module (Peak Analysis View bottom right and Table View bottom left) using General Unstimulated detection and analysis settings.

The Peak Analysis Module for LabChart automatically detects and analyzes multiple, non-overlapping peaks in recorded waveforms. The module is suitable for analysis of peaks obtained from a wide range of applications, including isolated tissue studies, hemodynamic measurements, amperometry, cardiac physiology, electrophysiology and neurophysiology. Peaks can be analyzed offline using existing recordings, or online as the waveforms are being recorded.

An entire channel, or any selection within a channel can be analyzed. Several analysis settings available for general waveforms and specific signal types can selected. The detection, calculation and table view options can be adjusted for each waveform type.

Detected peaks are displayed in the Peak Analysis View with highlighted parameter markers, values and peak area (where appropriate). The calculated peak parameters are additionally logged to a table and can be easily exported to other applications at the click of a button.

LabChart software displays the acquired signal and marks every detected and subsequently analyzed peak. Calculated peak parameters can be displayed in separate LabChart channels in the form of continuous signals, as seen in the figure to the right. This is particularly useful when performing real-time analysis.

Features & Benefits

- Detects and analyzes multiple peaks in recorded waveforms
- Suitable for a wide range of signals
- Calculates and reports a wide range of peak parameters
- Allows analysis in real time and after recording
- Provides default analysis settings for various signal types
- Allows graphical display of calculated parameters as continuous signals in LabChart channels

Below: Chart View with detected peaks in the source channel (Aortic Flow), and a calculated peak parameter (Width) displayed as a continuous signal in channel two. Note the decrease in the width following addition of isoproterenol.

Insets: available peak parameters for analysis of general waveforms.

ADINSTRUMENTS.com
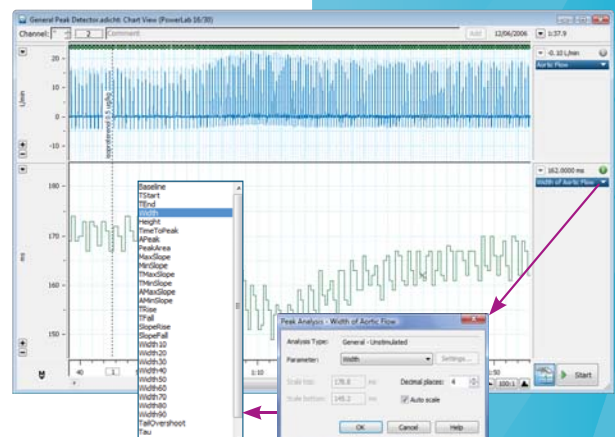
Peak Analysis Module

Detection & Analysis Settings

The Peak Analysis Settings dialog is used to select the source data channel and choose the settings for peak detection, calculations of peak parameters, and table options for the display and extraction of calculated parameters.

Peak Analysis Settings dialog with Detector (above), Calculations (far left) and Table Options (left) tabs.
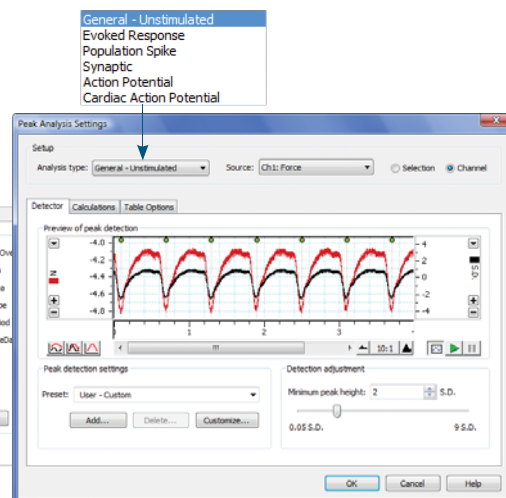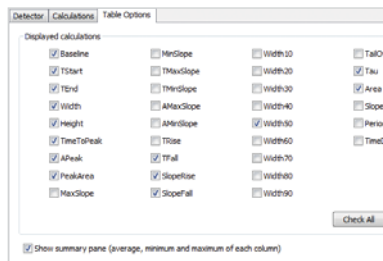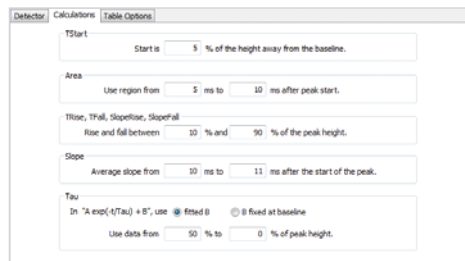
Analysis View

Individual peaks are displayed in the Peak Analysis View. The view displays the peak and its parameter markers, highlights the waveform cursor coordinates and provides a summary of peak information. The display may also be scaled.

Table View

The Peak Analysis Table View displays calculated parameters for all detected peaks. Each row in the table corresponds to an individual peak. The calculated values in the table can be exported as a text file, or they can be added to the LabChart Data Pad feature for OLE with other applications such as Microsoft Excel.

Peak Analysis View displaying a negative peak and its parameters.

Quick and Easy Navigation

The waveforms and data in the LabChart, Peak Analysis and Table Views are all linked to allow the user to easily and quickly navigate to information on particular peaks. Users can scroll peak-by-peak in the Peak Analysis View with the slide-bar or next/previous arrows, select individual peaks in the Chart View by clicking on the source waveform, or locate a particular waveform by highlighting a row in the Table View.

Table View with logged peak parameters.

Ordering Information

Peak Analysis Module	LabChart Pro* (sold separately)
MLS380/7 Peak Analysis (Win)	MLS260/7 LabChart Pro (Win & Mac)

* LabChart Pro includes LabChart software and all LabChart Modules, providing powerful data acquisition and analysis capabilities.

Share your data with colleagues. Free LabChart Reader – download to view and analyze LabChart data.

GLP 21CFR Part11 Compliance

ADINSTRUMENTS.com

ISO 9001:2008 Certified Quality Management System