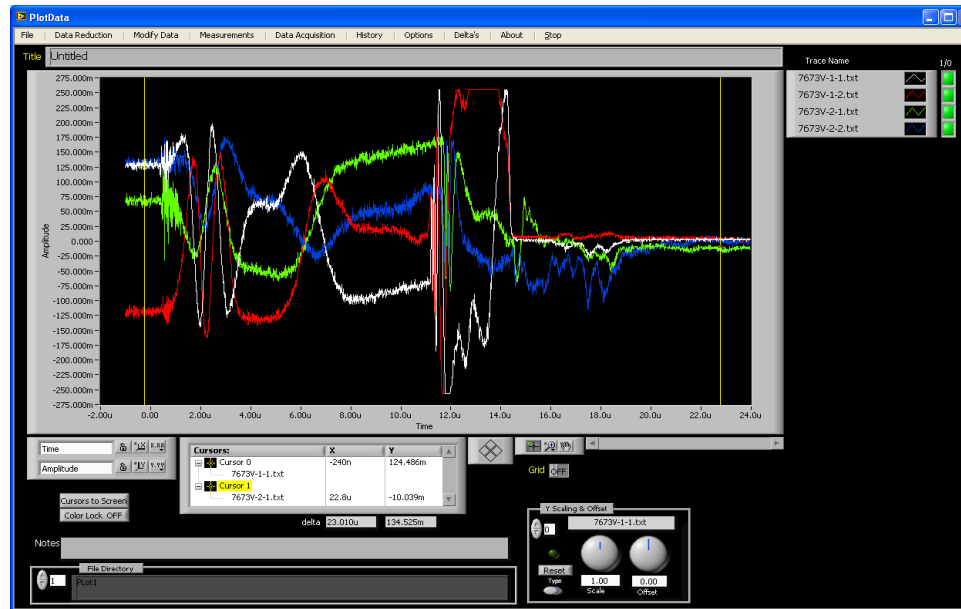# PlotData software

Data Acquisition and Waveform Manipulation System

David Wackerbarth (505) 844-6198 **dewacke@Sandia.gov**

Weapon Controls Department

Sandia National Labs

P.O. Box 5800

Albuquerque New Mexico 87185-0348
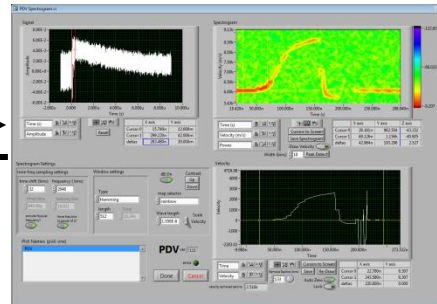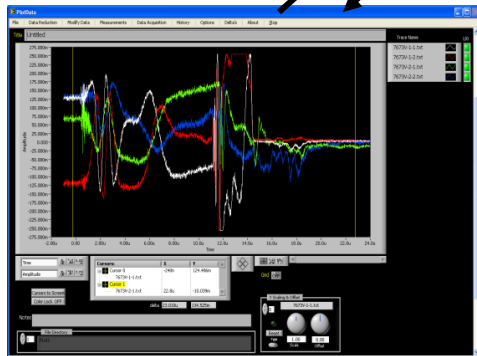
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Back Ground

- **Electronics technician for Sandia for 30 years**
- **Gas Gun Facility, Operated & Maintained, Shock Wave Physics dept.**
- **VISAR, PVDF (Bauer) Gauge Characterization**
- **Programmed with Asyst, LabVIEW 3.0**
- **Explosive Components Facility (ECF) using Carbon and Manganun gauges**
- **PlotData was born**

PlotData Overview

GPIB

USB

Ethernet

PlotData is designed for post-acquisition of waveform data and analysis. PlotData is an advanced interactive data analysis environment. PlotData operates on a National Instruments' LabVIEW™ software platform. Using PlotData, the user can capture waveform data from most digitizing oscilloscopes over a GPIB, USB and Ethernet interface. PlotData can both import and export several types of binary waveform files including, but not limited to, Tektronix .wfm, LeCroy .trc and ASCII xy pair files. Waveform manipulation includes numerous math functions, integration, differentiation, smoothing, truncation, and other specialized data reduction routines such as VISAR, PDV, PVDF (Bauer) piezoelectric gauges , and piezoresistive gauges such as carbon manganin pressure gauges. PlotData has a strip chart recording mode. PlotData retains trace history and can create presentation quality pictures and hard copies.

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Scope Data Acquisition

File Types

- **Import File Types**

  Auto Detect
  PlotData   (.plt)
  ASCII   (.csv)

  TDMS   (.tdm)

  Tektronix   (.wfm, .csv, .isf, and .wfa)
  LeCroy   (.trc)
  Sound   (.wav)

- **Export File Types**
  PlotData   (.plt)
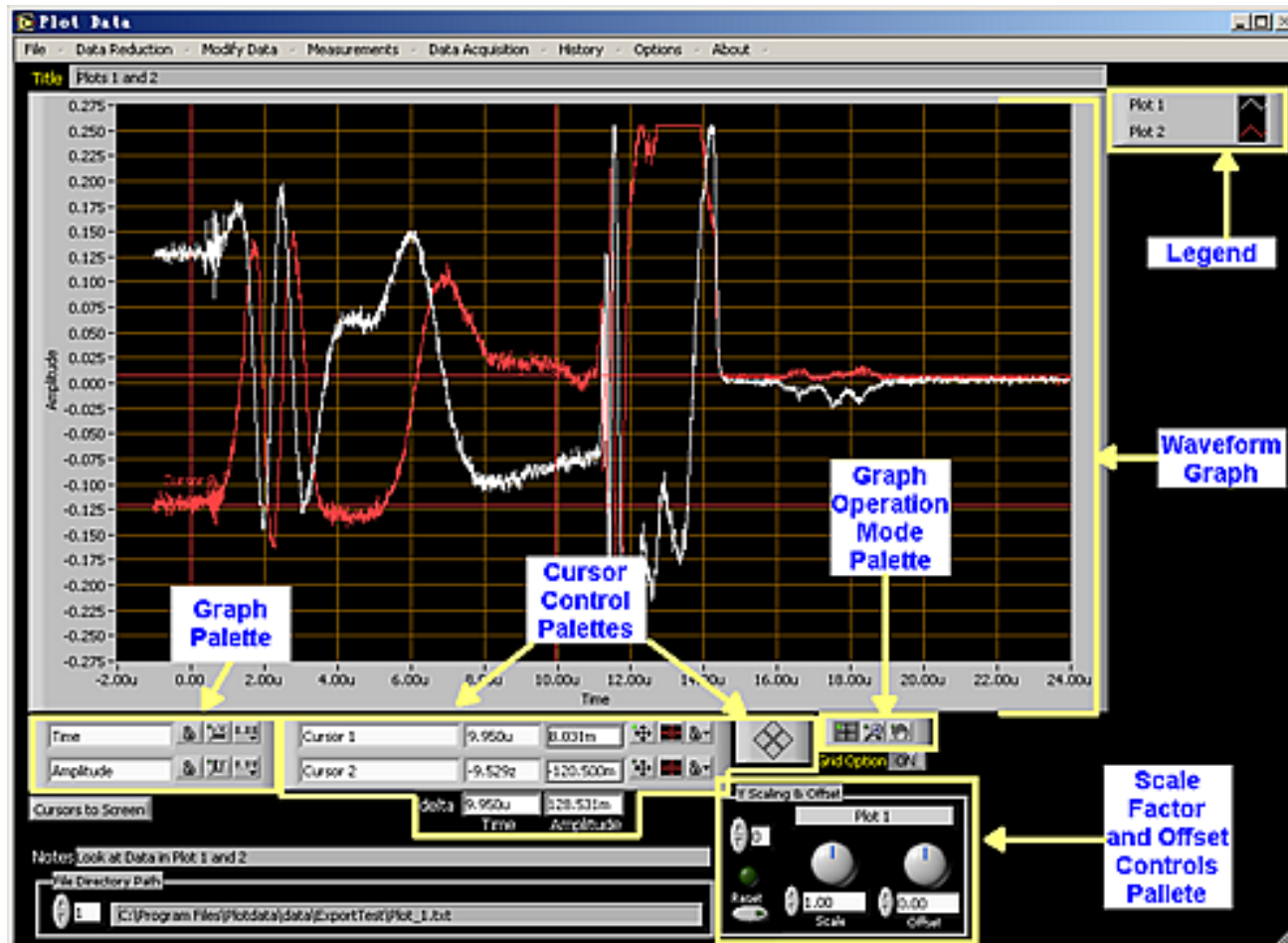 PlotData   (.spn) Snap Shot
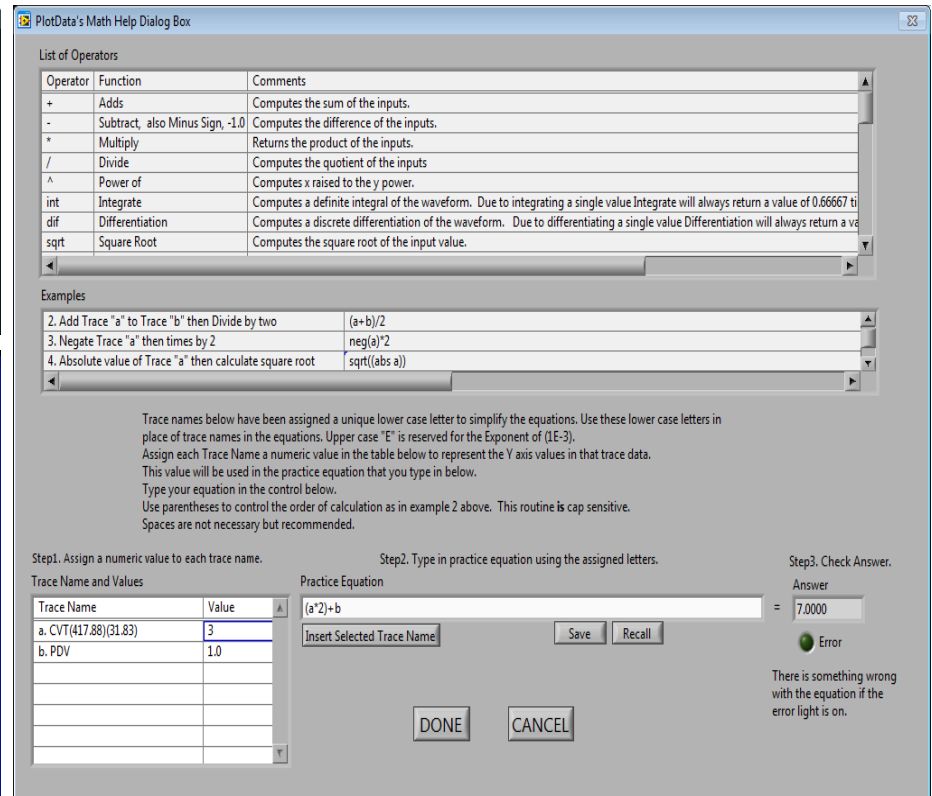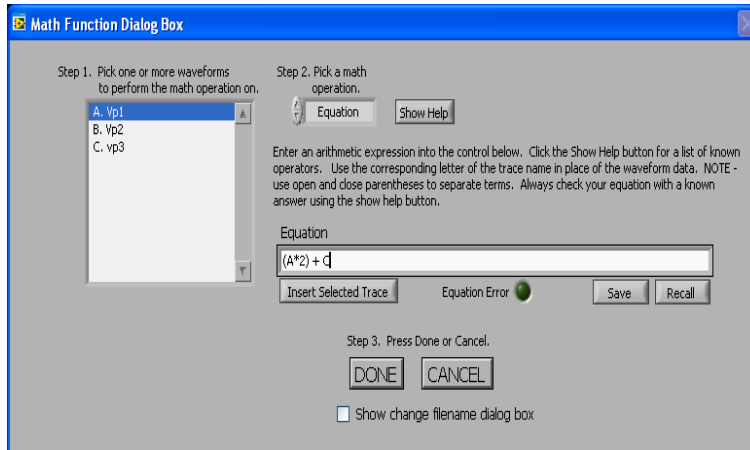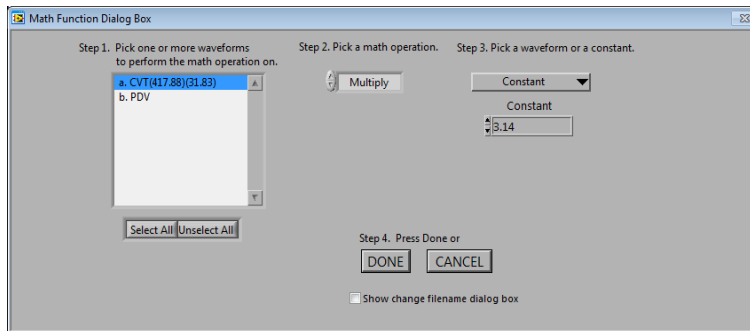 ASCII XY Pair   (.csv)
  ASCII multi XY Pair   (.csv)
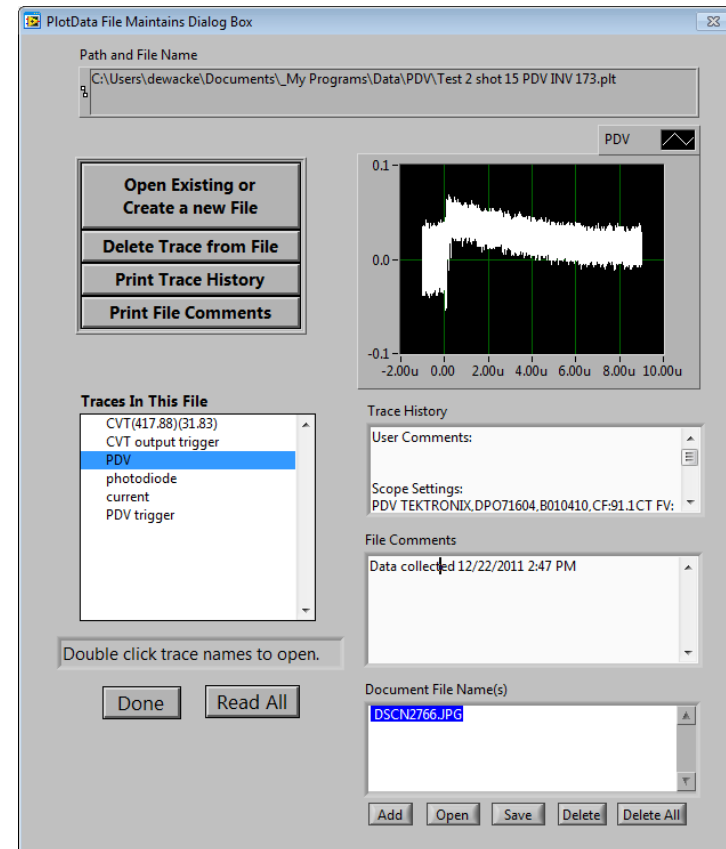 Sound   (.wav)
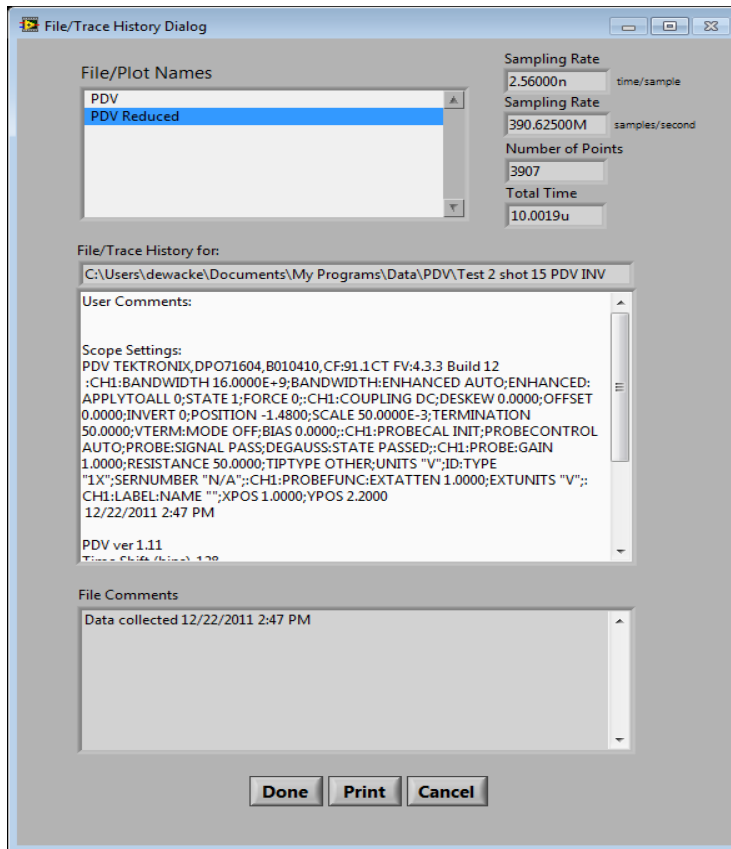
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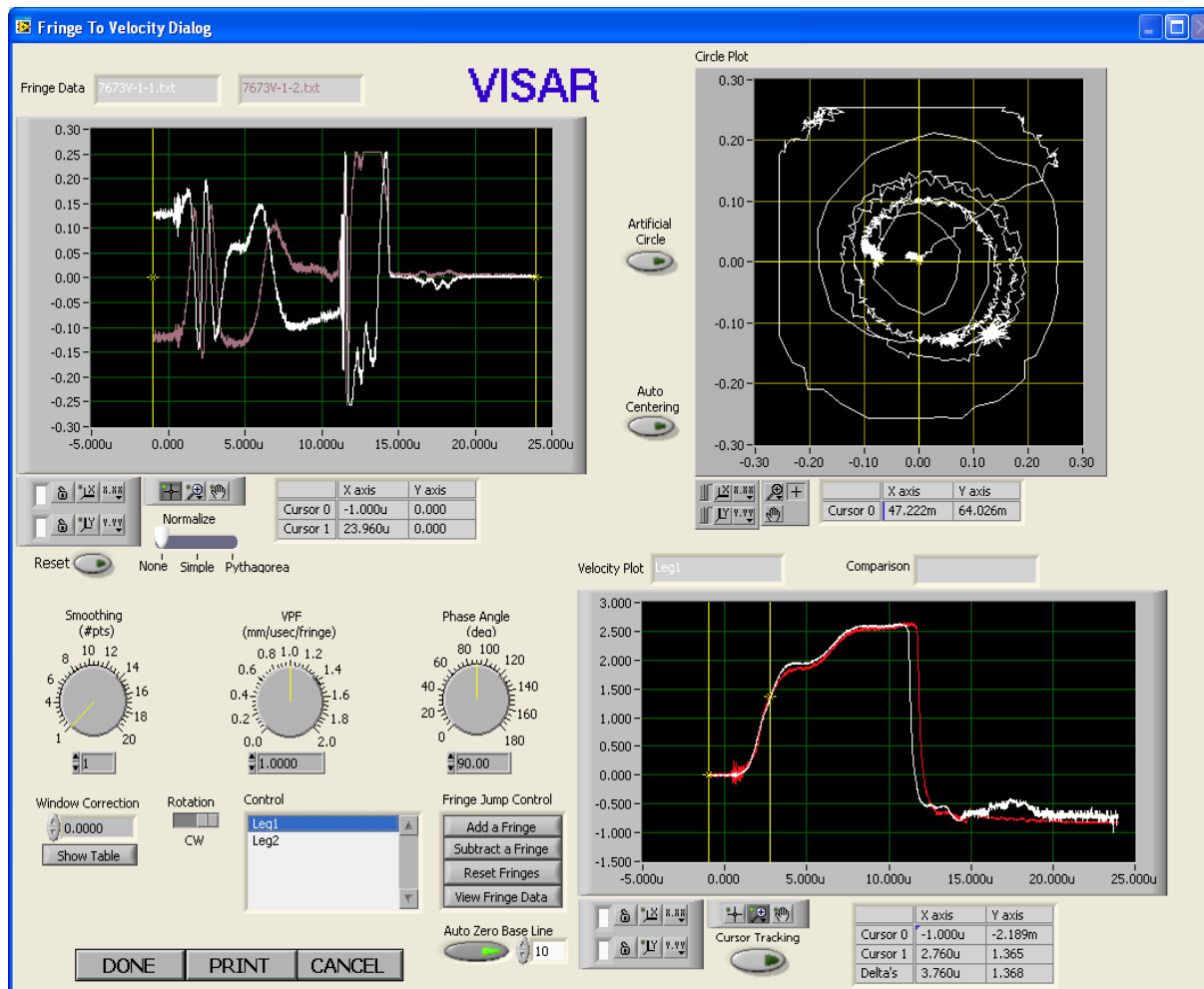# PlotData Main Screen

PlotData's Math Function Dialog Box
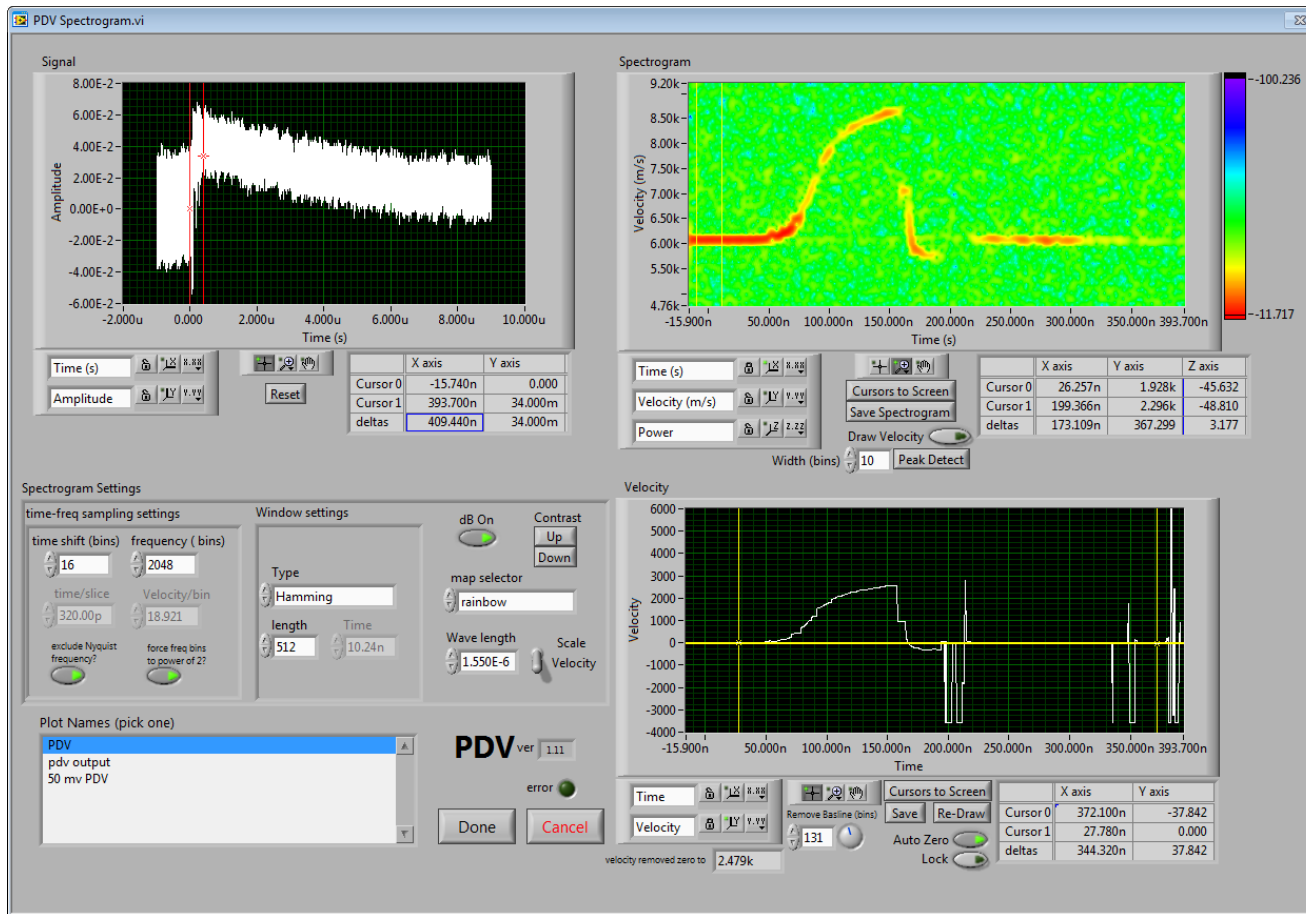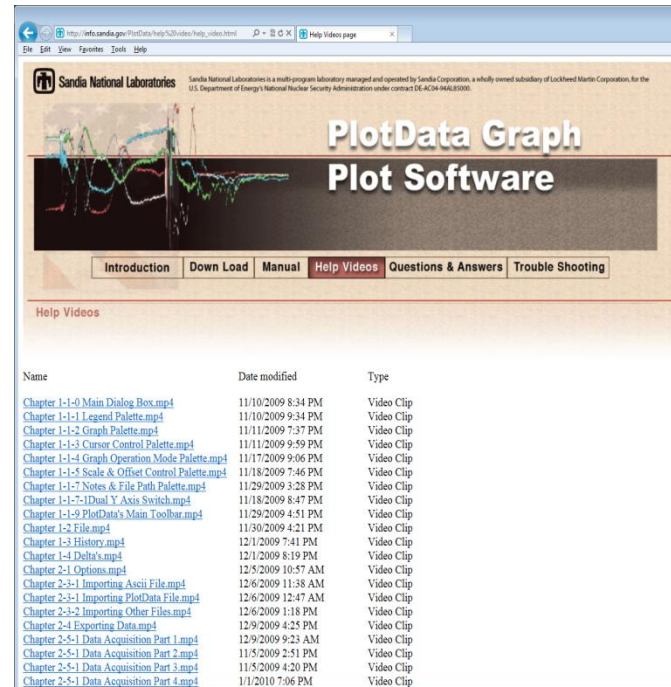
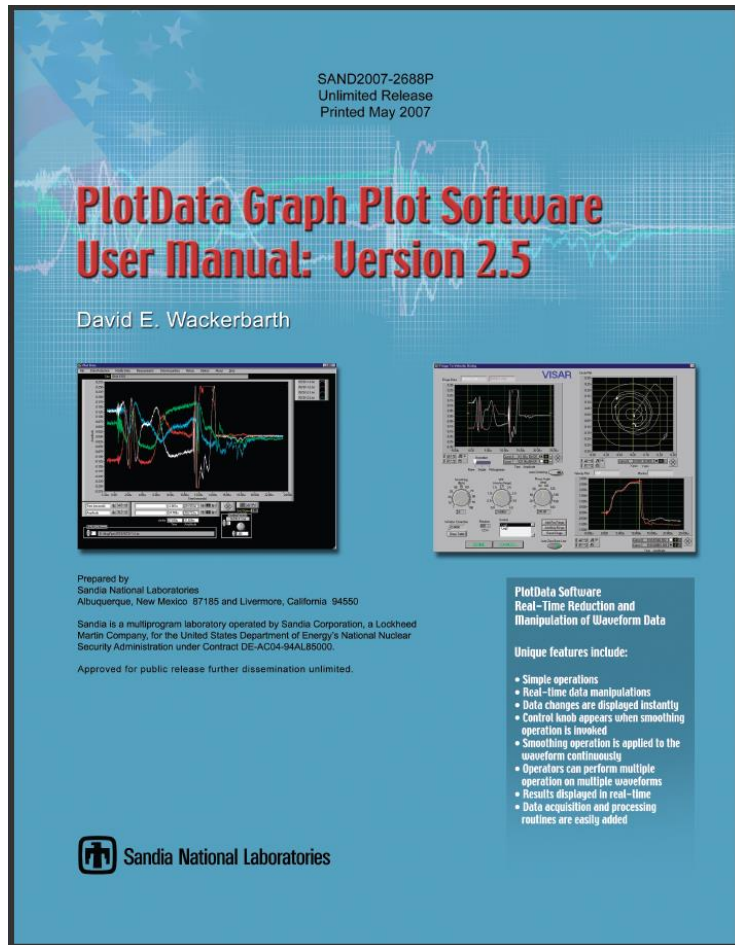# PlotData's History and File Dialog Box

VISAR Data Reduction

PDV Data Reduction

Help Manual and Video Files

Obtaining PlotData

- **Sandia- go to Sandia's home page and search for PlotData, down load**

- **Other government agencies- contact David Wackerbarth, fill out form.**

- **Contract with Sandia- contact David Wackerbarth, fill out form.**

- **All others- purchase from Valyn V.I.P Inc.**

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