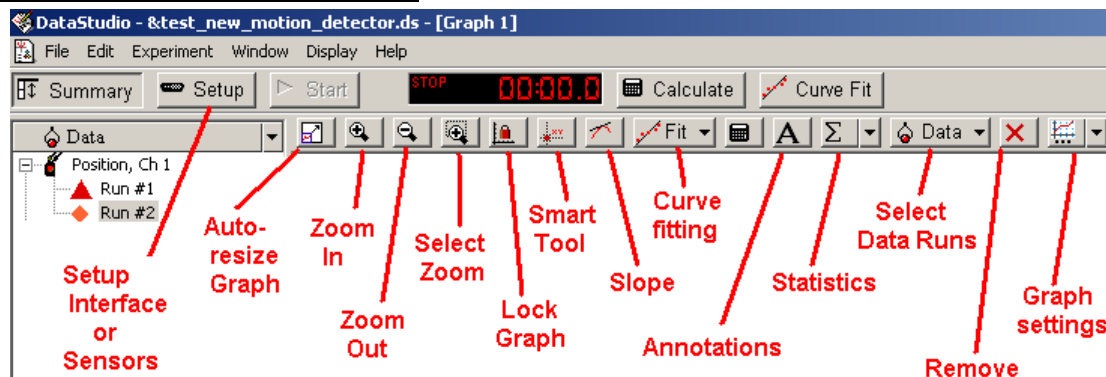


LAB SUPPLEMENT: INTRODUCTION TO USING DATASTUDIO

Introduction:

“DataStudio” is the software used to interact with the sensors that are connected to the Pasco interface box. This document will help step you through the menus/buttons in the DataStudio program. [See this link for information about [“Setting up the Pasco Interface and Installing DataStudio”](#).]

The Taskbar buttons explained



Setup: Use this to initialize the interface or make changes to the settings of the sensors.

Auto-Resize Graph: Automatically scale the shown data runs on the graph axes.

Zoom IN/OUT: Scale the graphs inward or outward proportionally

Select zoom: Use this to select an area on the graph, and the graph will resize to show that area

Lock Graph: Lock the horizontal scales of different graphs together, but they can be moved vertically.

Smart Tool: Lets you examine data values on the different data runs.

Slope: Lets you move around the data run and tells the slopes at different points.

Curve fitting: Allows straight line and exponential (among others) fits for data curves.

Annotations: Create text boxes on the graphs to highlight different features of a graph.

Statistics: Select different pieces of data about a run – displayed in the legend.

Select Data Runs: Allows you to show/hide various data runs in the current graph.

Remove: Can delete the highlighted (current) data run.

Graph settings: Change how data is displayed on the graphs (also can right-click on graph).

1. Load the “test data” experiment. Within DataStudio, navigate to the **LTU_Physics** folder and then the **Univ2 or College2** folder. If there is a **TEST_DATA.DS** file, open it. {If not, then download the file from the lab schedule webpage.} This will give us some sample data with which to practice using the various tools/tasks we often use in our labs.

2. Tools/tasks to practice. Here is a list of tasks you should practice to familiarize yourself with how DataStudio works (see the help page link below):

- Save the Experiment under a new name (File -> Save Activity As ...).
- Expand the time scale on the X-axis to see the full data run.
- Use the “smart tool” to analyze the data to see where the furthest distance value is, where the closest distance value is (what is the time value at those locations).
- Using the STATISTICS, find the minimum and maximum distances.
- Rename the data run.

Here is a collection of web pages (the “How Do I” pages) that will help with the above tasks:

http://vnatsci.ltu.edu/natsci/physics/labs/how_do_i_ds.shtml