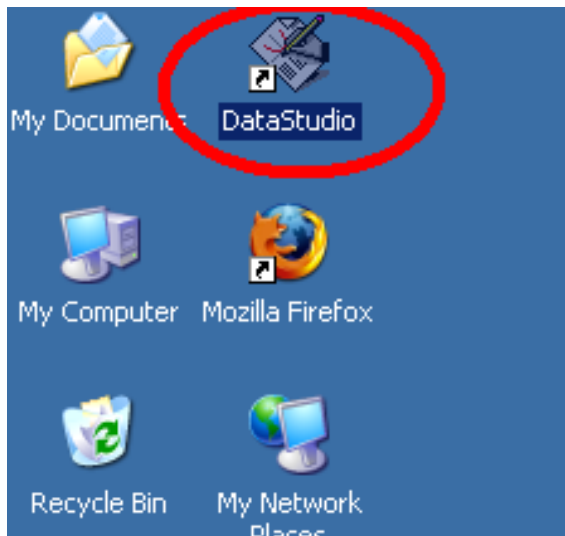


# How to use DataStudio for Part 2

Physics 23 Lab E1

Missouri University of Science and Technology

# DataStudio icon on desktop



# Create Experiment

DataStudio

File Edit Experiment Window Help


Summary Setup Start STOP 00:00.0 Calculate

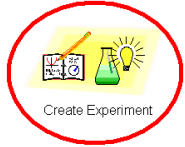
Data


Displays

Welcome to DataStudio

How would you like to use DataStudio?

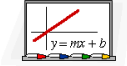
 Open Activity

 Create Experiment




X	Y
1	2.3
2	2.7
3	5.9

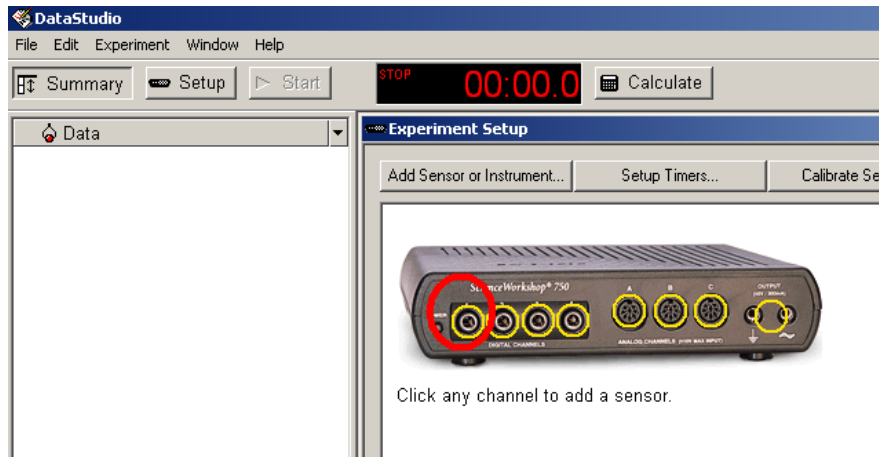
Enter Data

 Graph Equation

Show each time this program starts.



# Left-click input 1



The screenshot displays the DataStudio software interface. At the top, the title bar reads "DataStudio" with a menu bar containing "File", "Edit", "Experiment", "Window", and "Help". Below the menu bar is a toolbar with buttons for "Summary", "Setup", "Start", a digital display showing "STOP 00:00.0", and "Calculate". The main window is divided into two panes. The left pane is titled "Data" and is currently empty. The right pane is titled "Experiment Setup" and contains three buttons: "Add Sensor or Instrument...", "Setup Timers...", and "Calibrate Se...". Below these buttons is an image of a ScienceWorkshop 750 device. The device has several ports: a "DIGITAL CHANNELS" section with four ports (the first is circled in red), an "ANALOG CHANNELS (10V MAX INPUT)" section with three ports labeled A, B, and C, and an "OUTPUT (VOLT / AMPERE)" section with two ports. Below the device image, the text reads "Click any channel to add a sensor."

# Add Freefall > OK

The screenshot shows the DataStudio software interface. At the top, there is a menu bar (File, Edit, Experiment, Window, Help) and a toolbar with buttons for Summary, Setup, Start, a digital display showing 'STOP 00:00.0', and Calculate. Below the toolbar is the 'Experiment Setup' panel, which includes buttons for 'Add Sensor or Instrument...', 'Setup Timers...', 'Calibrate Sensors...', and 'Sampling Options...'. A ScienceWorkshop 750 interface box is displayed in the center, with the text 'Click any channel to add' below it. A 'Choose sensor or instrument...' dialog box is open in the foreground, listing various sensors. The 'Free Fall Adapter' option is highlighted with a red circle. The 'OK' button at the bottom right of the dialog box is also circled in red. The 'Displays' panel on the left side of the interface lists various data visualization options: Digits, FFT, Graph, Histogram, Meter, Scope, Sound Analyzer, Sound Creator, and Table.

ScienceWorkshop Digital Sensors

- Drop Counter
- Flow Rate Sensor
- Four-Channel Adapter
- Free Fall Adapter**
- Grain Counter
- Laser Switch
- Motion Sensor
- Photogate
- Photogate & Picket Fence
- Photogate and Pendulum
- Rotary Motion Sensor
- Rotational Dynamics Apparatus
- Smart Pulley
- Time Of Flight Accessory

OK Cancel

# Check Time of Fall, Uncheck Acceleration. Add Table

The screenshot shows the DataStudio software interface. The top menu bar includes File, Edit, Experiment, Window, and Help. Below the menu is a toolbar with buttons for Summary, Setup, Start, a digital display showing 'STOP 00:00.0', and Calculate. The main window is divided into several panes:

- Data Pane:** Shows a single data channel: 'Time Of Fall, Ch 1 (s)'.
- Experiment Setup Pane:** Contains buttons for 'Add Sensor or Instrument...', 'Setup Timers...', and 'Calibrate Sensors...'. It features an image of a 'ScienceWorkshop® 750' interface box connected to a 'Free Fall Adapter'.
- Free Fall Adapter Configuration:** A sub-pane with 'Measurements' and 'Constants' tabs. Under 'Measurements', there is a table with the following entries:

Visibility, Name	Unit of Measure
<input type="checkbox"/> State, Ch1	V
<input checked="" type="checkbox"/> Time Of Fall, Ch 1	s
<input type="checkbox"/> Acceleration, Ch 1	m/s/s
- Displays Pane:** Lists various display types: Digits, FFT, Graph, Histogram, Meter, Scope, Sound Analyzer, Sound Creator, and Table. The 'Table' option is circled in red.

# Start button location

The screenshot shows the DataStudio software interface. At the top, there is a menu bar with "File", "Edit", "Experiment", "Window", "Display", and "Help". Below the menu bar is a toolbar with buttons for "Summary", "Setup", "Start", and "Calculate". The "Start" button is circled in red. To the right of the "Start" button is a digital display showing "STOP" and "00:00.0".

On the left side, there is a "Data" panel with a dropdown menu showing "Time Of Fall, Ch 1 (s)".

On the right side, there is a "Table 1" window. The table has a title "Time Of Fall, Ch 1" and a subtitle "No Data". The table has two columns: "Time (s)" and "Time Of Fall (s)". The table is currently empty.

Time (s)	Time Of Fall (s)