Video Analysis

You can use the Video Analysis tool to create a graphical representation of the motion you see in a <u>movie</u>. This is ideal for mathematically analyzing real world events.

After you insert a movie, you will be able to call up the Video Analysis toolbar. The motion that you trace directly on the movie will be displayed on a linked graph (see below). After the desired range of motion has been graphed, you can use Logger Pro's analysis features to study the plotted data.

A tutorial covering video analysis is available. Select Open from the File menu, then look in the Experiments folder to access it.

Supported movie formats are Video clip (.avi), QuickTime movies (.mov) or any movie that can be played by QuickTime.



Movie Buttons (at the bottom of the Movie object): The button furthest on the left is the Play button. Click it to play the movie. The next button to the right is the Stop button. It will stop the movie during replay. The third button from the left "rewinds" the video to the beginning. The next two buttons move the video to the previous or next frame.

Click **•••** in the bottom right corner of the movie object to call up the Video Analysis Toolbar. A graph will also be displayed.

A new set of X and Y columns will be added.

Video Analysis Buttons:



Select Point: Highlight a trace point in the movie object.

Add Point: Trace the path of the moving object in the movie with points.



Set Origin: Choose a point in the movie where you want the origin to be set.



Set Scale: When you add points to the movie, the program initially records the coordinates of each point in screen pixels. This option allows you to convert those coordinates to a physical measurement, e.g. meters. In the example shown above, a meter stick appears in the foreground. That meter stick can be used to set the scale. You will drag the distance desired in your movie, then record that distance in the scale dialog that pops up (see below). In the movie above, you can drag over the meter stick, then record it as 1 m in the dialog.



Set Active: Adds new x,y columns and becomes the current/active point. The active point set will have a horizontal line on either side of it. There is a limit of 3 point sets.



Toggle Trail: Displays or hides all the points that have been added up to the current time. For example, if you have a total of 10 points, one point per second, and you toggle at 5 seconds, you would see the points from 0-5.



Show Origin: Display the origin on the movie object. Click again to remove the origin. The origin is set with the Set Origin button.

Show Scale: This will show the line that was used when setting the scale (see Set Scale).

Scale		
Enter the distance distance in the mov	and units that o	prespond with the
Distance: Ju	Unit	8: Jm
Help	OK	Cancel

See Also:

How To/Video Analysis

How To/Making Movies of your Experiment