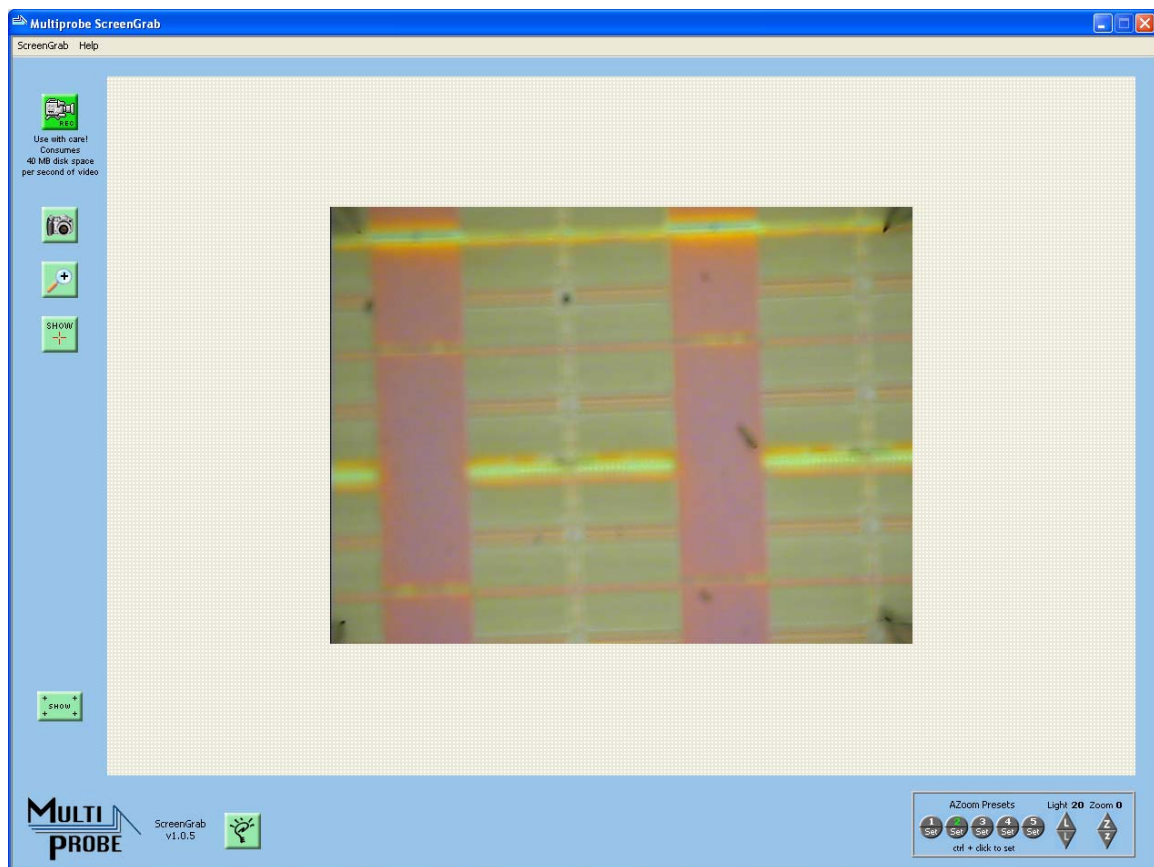


# ScreenGrab

## 1.1.0

### Operation Manual



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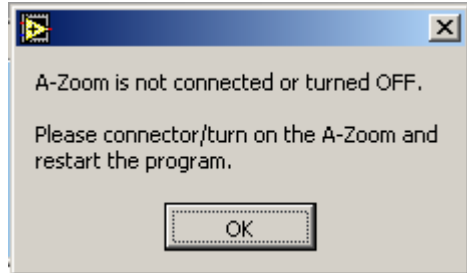
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## WHAT IS NEW/FIXED IN VERSION 1.1.0

- Development switched to LabView 8.5.
- Requires latest Vision drivers from National Instruments. The drivers are updated when ScreenGrab 1.1.0 is installed and the computer will have to be re-started.
- Improved the *Check for latest version* menu command.

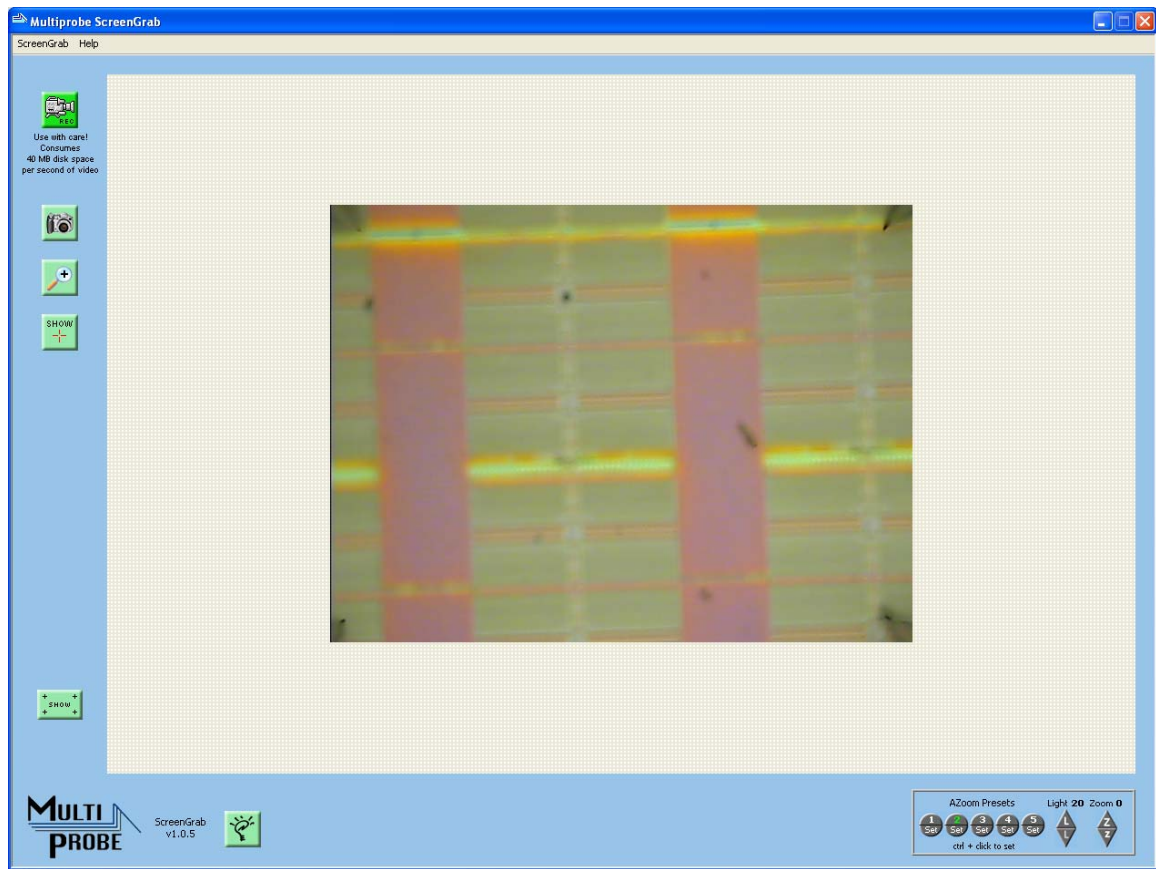
## POSSIBLE ERROR MESSAGES DURING START-UP

### AZoom Error



This message shows up if the AZoom control box is not connected to the computer with the serial cable provided, or if properly connected, the AZoom is turned off. The program will quit when after clicking OK. Connect or turn on the AZoom box since this unit is absolutely necessary for the software to function.

## SCRENGRAB SOFTWARE INTERFACE



The following sections describe the function of all buttons and commands that appears on the screen.

## AZoom Brightness and Zoom Controls



This block controls the light brightness and zoom setting of the AZoom microscope. It is equivalent to the buttons located on the black control box that comes with the instrument.



Are preset values for the brightness and zoom. The values are actually stored in the small back AZoom control box. Pressing the numbers will change the brightness and zoom to the preset value. Clicking the corresponding Set (while holding the Ctrl key), will store the current brightness and zoom as a preset. When the brightness and zoom match a given preset, the corresponding number will turn green (like the number 5 in this case.)

The presets values set at the factory are:

Preset	Light	Zoom
1	2	0
2	2	20
3	2	40
4	2	60
5	0	60



Increase or decrease the light brightness and zoom.

## Other Controls



Clicking on the Multiprobe logo will launch the default web browser and open the software page on Multiprobe's web site. Here you will be able to download the latest versions of the all our software.



Just click this button and see what it does.

## IMAGE WINDOW AND CONTROLS

The video image from the AZoom is integrated into the SemiAuto software.

There are several buttons on the left side of the image window that perform functions related to the video feed.

### Save Image



Captures the current image on the window and saves it as a .bmp image in the default image folder. The folder is located in the following directory: C:\AFP\_Data\[folder with today's date]\. (This folder is the same as the one used by IVC to save its data files.) As a default, the file will be named SemiAuto\_image\_[date]\_[time].bmp. However, the name can be changed in the dialog box before saving.



### Save Video

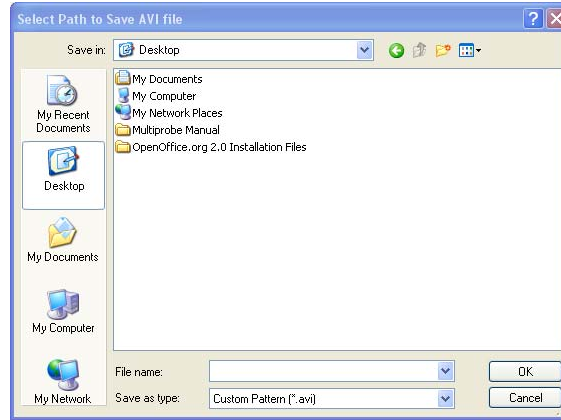


Saves an .avi movie of what is currently displayed on the image window. Note that it only saves uncompressed video at a rate of 40MB of disk space per second of video. Use it with caution. The dialog box asks for a location and a file name for the video file. No default folder or file name is created in this case.



While recording, the button color changes to red. Click it again to stop recording.

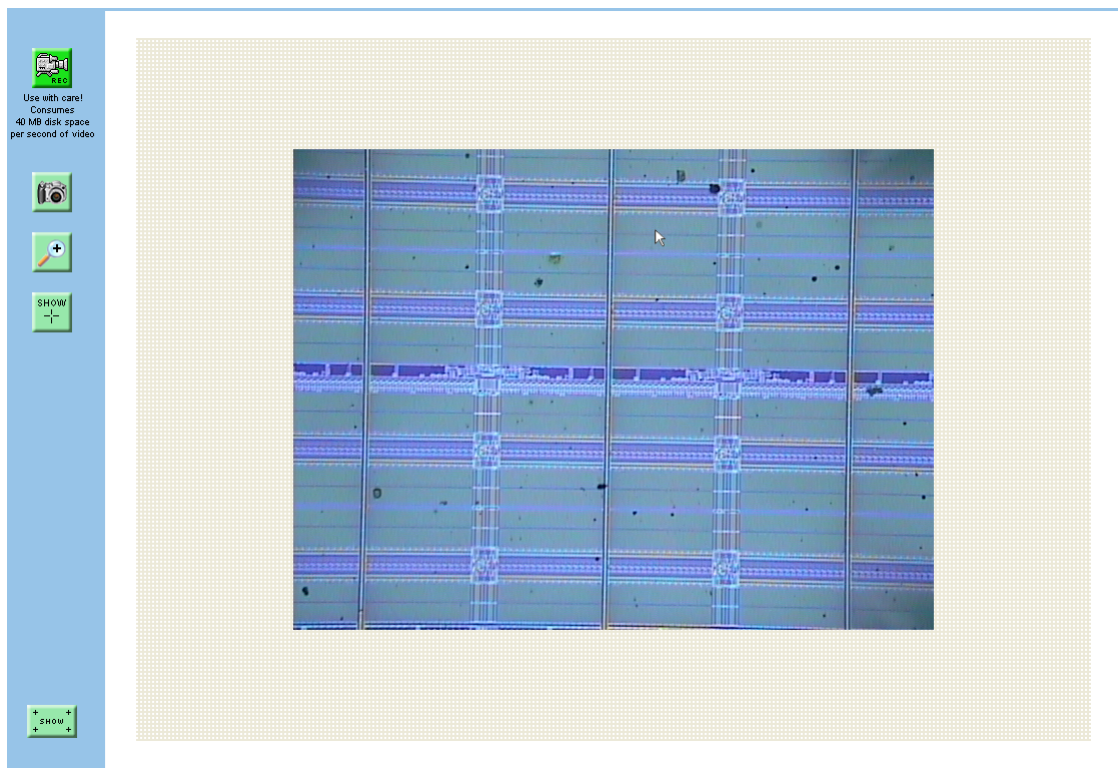
# MultiProbe ScreenGrab



## Digital Screen Magnification

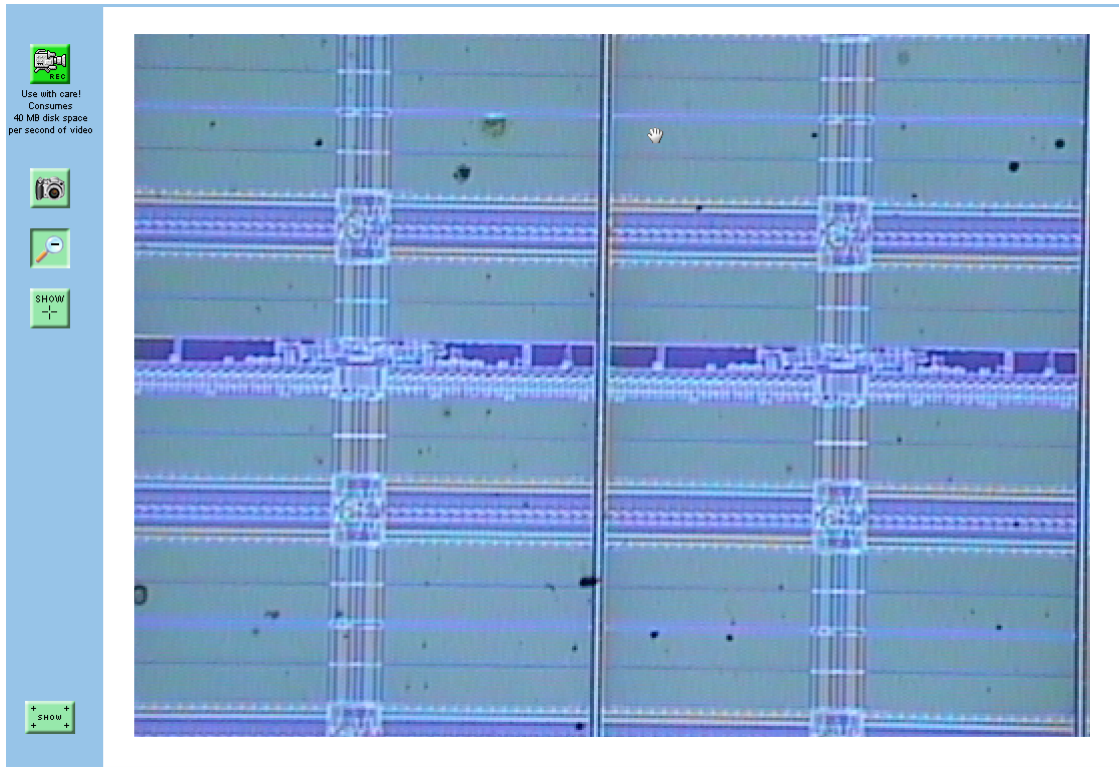


Doubles the size of the image on the screen. At the same time it changes the cursor (when is placed over the image) to a hand to “grab” and move the large image within the picture window. This is a digital image magnification unrelated to the optical magnification achievable with the AZoom controls.



Normal Image Display 1X (with sample stage selected [white box])

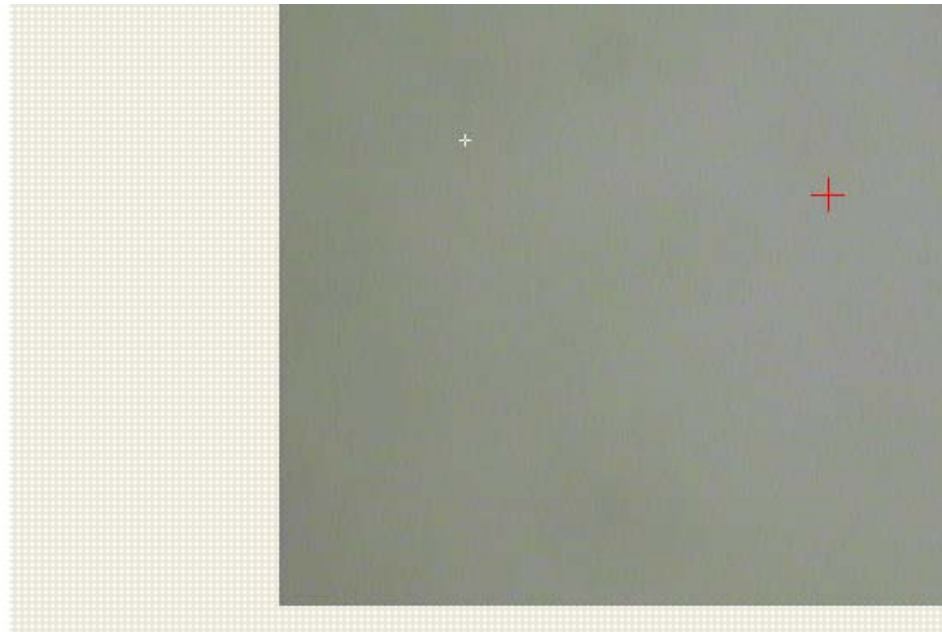
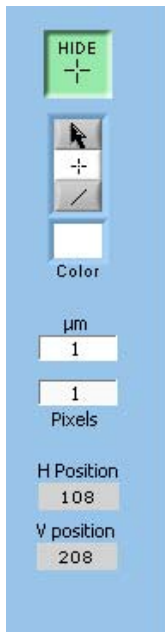
# MultiProbe ScreenGrab



Magnified Image Display 2X  
Alignment Cursor Display



This button turns on a red cross-hair cursor at the center of the screen. Additional crosses or lines can be placed on and moved about the image with the marker tools. To remove all of the markers click on HIDE cursor. The markers will NOT be remembered once erased.



Alignment cursor turned on and a small cursor placed away from center.

### Marker Tools

Several tools become available when SHOW cursors is enabled



This tool is used to select and move the cursors or lines on the screen. Note that the large RED cursor cannot be moved




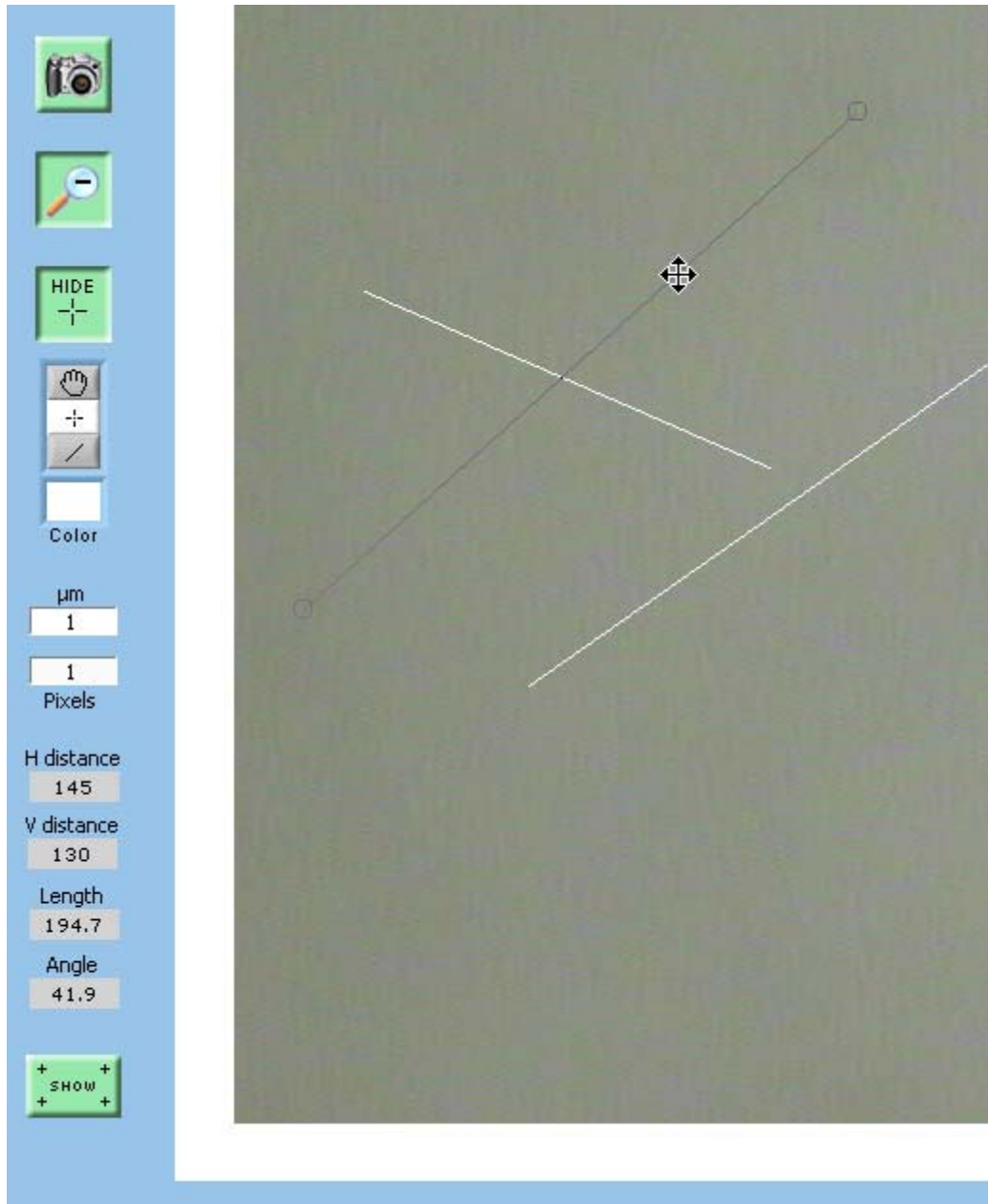
This tool is used to add cross markers on the screen. Just select the tool and click to add a marker. Hold down the Ctrl key while you click to draw additional cross markers.




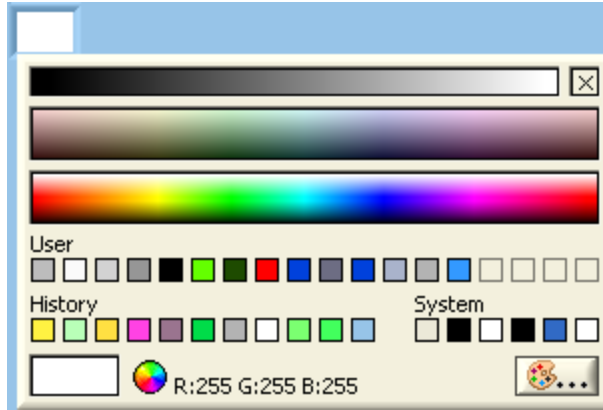
This tool is used to add line markers on the screen. Just select the tool then click and drag to add a line. Hold down the Ctrl key while you click to draw additional lines. Hold down the SHIFT key to draw vertical or horizontal lines.



This tool is used to move the image on the window when zoom is enabled. If you are in Zoom mode and you want to move a cross or line marker, just select the corresponding tool and place it over the marker. The cursor will change to the “move”  cursor. Then click and drag to move the marker.



 This tool is used to change the color of the markers. Clicking on the color box brings up a color selection palette. The new color will be used only for new markers. If there are any markers on the screen their color will NOT be updated.



Color selection palette

In addition to the marker creation tools, there are information boxes about the marker placed.

### Cross Marker Information

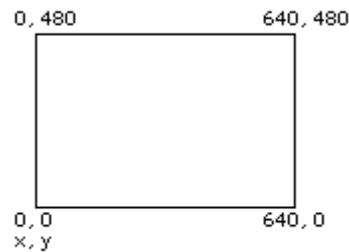
If a cross marker is placed on the screen the following information is displayed. Note that **only** the information about the **first** cursor marker is displayed. This information will be updated if the marker is moved.

$\mu\text{m}$	1
	1
Pixels	
H Position	108
V position	208

H Position is the horizontal position of the marker in pixels or  $\mu\text{m}$  if calibrated.

V Position is the horizontal position of the marker in pixels or  $\mu\text{m}$  if calibrated.

The origin of the coordinate system is the lower left corner of the image.



### Line Marker Information

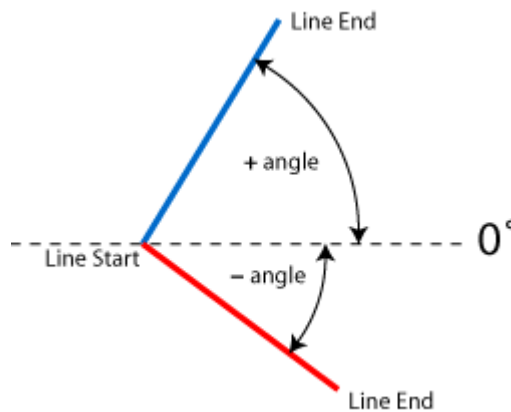
If a line marker is placed on the screen, the following information is displayed. Note that **only** the information about the **first** line drawn is displayed. This information will be updated if the line is moved.

$\mu\text{m}$	1
Pixels	1
H distance	145
V distance	130
Length	194.7
Angle	41.9

H Distance is the horizontal distance between the start and end points of the line in pixels or  $\mu\text{m}$  if calibrated.

V Distance is the vertical distance between the start and end points of the line in pixels or  $\mu\text{m}$  if calibrated.

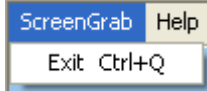
The angle is displayed according the following convention:



To show the coordinates of the cursor position in microns, enter a calibration value in the  $\mu\text{m}$  and Pixels boxes. The calibration value can be easily measured by drawing a horizontal or vertical line between two points of the screen of a known real distance. For instance if you draw a horizontal line between two points 20  $\mu\text{m}$  apart and the line is 250 Pixels long, enter those values in the  $\mu\text{m}$  and Pixel boxes. Any subsequent line or marker drawn will have its information displayed in  $\mu\text{m}$ .

## MENU COMMANDS

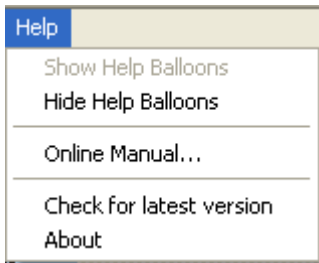
### SemiAuto Menu



#### Exit (Ctrl+Q)

Quits the program

### Help Menu



#### Show Help Balloons

When selected, this command enables help labels that appear under the cursor when it hovers over a control for more than 5 seconds. By default, when the program starts this feature is turned on.

#### Hide Help Balloons

Hides the help balloons.

#### Online Manual

Starts Acrobat Reader and opens this manual.

#### Check for latest version

Checks the MultiProbe website for a new version of ScreenGrab. If a new one is available, the user is given the option to download it.

#### About

Shows the time and date when the software was created.