# Introduction

(Ref No. 081215)

# About DinoCapture 2.0

The DinoCapture 2.0 software from AnMo Electronics Corporation is a free software program that is compatible and included only with products manufactured by AnMo Electronics Corporation. Based on customer feedback, we have included many new features that give users a superior experience with a digital handheld microscope.

With the DinoCapture 2.0 software; you can add text, draw arrows, circles, and use other great drawing tools right on live video or on taken pictures and delete or edit the results if required. The DinoCapture 2.0 software also allows you to easily customize the drawing color and size giving you the proper look you want.

On certain models, the DinoCapture 2.0 offers a very powerful analysis tool which lets you measure on pictures as well as on live video. Measurements as well as text can be edited, reorganized, and deleted. The measurements can also be exported to Excel. For assured accuracy, you can also calibrate the measurements with some of our Dino-Lite models. The interface is organized and easy to use allowing multiple user windows as well as the ability to use multiple Dino-Lite's on one computer!

The DinoCapture 2.0 software is a product created by AnMo Electronics Corporation dedication on providing a high quality, competitively priced, and versatile digital microscopy experience for professionals and casual users alike.

To get help on a topic, click on the highlighted words below. <u>Menu Bar</u>- Describes the buttons on the menu bar. <u>Image List Tools</u>- Describes the buttons on the tool bar. <u>Preview Window Management Bar</u>- Describes the features and functions of the preview window management bar. <u>Tool Bar</u>- Describes the buttons on the tool bar. <u>Preview Window Tools</u>- Describes the buttons on the preview window. <u>How to Steps</u>- Gives step-by –step direction on common tasks. <u>Keyboard Controls</u>- Describes keyboard functions. <u>Mouse Controls</u>- Describes mouse functions. <u>Measurement Properties</u>- Describes the measurement properties window. <u>Camera Adjustment-</u> Describes the controls to adjust camera settings. <u>Picture Adjust</u>- Describes the controls to adjust picture settings. <u>Folder Manager</u>- Describes the folder manager window.

# Menu Bar

# **Folder**



#### New

-Displays the "New Folder" window that allows you to create a new folder to save pictures/videos. If no folders are created, the "New Folder" window will automatically pop up.

See Also: How to create a new folder

#### **Folder Manager**

-Displays the "Folder Manager" window, which allows you import, create, open, delete, as well as change the sorting order of folders.

See Also: Folder Manager Window

#### **Folder Properties**

-Displays the "Folder Property" window. Allows you to see the properties of the current save folder and also allows changing the name and edit notes about the current save folder.

#### Exit DinoCapture

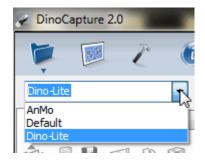
-Exits DinoCapture 2.0 software.

#### Folder dropdown box

Below the *Folder* menu, there is the *folder dropdown box*. With it, easily create a new folder by typing a name in the box and then press the "New Folder" button.



Also switch folders from the folder dropdown box.



# **Files**



#### Open

-Opens a selected picture or video to be viewed on the main view window.

#### Сору

-Copies the selected picture or video to be pasted into another folder or program.

#### Copy to

-Copy selected pictures to a different save folder.

#### Move to

-Move selected pictures to a different save folder.

#### Save As

-Opens the "Save as" window, which allows you to save your files into the desired folder and file format.

#### Delete

-Allows you to delete selected pictures or videos. You will be prompted to confirm your decision.

See also: Delete Key

### Send Email

-Allows you to send selected pictures through your default email account.

#### Slideshow

-Starts a slideshow from the pictures in the Image List.

See Also: <u>How to start a slideshow</u> <u>Show Image List</u> <u>Slide Show</u>

#### Print

-Displays the "Print" window, which allows you to print the selected picture.

#### **Close All Opened Files**

-Closes all open pictures or videos in the picture management bar.

## **Setting**



# Show Image List

-Check for the image list to appear. Uncheck to hide the image list.

#### Show Tool Bar

-Check to show the tool bar. Uncheck to hide the tool bar.

#### **Show Status Bar**

-Check to show the status bar. Uncheck to hide the status bar.

#### Sound Effects

-The sound effects give you audio feedback aiding in the use of the DinoCapture 2.0 software. The sound effects can be enabled and disabled with this checkbox.

#### Language

-The language selection allows you to select the DinoCapture interface language.

#### **Default Full Screen Mode**

-Set the way the preview window maximizes.

- Maximize (with tools) = Maximizes the preview window with tool bar available.
- •Full Screen (no tools) = Will maximize the preview window to the whole monitor.

#### **Default Picture Format**

-Change the default picture format from BMP to JPG and vice versa and also set the default picture DPI settings to 96, 180, 240, or 300.

#### **Default Flicker Reduction**

-Set the flicker reduction frequency to 60Hz or 50Hz.

### **Camera Sleep**

-Set the time it takes the Dino-Lite to sleep when idle from never to 5 / 10 / 20 / 30 minutes.

#### MicroTouch

-When the MicroTouch is triggered you can set it to do one of three actions:

- •To take picture.
- •To start/stop recording a video
- •To read barcode
- •To switch LED

You can also set the MicroTouch to trigger with a single touch, double touch, or disable it.

#### Foot Pedal

-If the Dino-Lite foot pedal accessory is connected (SW-F1 Foot Pedal). You can set the foot pedal to do one of the three actions:

- •To take picture.
- •To start / stop recording a video.
- •To freeze/ unfreeze frame.
- •To maximize/restore window
- •To switch LED

#### **Knob Motor**

- When the KM-01 is connected, it can open the knob motor control window. When open, mouse over the Knob motor window and use the left and right mouse buttons to control the rotation of the KM-01.

## **Measurement Properties**

-The measurement properties selection allows reopening the measurement property window when closed. It will only be active when the preview window is in measurement mode.

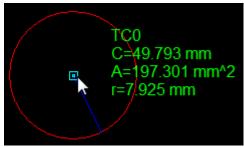
### **Snap Mode**

- When making a new measurement, snap mode is used for quickly locating the endpoints of a line, midpoints of a line, and the center of a circle of a previous measurement. With snap mode enabled when doing a measurement, a light blue box with a dot in the middle indicates the mouse is near one of the endpoints, midpoints, or center of a circle over a previous measurement. When the point is detected, clicking the mouse would snap the measurement point directly onto that point.

#### Line Measurement



#### **Circle Measurement**

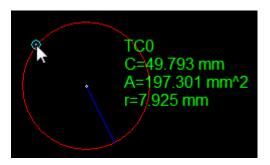


Snap mode will also detect when the mouse pointer is ON the line of a distance measurement or the circumference of a circle measurement, indicated when a light blue circle with a dot in the middle shows up on the mouse pointer.

#### Line Measurement



#### **Circle Measurement**



## Lock Drawing & Meas.

The full name of this feature is "Lock Drawing & Measurements". It allows the user to set if drawings and measurements can be moved or changed.

- •None- The size and position of drawings/ measurements can be freely moved.
- •Size- The size of drawings/ measurements is locked in place but its position can be changed.
- Position- The position of drawings/ measurements is locked in place.

#### Scale

-The measurement scale can be displayed or hidden on the live preview window for measurement capable models. You can also change the color of the scale from this menu.

#### **Drawing Mode**

Scale		
Drawing Mode	×	Normal
Connect to IP Dino-Lite or Dino-Eye		✓ High Quality
Barcode Recognition Setting		

Be able to change the quality of drawings, text, and measurements between *Normal* and *High Quality* mode.

The difference between Normal and High Quality mode is that using Normal consumes less system resources with simple design.

Using High Quality mode to achieve smoother lines and adds capability to adjust opacity found under the Measurement Properties window.

## **Connect to Dino-Lite or Dino-Eye**

-Manage or connect to a remote DinoCapture 2.0 user over the internet or intranet.

- •New- Creates a new connection
- •Recent- Connect to a recently interacted IP Dino-Lite or Dino-Eye
- •Open- Lets you open or modify existing contacts.

See Also: IP Camera Mode Setup

#### **Barcode Recognition setting**

-You can enable or disable as well as change the settings of the barcode recognition system for the DinoCapture 2.0 software

- •Detection Enable- When checked, it enables barcode detection
- •Barcode Reader Settings- The settings for barcode reading

Barcode Reader Setting	X					
Barcode Types         V Code 11       V PostNet         V Code 39       V Planet         V Code 39 Extended       RM4SCC         V Code 93       Australia Post         V Code 128       IntelligentMail         V Codabar       PharmaCode         V Interleaved 2 of 5       Select All         V Patch Code       2D         V EAN-13       V PDF417         V EAN-8       DataMatrix         V UPC-A       Q R Code         V UPC-E       Micro QR         V +2       +5	Barcode Orientation Bottom to Top Right to Left Left to Right Top to Bottom Optional Checksum Code 11 checksum Code 39 checksum Code 93 checksum Inter 20f5 checksum					
Settings         Expected barcodes count:       1       Threshold mode:       Automatic< ▼						
Preprocessing options Invert Despeckle Dilate Erode Sharp Output options Send to dipboard Emulating keyboard Do not send repetitive data						
	Save Cancel					

# **External GPS**

-Open the GPS Setting window so you can setup the external GPS and also view its status.

-Pictures taken with the GPS active will have an location icon on the bottom right corner of the picture window.

GPS Setting						
GPS Device						
Port	COM3 -	Baudrate 11	5200 👻			
📝 Enable (	Enable CRC checking     Connect     Disconnect					
GPS Informa	ition					
Latitude		Altitude				
Longitude						
Satellites Fo	und					
PRN#	Elevation	Azimuth	SNR(db)			
Result of Last Operation						
Result						
Result						
Connect when the program starts						

Note: You can use an external GPS device that connects to your computer such as with Bluetooth or USB.

Setup the GPS by: linking the external GPS to your computer, select the correct COM port, and then press "Connect". When connected properly, GPS information will start showing in the GPS Setting window.

See also: <u>Geotagging Photo</u>

# Auto-Update

-Toggles the DinoCapture 2.0 auto-update capabilities. With auto-update checked, the DinoCapture 2.0 software will automatically search the web for updates once the software starts.

# <u>Help</u>



#### User's Guide

-Opens the "User's Guide" that will help you to understand functions and features of the DinoCapture 2.0 software.

#### About DinoCapture 2.0

-Opens the "About" page pop-up for DinoCapture 2.0. To exit click on the pop-up and the window will disappear.

#### **License Agreement**

-Opens the license agreement PDF file

# **Image List Tools**

# **Image List icons**

Open



The open icon allows you to open a highlighted picture in the image list.

Once an image thumbnail is selected, press the Open button to open the picture to the main window.

# Сору



The copy icon allows you to copy a selected file and paste the image into a different location such as Microsoft Word.

#### Save As

# B

Opens the "Save As" window so you can save the file or files into the desired file format or folder.

See Also: <u>Ctrl+A</u> <u>Shift and Left Mouse Button</u> <u>Ctrl and Left Mouse Button</u>

## Email

# 

The Email icon allows you to email selected pictures without exiting the DinoCapture 2.0 software. Selecting the icon will open your default email client.

#### Print



The Print icon allows you to print the selected picture. This make it easy for users to save a printed copy of the image selected.

#### **Slide Show**



The Slide Show icon starts a slideshow of selected pictures in the Image List.

See Also: <u>How to start a slideshow</u> <u>Show Image List</u> <u>Slideshow</u>

#### Delete

# Î

The Delete icon allows you to delete certain pictures from the image library. This is very useful to clean up the image thumbnail list of any unwanted pictures.

See Also: <u>Delete consecutive pictures</u> <u>Delete multiple pictures</u> <u>Delete key</u>

# Search Box

Photo	Video	×
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	×	۹

The Search Box is to help find images in the image list with desired text that where written in the Annotation Block at the bottom of the preview windows.

- To search, type in the Search Box then press <a>N</a>. When the search is complete, the image list will display the relative images with the text of that search.

# **Preview Window Management bar**

# Multiple Dino-Lite

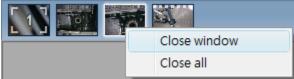
The DinoCapture 2.0 software can use multiple Dino-Lite Digital Handheld Microscopes simultaneously. Simply select which camera to turn on indicated by the number located on the preview window management bar. Opened pictures and video will also be displayed on this bar.



See also: Starting a live video feed

# **Closing a Window**

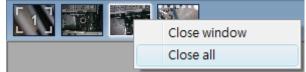
On the preview window management bar located on the top of the main window, you can close an open picture by right clicking on the picture and select "Close window".



See Also: Ctrl and Left Mouse Button

# **Closing all Windows**

On the preview window management bar located on the top of the main window, you can close an open picture by right clicking on the picture and select "Close all".



# **Tool Bar**



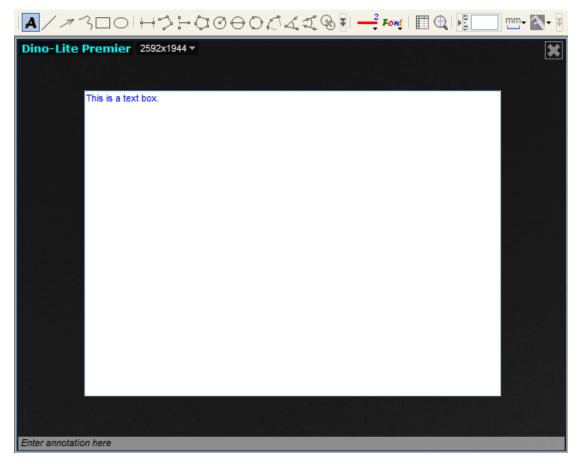
The tool bar is easily accessible under the preview window management bar and allows you to annotate images, do measurement and calibration (model specific), and also allows you to edit the line and font settings.

# **Draw Tools**



The draw tool set allows you to write text and draw on the images. The bar is located below the preview window management bar.

The text tool lets you write text anywhere on the picture. Simply create the text box and then the area within the text box is ready to write in. To start a new text line, press ENTER. When done, left click out of the text box to finish.



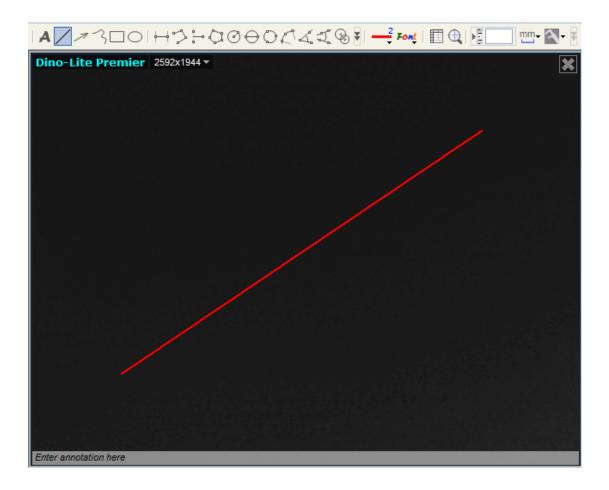
Tip: You can edit the text by selecting the text icon A and then clicking on the text you want to edit.

See also: How to resize the text box

#### Line

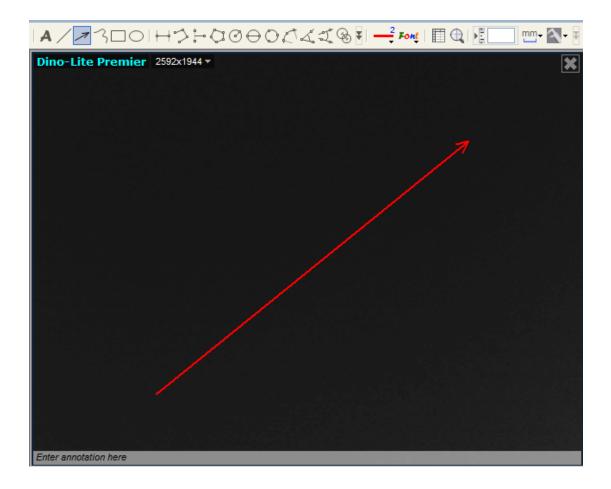
The line tool allows you to draw lines on the picture. Simply click and drag to draw the desired line.

Text



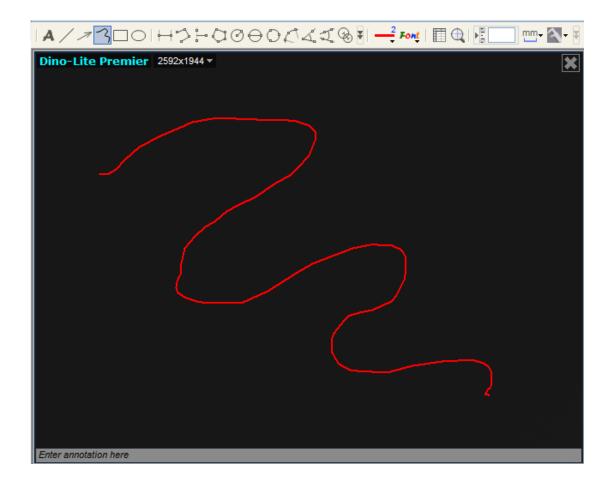
## Arrow

The arrow tool allows you to draw arrows on the picture. Simply left click and drag your mouse to the place you want the arrow to point to.



#### Freelance

The freelance tool allows you to draw a line freely on the image. Simply left click the mouse once to start and click again to finish the drawing.



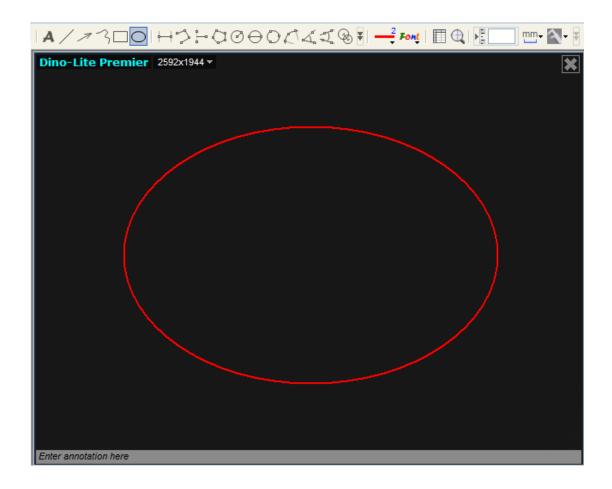
# Rectangle

The rectangle tool allows you to draw rectangles on the image. Simple left click and drag out to create the size of the rectangle and click again to finish.

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Dino-Lite P	remier	2592x1944 <del>▼</del>		×
				1
Enter annotation	here			

# Oval

The oval tool allows draw ovals on the image. Simply left click to start the oval and click again to finish.



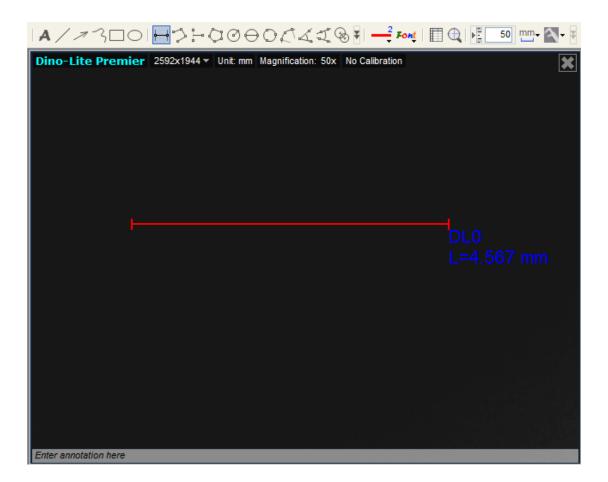
# Measurement Tools



**Notice**: The measurement and calibration feature is only available for certain models. Please contact a local sales representative for further information.

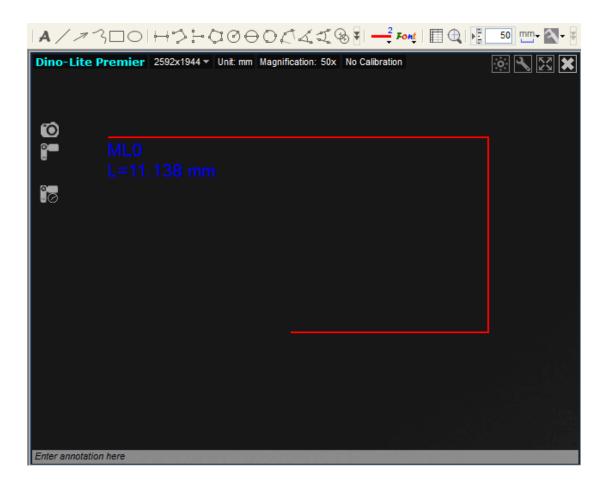
#### Line Measurement

The line measurement allows you to measure the linear distance between two points. Simply left click and drag to the desired length, and click again to finish.



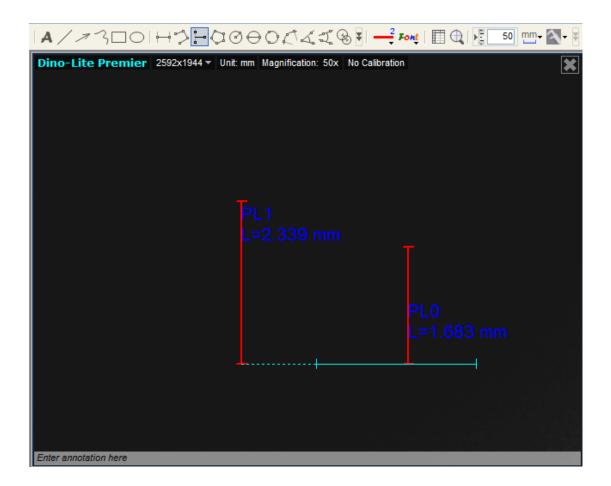
# **Continuous Line Measurement**

The continuous line function allows measurement of the distance between multiple connecting lines. Simply click and drag to form one section of distance, click again to start another section. Continue until the total desired distance is measured. Double click to finish.



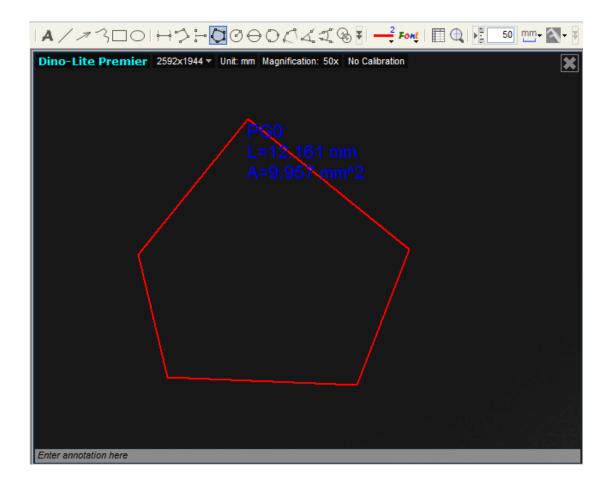
# Point to Line Measurement

The point to line measurement feature allows measurement of a line 90 degrees from a certain line. Simply create a line to represent the base (e.g. the light blue line in the sample picture below) by clicking once to start, drag, and then click again to set the endpoint. Branch off from the base line to start measuring the line that is 90 degrees from the base line and a final click to finish the measurement.



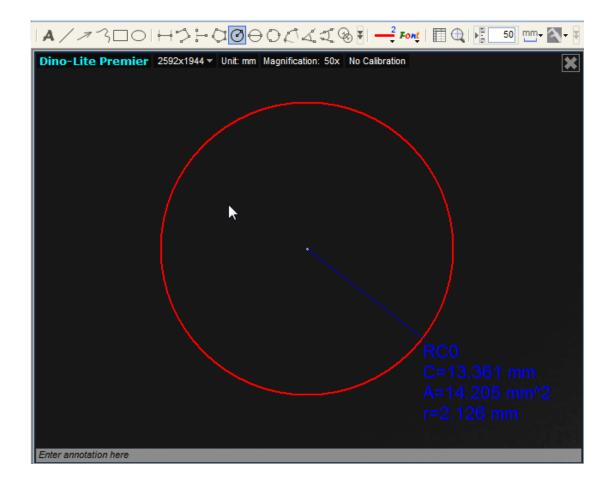
### **Polygon Measurement**

The polygon measurement feature allows measurement of a polygon. Simply click and drag to form the desired length, and click again to start the next section. When finished, double click to finish the polygon measurement.



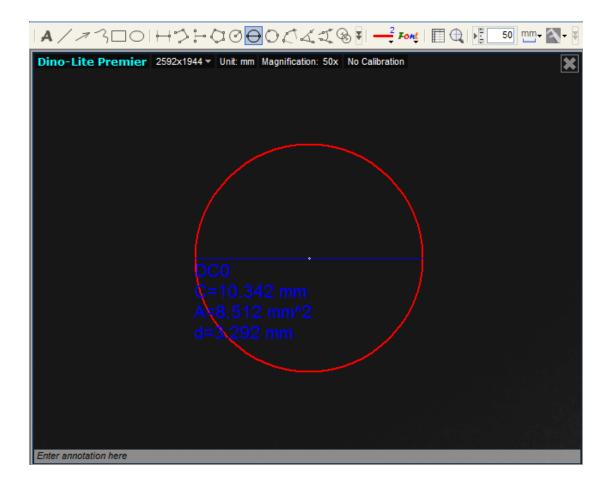
#### **Radius of Circle Measurement**

The radius of circle measurement allows you to measure the circumference, area, and radius of a circle. Simply click and extend out to the desired radius.



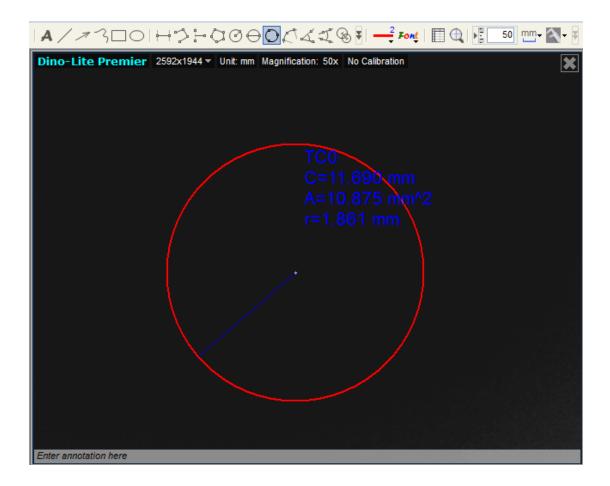
#### **Diameter of Circle Measurement**

The diameter of a circle measurement allows you to measure the circumference, area, and radius of a circle. Simply click and extend out to the desired diamter.



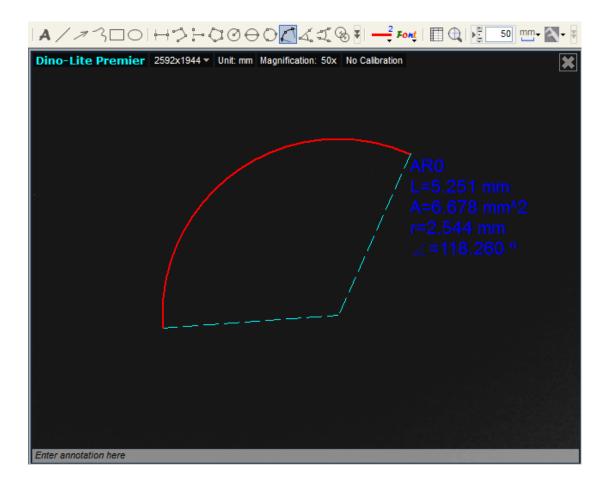
# Three Point Circle Measurement

The three point circle measurement allows the measurement of the circumference, area, and radius of a circle. Simply click on any three points on the circle you wish to measure.



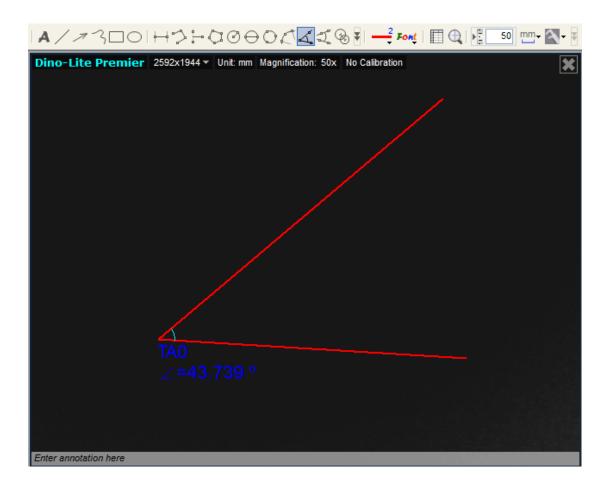
## Three Point Arc Measurement

The three point arc measurement allows a measurement of an arc. Click on three consecutive points on an arc to measure.



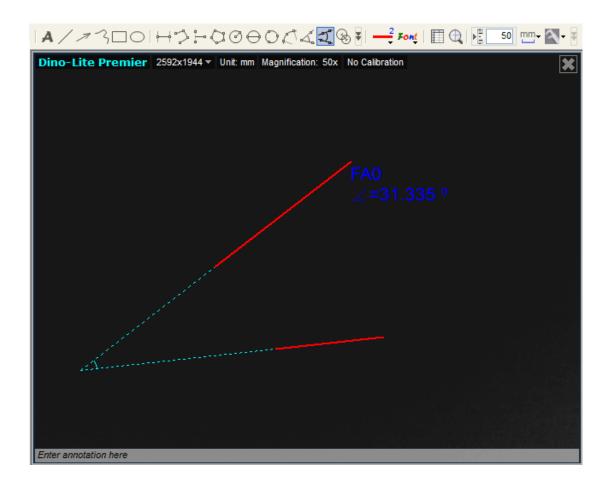
# Three Point Angle Measurement

The three point angle measurement allows the measurement of an angle. Start at the pivot point and extend out to start measuring an angle.



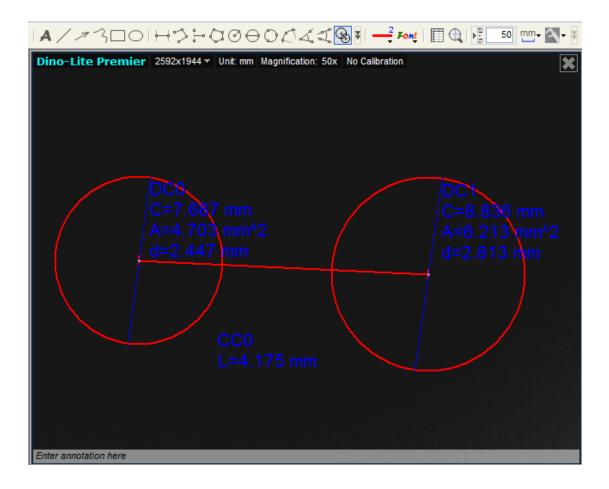
### Four Points Angle Measurement

The four point angle measurement allows the measurement of an angle by selecting four points. Simply select two points from one line segment and another two points from another line segment to complete the angle measurement.



#### **Center Distance**

After drawing at least two circles, you can select this measurement tool to measure the distance between the centers of two circles. Simply select the icon and then select two circles that you want to measure the center distance of. The mouse pointer will change to a pointing finger for selectable circles. Click on each and the software will measure the distance

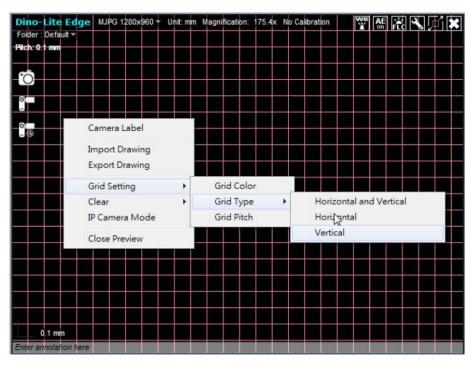


# Gridlines

You can add gridlines to the live video or images. The pitch will match the magnification inputted.

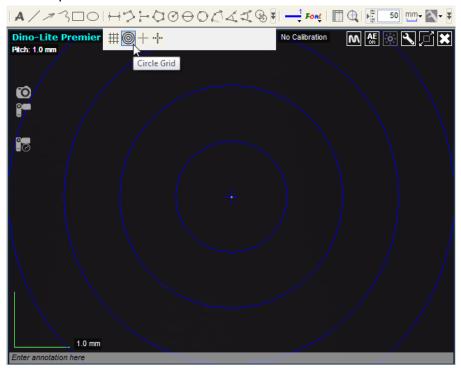
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Dino-Lite P Pitch: 1.0 mm		<mark>⊚ + +</mark>		N	o Calibration	M 👫 🔅	<b>~</b> [] <b>×</b>
Ø							
<b>*</b>							
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	_ 1.0 mm						
Enter annotation here							

Right click on the grid image and select **Gridlines setting** for changing either in colors, types or pitches at will.

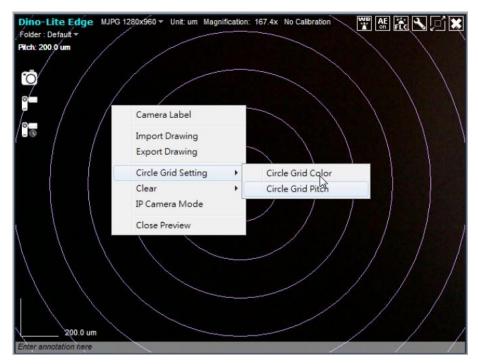


# **Circle Grid**

You can add circle grid to the live video or images. The pitch will match the magnification inputted.

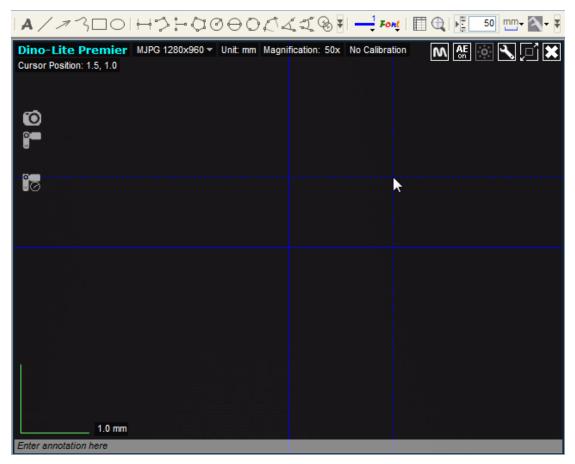


Right click on the grid image and select **Circle Grid setting** for changing either in colors or pitches at will.



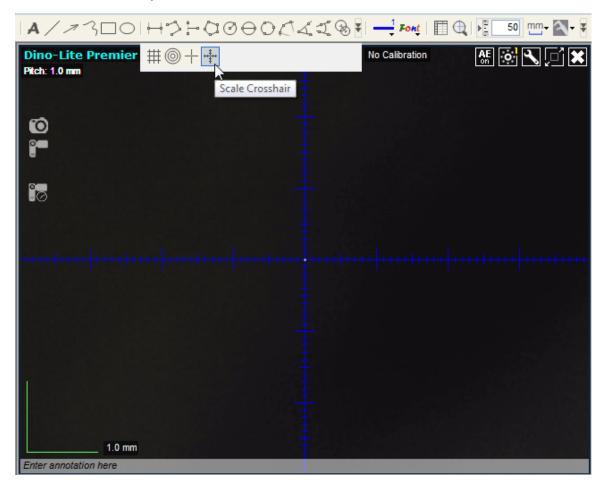
#### Crosshair

You can add a crosshair to the live video or images. The crosshair XY position can be moved when you select it. The cursor position is the location of the mouse pointer and location 0,0 is the center coordinates of the crosshair.



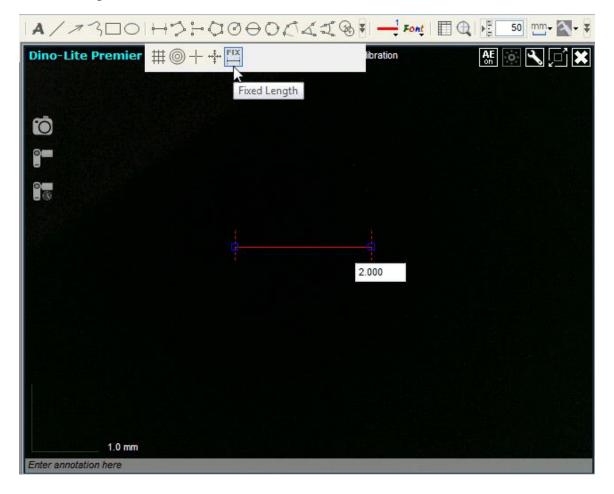
## Scale Crosshair

You can add a scale crosshair to the live video or images. The crosshair XY position can be moved when you select it.



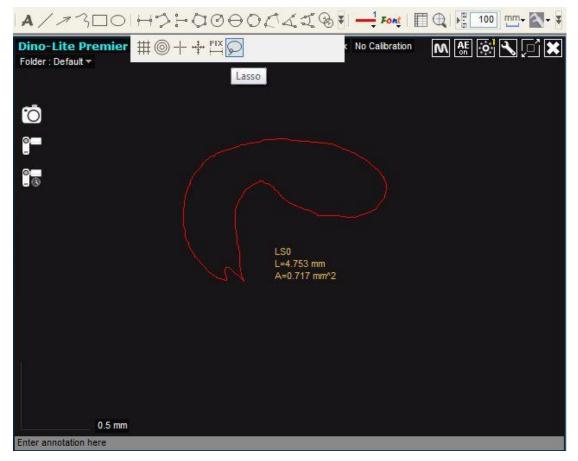
### **Fixed Length**

Fixed length is a measurement tool where you type the desired length and the length can be rotated and moved without changing the length of the measurement otherwise intentionally by double clicking on the measurement results and typing in the new length.



#### Lasso

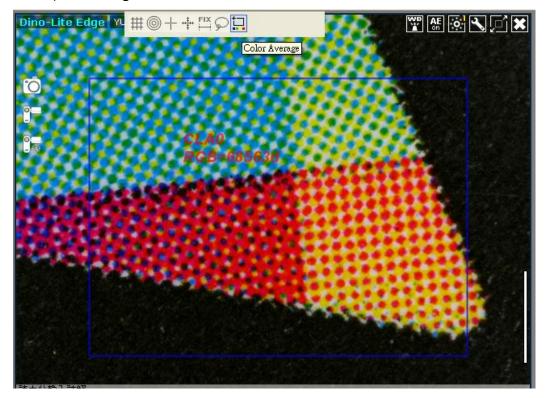
Lasso is a measurement tool for freehand tracing a selection outline around an image. As you trace, the length (mm) and area (mm<sup>2</sup>) of the selection outline will update.



#### **Color Average**

Color Average is a tool that measures average RGB color values within selected image regions. Color values are displayed in hex triplet format.

*Example:* For the CLA0 image region (the area within the blue rectangle in the image



below) the average RGB color value is 68563d.

## Text and Line edit

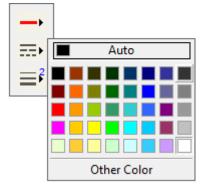


You can easily access line and text properties on the tool bar. The line and text can be customized to fit your needs.

#### Line Color

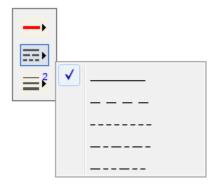
Press the line format icon 📰 and then select the color icon. The color list will

expand for you to choose a line color.



## Line Style

Allows you to change the width of the lines you create.



#### Line Width

Allows you to change the width of the lines you create.



#### Font

Clicking on the button opens the font window where you can change everything from size to color of the text represented on the images you write on.

Font			×
Font: ©DFKai-SB @Fixedsys @Microsoft Jhengł @MingLiU	Font style: Regular Regular Italic Bold Bold Italic	Size:	OK Cancel
@MingLiU-ExtB - Effects Strikeout Underline Color:	Sample	16 🔻	
Black	Script:	•	

# Measurement properties window

Clicking on the icon allows you to show or hide the measurement properties

window.

## Measurement Properties window

Measureme	ent Prop	erties						×
Line	Poly	rgon Ci	rcle	Arc	Angle			
Show	Name	Length	Area	Radius	Diameter	Angle(deg)		
<b>V</b>	DL1	0.692						
<b>V</b>	DL0	0.272						
Display:		Name	Length	√	Area	Radius	✓ Angle	🔽 Unit
Decimals:		3 🔻 🔤	Franspare	ency(alpha):	-		90	
			elete	Clear all	measuremen	ts and drawing	g Expo	rt to excel

See Also: About the measurement property window

**Notice**: The measurement and calibration feature is only available for certain models. Please contact a local sales representative for further information.

# **Magnifier**

<del>(</del>

Allow you to digitally enlarge the area around your mouse pointer for more details and accurate measurements.

Hint: Use the arrow keys on your keyboard for pixel by pixel movement.

### **Measurement Tools**



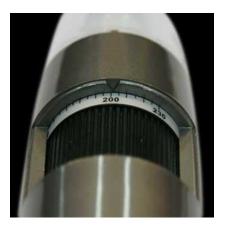
If you have a measurement or measurement and calibration capable model, the magnification, units of measure and calibration will be available.

**Notice**: The measurement and calibration feature is only available for certain models. Please contact a local sales representative for further information.

#### Magnification



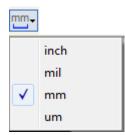
Input the magnification in the blue box. The magnification can be read from the dial on the microscope. Once the image is in focus with the Dino-Lite, insert the magnification you see on the dial into the magnification box to start using the measurement tools.



See Also: How to measure

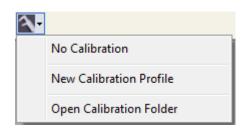
Units

The drop down box allows you to select the unit of measure.



inch- inches mil- mil mm- millimeter um- microns

#### **Calibration menu**



No calibration: Use the default measurement settings. New Calibation Profile: Create a new calibration profile. Open Calibration Folder: Opens the folder where your calibration settings are located. From that window, you can select already created calibration profiles or delete them.

See Also: How to calibrate measurements

**Notice**: The calibration feature is only available for certain models. Please contact a local sales representative for further information.

#### Barcode Reader Toggle



Click on the icon to enable and disable barcode detection

# **Preview Window Tools**

## **MicroTouch**

# M

-The MicroTouch tool is activated when you touch the MicroTouch trigger after starting the DinoCapture 2.0 software. After the software recognized that the Dino-Lite has the MicroTouch feature, you can activate or deactivate the MicroTouch controls with this button. The MicroTouch was designed to minimize image blur while taking a picture with the microscope. Great for those moments when you need to take a picture, but having a hard time reaching the computer.

**Notice**: Not all models include the MicroTouch feature. Please check your local sales representative for more details.

## White Balance Mode



White Balance is a color correction function to adjust white color accurately on the image. When the white balance is corrected properly, colors on the image would look natural on human eyes, even under variety of light source with different color temperature.

There are three choices:



#### **Default White Balance**

When the built in LEDs are used, this mode is suitable in most cases.



#### Auto White Balance (AWB)

It searches white area on the image to adjust WB automatically, similar function of which can be found in general digital cameras. This mode can be used when LEDs are turned off, or there is mixture of light sources.



#### **Custom White Balance**

It specifies white area manually to force the white balance using that spot. When you do not get desired color balance with other modes, this mode would be the choice to try for better result.

Notice: White Balance (WB) control EXCLUSIVELY for the Dino-Lite Edge series to the live preview window.

# Auto Exposure

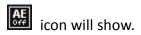


-The Auto Exposure (AE) setting allows you to change the exposure or turn off auto exposure.

- Sliding the luma bar to the right increases the exposure and vice versa.
- "Lighting" controls exposure time for Dino-Lite Premier series:
  Std (standard) = The default setting for normal light conditions and general use.
  - Low =Increases exposure time for low light conditions.
  - Lowest= Further increase exposure time for lowest light conditions improving low light exposure.



• The auto exposure can be turned off. When auto exposure is turned off, the



### **Histogram**

Added gray-level **Histogram** to the **AE (Auto Exposure)** control to help determine the exposure level.

# **LED Control**



-Allow you to control the LED's. Let you turn ON/OFF or switch LED's on the Dino-Lite.

**Notice**: The AM211, AM2011 and AM2111 do not have LED control.

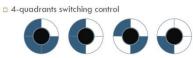
# Flexible LED Control



The Flexible LED Control (FLC) allows you to switch the build-in LED in 4 different quadrant directions and to adjust 6 intensity levels.

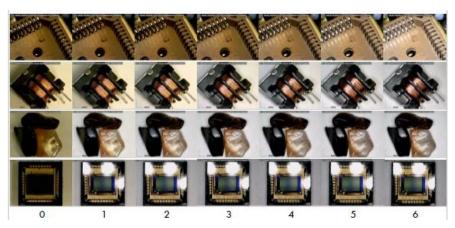


• Left clicking on 1- 4 quadrant direction buttons or multiple combination of it for switching different choices of illumination as illustrated in the figure below.



• Sliding the LED Brightness bar to the right to increases the intensity and vice versa. An illustrated FLC demonstration below:





(The effectiveness of brightness control is largely determined by the ambient light.)

Notice: The Flexible LED Control only operates with 5 MP Dino-Lite Edge series.

# **Setting**

4

-The Setting icon allows you to open the Setting window. The setting window allows you to control the camera settings.

## <u>Maximize</u>



-Allows you to maximize the preview window. While the window is maximized, you can still measure and annotate.

To exit from the maximized window click on 🖾 to restore the window down to normal size.

# **Close Window**



-The "Close Window" icon allows you to close the current window. If too many windows are open or you just don't need to see the current picture anymore, you can simply press the "Close Window" icon and it will be removed from the main screen.

# **Magnification**

## Mag.:

-For models that have measurement capabilities, the magnification box is where you see the magnification that is being used for measurement.

# <u>Unit</u>

## Unit:

-Shows what unit of measure is selected for the active child window.

## **Resolution**

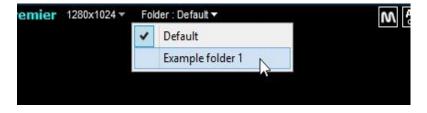
#### 1280x1024 -

-There are multiple resolutions you can set the Dino-Lite to. Certain models have a maximum resolution of 1280x1024 giving very clear images at any magnification.

## **Folder**

#### Folder : Default 🔻

- When using multiple cameras, each one can designate different existing folder to store the captured picture or video for the current user session. The folders can be selected from the top of the preview window.



## **Annotation**

You can write annotations on the bottom of the preview window. Click on the gray bar on the bottom of the preview window and the annotation box will expand. Write text within this box and press ENTER to start a new row. When done, left click anywhere in the preview window to save the annotation and exit the annotation box.

Enter annotation here

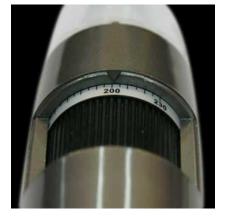
# **How to Steps**

## How to measure

1. Input magnification that is read from the microscope into the magnification box.



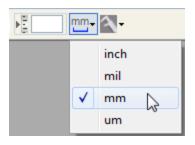
### Magnification value on Dino-Lite



2. Select a measurement tool.



#### 3. Select a unit of measure.



4. For example: we would measure distance.

# H70000141

- 5. Left click your mouse once to start the measurement.
- 6. Left click you mouse once more to end the measurement.

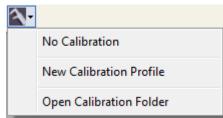
Hint: For more accurate measurements, click on the magnify icon . While using the magnify feature, use the arrow keys on your keyboard for pixel per pixel movement. When set to a desired location, click the left mouse button or press "Enter" on the keyboard to set the desired endpoint.

See also: <u>Using the magnifier</u> See also: <u>How to calibrate measurements</u>

**Notice**: The measurement feature is only available for certain models. Please contact a local sales representative for further information.

### How to calibrate measurements

- 1. In the live video window select the Calibration drop down menu (or click on the calibration button.
- 2. Select "New Calibration Profile".



3. A small window will pop up. Give the profile a name.

Profile Name:	
Cancel	Continue Calibration

- 4. Click "Continue Calibration" when done naming the profile.
- 5. In the new menu. Press "F8" or "Freeze" button to freeze the calibration object.

1. For live video, press F8 or Freeze to freeze the picture.					
2. Please enter the magnification rate:	(Press Enter when finished)				
<ol> <li>Please adjust the two endpoints of the distance on the calibration sample.</li> </ol>	e measuring line to a known				
4. Please enter the known distance:	Unit: mm 👻				
Cancel					

- 6. Enter the magnification that can be read from the Dino-Lite. Press Enter when finished.
- 7. A red bar with two blue dotes will appear with pink guidance lines, you are now ready to calibrate.



- 8. Click on one of the blue dots to start moving the blue dot to your desired location.
- 9. Click again to stop.
- 10. Click on the other blue dot to start setting the other end point.
- 11. Click on the left mouse button again to stop.
- 12. When the correct distance is measured, enter the known distance.
- 13. Enter the unit of measure by selecting the "Unit" dropdown box.



14. Press "Finish" when done.

Hint: You can create multiple calibration profiles for different Dino-Lite models.

**Notice**: The measurement and calibration feature is only available for certain models. Please contact a local sales representative for further information.

See also: How to measure

## How to adjust measurements and drawings

- When no tools are selected move your mouse over to the measurement you want to adjust. The mouse pointer would become a pointing finger
- 2. When the mouse becomes a pointing finger  $\checkmark$  over a line or result, click on it once.
- Now move your mouse over an endpoint. It will be accentuated with a blue square at adjustable points. The cursor will change to a moving cursor to notify that you can select and move the endpoint.
- 4. Click on the adjustable and move the end point to the desired location.
- 5. Click again to set the new endpoint.

**Notice**: The measurement and calibration feature is only available for certain models. Please contact a local sales representative for further information.

## How to move the text box and measurement results to a different

### location

- When no tools are selected move our mouse over the text box, measurement, or drawing that you want to move. The mouse pointer will become a pointing finger
- When the pointer becomes a pointing finger . Click on the item you want to move to select it.

- 3. Once selected, the pointer will become an open hand when it is over a movable object.
- 4. When the pointer is an open hand  ${}^{\textcircled{1}}$  , left click, and the hand will grab

The indicating that the item is now movable.

- 5. Move the text or measurement results with the mouse to the desired location.
- 6. Left click again to set the text or measurement results onto its new location.

Tip:

When an item is selected, you can delete it by pressing the "Delete" key on the keyboard.

# How to move only the measurement text

 When no tools are selected move your mouse over the text box, measurement, or drawing that you want to move. The mouse pointer will become a pointing

finger

- When the pointer becomes a pointing finger , click on the item you want to move to select it.
- 3. Move your mouse over a measurement result text. The mouse will become an

open hand allowing for selection.

- 4. Left click on the measurement result once to release it from its current location.
- 5. Left click again to set it to its new location.

See also: How to move the text box and measurement results to a different location

# Using the magnifier

Click on the magnifier to open a window with a digitally zoomed image. You can move the mouse pointer pixel by pixel by using the arrow keys on the keyboard. Left click, or press "Enter" to set an endpoint if using a measurement or draw tool.

## **Deleting a measurement**

- 1. On the measurement properties window select the measurement you want to delete.
- 2. Select Delete.

See Also: <u>Deleting consecutive pictures</u> <u>Deleting multiple pictures</u> <u>Delete Key</u>

**Notice**: The measurement and calibration feature is only available for certain models. Please contact a local sales representative for further information.

## **Deleting consecutive pictures**

To delete multiple pictures in a row, hold down the SHIFT key and highlight the

pictures you want to delete. Press the trash button  $\mathbb{V}$  to delete. You will be prompted to confirm.

# **Deleting multiple pictures**

To delete certain pictures at the same time hold down the CTRL key while selecting the pictures you wish to delete. Press the trash button  $\Im$  to delete. You would be prompted to confirm.

Hint: Ctrl+A selects all pictures on the image list.

# **Recording a video**

- 1. In the active live video window, click on the
- 2. A red record dot will start flashing when recording
- 3. Click the video record button again to stop recording.
- 4. Select the "Video" tab to check the recorded video.

# How to record a time-lapsed video

- 1. Press the time-lapsed button on the active preview window.
- 2. In the "Setting" section, set the <u>Duration</u> of the recording and the <u>Interval</u> DinoCapture 2.0 will take pictures.
- 3. Under "Information" select the radial dial to <u>Video</u> to create a time-lapsed video or select <u>Photo</u> for DinoCapture 2.0 to automatically take pictures with the set parameters from step 2.

0

0

REC

- 4. Press <u>Start</u> to start recording
- 5. Press <u>Stop</u> if you would like to stop the recording before the set duration.

Information -		Setting				
Frames: Length: 0	)ino- 0 0:00:00	l Duration: Interval:	Days 0 0	0 0	Mins. 0	Secs. 0 0
File Size:	0	Playback F	PS:	15		
Video	Photo	St	tart		Stop	•



icon to start a video.

## How to create a new folder

- 1. Click the "Folder" icon ion the top left corner of the main window.
- 2. Select "New" to open the New Folder pop up window.

New Folder					
Location:	C:\Users\Public\Documents\Digital Microscope	Change			
Folder Name:					
Note:					
	Cancel Select	]			

- 3. In the "New Folder" window give the new file a name by filling in the text box next to "Folder name".
- 4. Press "Change" if you want to change the directory of the new folder.
- 5. When finished, press "Select" and the new folder is ready to use.

Note:

 If no Directory is specified, DinoCapture 2.0 will automatically create a Digital Microscope folder in "Documents" or "My Documents" folder.

### Full Screen

- 1. Press 🔀 to preview in full screen.
- 2. Press Esc key or right click to exit full screen.

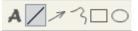
Tip: You can double click the mouse to take a picture when in full screen.

## How to Draw

1. Click on a draw tool on the tool bar.



2. For example we will draw a line.



- 3. Click the left mouse button to start the line.
- 4. Click the left mouse button again to stop the line.

## How to add text

- 1. Select the Text tool A to start adding text. The icon will be located on the top left of the tool bar.
- 2. First create the window size for the text box.
- 3. Once the box is drawn, you are ready to input text into the text box.
- 4. Click outside the text box to stop.

Hint: Press ENTER to start a new line.

See Also: <u>How to adjust measurements and drawings</u> <u>How to move the text box and measurement results to a different location</u>

### How to start a slideshow

- 1. Highlight the pictures you want to see in a slideshow with ctrl+ left mouse button.
- 2. After the desired pictures are selected, press the slideshow button <sup>®</sup>.

3. Left-click to see the next picture or press "Esc" on the keyboard to cancel.

See Also:

Slide Show

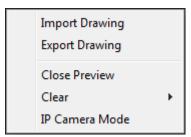
## How to move the preview windows

- 1. When the mouse pointer turns into the move icon 🗘 hold the left mouse button.
- 2. While the left mouse button is pressed, drag the window to your desired location.
- 3. Release the left mouse button to set the window in its new location.

Note: The preview windows stack on top of each other when opened. The amount of preview windows opened will be displayed on the <u>Preview Window</u> <u>Management Bar</u>.

## How to clear drawings

- 1. Right click on an active window when the cursor is in move window mode 1.
- 2. A menu will pop up. Select clear.



3. You can select to clear all drawing, measurements, or both at the same time.

	Import Drawing Export Drawing
	Close Preview
Drawing	Clear 🕨
Measurements	IP Camera Mode
All	

See also: <u>Deleting a measurement</u> <u>Clear all measurements and drawing</u> <u>Delete Key</u>

Tip: To delete one drawing or measurement. Simply select it and press "Delete" on the keyboard.

## How to resize the text box

- When no tools are selected, mouse over to the text that you want to resize. The mouse pointer will become the move object pointer
- 2. Left click and the pointer will become an open hand  $\stackrel{ heta p}{\longrightarrow}$  .
- 3. Move the mouse to the blue square and the mouse will turn into <sup>•</sup>. Left click the mouse and the text box will be resizable.
- 4. Left click again to set the new location.

## How to create parallel and horizontal lines

Hold down the "Shift" key on the keyboard while drawing a line allows you to easily create vertical or horizontal lines by allowing the line to move only 90 degrees.

# Relocating the default save/ calibration profile folder

1. Create a shortcut for DinoCapture.exe



- 2. Right click on the shortcut and select "Properties"
- 3. Locate the "Target:" section.
- 4. Move the input text blinker to the very end of the target location (after the ").

For example at the end of: "C:\Program Files (x86)\DinoCapture 2.0\DinoCapture.exe".

5. At the end of the target location, add the following text: -f (Make sure there is only ONE space before and after the -f).

For example it should look something like this: "C:\Program Files (x86)\DinoCapture 2.0\DinoCapture.exe" –f

6. After the -f, input the location of the desired folder in quotations.
For example: "C:\DinoLite" (Make sure there is only ONE space before and after the -f).

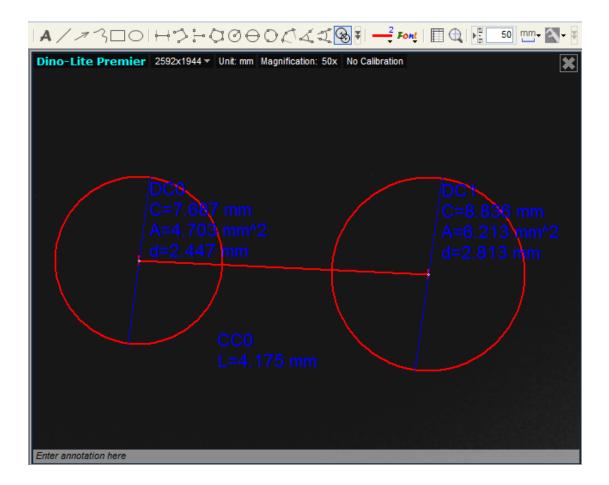
When completed, the link should look something like this: "C:\Program Files (x86)\DinoCapture 2.0\DinoCapture.exe" –f "C:\DinoLite"

Security	D	etails	Previous Version	s
General		Shortcut	Compatibility	r
Dir	noCapture .	2.0		
Target type:	Application	1		
Target location:	DinoCaptu	ure 2.0		
Target:	noCapture	e 2.0\DinoCap	pture.exe" f "C:\Dinol	_ite"
Start in:	"C:\Program Files (x86)\DinoCapture 2.0"			
Shortcut key:	None			
Run:	Normal w	indow		•
Comment:				
Open File La	cation	Change Ico	on Advanced	

7. You are now ready to use DinoCapture 2.0

# How to measure distance between the center of two circles

After drawing at least two circles, you can select center circle measurement tool to measure the distance between the centers of two circles. Select the solution and then select two circles that you want to measure the center distance of. The mouse pointer will change to a pointing finger for selectable circles. Click on each and the software will measure the distance between the centers of two circles.



## How to export images

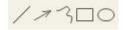
Set Export Op Select your prefer	tion ences for exported ima	ges.
Imprint		
V Header		
<ul> <li>Drawings, tex</li> <li>Annotation</li> </ul>	kt, and measurements	
Image Size		
) 320 x 240		80 🔘 1280 x 960
DPI		
96	180	240
		Cancel Continue

- 1. Check the boxes that you want to imprint into the exported picture.
- 2. Select the image size you want.
- 3. Select image DPI.
- Then Click "Continue" to proceed to the save as window to set name and folder for the image, to email, or go to print menu. Selecting "Cancel" will stop the process.

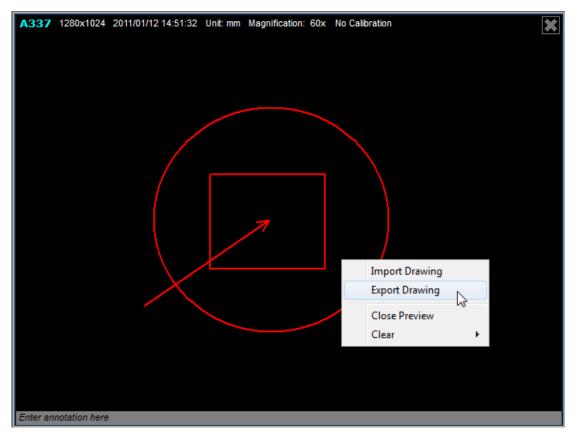
# How to import and export drawings

You can import and export drawings between pictures in the software.

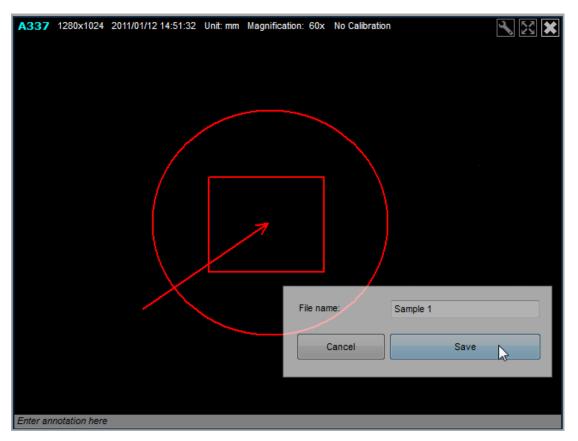
1. Draw on an image using the draw tools.



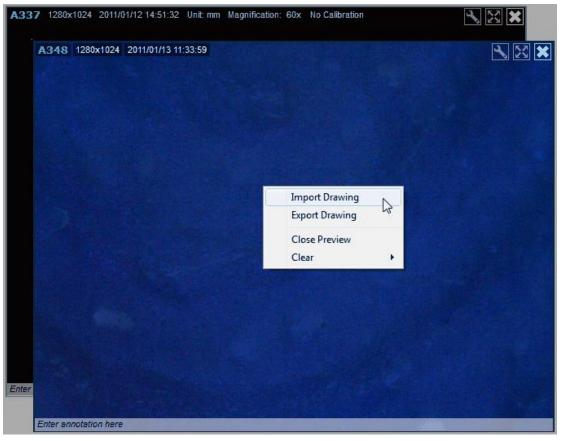
2. Right click and select "Export drawing".



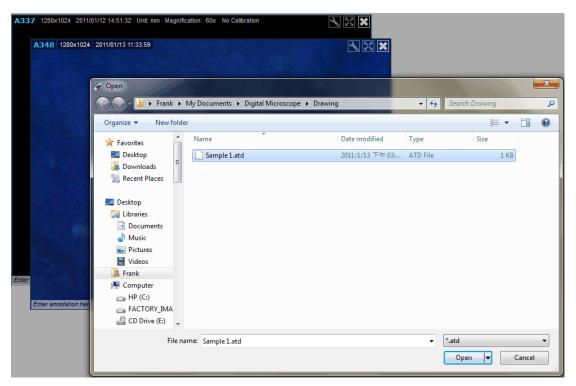
3. Create a file name and press "Save".



4. Open a new image and select "Import Drawing"



5. Locate the drawing you want to import then press "Open".(eg. we will import Sample 1.atd)



6. The drawing is now imported onto the new image.



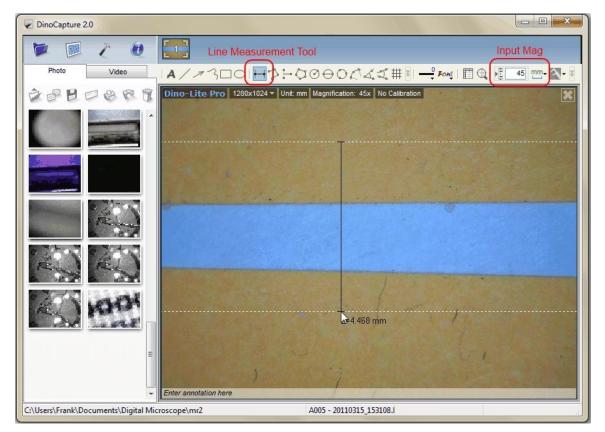
# Auto Distance Measurement Quick Guide

How to create auto distance measurement on DinoCapture 2.0.

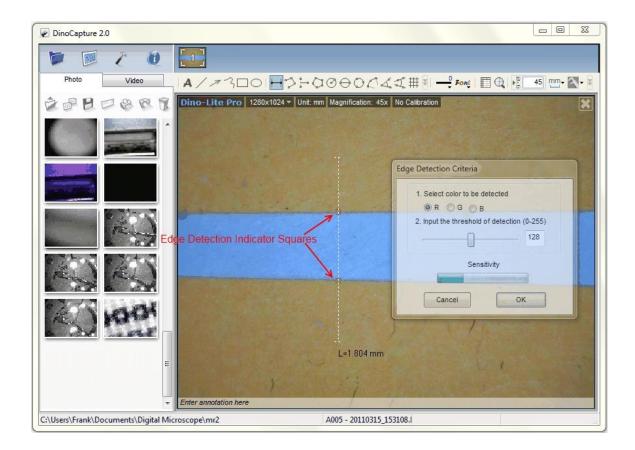
<u>Step 1:</u> Input a magnification, and then create the detection path for the edge detection indicator squares to travel by holding down the Ctrl key while using the

Line measurement tool 📇. Remember to release the Ctrl key when done

drawing the line.

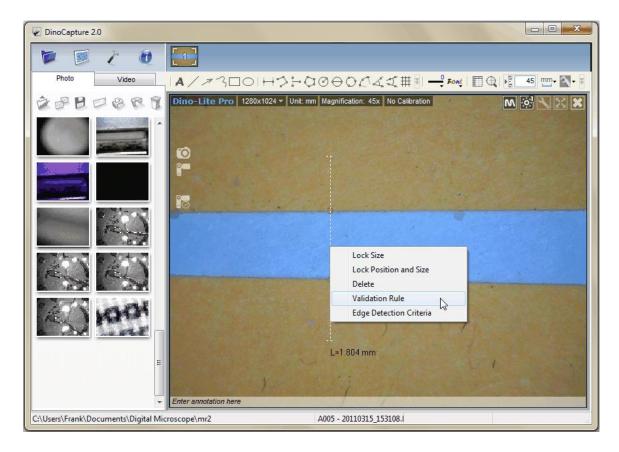


<u>Step 2:</u> When the detection path is created, the Edge Detection Criteria window will pop up. Set the edge detection criteria for the edge detection indicator squares to follow.



Optional: Set validation rules for pass and fail analysis.

<u>Step 1:</u> Click\* on the detection path to select it, then right click on the detection path and select "Validation Rule" on the menu.



\* When the mouse pointer becomes a pointing finger i it means the item can be selected. Click on the item then the pointing finger will become an open hand i and ready for editing (If it can't be selected, make sure **NO** draw or measurement tools are selected and try again). The item is also available for editing if changes need to be made after the first setup.

<u>Step 2:</u> In the Measurement Data Validation window, set the data ranges and pictures\*\* that indicate the data range. Three data ranges can be created while "1" is first priority.

🖉 DinoCapture 2.0		
	1	
JARD BER	ino-Lite Pro 1280x1024 v Unit: mm Magn	nification: 45x No Calibration
	õ	
		Measurement Data Validation
	8	Priority Data Range Show Picture
		1.     0     < <
A A		3. 0.0 < < 0.0
CONTRACTOR OF STREET		
=	L	=1.804 mm
	nter annotation here	
C:\Users\Frank\Documents\Digital Microso	cope\mr2 A005	- 20110315_153108.

\*\*Show Picture window is selected from the Measurement Data Validation window and clicking on



button under "Show Picture" column.



# IP Camera Mode Setup in DinoCapture 2.0

You can allow other people to remotely see your Dino-Lite or Dino-Eye by switching your live preview window into IP camera mode and also be able to view a remote Dino-Lite or Dino-Eye with the DinoCapture 2.0 software if they are in this mode too. IP camera mode is the live preview window of the Dino-Lite or Dino-Eye turned into a mode that allows others to see the live video feed in your local area network\* or through the World Wide Web\*. It is useful for situations where privacy is needed, as the only way to connect to a remote Dino-Lite or Dino-Eye is to know the others IP address. It can be used for professions such as doctors who require doctor/ patient confidentiality, education where the teacher can see what the students are examining right away, and more.

# Switch to IP Camera Mode for others to see your Dino-Lite or Dino-Eye

Turning your live preview window into IP camera mode allows remote DinoCapture 2.0 users to be able to view the live video feed of your Dino-Lite or Dino-Eye.

#### Switching to IP Camera Mode:

- Dino-Lite Premier 1280x960 Close Preview Clear + IP Camera Mode Enter annotation here
- 1. Right click the live preview window

2. Select "IP Camera Mode"

Close Preview	
Clear	- <b>- -</b>
IP Camera Mode	2

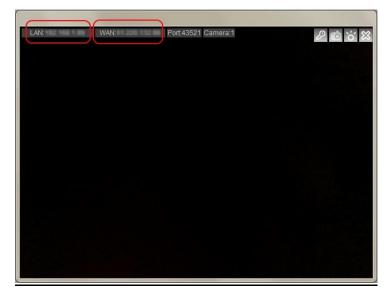
3. Your live preview window will now change into IP camera mode and is now ready for remote DinoCapture 2.0 users to view your live video feed from your Dino-Lite

or Dino-Eye. In this mode you can take pictures, add a password if for additional security, and turn on/off the LED's on the Dino-lite. You can also see your LAN and WAN\*\* IP address on the top left corner of the window to easily

identify your IP address for remote users (others) to connect to your Dino-Lite or Dino-Eye that has its live preview window in IP camera mode. If you are behind a firewall, please check the "<u>If behind a Firewall</u>" section of this instruction sheet.

4. When asking someone to connect to your Dino-Lite or Dino-Eye with its live preview window in IP camera mode through the internet\*, have them type the WAN\*\* IP address instead of the LAN\*\* address when attempting to connect.

When connecting through the intranet<sup>\*</sup>, use the LAN IP address when connecting to other Dino-Lite or Dino-Eye that has its live preview window in IP camera mode.



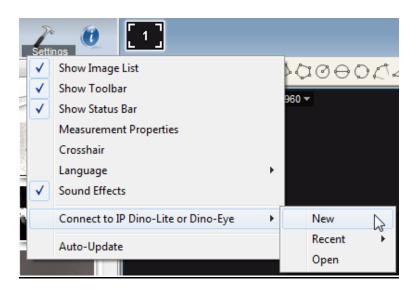
# How to connect to a remote Dino-Lite or Dino-Eye

You can connect to a remote Dino-Lite or Dino-Eye when its live preview window in IP Camera mode, which allows you to view the live video feed of a Dino-Lite or Dino-Eye over the internet or intranet with the DinoCapture 2.0 software.

### Connect to remote Dino-Lite or Dino-Eye:

- 1. Ensure the remote Dino-Lite or Dino-Eye you want to connect to have switched its live preview window into <u>IP camera mode</u>.
- 2. Select "Settings"
- 3. Move your mouse over to "Connect to IP Dino-Lite or Dino-Eye"

### 4. Then click on "New"



5. The New Connection window will pop up where you can fill in information to connect to the remote Dino-Lite or Dino-Eye.

New Connect	ion
Alias:	
IP:	Port: 43521
Camera No.:	1 Password:
	Connect Save Cancel

Alias: Create a name for the remote Dino-Lite or Dino-Eye (When done, the name will be displayed in "Recent").

**IP:** Enter the IP of the remote Dino-Lite or Dino-Eye that has its live preview window is in IP Camera mode.

**Port:** Port reffers to TCP Port\*\*\*. The default is 43521 but you can create your own number (1024-65535). If you do not know which TCP Port are used already, you may want to use the default number.

**Camera No.**: The assigned number of the Dino-Lite or Dino-Eye that has its live preview window in IP Camera mode (server). If only 1 Dino-Lite is connected normally "1" is the camera number.

Password: Enter password if a password was created.

**Connect:** Connect to see if it works. If not connected, you will only see a black screen.

**Save:** Save the settings of the remote Dino-Lite or Dino-Eye that can be recalled later on in "Recent".

Cancel: Cancel connection setup.

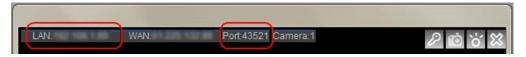
# If behind a Firewall

The Dino-Lite or Dino-Eye whose live preview window is in IP camera mode cannot be detected by other DinoCapture 2.0 over the internet\* if the router has a firewall. Set the router firewall to do Port Forwarding which is like a man made "hole" in the firewall that only exists if you create it. When behind a firewall, port forwarding will allow people to connect to **YOUR** Dino-Lite or Dino-Eye whose live preview window is in IP camera mode.

# **Setup Port Forwarding:**

1. First figure out your LAN\*\* IP address and TCP Port\*\*\*.

Turn the live preview window into IP Camera Mode. The LAN and Port can be found on the top left corner of the window.



2. Set an IP address instead of a roaming IP address

Change the Local Area Network Properties to use a set IP address instead of automatically obtaining a random IP address when connecting to the internet.

3. Set your router to port forward to the desired computer with the set IP address.

Enter your router settings and have the router "forward" incoming internet traffic to your local computer while still be behind a firewall.

4. People can now connect to your Dino-Lite or Dino-Eye live preview window that is in IP camera mode.

# Additional Information

- If one remote Dino-Lite or Dino-Eye has a password when in IP camera mode, then the other will also need to set a password to be able to connect.
- If you do not desire to use the default Port, you can change the TCP Port \*\*\* after creating a new connection. Simply double click to change it or change it in the Connection list.



- Amount of IP camera's you can connect to depend on your internet setting and system specification. For example 10/100mb internet speed connection allows you to connect to about 5 Dino-Lite or Dino-Eye in IP camera mode.
- If having trouble controlling the LED's on the Dino-Lite or Dino-Eye live preview window in IP Camera mode. Try disabling other video devices such as a built-in webcam and try again.
- If you have multiple IP addresses on one computer, the IP displayed in IP camera mode may not be correct. If so, you may find your IP address by searching it in Windows CMD:

In Windows go to Run >Type: cmd > Type: ipconfig > under the section: "Ethernet adapter Local Area Connection" you can find your IP Address.

• You can open saved or recent remote Dino-Eye or Dino-Eye Connections.



Recent:

Selecting recent allows you to select or view the latest Dino-Lite or Dino-Eye that you have recently connected to.

Open:

Selecting open allows you to modify the information stored regarding the remote Dino-Lite or Dino-Eye (Eg. password, port, and etc.), connect to the remote Dino-Lite/Dino-Eye, or delete the remote Dino-Lite/Dino-Eye from your list.

Notes:

\*Intranet. An intranet is like a private network shared only with computers that are within that organization.

Internet: The internet is the World Wide Web of interconnected computer networks with billions of users worldwide.

\*\* LAN- local area network (IP created by router for local computers).

WAN- wide area network (Real IP to connect to the World Wide Web).

\*\*\*Port =TCP Port= Transmission Control Protocol Port. See Fig.1.

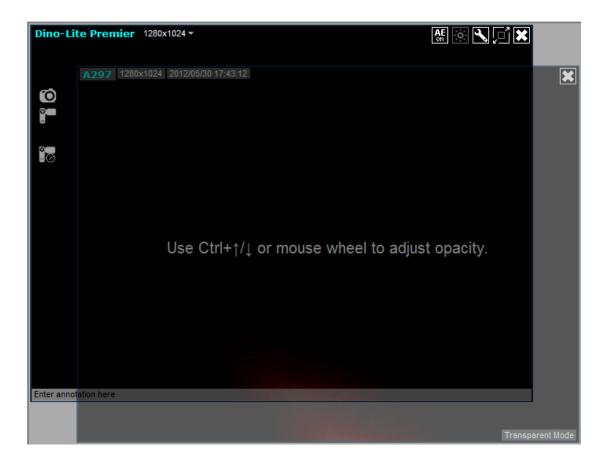
Fig.1

LAN:	WAN:	Port:43521	Camera:1	P 💿 6 😫

# **Transparency Mode**

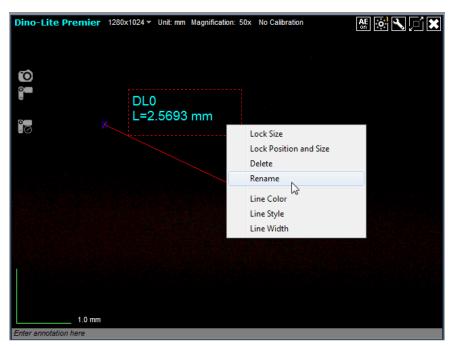
Up to four pictures can be changed into transparency mode. To enter the mode, right click an open picture and select "Transparency Mode". To exit, right click again and select "Exit".

Use Ctrl + UP/DOWN or the mouse wheel to increase and decrease opacity when in transparency mode.



# How to rename measurements

You can rename a measurement by selecting a measurement. Then right click and click "Rename".



Then a window will pop up allowing you to edit the name.



# **Geotagging Photo**

You can add GPS coordinates on pictures taken or edit coordinates on pictures that already have GPS location.

Click on an open image and select "Geotagging photo", after that the "Location Editor" will pop up for you to enter GPS coordinates. When done, you can see the

location by pressing the "show location" icon **1** on bottom right side of the image.

	Location Editor	x
Import Drawing Export Drawing	Degrees Minutes	
Clear •	Latitude: -0 0.000	
Transparency Mode	Longitude: -0 0.000	
Geotagging photo	Expression on Degree: '+' for N Latitude or E Longitude; '-' for S Latitude or '	W Lonaitude
Close Preview	Example: +34° 40.501' for N 34° 40.501	
	Cancel	ок

See Also: External GPS

# How to use EDR (Extended Dynamic Range)

In the active live video window, click on EDR and do not move the target until it finished processing.

Information about EDR:

EDR is a capture tool for the Dino-Lite Edge AM4815 series that when used, can improve visible information on subjects that varies greatly in brightness levels. It works by capturing and stacking 2-3 images with different exposure and help equalize the hard contrasts for a more natural image with less extremes for a more clear and detailed image.

# How to use EDOF (Extended Depth of Field)

EDOF (Extended depth of field) is an image capture tool for the Dino-Lite Edge AM4815 series that improves images of uneven surfaces by taking a series of images at different focal depths and then automatically (or manually) stacking them in a single composite image.

# EDOF (Automatic)

1. Place the mouse pointer over the EDOF button.



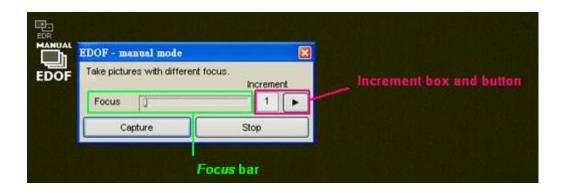
- 2. Scroll the mouse wheel to the desired amount of focal depth. (The more bars shown, the greater the focal depth).
- 3. Click the mouse to start the EDOF process. Do not touch the Dino-Lite microscope or specimen during this process.

# **EDOF (Manual)**

1. Place the mouse pointer over the EDOF button.



- Scroll the mouse wheel until the focal depth bars are replaced by the word "MANUAL".
- 3. Click the mouse and the *EDOF-manual mode* window will open.
- 4. Capture multiple (up to 11) images at different focal points. Change the focus using the *Focus* bar slider or the *Increment* button. Clicking the *Increment* button changes the focus by the number of points shown in the *Increment* box.
- 5. Click on the *Start processing* button to start the EDOF process. Do not touch the Dino-Lite microscope or specimen during this process.



### Viewing an EDOF image

View the image with extended depth or by holding the *Ctrl* key on the keyboard, the EDOF image will show the original best focused image at the mouse cursor's position before stacking, and the mouse wheel can also be used for finding the upper or

lower image layer. This feature would allow the user to recover the 3D feeling which is lost by the stacked image.

The image taken by EDOF should be found in the image list noted "EDOF" in the header. Like a normal picture, the EDOF image can have annotation and drawing, **but not measurements** (because the magnification is varied with focus).



# How to use Manual and Automatic Refocus

The Manual and Automatic Refocus for the Dino-Lite Edge **AM4815 Series** is for brief observations or captures on points of interest near the proximity of the initial focused depth. Below describes how they are used:

# **Automatic Refocus**

Hold the Ctrl key, then click on an area of interest in the live preview and the camera will attempt to focus at the selected depth. Releasing the Ctrl key to reverts back to the original focused depth.

# **Manual Refocus**

Hold the Ctrl key, and then scroll the mouse wheel when in the live preview window to focus at depths above or below the initial focus. Releasing the Ctrl key reverts back to the original focused depth.

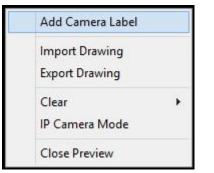
### Update:

A new way of using EDOF refocus mode is now provided by pressing the scroll wheel during either live video or EDOF image preview as an alternative to CTRL+left clicks. To leave the refocus mode, simply left-clicking the mouse.

- The activation of EDOF refocus mode can be identified by the appearance of cursor A or the text of "Refocus Mode" at the lower-right corner.
- Under EDOF refocus mode, the "Focus Shift" information is shown on EDOF image which displays the focal difference between the refocused and original focus positions. The Focus Shift may vary with the entered magnification rate and it is provided as reference for the depth information.

# How to add a camera label

1. Right click on a live preview window.



2. Input the label for the camera then press OK.



3. The label will be displayed next to the name of the Dino-Lite.



Notice: The camera label displays only on the USB port the label was created.

# **Keyboard Controls**

# **Keyboard Controls**

Keyboard controls provide more ease and practicality with the DinoCapture 2.0 experience.

# Delete key

You can delete pictures on the image list simply by pressing the "Delete" key. You can also delete selected or active annotations and measurements with the "Delete" key.

### F6 Key

Holding down the F6 key on the keyboard allows to continuously taking pictures until the button is decompressed.

# F7 Key

Pressing the F7 on the keyboard opens the time-lapsed window.

### F8 Key

Pressing F8 freezes the live video feed of all Dino-Lite.

### F9 Key

Pressing F9 simultaneously takes a snapshot with all live Dino-Lite.

### F10 Key

Pressing the F10 on the keyboard to enters full screen mode. Press F10 again to exit.

### F11 Key

Pressing the F11 on the keyboard takes a snapshot of the specimen in the active video window.

# F12 Key

Pressing the F12 key on the keyboard lets you start recording a video. Pressing the F12 key again stops the recording.

### Ctrl+A

Pressing Ctrl+A selects all files on the image list.

# Ctrl+W

Next window on preview window management bar becomes active window.

# Ctrl+Z

Undo last drawing or measurement.

### Ctrl+F4

Close a preview window.

## Ctrl+Tab

Next window on preview window management bar becomes active window.

### Alt+F4

Exits DinoCapture 2.0.

Abort using tools.

### Shift and Left Mouse Button

Holding the Shift key and clicking on the first and last images desired; highlights the group of images.

See Also: Deleting consecutive pictures

# Ctrl and Left Mouse Button

Highlight desired pictures by holding the Ctrl key and select desired pictures or video by pressing the left mouse button.

See Also: Deleting multiple pictures

### Arrow keys

With the magnifier active, use the arrow keys to move the cursor pixel by pixel for precision movement.

See Also: Magnifier

# **Mouse Controls**

Esc

# **Opening a picture**

To open a picture, you can simply DOUBLE click its thumbnail.

# Moving a window

When you hold down the left mouse button on a child window, you can drag the window anywhere within the main window.

# **Stopping continuous line and polygon measurements**

DOUBLE left clicking stops the continuous line and polygon measurements.

# Starting a live video feed

Double clicking the camera icon on the preview window management bar starts a

live video feed. For example if one Dino-Lite is plugged in, double click the thumbnail and the live video will start.

See also: <u>Preview Window Management Bar</u>

# Taking a picture

You can also DOUBLE left click to take a picture in the live video window other than the picture button.



# Digital 2x Zoom

Scroll the mouse wheel to digitally zoom-in/ out when the pointer is in a live preview or image with resolution higher than  $1280 \times 960$ .

# **Measurement Properties**

# About the measurement property window

The measurement property window organizes and shows the status of all the measurements as well the ability to adjust how the results are shown on the image.

**Notice**: The measurement and calibration feature is only available for certain models. Please contact a local sales representative for further information.

Measure	ement Prop	perties						X
Line	e Pol	ygon	Circle	Arc	Angle			
Show	Name	Length	Area	Radius	Diameter	Angle(deg)		
	DL1	0.692						
	DL0	0.272						
Display	: [	Name	V Length	V	Area	Radius	✓ Angle	🔽 Unit
Decima	ls:	3 🔻	Transpare	ency(alpha):	-		90	
			Delete	Clear all	measurement	ts and drawing	g Expor	rt to excel

# <u>The Tabs</u>

The DinoCapture 2.0 software separates each type of measurements into tabs helping you to organize your measurements.

### Line

The Line tab shows all the properties of the line measurements as well as the ability to select what information is shown on the image, ability to delete, change units of measurement, and also export data to excel.

# Polygon

The Polygon tab shows all the properties of the polygon measurements. As well as the ability to select what information is shown on the image, ability to delete, change units of measurement, and also export data to excel.

### Circle

The Circle tab shows all the properties of the circle measurements. As well as the ability to select what information is shown on the image, ability to delete, change units of measurement, and also export data to excel.

# Arc

The Arc tab shows all the properties of the arc measurements. As well as the ability to select what information is shown on the image, ability to delete, change units of measurement, and also export data to excel.

### Angle

The Angle tab shows all the properties of the angle measurements. As well as the ability to select what information is shown on the image, ability to delete, change units of measurement, and also export data to excel.

# **Categories**

### Show

-The show checkbox let you see the measurement results for the selected measurement on the image. Deselecting the checkbox hides the selected measurement results.

#### Name

-Displays the name of the measurement.

#### Length

-Displays the length of the measurement (L).

#### Area

- Displays the area of the measurement (A).

## Radius

-Displays the radius of the measurement (r).

# Angle (deg)

-Displays the angle of the measurement (  $\angle$  ).

#### Unit

-Displays the unit of measure on the picture

# <u>Display</u>

The display check boxes control what you would be able to see on the picture. Only the values that are relevant to the type of measurement are available for selection, the others are grayed out. Un-checking and checking the boxes controls all measurements of the same type.

Display:	Name	Length	Area	<b>V</b>	Radius	•	🗸 Angle	🔽 Unit
----------	------	--------	------	----------	--------	---	---------	--------

### Name

Name

-Display the name of the measurement.

### Length

Length

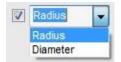
- Display the length of a measurement.

#### Area

🗸 Area

-Display the area of a measurement.

# Radius



-Display the radius/diameter of a measurement.

# Angle

🗸 Angle

-Display the angle of a measurement.

#### Unit

UnitDisplay the unit of measure next to the results

# **Opacity (alpha)**

Opacity(alpha):

- Available when using *High Quality* drawing mode, this controls the amount of opacity for the displayed measurements and drawings. The higher the number, the less transparent it is.

75

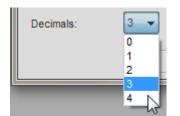
## **Background Opacity (alpha)**

 Added adjustable opacity to the measurement text box under High Quality drawing mode. It can be adjusted by changing the Background Opacity (alpha) value in the Measurement Properties window.

Measurem	ent Properties						(	× ·
Line	Polygon	Circle	Arc	Angle				
Show	Name Length	Area	Radius	Diameter	Angle(deg)			
								the state of the s
Display:	🗹 Name	🗹 Length		Area [	Radius		🗹 Unit	
Decimals:	3 🛩	Opacity(al	oha):	-		100		
		Backgroun	id Opacity(alp	iha): 🦷	-0	30		DL0
		Delete	Clear all	measuremen	ts and drawin;	g Expor	t to excel	] L=2.540 mm

# **Buttons**

### Decimals



Select the decimal places to be shown on measurements.

- 1= 1 decimal places= 0.1
- 2 = 2 decimal places = 0.01
- 3 = 3 decimal places = 0.001
- 4 =4 decimal places = 0.0001

### Delete

Delete

Select a measurement and click on "Delete" to remove the measurement.

#### **Clear all measurements and drawing**

Clear all measurements and drawing

Clear all measurements and drawings on the active window.

### Export to excel

Export to excel

Exports data from the active window to Excel.

# Close

×

The "X" on the top right corner closes the measurement properties window. Go to settings and select "Measurement Properties" to reopen the window.

# **Camera Adjustment**

# **About Camera Adjustment**

Press the S button on the video preview window to open the camera adjustment window. The camera adjustment window controls the live video settings. The buttons on the bottom of the camera adjustment window allow you to **Import** or **Export** video settings, or restore **Default** settings. There is also an option to **Load the current setting on startup**. Once you have made your selections, click the **OK** button to confirm and close this window.

# Camera Adjustment Window

Camera Adjustment		
Brightness		128
Contrast		- 16
Hue		- 0
White Balance		
Red		- 0
Green		- 0
Blue		- 0
Saturation		16
Sharpness		- 1
Gamma		64
Mirror	Horizontal	/ertical
Others	Monochrome N	egative
	Load the current setting of	on startup 📃
Export Import	Default Cancel	ок

**Note**: The camera adjustment window settings vary depending on the model. For example *Dino-Lite Premier Series* can **export** or **import** your settings so you can save the setting for anther time by exporting the setting or importing a setting from a previous time.

# Camera Color Adjustment Settings

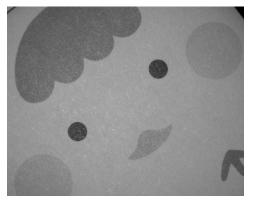
# Monochrome Setting

Camera Adjustment		X
Brightness		128
Contrast		16
Hue		0
White Balance		
Red		0
Green		0
Blue		0
Saturation		16
Sharpness	-[]	1
Gamma		64
Mirror	Horizontal Ver	tical
Others	Monochrome Neg	ative
	Load the current setting on	startup 📃
Export Import	Default Cancel	ок

This setting applies a grayscale effect, as shown in the pictures below.



Monochrome setting disabled



Monochrome setting enabled

# Negative Setting

Camera Adjustment		X
Brightness		128
Contrast		16
Hue		- 0
White Balance		
Red		- 0
Green		- 0
Blue		- 0
Saturation		16
Sharpness		- 1
Gamma		64
Mirror	Horizontal	ertical
Others	Monochrome 🛛 🕅 Ne	egative
	Load the current setting o	n startup 📃
Export Import	Default Cancel	ОК

This setting applies a color negative effect, as shown in the pictures below.



Negative setting disabled



Negative setting enabled

# **Microtouch controls**

# Ś

The MicroTouch (touch sensitive static sensor) feature on the handheld digital microscope gives users the option of taking a picture right from the microscope itself. The MicroTouch tool is activated when you touch the MicroTouch trigger after starting the DinoCapture 2.0 software. After the software recognized that the Dino-Lite has the MicroTouch feature, you can activate or deactivate the MicroTouch controls with this button.

The MicroTouch was designed to minimize image blur while taking a picture with the microscope. Great for those moments when you need to take a picture, but have a hard time reaching the computer

**Notice**: Not all models have the MicroTouch feature. Please contact a local sales representative for more information.

# **Picture Adjust**

# About the picture adjust window

The picture adjust window allows you to change the picture colors and qualities.

To open the picture adjust window, press the setting button N when the active window is a picture.

Picture Adjust	
Color	
Contrast	0.00
Brightness	0.00
Saturation	0.00
Hue	0
Gamma	1.00
Sharpness	
Range	0.00
Strength	0.00
Reset	Cancel Save

# Picture Adjust

Adjust the color properties of the selected picture.

### Contrast

You can adjust the contrast of the picture.

# Brightness

You can adjust the brightness of the picture.

# Saturation

You can adjust the saturation of the picture.

### Hue

You can adjust the hue of the picture.

#### Gamma

You can adjust the gamma of the picture.

# **Sharpness**

Allows you to adjust the sharpness of the selected picture.

# Range

You can change the range of the sharpness.

# Strength

You can adjust the strength of the pixel.

# **Picture Adjust Buttons**

### Default

Default

Resets the picture settings back to default.

#### Save

Save

Saves the adjusted picture settings and closes the picture adjust window.

Cancel

Cancel

Closes the picture adjust window without saving changes.

# **Folder Manager**

# **Folder Manager**

You can create, import previous, or delete save folders in the Folder Manager window.

lame	Last modified	Note	Photo	Video	Path
Default	2012/11/30 PM 06:26:49		1/3 (MB)	7/7(MB)	C:\Users\Frank\Documents\Digital Mic

See also: Import Folder How to create a new folder

# <u>New</u>

Allows creation of a new save folder for DinoCapture 2.0.

# Import

Allows to add a previous created folder into the folder list; simply select the folder you created for the DinoCapture 2.0 that contains the pictures and video's, and press OK.

# <u>Delete</u>

Deletes a selected save folder from the Folder Manager window.

# <u>Open</u>

Opens a previously made save folder created by DinoCapture 2.0.

# <u>Exit</u>

Exit the Folder Manager window.