

USB Digital Microscope

User's
Manual

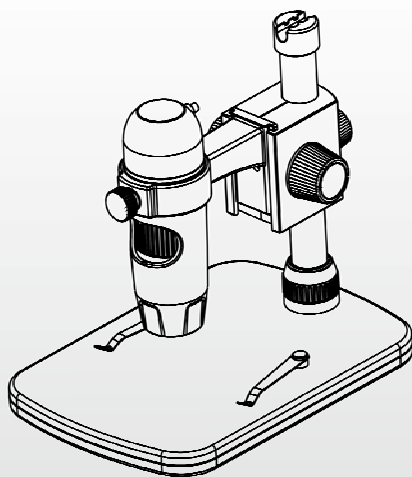


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Welcome

Thank you for your choice of our product - it is a high-tech while easy to use Digital Microscope. With this unit you will see a unique and “bigger” world.

It's easy to zoom in on stamps, coins, paper currency, plants, insects, rocks and minerals, and so much more.

We recommend reading this manual first to get the best out of this unit.

1. Precaution

Before using The USB Digital Microscope, please ensure that you read and understand the safety precautions described below. Always ensure that the USB Digital Microscope is operated correctly.

- The Microscope is not waterproof, so keep it dry.
- Do not use it in a humid place like bathrooms. A dry environment will maintain its life to maximum.
- Use the Microscope only at -5°C - 50°C .
- Sudden temperature change may form dew inside the Microscope like entering a warm room in cold winter. Put it inside a handbag or plastic bag to slow down temperature changes.
- Do not point Microscope lens to the sun or strong light for a long time. Powerful light may hurt the light-sensitive electronics.
- Avoid touching the lens.

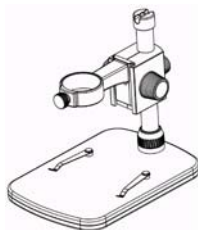
- The white LEDs which illuminate the Microscope target field are very bright. Do not stare directly into these LEDs as it may damage your eyes.
- The clear plastic distance shell sometimes picks up dirt or toxic material from a microscopically observed surface. Be careful that this doesn't get in contact with the human skin. Always wash carefully or disinfect as needed.
- Do not unplug the Microscope from USB port when LEDs are on. This may cause information loss or circuit damage. Please always close MicroCapture Pro and then unplug the Microscope.

2. Preparation

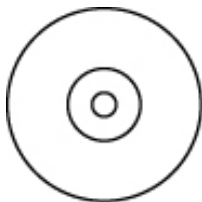
■ Standard accessories



Microscope



Stand



CD

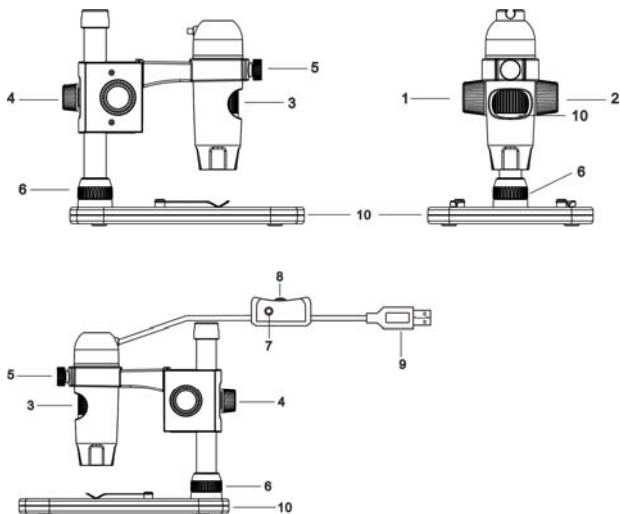


QOG



Calibration Ruler

■ Parts Names & Functions



1. **Wheel 1:** move the microscope up and down
2. **Wheel 2:** lock or release the movement part that carries the microscope
3. **Wheel 3:** Focus adjustment wheel
4. **Wheel 4:** Fix the movement part on to the metal pole
5. **Wheel 5:** fix the microscope in the ring
6. **Wheel 6:** Fix the upper part on to the stage
7. **Snapshot button:** take a snapshot (for Windows only)
8. **LED dimmer:** adjust the brightness of the LEDs
9. **USB plug:** USB connection
10. **Stage**

■ Computer System Requirements

11. Windows XP / VISTA / WIN7 / WIN8 & Mac 10.6~10.8.
12. P4 1.8 or above
13. RAM: 512M
14. Video Memory: 64M
15. USB port: 2.0
16. CD-ROM Drive

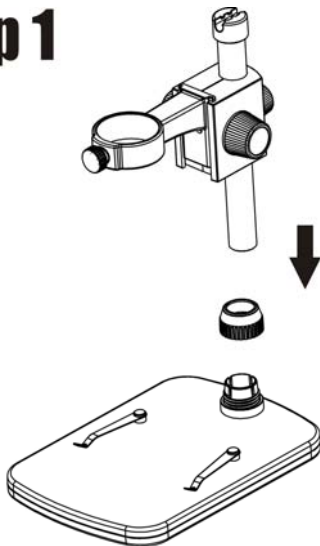
■ Technical Specifications

Image sensor	5 Mega Pixels (true resolution)
Still capture resolution	2592x1944, 2048x1536, 1600x1200, 1280x960
Video capture resolution	1280x960
Focus Range	Manual focus from 0mm to 150mm
Magnification Ratio	10x~300x
Video format	AVI
Photo format	JPEG
Light source	8 LED (adjustable by control wheel)
PC interface	USB2.0
Power source	5V DC from USB port
Operation system	Windows XP/Vista/Win7/ Win8/Mac 10.6~10.8
OSD language	English, Deutsch, Spanish, Russian, Italian, French, Portuguese, Dutch, Polish, Japanese, Korean, Chinese
Bundle software	MicroCapture Pro
Size	Microscope: 110mm (L) x 33mm (R) Professional Stand: 165mm(L) x118mm(W)x12mm (H)

3. Install the microscope

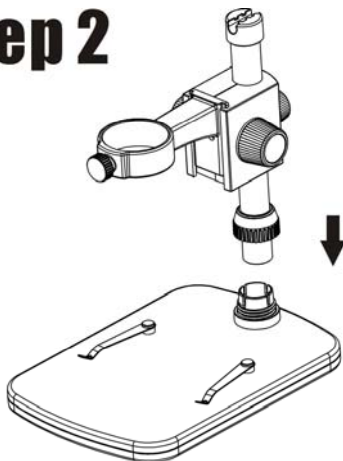
- 1) Take the microscope out from gift box gently; put the carriage stage on a flat surface.
- 2) Follow the below steps:

Step 1



**Put the metal
pole through
Wheel 6!**

Step 2



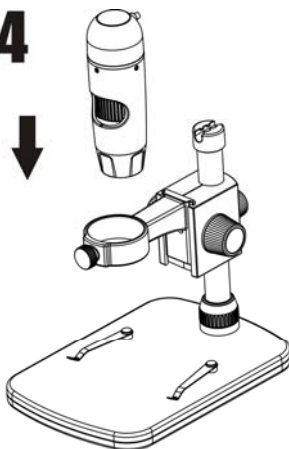
Put the metal pole into the female part of the stage!

Step 3



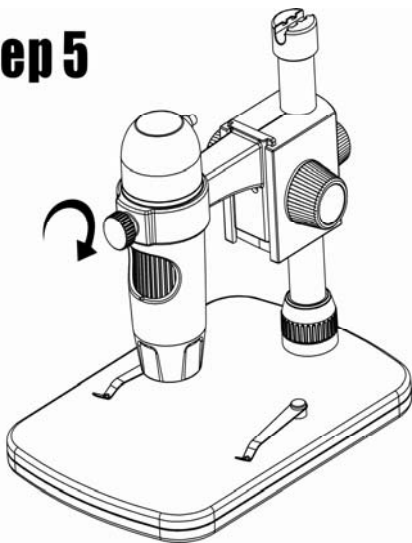
Rotate Wheel 6 to fix the pole on the stage!

Step 4



Put the
microscope into
the ring of the
stand!

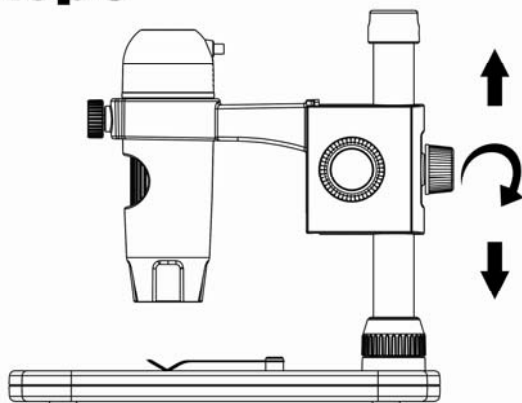
Step 5



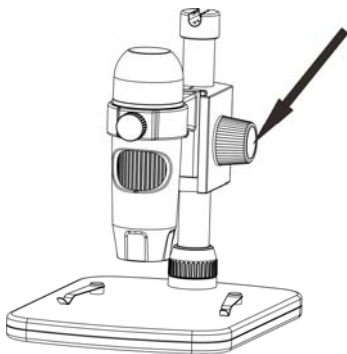
Rotate Wheel 5 clockwise to fix the microscope on the ring.

- (1) Adjust the upper part of the stand to get a proper height.**
- (2) Rotate Wheel 4 clockwise to fix the upper part.**

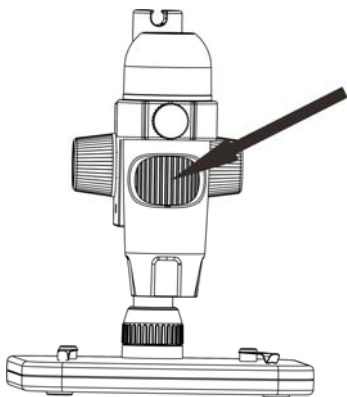
Step 6



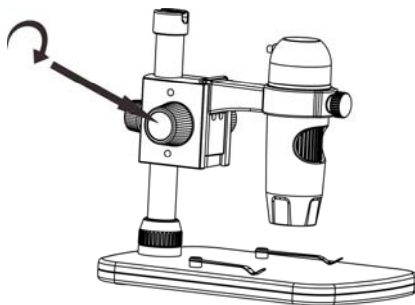
4. How to get focus



**Rotate Wheel 1
to get a rough
focus!**



**Rotate Wheel 3
to get a fine
focus!**



**Rotate Wheel 2 to
lock or release the
movement!**

5. Install the software in Windows

Insert the driver CD into CD-ROM Drive and this will automatically display the following interface:



1) Install MicroCapture Pro

Click Install **MicroCapture Pro** and the installation wizard will guide you through the whole process.

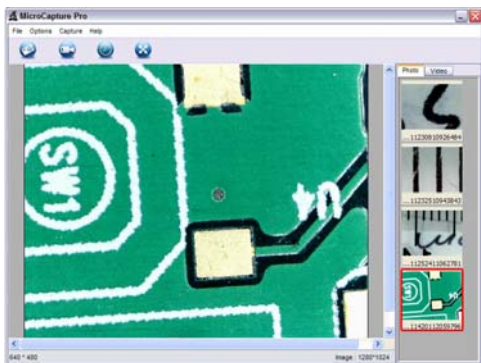
2) Full user's manual can be viewed by clicking **User's Manual**.

6. Start Microscope

Connect your Microscope to your PC USB port, start the



software by clicking the **MicroCapture Pro** icon generated on the desktop after installation and you will see the following screen pop up.



When the Microscope is disconnected from your PC USB port, the following message will pop up.

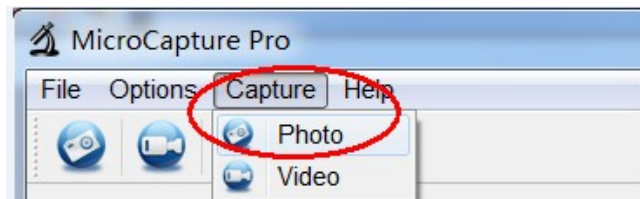
**No Device detected, please
connect your Microscope
directly to your PC USB port.**

7. Software functions

■ Capture Photo



- Click 'Photo' shortcut icon in the main menu bar.
- Click 'Capture > Photo'.



■ Capture Video



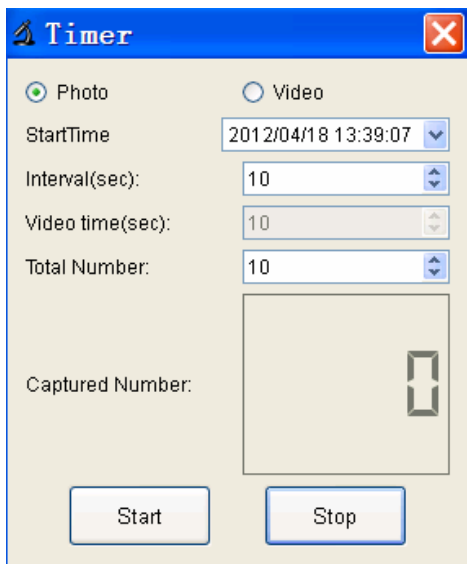
- Click 'Video' shortcut icon in the main menu bar.
- Click 'Capture > Video'.



■ Timer (Photo / Video)



Click 'Timer' shortcut icon in the main menu bar.

A screenshot of the 'Timer' dialog box. The title bar is blue with a bell icon and the word 'Timer' in white, and a red close button. The main area has a light beige background. At the top, there are two radio buttons: 'Photo' (selected) and 'Video'. Below them are four input fields: 'StartTime' with a date/time dropdown showing '2012/04/18 13:39:07', 'Interval(sec):' with a numeric spinner set to '10', 'Video time(sec):' with a numeric spinner set to '10', and 'Total Number:' with a numeric spinner set to '10'. At the bottom left is the label 'Captured Number:'. To its right is a large rectangular area containing a digital display showing '00'. At the very bottom are two buttons: 'Start' and 'Stop'.

* Under Timer photo, you can set the start time, interval time and total picture number.

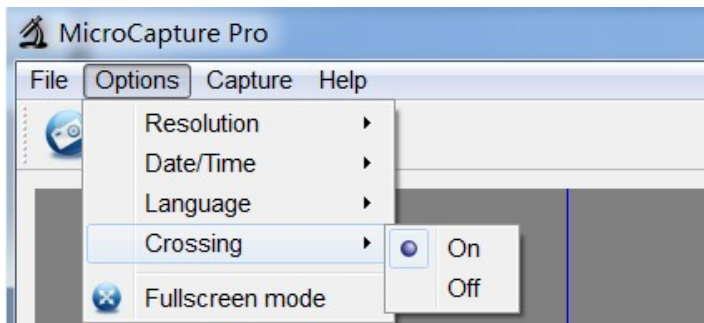
* Under Timer video, you can set the start time, interval time and total video number.

■ Calibration and Measurement

Please make calibration before measurement.

Calibration

Display Crossing from 'Options>Crossing'.



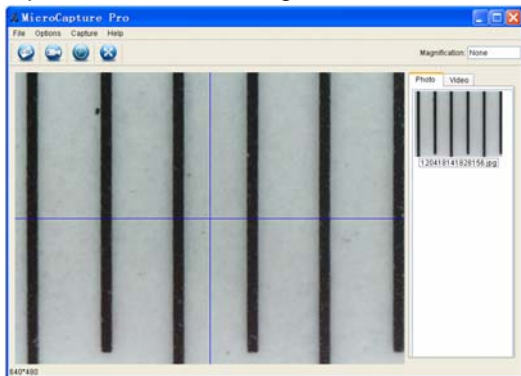
Microscope default at crossing “on”

It's used to check the dial on the calibration ruler.

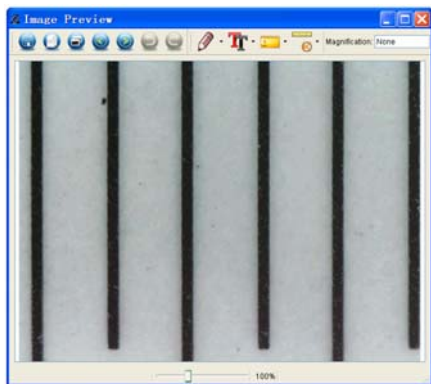
1. Focus microscope on the attached calibration ruler

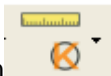


and then adjust the magnification till the picture is clear. Take a picture for the selected area when the dial is parallel to the crossing as below.

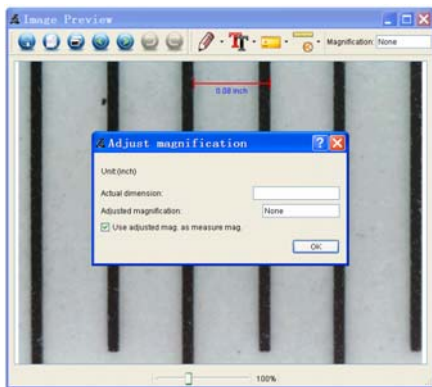


2. Double-click on the picture to enter into measurement interface as below.





3. Click Calibration icon , and then move mouse to the picture. Click on the beginning and ending points across a known value. Now a dialog will popup as below and you need to enter the exact value of the measurement sample into 'Actual dimension'. Then the software will automatically calibrate the magnification rate. Click 'OK' and the adjusted magnification rate will show in the upper right corner.

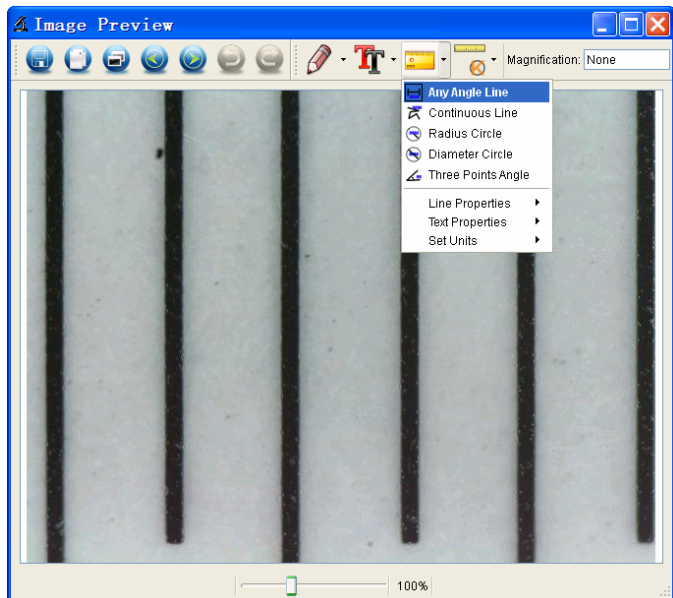


* Remark: The measured line should be paralleled.


4. Now you can use 'Any angle Line' under Measurement



icon to measure the value again. If the value you measure by software is nearly the same as the exact value of the dial means the calibration finish.



Measurement

Double-click on the picture to enter into measurement interface. Under the 'Measurement' icon  , you can choose any desired options to measure.

1. Any Angle Line Measurement

Simply click from one point and drag to the next point, and then release the click.

2. Continuous Line Measurement

The Continuous Line measurement allows you to measure any continuous desired length.

Simply click and drag from one point to other desired points, and then release the click.

3. Radius Circle Measurement

Simply click and extend out to the desired radius, the radius, circumference and area of the circle will show up accordingly.

4. Diameter Circle Measurement

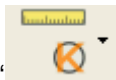
Simply click and extend out to the desired diameter, the diameter, circumference and area of the circle will show up accordingly.

5. Three Points Angle Measurement

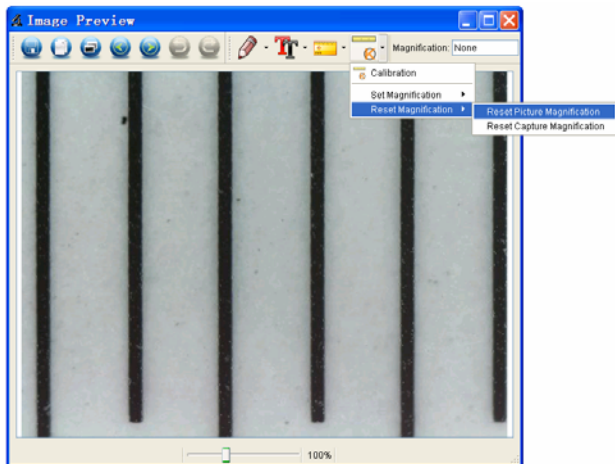
Simply define any three points angle and click, the angle value will then display.

Change Calibration

If you need to change the magnification rate and adjust focus to capture picture, please calibrate the magnification rate again.



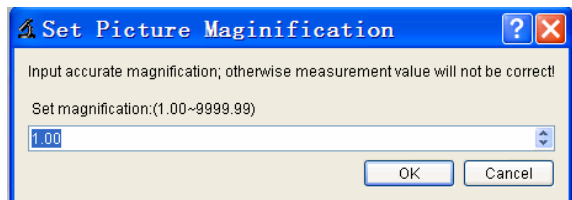
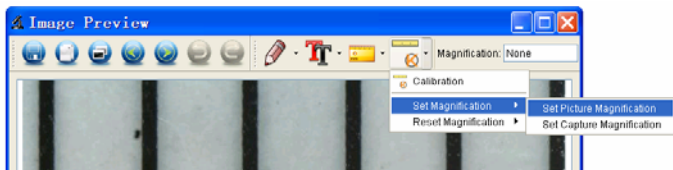
1. Double click to open the picture, Click 'Reset magnification > Reset picture magnification' as below. And then start calibration again (Calibration details please refer to page37).



2. Change the magnification rate and capture several pictures, click on the picture to enter into measurement



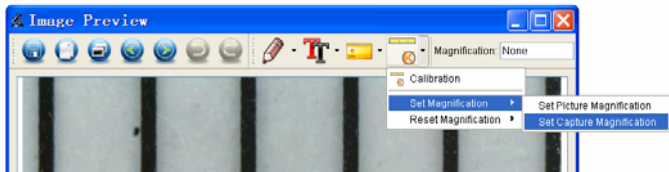
interface. And click 'Set magnification > Set picture magnification', now a dialog will show up as below; enter the magnification rate into the dialog and click 'OK'.



3. If you want to use the same magnification rate to



capture pictures, just click ' > Set magnification > Set capture magnification'. Now all pictures will use the same magnification rate and you can start measurement directly.

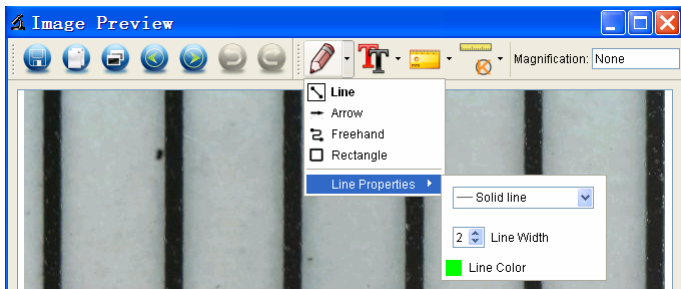


Draw and Text

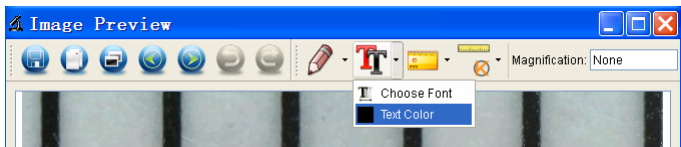
You can draw or add a text on the picture and save for later analysis.



1. Click icon to choose any kinds of drawing under the pull-down manual as below.



2. Click icon and set the font for the text in the popup dialogue as below.



8. Software Interface Instructions

Main Interface Icons



Capture photo – It's used to capture photo one by one.



Start / Stop record video.



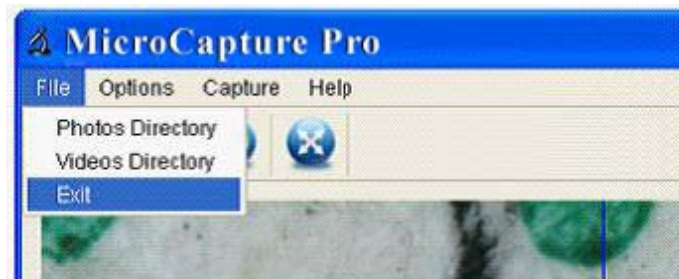
Timer for photo / video – Set the start time, interval time and total photo/video number.



Full screen mode,
Press ESC or double-click to exit.

Main Menu

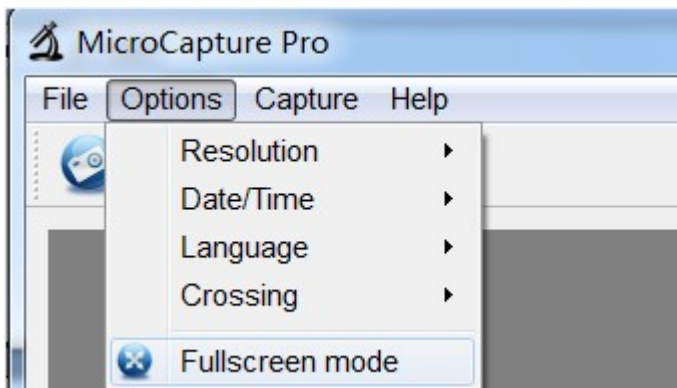
File



Photos Directory: set the directory to store photos taken;

Videos Directory: set the directory to store video taken;

Options



Resolution: change preview size

Date/Time: set to display system date/time on preview window

Language: choose different OSD language

Crossing: display cross on preview window

Fullscreen mode: enter into full screen. Click ESC or double click to exit

Capture



Photo: take a photo

Video: record a video clip

Measurement Interface Instructions



Save as



Redo



Copy to
clipboard



Draw



Copy file



Text note



Previous



Measurement



Next



Calibration



Undo

Instructions for Mac software

Part I How to Install the Software

Open **mac** folder from the disc and copy **MicroCapture Pro** onto your desktop for daily use.



MicroCapture Pro

Part II How to use MicroCapture Pro

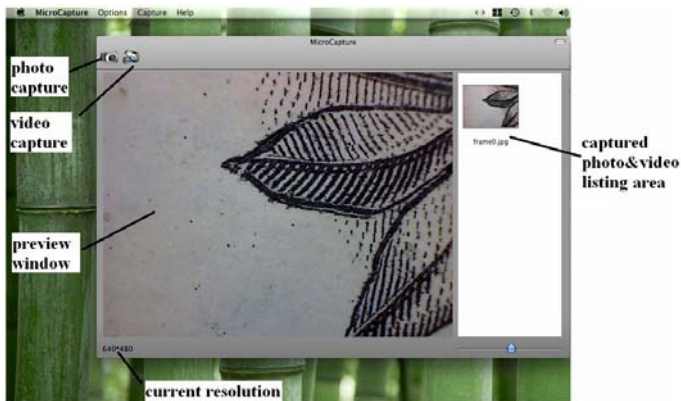
1. Plug Microscope into PC USB port.
2. Double click MicroCapture Pro icon to open the MicroCapture Pro window. The microscope is now ready to use.



MicroCapture Pro

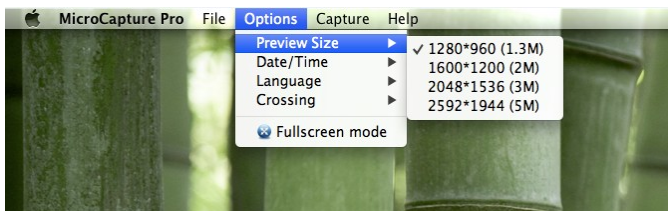
3. Preview

At the central window, you can preview the magnified subject.



4. Change preview resolution

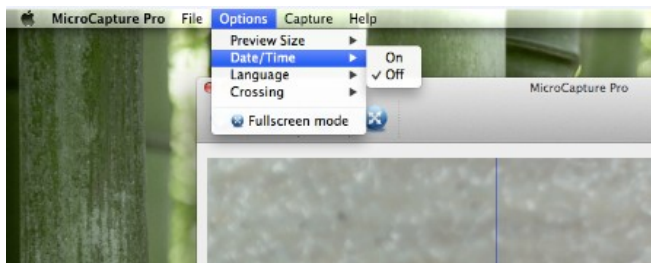
From **Options**, you can choose the preview resolution. The current resolution will be displayed at the left bottom corner of the preview window.



Please note that the preview window size always remains at 640x480 but the current resolution will show at the left bottom corner.

5. Date/Time

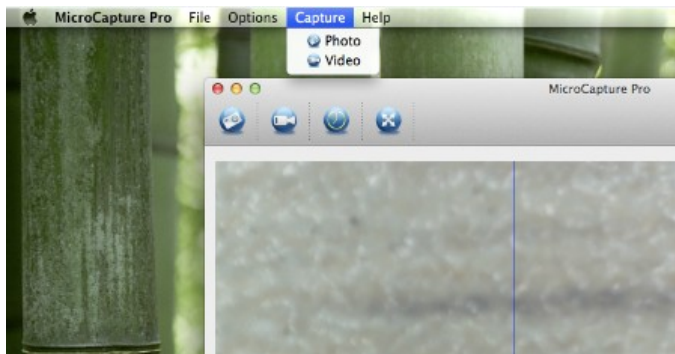
From **Options**, you can turn the date/time on or off.



6. Photo capture

You can capture photo by:

- Choosing **Capture/Photo**



- clicking photo capture icon



The captured photos will appear as thumbnails on the right side of the preview window.

7. Video capture

You can capture video by:

- 1) choosing **Capture/Video**



- 2) clicking video capture icon



Note: After clicking on the icon, the video capture icon will turn red to indicate video clip recording. Click the red icon again, to stop recording!!

The captured videos will be appearing as thumbnails on the right side of the preview window under Video tab.

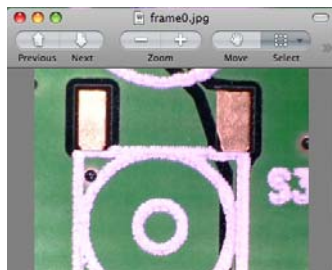
8. Photo & Video editing

Captured photo & video appear as thumbnails on the right side of the preview window.



1) Photo

Double click a photo thumbnail to open in the main preview window



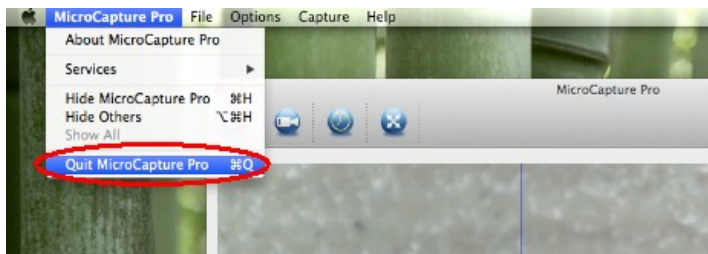
You can then carry out operations as you normally do on Mac system.

2) Video

Click a video clip thumbnail, the video will play automatically.

9. Quit MicroCapture

Choose **Quit MicroCapture** as follows, you can quit the software.



This symbol on the product or in the instructions means that your electrical and electronic equipment should be disposed at the end of its life separately from your household waste. There are separate collection systems for recycling in the EU. For more information, please contact the local authority or your retailer where you purchased the product.



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