

# 200X / 500X Digital Microscope

## User Manual

### *Features*

The 200X digital microscope provides 10~200X adjustable magnification range, and 500X microscope provides 500X magnification. The built-in high-performance white LED can illuminate objects without using any auxiliary light. By adjusting the focus knob on the side, the magnified image can be displayed, captured and recorded on your computer (640x480) & SXGA (1280X1024) resolution directly.

### *Specifications*

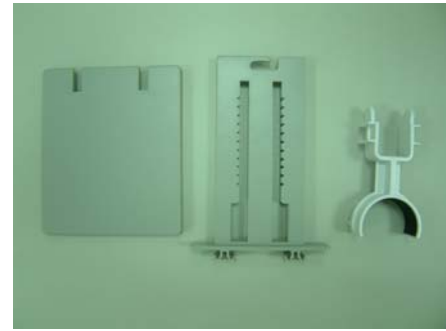
- Image Sensor: 1/4" Color CMOS image sensor
- Effective Pixels: 1280 (H) x 1024 (V) pixels
- Signal Output: Serial data for USB standard compliant 2.0
- Gain Control: Auto Gain Control (AGC)
- White Balance: Automatic
- Snap Shot Mode: Hardware/Software controllable
- Power Source: 5VDC through USB port
- Power Consumption: 110mA (AVG)
- O/S: Windows XP SP2 and VISTA
- Fixed magnification for 50X and 200X digital microscope: 10X~200X range
- CE, FCC and RoHS Compliant

### *Applications*

- Skin Exam
- Scalp Exam
- Industrial Inspection e.g. Printing Circuit Board(PCB)inspection,
- Electronics Device inspection
- Visual Assistance
- Printing Inspection
- Textile Inspection
- Paper Money Inspection
- Jewelry Inspection
- Science Education

## Contents

- Digital Microscope Device
- CD
- User manual
- Stand



## PC System Requirement

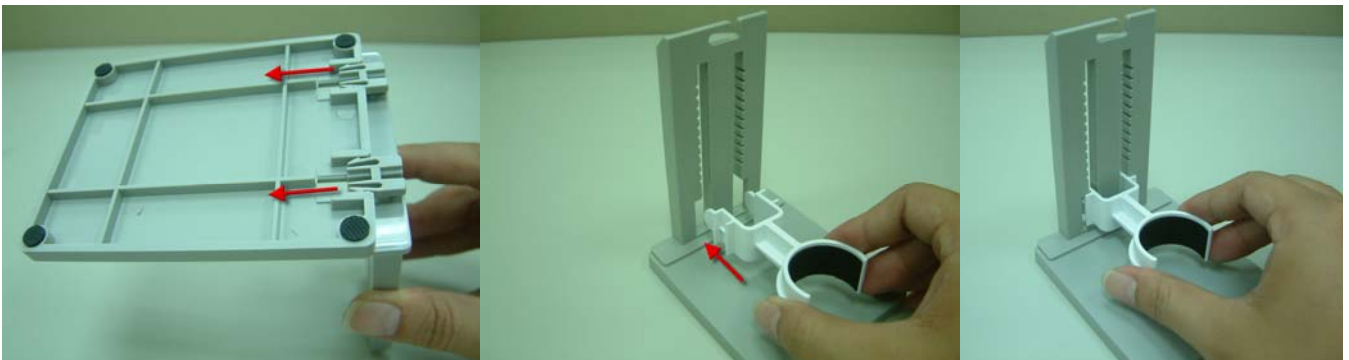
- Pentium 4 Class CPU
- 128 MB of system RAM
- One USB 2.0 port or above
- VGA system with at least 16bit color support
- UVC: Windows XP SP2 and VISTA

## Driver Installation Procedure

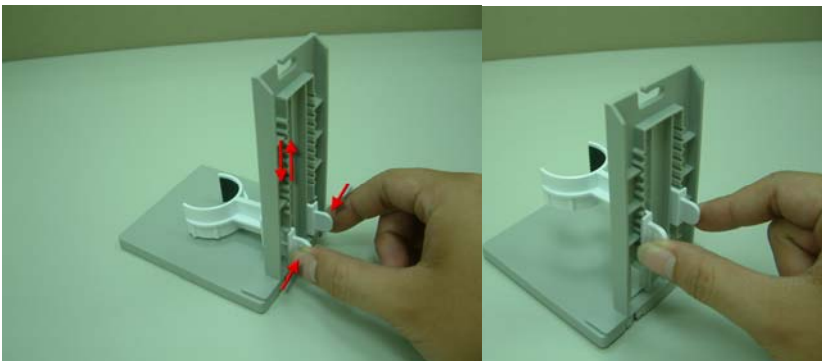
This device supports “Universal Video Class” driver, no additional driver required. Plug in device and system (Windows XP SP2 and VISTA) will install driver automatically.

## Getting Started

1. Stand assembly:



- a.) Push and Lock the stand.



- b.) Press the holder, pull up and down to adjust distance between microscope and object.
- c.) Place microscope on the stand holder.



2. Insert the VP-EYE 6.0 software installation CD into CD-ROM drive, the software will install automatically.



3. Plug the USB cable into the PC USB port.



4. Click **【VP-EYE 6.0】** software, image will show up.



- Put the camera over the center of the part of the object you want to view.



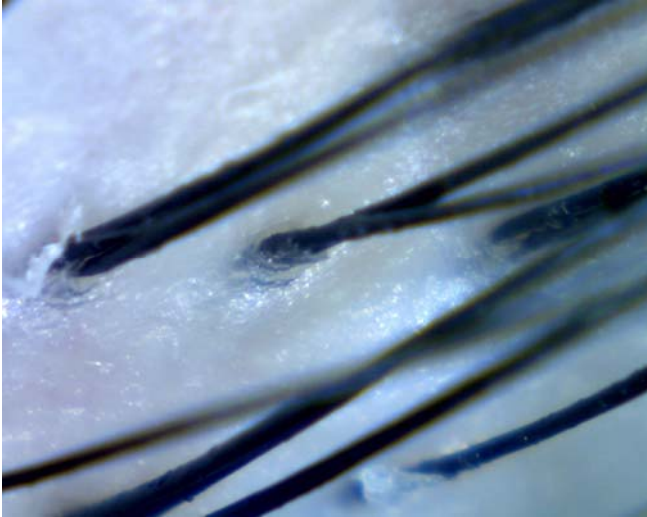
- Use the focus knob until the image is clear. In order to get a 3D image, tilt the digital microscope slightly.



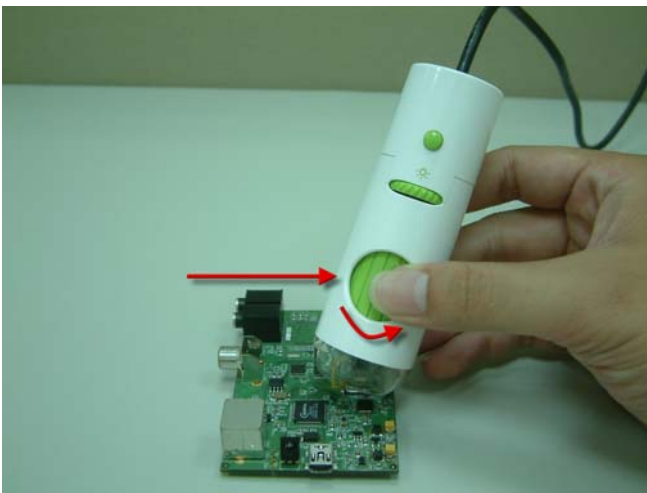
- The digital microscope can be used to produce various magnifications. The closer you put the digital microscope to the object, the greater the magnification.



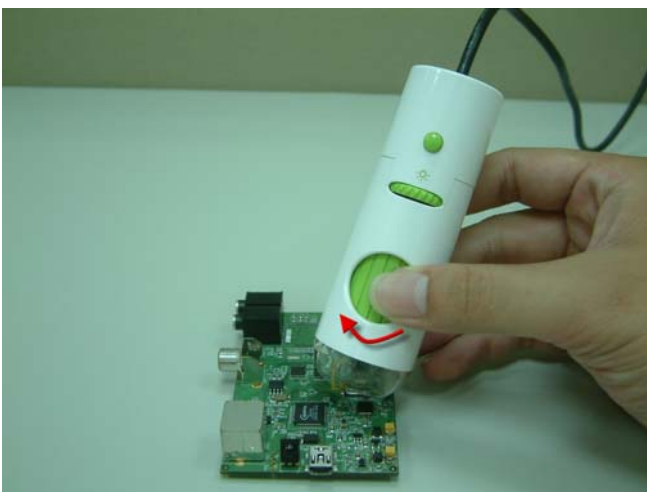
8. A clear image can be produced by adjusting the focus knob as well as changing the distance between the object and the digital microscope .



9. If the image is blurred, adjust the focus knob to the right and view the image of the object in lower magnification first.



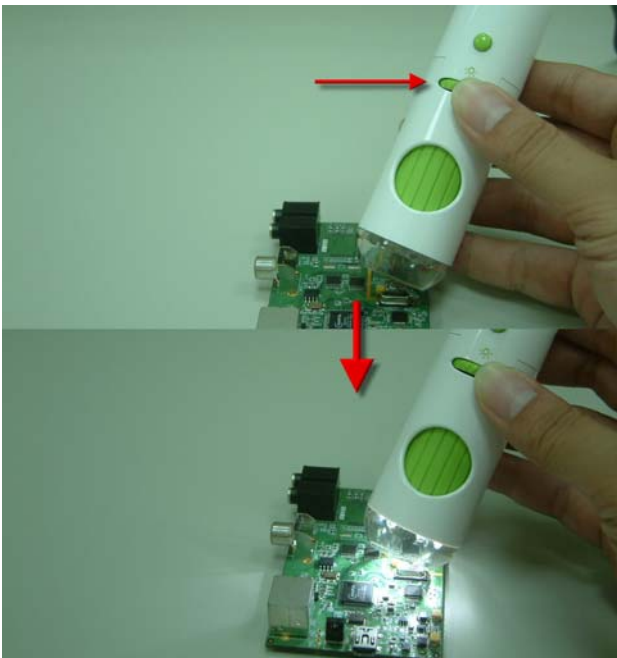
10. When magnifying an object, adjust the focus knob slightly to the left and move the digital microscope up and down until a clear image shows up.



11. If the object has varying depths or if 50X or higher is not needed, lift the digital microscope a little bit and adjust the focus knob to the right slightly until you get a clear image.



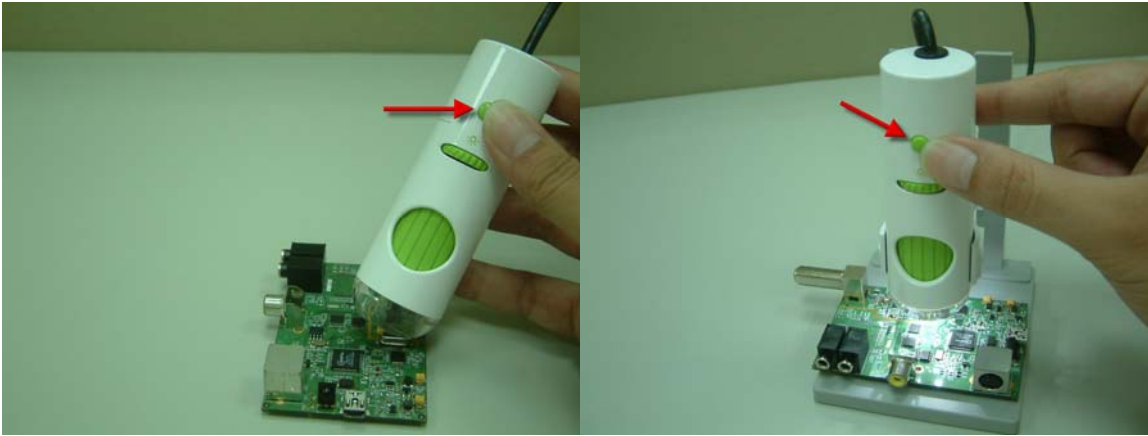
12. If the object is too dark or bright, adjust the light knob to get the light you need. Turn right to get brighter light and left to get darker light.



13. When using high magnification to observe a specific area of the object, we suggest placing the digital microscope on the stand holder to get clear image.



14. Use the image capture button to capture image.



## *Application Software*

### *Start*

Plug the camera into the USB port. Click VP-EYE 6.0 program icon.



Then Program will start and the image window will show up.



## *Function Key lists:*



Open the tools window



Open this users guide



Close this program



Select the snapshot and video recording function



Select the brightness and contrast level



Select the zoom-in and zoom-out function



Select the input resolution for the video camera



Select the playback function



Select the date time function




Select the measurement function



Select the freeze function

## ***Snapshot and recording***



Click the  icon (capture) on tool bar to capture snapshots and movies. The camera icon and movies icon will appear in the image window. Select the camera icon for snapshots and the film projector icon for movie recording.



## ***Brightness and contrast***



Click the  icon on tool bar to select the brightness and contrast level.

Use the scroll bar on the right below the light bulb icon to adjust the level for brightness.

Use the scroll bar on the left below the half white/half black icon to adjust the level for contrast.

## ***Zoom-in and Zoom-out***



Click the  icon on tool bar to select the zoom-in and zoom-out functions



Use the plus icon to zoom-in. You can zoom-in up to 4 times (1:4).

Use the minus icon to zoom-out, it can zoom-out back to the original size (1:1).




Use the arrows to pan the video position, moving up/down/left/right.

You may also use the arrow keys on keyboard to do the same panning functions.




## *Resolution*

Click the  icon on tool bar to select the input resolution(640x480 or 1280x1024).



## ***Playback***

Click the  icon on tool bar to select the playback function.

The playback function will display the captured photo or play the movie on the screen. Select the picture or movie in the thumbnail strip using the up or down arrows to navigate. To view a photo or play a movie simply double click the image OR select the image then click the Play icon.

## ***Delete photos or movies***

Select the photo or movie to delete; click the small “X” on the top of the thumbnail box. Answer “yes” in the dialog box.

## ***Save photos or movies to new location***


Select the photo or movie to save. Click the small folder icon on the top of the thumbnail Window. Use the Browse window to select a location on to save you file.



## *Date & Time Record*

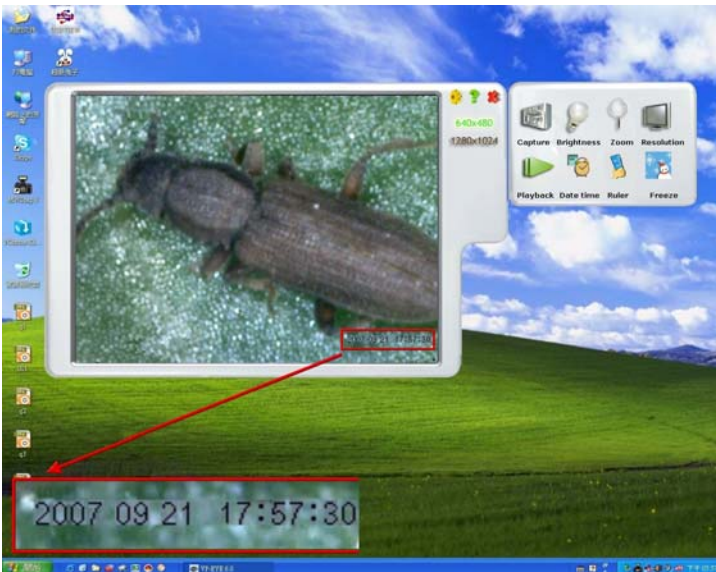
There are two ways to get “Data Time”.

### Option1:

1. Click the  icon on tool bar.

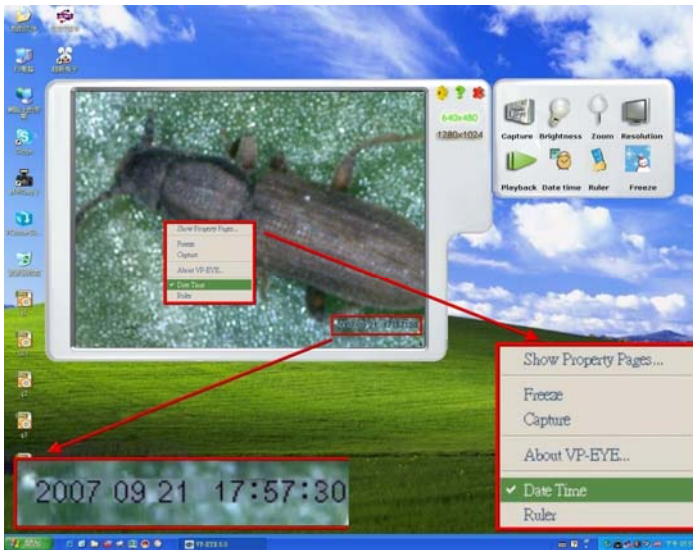


2. Date and time will show on the right corner of the downside of screen.



## Option2:

Right click on the screen, and quick menu will show up. Select “Data Time” and the date and time which will show on the right bottom corner of the photo or movie.



## *Measurement (Ruler)*

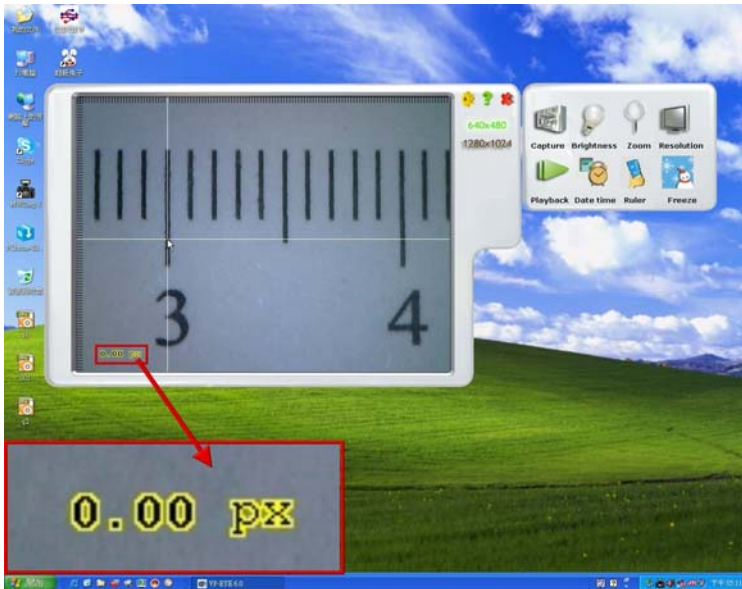
There are two ways to get “Measurement” function.

## Option1:

1. Click the  icon on tool bar.



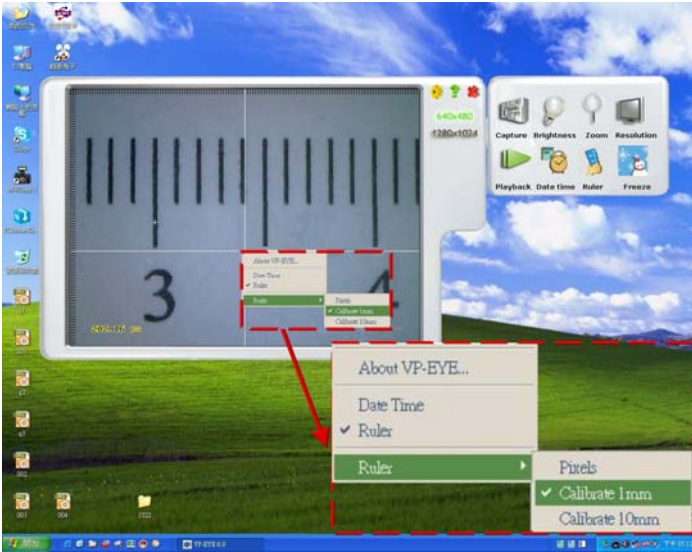
- The default setting is "pixel". Please follow the steps below to change the measurement unit to "mm".



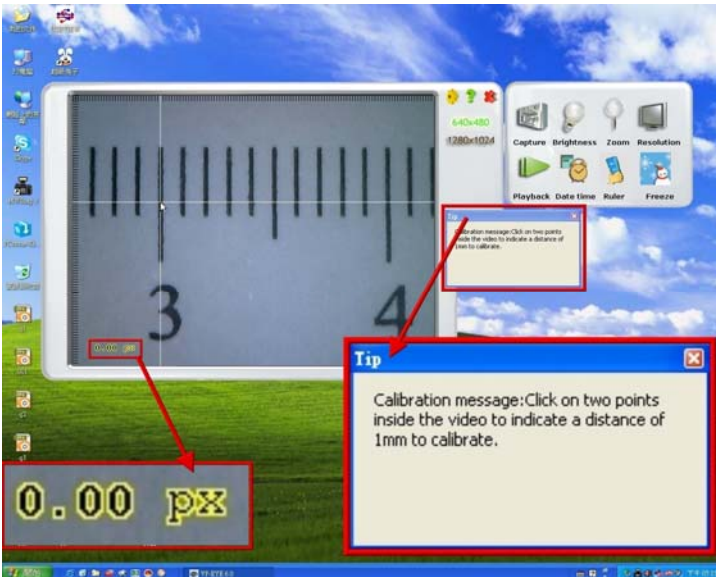
- Put a ruler near the center of the digital microscope.



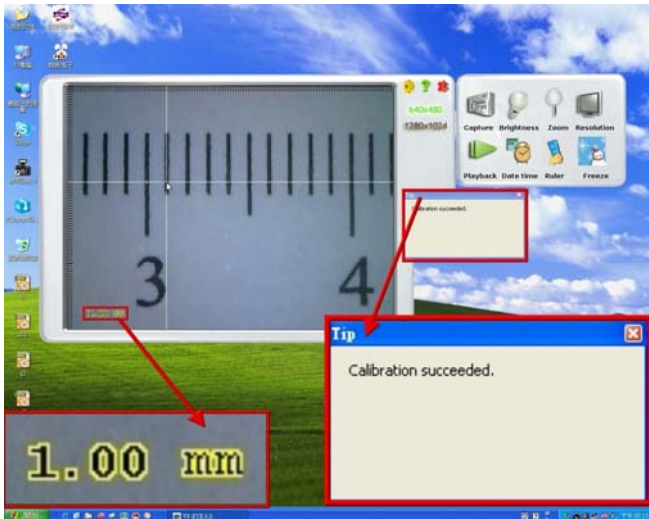
4. Click the right button of the mouse on the screen and quick menu will show up. Select “Calibrate 1mm” (or “Calibrate 10mm”).)



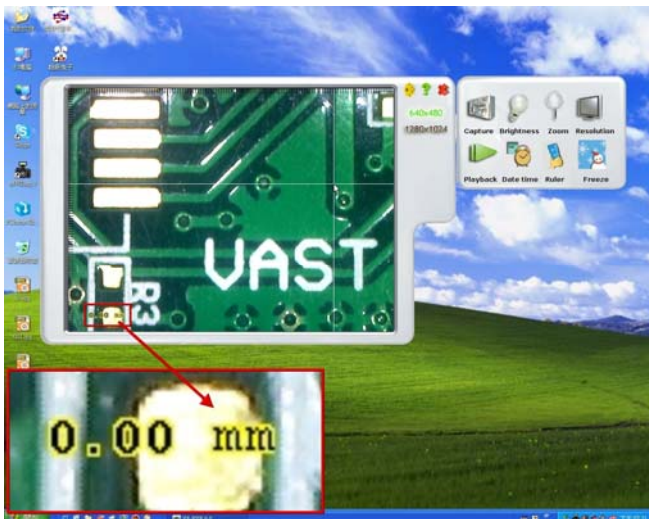
5. When the “Tip” appears, move the cross line and select the first point of calibration.



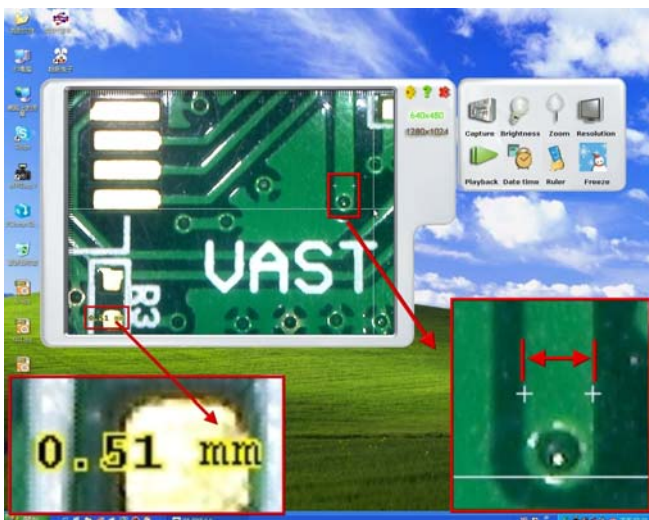
6. Move the cross line and select the second point of calibration. When the “calibration succeeded” Tip appears, calibration is completed and the indication will show 1.00mm (or 10.00mm) on the left corner of the downside of screen. (According to your selection, the distance between the first and second point must be 1mm (or 10mm) of your ruler).



7. Move the cross line and select the first point of the object, the indication will be “0.00 mm”.

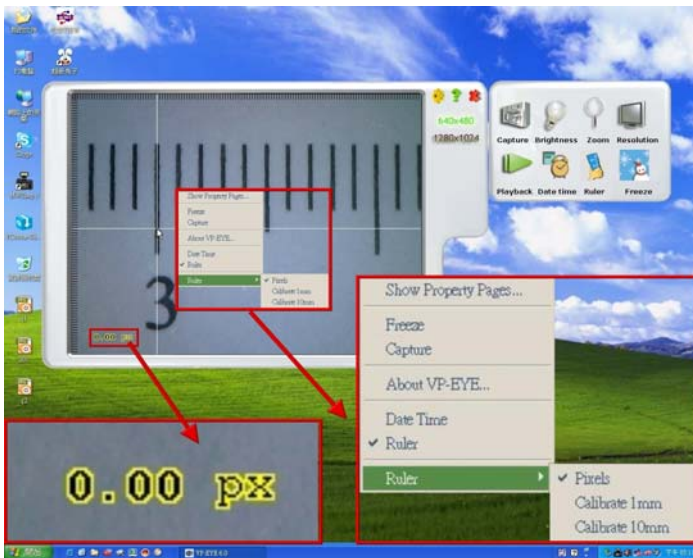


8. Move the cross line and select the second point of the object to get the measurement of the object.



## Option2:

Right click on the screen, and quick menu will show up. Select “Ruler” and follow previously given steps to calibrate and measure.



## Freeze

There are two ways to show a still image for further observation.

## Option1:

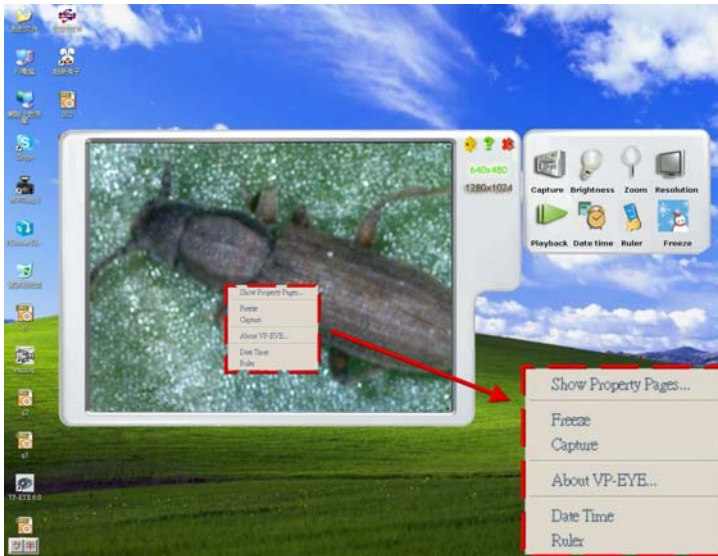


Click the icon on tool bar to produce a still image for further observation.



## Option2:

Right click the mouse on the screen, and quick menu will show up. Select "Freeze" to create a still image for further observation.



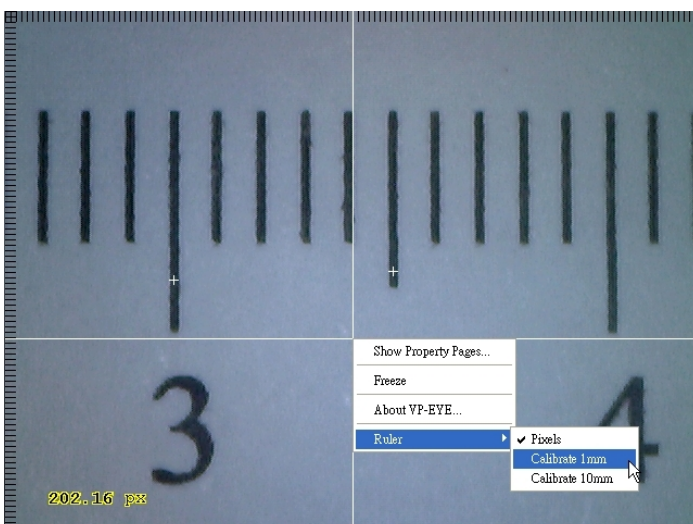
## *Special function--Full Screen*

### *A. Ruler*

Double click the left button of the mouse on the screen to get full screen image.


Right click the mouse on the screen to get the "Ruler" function.

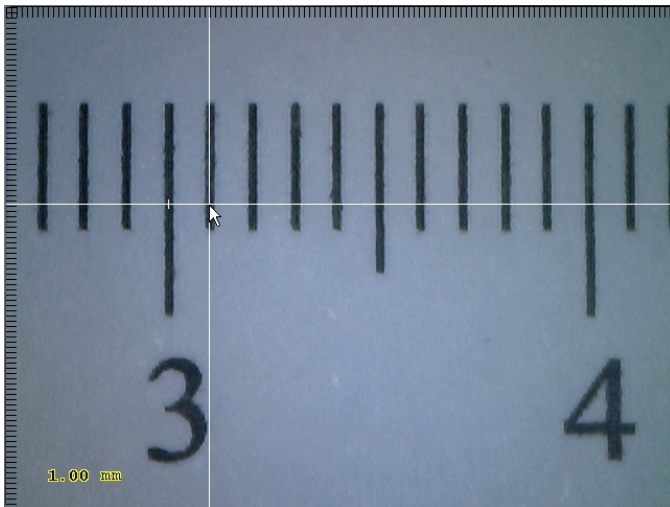
Please follow the calibration steps given previously to calibrate the "Ruler" again, in order to get a correct measurement.



## ***B. Capture***



Click the  icon on tool bar and double click the left button on the screen to get a full screen image. Press the “Space Key” on the keyboard to capture a still image.



## ***Notice***

- If the image of screen flickers when use the digital microscope, please turn the LED light off for 1-2 seconds, and then turn it on to start to operate.
- Make sure to turn off the power to prevent overheating after using.
- Do not strike the microscope to avoid any damage.