



PCE Americas Inc.  
711 Commerce Way  
Suite 8  
Jupiter  
FL-33458  
USA  
From outside US: +1  
Tel: (561) 320-9162  
Fax: (561) 320-9176  
info@pce-americas.com

PCE Instruments UK Ltd.  
Units 12/13  
Southpoint Business Park  
Ensign way  
Hampshire / Southampton  
United Kingdom, SO31 4RF  
From outside UK: +44  
Tel: (0) 2380 98703 0  
Fax: (0) 2380 98703 9  
info@pce-instruments.com

[www.pce-instruments.com/english](http://www.pce-instruments.com/english)  
[www.pce-instruments.com](http://www.pce-instruments.com)

# Digital Microscope User Manual

## PCE-MM 800



---

**Thank you for purchasing our USB Digital Microscope, it is a slim type tool and can be easily used in different fields, including:**

1. Textile industrial for textile inspection
2. Printing inspection
3. Industrial inspection: PCB, Precision machinery...
4. Educational purpose
5. Hair examination
6. Skin examination
7. Microbiological observation
8. Jewelry & coin (Collections) inspection
9. Visual Assistance
10. Others

Currently we have two models of Digital Microscope: USB port and TV port formats.

The USB microscope must be connected to the computer and TV microscope be connected to visual device (N/P). User interface is very friendly and you can do the Measure work easily.

You can find more information of the product on this manual.

## CONTENTS

Introduction .....	23
Contents .....	24
Parts of Microscope .....	25
Specification .....	25
Notes before use .....	26
Product Outlook & Standard parts .....	26
Hardware and system requirements .....	26
How to install the Driver software .....	26
How to install the measurement software .....	31
How to install the .Net Framework .....	32
Measurement instructions .....	34
Function options .....	36
How to do the calibration .....	38
Other Usage .....	40

## Parts of Microscope



## Specification

Image CMOS Sensor

Controller High Speed DSP (Driver Free available)

Focus Range 10mm ~ far view

Snap Shot Software and Hardware

Video Capture Resolution Standard 640\*480, Max 1600\*1200

Built-in 8 White-light LED and adjustable illumination ensure the magnified images are clear and bright

Still Image Capture Resolution Standard 640\*480, Max 1600\*1200

Frame Rate 30 f/s under 600 LUX Brightness

Digital Zoom 5X Sequence Mode

Brightness Control Manual adjustment

Magnification Range 200X, 500X, 800X, 1000X, 1600X

Power Supply USB Port (5V DC)

USB 2.0 & USB 1.1 Compatible

Operation System Windows XP, Vista, Win 7 32 bit and 64 bit.

Language: English, Chinese and other language by selection

System Requirement: Pentium Computer with 700M Hz & above,

20M HD Space CD ROM Driver, 64MB RAM, Direct X VGA Card

## CD disk Driver and Micro-Measurement Tool

Product dimension 112 mm (L) X 33 mm (R)

Product net weight: 250g

Available color: Matting black, Turnish and other colors.

### Notes before use

1. Don't disassemble the digital Microscope or change the interior parts, it can cause damage.
2. Don't clean the Microscope with alcohol organic solvents
3. Don't touch the lens with your fingers.
4. Avoid outdoor use if possible.
5. Storage temperature , 0° C ~ 40° C, Humidity: 45% RH ~ 85RH% .
6. In case the product gets wet, leave PC connection immediately. And do not disassemble or dry by hair dryer. Send to repair center if the digit microscope was effected by liquid or other elements.
7. Measurement Data only for reference.

### Product Outlook & Standard parts

1. Digital Microscope (1pcs)
2. USB 2.0 cable
3. Metal fixed Stand (1pcs)
4. CD ROM (Driver, Measurement software, User Manual)

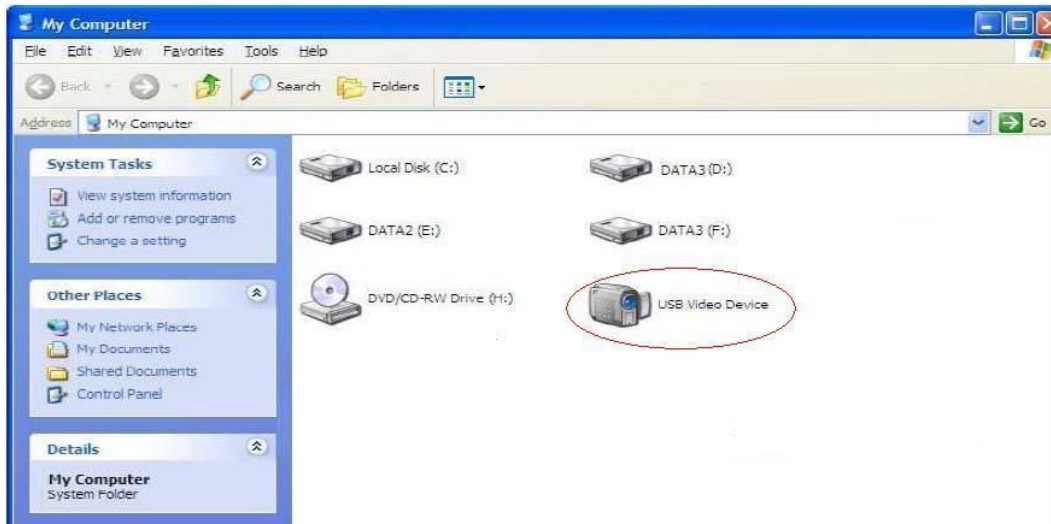
### Hardware system requirements

Windows 2000、XP、 VISTA、 WIN7 Pentium 1G, Celeron, AMD 1G & above,  
128MB Memory, 150MB Hard Disc memory space, 16-bit & above  
VGA, CD-ROM, USB2.0 or USB1.1.

### How to install the Driver

The Digital Microscope is a free Driver Product, it can be worked immediately after connected to the computer with operation system above win2000 version.

1. Connect the Portable digital microscope by USB2.0 cable to your computer, double click “my computer” icon on your computer desktop, below interface will be shown up.



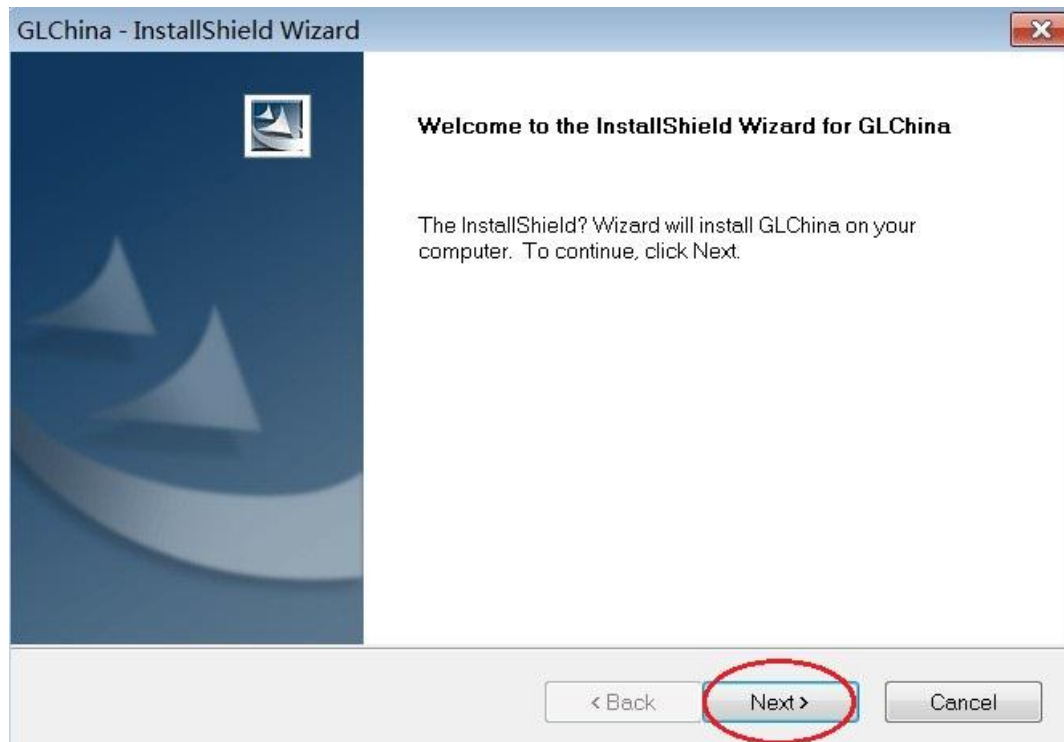
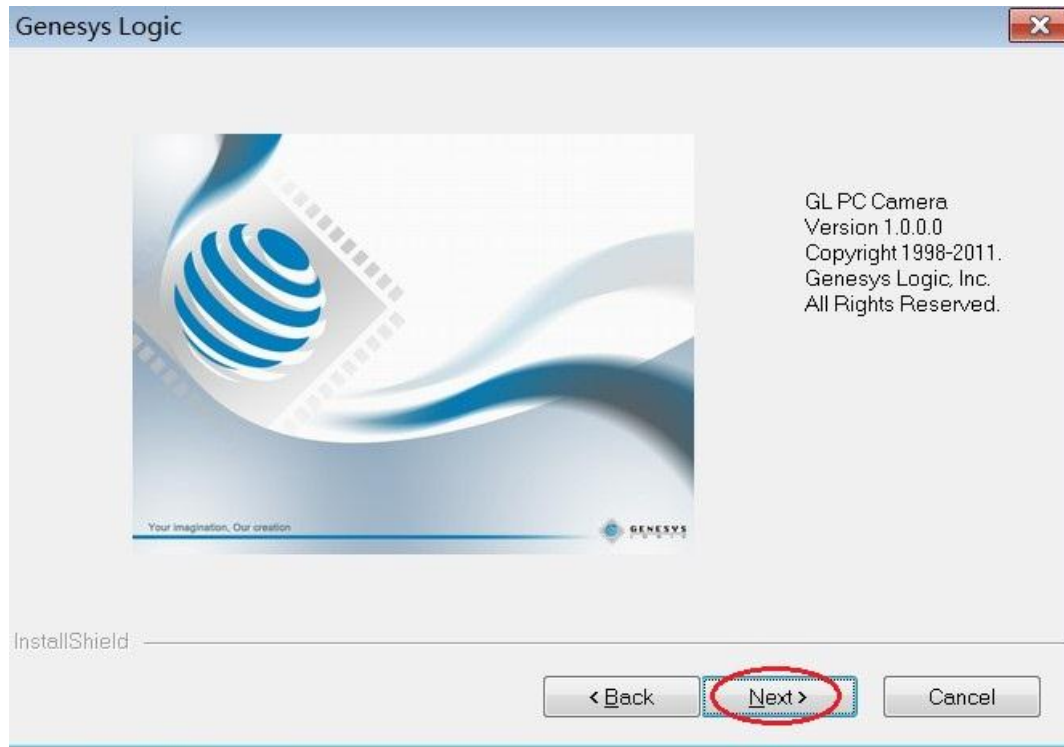
2. Double click the Video device icon as above red marked in your computer. Now it is ready to use.

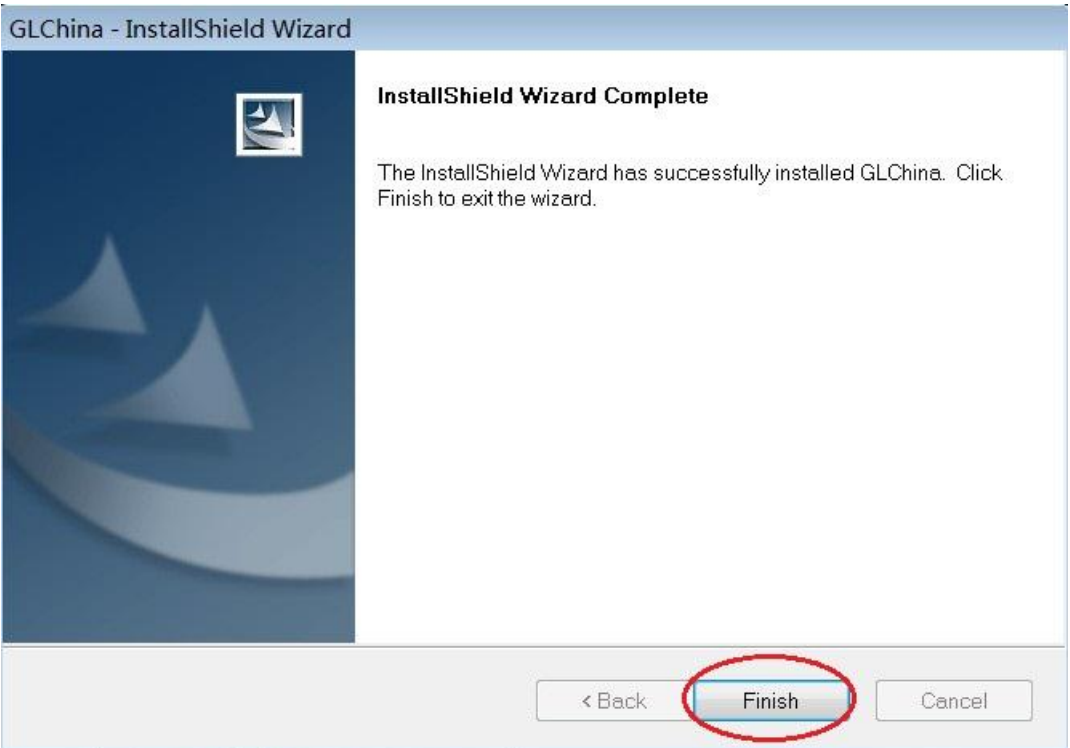
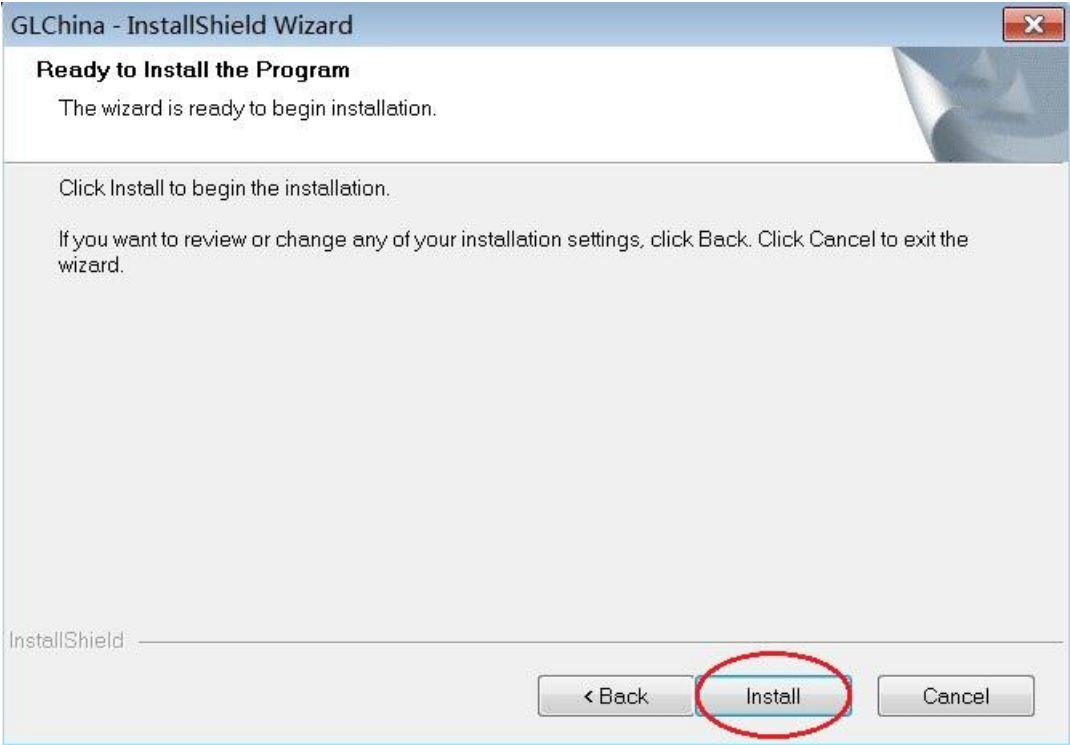
If you can't find the Video device, or if your computer can't recognize it,  
Please follow below steps to install the driver.

Insert the attached CD, open "My Computer", and double click the "DVD/CD Driver" to open the CD.

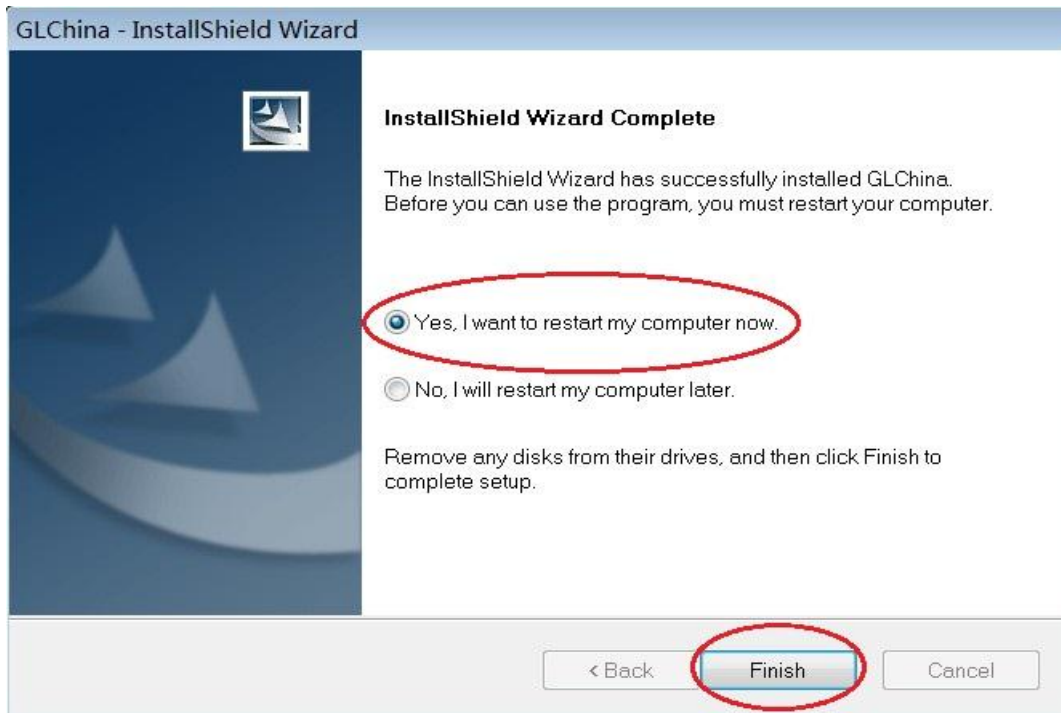
## Driver installation

Choose and install the Driver, then reset the computer




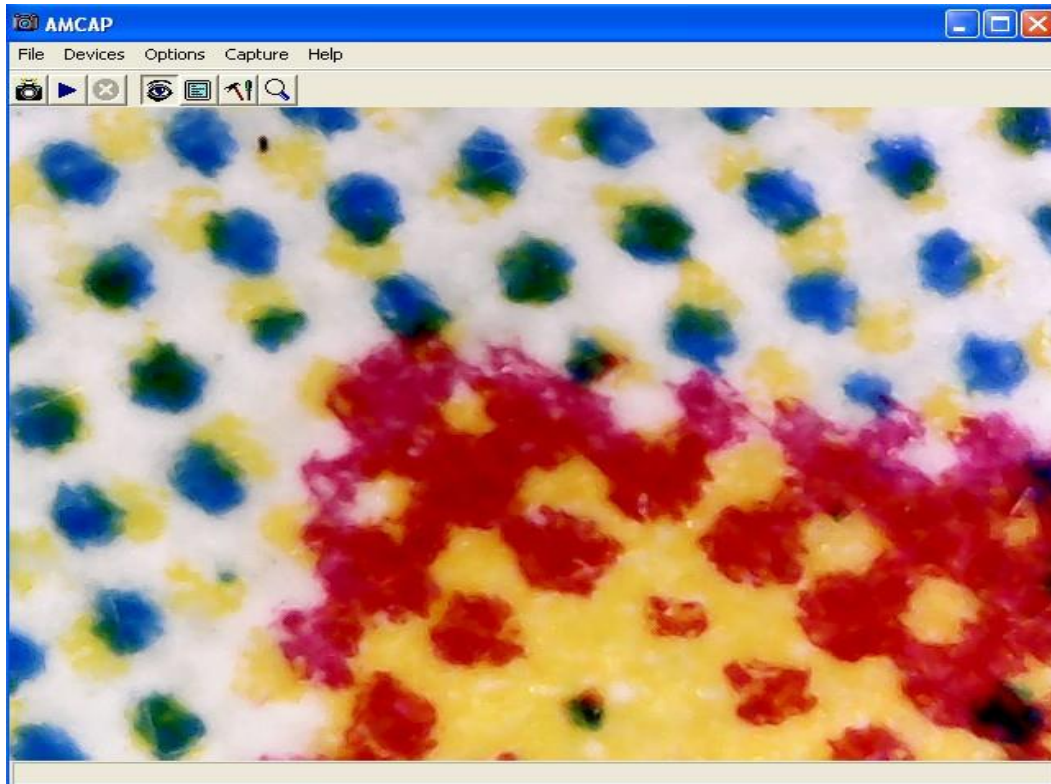






Reset the computer after driver installation at once;

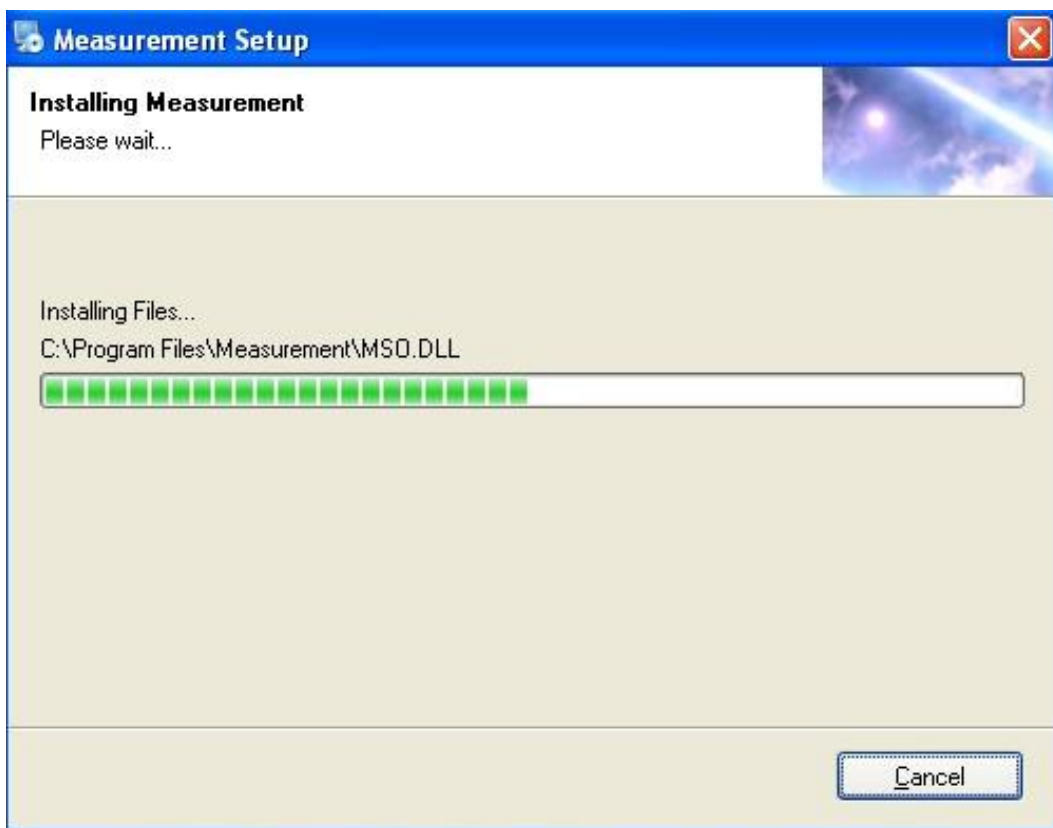
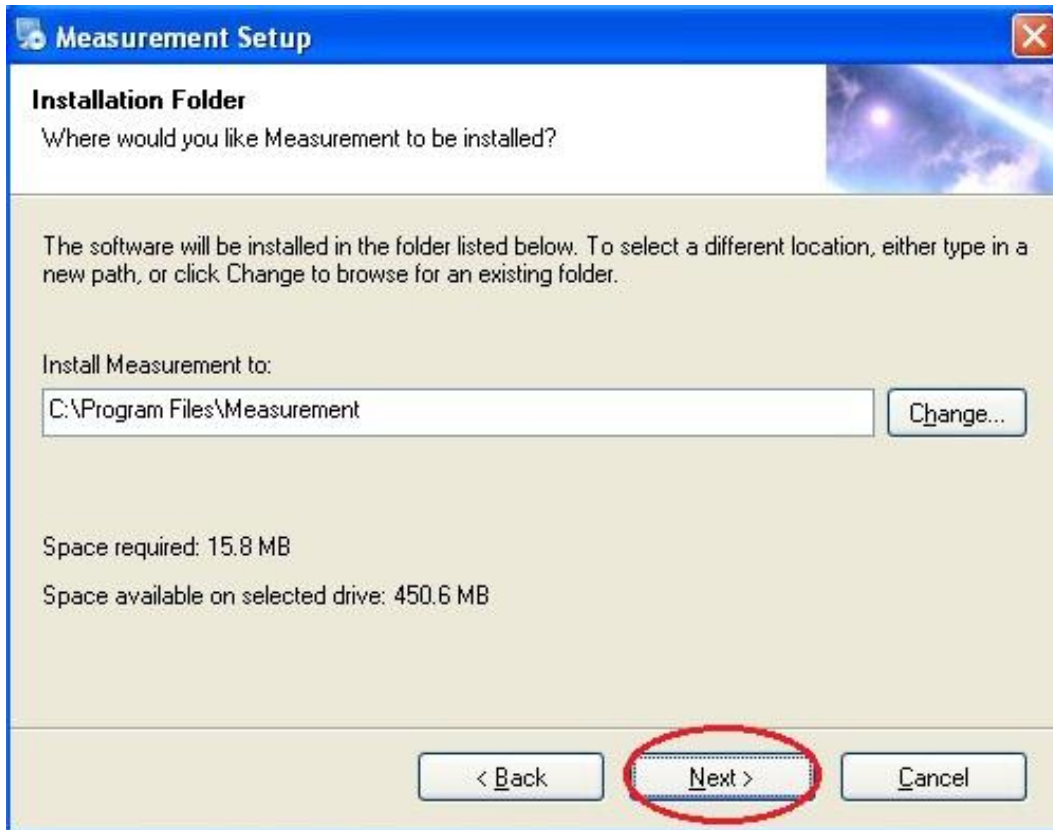
Installation may be blocked by the antivirus software, so let the antivirus software allow all processes, or close the antivirus before installing. If installation succeeds, you can see the icon  on the Toolbar, also the software desktop icon, double click to run it.

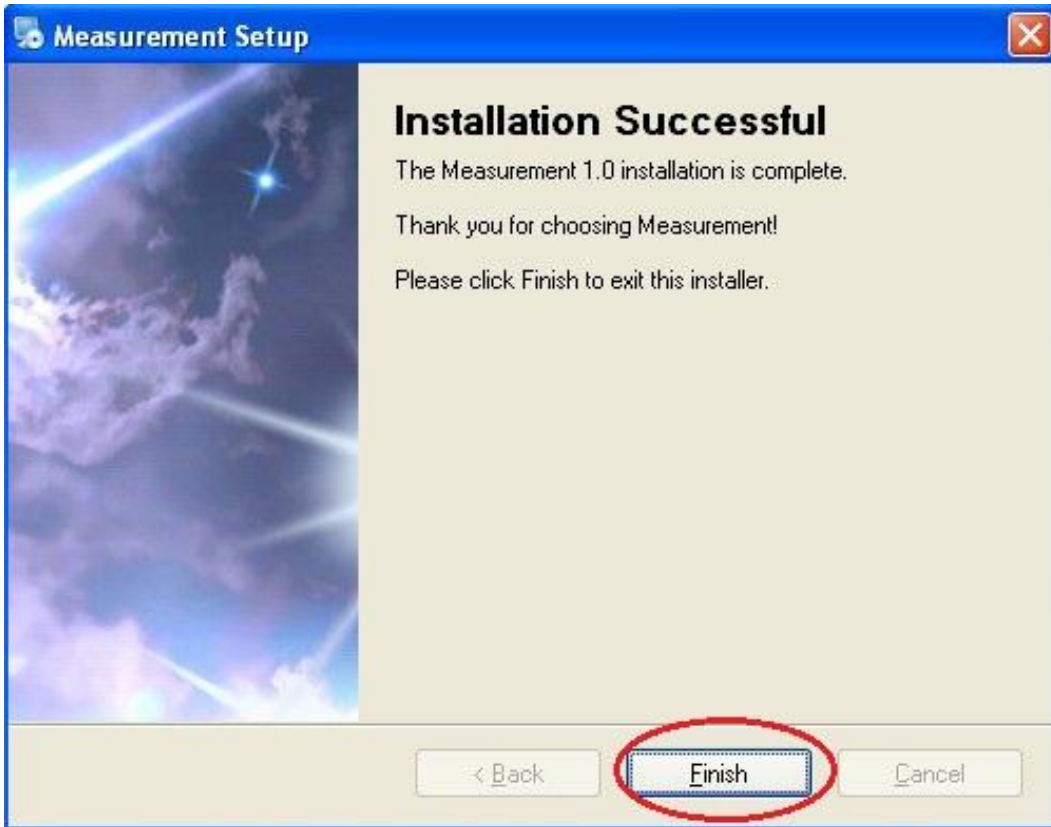


Now you can use the microscope. Long press the SNAP button on the microscope to take images, and the ZOOM button to have digital zoom function.

## Measurement installation

Choose and install the Measurement



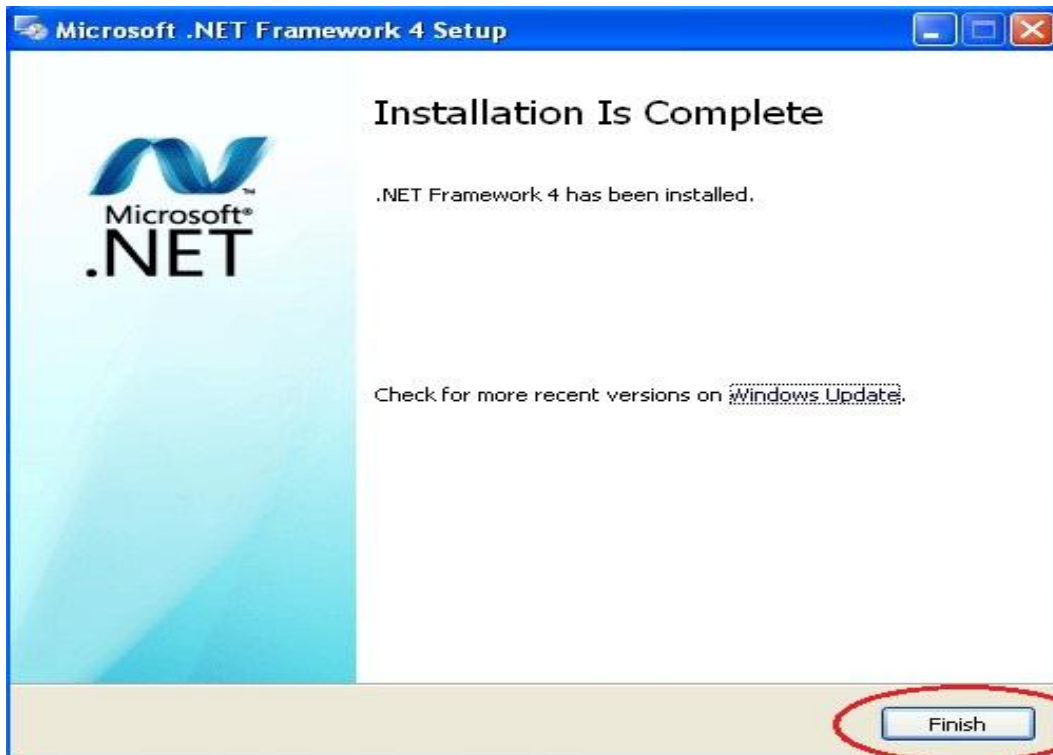
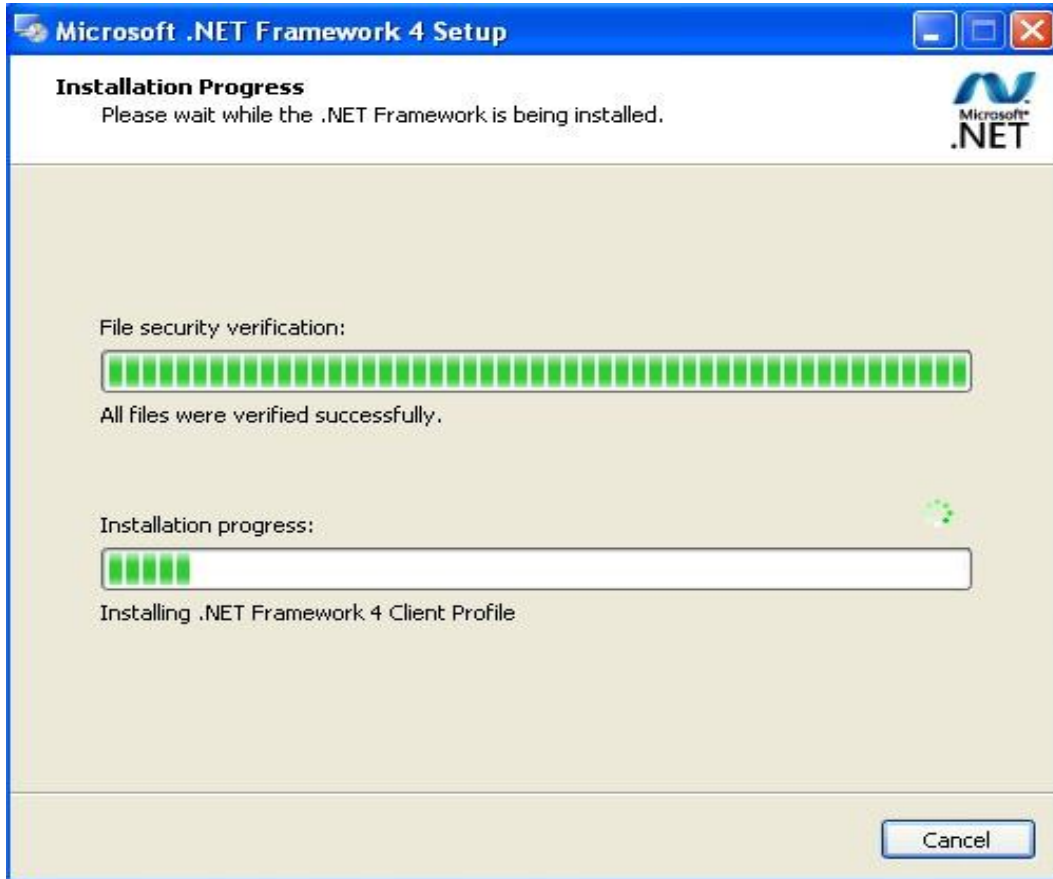


Click "Finish" and the installation completes.

### Microsoft .NET Framework installation

If the PC is Windows XP or older version, .Net Framework 4.0 is needed. Install it.



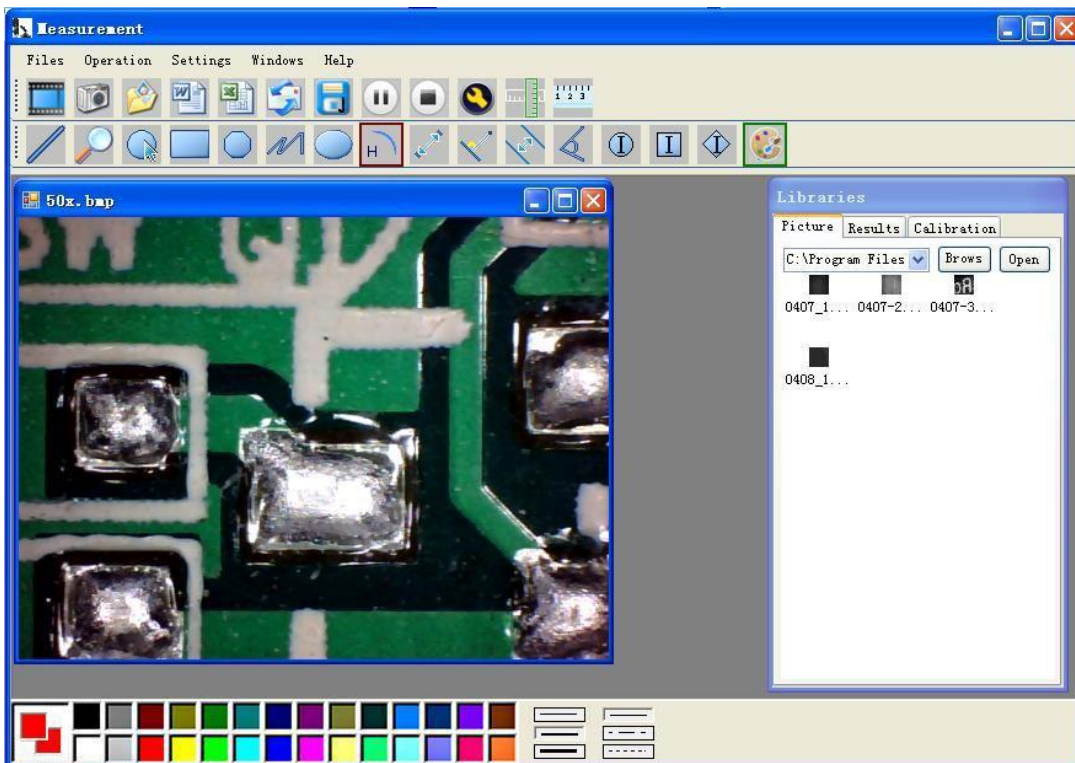





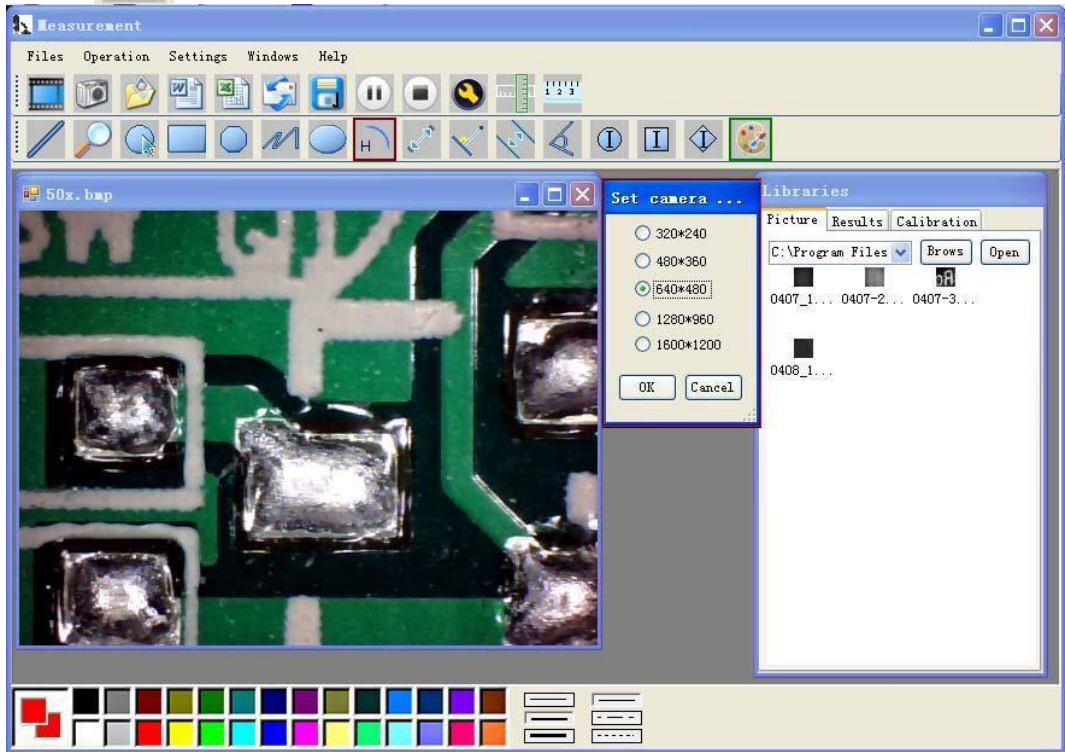
After the installation completes, double click  at computer desktop to start using the software.




Plug-in the devices, Display in operation window

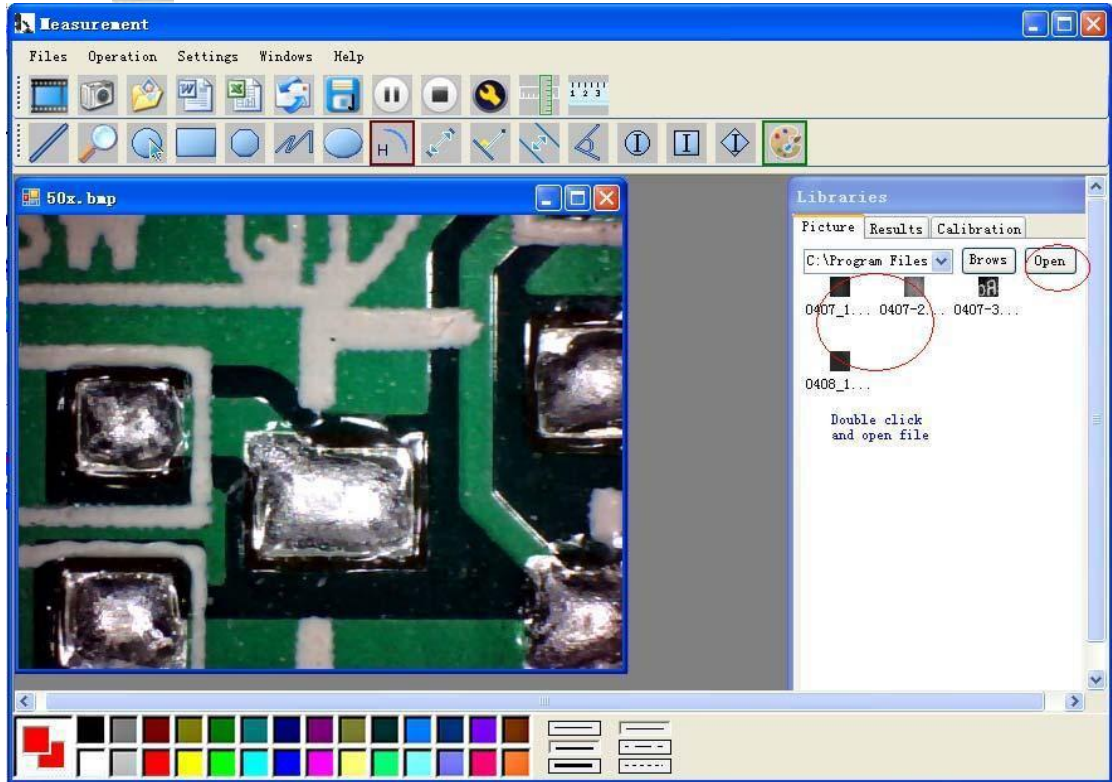




Click  open the operation system

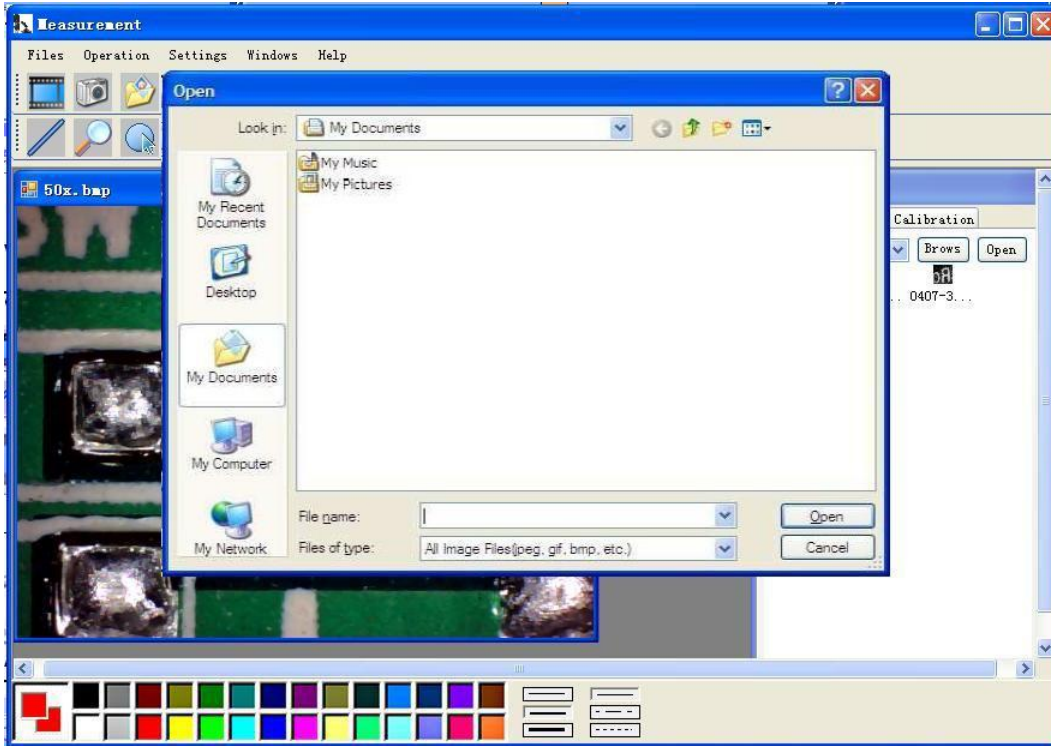


Choose the Image resolution from 320\*240 to 1600\*1200, default at VGA Mode 640\*480

Click  To use measurement function.



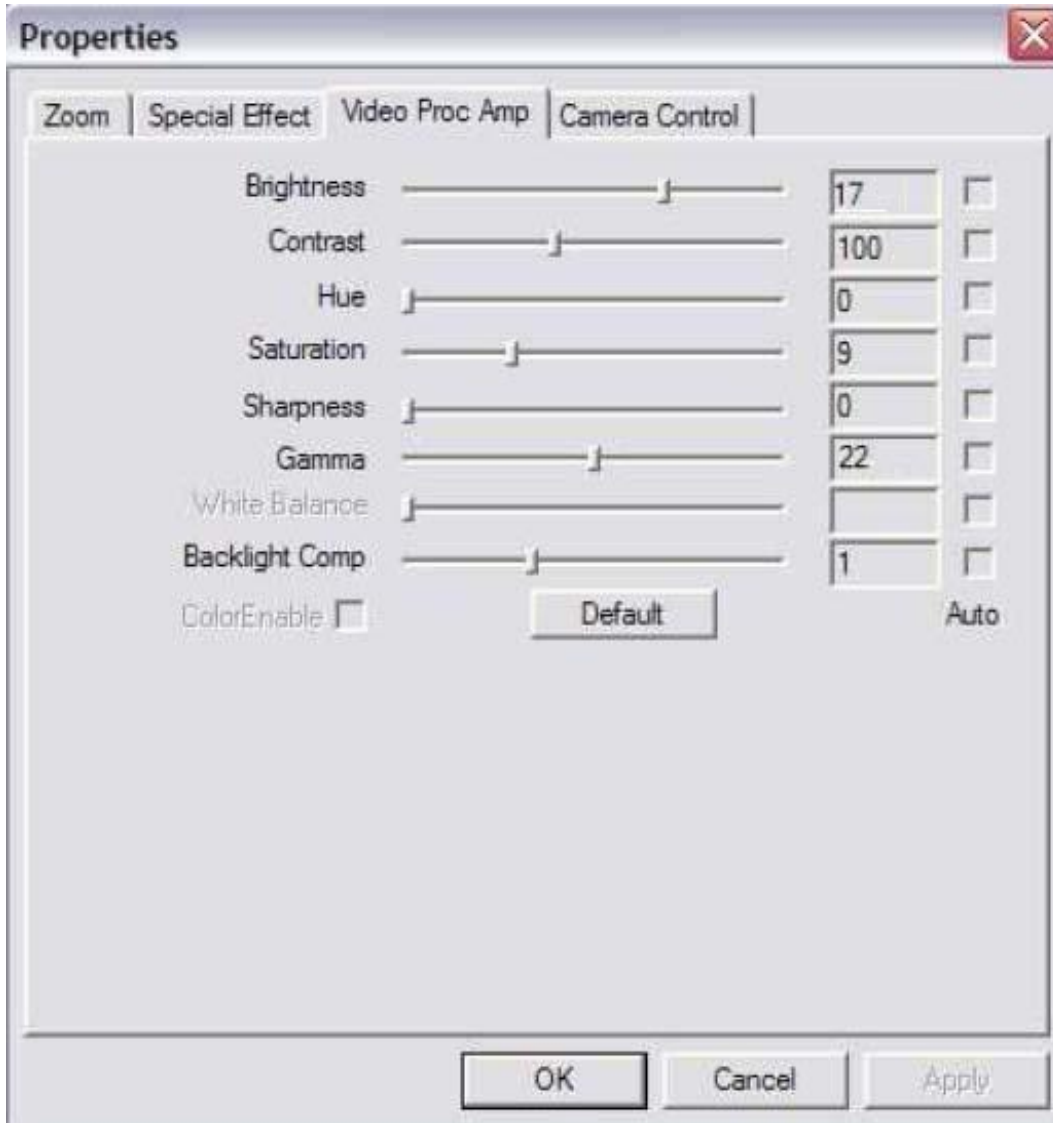
Click  to open pictures, and click  to save pictures



Video PLAY (Pause) ,STOP



Image Parameter including Image setting and special effects

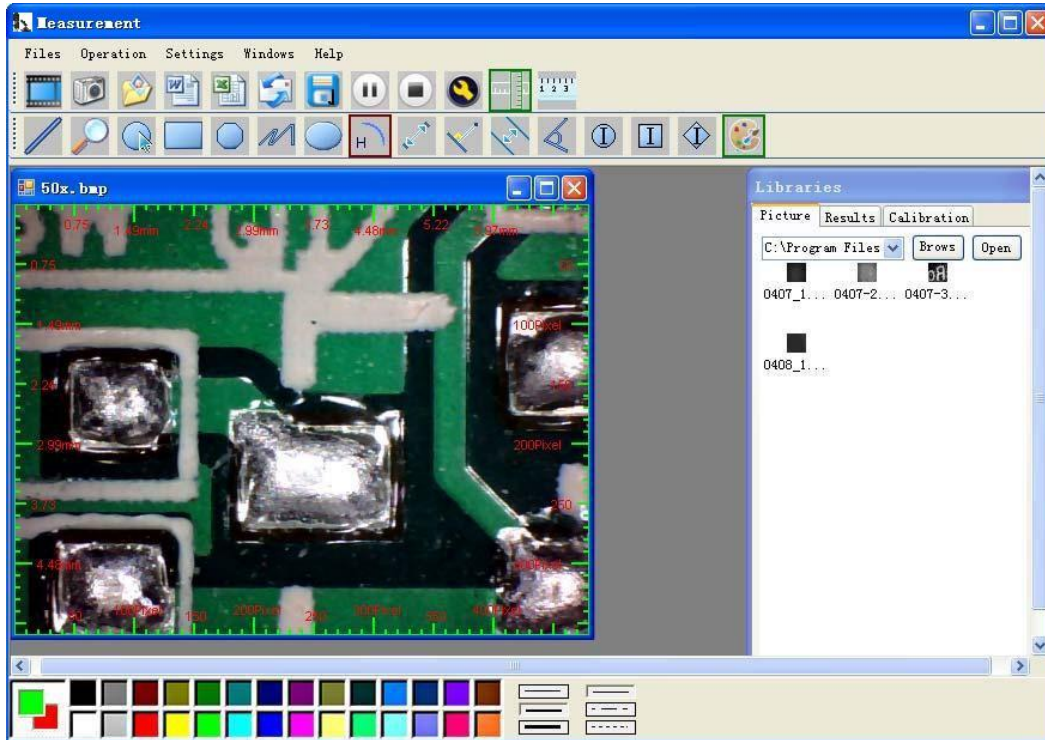



Magnifier



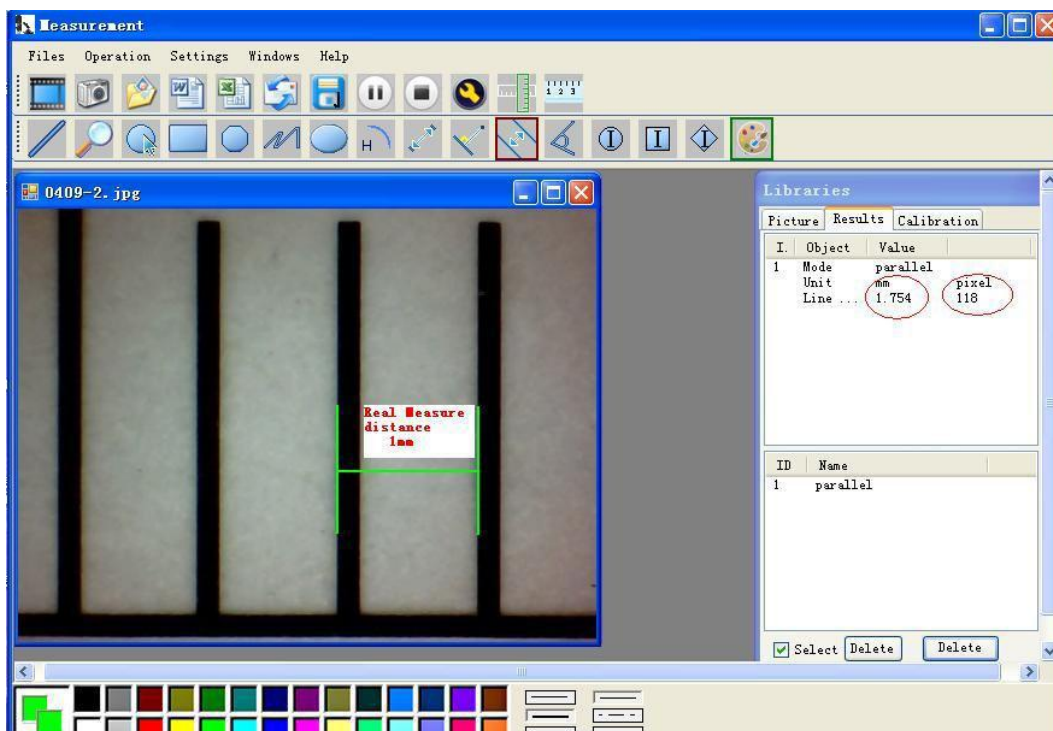
Click Ruler, as followings



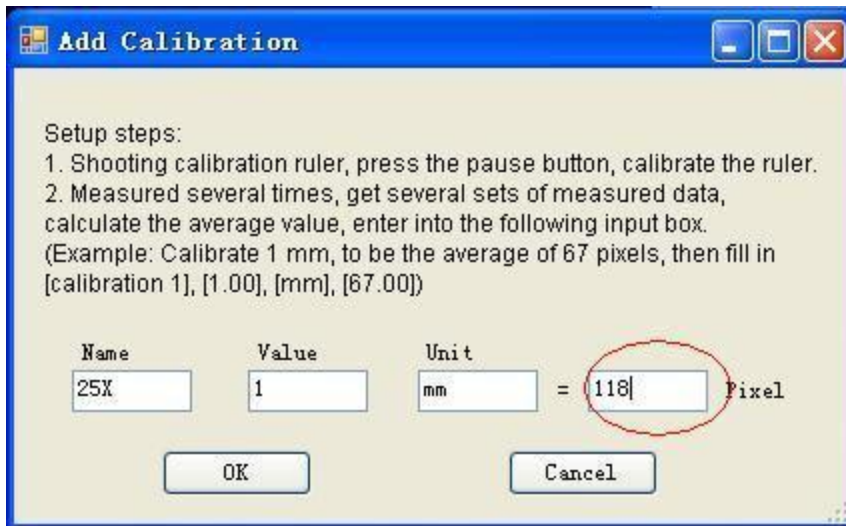


Click  start calibration make sure certain accuracy.

Our experience told us that measurement could be controlled at 99% high precision. Measure tolerance could be caused from human eye distortion and defocus. More practice is helpful to measurements.



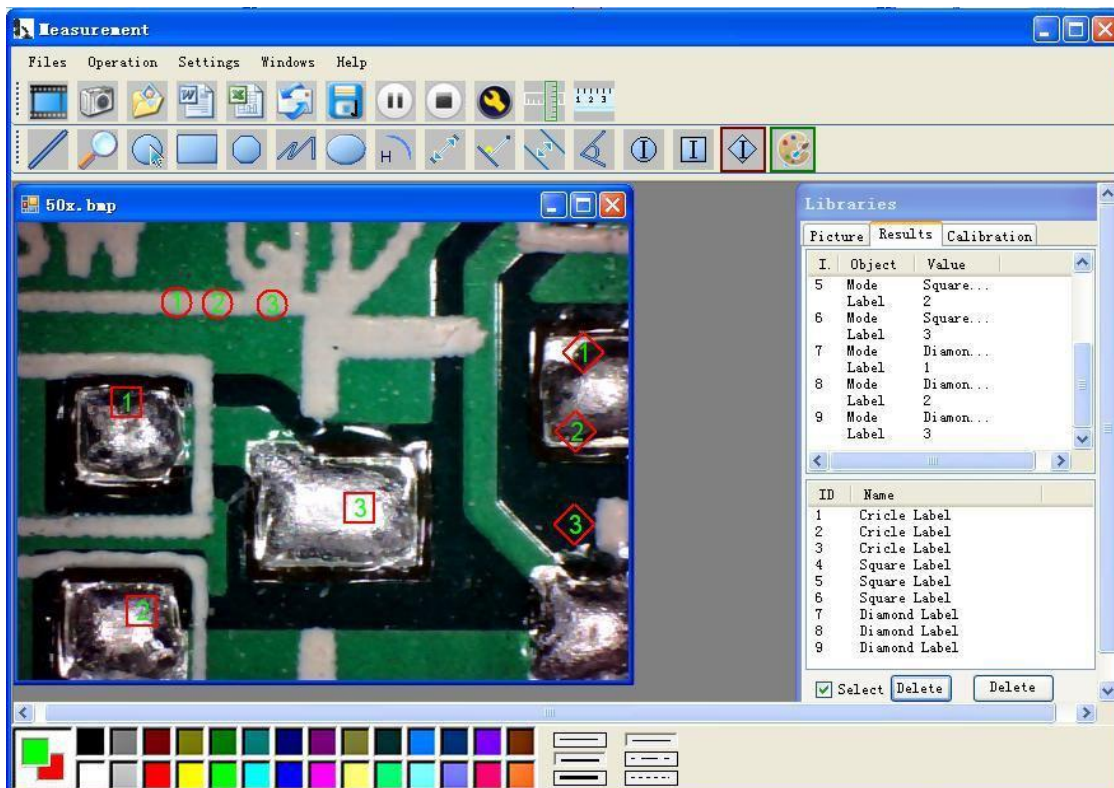
Key in the Measure data (Pixel), Unit, and Click' OK'



**Warning: Please do calibration again once Magnification Ratio changed.**

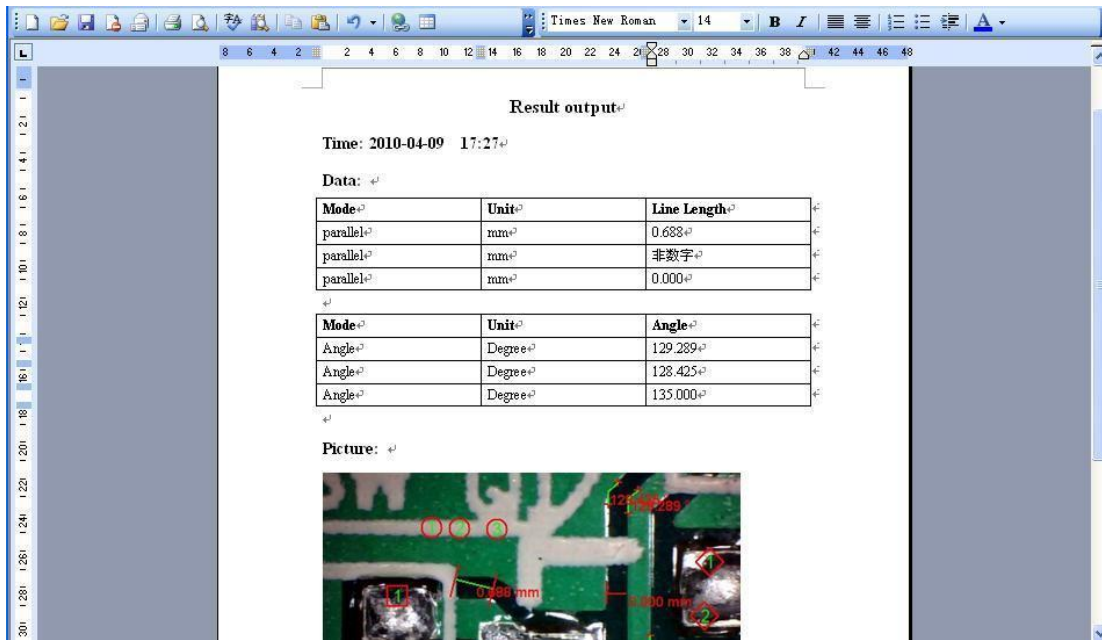


Color setting of display character



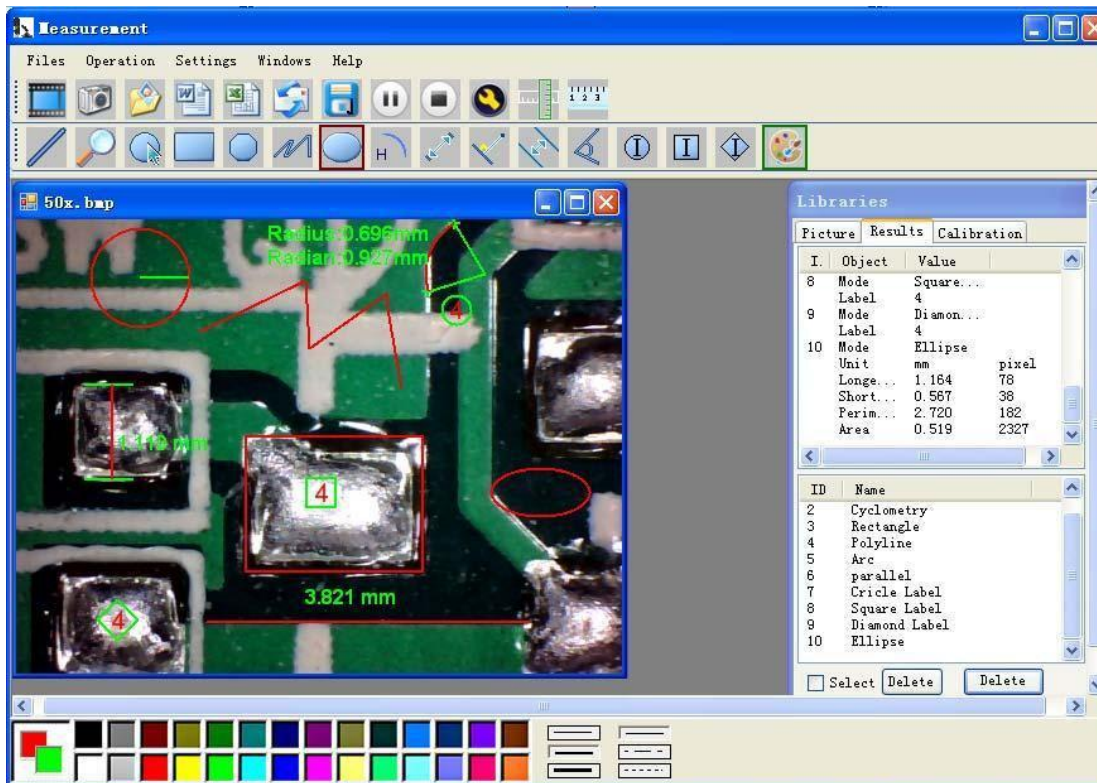
Click to export word or excel format.

### Example: Measure data under word file



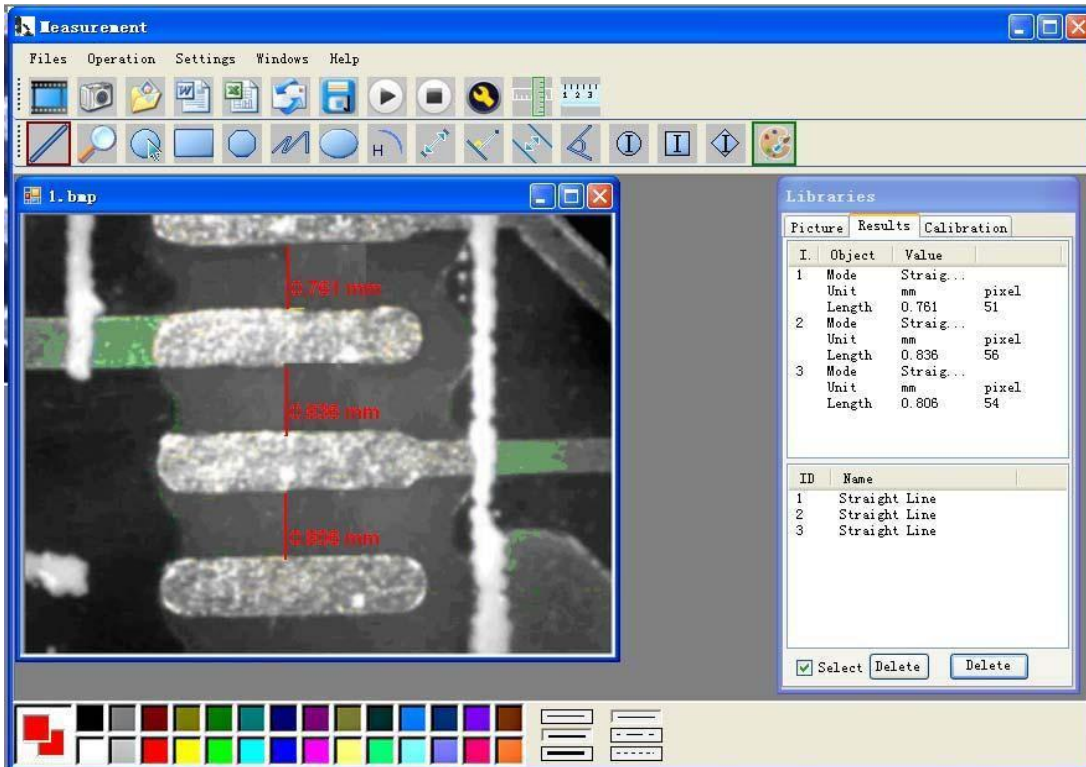
From Left to right:

Line, ring, Square, Polygon, Set-line Length, Oval, Arc, Point to Point distance, Point to Line distance, Parallel line, Angle

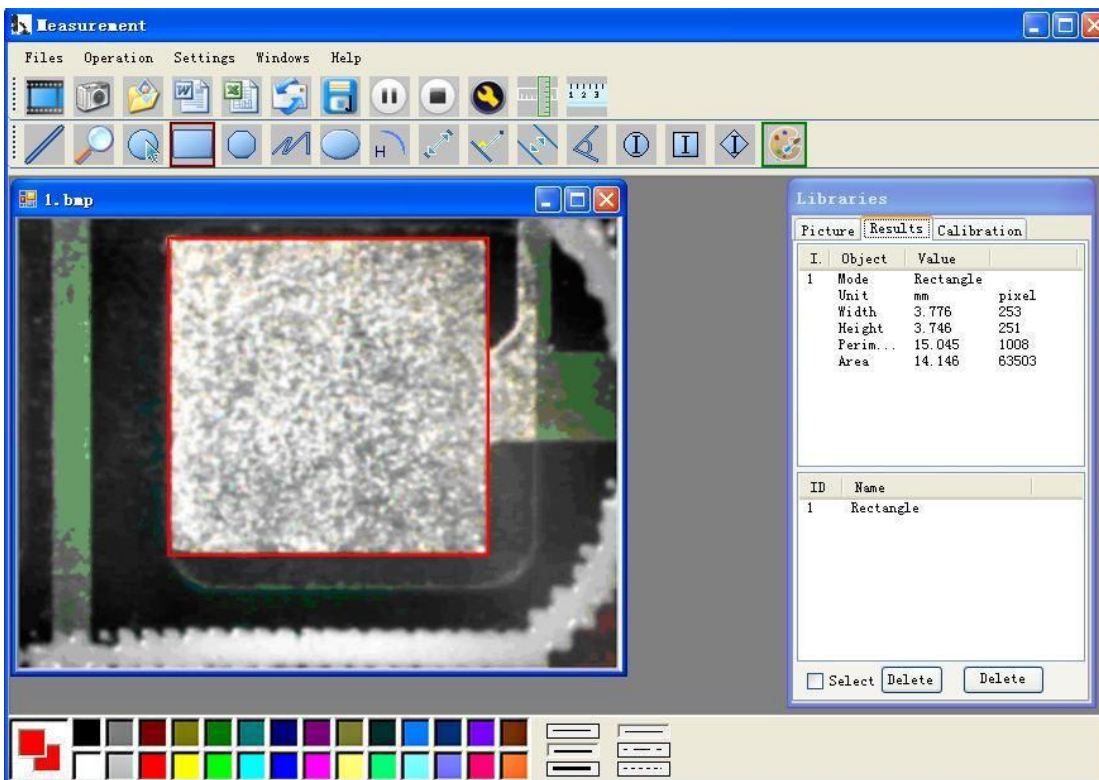




For example 1  
Line measurement:

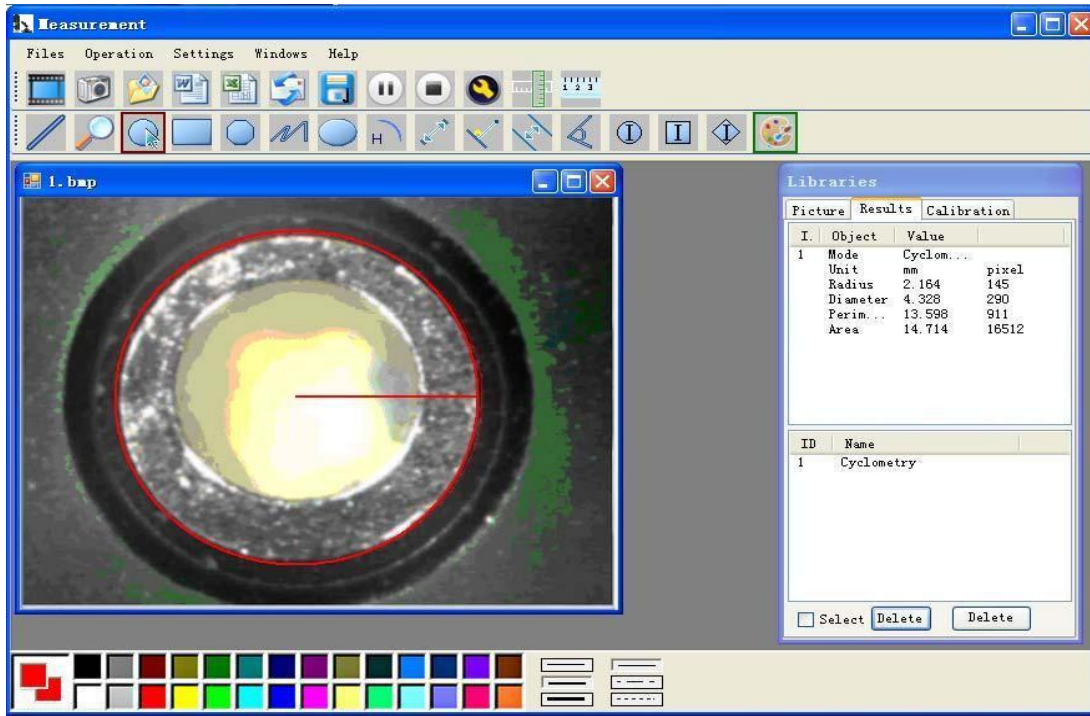


For example 2  
Rectangular measurements:



For example3

Ring measurements:



## Compatibility and Authority

If the Driver or Measurement can't be installed or run, please set the compatibility and authority.

PC > Local Disk (D:) > Driver CD > Driver

