

# **USB 2.0 digital microscope**

## **User's Manual**

### **Welcome**

Thank you for choosing USB 2.0 digital microscope!

The USB 2.0 digital microscope is an exciting new device that let's you view clear many micro-objects with it, and has a wide scope of applications, such as,

- Industrial Inspection
- Computer Parts inspection
- Telecom module inspection
- Scientific teaching tool
- Medical analysis
- School Research tool
- Insect dissection / examination
- Plant dissection / examination
- Skin examination
- Textile Inspection
- Collections / Coin/ Jewelry Inspection
- Printing Inspection
- And more.....

Please read this manual carefully before using USB 2.0 digital microscope!!!

# Contents

Welcome.....	1
Contents .....	2
Product Specifications.....	3
Safety Cautions .....	3
Package Contents .....	4
System Requirements.....	4
Software Installation process .....	5
Window XP OS Installation .....	5
Window Vista OS Installation .....	8
USB 2.0 digital microscope Connecting.....	12
Operating USB 2.0 digital microscope Process .....	13
Digital microscope Application software.....	14
Menu Bar Description.....	
Tool Bar Description.....	18
Thumbnails remark .....	18
Take Picture.....	19
Take Video .....	19
Take time lapsed Pictures.....	20
Save as .....	21
Email .....	22
Full Screen Display and return.....	23
Menu Function List.....	23
View Picture.....	24
Video playback.....	25
Troubleshooting .....	26
Common Fix .....	26

## Product Specifications

- ◆ Operation system: Windows XP/Vista
- ◆ PC interface: USB 2. 0
- ◆ Image Sensor: 1. 3 Mega pixels
- ◆ Video Capture Resolution 1280x1024, 640x480, 320x240
- ◆ Color: 24bit RGB
- ◆ Lens: Dual Axis 27X & 100X Microscope Lens
- ◆ Focus Range Manual Focus From 10mm to infinite
- ◆ Magnification Ratio 10X to 230X
- ◆ White Balance: Auto.
- ◆ Exposure: Auto
- ◆ Light Source: 8 LED White Light
- ◆ Power supply: 5V DV from USB Port
- ◆ Size: 121mm (L) X35mm (R)

## Safety Cautions

1. Avoid touching the lens with finger to dirty it and protect the product from electrostatic damage.
2. Do not attempt to disassembly any part of this product.
3. Do not attempt to service this product yourself. Opening the covers may expose you to dangerous voltage points or other risks.
4. Storing and operating USB 2.0 digital microscope at Temp: -20 ~ 45°C, Humidity: 45% ~ 85%, as this will extend Product life and prevent damage to the product.
5. Do not allow this product to have contact with water or other liquids. If water or other liquids enter the product interior, immediately unplug the product from PC. Continued use of the product may result in fire or an electrical shock.
6. Do not use any detergent or volatile solution, which will damage the camera case, painted surfaces and lens. Only use a soft cleaning cloth to clean it.
7. Do not place this product near a heat source or expose direct flame, avoid the lens damaged by high temperature or humidity
8. If the lens is dirty, please use a lens brush on soft cloth to wipe clean. Avoid touching it with your fingers. Exercise care to avoid scratching the lens.
9. Need to read USB 2.0 digital microscope User's Manual before using and storing it.
10. To avoid electric shock, remove all electricity source before moving PC.

## Package Contents

The USB 2.0 digital microscope package includes the following:

1. CD ROM (Driver)
2. Stand (Plastic)
3. Gift Box



## System Requirements

In order to install USB 2.0 digital microscope, you will need the following **minimal** systems:

- ①. OS: Windows XP or Vista
- ②. CPU: Pentium IV 1.0G, Celeron, AMD Athlon
- ③. CD-ROM
- ④. Available USB port (if it is USB1.1, maybe some software function will be disabled)
- ⑤. 256MB RAM
- ⑥. 100MB available hard disk space
- ⑦. Graphic card: 16-bit

### **Recommended PC specification for optimal performance:**

- √ OS: Windows XP SP2 or Vista SP1 or above
- √ CPU: Pentium IV 1.6G, Celeron, AMD Athlon or above
- √ CD-ROM
- √ Available USB 2.0
- √ 512MB RAM or above
- √ 10GB available hard disk space or above
- √ Graphic card: 32-bit or above

## Software Installation

The following instructions will guide you to complete the process of installing the USB 2.0 digital microscope:

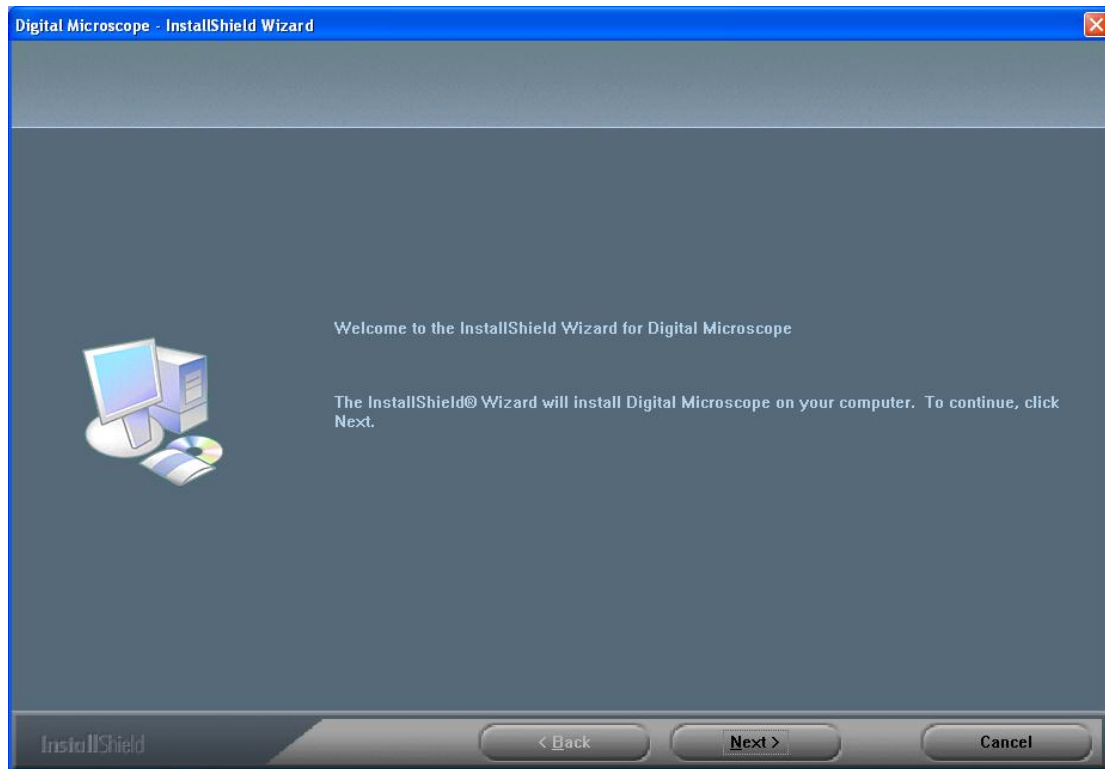
- I. Power on PC and place installation CD into CD-ROM driver, do not connect USB Cable from Digital Microscope to PC before software installation.
- II. Select “Install Software”, and follow the instructions to complete installation.
- III. As driver installation completed, and if system asking for restarting, please restarting PC.

## Window XP OS Installation

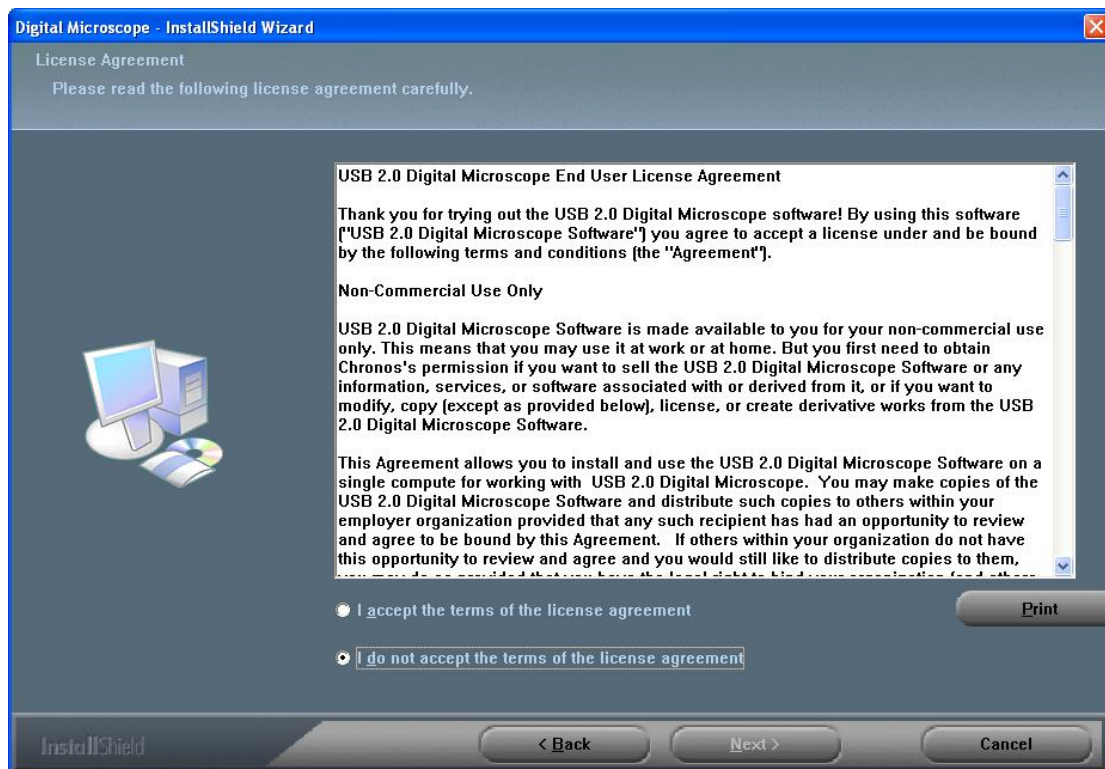
1. Place the installation CD into CD-ROM driver, the installation program should be started automatically. Otherwise, please execute the AUTORUN.EXE directly from the CD.



2. Select “Install Software” from software Installation page to install application software for Digital Microscope.
3. You will see the following popup .Press “Next” to proceed or “Cancel” to abort installation.

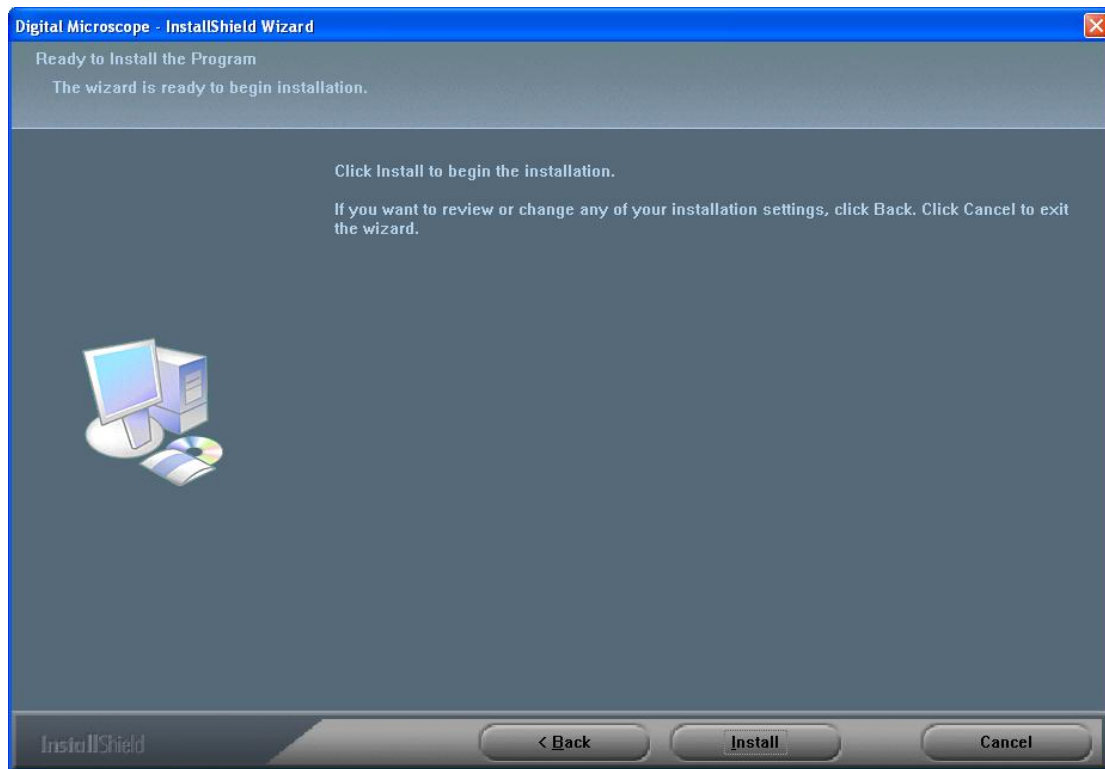


4. You will see the End User License Agreement. If you accept the License Agreement, then you can Click the “Next” button which is available to process, or “Cancel” to abort installation.

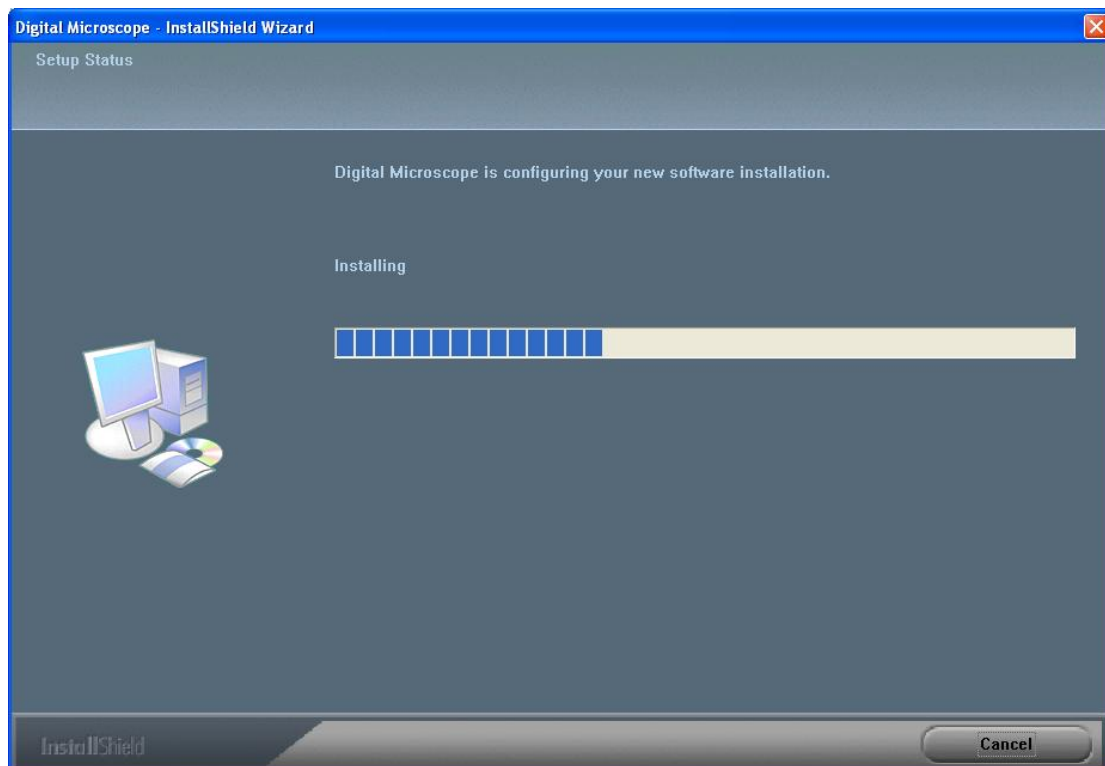


5. You will be able to install the application. Click “Install” to start to install, click “Cancel”

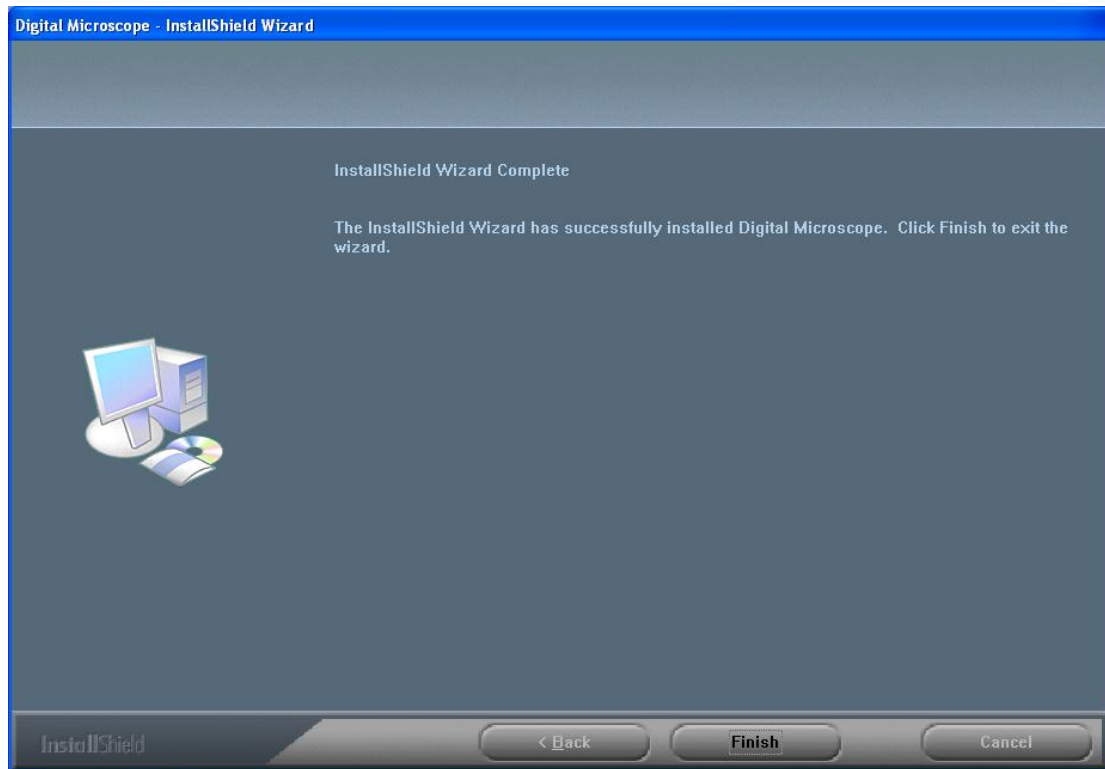
button, it will abort installation. Click on “Back” if you wish to read the End User License Agreement again.



6. You will see the following progress bar below indicating that the installation is proceeding. If click “Cancel” button, it will abort installation.



7. Wait until you see the following popup and press “Finish” button.



8. Please plug USB cable to USB 2.0 digital microscope to connect with PC. System will automatically search and install the driver. Wait until you see this message that system show "Your new hardware is installed and ready to use".

Now the software installation was completed, you can use USB 2.0 digital microscope.

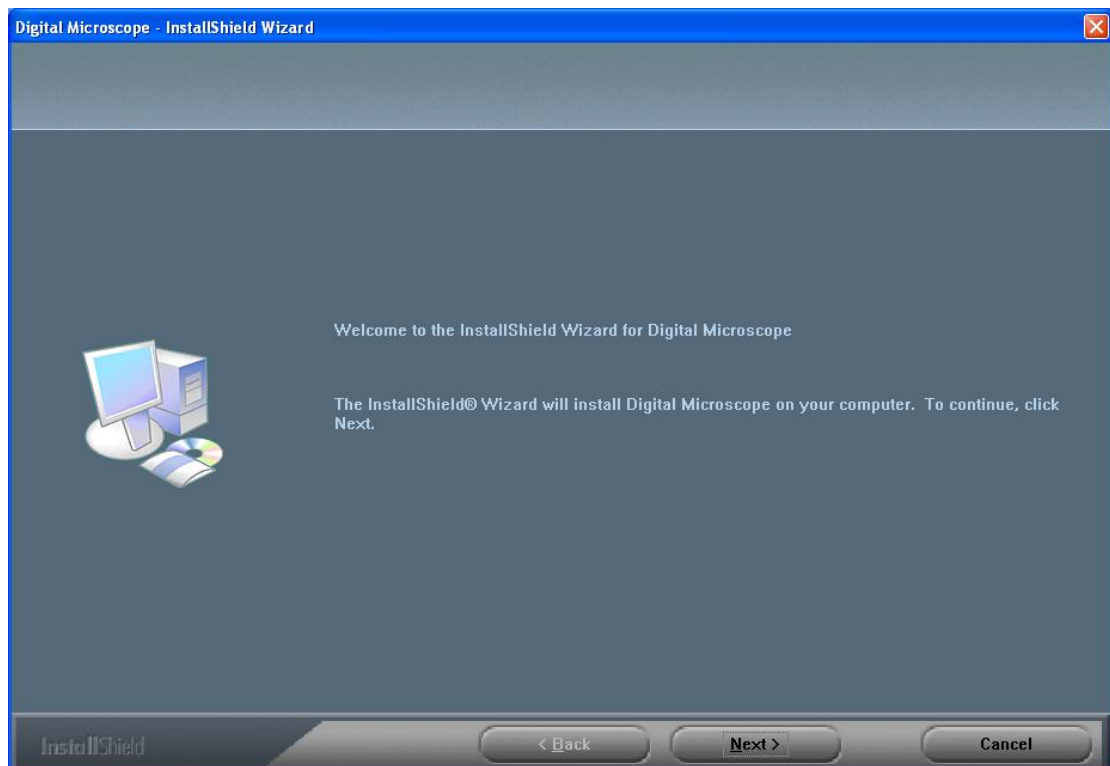
## Window Vista OS Installation

1. Place the installation CD into CD-ROM driver, the installation program should be started automatically. Otherwise, please execute the AUTORUN.EXE directly from the CD.

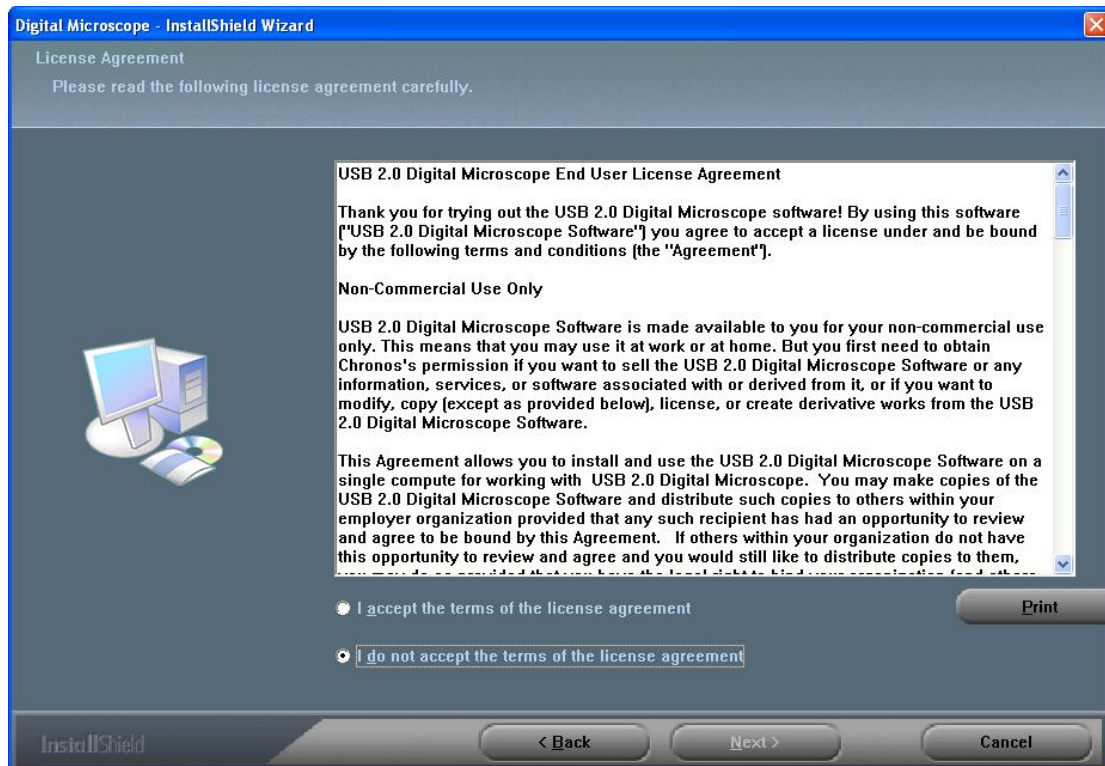




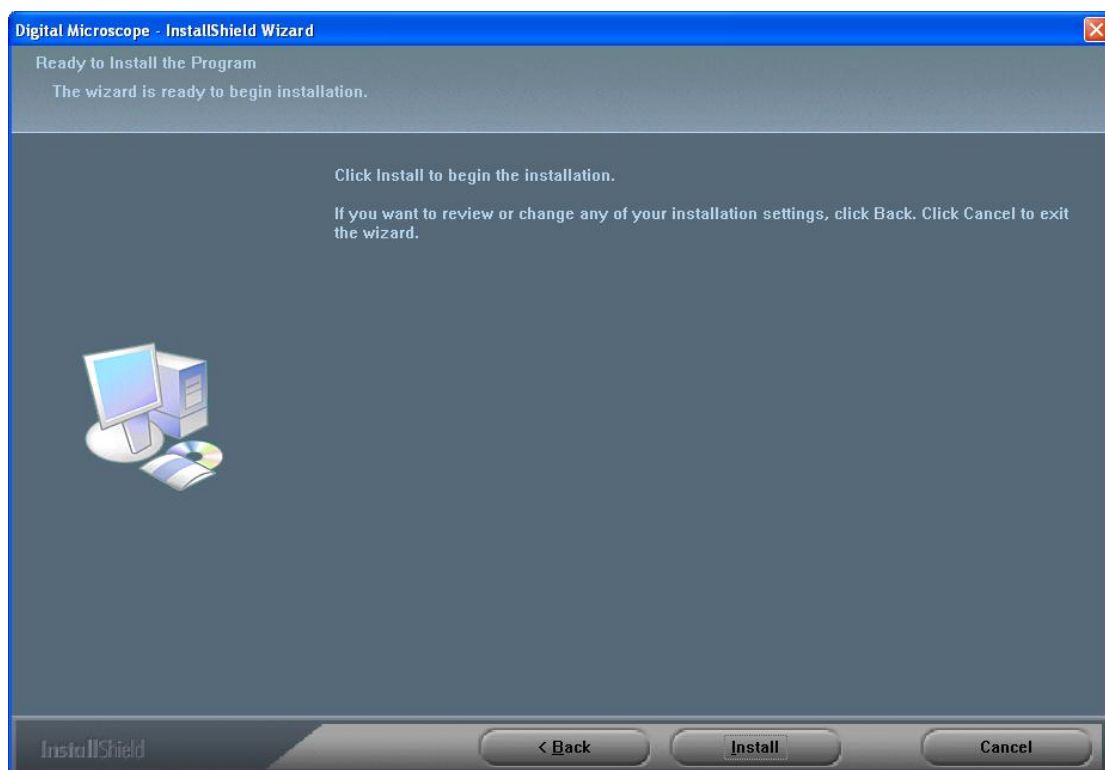
2. Select “Install Software” from SOFTWARE installation page to install application software for Digital Microscope.
3. You will see the following popup .Press “Next” to proceed or “Cancel” to abort installation.



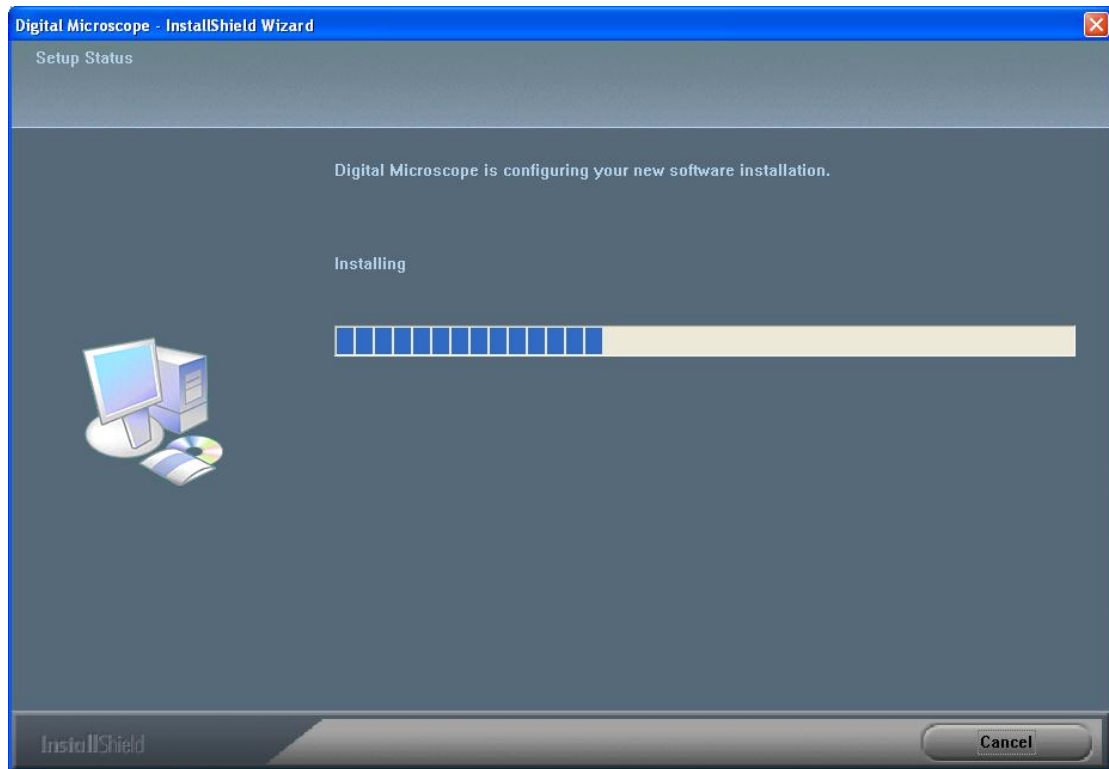
4. You will see the End User License Agreement. If you accept the License agreement, then you can Click the “Next” button which is availability to process, or “Cancel” to abort installation.



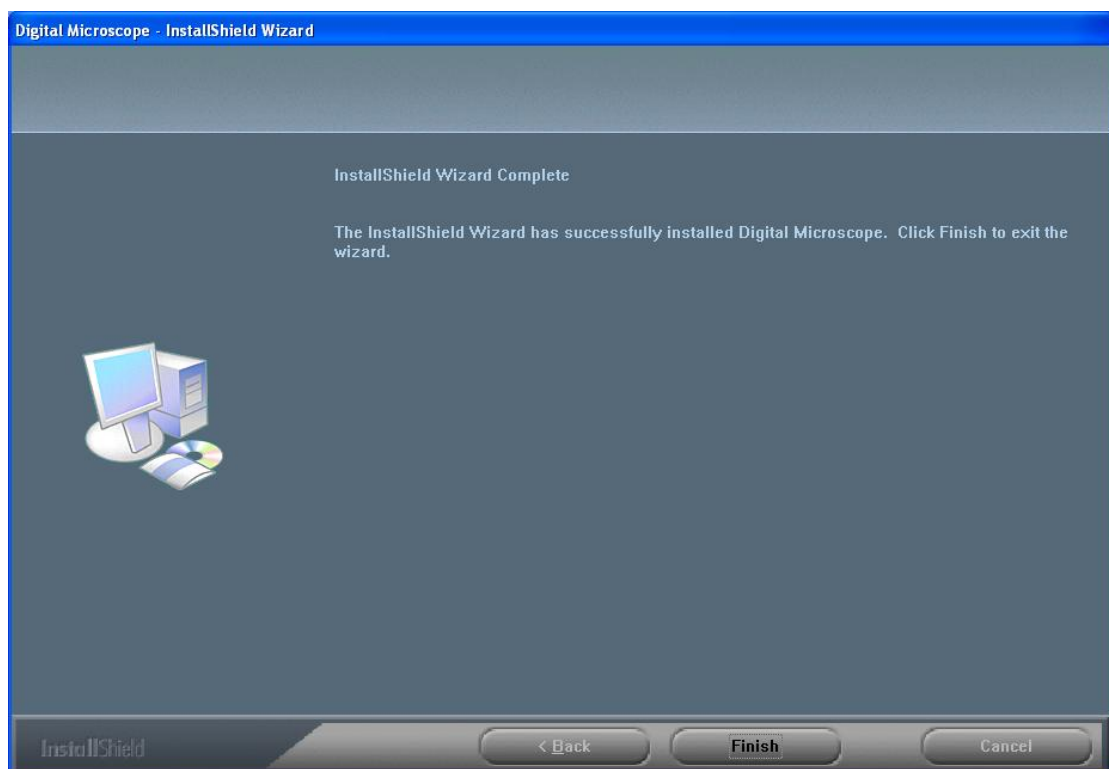
5. You will be able to install the application. Click “Install” to start to install, click “Cancel” button, it will abort installation. Click on “Back” if you wish to read the End User License Agreement again.



6. You will see the following progress bar below indicating that the installation is proceeding. If click “Cancel” button, it will abort installation.



7. Wait until you see the following popup and press "Finish" button.



8. Please plug USB cable to USB 2.0 digital microscope Device to connect with PC. System will automatically search and install the driver. Wait until you see this message that system show "Your new hardware is installed and ready to use".

Now the software installation was completed, you can use USB 2.0 digital microscope.

## USB 2.0 digital microscope connection

The following procedure will show you how to properly connect USB 2.0 digital microscope with your PC.

- i. Connect USB Cable on USB 2.0 digital microscope to PC USB port



- ii. The USB 2.0 digital microscope has 1 switch on a sides as shown, please put the switch on “On” or “Led”



## Operating USB 2.0 digital microscope Process

The following process will show you how to operate USB 2.0 digital microscope.

- ①. To have a right image, suggest holding USB 2.0 digital microscope as shown:



- ②. Put the to-be-observed object near the USB 2.0 digital microscope, the distance between both (object distances) don't exceed to 15CM.
- ③. Adjust the focus: Use any finger to rotate the "A" roller as shown, till the image is vivid





- ④. The Zoom times will be larger as USB 2.0 digital microscope is closer to the observed object.
- ⑤. When the observed object is located at the top of the transparent cover, there are two focus positions, each with different zoom times (250x and 50X), can be found by rotating the roller. If you want 51X~249X zoom times, you must take off the transparent cover to adjust the object distance.

## Digital Microscope Application software

Note: Before start Digital Microscope Application Software, please make sure USB 2.0 digital

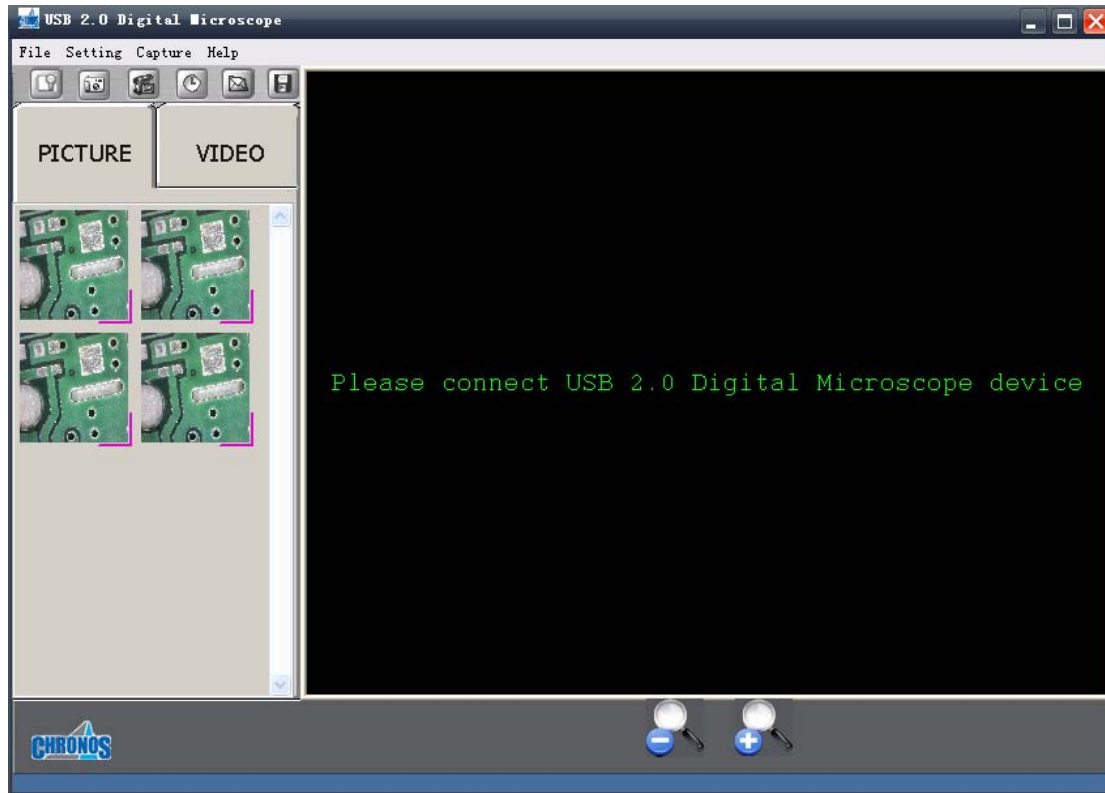
microscope has been connected to PC via USB line



Double-Click Digital Microscope icon on desktop, the Digital microscope application software main screen will be shown as below:



If USB 2.0 digital microscope has not been found while opening the Digital microscope application software, the message will be shown as below:



## Menu Bar Description

File:

(1) Open

Please select a picture or video first, then open the Picture with paint or Open the Video with Media Player.

(2) Save

Please select a picture or Video before save .

(3) Delete

Delete one picture or one Video which is selected .

(4) Delete All

Delete all pictures or all Videos once.

(5) Email

Please select one picture or one video before email Picture and Video.

Setting:

(1) Device





- (2) Cross Line  
Add in cross line on preview area.
- (3) Coordinates  
Add in coordinates on preview area.
- (4) Circle  
Add in circle on preview area.
- (5) Timer  
Add in timer on preview area.

#### Capture:

- (1) Take Picture  
Snap a picture.
- (2) Take Video  
Record a Video.
- (3) Take time lapsed pictures  
Setting time period for pictures recording.

#### Help:

- 1. Digitail Microscope Manual will instruct you how to use application software.
- 2. Digital Microscope Update: you can click it to see if there are any software update.
- 3. Digital Microscope About: you can check your present version via it as below shown:

## Tool Bar Description

**PREVIEW Button: Two statuses as below**



: Real-time images show on Preview Area under the microscope viewing.



: Take Picture



: Take Video



: Take time lapsed Pictures



: Save as--A took-picture can be saved as “jpg” or “bmp” to your specified disk.



: Email

The Pictures/video in the folder will not be automatically deleted when closing the program. Thus, it is suggested to save manually the needful picture or video, and then keep this folder clean for file security and program's performance concern.

## Thumbnails remark



The picture or video has been saved





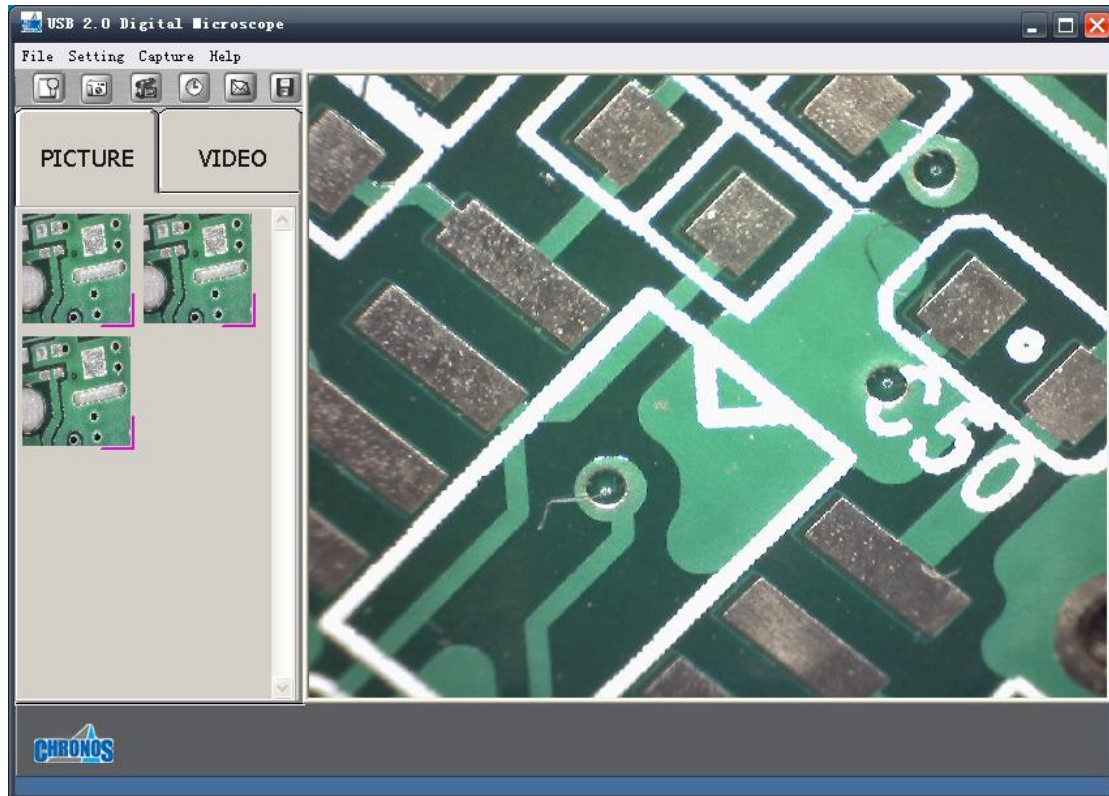
The picture or video has not yet been saved.



The Picture or video is selected, the mouse stay there, then click the right key of mouse to pop a menu, or click the related buttons of tool bar ,it can be viewed by double-clicking、be save、 be mailed、 be opened to edit、 be deleted.

## Take Picture

You can take picture by clicking the  icon on Tool bar or press this  button on Digital Microscope Transmitter device (Note: This is picture folder as below)

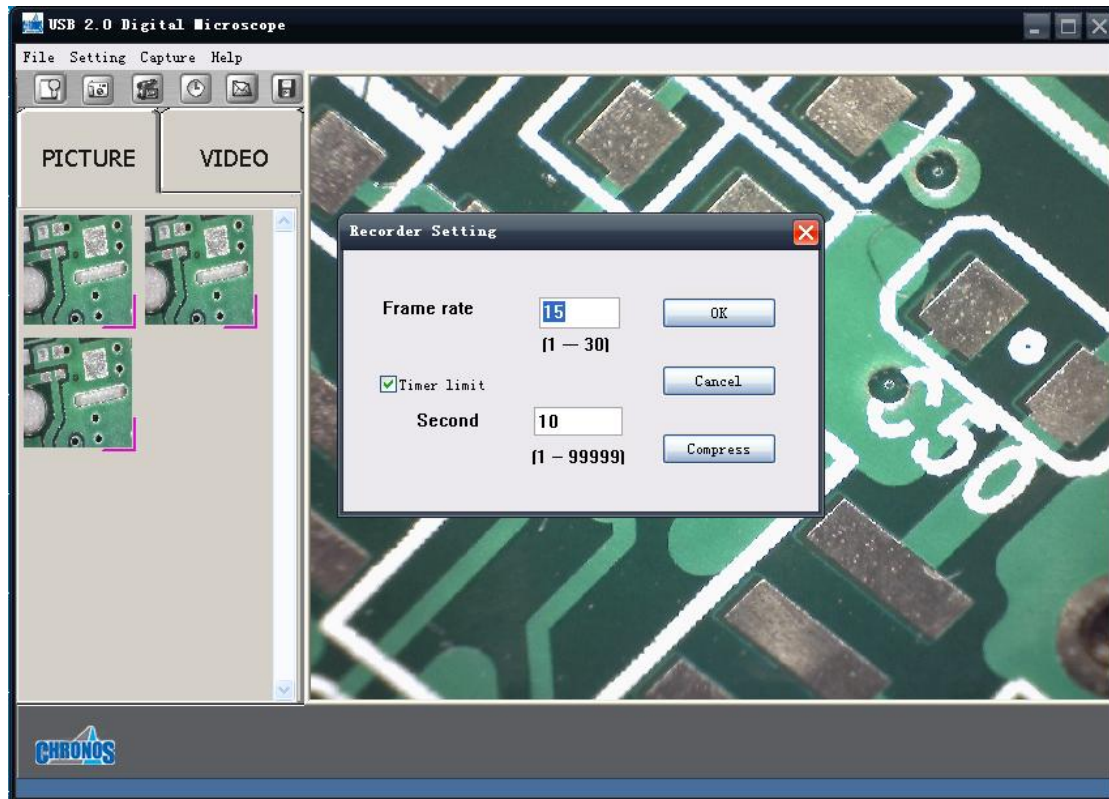


## Take Video


The Video can be taken by clicking  icon on Tool bar. (Note: This is Video folder as below).

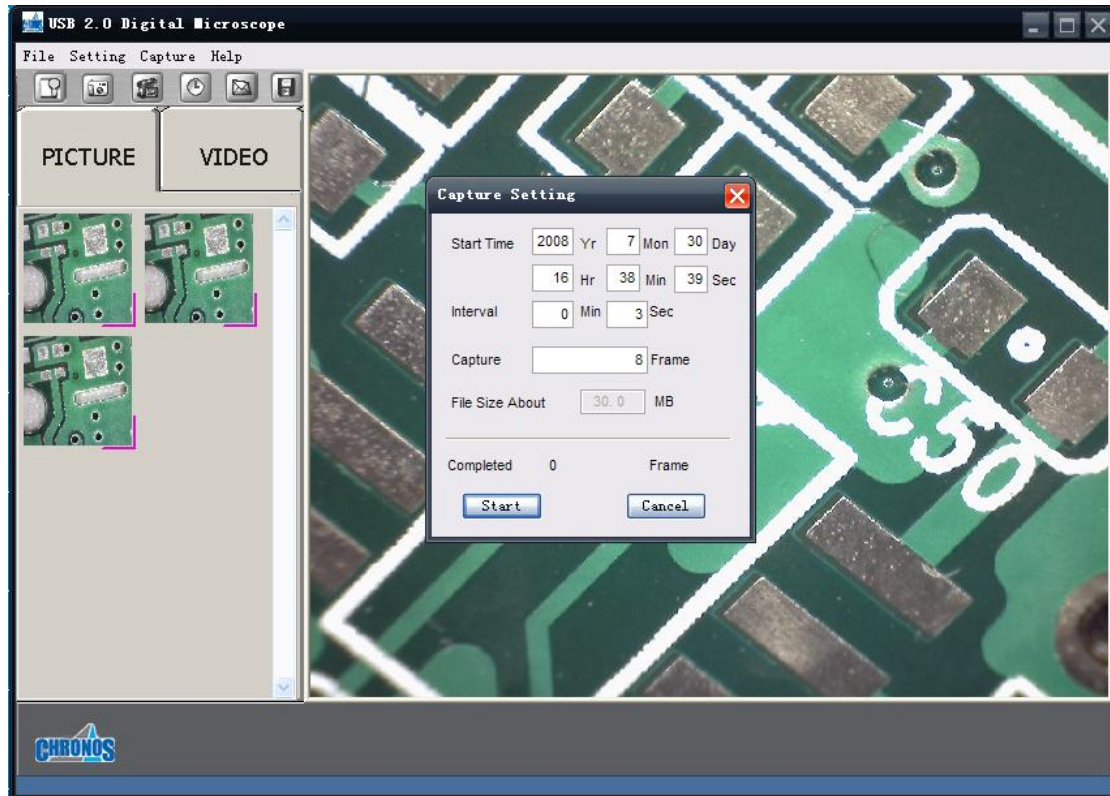
Recorder setting:

1. **Frame rate:** it is the number of frames or images that are projected or displayed per second. The number range is 1~30
2. **Timer limit:** it is the time of video recording to avoid video file size exceed to the space of disk. The number range is 1~99999
3. **Compress:** click it and you can select the video compressed format to reduce video size. It loads automatically compress programs according to your PC system. The video quality may be varied with different compress program.




## Take time lapsed Pictures

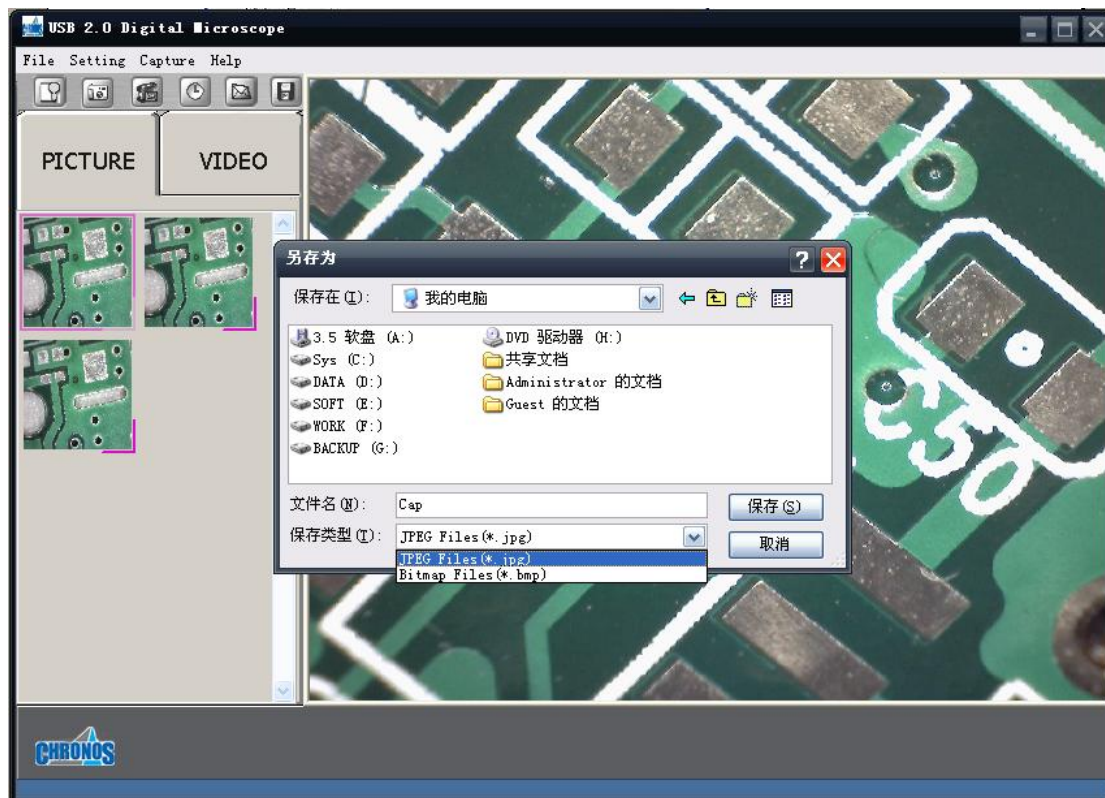
You can take time lapsed Pictures by click the  icon of Tool Bar as below shown.




## Save as

You can select a picture or video in Picture/Video folder, then click the  Icon of Tool Bar, the file can be saved as “jpg” or “bmp” picture or video to your specified disk. Shown as below.






## Email

You can send a selected picture or video as email attachment to other guy by clicking the  Icon of Tool Bar.



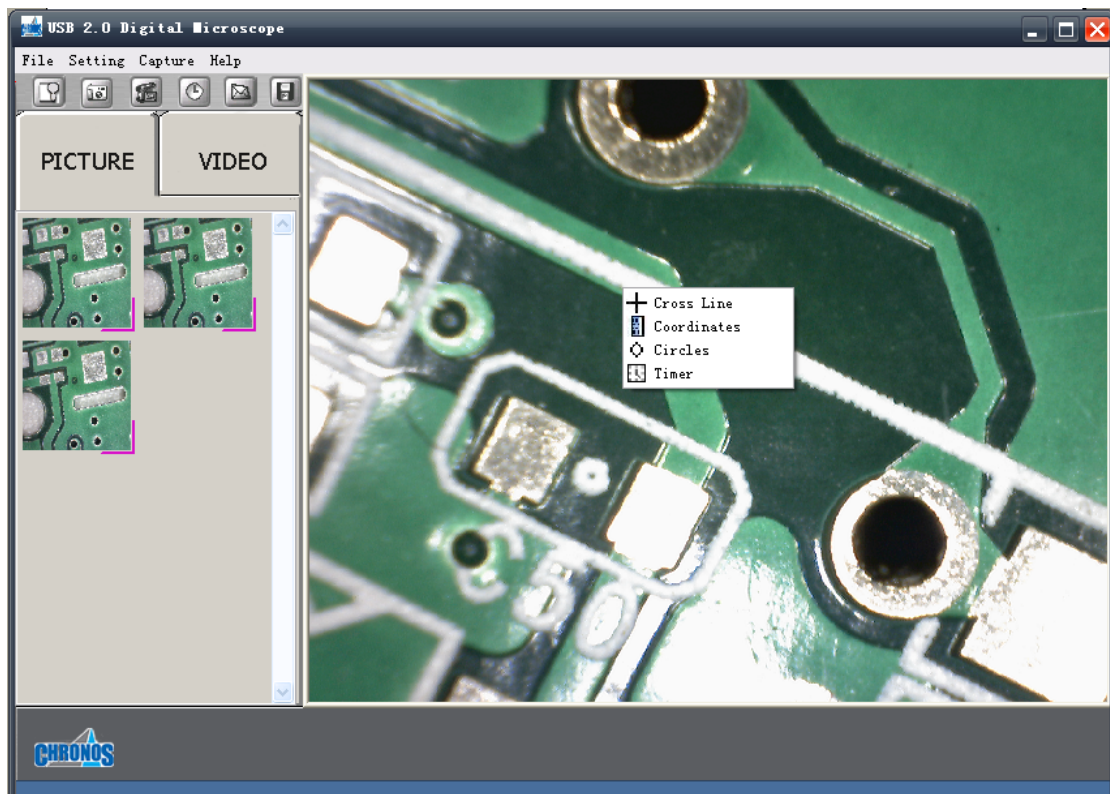
## Full Screen Display and return

These displays of real time preview or picture view/video playback can be enlarged to full screen by clicking the  icon on right-top of program screen or double-clicking the left key of mouse in a site of the preview area.

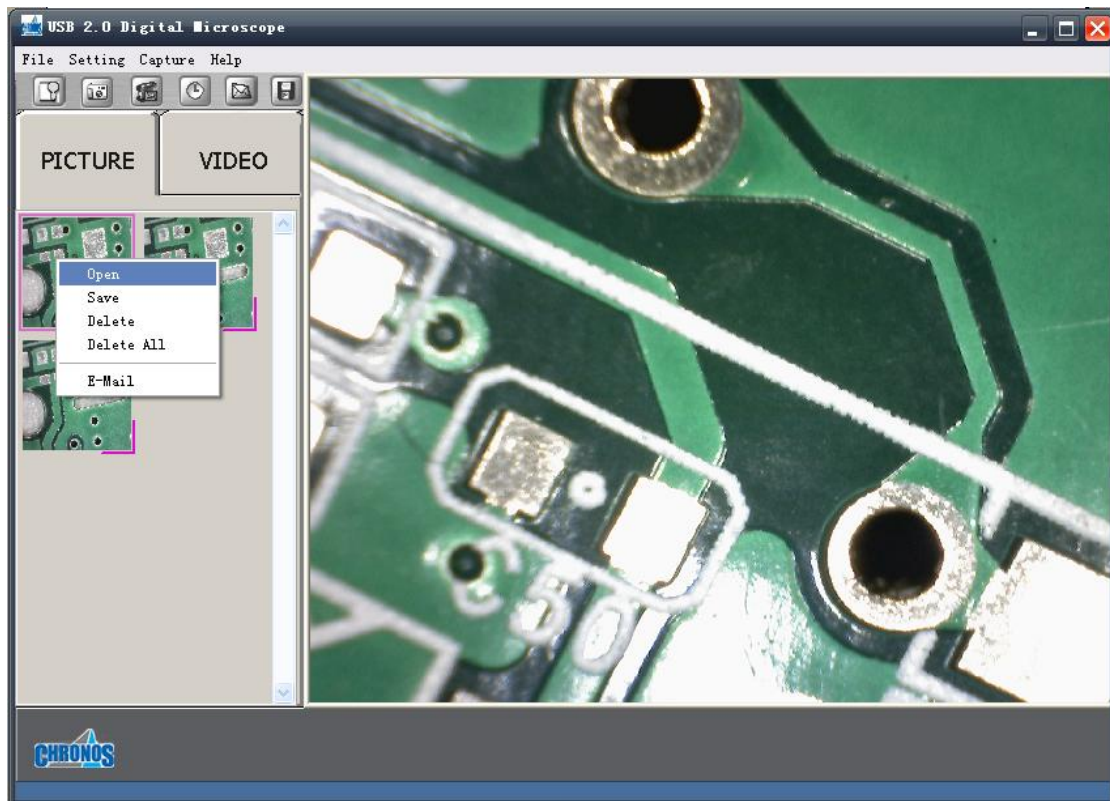
To return from full screen display mode, please press “ESC” key of keyboard or double-clicking the left key of mouse.

## Menu Function List

1. Add in cross line/coordinates/circles/timer on preview area: The mouse stay in the preview area, then click the right key and pop the menu as below. You can click the item you want.



2. Select a file in picture/video folder, then clicking the right key of mouse and pop the menu as below.

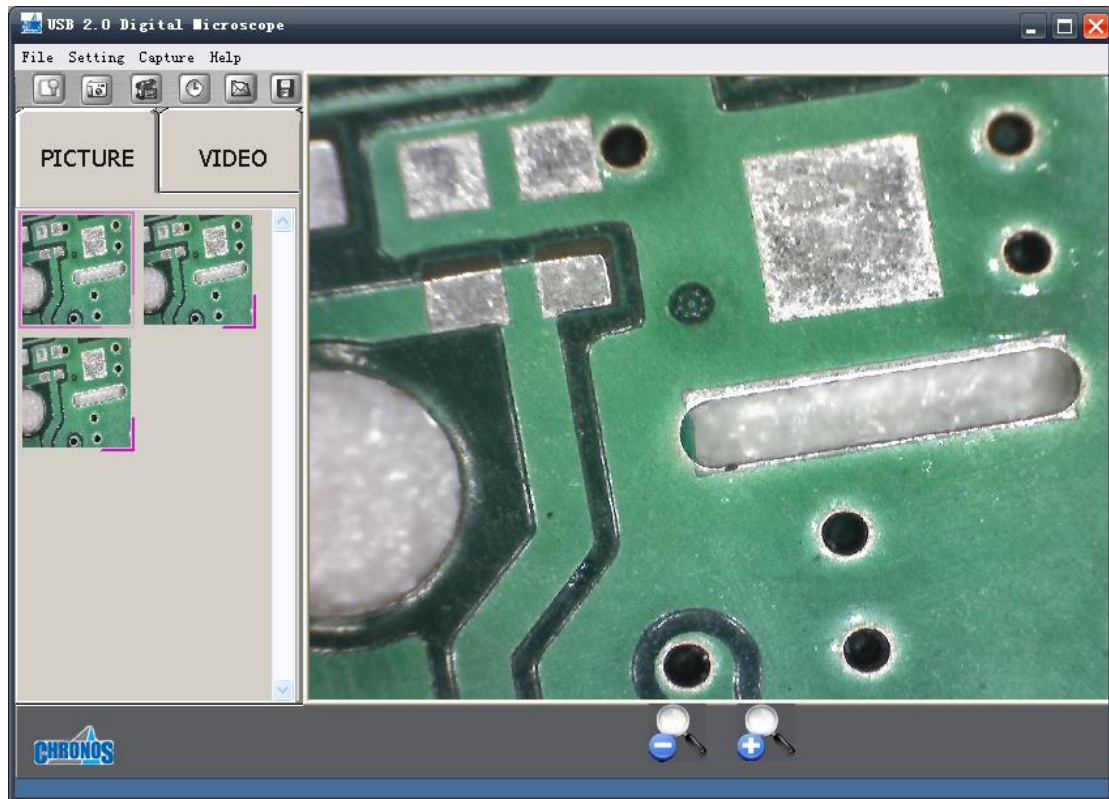




Note: Open-- use “paint” to open it for picture file; use “windows media player” to open it for video file.

## View Picture

You can double-click the selected picture in Picture folder to view it as below shown;



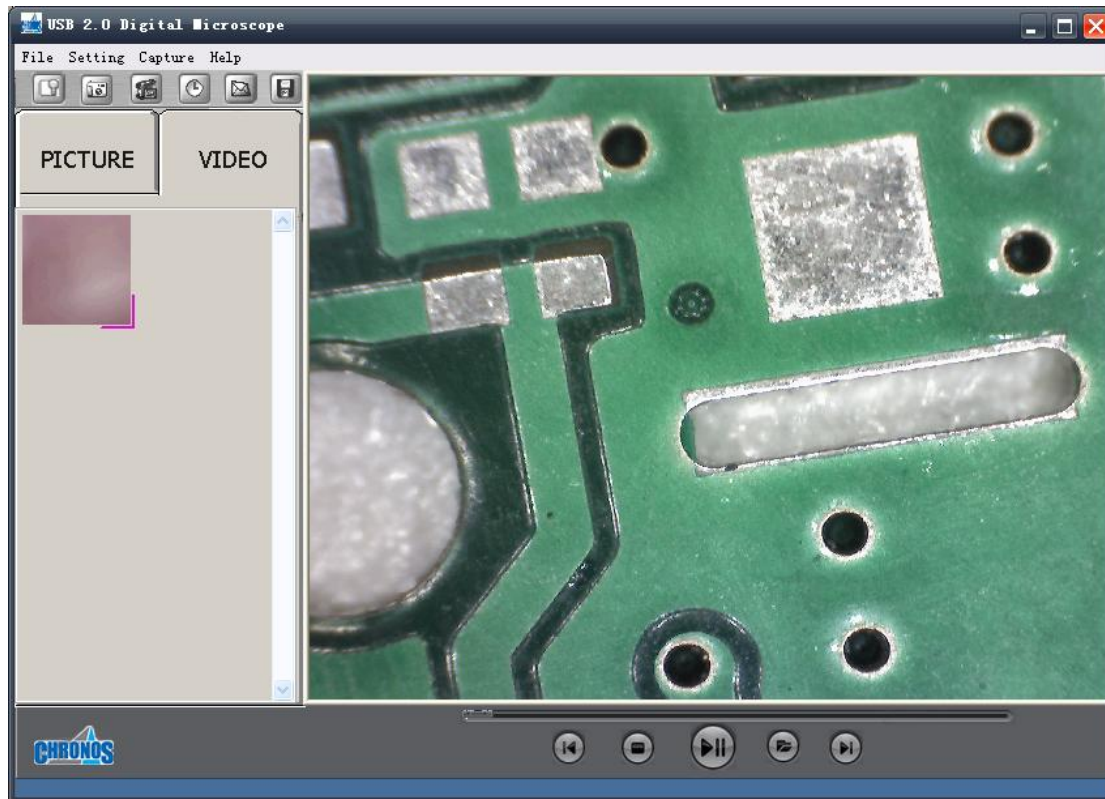


 : Zoom In     :Zoom Out

## Video playback

You can double-click the selected video in video folder to play back it as below shown





## Troubleshooting

### Common Fix

**A.** If USB 2.0 Digital Microscope and Application Software were working OK and suddenly stops working properly, Please try the following:

1. Unplug or Power off Digital Microscope from PC
2. Close Software program..
3. After waiting for 1 minute, plug or power on Digital Microscope .
4. Open Digital Microscope application software.

**B.** For Vista first version OS system (Nor Vista SP1), maybe there is this issue: there are not any images (black screen) on preview area, please try: Toolbar->setting->default->Ok)

**C.** After PC resume from standby or hibernate, maybe Application Software will not work properly, please close it and re-open to try.