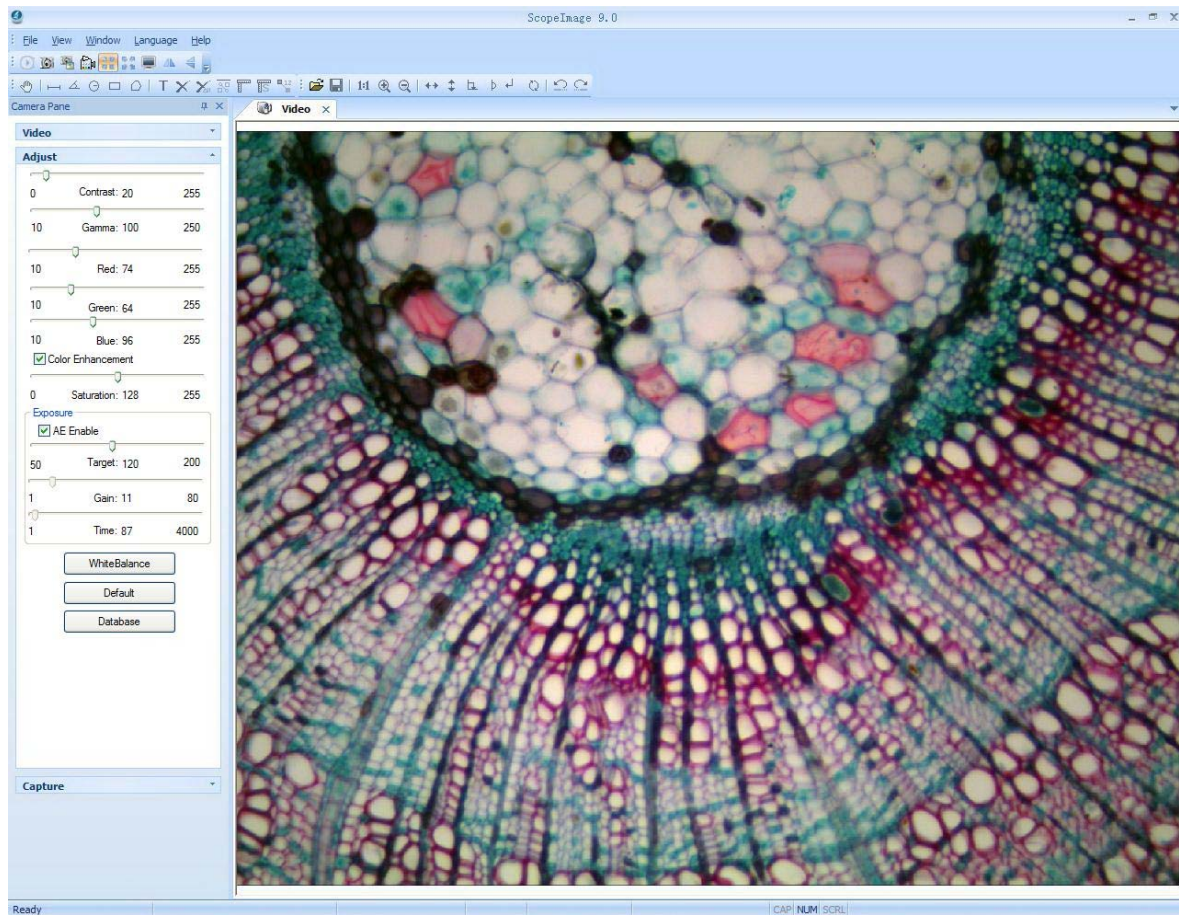


ScopelImage 9.0

Professional imaging software

Operation Manual



2011-3-24

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1. Introduction

Thank you for purchasing our camera product. To avoid any misuse and damage, please read the operation instruction carefully before operation. This is a color USB2.0 digital image system that captures microscope images and displays real-time live video on your PC screen. It comes with a high-resolution digital camera and a user-friendly software, and adapters for all sizes of microscopes.

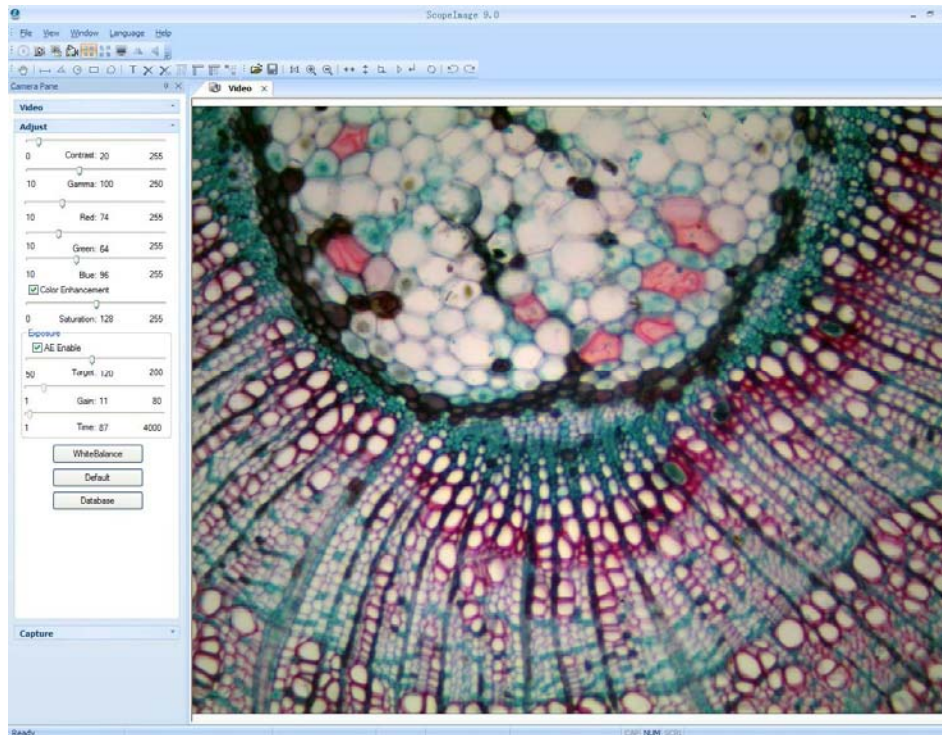
1.1 Specification

Image Sensor	1/2"CMOS
Valid Pixel	1280×1024(1.3M Pixel)
Pixel Size	3.2μm × 3.2μm
Digital Output	24-bit (color)
Image Format frame rate	1280×1024 7.5f/s
	1024×768 10f/s
Sensitivity	>1.0 V/lux-sec (550nm)
Exposure	Manual/Auto Exposure Process, Exposure Time Adjustable (1~500ms)
SNR	43dB
Dynamic Range	61dB
Connecting Mode	Insert it into Eyepiece Tube of Microscope Directly or Using Standard C Mount
Image Output	USB2.0, (Directshow & Twain)
Working Temperature	0°C ~ +60°C
System	Windows 2000/XP/Vista/Win7 32bit or 64bit

- With High Resolution chip(1.3M),Providing High Quality Image and Widely Used in Academic and Medical Field for High Precision and Resolution Image Capturing and Processing;
- By USB2.0, getting Real-time and Non-compressing Video Data and Capturing Image Directly;

1.2 About ScopelImage 9.0

High resolution image processing software is especially designed for digital microscope; it has friendly operation interface, stable performance and powerful function, very easy to operate. And can be widely used in various optical micro fields, such as teaching, researching, electronic checking and so on.



The interface of software

Features

ScopelImage 9.0 is a image-processing software professionally designed for digital microscope. It allows you to view, capture, edit, record, zoom, measure, process images and so on. Specific features include as follows:

(1) Support multi-languages, as Chinese, English, German, French, Japanese, Polish and Arabic; and can switch freely between the languages.

(2) Active image preview, freezing preview, fit to window preview, actual pixels preview, full screen preview... various preview modes make you preview the active images with great ease.

(3) Convenient color adjustment of the active image, containing brightness, contrast, saturation, RGB value, white balance and so on.

(4) Special design color database, we can associate the parameters of the color to the database, and can store or delete the color scheme.

(5) Various image measurement tools, including line, angle, rectangle, polygon and circle, can move, delete or set the color of the objects, add text on the image. And you can also burn all the objects into the image for further using.

(6) Automatic measurement and real-time measurement result display.

(7) Basic image operations like other similar software are included in the Image menu. You can adjust the image at ease.

(8) Image flip function, include horizontal flip and vertical flip of the active image, Image flip function, include horizontal flip and vertical flip of the active image, and

rotate 90 degree, 180 degree, 270 degree or any angle degree of the captured image.

(9) Image Zoom: Contain image zoom in, zoom out, 1:1 display.

1.3 Minimum System Requirements

System Requirements

- Operating System Windows 2000/XP/Vista/Win7 32bit or 64bit
 - DirectX 9.0 or higher (for Windows 2000)
 - Video adapter supports 24bit color or more, and 1280*1024 or 1024*768 resolution
 - CPU with 1.8GHz or more
 - System Memory 512MB or more, Display Memory 256MB or more
 - USB2.0 interface
 - Hard Disk Space 1GB for installation plus additional space for captured images.
- Since video processing is hardware intensive, a faster computer with a fast hard disk drive and extra memory will yield better results.

2. Install Instruction

2.1 Install Instruction

1. Connect the Camera to the Computer: plug one end of the USB cable to an open USB port on your computer, and the other end to the camera.

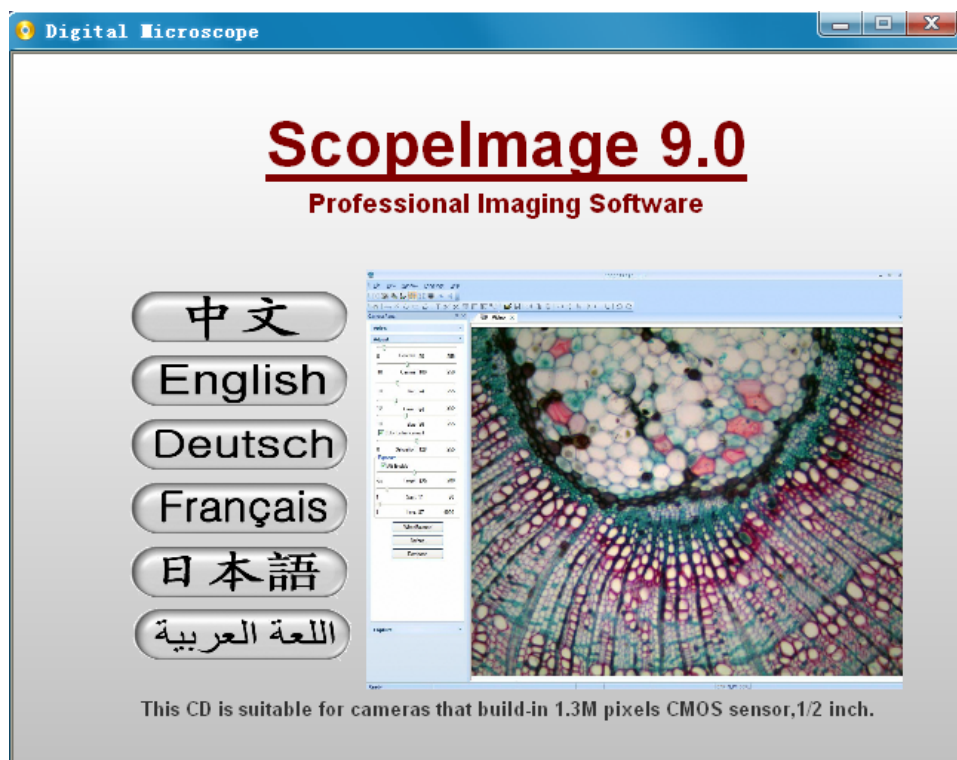
Attention:

Please choose the same USB2.0 port at the second use; otherwise you need to update your driver again to make the camera work normally. And refer to the chapter 5 to update the driver.

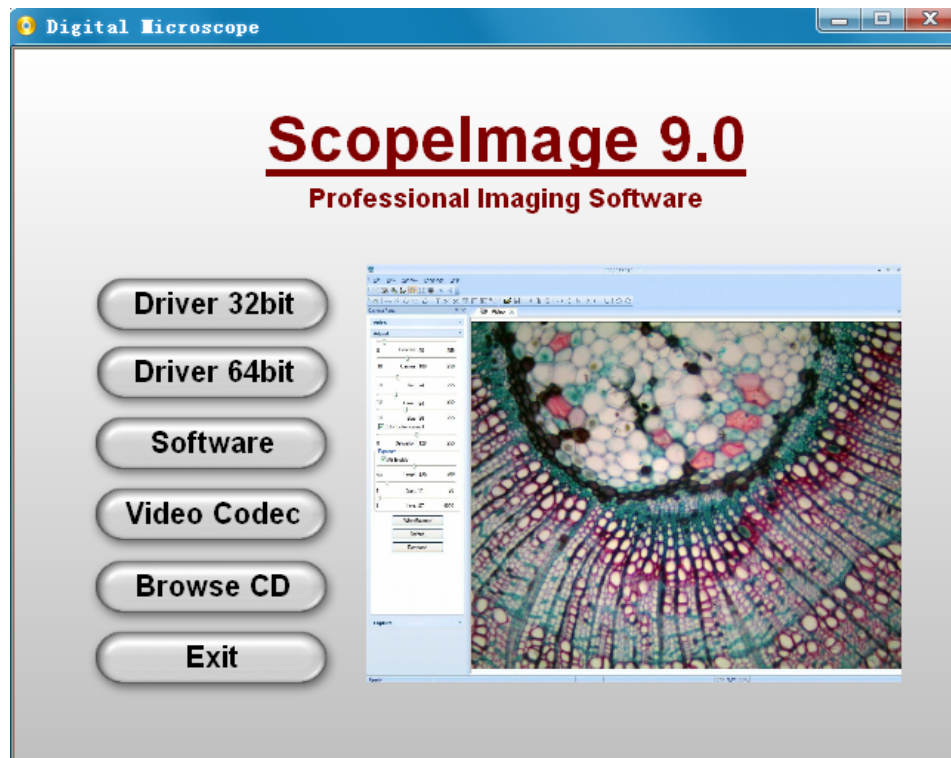
2. The computer's Operating System should recognize it, and pops up a found new hardware dialog, Please click "**Cancel**".



3. Place the disk in CD-ROM and the installation interface would pop up automatically.



Choose the relevant language to install.



Driver 32 bit: Please link the camera with the PC before running the driver setup.

When your operation system is 32bit, please click 'driver 32bit' button to install the camera driver.

Driver 64 bit: Please link the camera with the PC before running the driver setup.

When your operation system is 64bit, please click 'driver 64bit' button to install the camera driver.

In Windows XP system, there will be two warning dialogs when installing the driver, as the pictures below, just click 'Continue Anyway'.



Attention:

Please choose the same USB2.0 port at the second use; otherwise you need to

update your driver again to make the camera work normally.

Software: Click the software button to install the microscope image processing software – **ScopelImage 9.0**. Follow the clue to finish the installation.

Video Codec: Click the video codec button to install video encoding and decoding software, this is necessary for recording videos. Otherwise you will find you can not record or record error.

Browse CD: Click this button to browse the CD.

Exit: After the installation, click this button to exit and close the installation wizard.

Other contents in the CD:

-  **DirectX9.0:** If your system is Windows 2000 operation, please install DirectX9.0, it is necessary.
-  **Adobe Reader:** If you can not read the user manual, please install the Adobe reader first, for the user manual is pdf format, and pdf files can only be read after you have installed the Adobe Reader. After installation, you can open the 'User Manual. pdf'.
-  **User Manual:** Operation manual about how to operate the software.

Attention:

The CD autorun interface does not include the installation of the image analysis software. If you have the optional analysis software, such as ScopelImage Advanced, etc., please click the "BrowseCD" button to open the CD, find the folder, and install it yourself.

2.2 Check whether the device is rightly installed

Check the hardware driver, whether there an "Imaging Devices" **Novel-H1D** in "Device Manager / Hardware", as picture shows below:



Note: If there's no imaging device in the device manager, or there's a **yellow warning symbol** before the imaging device Novel-H1D, it means you have not installed the hardware device rightly, and you need to update the driver, please refer

to the chapter [“5.2 How to update the driver”](#) to reinstall the driver.

Here we introduce you both the operation of the video and the image mode.

Preparation:

1. Link one end of the USB cable to the PC, and the other end to the digital camera's USB interface.
2. Turn on the power supply of the microscope.
3. Make sure the hardware and software have been installed rightly.
4. Launch the software 'ScopelImage 9.0' by the icon on the desktop or by the Start Menu.

3. Workspace

Besides image windows, many other windows or user interface elements reside within the main window of ScopelImage 9.0. These include menu, toolbars, status bar and control windows providing additional information about the images or control of the camera.

3.1 Menu

The menu can be either docked or floating. Double-click its grip or caption bar to toggle between the two states. When the menu is docked, it can be docked to any of the four sides of the main window. Drag the grip or caption of the menu to adjust its position or to dock it to a particular side of the main window. The grip of the menu is the dot matrix at the left or top of the menu in docked state.

Video model menus

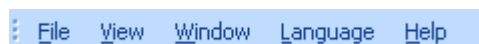


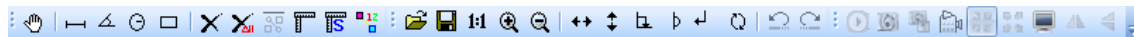
Image model menus



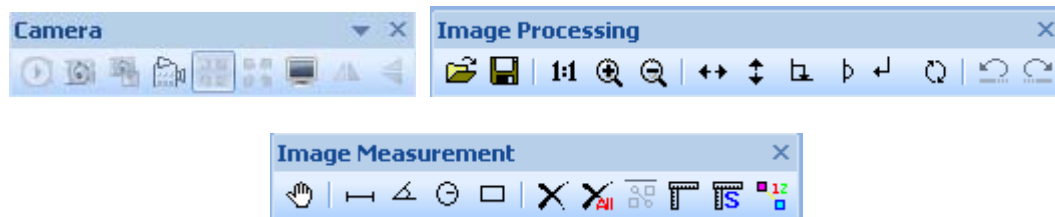
3.2 Tools Bar

ScopelImage DynamicPro has four toolbars. Each toolbar can be either shown or hidden. When a toolbar is shown, it can be either docked or floating. Double-click its grip or caption to toggle between the two states. When a toolbar is docked, it can be docked to any of the four sides of the main window. Drag the grip or caption of a toolbar to adjust its position or to dock it to a particular side of the main window. The

grip of a toolbar is the dot matrix at the left or top of the toolbar in docked state.

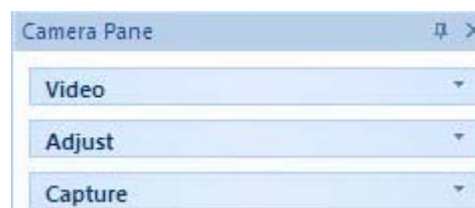


Floating state:



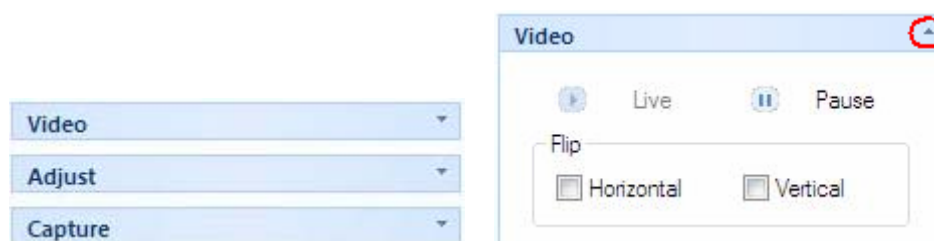
3.3 Camera Pane

Camera pane is where camera control commands are issued. It is further divided into three sub-panes (Video, Adjust and Capture) for specific aspects of the imaging process.



Sub-panes are shrinkable. To shrink a sub-pane, click the arrows at its top right corner. To expand a shrunk sub-pane, click again the arrows at this to right corner. The arrows at the top left corner of a sub-pane point upward in expanded state and downward in shrunk state.

Camera pane also maintains a history of the panes shown.

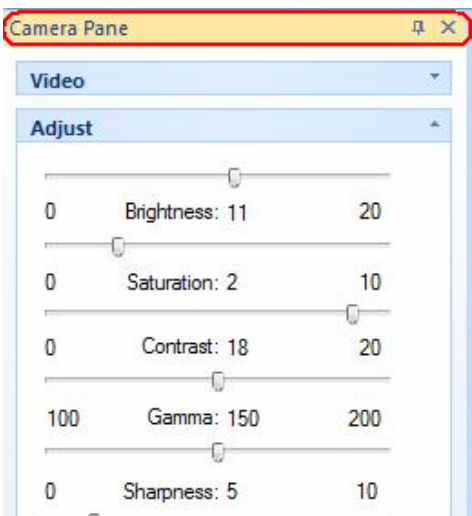


If all the three sub-panel have been opened, the panel will be too long to display all the contents, so there will be two arrows at the top and the bottom of panel, put the mouse on it, the panel will expand upward or downward to display the other part contents.

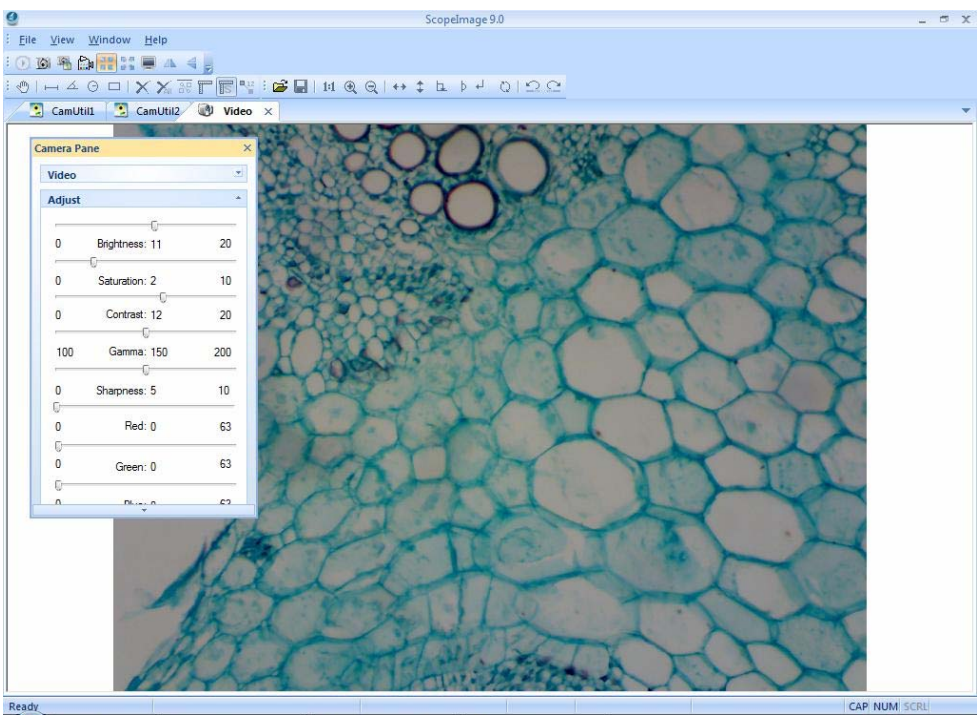


Use the idler wheel of the mouse to extend the contents of the camera pane: click to select the camera pane, when it displays as yellow, roll the idler wheel to

upward or downward display the contents of the camera pane.



Double click the title bar of the 'Camera Pane' (the yellow part of the image above), can turn to floating state, drag the grip or caption of the menu to adjust its position or to dock it to any of the four sides of the main window. Double click to return back, as the pictures shows below.



Camera pane can close, hide and display.

	Locking state	
	Hiding or Hanging state	

When it is in hiding or hanging state, click the 'Camera Pane' or just put your mouse on it, the camera pane will display.



4. Operation

ScopelImage 9.0 mainly divides into two parts operation, one is for the video operation, and the other one is for the image operation;

The Video mode menu: File, View, Window, Help;

The Image mode menu: File, Edit, View, Image, Variant, Measure, Window, Help;

“Alt + the first letter of the menu” can open the relevant menu.

Here we introduce you both the operation of the video and the image mode.

4.1 Video Mode

4.1.1 Video Preview

Video preview mode, the new preview button is gray ;



When the preview window is closed, the video preview button is activated ; Push the button  can create a new preview window.



	New Preview	Push to new a new preview window; the equivalent command is the “File->New Preview” menu;
	Capture	Push to acquire an image based on the current camera settings and store into the disk;
	Capture to field	Capture a frame to the field;
	Record	Push to record ,the equivalent command is the record button on the camera pane;

	Fit to Screen preview	Fit to Screen preview mode is fit to the window preview. This mode is best for finding the right field of view to capture. In this mode, the full field of view is visible, albeit possibly in a reduced resolution.
	Actual Pixels Preview	Actual Pixels Preview mode is best for finding the right focus position. In actual pixels preview mode, maximal details are shown, although the field of view may be partially visible.
	Full screen	Full screen display the active image.
	Horizontal flip	Flip the active image by the Vertical axis, click to set or reset a flip state.
	Vertical flip	Flip the active image by the horizontal axis, press to set or reset a flip state.

4.1.2 Video Control

The 'Live' and 'Pause' button can switch between active and static image

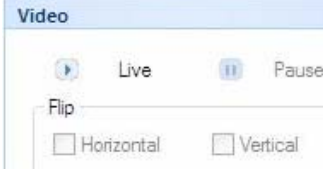
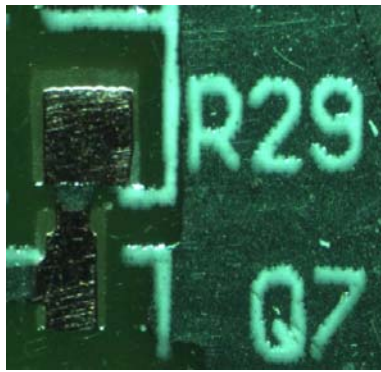
	Live (Video preview mode)	In video preview mode, the image is activating, we usually call it active image, it is fit for observing specimen or slice.
	Pause (Freeze preview mode)	In freeze preview mode, the image has been frozen; it is fit for observing the detail information of the specimen.

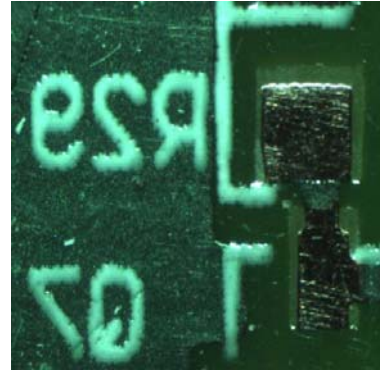
Image flip

The image flip contains horizontal flip  and vertical flip .

 **Horizontal Flip:** Flip the active image by the Vertical axis.



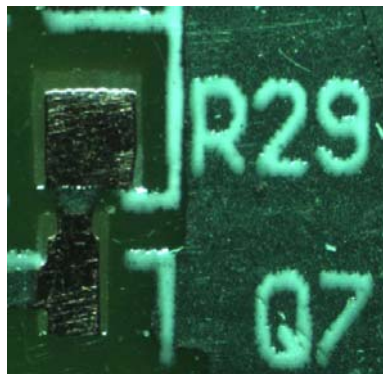
Original Image



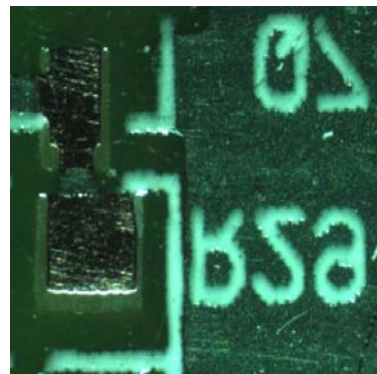
After click the Horizontal Flip button



Vertical Flip: Flip the active image by the Horizontal axis.



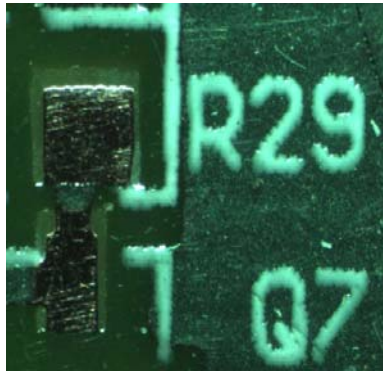
Original Image



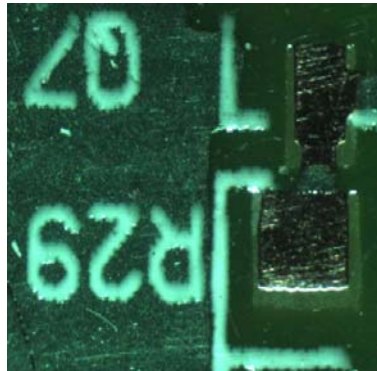
After click the Vertical Flip button



Horizontal and Vertical Flip: Flip the active image by both of the Vertical and Horizontal axis.



Original Image

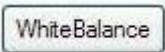
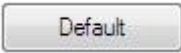
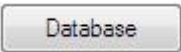


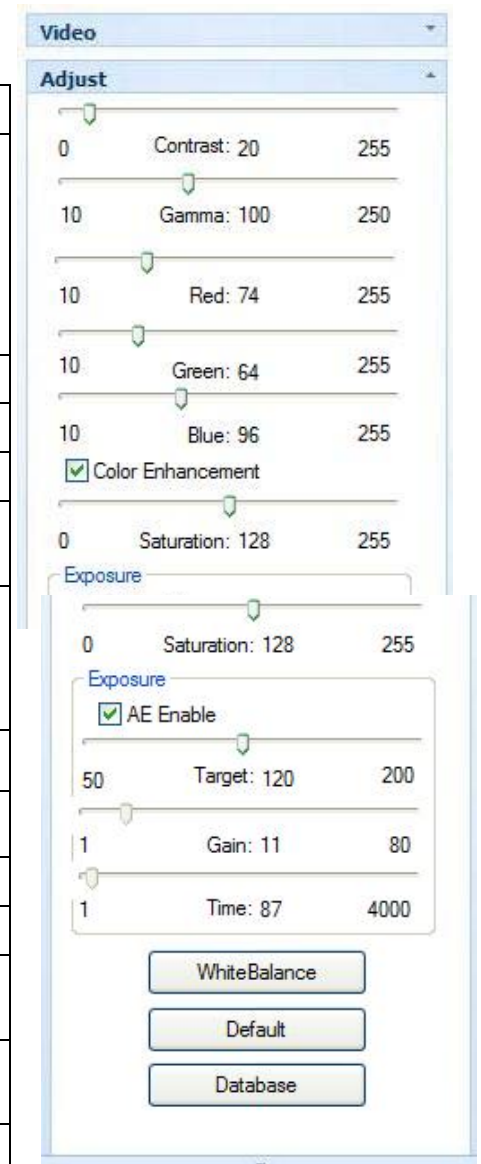
After click both the Horizontal and Vertical button

Resolution ☒ 1280*1024 ☐ 1024*768	Resolution	Choose the preview resolution: 1280*1024 or 1024*768
Light Source ☒ LED ☐ Halogen Lamp	Light Source	Choose the right Light Source to get the better White Balance results

4.1.3 Color Adjust

The color adjust function contains the adjustment of the brightness, saturation, contrast, Gamma, sharpness, Red, Green, Blue, and also contain the auto white balance, recovery to the default setting and the color database.

Contrast	Adjust the contrast of the camera.
Gamma	Adjust the gamma of the camera. Gamma is an image quality enhancement function that offers a richer image by brightening the darker portions of the image without altering the brightness of the brighter portions.
Red	Adjust the Red value of the active image.
Green	Adjust the Green value of the active image.
Blue	Adjust the Blue value of the active image.
Color Enhancement	Enable the Saturation Adjustment.
Saturation	Adjust the saturation of the camera. Saturation is a measure of a color's pureness and brilliance.
AE Enable	Enable Continuous Auto Exposure
Target	Set the target Auto Exposure Value
Gain	Set the Manual Exposure Gain
Time	Set the Manual Exposure Time
	Click to do Auto White Balance
	Recovery to the default setting.
	The management of the built-in database can allow you to store the current image parameters, which brings you great ease for adjusting the color.

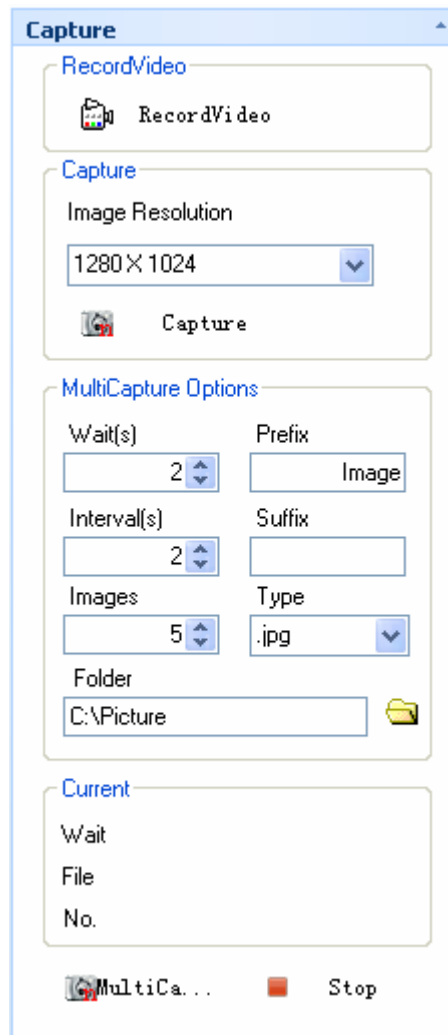


The database of the color parameters

[illegible]

Apply	Apply the select item to the active image.
Add	Add a new item to the active image.
Del	Delete the select item.
Cancel	Exit the 'ColorParm' dialog window.

4.1.4 Capture



1. Capture

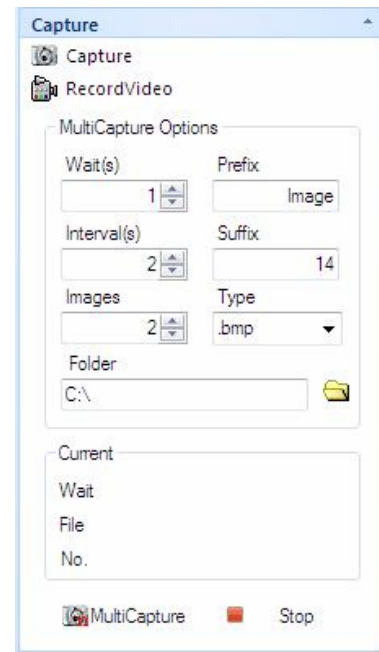
Push to acquire an image based on the current camera settings and store into the disk as jpg or bmp file format;

2. Record Video

3. MultiCapture

ScopelImage 9.0 is able to acquire a sequence of images automatically, an operation referred to as multi-capture. Before acquire, we can set the wait time, interval time, amount, prefix, type, path and so on. After setting, a sequence of the image will be acquired according to the camera settings at the time when the acquisition action occurs.

Wait(s) 1	The time to wait before beginning capture, in seconds
Interval(s) 2	Time interval, it means take image every 2 seconds, and can be referred as frequency.
Images 2	The amount to acquire.
Prefix Image	Set the prefix of the file name.
Suffix 14	The suffix of the file name. Attention: The prefix can be modified, but the suffix can not, it increases automatically while acquiring. If you have changed the storage folder, the suffix will change into 0 again, and increase from 0.
Type .bmp	Set the image type of the images to be acquired.
Folder C:\	Set the path of the image to be acquired Attention: In Windows Vista System, you'd better not set the capture as C:/, or you may can not save the images which is limited by user's authority.
MultiCapture	Begin to multicapture.
Stop	Stop capture.



4.2 Image Mode

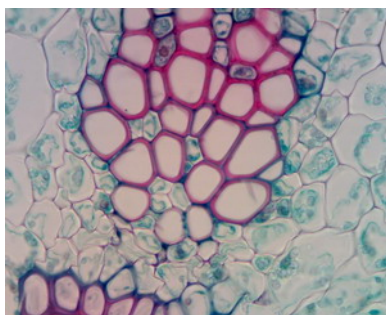
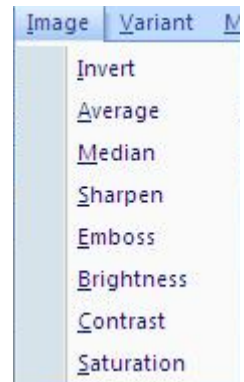


Image mode contains: image process, image flip, image calibration and image measurement. Details as follows:

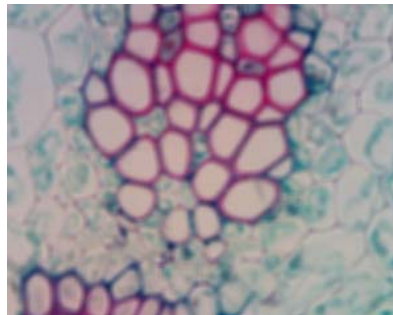
4.2.1 Image Process

After we capture images, we can do image process, flip, measurement to the image. Open the image menu; we can do some image processing, as shows below.

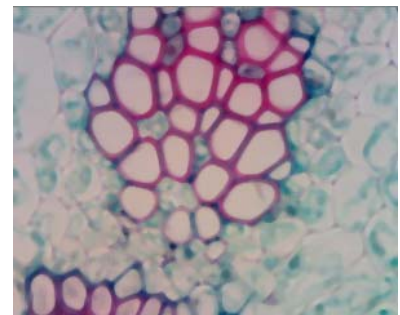
Invert	Color reversal, can turn a positive image to a negative image, or turn a negative image back to a positive image. A negative image performing higher contrast and higher color saturation.
Average	Do average filter to the image, to clear the image noise;
Median	Do mediate filter to the image, the median filter is much better at preserving sharp edges than the average filter.
Sharpen	All digital photographs lose a certain amount of sharpness. That means that most photographs will look a bit blurred and their details won't be as prominent. Basically, sharpening makes the edges of a photographed object appear more distinct.
Emboss	The Emboss filter makes a selection appear raised or stamped by suppressing the color within the selection and tracing its edges with black
Brightness	Change the brightness of the image;
Contrast	Change the brightness of the image;
Saturation	Change the brightness of the image;



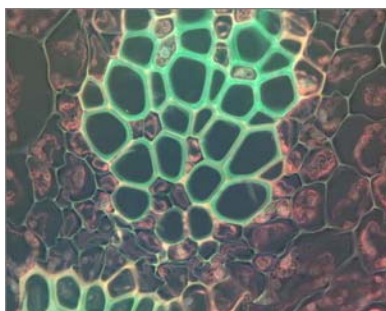
Original



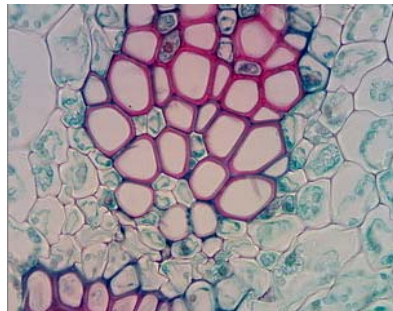
Average



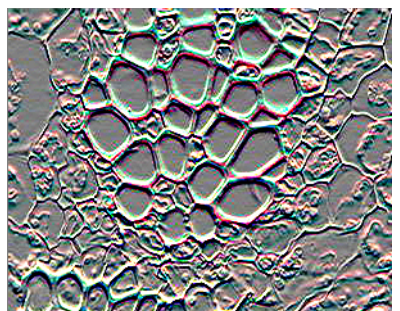
Median



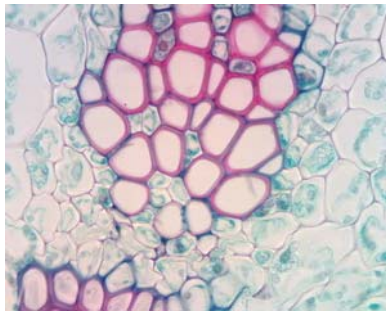
Invert



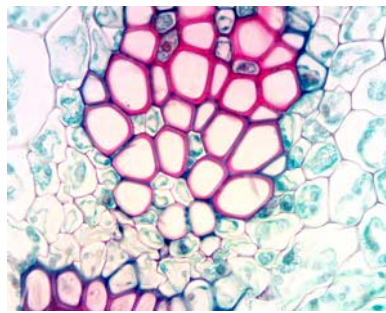
Sharpen



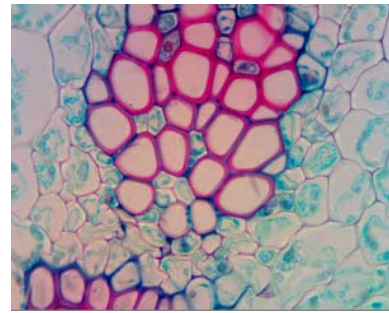
Emboss



Brightness



Contrast



Saturation

4.2.2 Image Flip



The image flip operation is equivalent to the commands under the image flip menu.

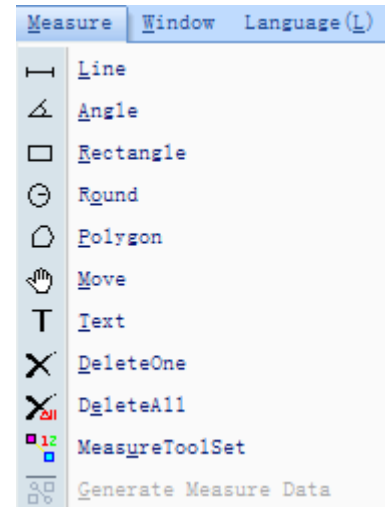
Icon	Function
	Open an image, support bmp and jpg format;
	Save the image, or the changes to the image;
	100% display the image;
	Magnify display the image;
	Reduce display the image;
	Image flip by the vertical axis;
	Image flip by the horizontal axis;
	Retort 90 degree of the image;
	Retort 180 degree of the image;
	Retort 270 degree of the image;
	Retort any angle of degree of the image;
	Use the Undo command to reverse the most recent action that has modified the image. The equivalent command is the undo function under the Edit menu.
	Use the Redo command to undo an Undo operation. The equivalent command is the redo function under the Edit menu.



4.2.3 Image Measurement

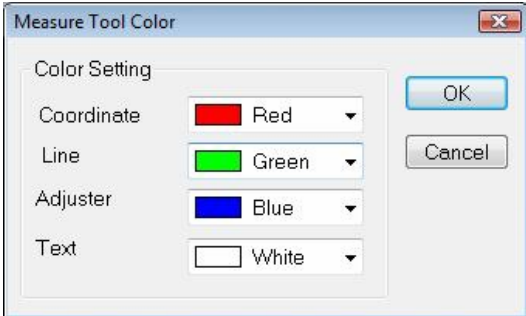


The system support several measure tools, as the line, circle, rectangle, polygon, angle and so on. The measure result can real time display on the image and can be merged into the image and save for further using. The function is equivalent to the commands under the Measure menu.



Icon	Function	Function Introduction
	Move	Move or adjust the objects, containing line, angle, circle, and rectangle.
	Line	Add line objects. Each line object is defined by two endpoints. Press left mouse button to specify one of the endpoints. Move the mouse to the other endpoint, while keeping the left mouse button pressed, to draw the line. Release the left mouse button to complete the line drawing. The above procedure may be repeated to create more lines. A line object has two resizing handles, located at the two endpoints. The length of the line will appear over the image at the same time.
	Angle	Use the <i>Angle</i> command to measure angles. Click to specify three controlling points. The angle made by the line passing through the 1st and the 2nd point, and the line passing the 2nd and 3rd point, will be measured. The degree of the angle will appear over the image at the same time.
	Circle	Click to specify two controlling points. The 1st point as the center of the circle, move the mouse to the 2nd point while keeping left mouse button pressed to draw the circle. Release left mouse button to complete the creation of this circle. The line between the 1st and the 2nd point as the radius. Repeat the procedure above to add more circle objects. Drag the handles at the corners to adjust the size of the circle simultaneously. Drag anywhere else within the circle to move the circle object. The area and radius of the circle will appear over the image at the same time.

	Rectangle	Each rectangle is specified by two diagonal vertices. Press down left mouse button to specify one vertex. Move the mouse to the other vertex while keeping left mouse button pressed to draw the rectangle. Release left mouse button to complete the creation of this rectangle. Repeat the procedure above to add more rectangle objects. A rectangle object has four resizing handles. Drag the handles at the four corners to adjust width and height of the rectangle simultaneously. Drag anywhere else within the rectangle to move the rectangle object. The area of the rectangle will appear over the image at the same time.
	Polygon	Use the <i>Polygon</i> command to measure the area of a polygon. Click to specify the vertices of the polygon. After the last vertex has been specified, double-click left button to start (and to complete) the measurement.
	Text Annotation	Use the <i>Text Annotation</i> command to add the text on the image. And click the left button will specify the location of the text. Note: The text annotation can only be deleted, it can not be moved.
	Delete one	Use the <i>Delete one</i> command to remove the selected object on the image.
	Delete All	Use the <i>Delete All</i> command to clear all the objects on the image.
	Generate measurement data	This command will clear background image, and generate an image that just will the measurement marker.
	Calibration	The system micrometer consists of the sampling intervals in horizontal and vertical directions. In the calibration process both of the two sampling intervals should be calculated. Details please see chapter Image Calibration. IMPORTANT!!! Calibration should be done on an image before measuring.
	Show/hide calibration ruler	Click this button to show the calibration ruler, click again to hide it.

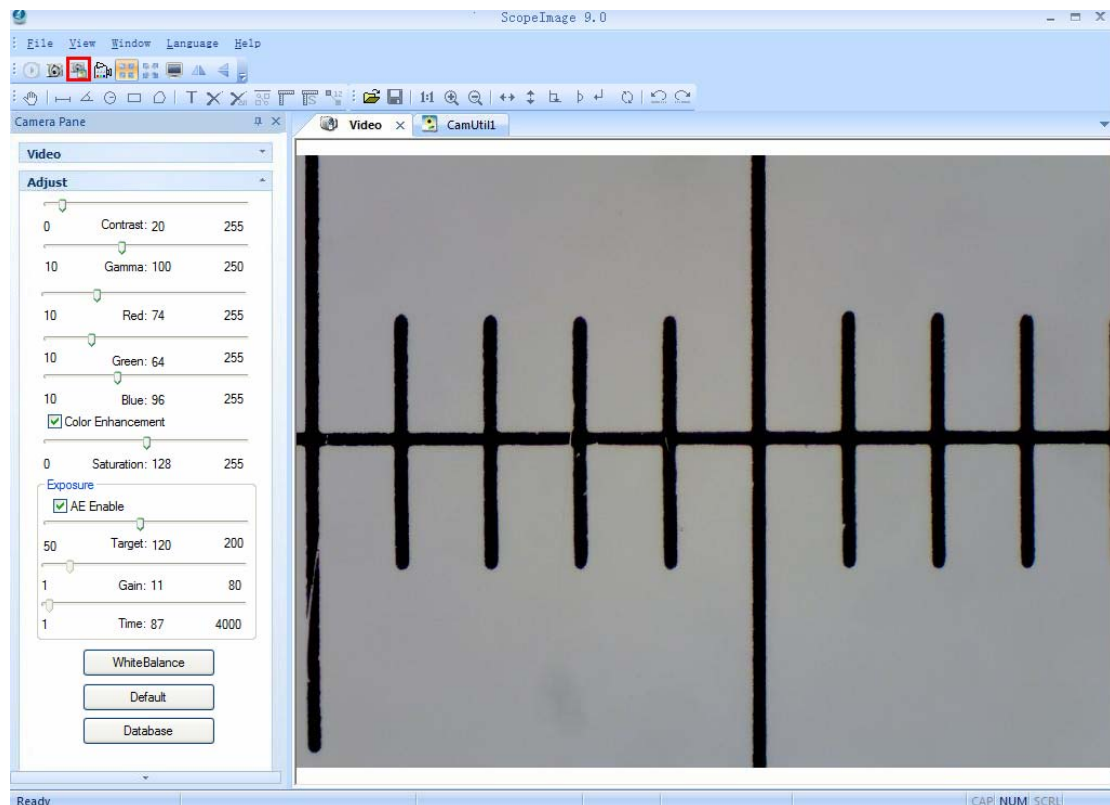
	Measure setting	Set the color of the coordinate, line, adjuster and text, 
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4.2.4 Image Calibration

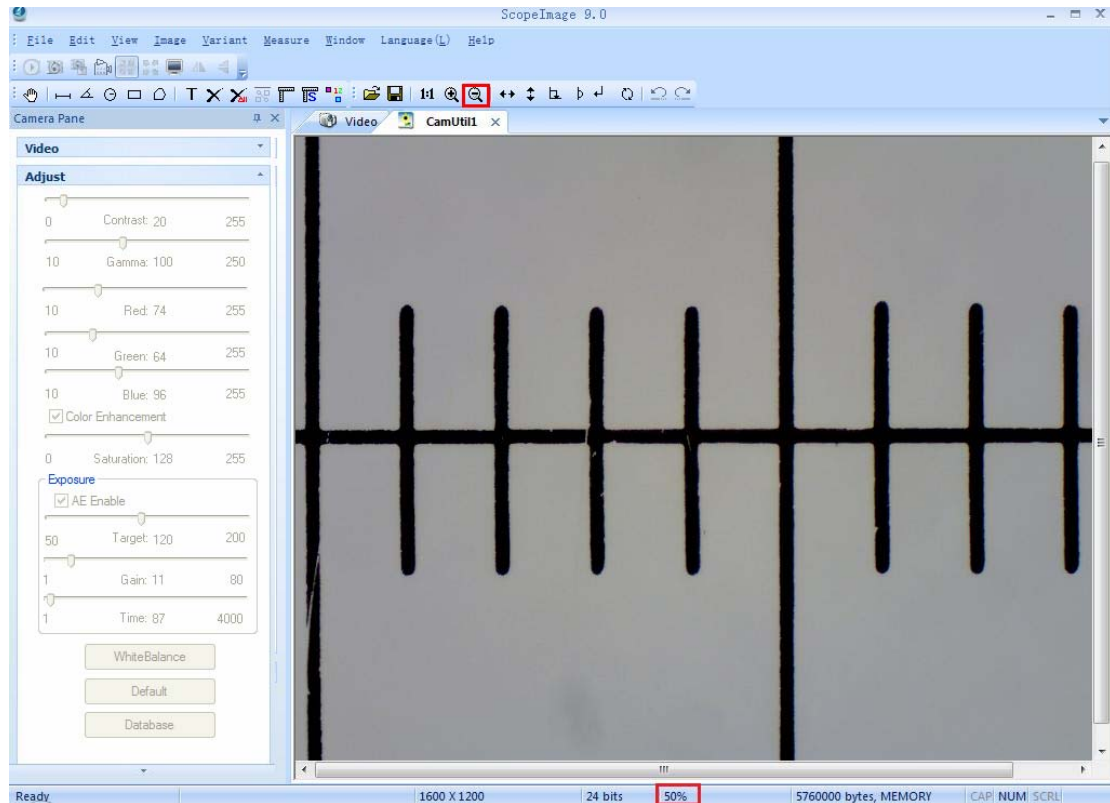
The system micrometer consists of the sampling intervals in horizontal and vertical directions. In the calibration process both of the two sampling intervals should be calculated as there's tolerance error between the two directions. Here we show a calibration under 10× object lens for an example.

Calibration

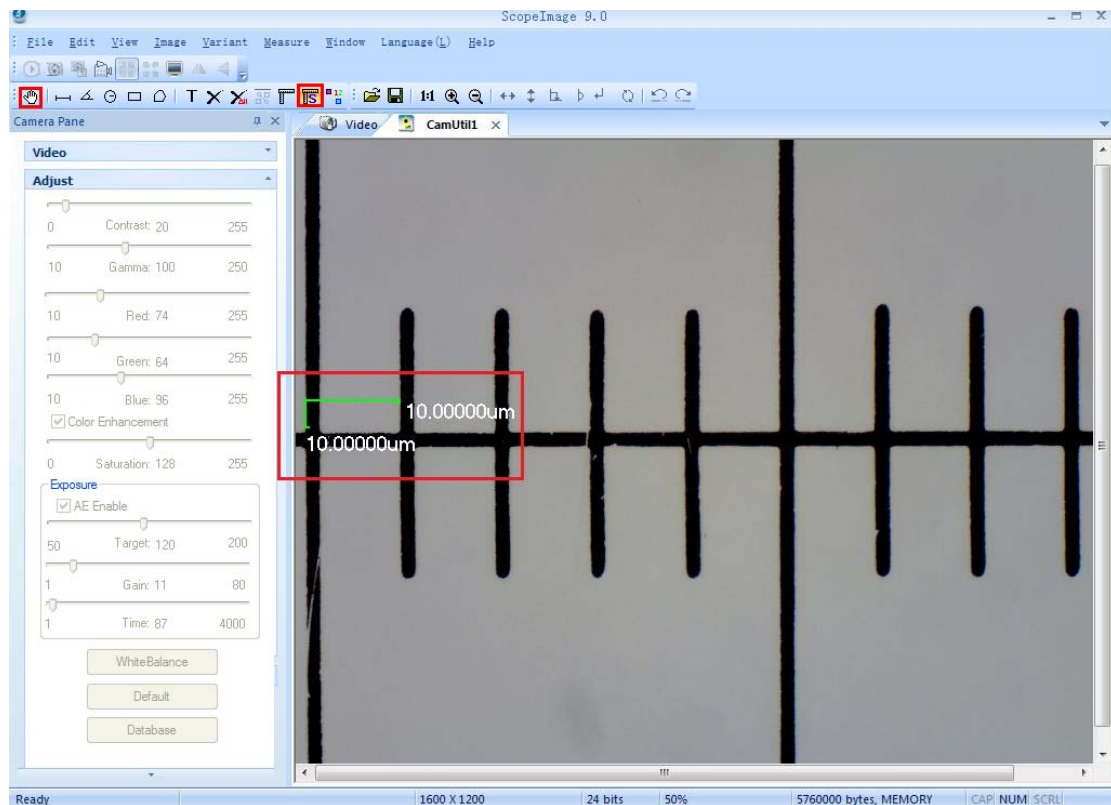
1. For the calibration can only do to the static image, we should take a picture first: first, put the 0.1mm micro-ruler in the video window, adjust to display clear, then turn around the camera, make the active images parallel to the horizontal line, and click the button  on the tools bar to capture a frame to the field, as the picture shows below.



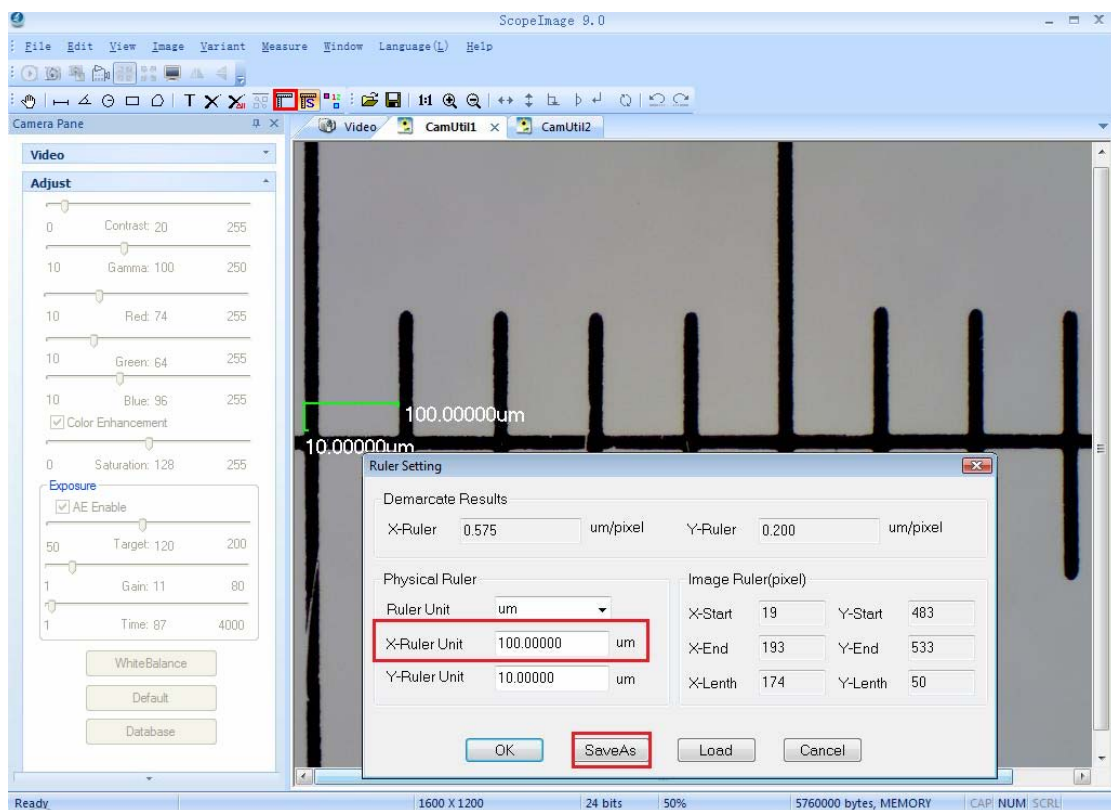
2. In the image field, click the button  to move the scale, you can also click the  or  button to magnify or reduce the current image in order to convenient the calibration. Here shows the calibration result when it is reduced to 50%.



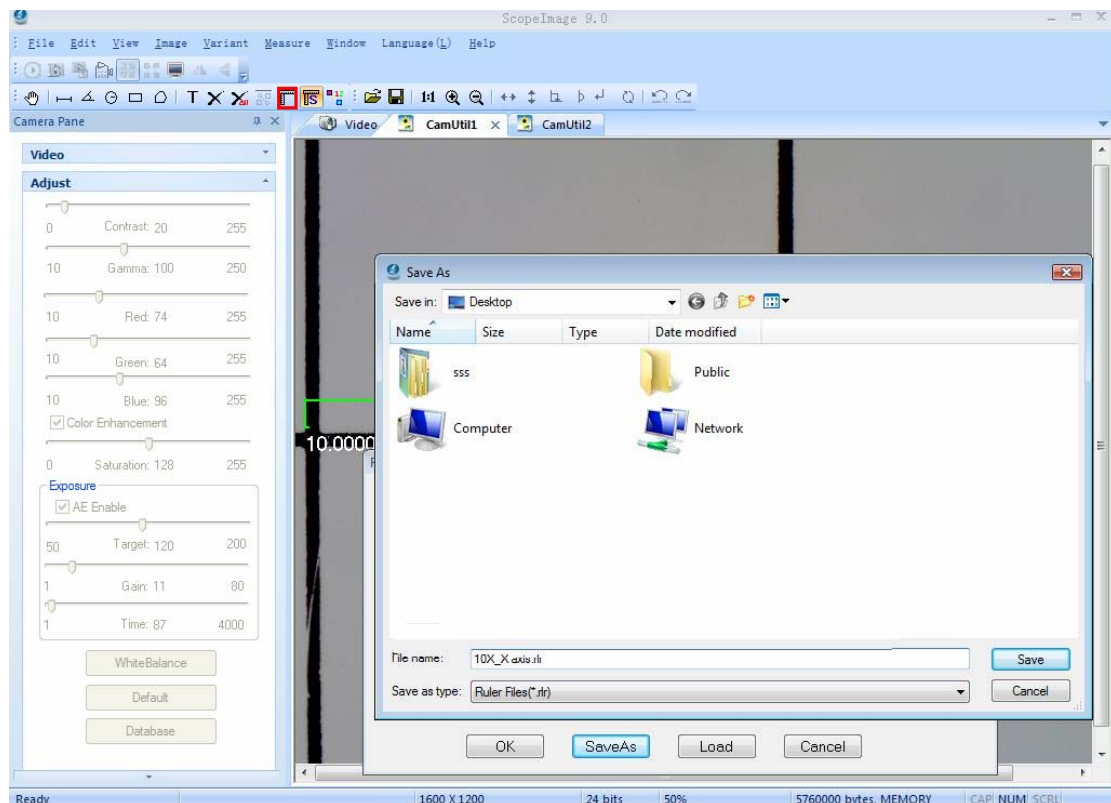
3. Click the icon  to display the calibration scale, click the icon  to move the scale to the right position, confirm the begin point and the end point, as the picture shows below.



4. Click the calibration icon  to set the 'X-Ruler Unit', Input the actual length 100um, and click the button 'Save As' to save the calibration for X axis.

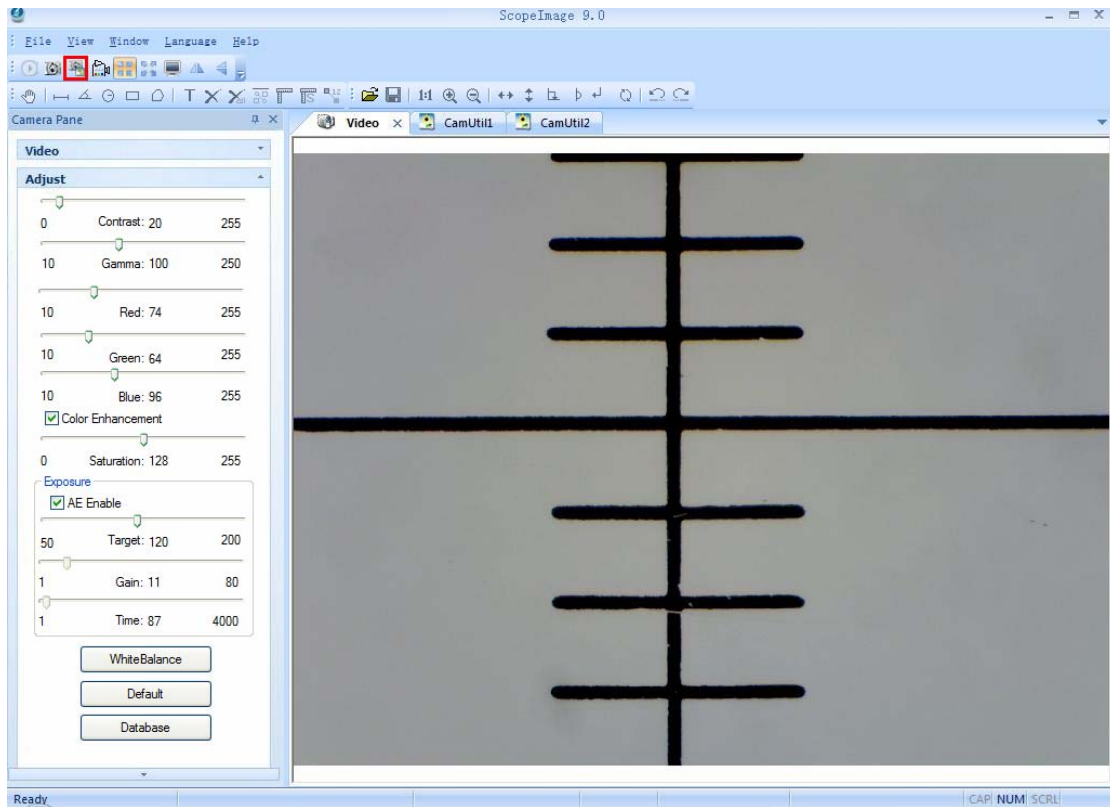


5. Click input a calibration file name on the box, and click 'Save' to save it, then click 'OK' to exit, now we have finished the calibration for the X axis.

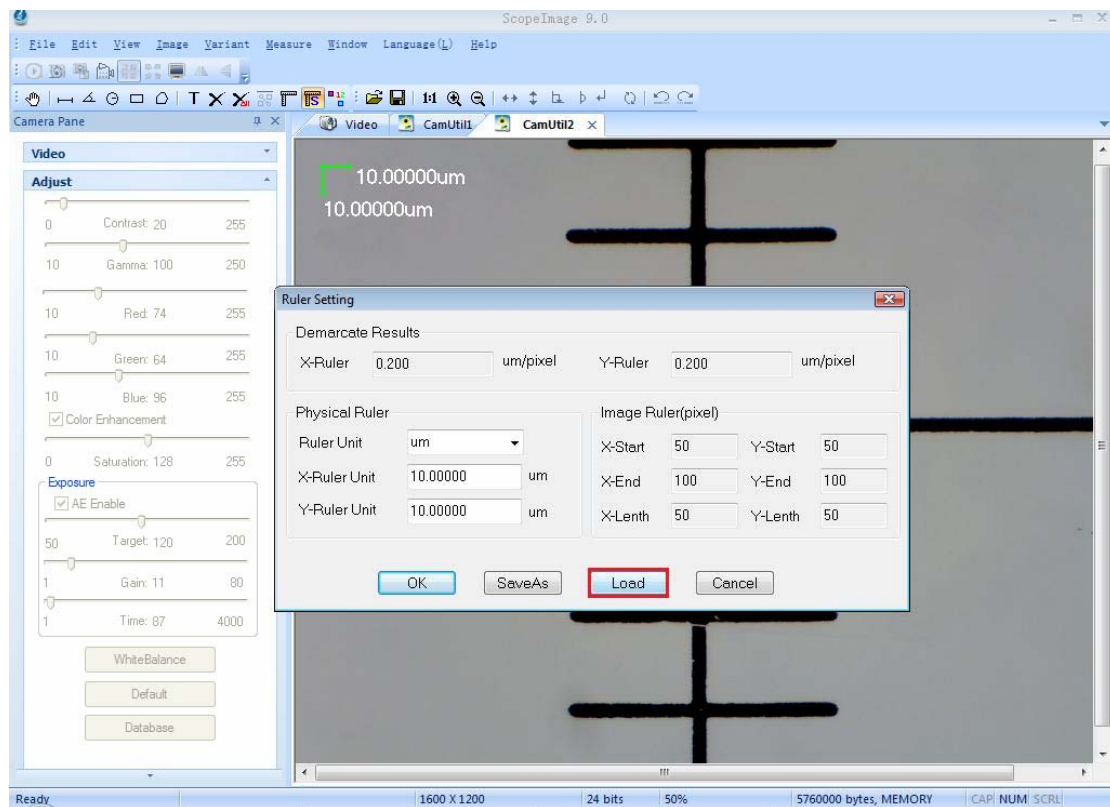


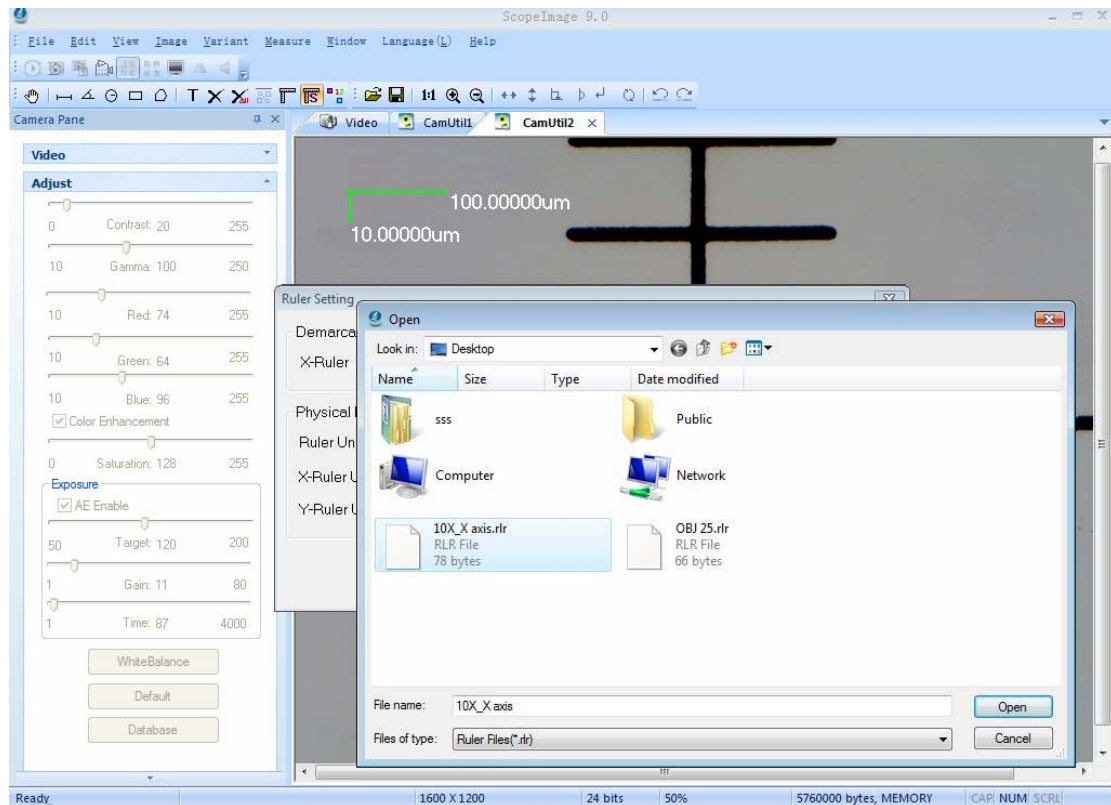
The calibration for the Y axis is as follows.

6. The calibration for the Y axis is similar to the X axis. First, we turn around the camera to make the micro ruler vertical to the horizontal line, click the button  on the tools bar to capture a frame to the field, as the picture shows below.

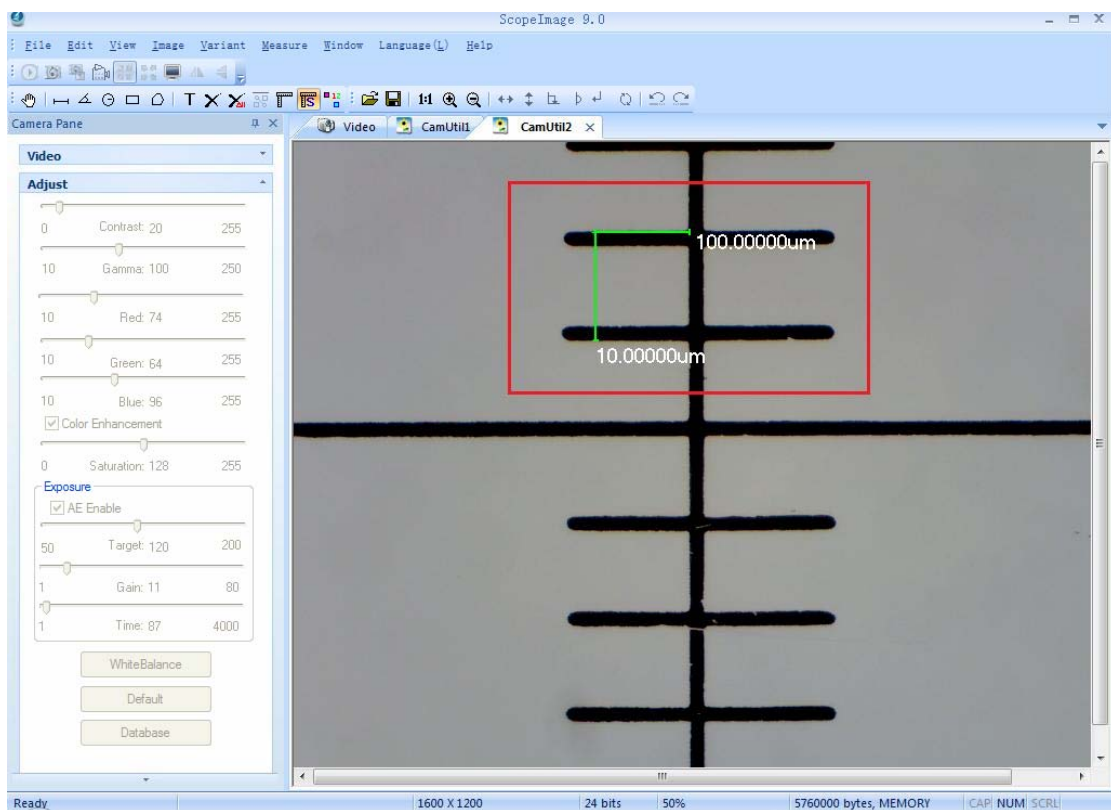


7. Click the calibration icon  on the tools bar, then click 'Lode' button, and select the file of calibration for X axis we have just done, click 'Open'.

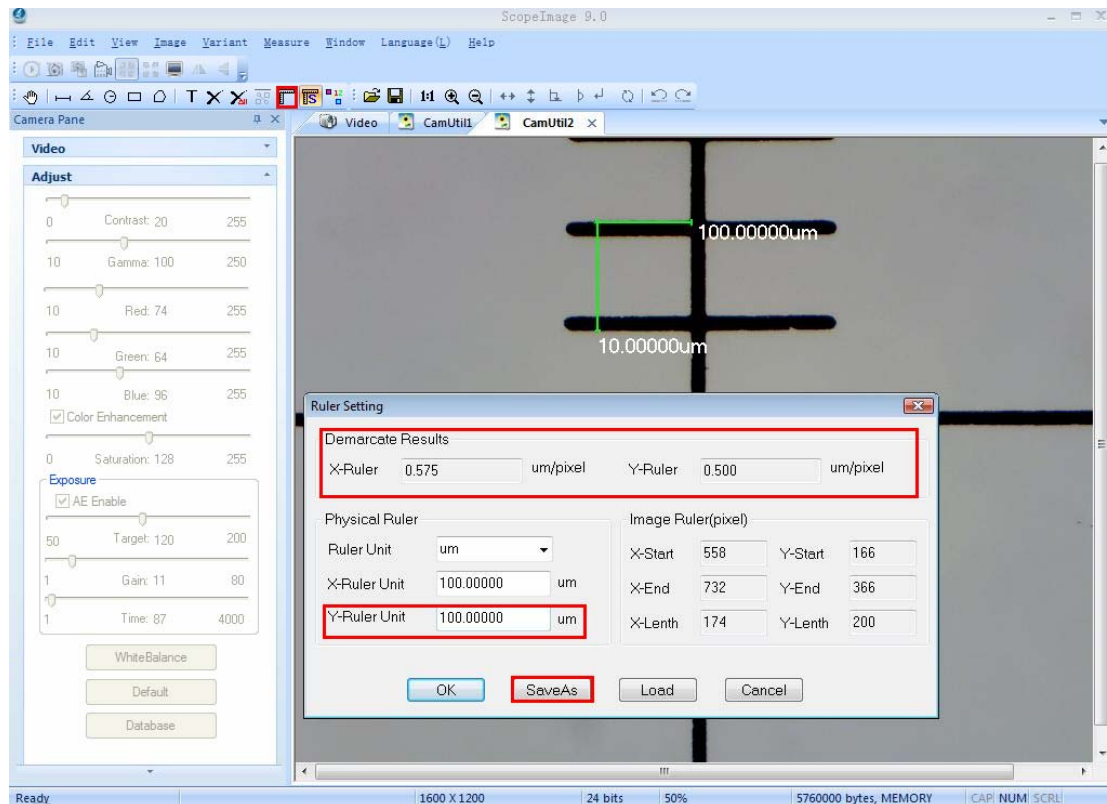




8. Now we keep the X axis don't move, and do calibration to the Y axis, move the scale to the right position, confirm the begin and the end point;

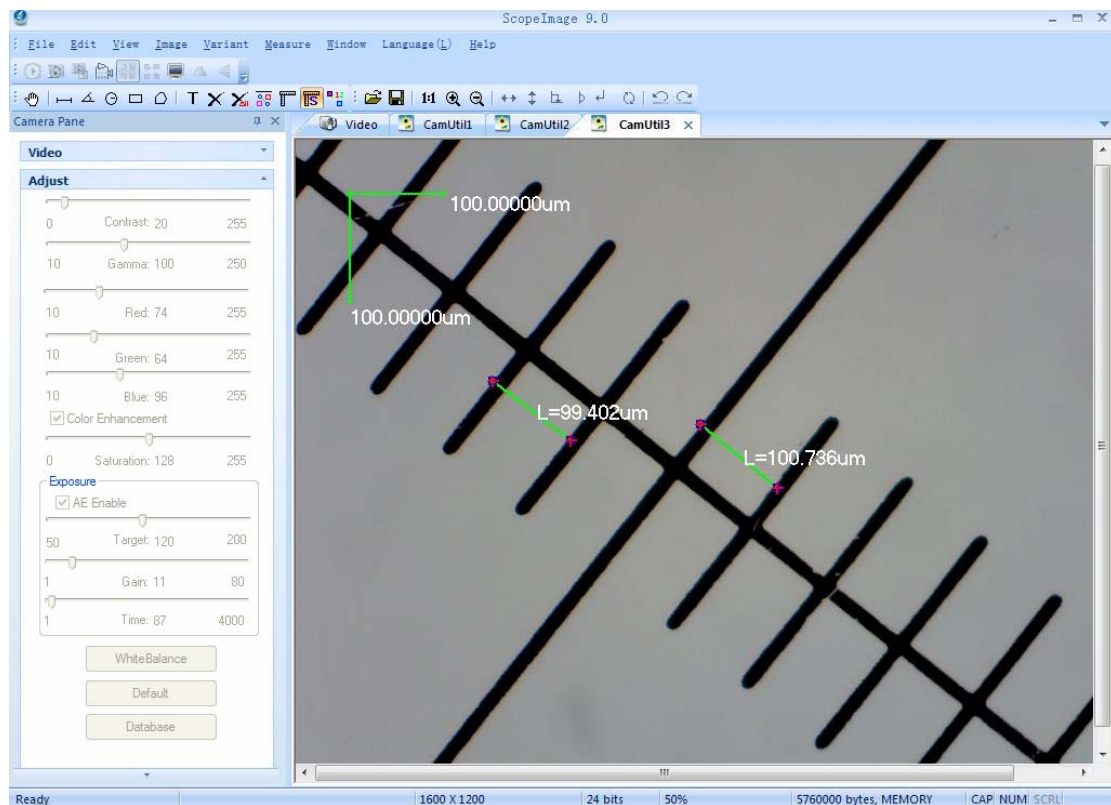


9. Click the icon , input the actual length in the “Y-Ruler Unit”, and click “save” to save the calibration result for further using. Click “OK” to exit, now we have finished the calibration for both X axis and Y axis, and we can find that there is a little difference between them.



Check the calibration result

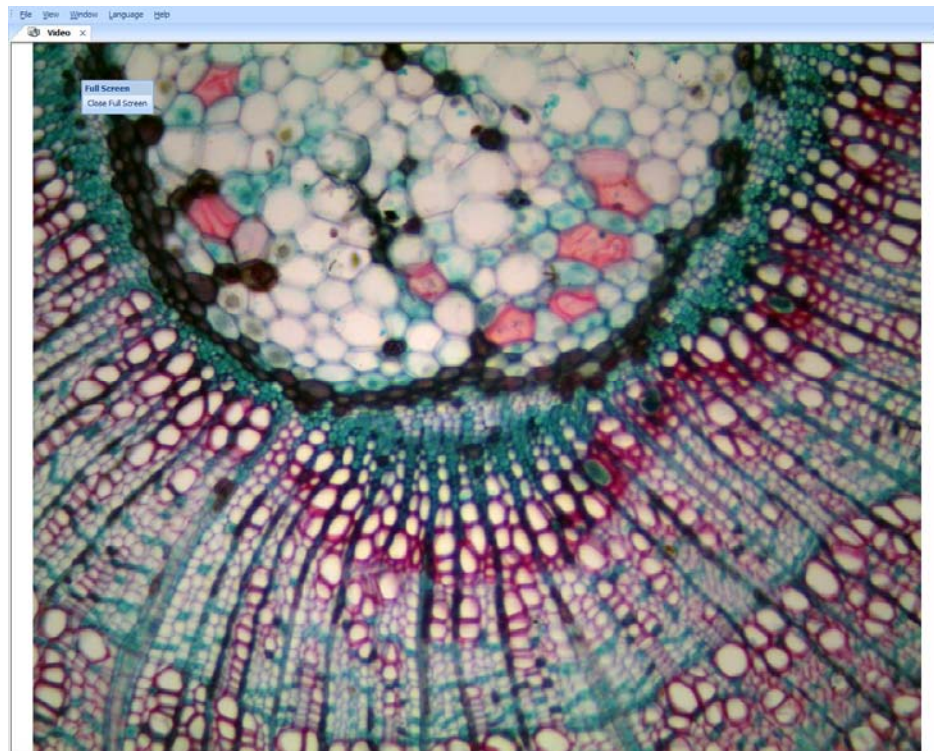
The calibration has been finished, now we check it. Use the micro ruler, and capture a frame to the field, **load the calibrations we have just done**, and do line measure, as the picture below:



We can find the measurement is close to the actual length, take the tolerance error for account, the measurement result is right.

4.3 Full Screen Mode

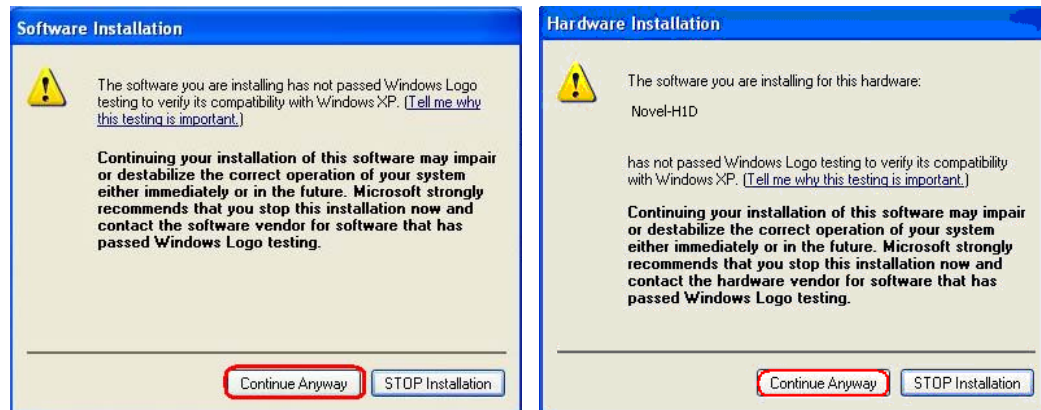
As we know, it is very convenient to preview the live image in the full screen mode. Double click the live image or click the button  on the tools bar can enter into the full screen mode, double click or click the button "Close Full Screen" to exit full screen mode.



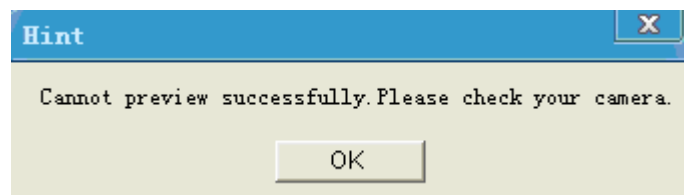
5. Trouble Shooting

5.1 Attention

1. Please link the camera with PC before running the driver installation; and when there comes out warning dialog, just click 'Continue Anyway', as the pictures show below:



2. Error hint: Cannot preview successfully.



- (1) Check whether the camera has linked with the PC;
- (2) Check whether the driver has been installed rightly.

Open the Device Manage, check whether there is an imaging devices in it, and whether the hardware drivers is rightly installed. Please refer to the chapter "[2.2 Check whether the device is rightly installed](#)". If not please refer to the chapter "[5.2 How to update driver](#)". There are detail steps about how to install and update the hardware driver.

3. Can not record or record error. Please check whether you have installed

the 'Video Codec'  `wmv9VCMsetup.exe`
Windows Media Vi...
Microsoft Corpor... in the CD.

4. USB2.0 is a mandatory, not optional. This camera cannot work on the computers with USB1.1 ports. In order to ensure the stability of the connection with the USB2.0 interfaces, please insert the plug into those interfaces in the back panel the mainframe.



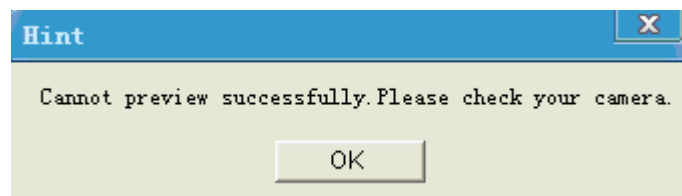
5. Please use the same USB2.0 port every time. Using on a different USB2.0 port may need to reinstall the driver again to make the camera work. Refer to the next chapter to reinstall the driver.

6. This camera supports operating system: Windows 2000/XP/Vista/Win7 32bit or 64bit.

7. Please unplug the USB cable from the computer immediately after using. It will shorten the lifetime of the camera and sometimes may cause repair service if the camera is plugged in the computer all the time and you do not shut down the computer for a long time.

5.2 How to update driver

Double click the icon 'ScopelImage9.0' on the desktop, and the system displays as follows:



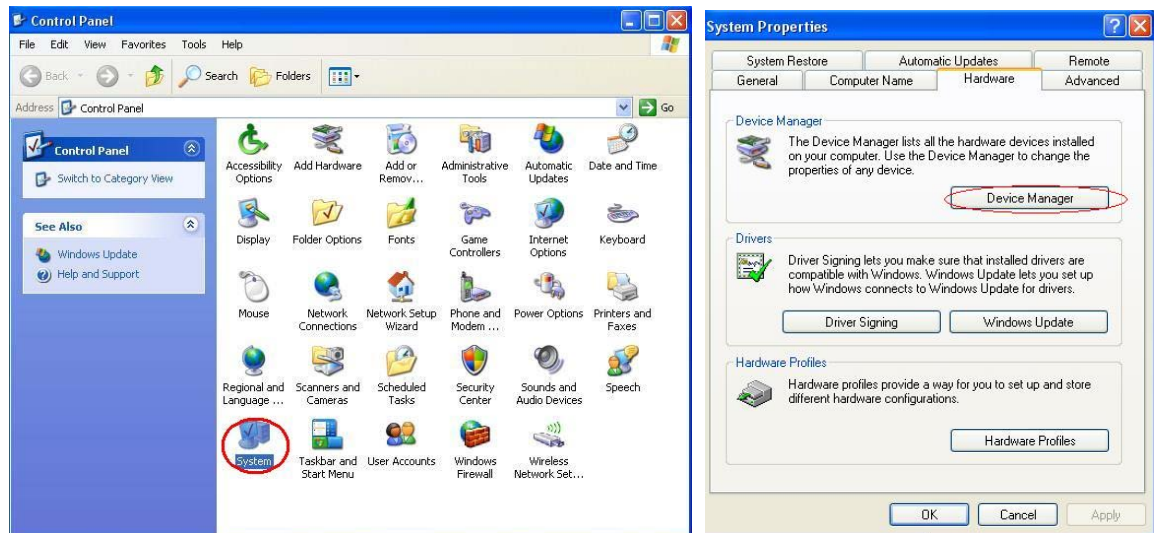
The most problem is :

1. The camera has not connected with the PC, please link it with the PC, and then run the software.

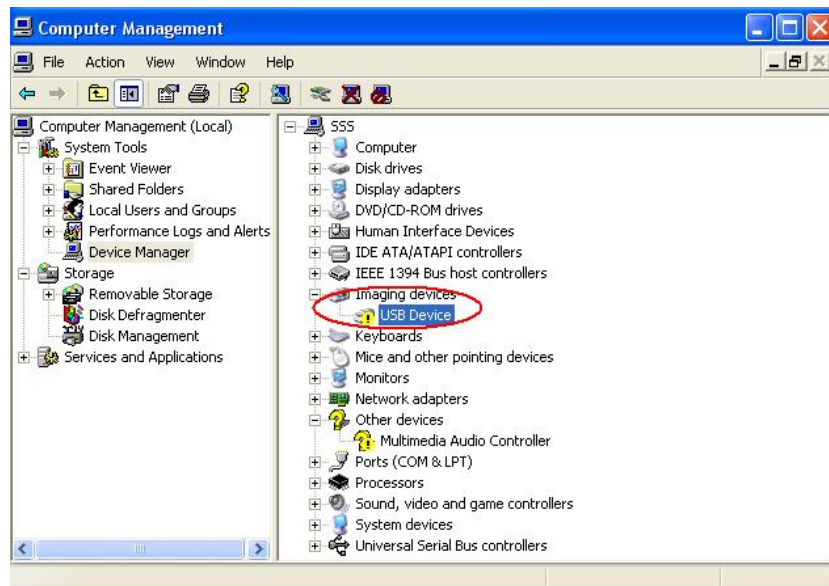
2. Users have changed the USB port, and the driver has not reinstalled, please reinstall the driver or update the driver, please do as follows:

1. Go to Control Panel, as follows:

Access the Windows Control Panel. Double click 'System', Select Device Manager.

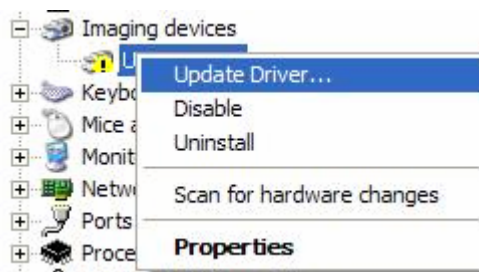


Select Device Manager.



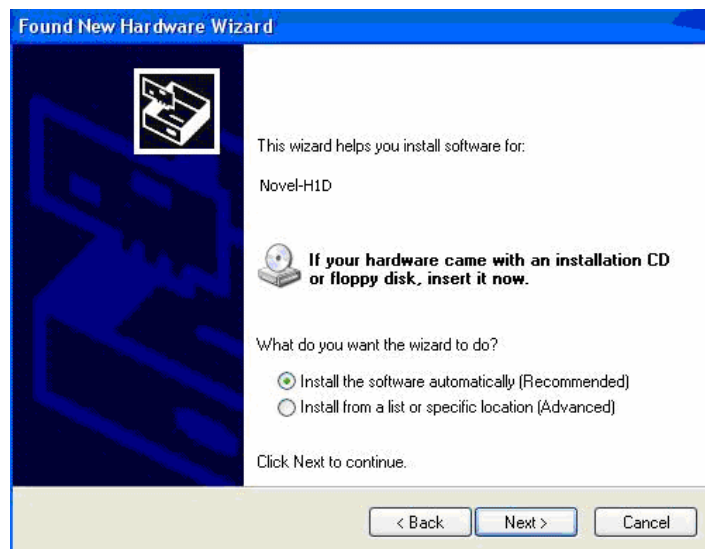
If there's a yellow warning symbol in the 'Device Manager', you need to update the driver.

Right click 'USB Device', click 'Update Driver...', comes out 'Found New Hardware Wizard' dialog, please choose "this time only", then click next.



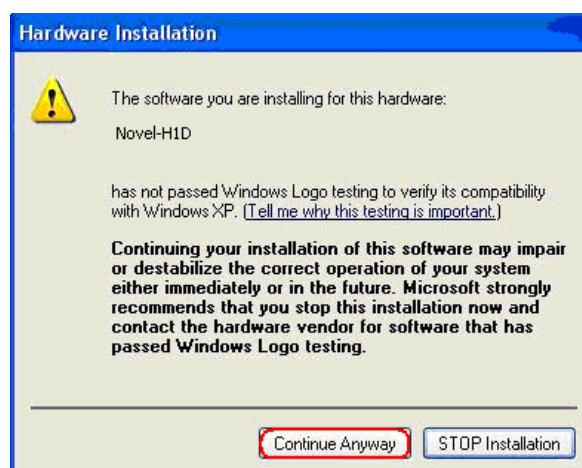


Click 'Next'



There are two ways for you to update your driver, you can choose 'Install the software automatically', and then click next; or you can also choose 'Install from a list or specific location (Advanced)', then click next. Generally, we advise you to choose the first choice.

1) If you choose 'Install the software automatically', click next.



- 1) Choose 'Continue Anyway'.

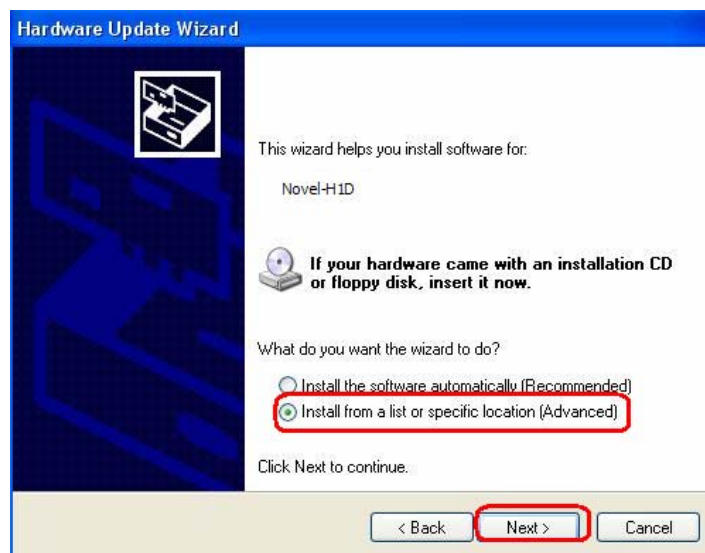


- 2) Click 'Finish'.

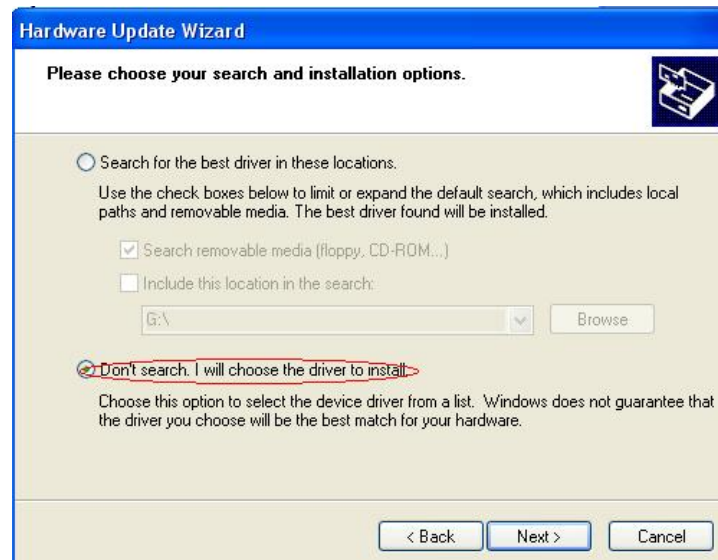
Hardware install has been finished; you can see the “**Novel-H1D**” bellow “**Imaging Devices**” in “**Device Manager / Hardware**”.

Sometimes the system can not find the driver by itself and the driver update is failure; you can redo it by choosing the second choice ‘Install from a list or specific location (Advanced)’ , then click next.

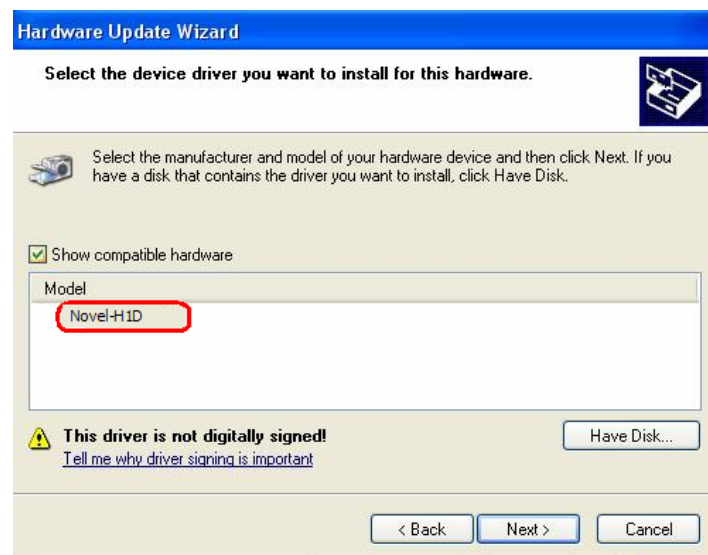
- (1) Choose ‘Install from a list or specific location (Advanced)’, click next.



- (2) Choose ‘Don’t search, I will choose the driver to install’, click next.



(3) Select 'Novel-H1D', click next.



(4) Choose 'Continue Anyway'.



(5) Click 'Finish'.



Hardware install has been finished; you can see the “**Novel-H1D**” bellow “**Imaging Devices**” in “**Device Manager / Hardware**”.