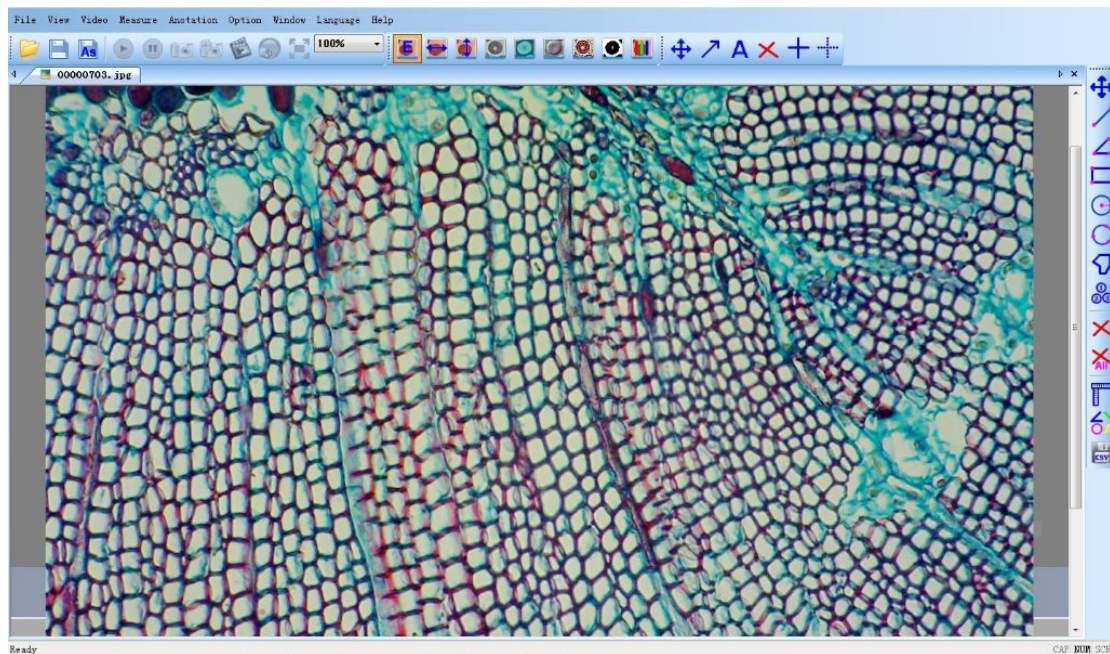


SwiftCam

User Manual



Note: The contents of this manual and update changes without further notice.

I. Overview

Characteristics (real-time processing, real-time measurement, several RGB alternatives)

- Applicable for all kinds of USB2 .0 and USB3.0 interfaces, supportive of cam of DIRECTSHOW
- With the functions of real-time video processing, including Flip horizontal, flip vertical, grayscale, emboss, sharpen, binary, negative image, all of which adopt effective algorithm -- hardly affect video's frame rate.
- Supportive of measurement of dynamic video, and it lessens measuring steps and shortens the time for measurement .
- With memorable RGB adjustment, it makes color rendition to be lifelike to the largest extent; it's available to set several RGB alternatives and brings great convenience to users as well as the perfect solution of color rendition.
- Easy to handle, able to inoculate measured data, file headlines, dates and rulers into the images, and it's supportive of fast preservation.
- Feasible for writing in detailed information about file while maintaining the image, strengthening the description of imaging files.

Functions

- Video selection, video previewing setting
- Video previewing, photograph, continuously shoots, video
- Adjustment of video parameter (luminance, contrast, saturation, chroma, gamma, clarity)
- Automatic white balance (AWB), automatic exposure
- Real-time video processing: flip horizontal, flip vertical, grayscale, emboss, sharpen, binary, negative image
- RGB tricolor real-time match, memorable, controllable
- Full-screen displaying
- Measurement calibration, measurement setting
- Dynamic real-time measurement (straight line, angle, circle, three-point circle, rectangle)
- Static image measurement (straight line, angle, circle, three-point circle, rectangle)
- Document loading, preservation

II. Operating Instructions

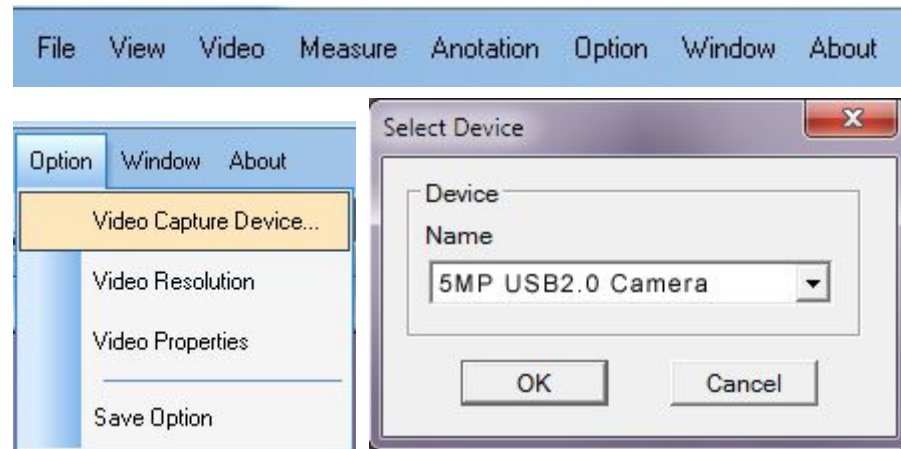
2.1 Basic Operation of Capturing Video Previewing

1. Use this software for the first time

After you have installed the software and run for the first time, you will see a device for video capturing for video previewing, the image is as follows:

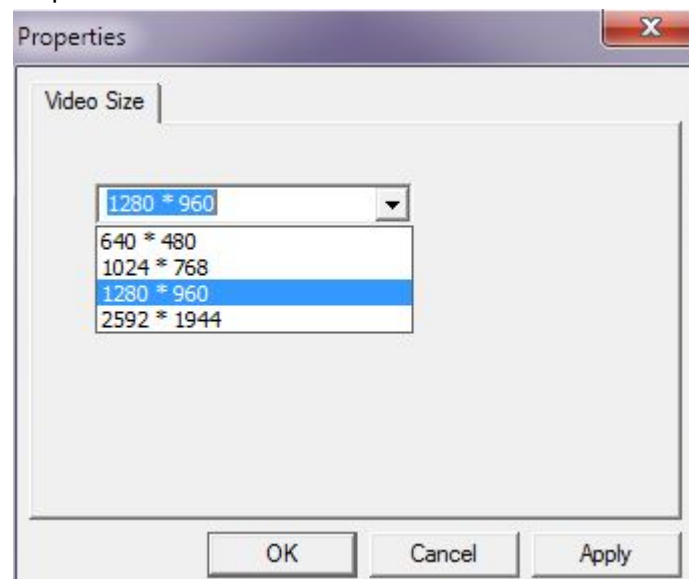
2. Select the target video device

When more than one video device appears on computer, this software allows you to select the target video device. Select *menu*—>*Option*—>*Video Capture Device*. When the dialog box “*Select Device*” pops up, you can select the target video device in the list of devices. Click OK to preview.

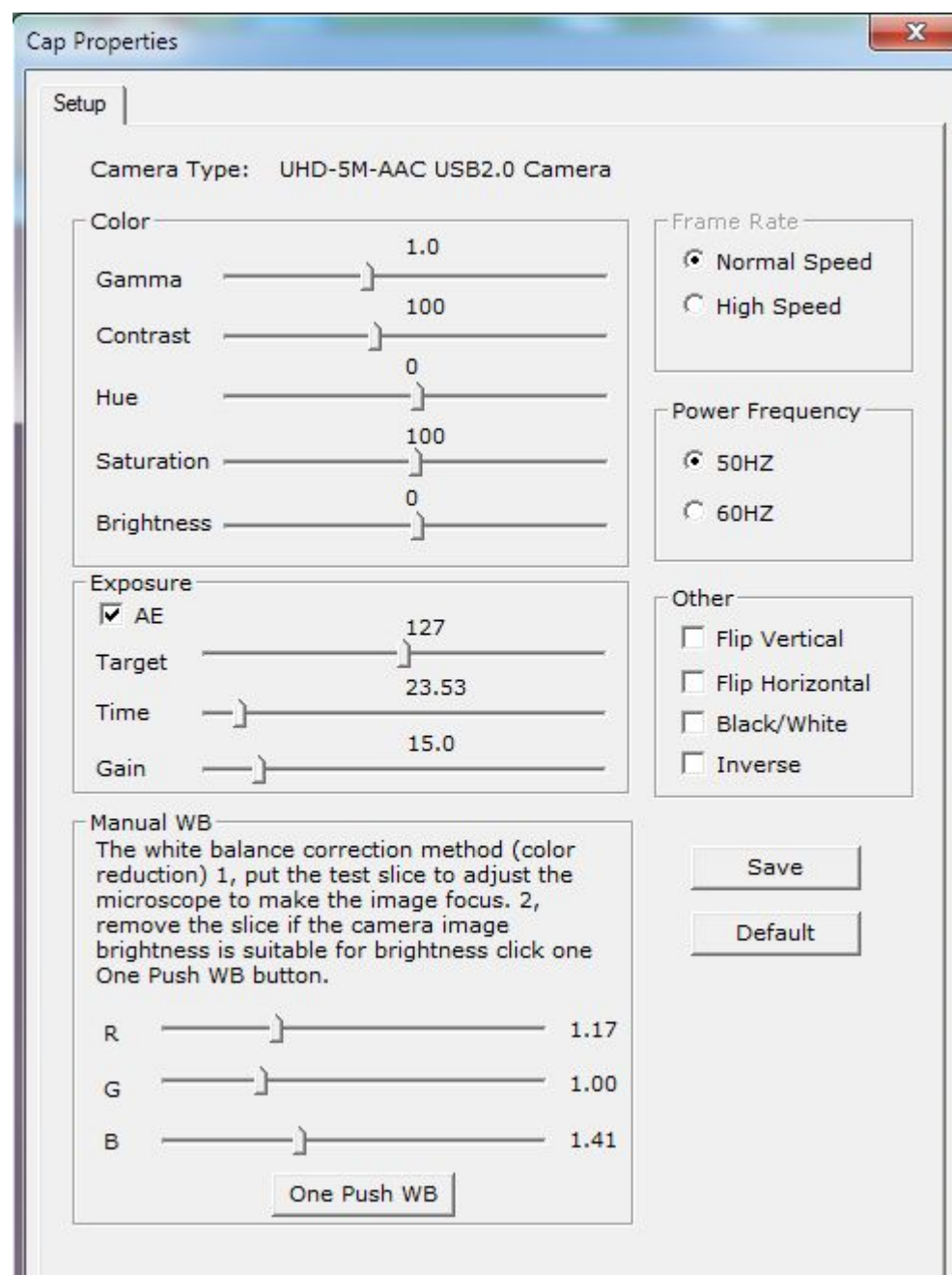


3. Set video previewing size

Select *menu*—>*Option*—>*Video Resolution*, and when the dialog box “*Video Size*” pops up, you can change the video previewing size by choosing from the options in the list of output size.



4. Set video attribute

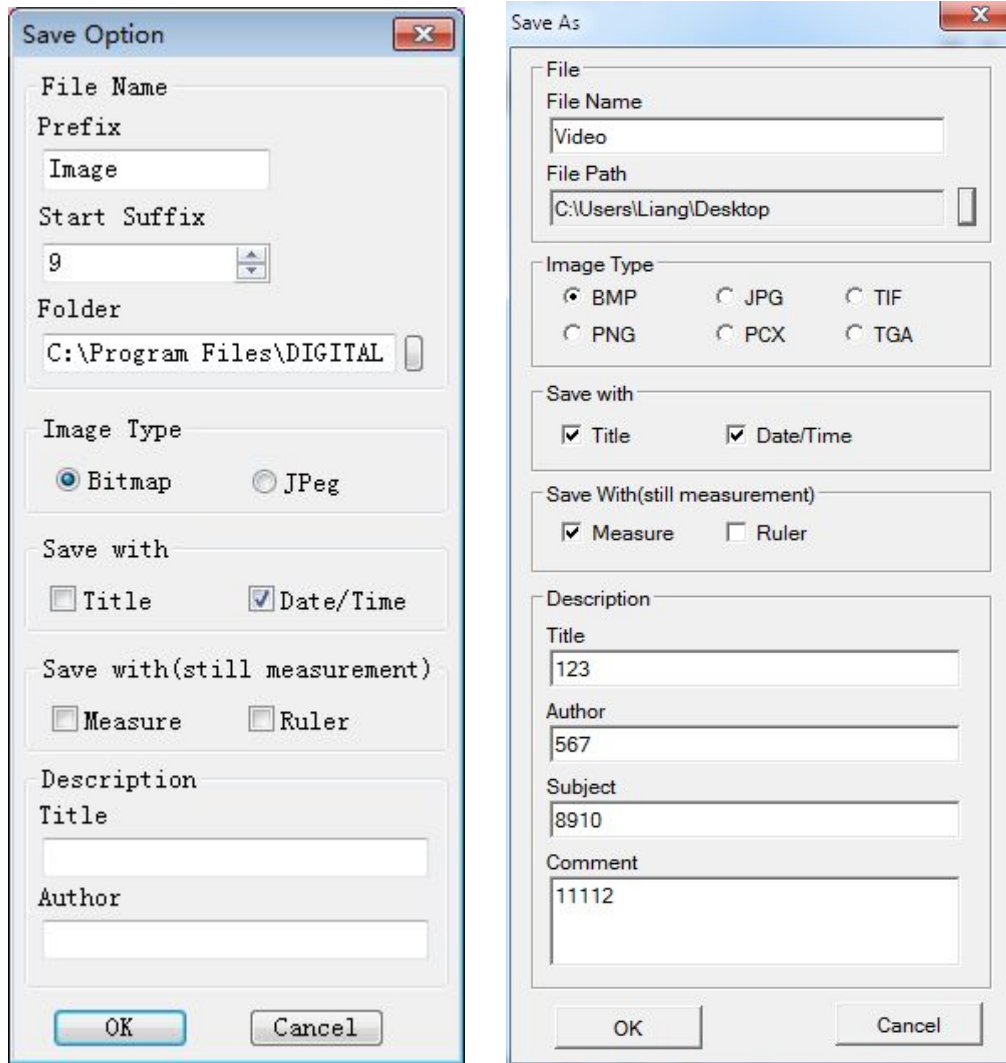


Select *menu*—>*Option*—>*Video Properties* to adjust the basic parameter of video.

5. Capture the video

Save: select *menu*—>*File*—>*Save*, it will save automatically according to the information in “set to be saved”.

Set to be saved: select *menu*—>*Option*—>*Save Option*, then the dialog box of “set to be saved” will pop up.



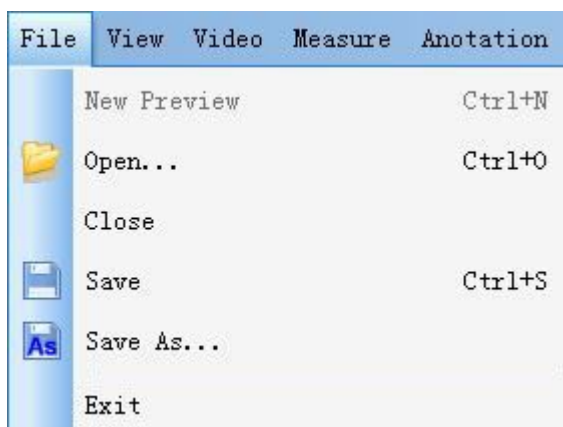
Save as: select *menu*—>*File*—>*Save As*, then the dialog box of “Save As” pops up.


2.2 Detailed Operating Instructions

2.2.1 Menu Bar


File View Video Measure Anotation Option Window About

File




- 1)  New Preview Ctrl+N :


When video previewing is turned off, you can select this to start a new video previewing;

- 2)  Open... Ctrl+O :

Load pictures from local disk, and it will display in windows; operations like dynamic measurement can also carry on.


- 3)  Close :

Close the current video windows or pictures-displaying windows;


- 4)  Save Ctrl+S :

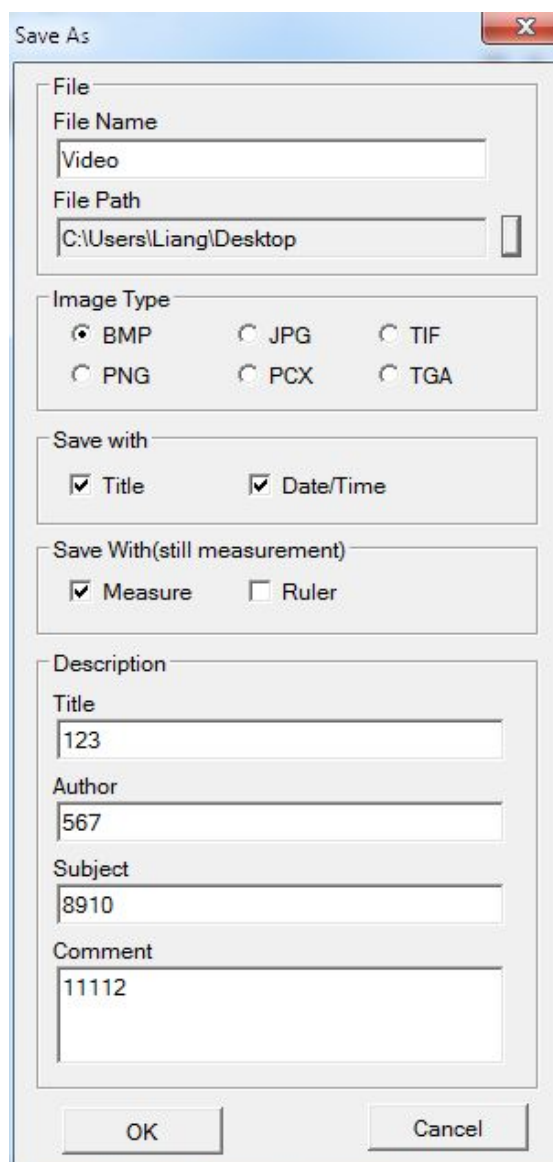
Automatically save an image of the current video or save the current images to the default path.

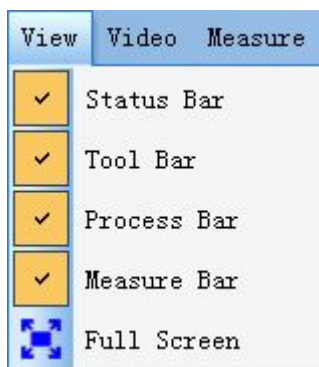
About principles of taking out files, see *menu*—>*Option*—>*Save Option*;





- 5)  Save As... :

See the dialog box of “Save As” on the right;


- 6)  Exit : Quit the application.

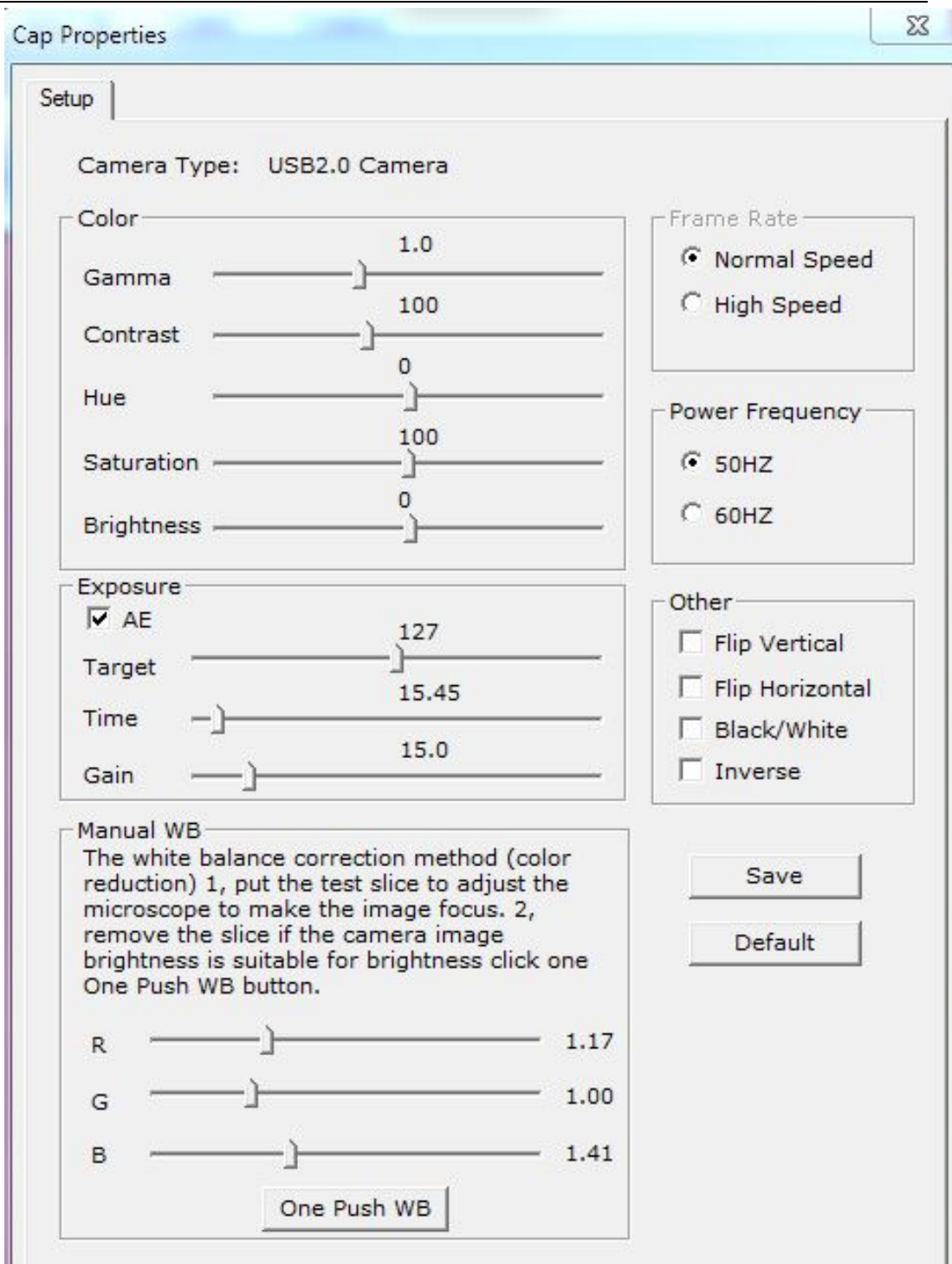



·View

- 1)  Status Bar : Display or conceal the status bar;
- 2)  Tool Bar : Display or conceal the consequently-used tool bar;
- 3)  Measure Bar : Display or conceal the measuring tool bar;
- 4)  Full Screen : Display video in full screen.

·Video

- 1)  Adjust : Adjust video parameter (Color, Exposure, WB, Frame Rate, Power Frequency, etc.);



- 2)  Enable : Start using or closing real-time processing or real-time measurement;
- 3) All of the effects of processing are as follows:



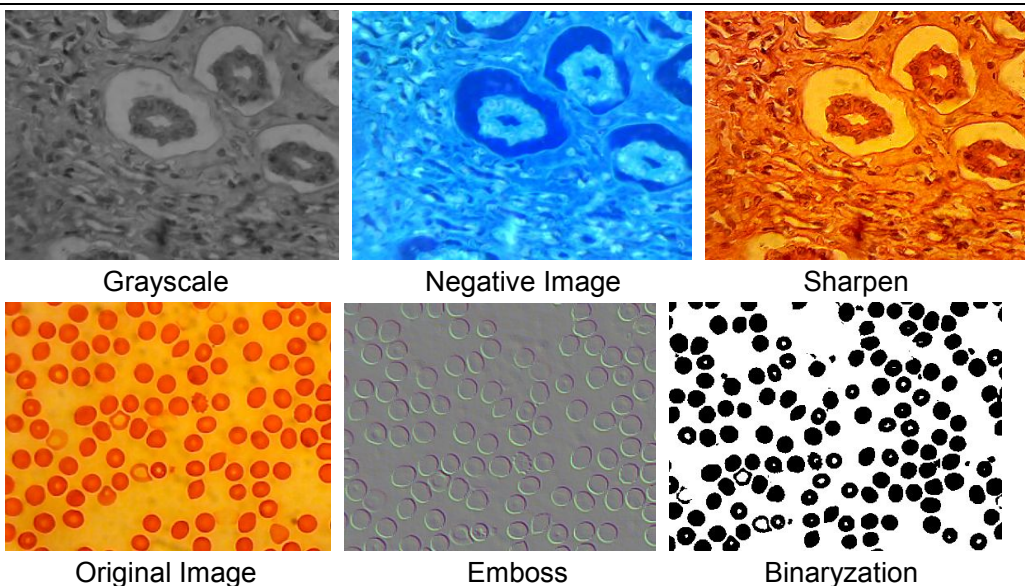
Original Image




Flip Horizontal




Flip Vertical



- 4)  **Binary** : If you want binaryzation on video, you can adjust the threshold value of binaryzation (1 to 255) to display dynamically. Start using check box to use or close the binaryzation real-time processing effect.

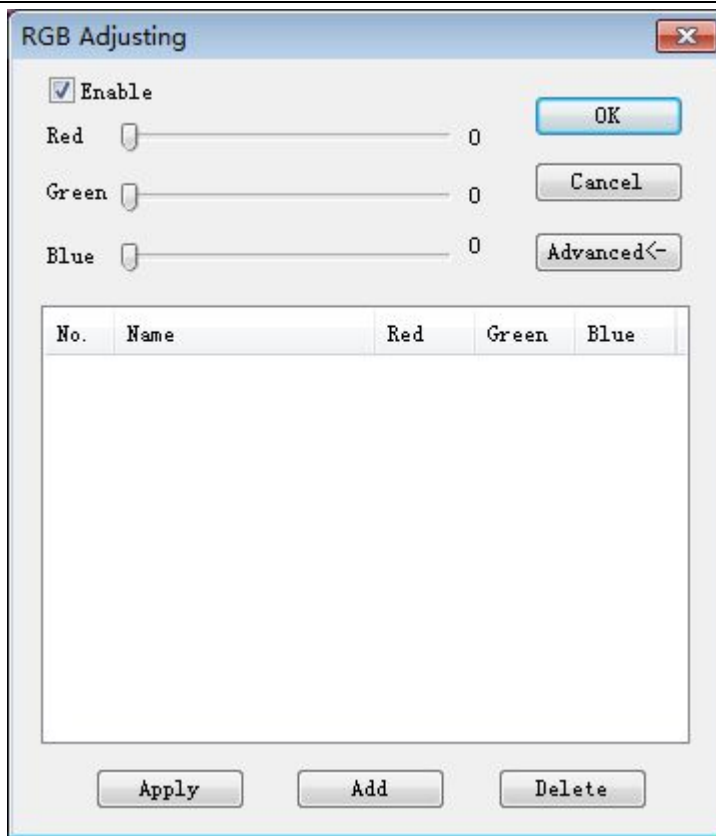


- 5)  **Rgb** : Start or close RGB real-time alternative video;



Enable : Start or close RGB adjustment;

Advanced-> : Display high-level panel;

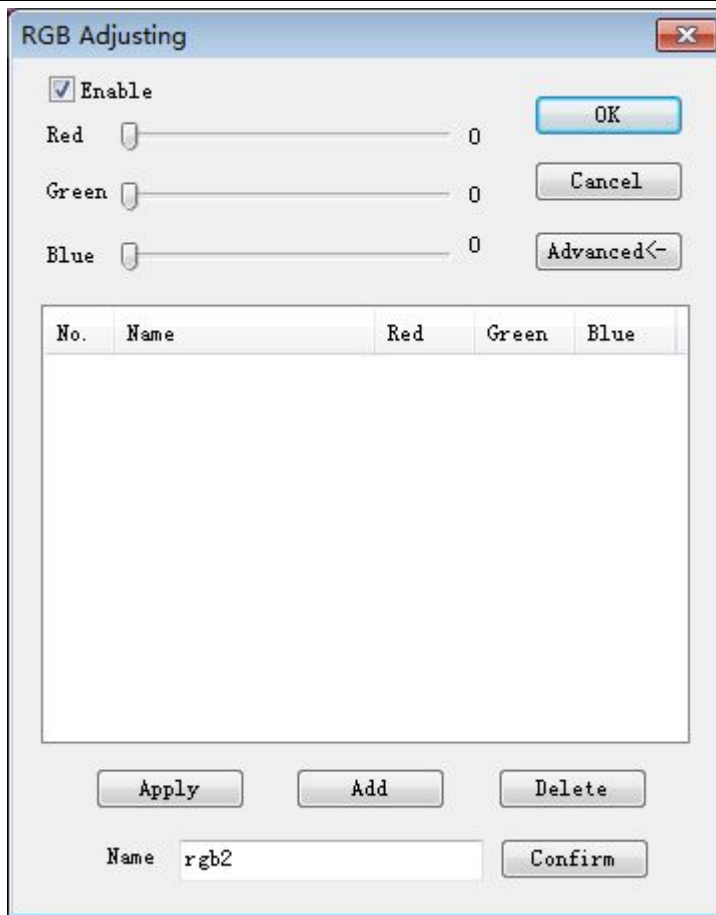


Pitch on check box, adjust the red-green-blue sliding road for video tricolor match;

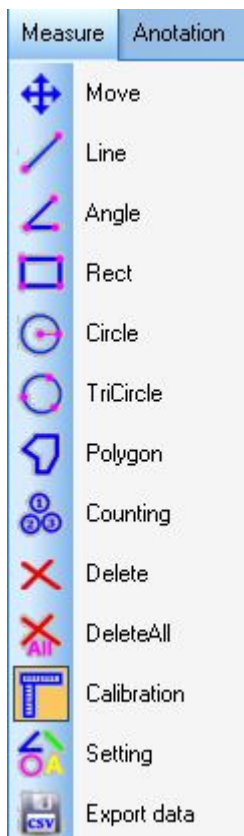
Apply: Select options from list box and then apply them to the current video;









Add: Click “add”, input option names, add the adjusted red-green-blue value to the database, and it will display in the list;


Delete: Select options from list box, then delete options from the list or database;

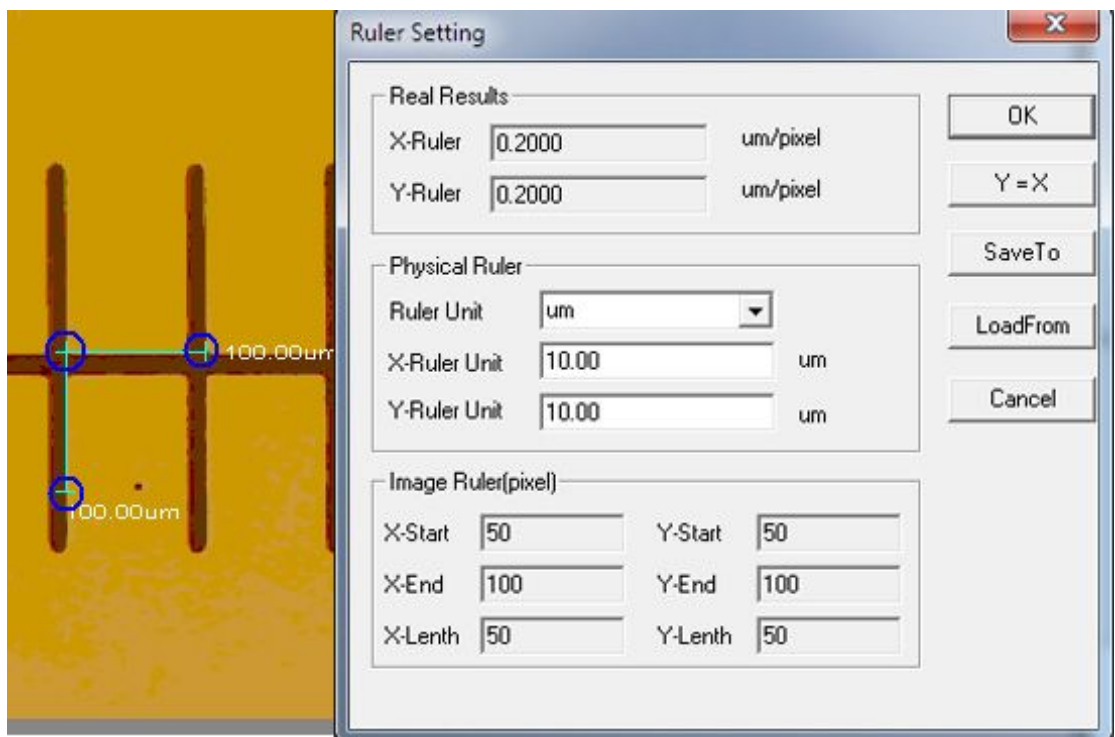


· **Measure**



Operation Type	Operation Instruction	Displaying Value
 Move Movement	First, select the image to be moved, now the image displays in dotted line, then mark the accumulation of movable points, movable points or the whole.	
 Line Line-measurement	Select the starting point, click the left button of the mouse and keep it, then move it till the end; finally, release the mouse.	Display the length of the line
 Angle Angle-measurement	Click three points in different positions with the mouse to form an angle.	Display the angle
 Rect Rectangle-measurement	Select the top left corner of a rectangle, click the left button of the mouse and keep it, then move it till the lower right corner of the rectangle; finally, release the mouse.	Display the area of the rectangle
 Circle Circle-measurement	Select the centre of a circle, click the left button of the mouse and keep it, then move it till the point on the arc; finally, release the mouse.	Display the radius
 TriCircle Three-point Circle-measurement	Click three points in different positions with the mouse to form a circle.	Display the radius
 Delete Delete	Click the image to be deleted.	
 DeleteAll Eliminate	Delete all the images.	

 Calibration :



Unit: um/mm/cm/inch

X Direction: the length in the direction of X in scaleplate

Y Direction: the length in the direction of Y in scaleplate

Demarcation Adjustment: Move the movable points (in the blue circle) of demarcating ruler on the Image, the value of trim size (unit length per pixel) will change.

Y=X: Make X-Ruler is equal to Y-Ruler;

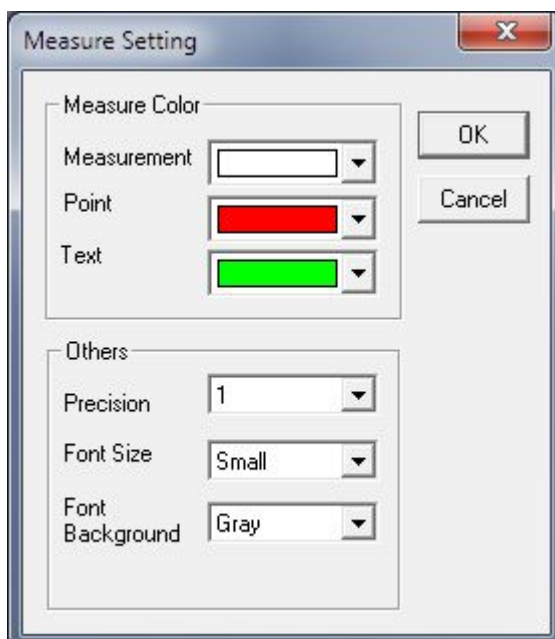
Save: Save the currently demarcated parameter to hardware;

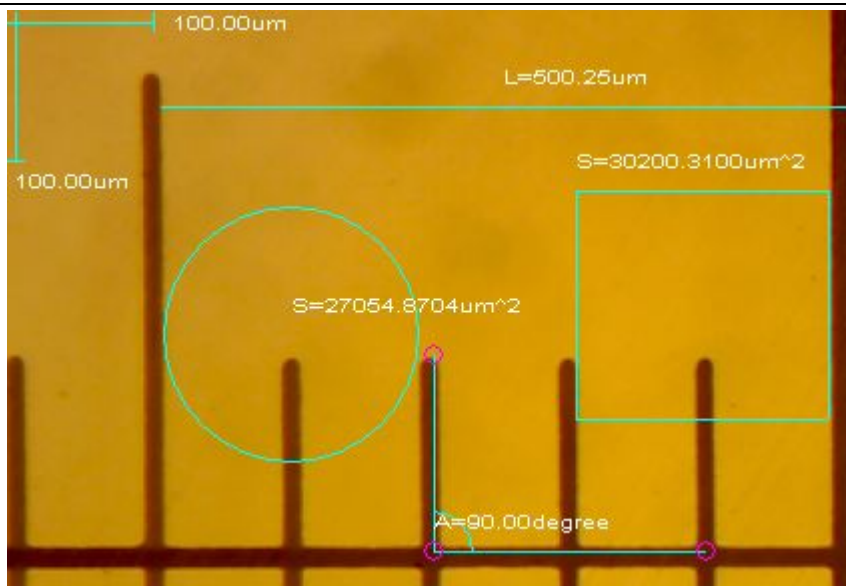
Load: Load the demarcated-parameter file from the hardware.



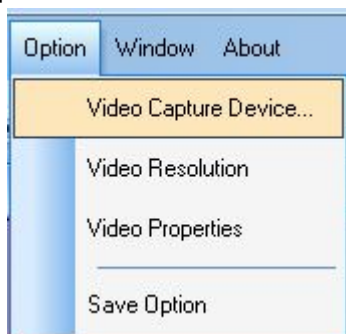
Setting

: Set the colors of measuring lines, movable points and words.

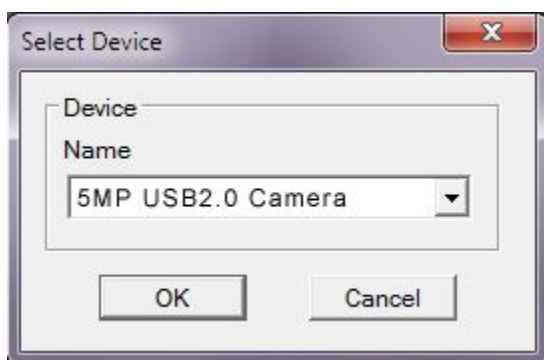




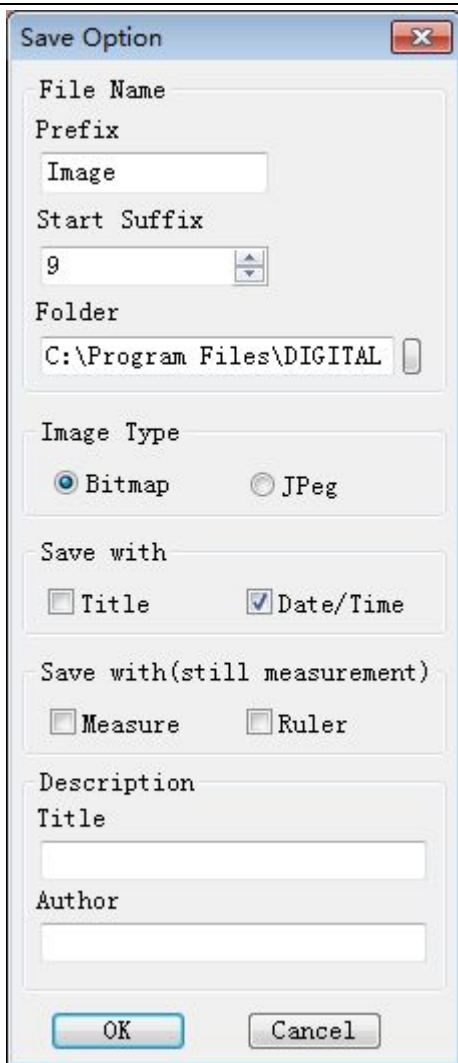
Option



- 1) Video Capture Device... :



- 2) Video Resolution : Set the size for video previewing, etc.
- 3) Video Properties : Adjust parameters like Color, Exposure, WB, Frame Rate, Power Frequency, etc.
- 4) Save Option : Set saving parameters, including save path, file name, summary information, etc.



File Name: Prefix +postfix +file format, e.g., Image1.bmp, Image2.jpg

Folder: Select the place to save files

Image Type: Bitmap files or Jpeg files

Save with Title: Put the title under description into images

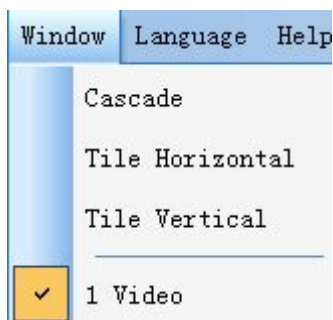
Save with Date/ Time: Put the date/ time into images

Save with Measurement: Put the measured data into Images

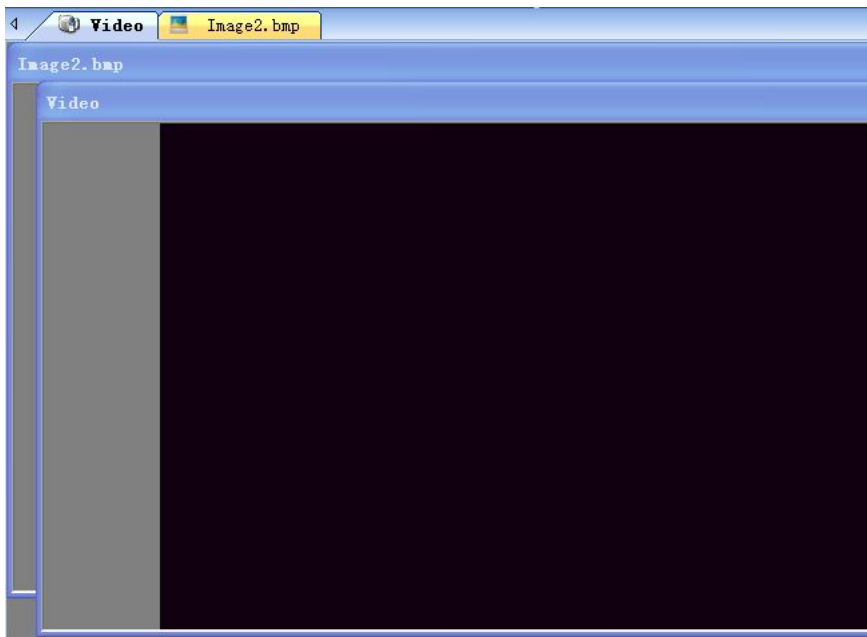
Save with Demarcation: Put the measured demarcation into images

Description: Put contents about title and the author into the summary information about the file

Window

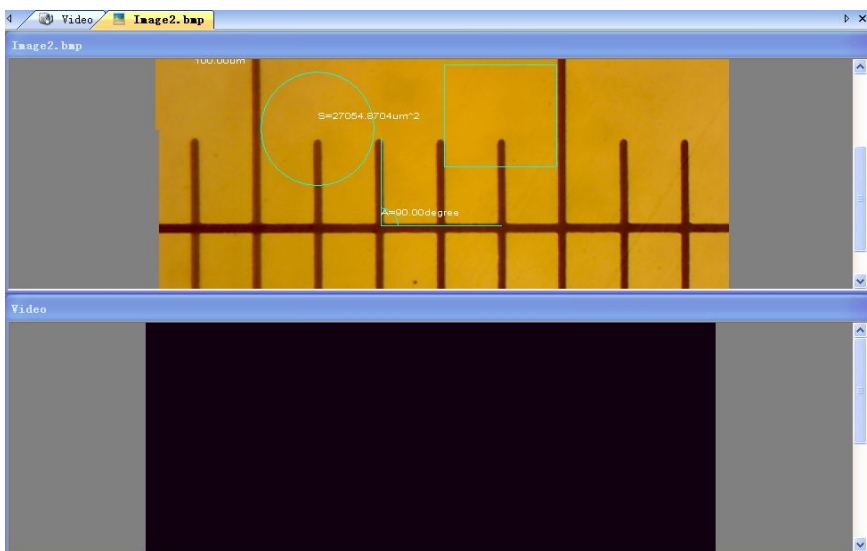


- 1) **C**ascade : Effects of Cascading



2) Tile Horizontal








Tile Vertical : Effects of Tiling

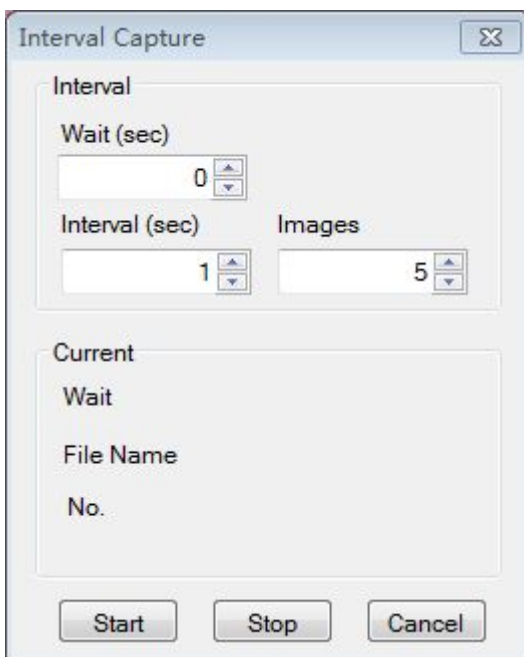


2.2. 2 Tool Bar

·Constantly Used Tool Bar



- 1)    : See the file submenu in menu 2.1;
- 2)  : Come back to the video previewing
- 3)  : Pause the video previewing
- 4)  : Video captured, capture video images to display in the newly-opened window;
- 5)  : Interval Capture



Wait(sec): Several seconds later, this function is set to work

Interval: Several seconds later, another photo is available to be taken

Images: The amount of photos that have been taken

- 6)  : Record





Select path: Select the address for saving video files and file names

Start: Start videoing

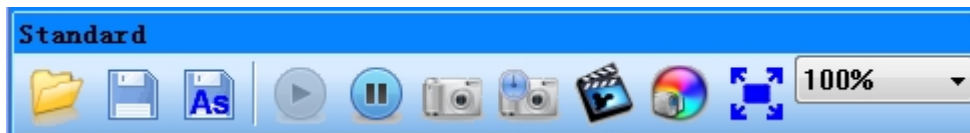
Pause: Pause the video

Stop: Stop videoing

- 7)  : Video attribute adjustment, see “video adjustment” in video submenu in menu 2.1

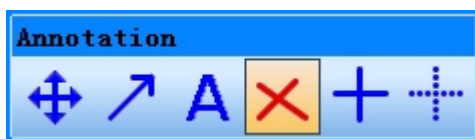
- 8)  : Display the video in full screen

·Processing Tool Bar

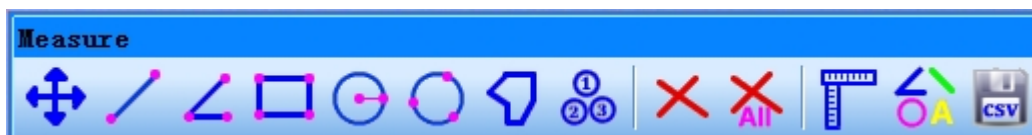


See the video submenu in menu 2.1

·Annotation Tool Bar



·Measuring Tool Bar



See the measurement submenu in menu 2.1

III. Problem shooting

1. Previewing fails, blank screen
- 1) Check whether there is source of light or not, and whether the exposure value of video attribute is normal;
- 2) Check whether video device is connected, and video device driver is installed in Device Manager;
- 3) Check the dialog box of “select video device” to make sure the correct target video device is selected;
- 4) Close the software and restart it;
- 5) Close the software, pull the cam out and plug it in again, then restart the software;
- 6) Close the software, restart computer and the software;

Please operate in line with the steps above, till you can preview normally. But if it still cannot work after you have followed all of the six steps, please contact Customer Service.